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Evaluation of Fishing Effort Regimes in European Waters - Part 2 (STECF-13-21)

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This report was reviewed by the STECF during its 44th plenary meeting held from 4-8 November 2013, Brussels, Belgium

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EVALUATION OF FISHING EFFORT REGIMES IN EUROPEAN WATERS PART 2 (STECF- 13-21)

THIS REPORT WAS REVIEWED DURING THE PLENARY MEETING HELD IN BRUSSELS, BELGIUM, 4-8 November 2013

Request to the STECF

STECF is requested to review the report of the **EWG-13-13** held during October 7–11, 2013 in Barza d'Ispra, Italy, evaluate the findings and make any appropriate comments and recommendations.

Introduction

The report of the Expert Working Group on Evaluation of fishing effort regimes in European Waters Part 2 (EWG -13-13) was reviewed by the STECF during its 44th plenary meeting held from 4-8 November 2013, Brussels, Belgium.

The following observations, conclusions and recommendations represent the outcomes of the STECF review.

STECF COMMENTS, OBSERVATIONS, AND CONCLUSIONS

STECF notes that the ToR regarding the requested fishing effort regime evaluations for the following sea areas have been fully addressed:

1. Eastern and Western Baltic,
2. the Kattegat,
3. the Skagerrak, North Sea, European waters in ICES Div.2 and the Eastern Channel,
4. to the West of Scotland,
5. Irish Sea,
6. Celtic Sea,
7. Atlantic waters off the Iberian Peninsula,
8. Western Channel,
9. Western Waters and Deep Sea
10. and the Bay of Biscay.

STECF notes that the Report and its Appendices provide updated estimates of trends in fishing effort, landings and discards by species, CPUE and LPUE by fisheries and species, and partial fishing mortalities for effort regulated and non-regulated fisheries by Member States. STECF endorses the findings and observations expressed in the report.

2013 DCF Fishing Effort Data Call

The report of EWG 13-13 is based on data submitted by Member States in response to the DCF fishing effort data call in 2013. STECF notes a general improvement in Member States' submissions with regard to data completeness and quality as well as improved compliance with deadlines. However, the work of the EWG 13-13 once again was compromised by delays in some Member States' submissions, incomplete and erroneous data submissions and re-submissions. Section 4 of the Report contains detailed information regarding compliance with data submission deadlines and various aspects regarding the data quality.

STECF notes that its 2012 recommendations to amend the 2013 DCF data call to support fishing effort regime evaluation were implemented and that these changes have supported and will continue to support the accomplishment of specific ToR. STECF notes that the DCF data call in 2013 imposed an additional workload on Member States because of the need to re-aggregate and resubmit data for earlier years than 2012 in addition to the data requested for 2012. The outcome of the call was that Denmark, Portugal and UK (without Scotland) have revised their complete time series of fisheries-specific catch and effort data. Catch (landings and discards) and effort data from Spain were provided for 2012 and discard data were provided for earlier years thereby enabling an improved evaluation of the effort regime for Southern hake and *Nephrops*.

STECF proposes an Index of Discard Coverage (DQI) to facilitate the use of the discard estimates provided in the STECF data bases on fisheries-specific catch and fishing effort. The DQI is expressed by stock, fishery and Member State as the proportion of national landings covered by discard estimates in relation to the total national landings;

$$DQI = \Sigma Ld / \Sigma L$$

where L denotes landings (t) and Ld landings with a discard estimate.

While the DQI is a useful indicator of the proportion of landings by fishery by Member State and stock that are sampled for discards, it does not reflect the level of discarding each fishery carries out. Furthermore, the DQI does not distinguish between a fishery with a high discard rate and a fishery with a low discard rate, or the level of sampling allocated to each fishery. It's an exploratory tool that allows the identification of the proportion of overall landings by fishery that was sampled.

In order to aid interpretation of the DQI, the DQI is further classified in three separate groups as follows:

- A = 67 % or more of the landings have an accompanying discard estimate,
- B = 34-66 % of the landings have an accompanying discard estimate, and
- C = less the 33 % of the landings have an accompanying discard estimate.

STECF considers category A estimates to be sufficiently reliable to be used for assessment purposes, as the majority of the landings by species and fishery are accompanied with a discard estimate. However it should be noted once again that this DQI cannot inform on the quality of the discard rate estimates supplied by nations (as affected for example by the proportion of fishing trips sampled for discards).

Category B discard estimates are considered to be less reliable than category A and require careful scrutiny before they are used for assessment purposes.

Category C discard estimates are the least reliable and STECF considers that they should not be used for assessment purposes.

STECF notes that all fisheries-specific parameters for the various fishing effort regimes can be downloaded at the corresponding aggregation level as digital Appendixes to the present report from the EWG 13-13 web page: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

Major findings regarding the regional fishing effort regime evaluations are summarized in the following regional sections.

Effort regime evaluation for the Baltic

Since 2010, deployed effort of regulated gears remained rather constant in both cod plan areas A (subdivisions 22-24) and B (subdivisions 25-28) with a slight increase in regulated otter trawls.

The effort-regulated otter trawls are the major cod gears, contributing 55 and 74% to the cod catch in areas A and B in 2012, respectively. The second important contributor to catches among the ranked cod gears are gill nets. Cod discards are generally low but slightly higher for area B, showing an increasing trend in most recent years for regulated otter trawls.

With a lack of information from Estonia, small boats <8m LOA were found to constitute 7 and 12% to the overall effort deployed in the Baltic in 2011 and 2012, respectively. Small boats are primarily operating in the northern cod plan area C (subdivisions 29-32).

STECF undertook a provisional quantitative analysis regarding the estimation of effort deployed in units of days at sea by Member State, and compared the national uptake with the calculated maximum effort available. STECF notes that its approach to estimate the maximum days at sea available per year and Member State from the product of reported number of active vessels using one of the regulated gears times the days at sea per vessel can only serve as an approximation of the effort ceiling.

The provisional uptake analysis revealed that the average annual uptake of available days at sea over the time period 2008-2012 remained in the range of 36-38% in area A, 34-47% in the area B and 53-83% for the areas A and B combined.

According to the information submitted by member States, only Denmark has operated under the fully documented fisheries (FDF) scheme in the Baltic in 2012. The reported Danish catch of cod caught in FDF with regulated gears amounted to 333 t in area A and 406 t in area B, representing 3% of the overall catch. A preliminary analyses of cod selectivity revealed that non-FDF fisheries were catching younger fish. However, the effects of different age reading methods applied in different national institutes remain unclear. Such preliminary results require further investigation.

Close correlations between fishing mortality and fishing effort measured in kW days at sea as well as between partial fishing mortalities and the specific fishing effort by fisheries were found. While good correlation does not always mean ‘cause and effect’, the results here suggest that management of fishing mortality by fishing effort in units of kWdays may provide a useful auxiliary measure to catch constraints and technical measures.

A provisional analysis on spatio-temporal patterns in cod catchability based on catch rates from commercial fisheries and surveys reveals a more homogenous distribution pattern as compared to the patterns in cod abundance indices, catches and fishing effort which are highest in the central Baltic Sea.

Effort regime evaluation for the Kattegat

Fisheries in the Kattegat are almost exclusively conducted by Denmark and Sweden (88% and 11% of the total regulated effort in 2012, respectively) using predominantly trawls and primarily the gear class TR2. The TR2 gear constitutes 90% of the total regulated effort. Beam trawls are forbidden.

There are three effort derogations in place in Kattegat for TR2, CPart13B, CPart13C and CPart11. All the Danish TR2 effort is under the derogation CPart13C from 2010 onwards while the German TR2 effort is partly under the derogation CPart13B between 2010 and 2011. STECF notes that the uptake of the regulated gear TR2 exceeds the maximum effort levels defined in the annual TAC and quota regulations since 2010 as Member States applied additional effort allocations under article 13 of the cod plan.

Only Sweden reported under the derogation article 11 in gear category TR2, achieving the <1.5% cod catch by using a sorting grid. This represented 68% of the Swedish TR2 effort in Kattegat 2012. The effort deployed by passive gears (GN1, GT and LL1) is relatively small, with a stable share of around 3% of the total regulated effort in 2012. The effort deployed by unregulated gear categories (including effort under the derogation CPart11) was 30% of the total effort in 2012.

In 2012, the nominal effort (kW days at sea) deployed by small vessels (LOA<10m) constituted 12% of the total effort in the area.

According the ranked regulated gear groups' contributions to cod catch and landings in 2012, only the TR2 is estimated to exceed the level of the cumulative 20% and thus considered subject to annual effort adjustments (Coun. Reg. 1342/2008, art. 12(4)).

STECF notes that information on Fully Documented Fisheries FDF was only provided by Sweden and only for 2010. FDF fishing effort and catches appear negligible and are not evaluated further.

The estimated cod CPUE and respective effort transfer factors between donor and receiving regulated gear groups based on averages 2010-2012 are given below. Red cells are indicated to be imprecise due to lack of adequate discard information. Yellow cells indicate sufficient sampling and green cells good sampling information. The conversion factors are estimated based on CPUE (g/kWday) while LPUE (g/kWday) values are also provided.

Kattegat

	donor gear	receiving gear						2010-2012	
		GN1	GT1	LL1	TR1	TR2	TR3	CPUE	LPUE
3a	GN1		1	1	1	1	1	187	50
3a	GT1	0.005		1	0.014	0.009	0.125	1	1
3a	LL1	0.005	1		0.014	0.009	0.125	1	1
3a	TR1	0.38	1	1		0.67	1	71	25
3a	TR2	0.567	1	1	1		1	106	41
3a	TR3	0.043	1	1	0.113	0.075		8	8

factor = CPUE donor/CPUE receiving
if factor > 1 then
factor = 1

if CPUE=0 or LPUE = 0 then
CPUE=1 or LPUE=1

STECF notes that that ICES did not provide an analytical assessment of cod in the Kattegat in 2013. STECF is therefore unable to provide analyses dealing with the partial fishing mortalities by fisheries (metiers), the respective correlations between partial fishing mortality and fishing effort and the review of reductions in fishing mortality of the effort regulated gear groups in relation to the cod plan provisions.

Effort regime evaluation for the Skagerrak, North Sea including 2EU and Eastern Channel

STECF notes that in this area, a substantial part of the effort is deployed by Non-European fleets (primarily Norway); this component is not accounted for in this report, except for the part dealing with partial fishing mortalities by fisheries. Norwegian fishing effort is reported to ICES (ICES, 2013). Catch and effort data including the special conditions of the cod management plan in force since 2009 (CPart11 and CPart13) have been provided by all Member States with significant fishing activity in this area. Additionally, distinction is now provided across the various CPart13 specifications (A, B, or C).

The North Sea (area 3b2) is the main fishing area (78% of the total 2012 regulated effort in area 3b), followed by the Eastern Channel (15%, 3b3), while the Skagerrak represents a smaller component (7%, 3b1). In all three sub areas, regulated effort has decreased since 2003. In area 3b2 (North Sea and 2EU), regulated effort is equally shared between beam trawls and demersal trawls/seines (47% and 47% of total 2012 regulated effort respectively). Small mesh beam trawling (80-119 mm, BT2) and demersal trawls/seines with larger mesh sizes (>=100mm, TR1) are the predominant fisheries. In the Eastern Channel, demersal trawls/seines are also the main gears (65% of the 2012 regulated effort in the area, mainly smaller mesh size 70-99mm TR2), but with beam trawls and passive gears representing important fisheries (19% and 16% of the 2012 regulated effort respectively). The main gears in management area 3b1 (Skagerrak) are demersal trawls/seines (90% of the 2012 regulated effort) with a predominance of TR2.

The estimated overall reduction in effort (kW days at sea) in 2012 of regulated gears in the entire area 3b amounts to 41% compared to the average 2005-2007 and to 10% compared to 2011.

Since 2003 the effort of small boats (LOA<10m) gradually increased from 3% to 9% of the overall effort deployed in the entire area 3b (Skagerrak, North Sea and 2EU, Eastern Channel) in 2012.

TR1 and TR2 gears were identified as the major cod catching gears and exceeded the 20% cumulative cod catch in 2012 and are thus considered subject to annual effort adjustments (Coun. Reg. 1342/2008, art. 12(4)).

In 2012 fully documented fisheries again represented only a small but increasing proportion of the total effort (5.6%). The importance of the main cod gear (TR1) has increased further and is estimated at 28.9% of the TR1 effort deployed in 2012. In total, 36% of cod catches by EU vessels were taken during FDF trials.

A preliminary analysis of selectivity for cod by FDF and non-FDF fisheries indicated that cod catch compositions at age from Danish and Scottish FDF fisheries were rather similar to the catch compositions at age from all fisheries by these countries. STECF notes that only these two countries conducted separate sampling and applied separate data aggregation and raising procedures. Any further investigations would require two individual data sets, one which comprises an exclusive set of non-FDF fisheries, and second one which represents an exclusive set on FDF fisheries.

The estimated cod CPUE (average 2010-2012, g/kWday) and respective effort transfer factors between donor and receiving regulated gear groups for the cod management area comprising the Skagerrak, North Sea, EU part of IIa, and Eastern Channel are given below. Red cells indicate imprecise values due to lack of adequate discard information. Yellow cells indicate sufficient sampling and green cells good sampling information. STECF notes that the report also provides the conversion factors for each of the three sub-areas mentioned above.

Skagerrak, North Sea and 2 EU, Eastern Channel

	donor gear	receiving gear								2010-2012	
		BT1	BT2	GN1	GT1	LL1	TR1	TR2	TR3	CPUE	LPUE
3b	BT1		1	0.228	1	0.437	0.217	0.962	1	227	227
3b	BT2	0.203		0.046	0.24	0.088	0.044	0.195	1	46	41
3b	GN1	1	1		1	1	0.949	1	1	995	970
3b	GT1	0.846	1	0.193		0.369	0.183	0.814	1	192	140
3b	LL1	1	1	0.523	1		0.496	1	1	520	520
3b	TR1	1	1	1	1	1		1	1	1048	902
3b	TR2	1	1	0.237	1	0.454	0.225		1	236	125
3b	TR3	0.044	0.217	0.01	0.052	0.019	0.01	0.042		10	10

factor = CPUE donor/CPUE receiving
if factor > 1 then
factor = 1

if CPUE=0 or LPUE = 0 then
CPUE=1 or LPUE=1

The Report presents partial fishing mortalities by regulated fisheries and Member States in relation to the estimated fishing mortality by ICES (2013) and the landings and discards volumes in relation to the estimated total catch for the year available. STECF notes that the correlations between the partial Fs for cod and effort are significant for some important regulated metiers catching cod but insignificant for others. In all three sub-areas 3b1, 3b2 and 3b3, the correlations between the summed partial Fs of cod for regulated gears and respective sums of fishing effort in units of kW days at sea are statistically significant. While good correlation does not always mean ‘cause and effect’, the results here suggest that management of fishing mortality by fishing effort in units of kWdays may provide a useful auxiliary measure to catch constraints and technical measures.

Cod mortality due to discarding has generally been high, but has declined since 2008.

STECF notes that partial F of cod for all Member States has reduced since 2008, though such reductions have not always been consistent (i.e. linearly proportional) with changes in effort by regulated gears. However, STECF notes that the estimated trends in partial fishing mortality are dependent on the changed perception of the exploitation status in 2011 and 2012 derived from the 2013 ICES assessment of the North Sea cod stock. For the UK fleet, partial F appears to have reduced in line with the overall F reductions required under the plan, though effort has not. This suggests that there has been some decoupling of cod from fishing effort, consistent with cod avoidance or discard reduction.

STECF notes that Article 13.2a has not been adopted by any Member State, and so there was no detailed discussion of this provision in this section. Article 13.2b is for ‘effort groups in which the fishing activity of one or more vessels results in a catch composition of less than 5% cod per fishing trip’. STECF has already stated that a catch composition special condition was not necessarily consistent with reductions in cod mortality as it does not control the overall amount of cod caught. However, STECF concludes that the proportion of the overall fishing mortality on cod accounted for by all fisheries operating under Article 13.2b remains low and did not exceed 5% during 2009-2012.

STECF notes that Article 13.2c has only been adopted by the UK in areas 3b1, 3b2 or 3b3 and is applied to the entire fleet using regulated gears unless they are subject to Article 13.2b or exempted under Article 11. STECF notes that the respective UK (ENG, SCO, NIR) gear types TR1 have reduced their fishing effort in kWdays at sea by 20 % since 2009, which corresponds with an estimated reduction in fishing mortality of cod by 36% over the same period. During 2009-2012, the fishing effort of TR2 gears operating under Article 13.2.c declined by 11%, with a reduction in fishing mortality by 31% over the same period. The respective fisheries by Northern Ireland are negligible and were not operative in 2012.

A provisional analysis on spatio-temporal patterns in cod catchability (the probability for an individual cod to be captured) based on catch rates from commercial fisheries and surveys reveals that the probability of any individual cod in the population to be caught is not evenly distributed over the North Sea with the lowest probability where cod abundance is highest, i.e. around the Shetlands in the northern North Sea, the Skagerrak and the Eastern Channel.

Effort regime evaluation for the West of Scotland

The fishery West of Scotland is primarily an otter trawl fishery; beam trawls and static gears are hardly used. Effort within regulated gears is 56% less in 2012 compared to 2003. Regulated effort by trawl and seine gears (TR gears under Coun. Reg. (EC) 1342/2008) shows a long term decrease in effort and fell to its lowest level in the time series in 2011, but was stable between 2011 and 2012 for those nations reporting in both years. Overall effort of small boats (LOA<10m) is 10% higher in 2012 compared to 2003 although it has been relatively stable since 2006.

The most important category in terms of cod catch and landings is TR1 which over the period 2010-2012 on average, accounted for 94% and 99% of the total cod landings and catches by weight respectively from VIa. The second most important gear category is TR2, which can be seen to be a gear category with Nephrops as the dominant species in the landings. Based on the relative contribution TR1 is the only gear group where the percentage cumulative cod catch in 2012 exceeded 20% and thus considered subject to annual effort adjustments (Coun. Reg. 1342/2008, art. 12(4)).

The table of international conversion factors is based on average CPUE (2010-2012). Discard data are scarce for many regulated gear groups but have been interpreted as representative for TR1 and TR2. Red cells indicate imprecise values due to lack of adequate discard information, green cells good sampling information.

West of Scotland

	donor gear	receiving gear						2010-2012		
		BT1	BT2	GN1	LL1	TR1	TR2	CPUE	LPUE	factor =
3d	BT1		1	0.143	1	0.004	0.5	1	1	if factor > 1 then
3d	BT2	1		0.143	1	0.004	0.5	1	1	factor = 1
3d	GN1	1	1		1	0.028	1	7	7	
3d	LL1	1	1	0.143		0.004	0.5	1	1	if CPUE=0 or LPUE = 0 then
3d	TR1	1	1	1	1		1	252	33	CPUE=1 or LPUE=1
3d	TR2	1	1	0.286	1	0.008		2	2	

Overall the correlation between partial F of cod and estimated fishing effort of regulated gears is statistically significant but negative. STECF is unable to determine the reason why there are negative or insignificant relationship between F and effort for the greatest cod contributors to cod catches from VIa. Nevertheless from the information reported by Member States, the management measures in place in VIa have not been successful in achieving a reduction in fishing mortality.

STECF notes that for Member States other than the UK partial F has reduced since 2008, though such reductions have not always been consistent (i.e. linearly proportional) with changes in effort by regulated gears. In the UK, a reduction in effort is recorded (less than that to bring effort to 0.32 of effort in 2008) but partial F is recorded as increased in 2011 and 2012 compared to 2008.

STECF notes that Article 13.2a of the cod plan has not been adopted by any Member State, and so there was no detailed discussion of this provision in this section. Article 13.2b is for 'effort groups in which the fishing activity of one or more vessels results in a catch composition of less than 5% cod per fishing trip'. West of Scotland article 13.2b fisheries are estimated to have accounted for 10% of regulated gear partial F in 2011 but less than 1% in 2012.

STECF notes that Article 13.2c has only been adopted by IRL and the UK in area 3d, and these fisheries contributed a minor part of the cod catch. STECF notes that vessels operating under article 13.2d contribute the majority of cod fishing mortality over all gear types. The partial F for this one category is between 0.7 and 0.8. This is true for landings and discards with discards making a much greater contribution to fishing mortality in recent years. Overall, STECF concludes that are no indications that the Scottish TR1 fishery working under any of articles 13.2.b, c or d have contributed to a reduction in fishing mortality of cod west of Scotland.

Effort regime evaluation for the Irish Sea

During 2003-2010, overall nominal effort (kW*days at sea) for boats LOA>=10m declined continuously by 43%. Since then, effort has remained stable. The trend in fishing effort of regulated gears appears similar with a decrease by 53% during 2003-2010 and remained stable from 2010 to 2012. Since 2007, the dominating regulated gear in terms of kW days has been the trawled TR2 (>75%) with an increasing trend (80% in 2012). Since 2009, the cod plan provisions of 13.2 a, b and c are applied when using effort-regulated gears.

During 2007-2012, small boats' effort (LOA<10m) varied without a clear trend and constituted among 11-15% of the overall effort deployed. Effort of small boats dropped during 2009 and 2010, increasing again thereafter.

STECF notes that discard information available within the Irish Sea is incomplete and thus impedes analyses of catch compositions and trends by fisheries. Based on the relative contributions to overall deployed effort, GN1, TR1 and TR2 are gear groups where the proportional cumulative cod landings in 2012 exceeded 20% and are thus subject to annual effort adjustments (Coun. Reg. 1342/2008, art. 12(4)).

The table of international effort conversion factors is based on average CPUE (2010-2012) is given below. LPUEs are used for GN1, GT1, and LL1 fisheries as time series of discard data were not available. TR2 and BT2 are the only two gear categories where discard data were available over the three previous years. Red cells indicate imprecise values due to lack of adequate discard information. Yellow cells indicate sufficient sampling.

Irish Sea

	donor gear	receiving gear								
		BT2	GN1	GT1	LL1	TR1	TR2	CPUE	LPUE	factor =
3c	BT2		0.03	0.079	1	0.17	1	90	58	if factor > 1 then
3c	GN1	1		1	1	1	1	3033	3033	factor = 1
3c	GT1	1	0.375		1	1	1	1136	1136	
3c	LL1	0.011	0	0.001		0.002	0.013	1	1	if CPUE=0 or LPUE = 0 then
3c	TR1	1	0.174	0.465	1		1	528	523	CPUE=1 or LPUE=1
3c	TR2	0.878	0.026	0.07	1	0.15		79	42	

STECF notes that the correlations between the summed partial Fs for landings of the regulated fisheries and their estimated fishing efforts are insignificant. STECF is unable to determine the reason why the relationship between partial Fs of most Member State fisheries using regulated gears are not significantly correlated with their specific effort estimates. STECF notes that the lack of discards prevents reliable conclusions regarding the effects of fishing effort management in relation to cod in the Irish Sea.

Effort regime evaluation for the Celtic Sea

The review of trends in fisheries-specific effort and catches in the Celtic Sea is presented at the level of aggregation for the fisheries defined in the multi-annual cod plan, to allow managers to evaluate the data with the view to the potential extension of the cod plan to include the Celtic Sea. The Celtic Sea is defined into two management areas, i.e. ICES Sub-divisions 7bcefghjk and ICES Sub-divisions 7fg. In 2012 in terms of kWdays at sea deployed by effort regulated gear groups and vessels ≥10m, France contributed 40%, Ireland 20%, England and Wales 15%, Spain 13%, Belgium 7%, and Scotland 4% (ICES Sub-divisions 7bcefghjk).

Trends in fishing effort for the sensitive cod gears and non-regulated gears are presented in the report. Spanish data are only included for 2012 as no data for earlier periods have been submitted by the Spanish Authorities. The demersal fisheries are dominated by the gears TR1, TR2 and BT2. In recent years (since 2008) fishing effort has been relatively stable, with the increase in 2012 due to the inclusion of Spanish data for 2012 only. Total effort for countries excluding Spain has remained stable overall. In 2012, “unregulated” gears were deployed by France (26%), Ireland (21%), England (19%) and Dutch (16%). There appeared a peak in 2010 of pelagic boats obviously fishing for boarfish in the Celtic Sea.

The relative contribution of effort in terms of kWdays at sea deployed by small vessels (<10m) increased from 5% in 2003 to 8% in 2012 as compared with the overall effort deployed in the Celtic Sea (ICES Sub-divisions 7bcefghjk).

STECF notes that the correlations between the summed partial F of catches from all regulated gears and their specific effort estimates in kW days at sea over the main fisheries (effort regulated fisheries in the cod plan) are insignificant in the entire Celtic Sea (7bcefghjk). However, the relations between summed partial F of catches and fishing effort from all regulated gears become significant when the area is reduced to the ICES subdivisions 7fg. While good correlation does not always mean ‘cause and effect’, the results here suggest that management of fishing mortality by fishing effort in units of kWdays may provide a useful auxiliary measure to catch constraints and technical measures.

Effort regime evaluation for southern hake and Norway lobster

STECF notes that the major data deficiency in its analyses is the lack of Spanish catch and effort data in 2010 and 2011. Furthermore it is important to note that Spanish fishing vessels using regulated gears were not granted fishing effort derogations by the Spanish Authorities in 2012 as provided for in Annex IIB to the annual TAC and Quota regulations.

The nominal effort of regulated gears (3a-c) declined by 27% during 2007-2012 and by 23% from 2009 to 2012. The major effort regulated gears are the bottom trawls. Bottom trawl effort subject to effort regulation decreased by 31% since 2007 and by 18% since 2009. Given that Spain has not provided data for small vessels (LOA<10m) and that Portuguese data for small vessels do not provide gear or fishery specific information STECF is unable to conclude on the effects of small vessels.

In 2012, regulated bottom trawls caught more than half of the hake and anglerfish catches and the 97% of Nephrops catches in Divisions VIIIc-IXa. The LPUE for hake displays a continuous increase since 2005, and catch rates (CPUE OR LPUE) of Nephrops in Div. IXa and anglerfish in Div. VIIIc-IXa have continuously decreased since 2007. The same trend is apparent in both the data submitted to STECF in response to the DCF data calls and the data estimated by ICES.

STECF estimated partial F for hake and the regulated gear groups by Member States and correlated the time series with fishing effort in units of kWdays at sea. Given the data deficiency in 2010 and 2011, STECF does not further conclude on the significant correlation between the summed partial Fs of hake for regulated gear groups and their fishing effort with respect to the effects of fishing effort management.

Effort regime evaluation for Western Channel sole

STECF notes the majority of fishing effort deployed in the Western Channel is effort that is not being regulated by the Management plan for sole in Division VIIe. The two regulated gear groups, beam trawls and the static nets, account for only a relatively small proportion (about 15%) of the overall deployed effort.

The effort (kW days at sea) of gear groups regulated by fishing effort appears to have remained stable since 2009 after a major drop prior to 2008. From 2009-2012, the reported regulated beam trawl (≥ 80 mm) effort steadily increased and by 2012 was 17% higher compared with 2009. Over the same period, the lower reported effort by regulated static nets (< 220 mm) decreased by 42%. The effort from the vessels <10m fluctuated between 13% and 25% of the effort deployed by the vessels >10m and shows an increasing trend since 2005.

STECF notes that estimated sole catches are dominated by effort regulated beam trawls (67% in 2012), while static nets contributed a minor share (6% in 2012). STECF reiterates its observation that a relatively high percentage of sole is caught by gears that are not being regulated by this regulation. Sole catches of unregulated gears are in excess of 27% of the overall sole catches in area 7e for each year of the data series (2004-2012). The otter trawl gear is the main unregulated gear involved and accounts for over of 22% of total sole catches in recent years.

STECF notes that only UK (England and Wales) had vessels operating under an FDF scheme for the first time in 2012. 7 vessels were operational in the FDF fisheries using the regulated beam trawl gear (3a) and one vessel using the unregulated beam trawl gear (mesh size <80mm). The total numbers of English vessels operating such gears are 43 and 2 respectively. The effort of the FDF fisheries to the total deployed effort by the regulated beamers (3a) and unregulated beamers amount to 17% and 1% respectively. The catches of sole from to FDF fisheries represent 23% and 28% of the total international catches of the 3a regulated gears and the unregulated beamers, respectively.

STECF estimated the uptake of the permitted fishing effort in units of days at sea per vessel. The results should be interpreted with caution as the estimated ceilings are based on number of active vessels times the number of days allowed. STECF notes that the number of active vessels and their associated days at sea may be overestimated (multiple counted) if they changed regulated gears. For the regulated beam trawl fleet (3a), the English series indicate an increasing uptake (47% - 95%) over time whereas the Belgian and the French regulated beam trawl fleet show a stable uptake on a low (around 10%) and high level (around 65%) respectively. The English regulated static gear (3b) show a slight increase in uptake (20%-40%) over time whereas the French regulated static gear show a stable uptake of around 50%. National amendments to the effort regulations were granted to UK in 2011.

STECF notes that the correlations between the summed partial Fs for sole landings of the regulated fisheries and their estimated fishing efforts are significant for the period 2005-2012. While good correlation does not always mean ‘cause and effect’, the results here suggest that management of fishing mortality by fishing effort in units of kWdays may provide a useful auxiliary measure to catch constraints and technical measures for the regulated gears. The lack of discard information in the assessment and forecast of fishing opportunities should be considered when assessing management risks.

Effort regime evaluation for the Western Waters and Deep Sea

In accordance with the Terms of reference, the Report presents trends in effort, catch estimates and CPUE for defined fisheries (major gear groups) for 18 management areas within the convention areas of ICES and CECAF. STECF notes that the EWG experienced extreme difficulties in preparing the data and the interpretation of them is confounded by data deficiencies described in section 4 of the report. STECF also notes that discard information is often scarce.

Effort within the Deep sea and Western waters has been compiled for kW*days-at-sea, GT*days-at-sea, and numbers of vessels. Within the report the focus is on kW*Days at sea. Information on GT*days at sea and numbers of vessels, landings, discards, CPUE and LPUE is available via the website (electronic appendixes to the report): http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

Bottom trawl effort is concentrated in ICES Area VI as well as the Continental shelf and slope to the west and southwest of Ireland and the UK. Bottom trawl effort in the Bay of Biscay, the Cantabrian Sea and off the Portuguese coast increased in 2012 compared to 2010 and 2011. Beam trawling is concentrated in the Celtic sea and the western English Channel. While beam trawls are not a deepwater gear some of the species caught are classified under Annex 2 of the deep sea regulation. Pelagic trawling was concentrated to the west of Ireland, and to the west and north of Scotland in the mid 2000s. This effort decreased greatly between 2007 and 2009, increased again in 2010, but has reduced again in 2011 and 2012. Longline effort was concentrated on the shelf and slope between Shetland and Portugal but has been in decline in recent years. Longline effort from the Azores has shown an increase since 2009. In the mid 2000s gill net effort was concentrated in the Celtic sea and Porcupine Bank. Due to existing restrictions in the use of deepwater gill nets much of this effort is now concentrated in the Celtic sea, with some effort in the North sea, west of Scotland and the Bay of Biscay. Catch estimates are provided in tabular format according to the requested rankings of deep sea, demersal and pelagic species, respectively.

Effort regime evaluation for the Bay of Biscay

STECF notes that all the analyses and trends presented in the report include data from Spain for 2012 only as Spain did not provide corresponding data for previous years to the DCF data call for fishing effort regime evaluations. In interpreting the trends in fishing effort and estimated catches, it is important to take into account that discard information is scarce and patchy and in some cases, is of dubious quality.

STECF notes that the multiannual plan for the sustainable exploitation of the stock of sole in the Bay of Biscay (R (EC) 388/2006) prescribes maximum annual fishing capacity for Member States' vessels that hold a special permit to fish. The report provides fisheries-specific catch and effort data for the Northern Bay of Biscay (ICES Div. VIIIa) and the southern Bay of Biscay (ICES Div. VIIIb). In VIIIa, 90% of the reported deployed effort in 2012 was French, 9% Spanish and 1% Belgian. The main French fisheries are otter trawl, trammel net, gill net and pelagic trawls. The main Spanish fisheries are longline, otter trawl and gill net. In VIIIb, 69% of the reported deployed effort in 2012 was French, 25% Spanish and 6% Belgian. The main French fisheries are otter trawl, trammel net, gill net, longline and pelagic trawl. The main Spain fisheries are otter trawl, longline and pelagic trawl.

Due to data deficiencies, STECF was unable to fully evaluate the effort regime for sole in the Bay of Biscay. France and Spain provided the data on trends in fishing capacity requested in the data call, in the unit of gross tonnage and for the year 2012 only.

From 2010 to 2012 the overall trend in fishing effort in units of kW days at sea increased by 4% in the area VIIIa and by 35% in VIIIb, although this observation is largely due to the inclusion of Spanish data for 2012 only. During 2010-2012, less than 50% of the reported deployed effort (kW days at sea) was accounted for by vessels carrying the special fishing permit in area VIIIa. In area VIIIb, the relative contribution of licensed vessels varied between 57% and 68%.

During 2010-2012, small boats (LOA<10m) contributed about 20% to the effort deployed in area VIIIa and about 10%-15% in area VIIIb after significant increases in deployed effort by small boats for earlier years in both areas. Spain has not provided any information regarding deployed fishing effort of small boats operating in the Bay of Biscay.

STECF notes that the correlations between the summed partial Fs based only on landings from the major fisheries and the corresponding reported fishing effort are significant in area 8a but insignificant in area 8b. As those analyses do not take account of discards and the time series do not incorporate Spanish data, the results are questionable and may not be representative.

STECF acknowledges the considerable efforts taken by the Expert Working Group on Evaluation of fishing effort regimes in European Waters Part 2 (EWG -13-13) and endorses the findings in the report.

Conclusions on Future procedures

STECF notes that the aggregated information of the five so-called fishing effort data bases, compiled from annual data calls directed to Member States since 2003 and DCF data calls by DG Mare since 2011, comprise detailed time series of fishery-specific catch and effort data.

STECF notes that these fishing effort data bases relate to all European regional Seas except the Mediterranean and Black Seas. Nevertheless, the specific data calls for the Mediterranean and Black Seas are designed such that the data provided under such calls are compatible with the existing effort data bases. In the recent past, the fishing effort data bases, have not only been used to provide advice on the 10 regional fishing effort regime evaluations but have also formed the basis of advice on a diverse number of topics including requests for advice on fishery-specific discard estimates and catch compositions in relation to various provisions prescribed in management and recovery plans.

STECF notes that due to changes in personnel in JRC, the ability to operate the data aggregation and evaluation tools developed to handle Member States' submissions under the annual effort data calls may need to be re-coded. Such a re-coding is likely to be necessary because whoever is tasked with replacing those personnel at JRC who formerly dealt with such data will have considerable difficulty in understanding the database structures and extraction procedures and there is a danger that output will be less reliable than hitherto.

Presently, the effort databases are coded in MS ACCESS. STECF notes, that in recognition of the strategic value of the effort databases, the JRC intends to devote additional resources to undertake a major revision to the databases and re-code in SQL. This will allow full integration with the DCF database scheme and facilitate the enhancement, accessibility and management of the databases. To this end the JRC will employ additional staff for a fixed period of time. Recognising the current and future importance and value of the effort databases, the STECF fully endorses the JRC initiative which aims to ensure continued provision of sound scientific advice.

REPORT TO THE STECF

EXPERT WORKING GROUP ON FISHING EFFORT REGIME EVALUATIONS PART 2 (EWG-13-13)

BARZA D'ISPRA, ITALY, 7-11 October 2013

1 EXECUTIVE SUMMARY

STECF EWG 13-13 notes that it has extensively addressed the ToR regarding the requested fishing effort regime evaluations in the

11. Eastern and Western Baltic,
12. the Kattegat,
13. the Skagerrak, North Sea, European waters in ICES Div.2 and the Eastern Channel,
14. to the West of Scotland,
15. Irish Sea,
16. Celtic Sea,
17. Atlantic waters off the Iberian Peninsula,
18. Western Channel,
19. Western Waters and Deep Sea
20. and the Bay of Biscay.

The EWG 13-13 provides updated estimates of trends in fishing effort, landings and discards by species, CPUE and LPUE by fisheries and species, and partial fishing mortalities for effort regulated and non-regulated fisheries by Member States.

2013 DCF Fishing Effort Data Call

The report of EWG 13-13 is based on data submitted by Member States in response to the DCF fishing effort data call in 2013. STECF EWG 13-13 notes a general improvement in Member States' submissions with regard to data completeness and quality as well as improved compliance with deadlines. However, the work of the EWG 13-13 once again was compromised by delays in some Member States' submissions, incomplete and erroneous data submissions and re-submissions.

EWG 13-13 notes that its 2012 recommendations to amend the 2013 DCF data call to support fishing effort regime evaluation were implemented and that these changes have supported and will continue to support the accomplishment of specific ToR. STECF EWG 13-13 notes that the DCF data call in 2013 imposed an additional workload on Member States because of the need to re-aggregate and resubmit data for earlier years than 2012 in addition to the data requested for 2012. The outcome of the call was that Denmark, Portugal and UK (without Scotland) have revised their complete time series of fisheries-specific catch and effort data. Catch (landings and discards) and effort data from Spain were provided for 2012 and discard data were provided for earlier years thereby enabling an improved evaluation of the effort regime for Southern hake and *Nephrops*.

EWG 13-13 has proposed an Index of Discard Coverage (DQI) to facilitate the use of the discard estimates provided in the STECF data bases on fisheries-specific catch and fishing effort. The DQI is expressed by stock, fishery and Member State as the proportion of national landings covered by discard estimates in relation to the total national landings;

$$DQI = \Sigma Ld / \Sigma L$$

where L denotes landings (t) and Ld landings with a discard estimate.

While the DQI is a useful indicator of the proportion of landings by fishery by Member State and stock that are sampled for discards, it does not reflect the level of discarding each fishery carries out. Furthermore, the DQI does not distinguish between a fishery with a high discard rate and a fishery with a low discard rate, or the level of sampling allocated to each fishery. It's an exploratory tool that allows the identification of the proportion of overall landings by fishery that was sampled.

In order to aid interpretation of the DQI, the DQI is further classified in three separate groups as follows:

- A = 67 % or more of the landings have an accompanying discard estimate,
- B = 34-66 % of the landings have an accompanying discard estimate, and
- C = less the 33 % of the landings have an accompanying discard estimate.

EWG 13-13 considers category A estimates to be sufficiently reliable to be used for assessment purposes, as the majority of the landings by species and fishery are accompanied with a discard estimate. However it should be noted once again that this DQI cannot inform on the quality of the discard rate estimates supplied by nations (as affected for example by the proportion of fishing trips sampled for discards).

Category B discard estimates are considered to be less reliable than category A and require careful scrutiny before they are used for assessment purposes.

Category C discard estimates are the least reliable and STECF EWG 13-13 considers that they should not be used for assessment purposes.

STECF EWG 13-13 notes that all fisheries-specific parameters for the various fishing effort regimes can be downloaded at the corresponding aggregation level as digital Appendixes to the present report from the EWG 13-13 web page: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313.

Major findings regarding the regional fishing effort regime evaluations as derived by STECF EWG 13-06 are summarized in the following sections, specifically for each of the reviews undertaken and covering new or additional ToR as appropriate.

Effort regime evaluation for the Baltic

Since 2010, deployed effort of regulated gears remained rather constant in both cod plan areas A (subdivisions 22-24) and B (subdivisions 25-28) with a slight increase in regulated otter trawls.

The effort-regulated otter trawls are the major cod gears, contributing 55 and 74% to the cod catch in areas A and B in 2012, respectively. The second important contributor to catches among the ranked cod gears are gill nets. Cod discards are generally low but slightly higher for area B, showing an increasing trend in most recent years for regulated otter trawls.

With a lack of information from Estonia, small boats <8m LOA were found to constitute 7 and 12% to the overall effort deployed in the Baltic in 2011 and 2012, respectively. Small boats are primarily operating in the northern cod plan area C (subdivisions 29-32).

STECF EWG 13-13 undertook a provisional quantitative analysis regarding the estimation of effort deployed in units of days at sea by Member State, and compared the national uptake with the calculated maximum effort available. STECF EWG 13-13 notes that its approach to estimate the maximum days at sea available per year and Member State from the product of reported number of active vessels using one of the regulated gears times the days at sea per vessel can only serve as an approximation of the effort ceiling. The provisional uptake analysis revealed that the average annual uptake of available days at sea over the time period 2008-2012 remained in the range of 36-38% in area A, 34-47% in the area B and 53-83% for the areas A and B combined.

According to the information submitted by member States, only Denmark has operated under the fully documented fisheries (FDF) scheme in the Baltic in 2012. The reported Danish catch of cod caught in FDF with regulated gears amounted to 333 t in area A and 406 t in area B, representing 3% of the overall catch. A preliminary analyses of cod selectivity revealed that non-FDF fisheries were catching younger fish. However, the effects of different age reading methods applied in different national institutes remain unclear. Such preliminary results require further investigation.

Close correlations between fishing mortality and fishing effort measured in kW days at sea as well as between partial fishing mortalities and the specific fishing effort by fisheries were found. While good correlation does not always mean ‘cause and effect’, the results here suggest that management of fishing mortality by fishing effort in units of kWdays may provide a useful auxiliary measure to catch constraints and technical measures.

A provisional analysis on spatio-temporal patterns in cod catchability based on catch rates from commercial fisheries and surveys reveals a more homogenous distribution pattern as compared to the patterns in cod abundance indices, catches and fishing effort which are highest in the central Baltic Sea.

Effort regime evaluation for the Kattegat

Fisheries in the Kattegat are almost exclusively conducted by Denmark and Sweden (88% and 11% of the total regulated effort in 2012, respectively) using predominantly trawls and primarily the gear class TR2. The TR2 gear constitutes 90% of the total regulated effort. Beam trawls are forbidden.

There are three effort derogations in place in Kattegat for TR2, CPart13B, CPart13C and CPart11. All the Danish TR2 effort is under the derogation CPart13C from 2010 onwards while the German TR2 effort is partly under the derogation CPart13B between 2010 and 2011. STECF EWG 13-13 notes that the uptake of the regulated gear TR2 exceeds the maximum effort levels defined in the annual TAC and quota regulations since 2010 as Member States applied additional effort allocations under article 13 of the cod plan.

Only Sweden reported under the derogation article 11 in gear category TR2, achieving the <1.5% cod catch by using a sorting grid. This represented 68% of the Swedish TR2 effort in Kattegat 2012. The effort deployed by passive gears (GN1, GT and LL1) is relatively small, with a stable share of around 3% of the total regulated effort in 2012. The effort deployed by unregulated gear categories (including effort under the derogation CPart11) was 30% of the total effort in 2012.

In 2012, the nominal effort (kW days at sea) deployed by small vessels (LOA<10m) constituted 12% of the total effort in the area.

According the ranked regulated gear groups’ contributions to cod catch and landings in 2012, only the TR2 is estimated to exceed the level of the cumulative 20% and thus considered subject to annual effort adjustments (Coun. Reg. 1342/2008, art. 12(4)).

EWG 13-13 notes that information on Fully Documented Fisheries FDF was only provided by Sweden and only for 2010. FDF fishing effort and catches appear negligible and are not evaluated further.

The estimated cod CPUE and respective effort transfer factors between donor and receiving regulated gear groups based on averages 2010-2012 are given below. Red cells are indicated to be imprecise due to lack of adequate discard information. Yellow cells indicate sufficient sampling and green cells good sampling information. The conversion factors are estimated based on CPUE while LPUE values are also provided.

Kattegat

	donor gear	receiving gear						2010-2012	
		GN1	GT1	LL1	TR1	TR2	TR3	CPUE	LPUE
3a	GN1		1	1	1	1	1	187	50
3a	GT1	0.005		1	0.014	0.009	0.125	1	1
3a	LL1	0.005	1		0.014	0.009	0.125	1	1
3a	TR1	0.38	1	1		0.67	1	71	25
3a	TR2	0.567	1	1	1		1	106	41
3a	TR3	0.043	1	1	0.113	0.075		8	8

factor = CPUE donor/CPUE receiving
if factor > 1 then
factor = 1

if CPUE=0 or LPUE = 0 then
CPUE=1 or LPUE=1

STECF EWG 13-13 notes that that ICES did not provide an analytical assessment of cod in the Kattegat in 2013. STECF EWG 13-06 is therefore unable to provide analyses dealing with the partial fishing mortalities by fisheries (metiers), the respective correlations between partial fishing mortality and fishing effort and the review of reductions in fishing mortality of the effort regulated gear groups in relation to the cod plan provisions.

Effort regime evaluation for the Skagerrak, North Sea including 2EU and Eastern Channel

STECF EWG 13-13 notes that in this area, a substantial part of the effort is deployed by Non-European fleets (primarily Norway); this component is not accounted for in this report, except for the part dealing with partial fishing mortalities by fisheries. Norwegian fishing effort is reported to ICES (ICES, 2013). Catch and effort data including the special conditions of the cod management plan in force since 2009 (CPart11 and CPart13) have been provided by all Member States with significant fishing activity in this area. Additionally, distinction is now provided across the various CPart13 specifications (A, B, or C).

The North Sea (area 3b2) is the main fishing area (78% of the total 2012 regulated effort in area 3b), followed by the Eastern Channel (15%, 3b3), while the Skagerrak represents a smaller component (7%, 3b1). In all three sub areas, regulated effort has decreased since 2003. In area 3b2 (North Sea and 2EU), regulated effort is equally shared between beam trawls and demersal trawls/seines (47% and 47% of total 2012 regulated effort respectively). Small mesh beam trawling (80-119 mm, BT2) and demersal trawls/seines with larger mesh sizes (>=100mm, TR1) are the predominant fisheries. In the Eastern Channel, demersal trawls/seines are also the main gears (65% of the 2012 regulated effort in the area, mainly smaller mesh size 70-99mm TR2), but with beam trawls and passive gears representing important fisheries (19% and 16% of the 2012 regulated effort respectively). The main gears in management area 3b1 (Skagerrak) are demersal trawls/seines (90% of the 2012 regulated effort) with a predominance of TR2.

The estimated overall reduction in effort (kW days at sea) in 2012 of regulated gears in the entire area 3b amounts to 41% compared to the average 2005-2007 and to 10% compared to 2011.

Since 2003 the effort of small boats (LOA<10m) gradually increased from 3% to 9% of the overall effort deployed in the entire area 3b (Skagerrak, North Sea and 2EU, Eastern Channel) in 2012.

TR1 and TR2 gears were identified as the major cod catching gears and exceeded the 20% cumulative cod catch in 2012 and are thus considered subject to annual effort adjustments (Coun. Reg. 1342/2008, art. 12(4)).

In 2012 fully documented fisheries again represented only a small but increasing proportion of the total effort (5.6%). The importance of the main cod gear (TR1) has increased further and is estimated at 28.9% of the TR1 effort deployed in 2012. In total, 36% of cod catches by EU vessels were taken during FDF trials.

A preliminary analysis of selectivity for cod by FDF and non-FDF fisheries indicated that cod catch compositions at age from Danish and Scottish FDF fisheries were rather similar to the catch compositions at age from all fisheries by these countries. STECF EWG 13-13 notes that only these two countries conducted separate sampling and applied separate data aggregation and raising procedures. Any further investigations would require two individual data sets, one which comprises an exclusive set of non-FDF fisheries, and second one which represents an exclusive set on FDF fisheries.

The estimated cod CPUE (average 2010-2012) and respective effort transfer factors between donor and receiving regulated gear groups for the cod management area comprising the Skagerrak, North Sea, EU part of IIa, and Eastern Channel are given below. Red cells indicate imprecise values due to lack of adequate discard information. Yellow cells indicate sufficient sampling and green cells good sampling information. EWG 13-13 notes that the report also provides the conversion factors for each of the three sub-areas mentioned above.

Skagerrak, North Sea and 2 EU, Eastern Channel

	donor gear	receiving gear								2010-2012	
		BT1	BT2	GN1	GT1	LL1	TR1	TR2	TR3	CPUE	LPUE
3b	BT1		1	0.228	1	0.437	0.217	0.962	1	227	227
3b	BT2	0.203		0.046	0.24	0.088	0.044	0.195	1	46	41
3b	GN1	1	1		1	1	0.949	1	1	995	970
3b	GT1	0.846	1	0.193		0.369	0.183	0.814	1	192	140
3b	LL1	1	1	0.523	1		0.496	1	1	520	520
3b	TR1	1	1	1	1	1		1	1	1048	902
3b	TR2	1	1	0.237	1	0.454	0.225		1	236	125
3b	TR3	0.044	0.217	0.01	0.052	0.019	0.01	0.042		10	10

factor = CPUE donor/CPUE receiving
if factor > 1 then
factor = 1

if CPUE=0 or LPUE = 0 then
CPUE=1 or LPUE=1

The Report presents partial fishing mortalities by regulated fisheries and Member States in relation to the estimated fishing mortality by ICES (2013) and the landings and discards volumes in relation to the estimated total catch for the year available. STECF EWG 13-13 notes that the correlations between the partial Fs for cod and effort are significant for some important regulated metiers catching cod but insignificant for others. In all three sub-areas 3b1, 3b2 and 3b3, the correlations between the summed partial Fs of cod for regulated gears and respective sums of fishing effort in units of kW days at sea are statistically significant. While good correlation does not always mean ‘cause and effect’, the results here suggest that management of fishing mortality by fishing effort in units of kWdays may provide a useful auxiliary measure to catch constraints and technical measures.

Mortality due to discarding has generally been high, but has declined since 2008.

STECF EWG 13-13 notes that partial F of cod for all Member States has reduced since 2008, though such reductions have not always been consistent (i.e. linearly proportional) with changes in effort by regulated gears. However, STECF EWG 13-13 notes that the estimated trends in partial fishing mortality are dependent on the changed perception of the exploitation status in 2011 and 2012 derived from the 2013 ICES assessment of the North Sea cod stock. In the UK, partial F appears to have reduced consistent with the overall F reductions required under the plan, though effort has not. This suggests that there has been some decoupling of cod from fishing effort, consistent with cod avoidance or discard reduction.

STECF EWG 13-13 notes that Article 13.2a has not been adopted by any Member State, and so there was no detailed discussion of this provision in this section. Article 13.2b is for ‘effort groups in which the fishing activity of one or more vessels results in a catch composition of less than 5% cod per fishing trip’. STECF EWG 13-13 has already stated that a catch composition special condition was not necessarily consistent with reductions in cod mortality as it does not control the overall amount of cod caught. However, STECF EWG 13-13 concludes that the contribution of all fisheries operating under Article 13.2b to the estimated fishing mortality of cod remains low and did not exceed 5% during 2009-2012.

STECF EWG 13-13 notes that Article 13.2c has only been adopted by the UK in areas 3b1, 3b2 or 3b3 and is applied to the entire fleet using regulated gears when not subject to Article 13.2b or exempted under Article 11. STECF EWG 13-13 notes that the respective UK (ENG, SCO, NIR) gear types TR1 have reduced their fishing effort in kWdays at sea by 20 % since 2009, which coincides with an estimated reduction in fishing mortality of cod by 36%. During 2009-2012, the fishing effort of TR2 gears operating under Article 13.2.c declined by 11%, with a reduction in fishing mortality by

31% over the same period. The respective fisheries by Northern Ireland are negligible and were not operative in 2012.

A provisional analysis on spatio-temporal patterns in cod catchability based on catch rates from commercial fisheries and surveys reveals that cod catchability is not evenly distributed over the North Sea. The area of lowest cod catchability is generally found where cod abundance is highest, i.e. around the Shetlands in the northern North Sea, the Skagerrak and the Eastern Channel.

Effort regime evaluation for the West of Scotland

The fishery West of Scotland is primarily an otter trawl fishery; beam trawls and static gears are hardly used. Effort within regulated gears is 56% less in 2012 compared to 2003. Regulated effort by trawl and seine gears (TR gears under Coun. Reg. (EC) 1342/2008) shows a long term decrease in effort and fell to its lowest level in the time series in 2011, but was stable between 2011 and 2012 for those nations reporting in both years. Overall effort of small boats (LOA<10m) is 10% higher in 2012 compared to 2003 although it has been relatively stable since 2006.

The most important category in terms of cod catch and landings is TR1 which over the period 2010-2012 on average, accounted for 94% and 99% of the total cod landings and catches by weight respectively from VIa. The second most important gear category is TR2, which can be seen to be a gear category with Nephrops as the dominant species in the landings. Based on the relative contribution TR1 is the only gear group where the percentage cumulative cod catch in 2012 exceeded 20% and thus considered subject to annual effort adjustments (Coun. Reg. 1342/2008, art. 12(4)).

The table of international conversion factors is based on average CPUE (2010-2012). Discard data are scarce for many regulated gear groups but have been interpreted as representative for TR1 and TR2. Red cells indicate imprecise values due to lack of adequate discard information, green cells good sampling information.

West of Scotland

	donor gear	receiving gear						2010-2012		
		BT1	BT2	GN1	LL1	TR1	TR2	CPUE	LPUE	factor =
3d	BT1		1	0.143	1	0.004	0.5	1	1	if factor > 1 then
3d	BT2	1		0.143	1	0.004	0.5	1	1	factor = 1
3d	GN1	1	1		1	0.028	1	7	7	
3d	LL1	1	1	0.143		0.004	0.5	1	1	if CPUE=0 or LPUE = 0 then
3d	TR1	1	1	1	1		1	252	33	CPUE=1 or LPUE=1
3d	TR2	1	1	0.286	1	0.008		2	2	

Overall the correlation between partial F of cod and estimated fishing effort of regulated gears is statistically significant but negative. STECF EG 13-13 is unable to determine the reason why there are negative or insignificant relationship between F and effort for the greatest cod contributors to cod catches from VIa. Nevertheless from the information reported by Member States, the management measures in place in VIa have not been successful in achieving a reduction in fishing mortality.

STECF EWG 13-13 notes that for Member States other than the UK partial F has reduced since 2008, though such reductions have not always been consistent (i.e. linearly proportional) with changes in effort by regulated gears. In the UK, a reduction in effort is recorded (less than that to bring effort to 0.32 of effort in 2008) but partial F is recorded as increased in 2011 and 2012 compared to 2008.

STECF EWG 13-13 notes that Article 13.2a of the cod plan has not been adopted by any Member State, and so there was no detailed discussion of this provision in this section. Article 13.2b is for ‘effort groups in which the fishing activity of one or more vessels results in a catch composition of less than 5% cod per fishing trips’. West of Scotland article 13.2b fisheries are estimated to have accounted for 10% of regulated gear partial F in 2011 but less than 1% in 2012. STECF EWG 13-13 notes that Article 13c has only been adopted by IRL and the UK in area 3d, and these fisheries contributed a minor part of the cod catch. STECF EWG 13-13 notes that vessels operating under article 13.2d contribute the majority of cod fishing mortality over all gear types. The partial F for this one category is between 0.7 and 0.8. This is true for landings and discards with discards making a much greater contribution to fishing mortality in recent years. Overall, STECF EWG 13-13 concludes that are no indications that the Scottish TR1 fishery working under any of articles 13.2.b, c or d have contributed to a reduction in fishing mortality of cod west of Scotland.

Effort regime evaluation for the Irish Sea

During 2003-2010, overall nominal effort (kW*days at sea) for boats LOA>=10m declined continuously by 43%. Since then, effort has remained stable. The trend in fishing effort of regulated gears appears similar with a decrease by 53% during 2003-2010 and remained stable from 2010 to 2012. Since 2007, the dominating regulated gear in terms of kW days has been the trawled TR2 (>75%) with an increasing trend (80% in 2012). Since 2009, the cod plan provisions of 13.2 a, b and c are applied when using effort-regulated gears.

During 2007-2012, small boats' effort (LOA<10m) varied without a clear trend and constituted among 11-15% of the overall effort deployed. Effort of small boats dropped during 2009 and 2010, increasing again thereafter.

STECF EWG 13-13 notes that discard information available within the Irish Sea is incomplete and thus impedes analyses of catch compositions and trends by fisheries. Based on the relative contributions to overall deployed effort, GN1, TR1 and TR2 are gear groups where the proportional cumulative cod landings in 2012 exceeded 20% and are thus subject to annual effort adjustments (Coun. Reg. 1342/2008, art. 12(4)).

The table of international effort conversion factors is based on average CPUE (2010-2012) is given below. LPUEs are used for GN1, GT1, and LL1 fisheries as time series of discard data were not available. TR2 and BT2 are the only two gear categories where discard data were available over the three previous years. Red cells indicate imprecise values due to lack of adequate discard information. Yellow cells indicate sufficient sampling.

Irish Sea											
	donor gear	receiving gear									
		BT2	GN1	GT1	LL1	TR1	TR2	CPUE	LPUE		factor =
3c	BT2		0.03	0.079	1	0.17	1	90	58		if factor > 1 then
3c	GN1	1		1	1	1	1	3033	3033		factor = 1
3c	GT1	1	0.375		1	1	1	1136	1136		
3c	LL1	0.011	0	0.001		0.002	0.013	1	1		if CPUE=0 or LPUE = 0 then
3c	TR1	1	0.174	0.465	1		1	528	523		CPUE=1 or LPUE=1
3c	TR2	0.878	0.026	0.07	1	0.15		79	42		

STECF EWG 13-13 notes that the correlations between the summed partial Fs for landings of the regulated fisheries and their estimated fishing efforts are insignificant. STECF EWG 13-13 is unable to determine the reason why the relationship between partial Fs of most Member State fisheries using regulated gears are not significantly correlated with their specific effort estimates. STECF EWG 13-13 notes that the lack of discards prevents reliable conclusions regarding the effects of fishing effort management in relation to cod in the Irish Sea.

Effort regime evaluation for the Celtic Sea

The review of trends in fisheries-specific effort and catches in the Celtic Sea is presented at the level of aggregation for the fisheries defined in the multi-annual cod plan, to allow managers to evaluate the data with the view to the potential extension of the cod plan to include the Celtic Sea. The Celtic Sea is defined into two management areas, i.e. ICES Sub-divisions 7bcefghjk and ICES Sub-divisions 7fg. In 2012 in terms of kWdays at sea deployed by effort regulated gear groups and vessels ≥10m, France contributed 40%, Ireland 20%, England and Wales 15%, Spain 13%, Belgium 7%, and Scotland 4% (ICES Sub-divisions 7bcefghjk).

Trends in fishing effort for the sensitive cod gears and non-regulated gears are presented in the report. Spanish data are only included for 2012 as no data for earlier periods have been submitted by the

Spanish Authorities. The demersal fisheries are dominated by the gears TR1, TR2 and BT2. In recent years (since 2008) fishing effort has been relatively stable, with the increase in 2012 due to the inclusion of Spanish data for 2012 only. Total effort for countries excluding Spain has remained stable overall. In 2012, "unregulated" gears were deployed by France (26%), Ireland (21%), England (19%) and Dutch (16%). There appeared a peak in 2010 of pelagic boats obviously fishing for boarfish in the Celtic Sea.

The relative contribution of effort in terms of kWdays at sea deployed by small vessels (<10m) increased from 5% in 2003 to 8% in 2012 as compared with the overall effort deployed in the Celtic Sea (ICES Sub-divisions 7bcefghjk).

STECF EWG 13-13 notes that the correlations between the summed partial F of catches from all regulated gears and their specific effort estimates in kW days at sea over the main fisheries (effort regulated fisheries in the cod plan) are insignificant in the entire Celtic Sea (7bcefghjk). However, the relations between summed partial F of catches and fishing effort from all regulated gears become significant when the area is reduced to the ICES subdivisions 7fg. While good correlation does not always mean 'cause and effect', the results here suggest that management of fishing mortality by fishing effort in units of kWdays may provide a useful auxiliary measure to catch constraints and technical measures.

Effort regime evaluation for southern hake and Norway lobster

STECF EWG 13-13 notes that the major data deficiency in its analyses is the lack of Spanish catch and effort data in 2010 and 2011. Furthermore it is important to note that Spanish fishing vessels using regulated gears were not granted fishing effort derogations by the Spanish Authorities in 2012 as provided for in Annex IIB to the annual TAC and Quota regulations.

The nominal effort of regulated gears (3a-c) declined by 27% during 2007-2012 and by 23% from 2009 to 2012. The major effort regulated gears are the bottom trawls. Bottom trawl effort subject to effort regulation decreased by 31% since 2007 and by 18% since 2009. Given that Spain has not provided data for small vessels (LOA<10m) and that Portuguese data do not provide gear or fishery specific information, STECF EWG 13-13 is unable to conclude on the effects of small vessels.

In 2012, regulated bottom trawls caught more than half of the hake and anglerfish catches and the 97% of Nephrops catches in Divisions VIIIc-IXa. The LPUE for hake displays a continuous increase since 2005, and catch rates (CPUE OR LPUE) of Nephrops in Div. IXa and anglerfish in Div. VIIIc-IXa have continuously decreased since 2007. The same trend is apparent in both the data submitted to STECF EWG 13-13 in response to the DCF data calls and the data estimated by ICES.

STECF EWG 13-13 estimated partial F for hake and the regulated gear groups by Member States and correlated the time series with fishing effort in units of kWdays at sea. Given the data deficiency in 2010 and 2011, STECF EWG 13-13 does not further conclude on the significant correlation between the summed partial Fs of hake for regulated gear groups and their fishing effort with respect to the effects of fishing effort management.

Effort regime evaluation for Western Channel sole

STECF notes the majority of fishing effort deployed in the Western Channel is effort that is not being regulated by the Management plan for sole in Division VIIe. The two regulated gear groups, beam trawls and the static nets, account for only a relatively small proportion (about 15%) of the overall deployed effort.

The effort (kW days at sea) of gear groups regulated by fishing effort appears to have remained stable since 2009 after a major drop prior to 2008. From 2009-2012, the reported regulated beam trawl (≥ 80 mm) effort steadily increased and by 2012 was 17% higher compared with 2009. Over the same period, the lower reported effort by regulated static nets (< 220 mm) decreased by 42%. The effort from the vessels <10m fluctuated between 13% and 25% of the effort deployed by the vessels >10m and shows an increasing trend since 2005.

STECF notes that estimated sole catches are dominated by effort regulated beam trawls (67% in 2012), while static nets contributed a minor share (6% in 2012). STECF reiterates its observation that a relatively high percentage of sole is caught by gears that are not being regulated by this regulation. Sole catches of unregulated gears are in excess of 27% of the overall sole catches in area 7e for each year of the data series (2004-2012). The otter trawl gear is the main unregulated gear involved and accounts for over of 22% of total sole catches in recent years.

STECF EWG 13-13 notes that only UK (England and Wales) had vessels operating under an FDF scheme for the first time in 2012. 7 vessels were operational in the FDF fisheries using the regulated beam trawl gear (3a) and one vessel using the unregulated beam trawl gear (mesh size <80mm). The total numbers of English vessels operating such gears are 43 and 2 respectively. The effort of the FDF fisheries to the total deployed effort by the regulated beamers (3a) and unregulated beamers amount to 17% and 1% respectively. The catches of sole from to FDF fisheries represent 23% and 28% of the total international catches of the 3a regulated gears and the unregulated beamers, respectively.

STECF EWG 13-13 estimated the uptake of the permitted fishing effort in units of days at sea per vessel. The results should be interpreted with caution as the estimated ceilings are based on number of active vessels times the number of days allowed. STECF EWG 13-13 notes that the number of active vessels and their associated days at sea may be overestimated (multiple counted) if they changed regulated gears. For the regulated beam trawl fleet (3a), the English series indicate an increasing uptake (47% - 95%) over time whereas the Belgian and the French regulated beam trawl fleet show a stable uptake on a low (around 10%) and high level (around 65%) respectively. The English regulated static gear (3b) show a slight increase in uptake (20%-40%) over time whereas the French regulated static gear show a stable uptake of around 50%. National amendments to the effort regulations were granted to UK in 2011.

STECF EWG 13-13 notes that the correlations between the summed partial Fs for sole landings of the regulated fisheries and their estimated fishing efforts are significant for the period 2005-2012. While good correlation does not always mean ‘cause and effect’, the results here suggest that management of fishing mortality by fishing effort in units of kWdays may provide a useful auxiliary measure to catch constraints and technical measures for the regulated gears. The lack of discard information in the assessment and forecast of fishing opportunities should be considered when assessing management risks.

Effort regime evaluation for the Western Waters and Deep Sea

In accordance with the Terms of reference, the Report presents trends in effort, catch estimates and CPUE for defined fisheries (major gear groups) for 18 management areas within the convention areas of ICES and CECAF. The EWG experienced extreme difficulties in preparing the data and the interpretation of them is confounded by data deficiencies described in section 4 of the report. STECF EWG 13-13 also notes that discard information is often scarce.

Effort within the Deep sea and Western waters has been compiled for kW*days-at-sea, GT*days-at-sea, and numbers of vessels. Within the report the focus is on kW*Days at sea. Information on GT*days at sea and numbers of vessels, landings, discards, CPUE and LPUE is available via the website (electronic appendixes to the report): http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

Bottom trawl effort is concentrated in ICES Area VI as well as the Continental shelf and slope to the west and southwest of Ireland and the UK. Bottom trawl effort in the Bay of Biscay, the Cantabrian Sea and off the Portuguese coast increased in 2012 compared to 2010 and 2011. Beam trawling is concentrated in the Celtic sea and the western English Channel. While beam trawls are not a deepwater gear some of the species caught are classified under Annex 2 of the deep sea regulation. Pelagic trawling was concentrated to the west of Ireland, and to the west and north of Scotland in the mid 2000s. This effort decreased greatly between 2007 and 2009, increased again in 2010, but has reduced again in 2011 and 2012. Longline effort was concentrated on the shelf and slope between Shetland and Portugal but has been in decline in recent years. Longline effort from the Azores has shown an increase since 2009. In the mid 2000s gill net effort was concentrated in the Celtic sea and Porcupine Bank. Due to existing restrictions in the use of deepwater gill nets much of this effort is now concentrated in the Celtic sea, with some effort in the North sea, west of Scotland and the Bay of Biscay. Catch estimates are provided in tabular format according to the requested rankings of deep sea, demersal and pelagic species, respectively.

Effort regime evaluation for the Bay of Biscay

STECF EWG 13-13 notes that all the analyses and trends presented in the report include data from Spain for 2012 only as Spain did not provide corresponding data for previous years to the DCF data call for fishing effort regime evaluations. In interpreting the trends in fishing effort and estimated catches, it is important to take into account that discard information is scarce and patchy and in some cases, is of dubious quality.

STECF EWG 13-13 notes that the multiannual plan for the sustainable exploitation of the stock of sole in the Bay of Biscay (R (EC) 388/2006) prescribes maximum annual fishing capacity for Member States' vessels that hold a special permit to fish. The report provides fisheries-specific catch and effort data for the Northern Bay of Biscay (ICES Div. VIIIa) and the southern Bay of Biscay (ICES Div. VIIIb). In VIIIa, 90% of the reported deployed effort in 2012 was French, 9% Spanish and 1% Belgian. The main French fisheries are otter trawl, trammel net, gill net and pelagic trawls. The main Spanish fisheries are longline, otter trawl and gill net. In VIIIb, 69% of the reported deployed effort in 2012 was French, 25% Spanish and 6% Belgian. The main French fisheries are otter trawl, trammel net, gill net, longline and pelagic trawl. The main Spain fisheries are otter trawl, longline and pelagic trawl.

Due to data deficiencies, STECF EWG 13-13 was unable to fully evaluate the effort regime for sole in the Bay of Biscay. France and Spain provided the data on trends in fishing capacity requested in the data call, in the unit of gross tonnage and for the year 2012 only.

From 2010 to 2012 the overall trend in fishing effort in units of kW days at sea increased by 4% in the area VIIIa and by 35% in VIIIb, although this observation is largely due to the inclusion of Spanish data for 2012 only. During 2010-2012, less than 50% of the reported deployed effort (kW days at sea) was accounted for by vessels carrying the special fishing permit in area VIIIa. In area VIIIb, the relative contribution of licensed vessels varied between 57% and 68%.

During 2010-2012, small boats (LOA<10m) contributed about 20% to the effort deployed in area VIIIa and about 10%-15% in area VIIIb after significant increases in deployed effort by small boats for earlier years in both areas. Spain has not provided any information regarding deployed fishing effort of small boats operating in the Bay of Biscay.

STECF EWG 13-13 notes that the correlations between the summed partial Fs based only on landings from the major fisheries and the corresponding reported fishing effort are significant in area 8a but insignificant in area 8b. As those analyses do not take account of discards and the time series do not incorporate Spanish data, the results are questionable and may not be representative.

2 RECOMMENDATIONS OF THE WORKING GROUP

The EWG 13-13 has no specific recommendations.

3 INTRODUCTION

The STECF EWG 13-13 met during 7-11 October 2013 at the Casa Don Guanella, Barza d'Ispra, Italy. The meeting started by 9 am on 7 October and was adjourned by 12.30 on 11 October 2013. Working conditions provided were considered optimum.

Due to the extensive ToR and the required DCF data evaluation the STECF EWG 13-13 fishing effort regime evaluations part 2 is considered a follow up of the working group EWG 13-06 fishing effort regime evaluations part 1 (report: Evaluation of Fishing Effort Regimes in European Waters - Part 1, STECF-13-13). The present report is largely based on evaluations and findings accomplished in July 2013 during the second STECF plenary in 2013. However, the present report also considers data updates and finalization of outstanding tasks.

The STECF EWG 13-13 notes that it was unable to fully address all ToR due to time constraints and late data availability. Sections dealing with incomplete responses to specific tasks are clearly indicated in the present report.

3.1 Terms of Reference for EWG 13-06 and EWG 13-13

Background

The Commission consults the STECF 'Working Group on fishing effort regime evaluations' on a review of fisheries regulated through fishing effort management schemes adopted in application of

- ✓ the long term plan for cod stocks [R(EC) No 1342/2008],
- ✓ the recovery plan for Southern hake and Norway lobster stocks in the Cantabrian Sea and Western Iberian peninsula [R(EC) No 2166/2005],
- ✓ the multi-annual plan for the North Sea plaice and sole stocks [R(EC) No 676/2007],
- ✓ the multi-annual plan of Western Channel sole stock [R(EC) No 509/2007],
- ✓ the multi-annual plan for the cod stocks in the Baltic Sea [R(EC) No 1098/2007],
- ✓ the multi-annual plan for the sustainable exploitation of the stock of sole in the Bay of Biscay [R(EC) No 388/2006],
- ✓ R(EC) No 2347/2002 establishing specific access requirements and associated conditions applicable to fishing for deep sea stocks, and
- ✓ R(EC) No 1954/2003 on the management of the fishing effort relating to certain Community fishing areas and resources – so called Western Waters regime.

The overarching request is for: i) an assessment of fishing effort deployed by fisheries

and métiers which are currently affected by fishing effort management schemes as defined in Annex II of the TAC and Quota Regulations Regulation and including an assessment of fishing effort deployed by fisheries and métiers which would be affected by the extension of the cod recovery plan to the Celtic Sea and an assessment of effort in the Biscay sole fishery.); ii) an assessment of effort in the Baltic Sea and iii) an assessment of effort in Deep Sea and Western Waters regimes.

There will be two meetings of this STECF Working Group which will take place from 17 to 21 June 2013 and from 07-11 October 2013.

Terms of Reference: see Annex

Annex

1 – Assessment of fishing effort deployed by fisheries and métiers which are currently affected by fishing effort management schemes defined in the Baltic Sea cod management plan R(EC) No 1098/2007

Terms of Reference:

1. To provide historical series, as far back in time as possible, according to each of the following fishing areas:

Areas covered by the R(EC) No 1098/2007 (Baltic Sea)

(i) ICES division 22 to 24,

(ii) ICES divisions 25 to 28, by distinguishing areas 27 and 28.2

(iii) ICES divisions 29 to 32,

The data should also be broken down by

Member State;

Regulated gear types defined in **R(EC) No 1098/2007** (and by associated special conditions defined in the Appendix 6 of the data call);

Unregulated gear types catching cod in fishing areas (i), (ii) and (iii);

for the following parameters:

a. Fishing effort, measured in kW.days and in GT.days

b. Fishing activity measured in days absent from port (according to definitions adopted in R(EC) No 1098/2007) and fishing capacity measured in kW, GT and in number of vessels concerned per year.

c. Catches (landings and discards provided separately) of cod in the Baltic Sea by weight and by numbers at age.

d. Catches (landings and discards provided separately) of non-cod in the Baltic Sea by species, by weight and by numbers at age

e. Landings Per Unit of Effort (LPUE) and Catches Per Unit Effort (CPUE) of cod in the Baltic Sea (such data shall be issued by Member state, fishing area (i), (ii) and (iii) and fishing gear concerned in accordance with **Art. 3 of R(EC) No 2187/2005).**

2. To assess the fishing effort and catches (landings and discards separately) of cod in the Baltic Sea and associated species corresponding to vessels of length overall smaller than 8 metres in each fishery, by gear and by Member State.

3. To quantify the evolution of the calculated maximum effort in units of days at sea allocated annually to the cod fleet (regulated gear types) and the uptake of this effort.

4. To assess the catches (absolute values, landings and discards provided separately) and effort deployed in 2011 and 2012 corresponding to vessels participating in trials on fully documented fisheries FDF, by species, by gear and Member State, with the aim to determine the quality of the data submitted, the potentials and limitations of the fully documented fisheries and to what extend in particular catches (absolute values, landings and discards provided separately) differ~~s~~ from the figures estimated by the STECF for vessels not participating in these trials. STECF is requested to quantify and comment on the extent of changes in cod selectivity by FDF fisheries in comparison with the fisheries not participating in FDF schemes. If discard values are not provided or it is 0, the assessment should be made on basis of reported catch composition and its age structure. .

5. To plot, the spatial distribution of the fishing effort in unties of hours fished by regulated gears deployed in the Baltic Sea, according to data reported in logbooks on the basis of ICES statistical rectangles and to provide interpretation of any changes or trends.

6. To comment on data quality and to highlight any unexpected evolutions in the estimated parameters which are not in line with the general trend, in particular as regards discard estimates of cod and pelagic species.

7. To assess and present in a tabular form the annual partial fishing mortalities of cod, for landings and discards separately, as generated by the effort regulated gears and the non-regulated gears by fishing areas and Member States, the latter non-regulated gears as a single lump group. The trends in gear group specific partial fishing mortalities shall then be compared with (correlated against) the trends in gear group specific fishing effort in units if kW days at sea of the gears mentioned by fishing areas and Member States.

8. To identify, based on available data on fisheries specific landings and effort by statistical rectangle, ways to estimate standardised catchability indices for cod in the Baltic, considering the best practice to account for discards and to raise landings to catch figures. Detailed maps on estimated annual cod catchability indices shall then be presented for these areas.

2 – Assessment of fishing effort deployed by fisheries and métiers which are currently affected by fishing effort management schemes defined in the Kattegat (Annex IIA to Regulation (EC) No 43/2012 and 44/2012)

Terms of Reference:

1. To provide historical series, as far back in time as possible, according to each of the following fishing area:

Kattegat (ICES functional unit IIIaS)

The data should also be broken down by

Member State;

Regulated gear types defined in **Annex I** to **R(EC) No 1342/2008** (and by associated special conditions defined in the Appendix 6 of the data call);

Unregulated gear types catching cod;

for the following parameters:

a. Fishing effort, measured in kW.days, in GT.days, in number of vessels concerned.

b. Catches (landings and discards provided separately) of cod by weight and by numbers at age.

c. Catches (landings and discards provided separately) of non-cod by species, by weight and by numbers at age

d. Landings Per Unit of Effort (LPUE) and Catches Per Unit Effort (CPUE) of cod (such data shall be issued by Member state, fishing area and fishing effort group designed in **Annex I to R(EC) No 1342/2008**).

2. Based on the information compiled under point (1) above, to rank fishing effort groups as designed in **Annex I to R(EC) No 1342/2008**, on the basis of their contribution to catches including estimated discards and landings expressed in weight of cod.

3. To assess the fishing effort and catches (landings and discards) of cod and associated species corresponding to vessels of length overall smaller than 10 metres in each fishery, by gear (corresponding to regulated and unregulated gear as defined in Annex II framework) and by Member State according to sampling plans implemented to estimate these parameters.

4 To assess the catches (absolute values, landings and discards provided separately) and effort deployed in 2011 and 2012 corresponding to vessels participating in trials on fully documented fisheries, by species, by gear and Member State, with the aim to determine the quality of the data submitted, the potentials and limitations of the fully documented fisheries and to what extend in particular catches (absolute values, landings and discards provided separately) differ~~s~~ from the figures estimated by the STECF for vessels not participating in these trials. STECF is requested to quantify and comment on the extent of changes in cod selectivity by FDF fisheries in comparison with the fisheries not participating in FDF schemes. If discard values are not provided or it is 0, the assessment should be made on basis of reported catch composition and its age structure.

5. To plot, the spatial distribution of the fishing effort in units of hours fished of regulated gears deployed in the Kattegat, according to data reported in logbooks on the basis of ICES statistical rectangles and to provide interpretation of any changes or trends.

6. To comment on data quality and to highlight any unexpected evolutions in the estimated parameters which are not in line with the general trend, in particular as regards the discard estimates of cod, Norway lobster and pelagic species.

7. To develop and calculate standard cpue's, lpue’s and standard correction factors to be used (within a MS) for transferring effort across gear groups with different cpue (Reg. (EC) No 1342/2008 Art 17, paragraph 5).

Commission Regulation (EU) No 237/2010 article 8(b) describes:

Correction factor = cpue donor gear /cpue receiving gear

The cpue's and lpue’s have to be calculated per area per gear group (regulated gear) and presented in a table. Another table shall be provided for the standard correction factors between the regulated gear groups based on each cpue’s and lpue’s. Correction factors >=1 will all be set at value 1.

8. To assess and present in a tabular form the annual partial fishing mortalities of cod, for landings and discards separately, as generated by the effort regulated gears (Annex I to Council Reg. 1342/2008) and the non-regulated gears by Member States, the latter non-regulated gears as a single lump group. The trends in gear group specific partial fishing mortalities shall then be compared with (correlated against) the trends in gear group specific fishing effort in units of kW days at sea of the gears mentioned by Member States.

9. To quantitatively assess the annual trend in cod mortality that would have resulted from the fishing mortality adjustments in Article 7 and the trends in fishing effort that would have resulted from Article 12 of Council Reg. 1342/2008, for the period 2008 to 2012. STECF is then requested to quantitatively assess the partial cod fishing mortality and fishing effort trends of the regulated gears

that were observed during 2008 to 2012. STECF is requested to comment on the questions if and to which extent the Member States application of Article 13, Paragraph 2, points a, b, and c have supported the reduction of cod fishing mortality as defined in Articles 7 and 9 and whether the increased fishing effort deployed by Member States was commensurate with the fishing mortality level to be achieved in 2012. The group is requested to quantify for each Member State and effort group (Annex I to Council Reg. 1342/2008) the partial target fishing mortality of cod, and partial fishing mortality of cod generated in excess of the cod plan, and, if a significant correlation between cod fishing mortality and fishing effort exists, the corresponding amounts of target fishing effort and of the excessive fishing effort in units of kW.days at sea.

3 – Assessment of fishing effort deployed by fisheries and métiers which are currently affected by fishing effort management schemes defined in the Skagerrak, the North Sea and the Eastern Channel (Annex IIA to Regulation (EC) No 43/2012 and 44/2012)

Terms of Reference:

1. To provide historical series, as far back in time as possible, according to each of the following fishing areas:

(i) Skagerrak (ICES functional Unit IIIaN),

(ii) North Sea (EC waters of ICES sub-area IIa and ICES sub-area IV),

(iii) Eastern channel (ICES division VIId)

The data should also be broken down by

Member State;

Regulated gear types designed in **Annex I** to **R(EC) No 1342/2008** (and by associated

special conditions defined in the Appendix 6 of the data call);

Unregulated gear types catching cod, sole and plaice in fishing areas (i), (ii) and (iii);

for the following parameters:

a. Fishing effort, measured in kW.days, in GT.days, in number of vessels concerned and days at sea for the sole and plaice fishery.

b. Fishing capacity in kW.

c. Catches (landings and discards provided separately) of cod, sole and plaice by weight and by numbers at age.

d. Catches (landings and discards provided separately) of non-cod, non-sole and non-plaice by species, by weight and by numbers at age.

e. Landings Per Unit of Effort (LPUE) and Catches Per Unit Effort (CPUE) of cod, sole and plaice (such data shall be issued by Member state, fishing area and fishing effort group designed in **Annex I to R(EC) No 1342/2008**).

2. Based on the information compiled under point (1) above, to rank fishing effort groups as designed in **Annex I to R(EC) No 1342/2008**, on the basis of their contribution to catches including discards and landings expressed in weight of cod, sole and plaice.

3. To assess the fishing effort and catches (landings and discards) of cod, sole and plaice and associated species corresponding to vessels of length overall smaller than 10 metres in each fishery, by gear (corresponding to regulated and unregulated gear as defined in Annex II framework) and by Member.

4. To assess the catches (absolute values, landings and discards provided separately) and effort deployed in 2011 and 2012 corresponding to vessels participating in trials on fully documented fisheries, by species, by gear and Member State, with the aim to determine the quality of the data submitted, the potentials and limitations of the fully documented fisheries and to what extend in particular catches (absolute values, landings and discards provided separately) differ~~s~~ from the figures estimated by the STECF for vessels not participating in these trials. STECF is requested to quantify and comment on the extent of changes in cod selectivity by FDF fisheries in comparison with the fisheries not participating in FDF schemes. If discard values are not provided or it is 0, the assessment should be made on basis of reported catch composition and its age structure.

5. To plot, the spatial distribution of the fishing effort in units of hours fished of regulated gears deployed in the Skagerrak, the North Sea and the Eastern Channel, according to data reported in logbooks on the basis of ICES statistical rectangles and to provide interpretation of any changes or trends.

6. To comment on data quality and highlight any unexpected evolutions in the estimated parameters which are not in line with the general trend, in particular as regards the discard estimates of cod, Norway lobster and pelagic species.

7. To develop and calculate standard cpue's, lpue’s and standard correction factors to be used (within a MS) for transfering effort across gear groups with different cpue (Reg. (EC) No 1342/2008 Art 17, paragraph 5).

Commission Regulation (EU) No 237/2010 article 8(b) describes:

Correction factor = cpue donor gear /cpue receiving gear

The cpue's and lpue’s have to be calculated per area per gear group (regulated gear) and presented in a table. Another table shall be provided for the standard correction factors between regulated gears groups based on each cpue’s and lpue’s. Correction factors >=1 will all be set at value 1.

8. To assess and present in a tabular form the annual partial fishing mortalities of cod, haddock, saithe (Skagerrak and North Sea only), whiting, plaice (North Sea only) and sole (North Sea only), for

landings and discards separately, as generated by the effort regulated gears (Annex I to Council Reg. 1342/2008) and the non-regulated gears by Member States, the latter non-regulated gears as a single lump group. The trends in gear group specific partial fishing mortalities shall then be compared with (correlated against) the trends in gear group specific fishing effort in units of kW days at sea of the gears mentioned by Member States.

9. To quantitatively assess the annual trend in cod mortality that would have resulted from the fishing mortality adjustments in Article 8 and the trends in fishing effort that would have resulted from Article 12 of Council Reg. 1342/2008, for the period 2008 to 2012. STECF is then requested to quantitatively assess the partial cod fishing mortality and fishing effort trends of the regulated gears that were observed during 2008 to 2012. STECF is requested to comment on the questions if and to which extent the Member States application of Article 13, Paragraph 2, points a, b, and c have supported the reduction of cod fishing mortality as defined in Articles 8 and 9 and whether the increased fishing effort deployed by Member States was commensurate with the fishing mortality level to be achieved in 2012. The group is requested to quantify for each Member State and effort group (Annex I to Council Reg. 1342/2008) the partial target fishing mortality of cod, and partial fishing mortality of cod generated in excess of the cod plan, and, if a significant correlation between cod fishing mortality and fishing effort exists, the corresponding amounts of target fishing effort and of the excessive fishing effort in units of kW.days at sea

10. To identify, based on available data on fisheries specific landings and effort by statistical rectangle, ways to estimate standardised catchability indices for cod, plaice and sole in areas Skagerrak, North Sea and Eastern Channel and 2EU, considering the best practice to account for discards and to raise landings to catch figures. Detailed maps on estimated annual catchability indices by species shall then be presented for these areas.

4 – Assessment of fishing effort deployed by fisheries and métiers which are currently affected by fishing effort management schemes defined in the West of Scotland (Annex II A to Regulation (EC) No 43/2012 and 44/2012)

Terms of Reference:

1. To provide historical series, as far back in time as possible, according to each of the following fishing area:

West of Scotland (ICES division VIa and EC waters of Vb)

The data should also be broken down by

Member State;

Regulated gear types designed in **Annex I** to **R(EC) No 1342/2008** (and by associated special conditions defined in Appendix 6 to the data call as far as relevant);

Unregulated gear types catching cod;

for the following parameters:

a. Fishing effort, measured in kW.days, in GT.days and in number of vessels concerned

b. Catches (landings and discards provided separately) of cod by weight and by numbers at age.

c. Catches (landings and discards provided separately) of non-cod by species, by weight and by numbers at age.

d. Landings Per Unit of Effort (LPUE) and Catches Per Unit Effort (CPUE) of cod (such data shall be issued by Member state, fishing area and fishing effort group designed in **Annex I to R(EC) No 1342/2008**).

2. Based on the information compiled under point (1) above, to rank fishing effort groups as designed in **Annex I to R(EC) No 1342/2008**, on the basis of their contribution to catches including discards and landings expressed in weight of cod.

3. To assess the fishing effort and catches (landings and discards) of cod and associated species corresponding to vessels of length overall smaller than 10 metres in each fishery, by gear (corresponding to regulated and unregulated gear as defined in Annex II framework) and by Member State.

4. To plot, the spatial distribution of the fishing effort in units of hours fished of regulated gears deployed in the West of Scotland, according to data reported in logbooks on the basis of ICES statistical rectangles and to provide interpretation of any changes or trends.

5. To comment on data quality and to highlight any unexpected evolutions in the estimated parameters which are not in line with the general trend, in particular as regards discard estimates of cod, Norway lobster and pelagic species.

6. To develop and calculate standard cpue's, lpue's and standard correction factors to be used (within a MS) for transfering effort across gear groups with different cpue (Reg. (EC) No 1342/2008 Art 17, paragraph 5).

Commission Regulation (EU) No 237/2010 article 8(b) describes:

Correction factor = cpue donor gear /cpue receiving gear

The cpue's and lpue's have to be calculated per area per gear group (regulated gear) and presented in a table. Another table shall be provided for the standard correction factors between regulated gear groups based on each cpue's and lpue's. Correction factors >=1 will all be set at value 1.

7. To assess and present in a tabular form the annual partial fishing mortalities of cod, haddock, saithe (VIa only), for landings and discards separately, as generated by the effort regulated gears (Annex I to Council Reg. 1342/2008) and the non-regulated gears by Member States, the latter non-regulated gears as a single lump group. The trends in gear group specific partial fishing mortalities shall then be compared with (correlated against) the trends in gear group specific fishing effort in units of kW days at sea of the gears mentioned by Member States.

8.To quantitatively assess the annual trend in cod mortality that would have resulted from the fishing mortality adjustments in Article 7 and the trends in fishing effort that would have resulted from Article 12 of Council Reg. 1342/2008, for the period 2008 to 2012. STECF is then requested to quantitatively assess the partial cod fishing mortality and fishing effort trends of the regulated gears that were observed during 2008 to 2012. STECF is requested to comment on the questions if and to which extent the Member States application of Article 13, Paragraph 2, points a, b, c and d have supported the reduction of cod fishing mortality as defined in Articles 7 and 9 and whether the increased fishing effort deployed by Member States was commensurate with the fishing mortality level to be achieved in 2012. The group is requested to quantify for each Member State and effort group (Annex I to Council Reg. 1342/2008) the partial target fishing mortality of cod, and partial fishing mortality of cod generated in excess of the cod plan, and, if a significant correlation between cod fishing mortality and fishing effort exists, the corresponding amounts of target fishing effort and of the excessive fishing effort in units of kW.days at sea.

9. To identify, based on available data on fisheries specific landings and effort by statistical rectangle, ways to estimate standardised catchability indices for cod West of Scotland, considering the best practice to account for discards and to raise landings to catch figures. Detailed maps on estimated annual cod catchability indices shall then be presented for this area.

5 – Assessment of fishing effort deployed by fisheries and métiers which are currently affected by fishing effort management schemes defined in the Irish Sea (Annex IIA to Regulation (EC) No 43/2012 and 44/2012)

Terms of Reference:

1. To provide historical series, as far back in time as possible, according to each of the following fishing area:

Irish Sea (ICES division VIIa)

The data should also be broken down by

Member State;

Regulated gear types designed in **Annex I** to **R(EC) No 1342/2008** (and by associated special conditions defined in Appendix 6 to the data call as far as relevant);

Unregulated gear types catching cod;

for the following parameters:

a. Fishing effort, measured in kW.days, in GT.days and in number of vessels concerned

b. Catches (landings and discards provided separately) of cod by weight and by numbers at age.

c. Catches (landings and discards provided separately) of non-cod by species, by weight and by numbers at age

d. Landings Per Unit of Effort (LPUE) and Catches Per Unit Effort (CPUE) of cod (such data shall be issued by Member state, fishing area and fishing effort group designed in **Annex I to R(EC) No 1342/2008**).

2. Based on the information compiled under point (1) above, to rank fishing effort groups as designed in **Annex I to R(EC) No 1342/2008**, on the basis of their contribution to catches including discards and landings expressed in weight of cod.

3. To assess the fishing effort and catches (landings and discards) of cod and associated species corresponding to vessels of length overall smaller than 10 metres in each fishery, by gear

(corresponding to regulated and unregulated gear as defined in Annex II framework) and by Member State.

4. To plot, the spatial distribution of the fishing effort in units of hours fished of regulated gears deployed in the Irish Sea, according to data reported in logbooks on the basis of ICES statistical rectangles and to provide interpretation of any changes or trends.

5. To comment on data quality and to highlight any unexpected evolutions in the estimated parameters which are not in line with the general trend, in particular as regards the discard estimates of cod, Norway lobster and pelagic species.

6. To develop and calculate standard cpue's, lpue’s and standard correction factors to be used (within a MS) for transferring effort across gear groups with different cpue (Reg. (EC) No 1342/2008 Art 17, paragraph 5).

Commission Regulation (EU) No 237/2010 article 8(b) describes:

Correction factor = cpue donor gear /cpue receiving gear

The cpue's and lpue’s have to be calculated per area per gear group (regulated gear) and presented in a table. Another table shall be provided for the standard correction factors between regulated gear groups based on each cpue’s and lpue’s. Correction factors >=1 will all be set at value 1.

7. To assess and present in a tabular form the annual partial fishing mortalities of cod, for landings and discards separately, as generated by the effort regulated gears (Annex I to Council Reg. 1342/2008) and the non-regulated gears by Member States, the latter non-regulated gears as a single lump group. The trends in gear group specific partial fishing mortalities shall then be compared with (correlated against) the trends in gear group specific fishing effort in units of kW days at sea of the gears mentioned by Member States.

8.To quantitatively assess the annual trend in cod mortality that would have resulted from the fishing mortality adjustments in Article 7 and the trends in fishing effort that would have resulted from Article 12 of Council Reg. 1342/2008, for the period 2008 to 2012. STECF is then requested to quantitatively assess the partial cod fishing mortality and fishing effort trends of the regulated gears that were observed during 2008 to 2012. STECF is requested to comment on the questions if and to which extent the Member States application of Articles 13, Paragraph 2, points a, b, and c have supported the reduction of cod fishing mortality as defined in Article 7 and 9 and whether the increased fishing effort deployed by Member States was commensurate with the fishing mortality level to be achieved in 2012. The group is requested to quantify for each Member State and effort group (Annex I to Council Reg. 1342/2008) the partial target fishing mortality of cod, and partial fishing mortality of cod generated in excess of the cod plan, and, if a significant correlation between cod fishing mortality and fishing effort exists, the corresponding amounts of target fishing effort and of the excessive fishing effort in units of kW.days at sea.

6 – Assessment of fishing effort deployed by fisheries and métiers which will be affected by the extension of the cod recovery plan to the Celtic Sea

Terms of Reference:

1. To provide historical series, as far back in time as possible, according to each of the following fishing area:

(i) Celtic Sea (total of ICES divisions VIIb, VIIc, VIIe, VIIf, VIIg, VIIh, VIIj and VIIk) and

(ii) combined area Bristol Channel/South-East Ireland (total of the subset of ICES divisions VIIf and VIIg)

The data should also be broken down by:

Member State;

Regulated gear types designed in **Annex I** to **R(EC) No 1342/2008**;

Unregulated gear types catching cod;

for the following parameters:

a. Fishing effort, measured in kW.days, in GT.days and in number of vessels concerned

b. Catches (landings and discards provided separately) of cod by weight and by numbers at age.

c. Catches (landings and discards provided separately) of non-cod by species, by weight and by numbers at age.

d. Landings Per Unit of Effort (LPUE) and Catches Per Unit Effort (CPUE) of cod (such data shall be issued by Member state and fishing effort groups as designed in **Annex I to R(EC) No 1342/2008**).

2. When providing and explaining data in accordance with point (1), the following **specific question** should be answered as well:

For VIIf+VIIg only, identify the **main species** (volume and percentage) caught per gear category, and related trends in recent years. Specify when this calculation has taken account of discards as well.

Special request: to analyse discards and their development per gear type in each of the ICES divisions concerning hake, monkfish and megrim. This analysis should be carried out referring to fish lengths/age of discards.

3. To assess the fishing effort and catches (landings and discards) of cod and associated species corresponding to vessels of length overall smaller than 10 metres in each fishery, by gear (corresponding to regulated and unregulated gear as defined in Annex II framework) and by Member State according to sampling plans implemented to estimate these parameters.

5. To comment on data quality and to highlight any unexpected evolutions in the estimated parameters which are not in line with the general trend, in particular as regards the discard estimates of cod, Norway lobster and pelagic species.

6. To assess and present in a tabular form the annual partial fishing mortalities of cod, for landings and discards separately, as generated by the gears defined in Annex I to Council Reg. 1342/2008) and the other gears by Member States, the latter other gear groups as a single lump group. The trends in gear group specific partial fishing mortalities shall then be compared with (correlated against) the trends in gear group specific fishing effort in units of kW days at sea of the gears mentioned by Member States.

7 – Assessment of fishing effort deployed by vessels under the Southern hake and Norway lobster plan (Council Regulation (EC) No 2166/2005) operating in the Atlantic waters of the Iberian Peninsula as specified in Annex IIB of Council Regulation (EC) No 43/2012 and 44/2012

Terms of Reference:

1. The STECF is requested to compile, validate, analyse and assess the following historical data on fishing effort and catches in relation to vessels under the Southern hake and Norway lobster plan (Regulation (EC) 2166/2005):

details by Member State on both effort (2000-2012) deployed and catches (2003-2012) made by all fishing vessels, included those with less than 10 meters, in each fishery, broken down by age, gear type, and mesh size

The data should be broken down and assessed by:

Member State;

Regulated gear types, area as laid down **in Annex IIB of Council Regulation (EC) No 43/2012 and 44/2012** and associated special conditions as laid down in Appendix 6 to the data call; unregulated gear types catching hake and Norway lobster;

for the following parameters:

a. fishing effort measured in kW.days, in GT.days and in number of vessels concerned;

b. catches (landings and discards provided separately) of hake and Norway lobster by weight and by numbers at age;

c. catches (landings and discards provided separately) of species other than hake and Norway lobster in areas covered by Annex IIB mentioned above (a particular attention should be paid to Anglerfish catches), by species, by weight and by numbers at age;

d. landings Per Unit of Effort (LPUE) and Catches Per Unit Effort (CPUE) of hake, Norway lobster and Anglerfish in areas covered by Annex IIB (such data shall be issued by Member state, fishing gear and special conditions listed in **Annex IIB of Council Regulation (EC) No 43/2012 and 44/2012**);

In assessing the data described above, particular attention should be paid to:

the quality of estimates of total catches and discards;

both the fishing effort and catches including landings and discards of hake, Norway lobster, anglerfish, and associated species including pelagics in relation to vessels of overall length smaller than 10 metres in each fishery, by gear (regulated and unregulated gears) and by Member State. The representativeness of data originated from sampling schemes should also be assessed.

to the description of the spatial distribution of the fishing effort of regulated gears deployed in the Atlantic waters of the Iberian Peninsula according to data reported in logbooks on the basis of ICES statistical rectangles with the aim to determine to what extent fishing effort has moved from long distance to coastal areas since the implementation of the fishing effort regime.

An excel table listing the kW.days from 2000 to 2012 broken down per gear type, special condition and Member State should be made available.

to comment on data quality and to highlight any unexpected evolutions in the estimated parameterss which are not in line with the general trend, in particular as regards discard estimates of hake, Norway lobster, anglerfish and pelagic species.

2. In the context of the revision of the current Southern hake and Norway lobster recovery plan (Council Regulation (EC) No 2166/2005) and on the basis of the data provided, the STECF is requested to assess the fishing effort regime, in particular commenting on the quality and completeness of these data used to assess the impact of future effort management measures proposed by the Commission.

3. To compare the evaluation of days allocated to the vessels carrying regulated gears (allowed activity) and really used by those vessels.

4. To assess the correlation between fishing mortality rates and the effort in units of kW days at sea deployed by Member States.

If a good correlation between fishing mortality rates and spend fishing effort is found, the WG is asked to explain or describe it. In case the correlation between the nominal fishing effort and the fishing mortality rates is weak, the WG is asked to describe whether this is due to a wrong descriptor (wrong descriptor for fishing capacity) or due to other factors.

5. To identify, based on available data on fisheries specific landings and effort by statistical rectangle, ways to estimate standardised catchability indices for Nephrops, hake and monk in ICES Div. 8c and 9a, considering the best practice to account for discards and to raise landings to catch figures. Detailed maps on estimated annual catchability indices by species shall then be presented for these areas.

8 – Assessment of fishing effort deployed by fisheries and métiers which are currently affected by fishing effort management schemes defined in the Western Channel (Western Channel sole stocks ICES zone VIIe, Annex IIC to Regulation (EC) No 43/2012)

Terms of Reference:

1. To provide historical series, as far back in time as possible, according to each of the following fishing area:

Western Channel (ICES division VIIe)

The data should also be broken down by

Member State;

Regulated gear types designed in **Annex IIC** to **R(EC) No 43/2012** (and by associated special conditions defined therein as far as relevant);

Unregulated gear types catching sole;

for the following parameters:

a. Fishing effort, measured in kW.days, in GT.days and in number of vessels concerned.

b. Catches (landings and discards provided separately) of sole by weight and by numbers at age.

c. Catches (landings and discards provided separately) of non-sole by species, by weight and by numbers at age.

d. Landings Per Unit of Effort (LPUE) and Catches Per Unit Effort (CPUE) of sole (such data shall be issued by Member state and fishing gear listed in **Annex IIC to R(EC) No 43/2012**).

2. To assess the fishing effort and catches (landings and discards) of sole and associated species corresponding to vessels of length overall smaller than 10 metres in each fishery, by gear (corresponding to regulated and unregulated gear as defined in Annex II framework) and by Member State according to sampling plans implemented to estimate these parameters.

4 To assess the catches (absolute values, landings and discards provided separately) and effort deployed in 2011 and 2012 corresponding to vessels participating in trials on fully documented fisheries, by species, by gear and Member State, with the aim to determine the quality of the data submitted, the potentials and limitations of the fully documented fisheries and to what extend in particular catches (absolute values, landings and discards provided separately) differs from the figures estimated by the STECF for vessels not participating in these trials. STECF is requested to quantify

and comment on the extent of changes in sole selectivity by FDF fisheries in comparison with the fisheries not participating in FDF schemes.

4. To plot, the spatial distribution of the fishing effort of regulated gears deployed in the Western Channel, according to data reported in logbooks on the basis of ICES statistical rectangles and to provide interpretation of any changes or trends.

5. To quantify the annual days at sea allocated to the vessels carrying regulated gears (allowed activity) and the uptake of such effort allowances.

6. To comment on data quality and to highlight any unexpected evolutions in the estimated parameters which are not in line with the general trend, in particular as regards the discard estimates of sole, plaice, Norway lobster and pelagic species.

7. To assess and present in a tabular form the annual partial fishing mortalities of sole, for landings and discards separately, as generated by the effort regulated gears (Annex I to Council Reg. 1342/2008) and the non-regulated gears by Member States, the latter non-regulated gears as a single lump group. The trends in gear group specific partial fishing mortalities shall then be compared with (correlated against) the trends in gear group specific fishing effort in units of kW days at sea of the gears mentioned by Member States.

9 - Assessment of fishing effort and evaluation of management measures to be assessed in 2009 (Deep sea and Western Waters effort regime)

Terms of Reference:

1. To provide historical series, as far back in time as possible, according to each of the following fishing areas:

(i) ICES area I (EU waters; non EU waters), only linked to Deep Sea species

(ii) ICES area II (EU waters; non EU waters), only linked to Deep Sea species

(iii) ICES area III (EU waters; non EU waters), only linked to Deep Sea species

(iv) ICES area IV (EU waters; non EU waters), only linked to Deep Sea species

(v) ICES area V (EU waters; non EU waters)

(vi) ICES area VI (EU waters; non EU waters)

(vii) ICES area VII excluding VIId (EU waters; non EU waters)

(viii) ICES division VIId

(ix) the Biologically Sensitive Area as defined in Article 6 of Reg (EC) No 1954/2003

(x) ICES area VIII (EU waters; non EU waters)

(xi) ICES area IX (EU waters; non EU waters)

(xii) ICES area X (EU waters; non EU waters)

(xiii) ICES area XII (EU waters; non EU waters), only linked to Deep Sea species

(xiv) ICES area XIV (EU waters; non EU waters), only linked to Deep Sea species

(xv) CECAF area 34.1.1 (EU waters; non EU waters)

(xvi) CECAF area 34.1.2 (EU waters; non EU waters)

(xvii) CECAF area 34.1.3 (EU waters; non EU waters)

(xviii) CECAF area 34.2 (EU waters; non EU waters)

The data should also be broken down by

Member State;

The following gear types:

– <u>Regulated gear types</u>

- Beam trawls
- Bottom trawls & demersal seines
- dredges
- drifting longlines or set longlines (bottom)
- driftnets or set gillnets
- trammel nets
- pots & traps

– <u>Unregulated gear types:</u>

- Pelagic trawls and pelagic seines;
- longlines (surface)

for the following parameters:

a. Fishing effort, measured in kW.days, in GT.days and in number of vessels concerned

b. Catches (landings and discards provided separately) by weight of:

– 5 most important (in weight landed) demersal species excluding scallops, edible crab, spider crab,
– Scallops
– Spider crab and edible crab
– 5 most important (in weight landed) Deep-sea species (according to Annex I and II of Reg 2347/2002), only related to fisheries which have been identified with special condition DEEP
– 4 most important (in weight landed) pelagic species, plus always tuna-like species (SKJ,ALB,YFT,BET,SWO).

c. Landings Per Unit of Effort (LPUE) and Catches Per Unit Effort (CPUE) by Member State and gear, given by total catches of the gear divided by kW-days and GT-days.

2. When providing and explaining data in accordance with point (1), the following **specific question** should be answered as well:

Discuss whether additional data on fishing depth and VMS position could improve the analysis and interpretation of deep sea fisheries, and how these data could be called from MS, processes and presented

3. To identify recent effort trends in pelagic fisheries where possible, in particular in areas XI, X and CECAF areas.

4. To comment on data quality and to highlight any unexpected evolutions in the estimated parameters which are not in line with the general trend, in particular as regards the discard estimates of pelagic species.

10 – Assessment of fishing effort deployed by fisheries and métiers which are currently affected by the multiannual plan for the sustainable exploitation of the stock of common sole in the Bay of Biscay (R(EC) No 388/2006)

Terms of Reference:

1. To provide historical series, as far back in time as possible, according to each of the following fishing areas:

ICES division VIIIa, and

ICES division VIIIb

The data should also be broken down by:

Member State;

Type of gear (as laid down in **Annex IV of Commission Decision 2008/949/CE**) for regulated vessels (as laid down in **Article 5 of R(EC) No 388/2006)**

Type of gear (as laid down in **Annex IV of Commission Decision 2008/949/CE**) for unregulated vessels (as laid down in **Article 5 of R(EC) No 388/2006)**

for the following parameters:

a. Fishing effort, measured in kW.days, in GT.days and in number of vessels concerned

b. Fishing capacity in GT

c. Catches (landings and discards provided separately) of common sole (*Solea solea*) by weight and by numbers at age.

d. Catches (landings and discards provided separately) of species other than common sole, by weight and by numbers at age

2. To assess the fishing effort and catches (landings and discards separately) of common sole and associated species corresponding to vessels of length overall smaller than 10 metres in each fishery, by gear and by Member State.

3. To describe the spatial distribution of the fishing effort in units of hours fished deployed in the Bay of Biscay, according to data reported in logbooks on the basis of ICES statistical rectangles, with the aim to determine the spatial distribution of fishing effort and its development among the time period.

4. To comment on data quality and to highlight any unexpected evolutions in the estimated parameters which are not in line with the general trend, in particular as regards discard estimates of sole and pelagic species.

5. To assess and present in a tabular form the annual partial fishing mortalities of sole, for landings and discards separately, as generated by the major gear types and separately for vessels with and without the special fishing permit (>2 tons of sole/a). The trends in gear group specific partial fishing mortalities shall then be compared with (correlated against) the trends in gear group specific fishing effort in units of kW days at sea of the gears mentioned by Member States.

3.2 Participants

Section 7 of the present report lists the participants of the STECF EWG 13-06 and 13-13.

4 DATA USED

The following sections provide an overview on data definition, acquisition, and evaluation procedures agreed by the expert working group.

There are also provided experts' descriptions regarding the national data features/quality as submitted by the Member States in response to the DCF data call in 2013 for fishing effort regime evaluations.

The national sections provide specific information regarding the nations' methods applied to estimate the days at sea, and if the applied method is regarded as being consistent with the provisions of the DCF or the Control Regulation (Coun. Reg. No. 1224/2009). However, STECF EWG 13-13 is unable to evaluate these national statements.

Furthermore, the national data quality sections for the Baltic provide information regarding the consideration of drifting longlines (LLD) in the effort regulated gear category LONGLINE (LL) of the DCF data calls for fishing effort regime evaluations in 2013 and earlier.

4.1 Report Notations

4.1.1 Baltic Sea

To identify the categories assessed for effort and catch this working group adopts terminology that matches definitions made in the management plan for Baltic cod (R(EC) 1098/2007). This means that all trawls, Danish seines, gill nets, entangling nets or trammel nets with mesh size >=90mm and longlines were assumed to be regulated gears (Table 4.1.1.1). Remaining gear and mesh size combinations were taken to be unregulated gears (Table 4.1.1.2).

Sub-Areas were defined according to Council Regulation (EC) 1098/2007. This means that Subdivision 22-24 is declared as fishing area “A”, Subdivision 25-28 as “B” and Subdivision 29-32 as “C”.

Table. 4.1.1.1 Regulated gear types, mesh sizes and special conditions as defined in Reg. (EC) No. 1098/2007.

Gear	Mesh Size	SPECON
OTTER	>=90mm	none
OTTER	>=90mm	BACOMA
Danish Seine	>=90mm	none
Danish Seine	>=90mm	BACOMA
Pelagic Trawl	>=90mm	none
Pelagic Trawl	>=90mm	BACOMA
Pelagic Seine	>=90mm	none
Pelagic Seine	>=90mm	BACOMA
Gill net	>=90mm	none
Trammel net	>=90mm	none
BEAM	>=90mm	none
Longlines		

Table 4.1.1.2 Unregulated gear types, mesh sizes and special conditions as defined in Reg. (EC) No. 1098/2007.

Gear	Mesh Size	SPECON
OTTER	<90mm	none
Danish Seine	<90mm	none
Pelagic Trawl	<90mm	none
Pelagic Seine	<90mm	none
Gill net	<90mm	none
Trammel net	<90mm	none
Beam Trawl	<90mm	none
DREDGE	all	none
POTS	all	none

STECF EWG 13-13 noted that the new variable FISHING_ACTIVITY_DAYS was defined in Table D of the 2013 DCF data call to support fishing effort regime evaluations. This new variable required a re-submission of the whole time series of data and generally the Member managed to cover the request. Thus, new analyses are presented in the Baltic Sea section of the presented report.

4.1.2 Cod Zones Multi-annual Plan

The compilation of effort data as described in this report represents a continuation of a process which was initiated in association with the establishment of recovery plans for various European cod and hake stocks.

In addition to other properties, major gear types are used to identify fisheries which are not effort regulated. The notation and categorisation effort regulated fisheries used has reflected that defined in the relevant technical regulations. The most recent revision of the cod recovery plan, and the associated effort regime are described in Regulation 1342/2008.

Under the revised ‘cod plan’ the following gear groupings are set out in Annex I of the Regulation together with areas in which they apply. Throughout the report reference is made to gears such as TR1, TR2 etc. Under the revised scheme Member States are allocated ‘effort pots’ in KW*days for each category which can then be managed nationally. EU allocated ‘days at sea’ per vessel are no longer applicable. The following summary of gear and area codes that apply in the current cod plan is taken from Annex 1 of Regulation 1342/2008.

STECF 13-13 notes that, in accordance with the ToR, the areas of the plan for the North Sea cod were split into Skagerrak (3b1), North Sea and 2 EU (3b2) and Eastern Channel (3b3). The present report provides the requested fisheries parameters by these sub-areas 3b1, 3b2 and 3b3.

ANNEX I
Effort groups are defined by one of the gear groupings set out in point 1 and one of the geographical areas set out in point 2.

1. Gear groupings

(a) Bottom trawls and seines (OTB, OTT, PTB, SDN, SSC, SPR) of mesh:
TR1 equal to or larger than 100 mm,
TR2 equal to or larger than 70 mm and less than 100 mm,
TR3 equal to or larger than 16 mm and less than 32 mm;

(b) Beam trawls (TBB) of mesh:
BT1 equal to or larger than 120 mm
BT2 equal to or larger than 80 mm and less than 120 mm;

(c) Gill nets, entangling nets (GN);

(d) Trammel nets (GT);

(e) Longlines (LL).

2. Groupings of geographical areas:
For the purposes of this Annex, the following geographical groupings shall apply:
(a) Kattegat;
(b) (i) Skagerrak; (ii) that part of ICES zone IIIa not covered by the Skagerrak and the Kattegat;
ICES zone IV and EC waters of ICES zone IIa; (iii) ICES zone VIId;
(c) ICES zone VIIa;

(d) ICES zone VIa.

This categorisation is relatively simple when compared to that of the previous version of the cod recovery plan , and the number of ‘special conditions’ under which vessels have differing allocations of effort is relatively restricted. The current cod recovery plan makes allowance for vessels which can demonstrate a track record of having caught less than 1,5% cod to be excluded from the effort regime (Regulation 1342/2008, Article 11, para 2b). There is also scope for groups of vessels to be allocated additional effort if they participate in discard reduction or cod avoidance schemes leading to equivalent or greater reductions in cod mortality than the corresponding effort restriction (Regulation 1342/2008, Article 13, para 2c). These conditions are represented in the database as follows:

Condition	Code
Effort deployed by those boats granted the <1.5% derogation excluding them from the effort regime	CPart11
Effort deployed by vessels operating in Member State schemes under Article 13: highly selective gear with less than 1 % cod.	CPart13A
Effort deployed by vessels operating in Member State schemes under Article 13: cod avoiding fishing trips with less than 5% cod.	CPart13B
Effort deployed by vessels operating in Member State schemes under Article 13: cod avoidance or discard reduction plans.	CPart13C
Effort deployed by vessels operating in Member State schemes under Article 13: fisheries off West of Scotland to the west of the cod line.	CPart13D

The new requested aggregation required data resubmission for the years 2009-2011 in addition to the data update for 2012 as defined in the 2013 DCF data call. The majority of the Member States aggregated their figures accordingly and thus the present report comprises updated analyses.

4.1.3 Southern hake and Nephrops

Notation devised for effort categories specified under Annex IIB of Regulation (EC) No. 43/2012 remains the same as in previous reports. Under Annex IIB the gears group is defined under point 2 and special conditions under point 6.1. The group of gears includes bottom trawls, gill nets and bottom long lines all together. In 2007 (Annex IIB in R (EC) No. 41/07) there are separate groups for trawl (3a), for gill nets (3b) and for longline (3c). These gear groups were merged in the 2008 legislation. The working group considered maintaining the 3 separate categories is important in terms of maximising the clarity of information from results. Therefore, gear groups and codifications have been kept as in 2007. Table 4.1.3.1 links notation with gear group and special conditions. So, for example, a vessel using a gill net of mesh size ≥ 60mm and conforming to the hake catch composition rules would belong to derogation “3.b IIB61”. In order to provide additional insight into fisheries specific impact, the EWG 13-13 also defined trammel nets as a separate metier using the code “3t”.

Table. 4.1.3.1 Gear group and special conditions of Annex IIB, Reg. (EC) No. 43/2012

Gear group (Regulation (EC) 41/2007)			Special condition			Effort Regime Derogation
Regulation point	Gear	Mesh size range (mm)	(Regulation(EC) 43/2012)		EWG code	
			Regulation point	Description		
3.a	OTTER	≥ 32	6.1	Hake landings <5 tonnes in 2009 or 2010 AND *Nephrops* landings <2.5 tonnes in 2009 or 2010	IIB61	Yes
3.b	GILL	≥ 60				
3.c	LONGLINE	-				
3.a	OTTER	≥ 32		Other cases	none	No
3.b	GILL	≥ 60				
3.c	LONGLINE	-				

OTTER = Trawl or Danish seine or “similar gears”
GILL = Gill net

LONGLINES = Bottom longlines

4.1.4 Western Channel sole

Under Annex IIC gear groups are defined under point 3 and special conditions under point 7. Table 4.1.4.1 links notation with gear group and special conditions. So, for example, a vessel using a static net of mesh size less than 220mm belongs to derogation “3.b”.

Table. 4.1.4.1 Gear group and special conditions of Annex IIC, Reg. (EC) No. 40/2008. Note that no special conditions are currently in operation under Annex IIC.

Derogation			Mesh size range		Special Condition
Gear group Point 3	Special condition Point 7	Gear	mesh size mm From	mesh size To mm	
3.a		BT	80	inf	none
3.b		GE & TR	0	219	none

BT = Beam Trawl
GE = Gill net or entangling net
TR = Trammel net

4.1.5 Celtic Sea

STECF EWG 13-13 defined the codes of gears as identical to the ones for the cod zones given in section 4.1.2.

4.1.6 Bay of Biscay

STECF EWG 13-13 defined the codes of major gear groups as identical in the 2013 DCF data call with an identification of the boats holding a special fishing permit as defined in R (EC) No 388/2006, encoded as SBcIIIart5.

4.1.7 Western Waters and Deep Sea

STECF EWG 13-13 defined the codes of major gear groups as identical in the 2013 DCF data call with an identification of the boats conducting deep sea trips, encoded as DEEP.

4.2 Data call

The DCF data call 2013 to support fishing effort regime evaluations published on 20 February 2013 with a deadline on 3 May 2013. The data call is fully documented at the JRC DCF web page: https://datacollection.jrc.ec.europa.eu/home

The STECF EWG 13-13 notes that the 2013 data call is largely consistent with the data call issued in 2012 for the same purpose. However, there was one new parameter added to the specific Baltic Sea Table D defined as fishing activity in units of days at sea.

4.3 Data policy, formats and data availability

Originally, the catch and effort data base structures used by STECF-SGRST were developed by the ICES Study Group on the Development of Fishery-based Forecasts (ICES CM 2004/ACFM:11, 41 pp.) with few amendments required for the review of specific fishery regulations. Over time, there have been numerous changes to the original database and the way in which data are stored and accessed in order to reflect changes to some of the effort regimes and to accommodate data from deep-water and Fully Documented Fisheries.

Experts reported on national data policies for the national fleet specific landings, discards and effort data and generally supported the continued use of the data by STECF but with required permission for any use by other scientific or non-scientific groups. This implies that national experts need to be contacted for their consent before granting access to the data.

JRC requests to be informed about applications for data access and any notifications.

4.3.1 Data availability Table A Catch 2003-2012

Table 4.3.1.1 Overview of the catch data submission for the 2013 Fishing Effort Regimes data call. In bold the dates when catch data where submitted after the official submission deadline (3th of May).

Country	Data Submission	First Submission (Deadline 3-May)	Last Re-submission
BEL	DCF website	18-April	
DEU	DCF website	2-May	**5-May**
DNK	DCF website	1-May	**15-May**
ESP	DCF website/File corrected during the meeting	**13-May**	**8-October**
EST	DCF website	3-May	
FIN	DCF website	3-May	
FRA	DCF website	**17-May**	**20-June**
GBR	DCF website/	**12-Jun**	**16-June**
GBR SCO	DCF website	3-May	**9-October (NIR)**
IRL	DCF website	3-May	
LTU	DCF website	2-May	
LVA	DCF website	30-Apr	
NLD	DCF website	**15-May**	
POL	DCF website	**7-May**	
PTR	DCF website/File corrected during the meeting	3-May	**17-June**
SWE	DCF website	1-May	

4.3.1.1 Belgium

A number of 2676 records were submitted for 2012. No update for previous year's data was needed. There were few records with missing mesh size information for gear types such as trammels, dredges and gillnets. Moreover, many records regard species that are not listed in the official data call, like BLL, RJN, RJM, RJC and RJH. The only special condition reported for 2012 data was SBCIIIart5. This year, all officially recorded species by the Belgian authorities were provided. However, it should be noted that the sum of all provided landings do not match the total Belgian landings as there are a minority of species landed and recorded as e.g. "other demersal" or "other crustacean" which are not provided to the EGW 13-13.

Belgium provided fleet specific landings data for 2003-2012 derived from official logbook databases for all vessels ≥10 meters. The data covers all areas in which the Belgian fleets are active and conform to the requested aggregation, by quarter, area, gear and mesh sizes.

The species provided are: anglerfish, bib, brill, brown shrimp, cod, conger eel, cuttlefish, dab, dogfish, edible crab, flounder, great scallop, grey gurnard, haddock, hake, horse mackerel, lemon sole, ling, mackerel, megrim, Nephrops, octopus, plaice, pollack, red gurnard, saithe, sea bass, skates and rays, sole, spurdog, squid, striped mullet, tub gurnard, turbot, whelk, whitch flounder, whiting and wolffish.

The age composition on landings for sole and plaice in ICES subdivisions IV, VIIa, VIId, VIIfg and sole in subdivision VIIIa and b have been provided by quarter for the Belgian beam trawlers. The total numbers of samples, as well as numbers at aged by quarter have been apportioned in the same ratio as total quarterly beam trawl fleet landings to annual landings.

Discard data for 2004-2011 were provided from the Belgian Beam trawl fleet for the following species: anglerfish, brill, cod, dab, haddock, hake, lemon sole, plaice, saithe, sole, skates and rays, turbot and whiting. For 2012 discard information was also provided for bib, ling, Striped mullet, pollack and whitch flounder The areas covered are 4, 7a, 7d, 7e, 7f, 7g, 8a and 8b. Belgian discard data represent all ages and are disaggregation by age for cod in areas 4, 7a, 7e, 7f and 7g; for sole in areas 4, 7a, 7d, 7f, 7g, 8a and 8b; and for plaice in areas 4, 7a, 7d, 7f and 7g. The discards information for the other species mentioned above are without disaggregation by age. Information by area for all observer-trips during the year has been merged together, giving an annual percentage of discards estimate per species. The annual estimates of discard rate have been assumed to apply in each of the 4 quarters.

There is no information on misreporting. The landings in the database are based on combined information of logbook data and sale slips. The actual landed weight is split according the logbook information on hours fished in the respective rectangles.

As Belgium does not have trip-by-trip information on the true mesh size for its fleets for 2003-2006, Belgium (as well as other countries) agreed to assume certain mesh sizes for its beam trawler fleets. Beamers operating in the Bay of Biscay (VIIIa,b) were assumed to use a 70-79 mm mesh size as this is the minimum legal mesh size in that area for beamers. For the North Sea, the trips were split according to the rectangles reported in the logbooks, and mesh sizes were allocated in line with Council Regulation (EC) N° 2056/2001. This regulation stipulates that beam trawlers are prohibited to use less than 120 mm in ICES Division IV to the north of 56° 00’ N. Therefore all beam trawl information from this part of ICES Division IV was accounted against an assumed >120mm mesh size. The same regulation also stipulates that within the rectangle with coordinates along the east coast of the UK between 55° 00’ N and 56° 00’ N and the points 55° 00’ N – 05° 00’ E and 56° 00’ N – 05° 00’ E, beam trawlers can use 100 to 119 mm mesh size. Here also it was assumed that the mesh size used by the Belgian Beam trawl fleet was 100-119 mm. For the rest of ICES Division IV (the southern part) a mesh size of 80-89 mm was assumed for the beam trawlers. Apart from these assumed mesh size which are based on rectangle information from logbooks, it was also assumed that the shrimp fishery used a mesh size of 16-31 mm. The mesh size of the beam trawl fleets in the other area’s was assumed to be 80-89 mm. Since 2007 mesh sizes used by beam trawls operating in different areas have been based on the true mesh sizes used on each trip.

The Belgian gear categories are: beam, dredge, gill, longline, otter, and trammel. For trammel nets, no assumptions of mesh sizes were made. The only specific condition reported for 2012 data was SBCIIIart5 for all Belgian vessels operating in areas 8a and 8b.

Belgium did not provide any information for vessels under 10m.

4.3.1.2 Denmark

A number of 154019 records were submitted for 2003 - 2012, the whole time series. There were few records with missing gear information as well as few records for pots, dem_seines, gills, otters without any mesh size reported. No BACOMA or T90 specific conditions.

Danish data were submitted on time, and with the requested information for all tables. However, a major revision was performed in 2012, and full time series were submitted for the tables A-D, thus ensuring improved consistency in the extraction methods used across years.

The revised extraction procedures have been made compatible with the RDB FishFrame database, in order to get a unique raising procedure for all Danish catch information (discards and age-based information), thus improving the consistency of data reported to the various forums within e.g. ICES and STECF. As such, data raised in FishFrame will now be used for the STECF Effort data call. Where the categories in the FishFrame format and the STECF Effort format are not the same, the data are scaled according to the landings.

All records (154019 rows in Table A) passed the Data Submission filters, and only a very small proportion of the reported Danish fisheries activities have missing information. The resubmission of older years means that the information on previous special conditions implemented between 2004 and 2008 during the first cod plan is not available anymore.

The Danish 2012 submission still does not cover the special conditions BACOMA or T90 in the Baltic, as these are not compulsory to report in logbooks according to control regulations 1224/2009 and 404/2011.

4.3.1.3 Estonia

A number of 532 records were submitted for 2012. No updates for previous year's data. There were many records with inconsistent mesh size ranges.

STECF-EWG 13-13 notes that discards were provided for flounder only. The reason for that is the discarding ban in the Estonian fishery in the Baltic Sea according to MS legislation. The data set presented includes many inconsistent mesh sizes. The drifting long –lines are not used in Estonian fishery.

4.3.1.4 Finland

A number of 385 records were submitted for 2012. No updates for previous year's data. Finish data were submitted in an inconsistent format together with a hint towards the data confidentiality clause in the DCF.

STECF EWG 13-13 could not make use of the Finish data given its specific ToR.

4.3.1.5 France

A number of 20538 records were submitted for 2012. No updates for previous years data. There were few records with missing area information as well as records for pots without any mesh size reported. Only data regarding species and gears that are requested in the official data call have been submitted as a consequence records regarding species or gears not requested are missing.

The specific conditions Cpart11, Cpart13B, IIB72ab, DEEP and SBcIIIart5 have been provided for eligible vessels and fisheries for 2012. The data were not updated for the 2009-2011 on this specific issue.

France provided landings data for 2003-2012 derived from official logbook databases for all registered vessels 10m and over and from monthly declarative forms (contain declarative monthly data on fishing effort and catches per species by dates, locations and gears) for all registered vessels under 10m (logbooks are not mandatory for these vessels but they are covered by these monthly declarative forms). The data covers all areas requested in the data call and conforms to the requested aggregation, by quarter, area, gear and mesh sizes.

Neither biological data (age data) nor discards data were provided. Discards data have been provided the years before for 2010 and 2011 but care is required in the use of these data to draw firm conclusions about catch composition.

4.3.1.6 Germany

A number of 16377 records were submitted for 2004 and 2009 - 2012 time periods. There were few records with missing gear information as well as few records for pots, dem_seines, gills, otters without any mesh size reported.

Fleet specific landings and estimated discard data were provided as outlined in the data call for 2003-2012 derived from official logbook data covering all vessels ≥10m. For the Baltic information for vessels >=8m is provided. Information on landings are provided for vessels <10m (North Sea) and <8m (Baltic) based on landings declarations from these vessels in a more aggregated format as logbooks are not mandatory for these vessels. All data provided do not include unallocated landings. The estimation of discards is based on about 20-30 observer trips per year. It is impossible to cover all quarter-gear-mesh size combinations in the data call. Therefore, final discard estimates in this report are to some extent based on observations from other countries. The data consider the aggregation by quarter, area, gear, mesh size, and existing derogations including special conditions of 8.1.a, 8.1.c, 8.1.d, 8.1.e and 8.1.f for the years 2003-2008 as requested. For 2009 onwards the special conditions from the new cod management plan are used. Some few records did not pass the Data Submission filters when some information on e.g. gear, mesh size was missing, but these records represent only a very small proportion of the reported German fisheries activities. They are related to fishing operations with seldom gears for which no code is available in the STECF data call.

4.3.1.7 Ireland

A number of 73788 records were submitted for 2009 - 2012. There were few records with missing gear information as well as few records for pots, gills, otters without any mesh size reported.

In 2013 Ireland provided fleet specific landings data for 2009-2012 derived from declared landings within the national logbook database (IFIS) for all vessels ≥10 meters in length. Operational landings information was used to provide landings data within the Biologically Sensitive Area (BSA). All species requested by the group and landed by Irish vessels have been provided in the requested aggregation. The following special condition information was supplied: none, CPart13a, CPart13b, CPart13c, CPart13d, CPart11 and DEEP. SPECON DEEP is a duplication of effort within the relevant areas. This submission adds to unchanged 2003-2008 data submitted in 2012.

Under 10 meter vessels are not required to complete logbooks, therefore landings data from these vessels are obtained from monthly reports. These reports provide species live weight by ICES area on a monthly basis. No vessel, gear, or effort information is recorded. There is some doubt as to the accuracy of these monthly reports.

It was not possible to accurately aggregate data to the level of EU, coast, and RFMO. Data was assigned according to the following: Where an EU category existed within an area, all data from that area was categorised as EU, with the exception of ICES division X assumed to be RFMO. Those ICES divisions without an EU category where assumed as 1 coast and 2 coast.

There is no quantitative information on misreporting although area misreporting for cod is know to be an issue between VIIg and VIIa.

Minor revisions were made to the 2009-2011 data due to continuing revisions and improvements to the national database.

Irish biological landings information is not recorded with mesh size information, this was re-constructed by linking to the logbooks database, where possible. The age composition of the landings was estimated for each quarter of 2009-2012, by gear, area and species (any higher level of disaggregation would violate the sampling design). The age compositions were then assigned to each of the remaining categories (vessel_length; mesh,fishery; specon) based on the reported landings in each of these categories.

Similarly, discard data were raised up to the fleet level for each year, quarter, gear, area and species. Fishing effort (hours fished) was used for all species as the auxiliary variable. The age compositions were then assigned to each of the remaining categories (vessel_length; mesh,fishery; specon) based on the effort (kWdays) in each of these categories. Discards that were observed to be zero are included.

Warnings:

1) Differences between ICES stock assessment working group data STECF data will arise because different levels of stratification were used; we applied the most disaggregated level of stratification possible for the STECF data call, while working group estimates are generally produced by merging a number of strata. Additionally, the discard estimates for the working groups are produced using different auxiliary variables for certain stocks. Because of the large number of species involved it was decided to use a single auxiliary variable for all species.

2) Because the data are estimated by year, quarter, gear and area, it is meaningless to compare age compositions between vessel length categories, mesh size categories and special conditions; the age composition will be identical for all of these sub-categories)

3) Most categories (year, quarter, vessel length, gear, mesh etc) have not been sampled and sample numbers are very low for categories that have been sampled. Therefore the biological data should be treated with extreme caution. It would be more useful to ask for the raw data so this can be aggregated at whatever level is appropriate.

4) There will be many cases where a year-quarter-area-gear-vessel length-mesh-fishery-specon combination has not been sampled but there will be biological information (including ‘observed’ zero values for discards). This is because the biological information is estimated for year-quarter-area-gear combinations and then assigned to the various year-quarter-area-gear-vessel length-mesh-fishery-specon combinations based on landings or effort.

It is possible for numbers-at-age to be <0.001 thousand (i.e. less than one fish). This can arise when a certain year-quarter-area-gear-vessel length-mesh-fishery-specon combination has a very small amount of effort or landings. The numbers-at-age estimated for the year-quarter-area-gear combination will then be multiplied by a very small number. When these numbers are rounded to three decimals, a zero value can result.

4.3.1.8 Latvia

A number of 147 records were submitted for 2012. No updates for previous year’s data.

Latvian data were submitted on time and in accordance with required format. Fleet specific landings, estimated discards and biological data were provided for 2012 only and appended to the previous time series. All data concerning fishing operations e.g. gear, mesh size, area etc. were derived from logbooks and covered all fleet segments.

Discards data were collected under the Latvian National Programme according the sampling strategy. The discard volume was determined in cod fishery: GNS_DEF_110-156_0_0 and OTB_DEF_>=105_1_110. The sampling scheme does not cover all quarter-gear-mesh size combinations in the data call.

Latvian fishermen do not traditionally use drifting lines (LLD).

4.3.1.9 Lithuania

A number of 141 records were submitted for 2012. No updates for previous year's data.

STECF EWG 13-13 notes that discards for cod were estimated and provided only.

Lithuanian fishermen do not traditionally use drifting lines (LLD).

4.3.1.10 The Netherlands

The Netherlands provided landings and discard data for 2012. No updates for previous years were submitted. It is noted however that landings and discards data for all species and fisheries of previous years is being reanalyzed. Results so far indicate that there may be differences between the data generated by the Dutch monitoring and raising programme and the data that is contained in the STECF database. If the analysis is being completed in time, it will be considered to resubmit the complete time series before the October 2013 meeting of the STECF EWG.

After correction of some records all records (1788 rows in Table A) passed the Data Submission filters.

4.3.1.11 Poland

A number of 1592 records were submitted for 2012. No updates for previous year's data. No mesh size range information reported for vessels under 10 meters. No specific condition reported. Few records for vessels > 10m with no mesh size range information mainly for pots and gills. Only 18 records with discard information for COD, FLX, TUR, PLE and FPP.

The following section is kept unchanged from last year report: Comparison of 2011 mesh size data with 2004-2010 shows that they are not consistent and significantly different. Neither mesh size nor SPECON (BACOMA window, T90) information were available from the database for 2004-2010. Thus these information were estimated based on expert knowledge and assumptions. Targeted species assemblages (métier), actually fish species caught and gear used were taken into account to identify mesh size. In 2011 data about mesh size were calculated based on actual information derived from logbooks, this caused that many "-1" values (missing values) which were reported for 2001-2010, become known and changed into "16-31" or "32-54" in 2011. Information on discards was provided for cod (2003-2011) taken in fisheries targeting cod and discards for herring, sprat and flounder was delivered for 2011 only.

4.3.1.12 Portugal

Portugal resubmitted data on landings for the period 2003-2011 and new data for 2012 for all species, correcting to tons what was provided in 2012 in kilograms. Data from all years were resubmitted in kilograms and not in tons as requested in the data call. No differences were found between the resubmitted data in 2012 and the data submitted in 2011.

Some mistakes related to the presence of duplicated lines for the area 9b EU with aggregated data were detected and corrected. The duplicates were allocated to the area 9b RFMO, according to the ID field. The fields "NO_SAMPLES_LANDINGS" or "NO_LENGTH_MEASUREMENTS_LANDINGS" presenting the value “-2” resulting from lines aggregation were corrected to “-1”, meaning that the information is not available. Although most of inconsistencies from previous years in the combination of GEAR*SPECON have been corrected in the data submitted this year, there are still a few mistakes remaining as, e.g. for gears “PEL_TRAWL”, “PEL_SEINE” and “POTS” with special condition “DEEP”.

In the period 2004-2010, hake discards were provided, assuming that they were proportional to the trawl landings. However, considering that, according to the Data Collection Framework raising procedures, discards are raised using effort and not landings and that the data call grouping is not consistent with the sampled DCF métiers, in 2012 hake discards from Portugal were removed from the database.

The Portuguese annual discard estimates have high coefficients of variation (> 30%). The assignment of these data to the data call disaggregated métiers when the métiers do not perfectly match is not possible without making strong assumptions different from those used in the established raising procedures and that could lead to completely different total discard estimates.

Therefore, in 2012, data on hake annual discards by DCF métiers were provided and included in tables and figures in aggregated form.

At present, the procedure used to raise discards from haul to fleet level in the Portuguese trawl fisheries is adapted from Fernandes et al. (2010) (Jardim and Fernandes, in prep.). Using this procedure, species with low frequency of occurrence or abundance in discards (i.e., a large number of zeros in the data set) cannot be reliably estimated at fleet level (Jardim et al., 2011). The frequency of occurrence and abundance of most species in the discards of the Portuguese bottom trawl fleet was below 30%. Consequently, annual trawl discard volumes and length frequencies at fleet level were only estimated for some métiers, species and years.

In what concerns gillnets and trammel nets, sampled from late 2009 onwards, the sampling methodologies used in these fisheries were only recently standardized (Prista and Jardim, 2011). These are only two of the several métiers that can be performed by the so-called Portuguese polyvalent fleet (or multi-gear fleet). Besides nets, the vessels in this fleet are also frequently licensed to use pots and bottom longlines, and frequently carry out several métiers in a single fishing trip and/or switch métiers during the year. Such uncertainties in determining fishing effort at métier level, along with low spatial-temporal coverage of fleet activity and difficulties in raising data from multi-métier fishing trips to fleet level have hampered the estimation of gillnet and trammel net discards. No estimates at fleet level have been performed to date. Bottom longlines are not among the selected métiers for onboard sampling under the DCF National program.

In 2013, discard estimates are presented only for bottom otter trawl. The problem of different metier aggregation in DCF and in the data call request is not yet solved and the total discards by species were allocated to the data call more disaggregated metiers proportionally to their landings, although this procedure is considered inappropriate. In this way, discards are presented for hake and blue whiting for the period 2004-2012 and for some years for Norway lobster and mackerel. Zero discards have been reported for black scabbard fish, sole, sea breams, several species of sharks and *Nephrops* in most of the years, No discard estimates were presented for other metiers than trawl due to the reasons presented above.

Age data: There is a serious concern about European hake growth. Tagging experiences show that growth rate could be two times higher than expected, although the true value is uncertain (ICES, 2009). At present, the assessment model is length based (ICES, 2010a).

No age data were provided for hake neither for the other main species. For Norway lobster, there is not a standardized ageing methodology.

4.3.1.13 Spain

<u>Data provided in 2013:</u>

Between May and June of 2013 Spain provided catch data from 2012 by quarter, vessel length range, gear, mesh size range and metier (fishery). Landings were provided for BSA; ICES Subareas 1, 2, 8, 10 and 12; ICES Divisions 5b, 6a, 6b, 7a, 7b, 7c, 7d, 7e, 7f, 7g, 7h, 7j, 7k, 8a, 8b, 8c, 8d, 8e, 9a, 9b and 14b and CECAF Divisions 34.1.1, 34.1.2, 34.1.3 and 34.2.0. Landings were divided by COAST/EU/RFMO zones where appropriate. All landings were split in special condition DEEP and NONE (according to the Effort Regime in Deep Sea fisheries). In ICES Divisions 8c and 9a there were not special condition (IIB72ab) landings (Hake Plan) because no vessel in 2012 has applied for that condition in relation to hake and *Nephrops* recovery plan (Annex IIB of R(EU) No 43/2012). Landings were not divided in either Cod or Sole Plan special conditions owing to lack of time. Landings were provided for 83 of the 122 species of the 2013 data call (the other 39 do not appear in our fisheries). No information about vessels under 10 meters was provided since data source was logbooks, but 2012 Annex IIB (Hake Recovery Plan in 8c & 9a), which is the main Plan for Spain, does not deal with vessels under 10 meters.

Discard data were calculated through the appropriated Spanish discard/landing rate for 8c & 9a gear otter for the following species and years: ANF (2012), HKE (2012), JAX (2012), LEZ (2012), MAC (2007 & 2012), NEP (2004-2005 & 2012), SHO (2005), WHB (2004-2009, 2012). If there were not landings of one species, discard could not have been calculated. This is expected to be corrected in the future raising by effort. 8c & 9a otter Spanish HKE discards from 2004-2009 have been already provided to the group in 2010 (see below). For other cases (ALF 2012, ANE 2007-2009, BLI 2012, BSF 2006-2007, COP 2012, COE 2012, CRE 2012, DCA 2009, DGS 2012, GAG 2012, HAL 2012, LEM 2012, LIN 2012, MAC 2003-2006 & 2008-2009, NEP 2006-2009, POK 2012, POL 2012, RNG 2012, SBR 2004-2009 & 2012, SCE 2012, SOL 2005-2009 & 2012, TUR 2012, WHG 2007 & 2012 and WIT 2012) Portuguese discard rates were applied in order to calculate the Spanish discards in 9a against the criterion of the 8c & 9a experts in the EWG. In all those cases Portuguese discard rates were cero except in MAC 2005 and HAD, LEM, RNG, WHG and WIT 2012.

No of samples of landings, discards and catch and No of length and age measurements of landings, discards and catch were not provided for 2012 due to the lack of time.

Hake and monkfish ages were not provided since there are relevant doubts in the correspondent international working groups about the ageing of these species (see February 2010 STECF Hake Benchmark and 2011-2013 ICES WGHMM reports). Nephrops ages were not provided because there is not a standardized methodology ageing in this species. Other species age information was not provided because lack of time.

Spanish catch data described above were revised through a re-submission on 26 September 2013. EWG13-13 notes that the data re-submission comprises 55,842 records. However, 37,324 records do not specify the vessel length. 3,515 records do not specify the gear used. 953 records have inconsistent area codes, i.e. 6b, 7c, 7j, 8d, 9b, 14b, 34.1.1, 34.1.2. and 34.1.3, as these areas are defined with zonal attachments, i.e. COAST, EU or RFMO. 7,334 records are indicated as duplicates, that means that your data are not fully aggregated over the aggregation fields requested, i.e. COUNTRY, YEAR, QUARTER, VESSEL_LENGTH, GEAR, MESH_SIZE_RANGE, FISHERY, AREA, SPECON, SPECIES. Moreover, certain discard estimates were revised again during the EWG 13-13 on 8 October 2013.

Data provided in 2011 and 2012:

Spain did not provide data in 2011 and 2012; therefore, there are not 2010 and 2011 data.

4.3.1.14 Sweden

A number of 10652 records were submitted for 2011 - 2012 time period. There were few records with missing gear information as well as few records for pots, dem_seines and gills without any mesh size reported.

Sweden has provided catch data, both landings and discards in the required format for the years 2003-2012, including vessels <10m LOA. Age distribution data were submitted for cod landings and discards in the Baltic, Skagerrak and Kattegat and for plaice discards in Skagerrak and Kattegat. Landings in tonnes were retrieved from logbooks and the age distribution data for landings were collected by market sampling. The discard data were collected under the Swedish on board discard sampling programme. Discard data were raised according to the national sampling schemes, stratified by nationally identified fisheries and not by the highly disaggregated vessel length classes and mesh size groups in the STECF data call, to maintain as much stability as possible in the raising procedure and not compromise the quality of the data by extrapolations from very few samples. Discards were then allocated to the more disaggregated format proportionally to the landings of the target species used in the raising. This has the implication that it is not always possible to compare discard rates or age distributions between gears and mesh sizes in the format of the STECF data base since they could have been estimated from the same samples. Vessel length classes were not considered in the stratification and raising. No discards have been submitted for fisheries not covered by the sampling programme. The main nationally identified Swedish fisheries that were sampled for discards (each one treated as one stratum) in 2012 were:

In the Baltic:

- Trawls targeting cod (Mesh size >=105mm, including mid water trawls targeting cod and both trawls with BACOMA exit window and T90 mesh)
- Passive gears (including both gillnets and trammel nets)

In Skagerrak and Kattegat (Skagerrak and Kattegat being treated as separate strata):

- Trawls targeting demersal fish/Nephrops, with a mesh size of >=90mm.(including both TR2 and TR1)
- Trawls targeting Nephrops, with a 35mm sorting grid and a mesh size of 70-89mm (under derogation CPart11 in the cod plan)
- Demersal Pandalus trawls without a sorting grid (Mesh size 32-54mm)
- Demersal Pandalus trawls with a 19mm sorting grid (Mesh size 32-54mm)

Landings of cod have been prohibited in Sweden during parts of 2003, 2004, 2005, 2006 and 2012 which has resulted in discard of adult cod. Gillnets were not sampled in Skagerrak or Kattegat, meaning that discards for those gears have been extrapolated in the STECF data base from Danish discard data.

Drifting longlines, targeting salmon, were included in the “Longline” category in the data set.

Since hand and pole lines are under effort regulation in the cod plan in the Baltic Sea but not in Skagerrak or Kattegat, and the "Longline" category is considered a regulated gear in the STECF data base, those gears were included in the "Longline" category in the Baltic and not in other areas.

There is no information on misreporting.

4.3.1.15 United Kingdom

England, Wales and Northern Ireland: Data were submitted covering the period 2009-2012, with 2009-2011 revised to include splitting the CPart13 landings, discards and biological data into the separate components of CPart13a, CPart13b, CPart13c and CPart13d. Where samples were available (covering 2011 and 2012), Fully Documented Fishery vessels were treated separately for discard and biological raising for the species under full documentation (i.e. cod in the North Sea, sole in the western channel), while discards and biological data raising for other species was kept consistent with non-FDF vessels. For 2011 and 2012 data years, AFBNI provided new data on discard estimates and biological sampling, replacing the previously submitted data. As in previous years, there were a number of records with missing mesh size information and a combination of DEEP specific conditions and BSA area which were ignored during the analysis. Specific conditions reported were DEEP, CPart11, CPart13a,b,c, FDFIIA and FDFIIC.

Voyage information on the non-Scottish UK national data base, FAD, calculates days at sea based on the dates of the voyage start and the voyage end. Voyage information on the Scottish national data base, FIN, calculates days at sea as the number of 24 hour periods in the duration of the voyage, rounded up. Vessels landing into Scotland are entered onto FIN; those landing into the rest of the UK are entered into FAD. Scottish vessels landing out with the UK are entered into FIN; Rest UK vessels landing outwith the UK are entered into FAD. Because most voyages by Rest UK vessels are entered into FAD; the calculation of days at sea is generally date based. Days at sea for voyages leaving on the same date as the return of the previous voyage are adjusted down by half a day applied to each voyage involved.

The information is not available on a comparable basis before 2003 because this was before the completion of the EU wide vessel gross tonnage recalibration exercise. Activity and gear is assessed daily; where activity in a single day covers more than one area (ICES Rectangle level) or more than one gear; that day's effort is apportioned equally between the area/gears recorded.

Vessels <10m: No specific consideration is given to estimating discards for vessels < 10m and discard sampling staff tend not to sail on vessels in the 10 metre and under category. In 2003 the Scottish Fisheries Statistics showed landings of the main commercial demersal species from vessels <=10 m to be below the level where sampling intensities as defined in Appendix XV (Section H) of regulation (EC) 1639/2001 (Table 2) requires sampling to be carried out. Estimation of demersal discards for vessels <10m is based on the assumption that all vessels targeting Nephrops and operating in the same sampling area have the same catching and discarding characteristics.

Discard data from Northern Ireland were revised for 2011 and 2012 on 9 October 2013 during EWG 13-13.

Scotland: Separate submission without significant data deficiencies.

4.3.2 Data availability Table B nominal fishing effort 2000-2012

Table 4.3.2.1 Overview of the effort data submission for the 2013 Fishing Effort Regimes data call. In bold the dates when effort data where submitted after the official submission deadline (3th of May).

Country	Data Submission	First Submission (Deadline 3-May)	Last Re-submission
BEL	DCF website	18-April	**1 October**
DEU	DCF website	2-May	
DNK	DCF website	1-May	**28-May**
ESP	DCF website	**29-May**	**18-June**
EST	DCF website	3-May	
FIN	DCF website	3-May	
FRA	DCF website	**21-May**	**11-June**
GBR	DCF website	**5-June**	**16-June**
GBR SCO	DCF website	26-April	**24 October**
IRL	DCF website	30-April	**15-May**
LTU	DCF website	1-May	2-May
LVA	DCF website	30-April	30-April
NLD	DCF website	**15-May**	**15-May**
POL	DCF website	**7-May**	
PTR	DCF website	3-May	**17-June**
SWE	DCF website	1-May	

4.3.2.1 Belgium

Data submitted for 2012 compose of 164 records in total. No update for previous year's data was needed. There were few records submitted with no mesh size information for trammels, gillnet and dredges. The only specific condition reported for 2012 data was SBCIIIart5.

Belgium did not provide any information for vessels under 10m.

Belgium provided effort data (kw*days at sea) for 2003-2012 by quarter, for all relevant areas where the Belgian fleets are operational. Since 2003 effort (and landings) are split proportionally over the rectangles as effort became available by rectangle from logbook data. As Belgium does not have trip-by-trip information on the true mesh size for its fleets for 2003-2006, Belgium (as well as other countries) agreed to assume certain mesh sizes for its beam trawler fleets. Beamers operating in area VIIIa,b were assumed to use a 70-79 mm mesh size as this is the minimum legal mesh size in that area for beamers. For the North Sea, the trips were split according to the rectangles reported in the logbooks, and mesh sizes were allocated in line with Council Regulation (EC) N° 2056/2001. This regulation stipulates that beam trawlers are prohibited to use less than 120 mm in ICES Division IV to the north of 56° 00' N. Therefore all beam trawl information from this part of ICES Division IV was accounted against an assumed >120mm mesh size. The same regulation also stipulates that within the rectangle with coordinates along the east coast of the UK between 55° 00' N and 56° 00' N and the points 55° 00' N – 05° 00' E and 56° 00' N – 05° 00' E, beam trawlers can use 100 to 119 mm mesh size. Here also it was assumed that the mesh size used by the Belgian Beam trawl fleet was 100-119 mm. For the rest of ICES Division IV (the southern part) a mesh size of 80-89 mm was assumed for the beam trawlers. Apart from these assumed mesh size which are based on rectangle information from logbooks, it was also assumed that the shrimp fishery used a mesh size of 16-31 mm. The mesh size of the beam trawl fleets in the other area's was assumed to be 80-89 mm. Since 2007 mesh sizes used by beam trawls operating in different areas have been based on the true mesh sizes used on each trip.

Trip information on the national data base calculates days at sea based on the voyage start date and the voyage end date. For example, a voyage starting on one date and returning (landing) the following day will be accounted for 2 days at sea. Each day a vessel is at sea is counted only once with the effort details allocated according to the longest voyage on that date. Nominal effort in kwdays is calculated as days at sea multiplied by the power of the vessel in kilowatts at the trip landing date. Activity and gear is assessed daily; where activity in a single day covers more than one area or more than one gear; that day's effort is allocated completely to the area/gear with the longest activity that day. Based on the detailed information given it remains unclear to the STECF EWG 13-13 if the data are consistent with Control or DCF Regulation.

The Belgian gear categories are: beam, dredge, gill, longline, otter, and trammel. For trammel nets, no assumptions of mesh sizes were made. The only specific condition reported for 2012 data was SBCIIIart5 for all Belgian vessels operating in areas 8a and 8b.

The data described above were re-submitted for the period 2010-2012. The re-submission was conducted on 1 October 2013. The resubmission comprised 466 records.

4.3.2.2 Denmark

4.3.2.2.1 Description of Danish procedures

Data submitted for 2000 - 2012, the whole time series, compose of 27537 records in total. There were few records with missing gear information as well as few records for pots, dem_seines, gills, otters without any mesh size reported. No BACOMA or T90 specific conditions.

Danish data were submitted on time, and with the requested information for all tables. However, a major revision was performed in 2012, and full time series were submitted for the tables A-D, thus ensuring improved consistency in the extraction methods used across years.

Major changes have been brought to the effort data. Until 2012 the effort data (Table B) were calculated and provided by the Danish AgriFish Agency, using the logbook register and the sales slips register separately. The other datasets were provided by DTU Aqua using the DFAD database, which is a coupling of the logbook register, the sales slips register and the vessel register based on a logbook sheet number. Maintaining two different systems increases the risk of errors. Running two different types of data sources also increases the risk of discrepancies between the resulting datasets, as the extraction procedures used slightly different algorithms. Some examples are given below:

- SMALL VESSELS : In the previous procedure, logbook data were used systematically for vessels larger than 8 meters in the Baltic Sea, and larger than 10m for other areas, and sale slips were used systematically for smaller vessels, and one trip (landing date) counted as one day. In the revised 2013 procedure, the merged logbook - sales slips database shows that some large vessels may have some sale slips but no logbooks, or that some small vessels actually fill in logbooks and have a gear. That means that some trips that had gear=-1 in the old method will have a gear assigned in the 2013 method. There is therefore more accuracy in using the combined database throughout, and the “none” gear category has globally diminished.

- AREA : In the previous procedure area for the effort data set was set to the logbook area when the logbook was used (the larger vessels) and to sales slips area when the sales slips data were used (the smaller vessels). In the 2013 procedure, there are still some cases where the logbook area differs from the sales slips area, or where the Baltic subdivision is missing. Therefore a standard procedure for area assignment has been implemented for setting the “DFAD area”, following the rules:
  1. If there is a logbook area this is used
  2. If the trip does not have a logbook the sales slips area is used
  3. In the Baltic Sea if the square is 39G4 and the logbook area is 3D and the sales slip area contains information about the subdivision (3D24 or 3D25), the sales slips area is used.
  4. If the area is 3D, the ICES rectangle information is used to assign the subdivision.
  5. If the area is still 3D (no ICES rectangle information is available), the sales slips area is used.
  6. If the area is still 3D the area of the previous trip with the same vessel within 3D with a subdivision assigned, this subdivision is used.
  7. If the area is still 3D the most used subdivision for that vessel is used.
  8. If the area is still 3D the most used subdivision during the year is used.

The last steps are mainly used on old data.

- SPECON :
  - DEEP: The deep-water fishery is defined as option *(2) catch of Deep Sea species retained > 100 kg*. For the effort data this has been calculated from the logbook catch registration, which is the weight estimated by the fisherman. In DFAD the weights from the sales slips are used. When the weights of deep water species are close to 100 kg, the difference in the weight estimated and measured might lead to a difference in which trips goes into the DEEP specific condition.
  - FDFBAL : In the Baltic Sea the fishermen are not obliged to keep the camera turned on. The fully documented fishery by the Danish AgriFish Agency is only implemented in the North Sea and Skagerrak.

Additionally, the various issues mentioned in last year’s report have been corrected.

All records (27537 rows in Table B) passed the Data Submission filters, and only a very small proportion of the reported Danish fisheries activities have missing information. The resubmission of older years means that the information on previous special conditions implemented between 2004 and 2008 during the first cod plan is not available anymore.

The Danish 2012 submission still does not cover the special conditions BACOMA or T90 in the Baltic, as these are not compulsory to report in logbooks according to control regulations 1224/2009 and 404/2011.

4.3.2.2.2 Concerns about the data call

On May 2nd, the Danish AgriFish Agency wrote to the EC about a number of concerns regarding the data call. These concerns are reported below :

"In relation to upload of the Danish figures, the AgriFish Agency is of the opinion that it is necessary to provide The Commission with comments to the methodology for compiling the figures in order to have transparency in the process and ensure proper use and interpretation of the data. Further it is also necessary to address a few remarks to the annexes of the data call in order to ensure a common understanding.

Our comments below refer to point B and D and corresponding appendixes regarding effort data for 2000-2012 (point B and D) :

1) *With regard to point 6 GEAR (B). In Council Regulation 1342/2008, annex 1, the different gear segments are defined by stating the statistical code for the gear(s) in parenthesis. However, the gear coding in appendix 3 of the data call is not consistent with the gear coding of Council Regulation 1342/2008. This is the case for GILL and LONGLINE. GILL includes codes GNS and GND, however none of the two statistical codes are mentioned in 1342/2008 which only mentions GN which is a general code for Gill Nets. This causes confusion when compiling data. With regard to LONGLINE only LL is mentioned in Regulation 1342/2008 but LONGLINE includes poles (LHP), drifting lines (LLD) etc. Again this causes confusion in establishing a link to existing administrative procedures.*
2) *Further point 6 GEAR (B) and 4 GEAR (D) : In Council Regulation 1098/2007 there are no specific gear codes mentioned, but in Council Regulation 1124/2010 (Tac and Quota Regulation for the Baltic 2011), Annex 2, there are mentioned a wide range of gears, although not with a statistical code, which all has to have a mesh size of 90 mm or above. In Annex 2, it is stated that drifting lines (LLD) should not be included and there is no references to drift nets. This causes confusion when compiling the data and establishing link to existing administrative procedures.*

   As stated above in point 1) and 2) there is lack of consistency between the gears applied in the administrative legislation and the gears applied in the data call. Analysis and conclusions based on this data call must bear these inconsistencies in mind.

The gears applied by Denmark in this data call is:

POINT B	*POINT D (REGGEAR>=90 mm)*
BEAM : TBB	*BEAM : Not included*
OTTER : OTB, TB, PTB, OTT, TBN, TBS	*OTTER : OTB, TB, PTB, OTT, TBN*
DEM_SEINE : SDN, SSC, SB	*DEM_SEINE : SDN, SSC, SB*
PEL_TRAWL : OTM, TM, PTM	*PEL_TRAWL :OTM, TM, PTM*
PEL_SEINE: PS, PSN	*PEL_SEINE: PS, PSN*
DREDGE : DRB	*DREDGE : Not included*
LONGLINE : LL, LX, LH, LLS, LLD, LHP	*LONGLINE : LL, LX, LLS*
GILL : GN, GNS, GND	*GILL : GN, GNS, GND*
TRAMMEL : GTR	*TRAMMEL : GTR*
POTS : FYK, FPN, FPO, FIX	*POTS : Not included*

3) *With regard to point 9 AREA (B) and 5 AREA (D) Denmark will like to stress that the data quality on IBSFC areas in 3C24 and 3D24 is not as good as for the remaining areas when it comes to registrations for square 39G4 which is in both areas. The quality of the data has improved in recent years, but still there may be inconsistences.*

4) *Point 10 (B) SPECON: There is no information in the logbook with regard to whether a vessel has applied BACOMA or T90 and the vessel is not obliged to fill in this information in the logbook. Consequently Denmark has no information with regard to Baltic Technical Conditions. Further Denmark has only applied article 13C in Regulation 1342/2008 and no data is reported for Cod Plan R(EC) No 43/2009. Deep-water species is defined in line with Regulation 2347/2002 which states fishing trips >= 100 kg mix of species mentioned in the regulation. Fully documented fisheries are defined by the vessels participating and the date of entering the scheme.*

5) *Point 11 FISHING_ACTIVITY (B): Denmark submitted data previous years based on the definition in the data call which was calendar days at sea. This is also the case this year although it is not the definition applied for administrating the rules in regulation 1342/2008 and regulation 1098/2007. However the baseline was calculated with this definition and the Commission was informed of the inconsistency between the definition in the data call and the definition applied by the Danish Administration and as such the time series of the data call will not be broken. In general applying calendar days combined with gear codes defined in the data call results in approximately 5-10 percent higher fishing activity and even more in one or two segments.*

Denmark believes that there should be transparency in the process of how data are compiled in Member States and the mentioned points above are not a methodology report, but points which help *researchers understand what data can be used for when conducting analysis. Therefore Denmark suggests that all Member States submits a methodology report on how data are compiled (data sources, definitions, sampling methods applied etc.) and the reports are distributed to every country. This procedure is well known for Member States submitting fishery statistics to Eurostat according to Regulations administered by Eurostat."*

4.3.2.3 Estonia

A number of 58 records were submitted for 2012. No updates for previous year's data.

The effort (days at sea) was calculated according to the Control Regulation. STECF EWG 13-13 noted that the data provided are only for vessels >=12m.

4.3.2.4 Finland

A number of 73 records were submitted for 2012. No updates for previous year's data.

Finish data were submitted in an inconsistent format together with a hint towards the data confidentiality clause in the DCF. STECF EWG 13-13 could not make use of the Finish data given its specific ToR.

4.3.2.5 France

A total number of 3079 records were submitted only for 2012. No updates for previous years data. There were 15 records with missing area information. Some inconsistent "gear*mesh size*area*specon" combination were observed, it concern the combination "pots*mesh size:-1" and combinations with missing area information. No fishing capacity data before 2012. Only data regarding gears that are requested in the official data call have been submitted as a consequence records regarding gears not requested are missing.

The specific conditions Cpart11, Cpart13B, IIB72ab, DEEP and SBcIIIart5 have been provided for eligible vessels and fisheries for 2012. The data were not updated for the 2009-2011 on this specific issue.

Fishing activity data have been provided only for the period 2010 – 2012 (no fishing activity data for 2003 – 2009). Fishing capacity data were provided for the first time for 2012 in kW. No fishing capacity data are available for the other years. It should be noted that this field is asked as kW or GT depending of the area, would be much easier to fill it if it was duplicated in kW and GT.

France provided effort data for 2003-2012 derived from official logbook databases for all registered vessels 10m and over and from monthly declarative forms (contain declarative monthly data on fishing effort and catches per species by dates, locations and gears) for all registered vessels under 10m (logbooks are not mandatory for these vessels but they are covered by these monthly declarative forms). The data covers all areas requested in the data call and conforms to the requested aggregation, by quarter, area, gear and mesh sizes. Days at sea are estimated with consistency with the DCF regulation (any continuous period of 24 hours (or part thereof) during which a vessel is present within an area and absent from port).

4.3.2.6 Germany

Data submitted for 2009 - 2012 compose of 2234 records in total. There were very few records with missing gear information as well as records for pots without any mesh size reported.

Germany provided fleet specific effort data for 2000-2012 in the requested formats derived from official logbook data. However, data on vessels <10m in the North Sea and <8m in the Baltic do not cover all vessels and trips because these vessels normally do not have to fill out logbooks. For the scientific evaluations in this report, the calculation procedure follows closely the description in the STECF technical report “Some technical guidance towards national fleet specific fishing effort and catch data aggregation” (ISBN 978-92-79-12134-0). This implies a calculation of kw-days based on calendar days and effort related to rescue operations etc. are not subtracted. Based on the detailed information given it remains unclear to the STECF EWG 13-13 if the data are consistent with Control or DCF Regulation. The data consider the aggregation by quarter, area, gear, mesh size, and existing derogations including special conditions of 8.1.a, 8.1.c, 8.1.d, 8.1.e and 8.1.f for the years 2000-2008. For 2009 onwards the special conditions from the new cod management plan are used. Some few records did not pass the Data Submission filters when some information on e.g. gear, mesh size was missing, but these records represent only a very small proportion of the reported German fisheries activities. They are related to fishing operations with seldom gears for which no code is available in the STECF data call.

For the Baltic Sea, drifting lines LLD are included in regulated LONGLINE category.

4.3.2.7 Ireland

Data submitted for 2009 - 2012 compose of 2961 records in total. There were few records with missing gear information as well as few records for pots, gills, dredges and otters without any mesh size reported.

Ireland provided fleet specific kW*days-at-sea, GT*days-at-sea, kw capacity, and vessel numbers for 2009-2012 in the requested aggregation format, derived from the national logbook database (IFIS) for vessels ≥10 meters in length. The following special condition information was supplied: none, CPart13a, CPart13b, CPart13c, CPart13d, CPart11 and DEEP. Specon DEEP is a duplication of effort within the relevant areas. Days-at-sea data were constructed following the methodology guidelines provided by the Joint Research Council at a meeting held by the Commission in February 2009 and according to the Control Regulation. Only one gear and area combination is applied to any one vessel day assigned according to the dominant fishing activity. Data from 2000-2008 from 2012 submission were retained in 2013. Revisions to earlier data are due to ongoing revisions and improvements within the national database.

Fishing activity was not provided as Ireland does not operate within the areas for which this data was requested.

Mesh size information was only available from 2003 onwards.

Days-at-sea effort for 2000-2002 is presented as a calculated proxy, obtained from the average ratio of operational fishing days to days-at-sea by gear during 2003 to 2005.

Vessels less than 10m in length are not required to complete logbooks, and therefore no effort is available for these vessels.

It was not possible to accurately aggregate data to the level of EU, coast, and RFMO. Data was assigned according to the following: Where an EU category existed within an area, all data from that area was categorised as EU, with the exception of ICES division X assumed to be RFMO. Those ICES divisions without an EU category where assumed as 1 coast and 2 coast.

4.3.2.8 Latvia

A number of 71 records were submitted for 2012. No updates for previous year’s data.

Latvian data were submitted on time and in accordance with required format. Fleet specific effort data by quarter, gear, mesh size and area were provided for 2012 only and appended to the previous time series. All requested effort data, such as days at sea, kW*Days and Gt*Days completely covered all fleet segments for 2008-2012, and only offshore fishery for the period 2003-2007. It was impossible to estimate accurately effort data in kW*days and Gt*days for the boats less than 10 m operated in coastal zone for years till 2008, because fishermen in that period filled logbooks without data about boats. That is the main reason for incomplete information concerning small scale fishery segment for the period of 2005-2007. However, “days at sea” were fully presented for this period.

Fishing activity (days at sea) were calculated on the base of voyage start date and the voyage end date, by subtraction returning date from departure date. In case when a voyage started and ended in the same date it was adopted as 1 day at sea. If the vessels during the trip operated in more than one area each day was attributed to the area where the most fishing time was spent. Based on the detailed information given it remains unclear to the STECF EWG 13-13 if the data are consistent with Control or DCF Regulation.

All effort data were based on the information derived from logbook.

4.3.2.9 Lithuania

A number of 86 records were submitted for 2012. No updates for previous year’s data.

Days at sea were measured according Control Regulation.

4.3.2.10 The Netherlands

The Netherlands provided effort data for 2012. No updates for previous years were submitted. The data was provided in the requested format using the official logbook data for vessels < 10 m, >= 10 <=15 m and >15 m.

All records (363 rows in Table B) passed the Data Submission filters.

Effort calculation is assumed to be based on days absent from port. As the national database contains not only departure date and arrival date but also the time of departure and the time of arrival, the absence can be calculated more precisely than just days. At the October meeting this information will be made final, based on information of the Ministry of Economic Affairs.

4.3.2.11 Poland

A number of 1448 records were submitted for 2011-2012. No mesh size range information reported for vessels under 10 meters. No specific condition reported.

STECF EWG 13-13 notes that a different method of estimation of mesh size ranges in 2011 (compared to the previous years) caused inconsistent mesh size classes, which used to be “110-156” in 2004-2010 period. This mostly concerns vessels under 10 meters. Other variables seem to be very consistent across years.

4.3.2.12 Portugal

Portugal provided kW*days, GT*days and number of vessels for 2000-2012 in the requested aggregation format, derived from the national logbook database for vessels ≥10 meters in length. Data are provided by quarter, vessel length, gear, mesh size range, area and special condition.

No data on allowed activity were provided.

Data on fishing activity and fishing capacity were provided for vessels ≥10 meters operating with regulated gears and with specon=NONE (under effort restrictions).

Vessels < 10 meters are not required to complete logbooks. Effort of these vessels was estimated based on sales records and data are not available for all fields of the data call.

Some mistakes related to the presence of duplicated lines for the area 9b EU with aggregated data were detected and corrected. The duplicates were allocated to the area 9b RFMO, according to the ID field. The fields "FISHING_ACTIVITY" or " FISHING_CAPACITY" presenting the value “-2” resulting from lines aggregation were corrected to “-1”, meaning that the information is not available. Although most of inconsistencies from previous years in the combination of GEAR*SPECON have been corrected in the data submitted this year, there are still a few mistakes remaining as, e.g. for gears “PEL_TRAWL”, “PEL_SEINE” and “POTS” with special condition “DEEP”.

4.3.2.13 Spain

<u>Data provided in 2013:</u>

Between May and June of 2013 Spain provided nominal fishing effort data from 2012 by quarter, vessel length range, gear, mesh size range and metier (fishery). Data were provided for BSA; ICES Subareas 1, 2, 8, 10 and 12; ICES Divisions 5b, 6a, 6b, 7a, 7b, 7c, 7d, 7e, 7f, 7g, 7h, 7j, 7k, 8a, 8b, 8c, 8d, 8e, 9a, 9b and 14b and CECAF Divisions 34.1.1, 34.1.2, 34.1.3 and 34.2.0. Data were divided by COAST/EU/RFMO zones where appropriate. Data were split in special condition DEEP and NONE (according to the Effort Regime in Deep Sea fisheries). In ICES Divisions 8c and 9a there were not special condition (IIB72ab) data (Hake Plan) because no vessel in 2012 has applied for that condition in relation to hake and *Nephrops* recovery plan (Annex IIB of R(EU) No 43/2012). Data were not divided in either Cod or Sole Plan special conditions owing to lack of time. Spain provided fishing activity, fishing capacity, nominal effort, GT days at sea and number of vessels, as de 2013 Data Call requested.

No information about vessels under 10 meters was provided since data source was logbooks, but 2012 Annex IIB (Hake Recovery Plan in 8c & 9a), which is the main Plan for Spain, does not deal with vessels under 10 meters.

<u>Data provided in 2011 and 2012:</u>

Spain did not provide data in 2011 and 2012; therefore, there are not 2010 and 2011 data.

<u>Data provided in 2010:</u>

All the following comments correspond to the data provided in 2010:

Spain provided nominal fishing effort data from 2002-2009 data. 2000 and 2001 data were not provided because of the low quality of logbooks those years. Data were provided by quarter, vessel length range, gear and mesh size range. Data were provided for 8c and 9a from 2002-2009 divided by special condition IIB72AB and NONE according to the Southern Hake Plan and also special condition DEEP data (according to the Effort Regime in Deep Sea fisheries) were added. For 2009, also DEEP data of ICES Subarea 12 and ICES Divisions 6a, 7b, 7c, 7h, 8a, 8b, 8c, 9a and 14a were provided. Special condition NONE landings according to the Effort Regime in Deep Sea fisheries for 2009 were not provided by misunderstanding of the instructions. Data were divided by COAST/EU/RFMO zones. Spain provided fishing activity, nominal effort, GT days at sea and number of vessels.

No information about vessels under 10 meters was provided since data source was logbooks, but Annex IIB (Hake Recovery Plan in 8c & 9a), which is the main Plan for Spain, does not deal with vessels under 10 meters.

4.3.2.14 Sweden

A number of 1083 records were submitted for 2012. There were few records with missing gear information as well as few records for pots, dredges, dem_seines and gills without any mesh size reported.

Sweden has previously provided all required effort data in the requested format from 2000-2012, apart from capacity data, which was provided for the years 2003-2012 for the Baltic Sea and from 2009-2012 for all other areas. Days at sea were calculated according to the DCF definition, i.e. continuous 24-hours periods absent from port. Nominal effort data for vessels <10m LOA were included but is not considered reliable until 2009.

For the Baltic Sea, drifting lines LLD are included in regulated LONGLINE category.

4.3.2.15 United Kingdom

England, Wales and Northern Ireland: A fully revised time series (2003-2012) was provided this year, which resulted in minor changes to earlier years (2003-2008) and included the separation of special condition CPart13 into its components a,b,c,d. A number of records were submitted with missing mesh sizes for pots and dredges where mesh size was not applicable. Some records with both area BSA and special condition DEEP were submitted and ignored in the analysis. Special conditions reported were DEEP, CPart11, CPart13a,b,c,d, FDFIIA and FDFIIC.

Nominal effort in kwdays is calculated as days at sea multiplied by the power of the vessel in kilowatts at the voyage landing date.

GT_days_at_sea is calculated for years from 2003 as the days at sea multiplied by the Gross Tonnage of the vessel at the voyage landing date.

Scotland: A number of 10596 records were submitted for 2000-2012 time period, the full time series. There were few records with missing gear and/or area and/or mesh size information.

New data was submitted for 2012 and a revision submitted for 2000-2011 to accommodate the new ‘fishing-capacity’ field for all the fleets for vessels 10m and over and for vessels under 10 meters. Scotland supplies data where records present no gear type information and/or no mesh size information for the purpose of data completeness. As in previous years there were records for area BSA and specific condition DEEP which were ignored in the analysis. Specific conditions reported were DEEP, FDFIIA, CPart11 and CPart13. Any effort in the Cod Recovery Zone for TR1 and TR2 gears was assigned to special condition CPart13A, CPart13B, CPart13C, CPart13D .

Vessels <10m: For vessels <10m effort is considered under reported 2000-2005 because of under reporting of POTS and shell fishing by hand. The <10m effort data for Scottish registered vessels 2000-2008 excludes voyages landing into ports in England and other non-Scottish areas of the UK. Scottish under 10m boats are known to use more than one type of gear on individual trips or within a quarter and multiple counting of boats is therefore significant.

Vessels landing into Scotland are entered into the Scottish database where the calculation of days at sea is based on the number of 24 hour periods, rounded up. Scottish vessels landing into the rest of the UK are entered into the UK (non-Scottish) database which calculates days at sea based on the dates of the voyage start and the voyage end. Days at sea for voyages leaving on the same date as the return of the previous voyage are adjusted down by half a day. Based on the detailed information given it remains unclear to the STECF EWG 13-13 if the data are consistent with Control or DCF Regulation.

On 24 October 2013 Scottish catch data for TR1 and TR2 gear groups in 2010-12 with specon NONE in the North Sea and West of Scotland were re-assigned the special condition of the cod plan article 13.2c (CPart13C).

4.3.3 Data availability Table C spatial fishing effort 2003-2012

Table 4.3.3.1 Overview of the spatial effort data submission for the 2013 Fishing Effort Regimes data call. In bold the dates when spatial effort data where submitted after the official submission deadline (4^{th} of May).

Country	Data Submission	First Submission (Deadline 3-May)	Last Re-submission (Meeting 17-June to 21-June)
BEL	DCF website	18-April	
DEU	DCF website	3-May	
DNK	DCF website	1-May	2-May
ESP	DCF website	**29-May**	**18-June**
EST	DCF website	3-May	
FIN	DCF website	3-May	
FRA	DCF website	**21-May**	**11-June**
GBR	DCF website	**6-June**	**16-June**
GBR SCO	DCF website	3-May	
IRL	DCF website	2-May	
LTU	DCF website	15-April	
LVA	DCF website	30-April	
NLD	DCF website	**15-May**	
POL	DCF website	30-Apr	**7-May**
PTR	DCF website	3-May	**17-June**
SWE	DCF website	1-May	

4.3.3.1 Belgium

Data submitted only for 2012. No updates for previous years' data were needed. In total, 614 records were submitted. There were few records with missing mesh size information for gears such as trammels, gillnets and dredges.

Belgium did not provide any information for vessels under 10m.

Belgium provided effective effort by ICES statistical rectangle in units of hours trawled for the period 2003-2012, derived from the official logbook databases for all vessels ≥10 meters. The data covers all areas in which the Belgian fleets are active and conform to the requested aggregation, by quarter, area, gear and mesh sizes. No spatial effort information is available for vessels less than 10m in length.

Trawled hours were calculated by summing fishing time to the aggregation level requested in the data call. To ensure consistency between datasets, the same base operational logbooks data was used as for the aggregation of days-at-sea effort.

As Belgium does not have trip-by-trip information on the true mesh size for its fleets for 2003-2006, Belgium (as well as other countries) agreed to assume certain mesh sizes for its beam trawler fleets.

Beamers operating in the Bay of Biscay (VIIIa,b) were assumed to use a 70-79 mm mesh size as this is the minimum legal mesh size in that area for beamers. For the North Sea, the trips were split according to the rectangles reported in the logbooks, and mesh sizes were allocated in line with Council Regulation (EC) N° 2056/2001. This regulation stipulates that beam trawlers are prohibited to use less than 120 mm in ICES Division IV to the north of 56° 00' N. Therefore all beam trawl information from this part of ICES Division IV was accounted against an assumed >120mm mesh size. The same regulation also stipulates that within the rectangle with coordinates along the east coast of the UK between 55° 00' N and 56° 00' N and the points 55° 00' N – 05° 00' E and 56° 00' N – 05° 00' E, beam trawlers can use 100 to 119 mm mesh size. Here also it was assumed that the mesh size used by the Belgian Beam trawl fleet was 100-119 mm. For the rest of ICES Division IV (the southern part) a mesh size of 80-89 mm was assumed for the beam trawlers. Apart from these assumed mesh size which are based on rectangle information from logbooks, it was also assumed that the shrimp fishery used a mesh size of 16-31 mm. The mesh size of the beam trawl fleets in the other area's was assumed to be 80-89 mm. Since 2007 mesh sizes used by beam trawls operating in different areas have been based on the true mesh sizes used on each trip.

The Belgian gear categories are: beam, dredge, gill, longline, otter, and trammel. For trammel nets, no assumptions of mesh sizes were made. The only specific condition reported for 2012 data was SBCIIIart5 for all Belgian vessels operating in areas 8a and 8b.

4.3.3.2 Denmark

Data submitted for 2003 - 2012, the whole time series, compose of 62078 records in total. There were few records with missing gear information as well as few records for pots, dem_seines, gills, otters without any mesh size reported. No BACOMA or T90 specific conditions.

Danish data were submitted on time, and with the requested information for all tables. However, a major revision was performed in 2012, and full time series were submitted for the tables A-D, thus ensuring improved consistency in the extraction methods used across years.

All records (62078 rows in Table C) passed the Data Submission filters, and only a very small proportion of the reported Danish fisheries activities have missing information. The resubmission of older years means that the information on previous special conditions implemented between 2004 and 2008 during the first cod plan is not available anymore.

The Danish 2012 submission still does not cover the special conditions BACOMA or T90 in the Baltic, as these are not compulsory to report in logbooks according to control regulations 1224/2009 and 404/2011.

More details on the Danish data are given under section effort data table B, and these are also valid for Table C.

4.3.3.3 Estonia

A number of 288 records were submitted for 2012. No updates for previous year's data. There were many records with inconsistent mesh size ranges.

STECF EWG 13-13 noted that data were provided only for vessels >=12m.

4.3.3.4 Finland

A number of 73 records were submitted for 2012. No updates for previous year's data.

Finish data were submitted in an inconsistent format together with a hint towards the data confidentiality clause in the DCF. STECF EWG 13-13 could not make use of the Finish data given its specific ToR.

4.3.3.5 France

A total number of 11599 records were submitted only for 2012. No updates for previous years data. There were few records with missing area information as well as records with missing statistical rectangle information (data is available for the ICES division but not at this level of aggregation). Some inconsistent "gear*mesh size*area*specon" combination were observed, it concern the combination "pots*mesh size:-1" and combinations with missing area information. Only data regarding gears that are requested in the official data call have been submitted as a consequence records regarding gears not requested are missing.

The specific conditions Cpart11, Cpart13B, IIB72ab, DEEP and SBcIIIart5 have been provided for eligible vessels and fisheries for 2012. The data were not updated for the 2009-2011 on this specific issue.

France provided specific effort data by rectangle for 2003-2012 derived from official logbook databases for all registered vessels 10m and over and from monthly declarative forms (contain declarative monthly data on fishing effort and catches per species by dates, locations and gears) for all registered vessels under 10m (logbooks are not mandatory for these vessels but they are covered by these monthly declarative forms). The data covers all areas requested in the data call and conforms to the requested aggregation, by quarter, area, gear and mesh sizes.

4.3.3.6 Germany

Data submitted for 2012 composes of 2174 records in total. There were very few records with missing gear information as well as records for pots without any mesh size reported.

Data for vessels <10m in the North Sea and 8m in the Baltic could not be submitted as these vessels do not have to fill out logbooks. Some few records did not pass the Data Submission filters when some information on e.g. gear, mesh size was missing, but these records represent only a very small proportion of the reported German fisheries activities. They are related to fishing operations with seldom gears for which no code is available in the STECF data call.

4.3.3.7 Ireland

Ireland provided effective effort by ICES statistical rectangle in units of hours fished for the period 2009-2012 in the requested aggregation format, derived from the national logbook database (IFIS) for vessels ≥10m in length. In total 12544 records were submitted with few records without a gear information and few without mesh size for pots, gills, dredges and otters. Hours fished were calculated by summing fishing time reported within the logbook operations. To ensure consistency between datasets, the same base operational logbooks data was used as for the aggregation of days-at-sea effort. The following special condition information was supplied: none, CPart13a, CPart13b, CPart13c, CPart13d, CPart11 and DEEP. Specon DEEP is a duplication of effort within the relevant areas. Data from 2000-2008 from 2012 submission were retained in 2013. Revisions to earlier data are due to ongoing revisions and improvements within the national database.

No spatial effort information is available for vessels less than 10m in length.

It was not possible to accurately aggregate data to the level of EU, coast, and RFMO. Data was assigned according to the following: Where an EU category existed within an area, all data from that area was categorised as EU, with the exception of ICES division X assumed to be RFMO. Those ICES divisions without an EU category where assumed as 1 coast and 2 coast.

4.3.3.8 Latvia

A number of 198 records were submitted for 2012. No updates for previous year's data.

Latvian data were submitted on time and in accordance with required format. Fleet specific effort data Hours fished by ICES statistical rectangles were provided for 2012 only and appended to the previous time series. Effective effort (Hours fished) was calculated by summing fishing duration for each operation during the trip. For the small boats less than 10 m this parameter was calculated as fishing days multiplied by 24. Effort data were derived from logbooks and covered all fleet segments for the period of 2005-2012. Fleet specific effort data for small boats (<8m) were not provided for 2003 – 2004.

4.3.3.9 Lithuania

A number of 134 records were submitted for 2012. No updates for previous year's data.

No comments.

4.3.3.10 The Netherlands

The Netherlands only provided effort by rectangle data for 2012. No updates for previous years were submitted. The data was provided in the requested format using the official logbook data for vessels < 10 m, >= 10 <=15 m and >15 m.

Not all records (1975 rows in Table C) passed the Data Submission filters due to the fact that rectangles are only defined for ICES areas and not for CECAF areas. Despite this, all records were submitted.

4.3.3.11 Poland

A number of 3095 records were submitted for 2011-2012. No mesh size range information reported for vessels under 10 meters. No specific condition reported.

STECF EWG 13-13 notes that relative changes of the total effective effort seem to be consisted across the years. Mesh size data breakdown for 2011 is not comparable with previous years because of different aggregation method used (as described above).

4.3.3.12 Portugal

Portugal provided effective effort (in hours) by rectangle for the period 2003-2012 for vessels ≥ 10 meters with the aggregation requested by the data call, based on logbook data. Data for the ICES areas 6b, 7k, 8c, 8d, 8e, 9a, 9b, 10, 12 and 14, as well as for the CECAF areas were provided. Around 10% of records, identified as having wrong ICES rectangle codes, with 3 characters instead of 4, were corrected (e.g. “4C1” corrected to “04C1”). Although not identified as errors, all lower case codes were changed to upper case, to be used by case sensitive programs.

No spatial effort information is available for vessels < 10 meters, since they are not required to complete logbooks.

4.3.3.13 Spain

Data provided in 2013:

Between May and June of 2013 Spain provided spatial fishing effort data from 2012 by quarter, vessel length range, gear, mesh size range and metier (fishery). Data were provided for BSA; ICES Subareas 1, 2, 5, 6, 8, 9, 10, 12 and 14; ICES Divisions 3b3, 3c, 3d, 7a, 7b, 7c, 7d, 7e, 7f, 7g, 7h, 7j, 7k, 8a, 8b, 8c, 8d, 8e and 9a and CECAF Divisions 34.1.1, 34.1.2, 34.1.3 and 34.2.0. Data were divided by COAST/EU/RFMO zones where appropriate. Data were split in special condition DEEP and NONE (according to the Effort Regime in Deep Sea fisheries). In ICES Divisions 8c and 9a there were not special condition (IIB72ab) data (Hake Plan) because no vessel in 2012 has applied for that condition in relation to hake and *Nephrops* recovery plan (Annex IIB of R(EU) No 43/2012). Data were not divided in either Cod or Sole Plan special conditions owing to lack of time.

No information about vessels under 10 meters was provided since data source was logbooks, but 2012 Annex IIB (Hake Recovery Plan in 8c & 9a), which is the main Plan for Spain, does not deal with vessels under 10 meters.

Data provided in 2011 and 2012:

Spain did not provide data in 2011 and 2012; therefore, there are not 2010 and 2011 data.

Data provided in 2010:

All the following comments correspond to the data provided in 2010:

Spain provided spatial fishing effort data for 2002 to 2009. Data were provided by quarter, vessel length range (only in 2009), gear and mesh size range. Data were provided for 8c and 9a from 2002-2009 divided by special condition IIB72AB and NONE according to the Southern Hake Plan and also special condition DEEP data (according to the Effort Regime in Deep Sea fisheries) were added. For 2009, also DEEP data of ICES Subarea 12 and ICES Divisions 6a, 7b, 7c, 7h, 8a, 8b, 8c and 9a were provided. Special condition NONE landings according to the Effort Regime in Deep Sea fisheries for 2009 were not provided by misunderstanding of the instructions. Data were divided by COAST/EU/RFMO zones.

No information about vessels under 10 meters was provided since data source was logbooks, but Annex IIB (Hake Recovery Plan in 8c & 9a), which is the main Plan for Spain, does not deal with vessels under 10 meters.

4.3.3.14 Sweden

A number of 2180 records were submitted for 2012. There were few records with missing gear information as well as few records for pots and otters without any mesh size reported.

Specific effort data by rectangle has been submitted in the required format for the years 2003-2012, including vessels <10m LOA. Hours fished were derived from fishing time reported by fishing activity in the logbooks.

4.3.3.15 United Kingdom

A fully revised time series (2003-2012) was provided this year, which resulted in minor changes to earlier years (2003-2008) and included the separation of special condition CPart13 into its components a,b,c,d. A number of records were submitted with missing mesh sizes for pots and dredges where mesh size was not applicable. Some records with both area BSA and special condition DEEP were submitted and ignored in the analysis. Special conditions reported were DEEP, CPart11, CPart13a,b,c,d, FDFIIA and FDFIIC.

Where activity in a single day covers more than one area (ICES Rectangle level) or more than one gear; that day's effort is apportioned equally between the area/gears recorded. The hours fished entries are simply days at sea data multiplied by 24. This is because hours fished information obtained from vessels has been proven unreliable (not a required field in logbooks).

Scotland: A number of 23566 records were submitted for 2009-2012 time period. There were few records with missing gear and/or area and/or mesh size information.

New data was submitted for 2012 and revised data submitted for 2009-2011 to accommodate the split in specific condition CPart13 for all the fleets for vessels 10m and over and for vessels under 10 meters.

Effort on voyages fishing in more than one rectangle is allocated according to logbook data. The hours fished entries are simply days at sea data multiplied by 24. This is because hours fished information has been proven unreliable from Scottish vessels (not a required field in logbooks).

Scotland supplies data where records present no gear type information and/or no mesh size information for the purpose of data completeness. As in previous years there were records for area BSA and specific condition DEEP which were ignored in the analysis. Specific conditions reported were DEEP, FDFIIA, CPart11 and CPart13A, CPart13B, CPart13C, CPart13D.

4.3.4 Data availability Table D fishing Capacity in the Baltic Sea 2003-2012

Table 4.3.4.1 Overview of the capacity data submission for the 2013 Fishing Effort Regimes data call. In bold the dates when capacity data where submitted after the official submission deadline (4th of May).

Country	**Data Submission**	**First Submission (Deadline 3-May)**	**Last Submission (Meeting 17-June to 21-June)**
DEU	DCF website	2-May	
DNK	DCF website	1-May	2-May

EST	DCF website	3-May	**9-May**
FIN	DCF website	3-May	
LTU	DCF website	15-April	**10-May**
LVA	DCF website	30-April	
POL	DCF website	**7-May**	
SWE	DCF website	1-May	**14-June**

4.3.4.1 Denmark

Data submitted for 2003 - 2012, the whole time series, compose of 296 records in total.

Danish data were submitted on time, and with the requested information for all tables. However, a major revision was performed in 2012, and full time series were submitted for the tables A-D, thus ensuring improved consistency in the extraction methods used across years.

All records (296 rows in Table D) passed the Data Submission filters. The resubmission of older years means that the information on previous special conditions implemented between 2004 and 2008 during the first cod plan is not available anymore.

The Danish 2012 submission still does not cover the special conditions BACOMA or T90 in the Baltic, as these are not compulsory to report in logbooks according to control regulations 1224/2009 and 404/2011.

More details on the Danish data are given under section effort data table B, and these are also valid for Table D.

4.3.4.2 Estonia

In total 28 records were submitted for 2008 - 2012.

STECF EWG 13-13 notes that data for vessels <12 m was not provided.

4.3.4.3 Finland

One record was submitted for 2012 with an inconsistent aggregation level for vessel length over 10 meters. There is no fishing activity available for 2008-2011.

Finish data were submitted in an inconsistent format together with a hint towards the data confidentiality clause in the DCF. STECF EWG 13-13 could not make use of the Finish data given its specific ToR.

4.3.4.4 Germany

Data submitted for 2003 - 2012, the whole time series, compose of 148 records in total.

Data on Capacity and Fishing Activity in the Baltic was provided as requested by the data call from logbook information. It was ensured that vessels do not count twice to get a realistic overview on fleet capacity. The full time series is covered.

4.3.4.5 Latvia

Data submitted for 2003 - 2012, the whole time series, compose of 81 records in total.

Latvian data were submitted on time and in accordance with required format. Fishing fleet capacity data were provided for time series 2003-2012 for active vessels operated in the Baltic Sea. Data for boats less than 8 m were provided from 2008 and afterward.

4.3.4.6 Lithuania

Data submitted for 2009 - 2012 compose of 32 records in total.

No comments.

4.3.4.7 Poland

Data submitted for 2004 - 2012 compose of 286 records in total.

STECF 12-12 notes that relative data provisions and estimated changes between years look reliable and consistent.

4.3.4.8 Sweden

Data submitted for 2003 - 2012, the whole time series, compose of 222 records in total.

Fisheries capacity data of active vessels in the Baltic Sea has been submitted in the required format for the years 2003-2012, including vessels <8m LOA. Days at sea were calculated according to the DCF definition, i.e. continuous 24-hours periods absent from port.

4.3.5 Data availability Table E spatial landings 2003-2012

Table 4.3.5.1 Overview of the spatial landings data submission for the 2013 Fishing Effort Regimes data call. In bold the dates when spatial landings data where submitted after the official submission deadline (3rd of May).

Country	**Data Submission**	**First Submission (Deadline 3-May)**	**Last Submission (Meeting 17-June to 21-June)**
BEL	DCF website	18-April	
DEU	DCF website	3-May	
DNK	DCF website	1-May	2-May
ESP	DCF website	**29-May**	**18-June**
EST	DCF website	3-May	
FIN	DCF website	3-May	
FRA	DCF website	**21-May**	**11-June**
GBR	DCF website	**6-Jun**	**17-June**
GBR SCO	DCF website	2-May	3-May
IRL	DCF website	2-May	
LTU	DCF website	17-April	
LVA	DCF website	30-April	
NLD	DCF website	**15-May**	
POL	DCF website	**7-May**	**20-May**
PTR	DCF website	3-May	**17-June**
SWE	DCF website	1-May	

4.3.5.1 Belgium

A total number of 7905 records were submitted for 2012. No update for previous year's data was needed. There were few records with missing mesh size information for gear types such as trammels, dredges and gillnets. Moreover, many records regard species that are not listed in the official data call, like BLL, RJN, RJM, RJC and RJH. The only special condition reported for 2012 data was SBCIIIart5. This year, all officially recorded species by the Belgian authorities were provided. However, it should be noted that the sum of all provided landings do not match the total Belgian landings as there are a minority of species landed and recorded as e.g. “other demersal” or “other crustacean” which are not provided to the EGW 13-13.

Belgium provided fleet specific landings data for 2003-2012 derived from official logbook databases for all vessels ≥10 meters. The data covers all areas in which the Belgian fleets are active and conform to the requested aggregation, by quarter, area, gear and mesh sizes.

The species provided are: anglerfish, bib, brill, brown shrimp, cod, conger eel, cuttlefish, dab, dogfish, edible crab, flounder, great scallop, grey gurnard, haddock, hake, horse mackerel, lemon sole, ling, mackerel, megrim, Nephrops, octopus, plaice, pollack, red gurnard, saithe, sea bass, skates and rays, sole, spurdog, squid, striped mullet, tub gurnard, turbot, whelk, whitch flounder, whiting and wolffish.

As Belgium does not have trip-by-trip information on the true mesh size for its fleets for 2003-2006, Belgium (as well as other countries) agreed to assume certain mesh sizes for its beam trawler fleets. Beamers operating in the Bay of Biscay (VIIIa,b) were assumed to use a 70-79 mm mesh size as this is the minimum legal mesh size in that area for beamers. For the North Sea, the trips were split according to the rectangles reported in the logbooks, and mesh sizes were allocated in line with Council Regulation (EC) N° 2056/2001. This regulation stipulates that beam trawlers are prohibited to use less than 120 mm in ICES Division IV to the north of 56° 00’ N. Therefore all beam trawl information from this part of ICES Division IV was accounted against an assumed >120mm mesh size. The same regulation also stipulates that within the rectangle with coordinates along the east coast of the UK between 55° 00’ N and 56° 00’ N and the points 55° 00’ N – 05° 00’ E and 56° 00’ N – 05° 00’ E, beam trawlers can use 100 to 119 mm mesh size. Here also it was assumed that the mesh size used by the Belgian Beam trawl fleet was 100-119 mm. For the rest of ICES Division IV (the southern part) a mesh size of 80-89 mm was assumed for the beam trawlers. Apart from these assumed mesh size which are based on rectangle information from logbooks, it was also assumed that the shrimp fishery used a mesh size of 16-31 mm. The mesh size of the beam trawl fleets in the other area’s was assumed to be 80-89 mm. Since 2007 mesh sizes used by beam trawls operating in different areas have been based on the true mesh sizes used on each trip.

The Belgian gear categories are: beam, dredge, gill, longline, otter, and trammel. For trammel nets, no assumptions of mesh sizes were made. The only specific condition reported for 2012 data was SBCIIIart5 for all Belgian vessels operating in areas 8a and 8b.

Belgium did not provide any information for vessels under 10m.

4.3.5.2 Denmark

A number of 405759 records were submitted for 2003 - 2012, the whole time series. There were few records with missing gear information, rectangle information as well as few records for pots, dem_seines, gills, otters without any mesh size reported. No BACOMA or T90 specific conditions.

Danish data were submitted on time, and with the requested information for all tables. However, a major revision was performed in 2012, and full time series were submitted for the tables A-D, thus ensuring improved consistency in the extraction methods used across years.

The revised extraction procedures have been made compatible with the RDB FishFrame database, in order to get a unique raising procedure for all Danish catch information (discards and age-based information), thus improving the consistency of data reported to the various forums within e.g. ICES and STECF. As such, data raised in FishFrame will now be used for the STECF Effort data call. Where the categories in the FishFrame format and the STECF Effort format are not the same, the data are scaled according to the landings.

All records (405759 rows in Table E) passed the Data Submission filters, and only a very small proportion of the reported Danish fisheries activities have missing information. The resubmission of older years means that the information on previous special conditions implemented between 2004 and 2008 during the first cod plan is not available anymore.

The Danish 2012 submission still does not cover the special conditions BACOMA or T90 in the Baltic, as these are not compulsory to report in logbooks according to control regulations 1224/2009 and 404/2011.

More details on the Danish data are given under section effort data.

4.3.5.3 Estonia

A number of 1488 records were submitted for 2012. No updates for previous year’s data. There were many records with inconsistent mesh size ranges.

STECF EWG 13-13 notes that the mesh sizes are inconsistent with the data call for vessels <12 m.

4.3.5.4 Finland

A number of 1654 records were submitted for 2012. No updates for previous year’s data. Finish data were submitted in an inconsistent format together with a hint towards the data confidentiality clause in the DCF.

STECF EWG 13-13 could not make use of the Finish data given its specific ToR.

4.3.5.5 France

A total number of 62573 records were submitted only for 2012. No updates for previous year's data. Landings data by rectangle have been only submitted since last year and are available only for 2011 and 2012. No landings data by rectangle is available for 2003-2010. There were few records with missing area information and records with missing statistical rectangle information (data is available for the ICES division but not at this level of aggregation). Some inconsistent “gear*mesh size*area*specon” combination were observed, it concern the combination “pots*mesh size:-1” and combinations with missing area information. Only data regarding gears that are requested in the official data call have been submitted as a consequence records regarding gears not requested are missing.

The specific conditions Cpart11, Cpart13B, IIB72ab, DEEP and SBcIIIart5 have been provided for eligible vessels and fisheries for 2012. The data were not updated for the 2009-2011 on this specific issue.

France provided landings data by rectangle for 2011-2012 derived from official logbook databases for all registered vessels 10m and over and from monthly declarative forms (contain declarative monthly data on fishing effort and catches per species by dates, locations and gears) for all registered vessels under 10m (logbooks are not mandatory for these vessels but they are covered by these monthly declarative forms). The data covers all areas requested in the data call and conforms to the requested aggregation, by quarter, area, gear and mesh sizes.

4.3.5.6 Germany

A number of 9393 records were submitted for 2012. There were few records with missing gear information as well as few records for pots, dem_seines, gills, otters without any mesh size reported.

Germany aggregated the landings from logbook information as requested by ICES statistical rectangles and covers the full time series. No complete data on the spatial distribution of landings could be provided for vessels <10m in the North Sea and <8m in the Baltic as these vessels are not mandatory to provide detailed logbook information. Description on special conditions from part A and B also apply to part E. Some few records did not pass the Data Submission filters when some information on e.g. gear, mesh size was missing, but these records represent only a very small proportion of the reported German fisheries activities. They are related to fishing operations with seldom gears for which no code is available in the STECF data call.

4.3.5.7 Ireland

A number of 88629 records were submitted for 2009 - 2012. There were few records with missing gear information as well as few records for pots, dredges, gills without any mesh size reported.

Ireland provided landings by ICES statistical rectangle for the period 2008-2012 in the requested aggregation format, derived from the national logbook database (IFIS) for vessels ≥10m in length. In total 88629 records were submitted with few records without a gear information and few without mesh size for pots, gills, dredges and otters. Landings were calculated by summing live weights reported within the logbook operations as declared landings are not available at the level of statistical rectangle. To ensure consistency between datasets, the same base operational logbooks data was used as for the aggregation of declared landings within the Landings database (A). The following special condition information was supplied: none, CPart13a, CPart13b, CPart13c, CPart13d, CPart11 and DEEP. Specon DEEP is a duplication of effort within the relevant areas. Data from 2003-2008 from 2012 submission were retained in 2013. Revisions to earlier data are due to ongoing revisions and improvements within the national database.

No spatial landings information is available for vessels less than 10m in length.

It was not possible to accurately aggregate data to the level of EU, coast, and RFMO. Data was assigned according to the following: Where an EU category existed within an area, all data from that area was categorised as EU, with the exception of ICES division X assumed to be RFMO. Those ICES divisions without an EU category where assumed as 1 coast and 2 coast.

4.3.5.8 Latvia

A number of 352 records were submitted for 2012. No updates for previous year’s data.

Latvian data were submitted on time and in accordance with required format. Fleet specific landings data by ICES statistical rectangle were provided for 2012 only and appended to the previous time series.

4.3.5.9 Lithuania

A number of 242 records were submitted for 2012. No updates for previous year’s data.

No comments.

4.3.5.10 The Netherlands

The Netherlands only provided landings by rectangle data for 2012. No updates for previous years were submitted. The data was provided in the requested format using the official logbook data for vessels < 10 m, >= 10 <=15 m and >15 m.

All records (8266 rows in Table E) passed the Data Submission filters.

After submission it appears that specon FDFIIA was assigned to fishing activities in the area BSA, the biologically sensitive area, which appears inconsistent with the fishing regulation and the data call. After consultation of the ministry these rows are removed from the Dutch table E.

4.3.5.11 Poland

A number of 3210 records were submitted for 2012. No updates for previous year's data. No mesh size range information reported for vessels under 10 meters. No specific condition reported. Few records for vessels > 10m with no mesh size range information mainly for pots and gills.

Comparison of 2011 mesh size data with 2004-2010 shows that they are not consistent and significantly different. Neither mesh size nor SPECON (BACOMA window, T90) information were available from the database for 2004-2010. Thus these information were estimated based on expert knowledge and assumptions. Targeted species assemblages (métier), actually fish species caught and gear used were taken into account to identify mesh size. In 2011 data about mesh size were calculated based on actual information derived from logbooks, this caused that many "-1" values (missing values) which were reported for 2001-2010, become known and changed into "16-31" or "32-54" in 2011.

4.3.5.12 Portugal

Portugal provided landings by species and by rectangle for the period 2003-2012 for vessels ≥ 10 meters with the aggregation requested by the data call, based on logbook data. Data for the ICES areas 6b, 7k, 8c, 8d, 8e, 9a, 9b, 10, 12 and 14, as well as for the CECAF areas were provided. Around 20% of records, identified as having wrong ICES rectangle codes, with 3 characters instead of 4, were corrected (e.g. "4C1" corrected to "04C1"). Although not identified as errors, all lower case codes were changed to upper case, to be used by case sensitive programs.

No spatial effort information is available for vessels < 10 meters, since they are not required to complete logbooks. No quality check was performed.

4.3.5.13 Spain

<u>Data provided in 2013:</u>

Between May and June of 2013 Spain provided spatial landings data from 2012 by quarter, vessel length range, gear, mesh size range and metier (fishery). Landings were provided for BSA; ICES Subareas 1, 2, 5, 6, 8, 9, 10, 12 and 14; ICES Divisions 3b3, 3c,7a, 7b, 7c, 7d, 7e, 7f, 7g, 7h, 7j, 7k, 8a, 8b, 8c, 8d, 8e, 9a and CECAF Divisions 34.1.1, 34.1.2, 34.1.3 and 34.2.0. Landings were divided by COAST/EU/RFMO zones where appropriate. All landings were split in special condition DEEP and NONE (according to the Effort Regime in Deep Sea fisheries). In ICES Divisions 8c and 9a there were not special condition (IIB72ab) landings (Hake Plan) because no vessel in 2012 has applied for that condition in relation to hake and *Nephrops* recovery plan (Annex IIB of R(EU) No 43/2012). Landings were not divided in either Cod or Sole Plan special conditions owing to lack of time. Landings were provided for 79 of the 122 species of the 2013 data call (the other 43 do not appear in our fisheries by rectangle). No information about vessels under 10 meters was provided since data source was logbooks, but 2012 Annex IIB (Hake Recovery Plan in 8c & 9a), which is the main Plan for Spain, does not deal with vessels under 10 meters.

There were no data from Spain submitted for earlier years.

4.3.5.14 Sweden

A number of 7505 records were submitted for 2012. No updates for previous years data. There were few records with missing gear information as well as few records for pots, dem_seines and gills without any mesh size reported.

Landings data by rectangle has been submitted in the required format for the years 2003-2012, including landings by vessels <10m LOA. Landings were derived from the logbook data base.

4.3.5.15 United Kingdom

A fully revised time series (2003-2012) was provided this year, which resulted in minor changes to earlier years (2003-2008) and included the separation of special condition CPart13 into its components a,b,c,d. A number of records were submitted with missing mesh sizes for pots and dredges where mesh size was not applicable. Some records with both area BSA and special condition DEEP were submitted and ignored in the analysis. Special conditions reported were DEEP, CPart11, CPart13a,b,c,d, FDFIIA and FDFIIC.

Scotland: A number of 200057 records were submitted for 2007, 2009 - 2012 time period. There were few records with missing gear information as well as few records for otters, trammels, dem_seines and gills without any mesh size reported.

New data was submitted for 2012 and revised data submitted for 2009-2011 to accommodate the split in specific condition CPart13 for all the fleets for vessels 10m and over and for vessels under 10 meters according to the data call. Specific conditions reported were DEEP (2003-2008), DEEP and CPart13A, CPart13B, CPart13C, CPart13D (2009) and DEEP, FDFIIA, CPart11 and CPart13A, CPart13B, CPart13C, CPart13D (2010-2012).

4.3.6 Fisheries specific landing and effort data 2003-2012 of small boats (< 8m or <10m)

This STECF EWG 13-13- report provides an overview of landings and effort data provided by the experts regarding their national fisheries of small vessels<8m or <10m, which are not obliged to report their landings through logbooks but rather do landings declarations.

Previously, information on small vessels has been provided in the reports only as a series of individual country reports describing activities and landings. In this report individual country information is again provided where available – new information is provided from several countries. An attempt is also made to compile available information for each area into overall figures. Since not all countries were able to fulfil this part of the data call, the aggregate estimates for each region of the cod recovery zone must be considered as minimum estimates. Nevertheless, they begin to give an idea of the scale of landings contributed by these smaller classes of vessel and can be used to comment on the likely relative importance compared with the regulated vessels.

Member States' data submissions for small boats are summarized in the previous sections by data table A-E, sections 4.3.1-5, respectively.

4.4 Estimation of fisheries specific international landings and discards

The estimation of fisheries specific international landings and discards is based on linking the information about fisheries specific discards and catch and discards at age among countries and replacing poor or lacking values with aggregated information from other countries.

Reported data by country are aggregated by fisheries properties and raised to the officially reported landings or discards in the format stipulated in the annual DCF fishing effort data calls. A similar format had been designed by ICES SGDFF 2004 (ICES 2004) format. Fisheries definitions are based on area, year, quarter, gear, mesh size groups, special conditions as defined in Council Reg. 41/2007 Annexes IIA-C and 57/2011 Annexes IIA-C or the multiannual management plans, and national fisheries (metiers) definitions.

The data aggregation and estimation procedures follow the simple raising strategies outlined below:

- Data aggregation:

  The national fisheries data (row specific records in the data submissions from Member States) are classified to their management areas or sub-areas, species, years, quarters and effort regulated gear groups by disregarding the country and national fishery definitions (metiers).

- Estimation of discard rates by fisheries and raising of discard for non-sampled fisheries:

  Let the following notation be: D=discards, L= landings, *snf* = national fishery with a discard value from 0 to X, *unf* = non-sampled fishery without a discard value.

  The available landings and discards are aggregated (summed) over fisheries (by species, year, quarter, effort regulated area, effort regulated gear, special condition) and mean discard rates DR are calculated:

$$DR = \frac{\sum_{snf} D_{snf}}{\sum_{snf}(L_{snf} + D_{snf})} \qquad \text{if } D_{snf} \geq 0 \text{ and with } L_{snf} + D_{snf} > 0$$

  Fisheries specific discard amounts are then calculated if no discard information is available by

$$D_{unf} = \frac{L_{unf}.DR}{(1-DR)} \qquad \text{where } D_{unf} \text{ is null (empty)}$$

  Fisheries without any discard information, i.e. no average DR could be estimated, remain without any discard estimation as no quantitative information is available.

- Estimation (raising) of landings in numbers and mean weight at age for non or poorly sampled national fleets

  A poorly sampled fishery is defined as such if the Sum of Products SOP derived from numbers at age landed times weight at age

  $SOP_{snf} < 0.75$ or $SOP_{snf} > 1.25$

  Data of landings in numbers at age and their weight at age of poorly sampled fisheries are replaced with -1, meaning no information available.

  Let *i* be the age reference.

  Landings in numbers ($N_{snf,i}$) and mean weight at age ($W_{snf,i}$) are aggregated (summed for $N_{snf,i}$ and averaged for $W_{snf,i}$) over all sampled fisheries when $SOP_{snf} \geq 0.75$ and $SOP_{snf} \leq 1.25$.

  Raising of numbers at age and respective fill in of mean weights at ages 0-11 to non or poorly sampled fisheries by

  $$N_{unf,i} = \frac{\sum_{snf} (N_{snf,i}).L_{unf}}{\sum_{snf} L_{snf}}$$

  $$W_{unf,i} = mean(W_{snf,i})$$

  The mean weights are non-weighted and an appropriate weighing procedure, e.g. number of fish measured, should be explored.

  Fisheries for which no summed landings in numbers at age information and mean weights at ages could be estimated remain non-raised, i.e. without any quantitative information.

- Estimation (raising) of discards in numbers and mean weight at age for non or poor sampled fleets

  A poorly sampled fishery is defined as such if the Sum of Products SOP derived from numbers at age discarded times weight at age

  $SOP_{snf} < 0.75$ or $SOP_{snf} > 1.25$

  Data of discards in numbers at age and their weight at age of poorly sampled fisheries are replaced with -1, meaning no information available.

  Let *i* be the age reference.

  Discards in numbers ($N_{snf,i}$) and mean weight at age ($W_{snf,i}$) are aggregated (summed for $N_{snf,i}$ and averaged for $W_{snf,i}$) over all sampled fisheries when $SOP_{snf} \geq 0.75$ and $SOP_{snf} \leq 1.25$.

Raising of numbers at age and respective fill in of mean weights at ages 0-11 to non or poorly sampled fisheries by

$$N_{unf,i} = \frac{\sum_{snf}(N_{snf,i}).D_{unf}}{\sum_{snf} D_{snf}}$$

$$W_{unf,i} = mean(W_{snf,i})$$

The mean weights are non-weighted and an appropriate weighing procedure, e.g. number of fish measured, should be explored.

Fisheries for which no summed discards in numbers at age information and mean weights at ages could be estimated remain non-raised, i.e. without any quantitative information.

- Estimation of catch and catch at age in numbers including discards

Catches by fisheries are estimated as the sum of landings and discards, also where discards are lacking.

Catches at ages 0-11 in numbers by fisheries are estimated as the sum of landings at age in numbers and discards at age in numbers, also where discards are lacking.

Mean weights at ages 0-11 are estimated at weighted means (according to ratios of landings at age and discards at age to catches at age, respectively).

Finally, all fisheries' catches and catches at ages in numbers and mean weights are aggregated (summed or averaged, as appropriate) over management areas, species, years, effort regulated gear groups and special conditions.

It needs to be realised that fisheries for which no aggregated information on discards or landings in numbers at age and discards in numbers at age is available from other countries fisheries remain non-raised. STECF EWG 13-13 concludes that these non-raised fisheries may need to be subject to a specific raising procedure if total catch and catch in numbers is to be estimated and if the individual non-raised fisheries constitute significant catches.

The EWG 13-13 notes that sampling of catch at sea including discards is expensive and difficult. This means that sampling coverage tends to be rather limited, and estimates of discards are subject to high uncertainty. This is true of all the discard data used here, and in some cases the discard estimates presented represent the first attempt to use the discard data from some fisheries in an advisory context. Where the coverage is considered adequate to estimate the overall catch compositions of specific fleets these are presented, but they are intended only to provide an approximate indication of fleet catch compositions. In cases where there are little data, the estimated discard rates may be biased and imprecise (Stratoudakis *et al.*, 1999). The mean weights are estimated as unweighted means. This results in a biased estimate. An appropriate weighing procedure, i.e. number of fish measured, should be explored.

EWG 13-13 further notes that the approach of discard estimation applied is generally consistent with the method used in the discard estimates published by the FAO (Kelleher, 2004). However, the group also notes that the design of a discard sampling scheme might differ depending on whether the objective was to estimate total discards, or discard for specific fleets. In the current context estimates from sampling schemes designed for the former purpose are being used for the latter purpose which again means the estimates should only be used with caution. Where this is the case, comparisons are made between the estimates of total discards used for assessment purposes, and the fleet-specific estimates used here.

4.5 Coverage Index of Discard Estimates DQI

STECF EWG 13-13 noted the high emphasis on discard estimates for scientific, advisory and management purposes. STECF EWG 13-13 notes that the scientific resources to monitor discards by fisheries are limited and thus best use of the scarce national information requires a defined raising procedure. Furthermore, STECF EWG 13-13 also notes that it has developed and applied a consistent approach to estimate discards by fisheries (Member State, species, year, quarter, area, gear, special condition) as described in the previous section 4.4. The available landings and discard quantities have been provided by Member States in accordance with the DCF data calls to support fishing effort regime evaluations. The provisions of the DCF data call invite the Member State to estimate its discards applying best practices and to omit the submission of an estimate if the discard sampling is considered inadequate or best practices cannot be applied. STECF EWG 13-13 estimates discards by fisheries based on reported landings quantities by applying an average discard rate if a Member State has not provided a discard estimate.

In order to allow an assessment of the representativeness of the discard estimates by species and fisheries, STECF EWG 13-13 has developed and provided a coverage index attached to its provided discard estimates in this report and its electronic appendixes provided on the website of the STECF EWG 13-13. The discard coverage index is called DQI.

STECF EWG 13-13 notes that the DQI does not support precise conclusions on data quality based on scientific criteria but rather aims to classify the available information and is therefore fully dependent on correctness of the submitted national landings and discards estimates.

The index represents the sum of landings with discard estimates by species and fishery (species, year, area, gear, special condition) in relation with the total sum of landings in the given segment. It is estimated as

$$DQI = \Sigma L_d / \Sigma L$$

where L denotes landings (t) and L_d landings with a discard estimate.

In order to facilitate the interpretation of the DQI value, the DQI is classified in three groups. The groups are defined as

- A = 67 % or more of the provided landings are with an accompanying discard estimate,
- B = 34-66 % of the provided landings are with an accompanying discard estimate, and
- C = less the 33 % of the provided landings are with an accompanying discard estimate.

STECF EWG 13-13 interprets the A qualified discard estimates as rather representative as the majority of the landings by species and fishery are provided with national discard estimates. However it should be noted again that this discard coverage index cannot inform on the quality of the discard rate estimates supplied by nations (as affected for example by the proportion of fishing trips sampled for discards).

The B qualified discard estimates are then seen as requiring a careful review before any use.

Finally, STECF EWG 13-13 advises the C qualified discard estimates in its deliveries (tables and appendixes) not to be used as the majority of the reported landings lack a discard estimate.

4.6 Treatment of CPUE data

In this report, EWG 13-13 presents CPUE by regulated gears in units of g/(kW*days). Where discard estimates are not available, the trends in LPUE (landings per unit of effort) are given in the same units. Unfortunately, discard information continues to be sparse or absent for some categories of gear in some areas. **The STECF EWG wishes to stress again that great care should be used in the interpretation of the discard and resulting catch data owing to the incomplete nature of information on discarded fish.**

EWG 13-13 notes that CPUE series are often interpreted and used as stock abundance indicator. However, EWG 13-13 emphasises that the presented trends in CPUE by fleets are subject to selective fishing strategies (area, gear, mesh size etc.) and thus maybe biased. On the other hand, CPUE derived from targeted fisheries may provide very useful information on stock abundance trends. Furthermore, it must be taken into consideration that the majority of the CPUE trends represent only overall weights in the landings (LPUE) without discards or with poorly estimated discards. Ideally, the CPUE should be based on age disaggregated abundance rather than overall weights and reflect technological creep when trends over longer periods are evaluated.

4.7 Ranking of gears on the basis of contribution to catches

Where required, EWG 13-13 presented the ranked contributions of the individual effort regulated gears to cod, plaice and sole catches for the years 2003 to 2012. There was discussion about whether the ranking should be based on a single recent year (possibly reflecting the most up to date importance of the different gear types in contributing to mortality of these species) or an average for a range of years (which allows for any aberrations in the series). A presented rankings are according to catch estimates or landings in 2012.

The catch estimates are based on the sums of the landings and discards where available. EWG 13-13 considers the catch estimates as uncertain where fisheries lack discard estimates or they are poorly sampled. The ranking according to catch in numbers only considers derogations for which catch in numbers are available. **STECF EWG 13-13 wishes to stress again that great care should be used in the interpretation of the discard and resulting catch data owing to the incomplete nature of information on discarded fish.**

4.8 Summary of effort and landings by ‘unregulated’ gears

In the summary tables of effort a total value for a ‘none’ category is provided. This ‘none’ category represents

i) gear types and mesh sizes which are unregulated, i.e. non-regulated by effort in addition to

ii) unidentified mesh sizes. In the main effort summary tables, this category is not broken down into its constituent gears.

iii) the so-called derogation Swedish grid, which was encoded as IIA83b and CPart11, respectively. This gear configuration is explicitly exempted from the effort regime (R (EC) No 754/2009).

However, STECF EWG 13-13 has provided a break down of the main gears within the ‘none’ category in a dedicated subsection for each area. Information is given on effort (kW*days at sea) for gears such as ‘beam’, otter, pots, dredges etc, and for catches by these gears of key species (e.g. cod, plaice and sole). This analysis helps to identify which gears contribute significantly to landings of these species but which are not currently regulated.

With the adoption of the revised cod recovery plan towards the end of 2008 and the simplified list of regulated gears for which data are now collated, the compilation of the unregulated categories was more straightforward in 2009 onward and the data appear to be reliable.

It is important in making use of the data in this report, that the ‘none’ material is not counted more than once. It would be preferable to use data from the sections covering unregulated gears.

4.9 Presentation of spatial information on effective effort and landings

STECF EWG 13-13 notes that minimum geographic resolution in the available logbook information on landings and effective effort is by ICES rectangle and considers analyses to only be possible at that resolution at the present time. In a number of the smaller areas, however, this resolution is inadequate for describing any localised changes of effort distribution (for example, in the Kattegat) and finer scale is desirable. Increasing availability of VMS data should provide opportunities for improved resolution in due course. STECF EWG 13-13 notes that only major changes in the geographical distribution patterns should be given attention given the imprecision of the created data set. A full set of figures is available electronically but a selection of key gears is included in this report.

Figures use a common scale across years for a given gear group (e.g. TR1) but scales are unique to each category such that the colours assigned to statistical rectangles for category TR1 cannot be compared directly to those assigned for category TR2. Note that this year the scale used in the plots relates to the actual effort values (rather than the percentile method used in previous years).

4.10 Response of EWG 13-13 regarding the estimation of spatio-temporal patterns in catchability

STECF EWG 13-13 continued its considerations which started during STECF EWG 13-06 and adopted the definition of catchability (q) as the relationship between the catch rate (CPUE) and the true population size. Consequently, the unit of catchability is fish caught per fish available per effort unit and per time unit, or, in easier words, catchability can conceptually be considered as the probability of any single fish being caught (Jul-Larsen *et al*., 2003).

STECF EWG 13-13 notes that many factors are related to catchability, e.g. mainly fish abundance at a certain time in a certain area and gear efficiency (fishing power) including use of the gear and fishers’ experience (Marchal *et al*., 2001). A standard solution to evaluate changes in catchability is therefore to compare catch rates from commercial and research fishing where the catchability of the research fishing is holding constant from year to year (Neis *et al*.,1999):

CPUE (fishery)/CPUE (survey) = q (fishery)/q (survey)

This catchability index has no units, as it represents the ratio of fish caught per fish available per effort unit and per time unit.

STECF EWG 13-13 identified the needs to estimate catchability coefficients and to undertake spatio-temporal analyses of them. The calculation of catchability indices for cod per ICES statistical square (rectangle) and year is derived from standardized and averaged ratios between CPUE by fishery and CPUE based on survey indices.

The estimation of catches by rectangle is derived from a raising procedure applied to landings data by stock, nation, fishery (effort regulated gear groups), year, quarter and rectangle to estimate discards and conclude on catches at this aggregation level. National landings by stock, fishery, year, quarter and rectangle were raised by average national discards rates obtained by stock, fishery, year and quarter without rectangle:

$$C_{\text{stock, nation, fishery, year, rectangle}} = \Sigma\, (L_{\text{stock, nation, fishery, year, rectangle}} / (1 - DR_{\text{stock, nation, fishery, year}})\,),$$

where C denotes the catch in weight (t), L denotes the landings in weight (t), and DR denotes a specific average discard rate based on the DCF data submissions of landings and discards. Where the discard rate is unknown, landings figures were accepted as a best estimate of catches.

Average national commercial catch rates by stock, fishery, year and rectangle were then estimated from

$$CPUE_{\text{stock, nation, fishery, year, rectangle}} = C_{\text{stock, nation, fishery, year, rectangle}} / E_{\text{stock, nation, fishery, year, rectangle}}\,,$$

where CPUE denotes the catch rates, C the estimated catch in weight (t) and E the fishing effort in units of fished hours.

The catchability index CA per stock, year and rectangle is then derived from the ratio between the averaged commercial CPUE values by stock, nation, fishery, year and rectangle, each of them divided by the CPUE from the respective average scientific survey CPUE in units of weight (kg). Both catch rate estimates, the commercial and the scientific ones, were made subject to log transformation in order to reduce the high variation between years and rectangles.

$$CA_{\text{stock, year, rectangle}} = \Sigma_n\, (\ln\,(1+CPUE_{\text{stock, nation, fishery, year, rectangle}}) / \ln(1+CPUE_{\text{stock, survey, year, rectangle}})) / n,$$

where n is the number of nation-fleet combinations.

4.11 Amendments of the 2013 DCF data calls to support fishing effort regime evaluations

STECF EWG 13-13 noted that its recommendations to amend the 2013 DCF data call to support fishing effort regime evaluation have been implemented and that these changes will support the accomplishment of specific ToR.

STECF EWG 13-13 noted that the 2013 DCF data call to support fishing effort regime evaluations covered few but important changes as compared with the data call in 2012. The only structural change in the 2013 data call was the an additional variable called for the Baltic Sea specific fishing effort analyses, called FISHING_ACTIVITY_DAYS at a rather high aggregation level (by the cod plan areas A and B, country, year and all effort regulated gears). This additional variable was defined for the entire period of the data call (2003-2012) and thus required a complete re-submission of data for the period 2003-2011 in addition to the requested data update for 2012.

The second major change of the DCF data call in 2013 regards the definition of the multiannual cod plan (Coun. REg. No 1342/2008) specific provisions given in art 13, paragraphs a, b, c and d. Member States were invited to deliver fisheries specific catch and effort data to support specific analyses related to the cod plan implementation, which required re-submission for the years 2009-2011 in addition to the requested update for 2012.

The third major change of the DCF data call in 2013 regards additional analyses of fully documented for sole in the Western Channel.

STECF EWG 13-13 noted that the DCF data call in 2013 required re-submissions of re-aggregated data in addition to the re-quested data update for 2012, which implied additional workload for the national institutions involved in the DCF framework.

5 EVALUATIONS BY FISHING EFFORT MANAGEMENT REGIME

5.1 Baltic Sea effort regime evaluation in the context of the management plan for Baltic cod (Council Regulation (EC) No 1098/2007)

5.1.1 ToR 1.a Fishing effort in kWdays and GTdays by area, Member State and fisheries

Table 5.1.1.1 lists the trends in effort for gear categories defined in the cod management plan Council Regulation (EC) 1098/2007 in kW*days at sea for the whole Baltic. Table 5.1.1.2 lists the trends in effort by gear category and area for regulated gears. Table 5.1.1.3 lists relative annual effort dynamics in Baltic cod r-GILL and r- OTTER fisheries in 2004-2012 by gear category and area. Figures 5.1.1.1 – 5.1.1.6 show effort trends in regulated and unregulated gear categories by areas.

In accordance with the ToR respective tables by gear-category, area and Member States in GT*days at sea (GT gross tonnage), activity (in days absent from port) and capacity (number of vessels) are available on the web site of the EWG. STECF EWG 13-06/13-13 emphasize that the days at sea and number of vessels need to be interpreted with care and cannot be added across gear categories as the individual vessels may have been engaged in more than one of the defined fleets and thus could be multiple counted.

There have been marked reductions in effort measured in kW-days in 2004-2012 both for regulated gears in accordance with Council Regulation (EC) 1097/2007 and unregulated gears. The total effort deployed in the Baltic in 2012 was 53% lower compared to 2004 and 46% lower compared with 2011 (Table 5.1.1.1).

A clear reduction in total effort could be observed for area A until 2010. Since then the total effort stabilized. The effort dynamics in main regulated gear types show contrasting trends in 2011-2012: the effort of regulated pelagic trawls decreases and that of regulated demersal seine increased while regulated otter trawl effort remained unchanged (Figures 5.1.1.1.-5.1.1.2). Figures 5.1.1.2 and 5.1.1.3 display the trends in area B. The overall effort of regulated gears has increased since 2010 slightly due to increase in r-otter effort. The effort of non-regulated gears decreased from 2011 substantially. In area C the effort deployed with unregulated gears shows clear decreasing trend since 2010 (Figure 5.1.1.5). Since the majority of cod catches stem from areas A and B (see section below), the slight increase in total effort can be observed both for regulated and unregulated gears. Table 5.1.1.3 describes the relative annual effort dynamics in Baltic cod r-GILL and r-OTTER fisheries in 2004-2012. The total effort showed a consistent decreasing trend in area A until 2011. A decrease could be observed also in area B, however until 2010 only. In 2011-2012 an increase by followed, driven mostly by otter trawl effort.. The effort dynamics in area C did not show any particular trend. In 2011-2012 however, a substantial increase in effort was observed both in gillnet and otter trawl effort (Table 5.1.1.3).

The effort in ICES Sub-division 28.2 decreased in 2012 after the increase in 2011 both in the regulated gillnet and otter trawl fisheries (Figure 5.1.1.8).

The decrease in total effort for the main gears catching cod in areas A and B (regulated otter, see section below) was obvious for all Member States (Table 5.1.1.4). When combining specon BACOMA and none, the reductions were most pronounced for Denmark (-58%) and Germany (-47%) in area A, and most pronounced for Poland (-72%) and Sweden (-25%) in area B. In contrast, the effort for r-Gill (the second most important gear, see section below) increased for Denmark and Germany in area A (by 10% and 16% respectively). Combined effort decreased for Latvia (-98%) and for Poland (-46%). This indicates a certain shift between métiers. In area B the effort increased from 2011 to 2012 in r- otter trawl fishery- in Germany by 67%, Poland by 49% and in Lithuania by 20%.

The effort decreased substantially for regulated gill nets in all Member States. The sharp increase of pelagic effort in 2004–2005, described in the Figure 5.1.1.5 can be explained by the inclusion of Estonian data set from 2005-2010, showing substantial pelagic effort.

In Sub-division 28.2 only Latvia reported the information on effort deployed in regulated GILL fishery. The effort has decreased over the period of 2004-2012 by 54% and for regulated otter-trawls by 58% (Figures 5.1.1.7 - 5.1.1.8).

For area C the full time series of information for regulated otter trawls was not available to the group. The effort for regulated gill nets decreased by 13% in 2004-2012. An increase in effort by 25% was observed from 2011 to 2012 (Sweden). The use of BACOMA-trawls increased over the years (see Figures 5.1.1.2, 5.1.1.4 and 5.1.1.6). However, as already mentioned several Member States were not able to identify vessels fishing with BACOMA-trawls from logbook data. Therefore, the increase in the usage of BACOMA-trawls is most likely underestimated substantially and trends are highly uncertain.

Table 5.1.1.1 Trend in nominal effort (kW*days at sea) by gear categories according to Council Regulation (EC) 1098/2007, 2004-2012. An “r” in front of the gear type indicates regulated gears. Gear types without an “r” are non-regulated gears. Data from Sweden and Poland were only available from 2003 or 2004 respectively. Relative change from 2004 to 2012.

REG GEAR COD	SPECON	2004	2005	2006	2007	2008	2009	2010	2011	2012	rel. change
BEAM	none	0	132	1090	881	27566	16298	884	884	368	1,00
DEM_SEINE	none	50829	31212	20892	20597	12522	5337	5031	12266	882	-0,98
DREDGE	none	78384	72955	97700	110931	45088	48712	65364	56203	91968	0,17
GILL	none	2514485	2781351	2465917	2293892	2019216	1862392	1922682	1906426	775303	-0,69
none	none	75976	144961	174621	150574	118723	114766	84697	68246	77949	0,03
OTTER	none	2870433	2450721	1971668	1672218	1353484	1477623	1197194	1101870	973442	-0,66
PEL_SEINE	none	2499	0	0	0	3528	16467	13674	12645	27163	9,87
PEL_TRAWL	none	15552840	62133235	45906681	39463937	43240579	40031349	29616128	26579447	8216408	-0,47
POTS	none	1519123	1616616	1346062	1211896	1209985	883458	1035858	919071	379577	-0,75
r-BEAM	BACOMA	0	0	0	0	3867	0	0	0	0	0,00
	none	0	0	0	0	0	0	129	0	0	0,00
r-DEM_SEINE	BACOMA	0	0	35178	46741	46182	62042	36621	52390	29641	1,00
	none	404467	277118	262991	243984	181854	122508	95833	62941	113731	-0,72
r-GILL	none	9883237	8720856	7812598	6689205	6010468	4751522	4123605	3777836	3975573	-0,60
r-LONGLINE	none	1441251	1762927	1696057	1007443	732605	901565	816726	792860	572124	-0,60
r-OTTER	BACOMA	8077219	6708057	8744572	6593542	5519745	4073745	4223497	3584428	3535393	-0,56
	none	5997614	6125856	3554966	2555771	2427194	2099090	2103909	3342583	4089663	-0,32
	T90	0	0	0	0	0	9536	160701	276747	195488	1,00
r-PEL_TRAWL	BACOMA	1185898	577852	1689966	1636710	854557	349455	199507	936461	181573	-0,85
	none	249065	219359	119545	37349	3887	27748	12921	27136	19629	-0,92
r-TRAMMEL	none	237634	474368	432884	502123	539744	564008	445131	418462	487356	1,05
TRAMMEL	none	20495	31581	32540	31788	25870	11054	11927	10883	5265	-0,74
Grand total		50161449	94129157	76365928	64269582	64376664	57428675	46172019	43939785	23748496	-0,53

Table 5.1.1.2. Trend in nominal effort (kW*days at sea) by regulated gear categories and area 2003-2012. An “r” in front of the gear type indicates regulated gears in accordance with Council Regulation (EC) 1098/2007. Data from Sweden and Poland were only available from 2003 and 2004 respectively.

ANNEX	REG AREA COD	REG GEAR COD	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bal	28.2	r-DEM_SEINE	1534	804	0	0	0	0	4091	3967	0	3273
Bal	28.2	r-GILL	128458	38171	62083	52887	52229	16129	15303	23211	17613	10418
Bal	28.2	r-OTTER	44642	88489	84119	64123	60310	34048	19735	4865	36969	23786
Bal	28.2	r-PEL_TRAWL	882		6850	5500	1100		2860			
Sum			175516	127464	153052	122510	113639	50177	41989	32043	54582	37477
Bal	A	r-BEAM	442	0	0	0	0	3867	0	129	0	0
Bal	A	r-DEM_SEINE	367804	401961	265914	276632	277345	220254	160744	101579	68761	91495
Bal	A	r-GILL	2136791	2202578	3605681	3464031	3182556	3025722	2353090	2043431	1929540	1887253
Bal	A	r-LONGLINE	176508	230860	555892	409225	300403	166043	205986	160958	175618	204547
Bal	A	r-OTTER	5286832	4961432	5171790	4124965	4367256	3537808	2807271	2362321	2450277	2475071
Bal	A	r-PEL_TRAWL	30931	20233	67882	50463	40983	6994	2744	11521	8247	2319
Bal	A	r-TRAMMEL	247947	227298	467533	424155	487260	528888	546918	441372	416361	484318
Sum	A		8247255	8044362	10134692	8749471	8655803	7489576	6076753	5121311	5048804	5145003
Bal	B	r-DEM_SEINE	729	1702	11204	21537	13380	7782	19715	26908	46570	48604
Bal	B	r-GILL	3516915	7551967	4959662	4199675	3379807	2902885	2320231	1983437	1772316	2003874
Bal	B	r-LONGLINE	555385	1210391	1207035	1286832	707040	566482	695579	655768	617242	367577
Bal	B	r-OTTER	4232302	9024912	7573972	8104996	4718919	4368681	3355365	4120921	4716512	5321587
Bal	B	r-PEL_TRAWL	73507	1414730	722479	1753548	1631976	851450	371599	200907	955350	198883
Bal	B	r-TRAMMEL	12374	10336	6835	8464	14863	10856	17090	3759	2101	3038
Sum	B		8391212	19214038	14481187	15375052	10465985	8708136	6779579	6991700	8110091	7943563
Bal	C	r-GILL	88826	90521	93430	96005	74613	65732	62898	73526	58367	74028
Bal	C	r-LONGLINE	992	0	0	0	0	80	0	0	0	0
Bal	C	r-OTTER	0	0	4032	5454	2828	6402	0	0	0	100
Bal	C	r-TRAMMEL	0	0	0	265	0	0	0	0	0	0
Sum	C		89818	90521	97462	101724	77441	72214	62898	73526	58367	74128
Sum	BC		8481030	19304559	14578649	15476776	10543426	8780350	6842477	7065226	8168458	8017691

Table 5.1.1.3. Relative annual effort dynamics in Baltic cod r-GILL and r- OTTER fisheries in 2004-2012.

REG GEAR COD	REG AREA COD	SPECON	2004/2005	2005/2006	2006/2007	2007/2008	2008/2009	2009/2010	2010/2011	2011/2012
r-GILL	28.2	none	0.63	-0.15	-0.01	-0.69	-0.05	0.52	-0.24	-0.41
	A	none	0.64	-0.04	-0.08	-0.05	-0.22	-0.13	-0.06	-0.02
	B	none	-0.34	-0.15	-0.20	-0.14	-0.20	-0.15	-0.11	0.13
	C	none	0.03	0.03	-0.22	-0.12	-0.04	0.17	-0.21	0.27
r-OTTER	28.2	BACOMA	-0.05	-0.24	-0.06	-0.44	-0.42	-0.75	6.60	-0.36
	A	BACOMA	0.58	2.49	0.23	-0.27	-0.25	-0.14	0.03	-0.10
		none	0.00	-0.54	-0.11	-0.08	-0.16	-0.19	0.03	0.12
		T90	0.00	0.00	0.00	0.00	0.00	1.00	0.83	-0.10
	B	BACOMA	-0.21	0.10	-0.39	-0.09	-0.27	0.14	-0.23	0.04
		none	0.09	-0.05	-0.53	0.03	-0.07	0.41	1.29	0.28
		T90	0.00	0.00	0.00	0.00	1.00	13.51	0.70	-0.33
	C	BACOMA	0.00	0.00	0.00	1.00	-1.00	0.00	0.00	0.00
		none	1.00	0.35	-0.48	0.50	-1.00	0.00	0.00	1.00
All regulated gears 28.2			0.15	-0.20	-0.04	-0.55	-0.30	-0.20	0.94	-0.37
All regulated gears A			0.23	-0.14	-0.01	-0.13	-0.21	-0.15	-0.01	0.00
All regulated gears B			-0.24	-0.02	-0.34	-0.10	-0.22	0.08	0.06	0.13
All regulated gears C			0.08	0.04	-0.24	-0.07	-0.13	0.17	-0.21	0.27

Table 5.1.1.4 Trend in nominal effort (kW*days at sea) by regulated gear categories according to Council Regulation (EC) 1098/2007, area and Member State for 2004-2012. Data from Estonia were only available from 2005.

REG AREA COD	REG GEAR COD	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012
28.2	r-DEM_SEINE	LVA	804					4091	3967		3273
	r-GILL	EST			166						
		LVA	38171	62083	52721	52229	16129	15303	23211	17613	10418
	r-OTTER	EST			221	221					
		LVA	88489	84119	63902	60089	34048	19735	4865	36969	23786
	r-PEL_TRAWL	LVA		6850	5500	1100		2860			
A	r-BEAM	DEU					3867				
		DNK							129		
	r-DEM_SEINE	DEU	7398	1912	23422	37741	38400	42327	9713	13789	1764
		DNK	394563	264002	253210	239604	181854	118417	91866	54972	89731
	r-GILL	DEU	662527	1135980	1449940	1457215	1247682	932027	893907	809150	771580
		DNK	540757	1245235	993868	804366	872897	723711	610449	593694	597244
		EST		40887	57436	19041	39051	41349			
		LTU		19111	32901						
		LVA	142491	171002	161456	30116	12676	3528	11604	6174	2940
		POL	236261	331555	199045	325354	228173	135263	84558	81024	126904
		SWE	620542	661911	569385	546464	625243	517212	442913	439498	388585
	r-LONGLINE	DEU	80543	122727	119348	100892	97335	122409	74286	62880	58865
		DNK	86314	164621	202815	126714	32557	33817	42527	46243	56902
		LTU		12533	0						
		POL	17962	143615	46306	53736	21615	6391	4502	6118	7932
		SWE	46041	112396	40756	19061	14536	43369	39643	60377	80848
	r-OTTER	DEU	1753928	1686831	1481387	1491775	1207722	1028646	933844	964057	932751
		DNK	2814169	2879424	2035587	1812121	1669672	1415553	1145919	1077878	1182374
		EST		4199					4248		2650
		LTU		57602	84342						
		LVA		17632		18488			7920		
		POL	172618	310416	185144	618979	315079	172795	114560	101350	146051
		SWE	220717	215686	338505	425893	345335	190277	155830	306992	211245
	r-PEL_TRAWL	DEU	3975	17039	20699	30856	3443		3740	5756	1607
		DNK	11156	14346	24308	6246	2831	2744	7621	561	322
		EST		662		1269					
		LTU		16799	0						
		POL	2220	16612	1258	2612			160		
		SWE	2882	2424	4198		720			1930	390
	r-TRAMMEL	DEU	21308	40549	67494	132416	128657	134669	77750	106349	104519
		DNK	176833	368285	311401	309684	349896	317238	301565	271304	335772
		SWE	29157	58699	45260	45160	50335	95011	62057	38708	44027
B	r-DEM_SEINE	DEU	822		11756	9000	7782	19715	26908	38601	27877
		DNK	880	11204	9781	4380				7936	20727
		POL								33	
	r-GILL	DEU	8290	43704	14527	11824	5048	6594			
		DNK	247793	288548	255355	190114	195224	170484	133853	129032	109307
		EST		287824	253368	128268	40036	31107			
		LTU		93187	55397	90686	128949	107267	104170	78123	48511
		LVA	1471236	701180	596996	568781	539579	401856	361015	350477	273839
		POL	4339027	2361250	1992875	1556930	1079645	791231	788566	695263	1121302
		SWE	1485621	1183969	1031157	833204	914404	811692	595833	519421	450915
	r-LONGLINE	DEU	11771	15007	9881	11920	17580	12580	6600	2420	
		DNK	112769	154482	157371	86736	45320	63169	76826	76881	41313
		LTU		264	59543	35332	34991	6664	3956	5514	
		POL	712715	691955	738832	410561	270046	412292	391897	324267	187100
		SWE	373136	345327	321205	162491	198545	200874	176489	208160	139164
	r-OTTER	DEU	211999	280977	163096	80177	191198	220844	276398	108001	180536
		DNK	891009	993201	1279055	585792	644737	629248	781262	1071791	1160176
		EST		94896	5729	9503			96642	179832	79178
		LTU		342503	192759	170844	382050	286887	332848	398109	477440
		LVA	322019	242532	350925	186093	229860	198632	218426	473943	376406
		POL	5657875	3902889	4457610	2534977	1715576	1018609	1245924	1064287	1582454
		SWE	1942010	1716974	1655822	1151533	1205260	1001145	1169421	1420549	1465397
	r-PEL_TRAWL	DEU	182107	143688	141492	70379	16691	36135	61303	128870	48484
		DNK	51827	44286	94797	31103	1056	4030	3536	5080	3750
		EST		214426	355398	702922	703021	219177	114680	714754	86256
		LTU		1100	89918	85447	61407	20974	1764	4420	6837
		LVA	114489	4122	29965	122803	10521	14473			18648
		POL	921668	193724	628134	440888	21895	36317	3424	2428	14087
		SWE	144639	121133	413844	178434	36859	40493	16200	99798	20821
	r-TRAMMEL	DNK	2167	5598	7550	12631	5910	15546	3693	1185	546
		SWE	8169	1237	914	2232	4946	1544	66	916	2492
C	r-GILL	EST		166	166						
		POL									573
		SWE	90521	93264	95839	74613	65732	62898	73526	58367	73455
	r-LONGLINE	SWE					80		0		
	r-OTTER	EST		3628	5454	2828	4242				
		POL									100
		SWE		404			2160				
	r-TRAMMEL	SWE			265						

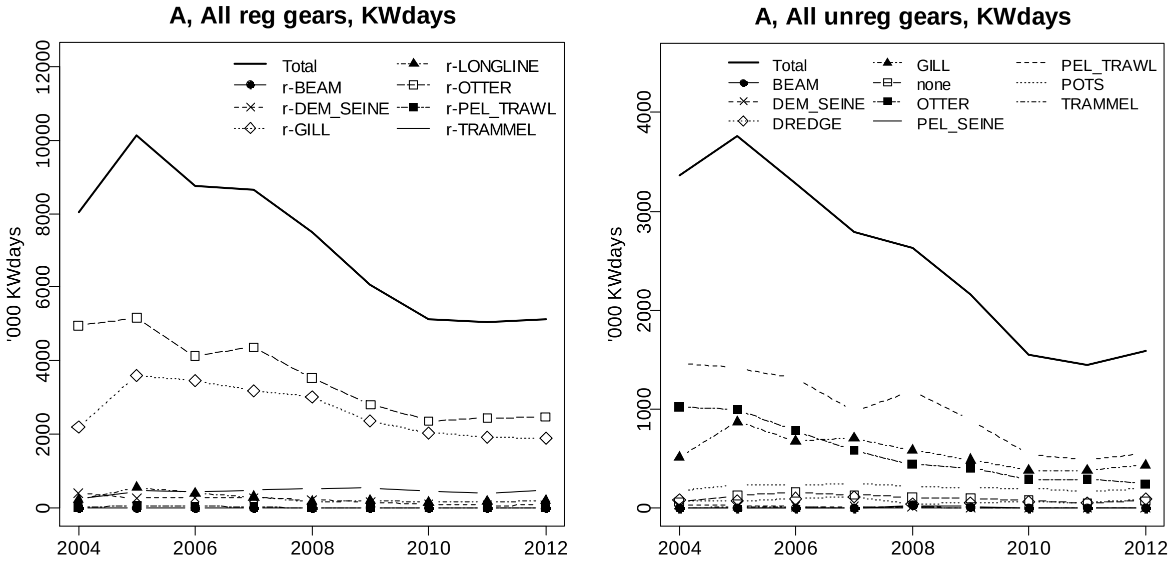


Figure 5.1.1.1. Area A Baltic: Trend in nominal effort by gear types 2004-2012 (kW*days at sea). Left panel: Regulated gears. Right panel: Unregulated gears. Note that data from Poland, Latvia and Lithuania are only available from 2004 and from Estonian from 2005 onwards. Therefore, effort trends are shown from 2004 to 2012. No data from Finland.

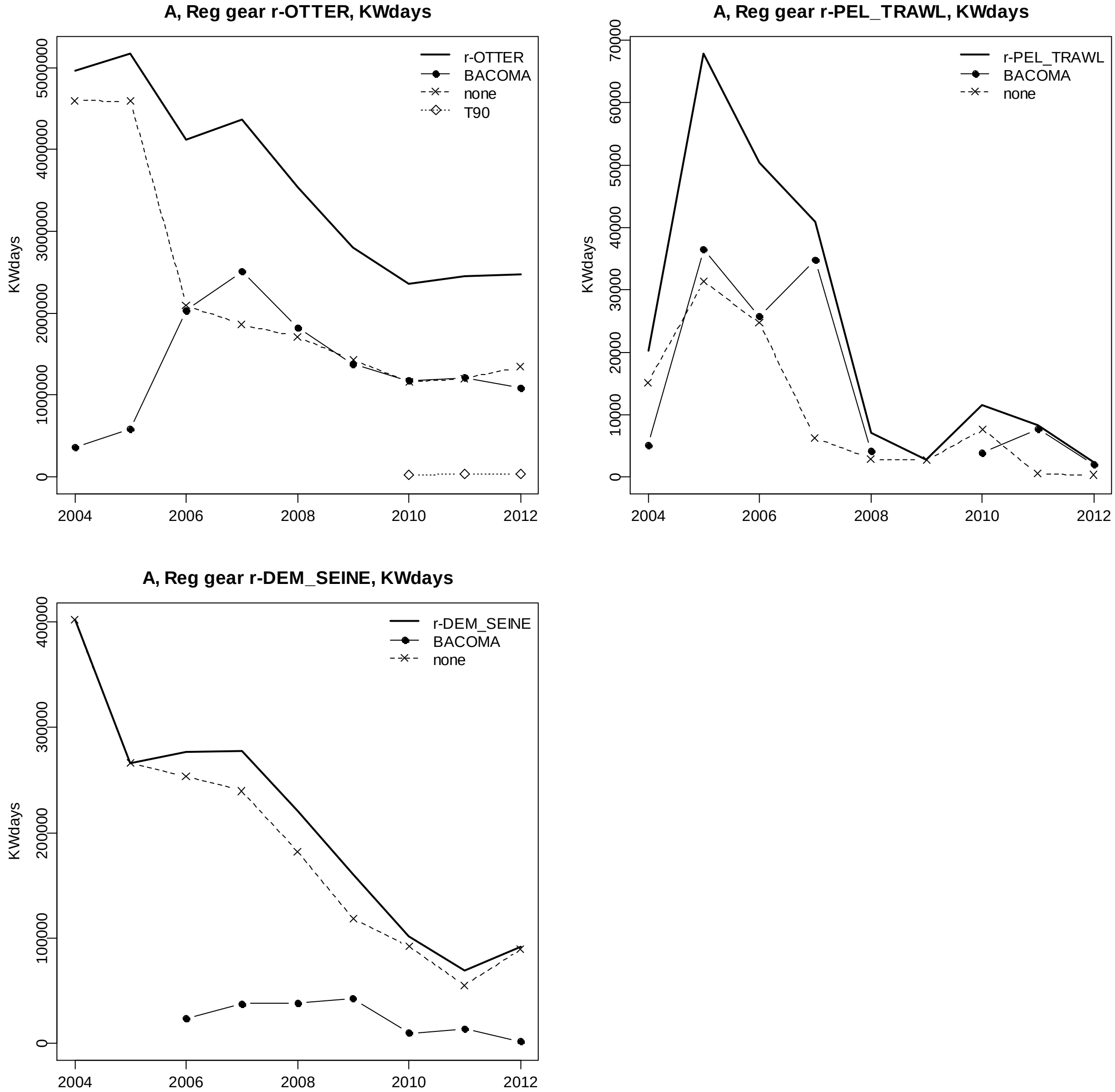
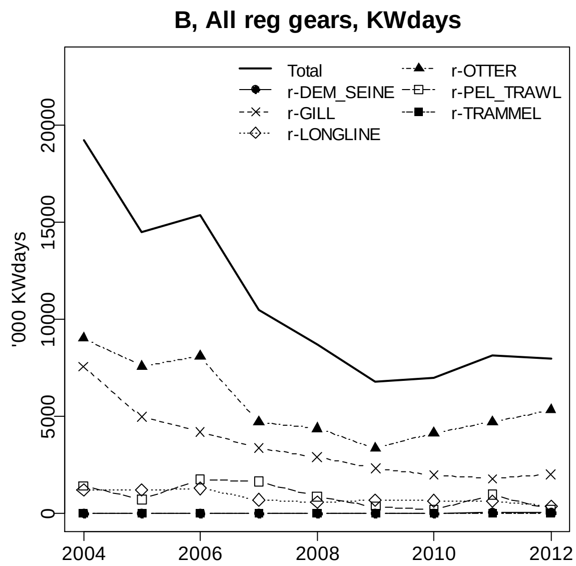


Figure 5.1.1.2. Area A Baltic: Trend in nominal effort by special conditions, 2004-2012 (kW *days at sea). Note that data from Poland, Latvia and Lithuania are only available from 2004 and from Estonian from 2005 onwards. Therefore, effort trends are shown from 2004 to 2012. No data from Finland.



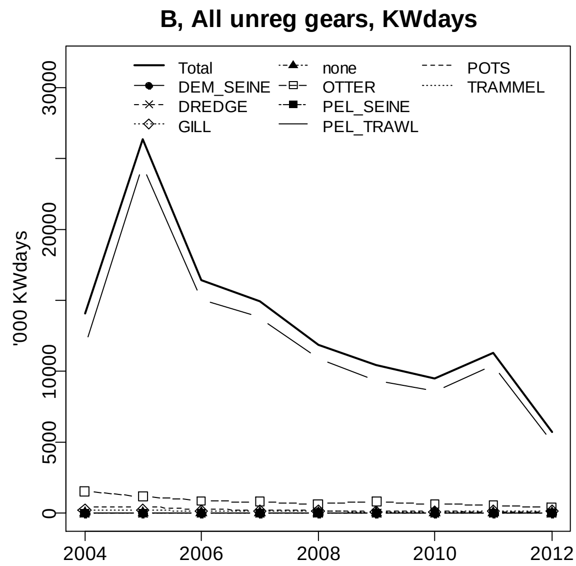


Figure 5.1.1.3. Area B Baltic: Trend in nominal effort by gear types 2004-2012 (kW *days at sea). Left: Regulated gears. Right: Unregulated gears. Note that data from Poland, Latvia and Lithuania are only available from 2004 onwards. Therefore, effort trends are shown from 2004 to 2012. Additionally, Estonian data set of 2005-2012 was included in database. No data from Finland.

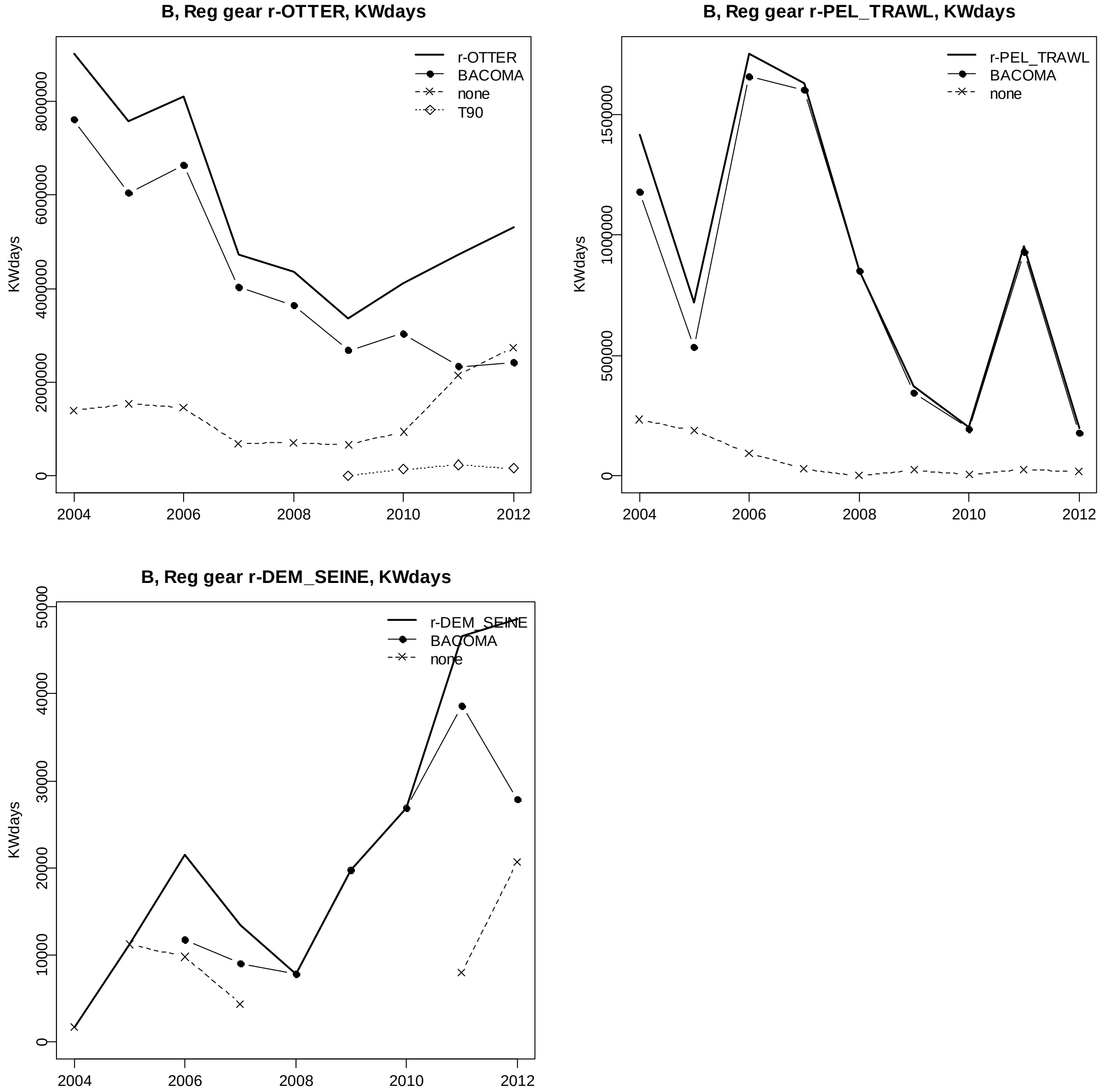


Figure 5.1.1.4. Area B Baltic: Trend in nominal effort by special conditions, 2004-2012 (kW *days at sea). Note that data from Poland, Latvia and Lithuania are only available from 2004 and from Estonian from 2005 onwards. Therefore, effort trends are shown from 2004 to 2012. No data from Finland.

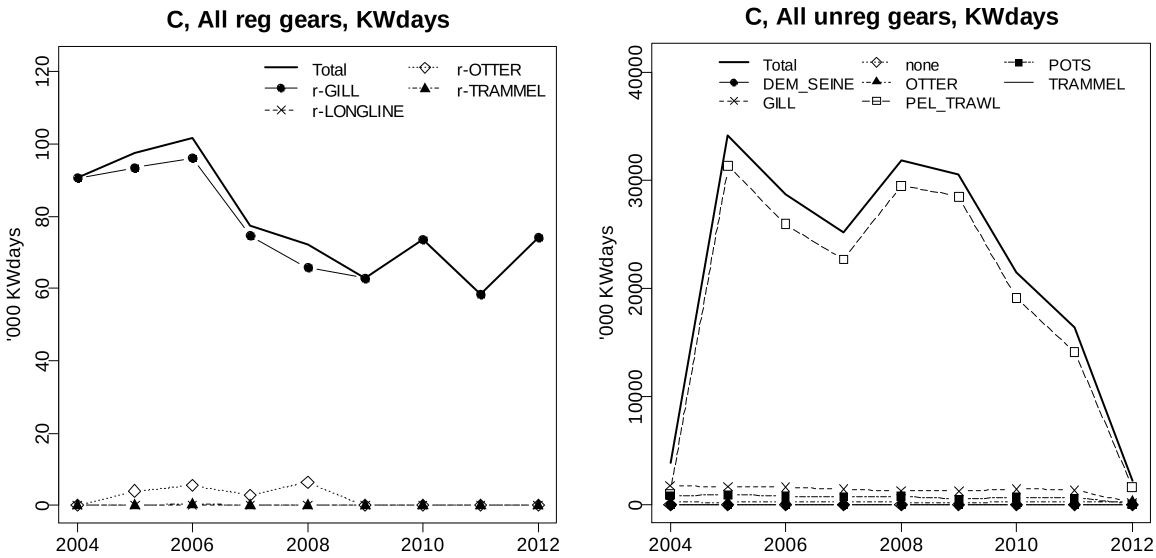


Figure 5.1.1.5. Area C Baltic: Trend in nominal effort by gear types 2004-2012 (kW *days at sea). Left: Regulated gears. Right: Unregulated gears. Note that data from Poland, Latvia and Lithuania are only available from 2004 onwards. Therefore, effort trends are shown from 2004 to 2011. Additionally, Estonian data from 2005-2012 (including substantial pelagic effort) was included. No data from Finland.

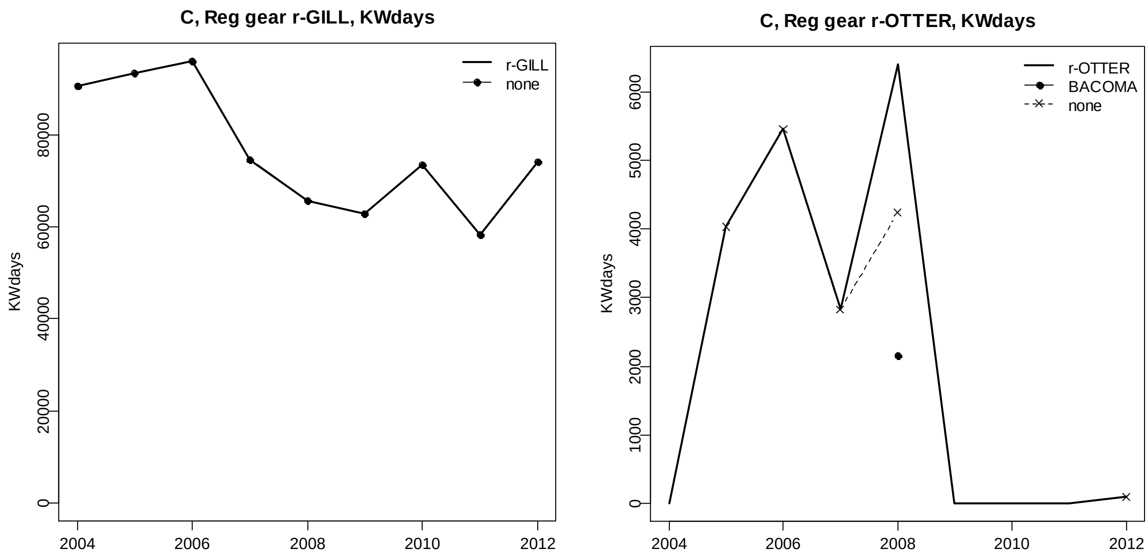


Figure 5.1.1.6. Area C Baltic: Trend in nominal effort by special conditions, 2004-2012 (kW *days at sea). Note that data from Poland, Latvia and Lithuania are only available from 2004 and from Estonian from 2005 onwards Therefore, effort trends are shown from 2004 to 2012. No data from Finland.

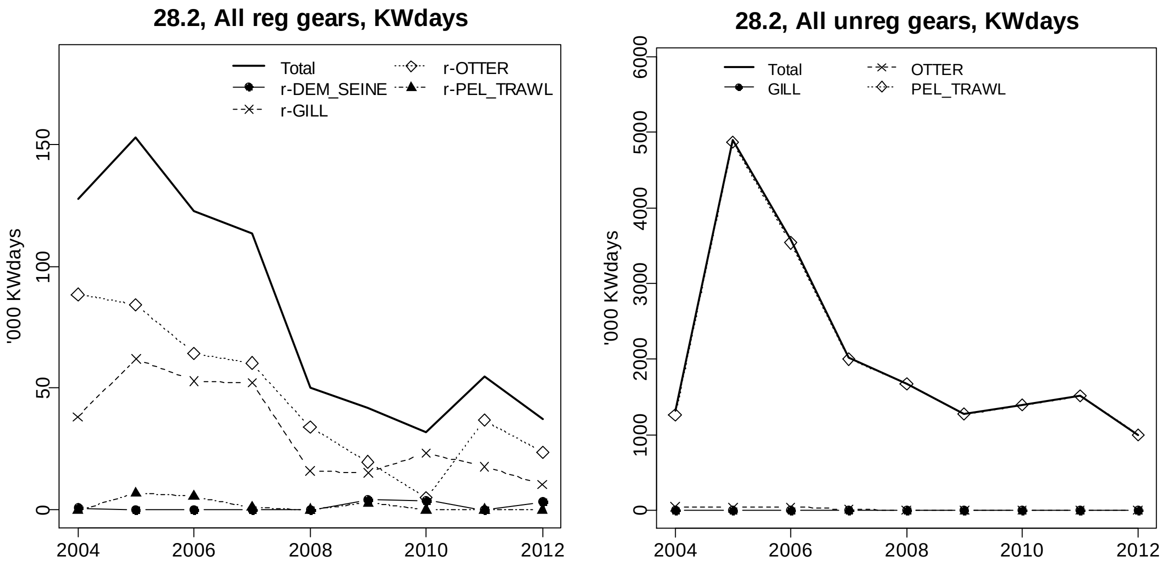


Figure 5.1.1.7. Sub-division 28.2. Baltic: Trend in nominal effort by gear types 2004-2012 (kW *days at sea). Left: Regulated gears. Right: Unregulated gears. Note that data from Poland, Latvia and Lithuania are only available from 2004 and from Estonian from 2005 onwards. Therefore, effort trends are shown from 2004 to 2012. No data from Finland.

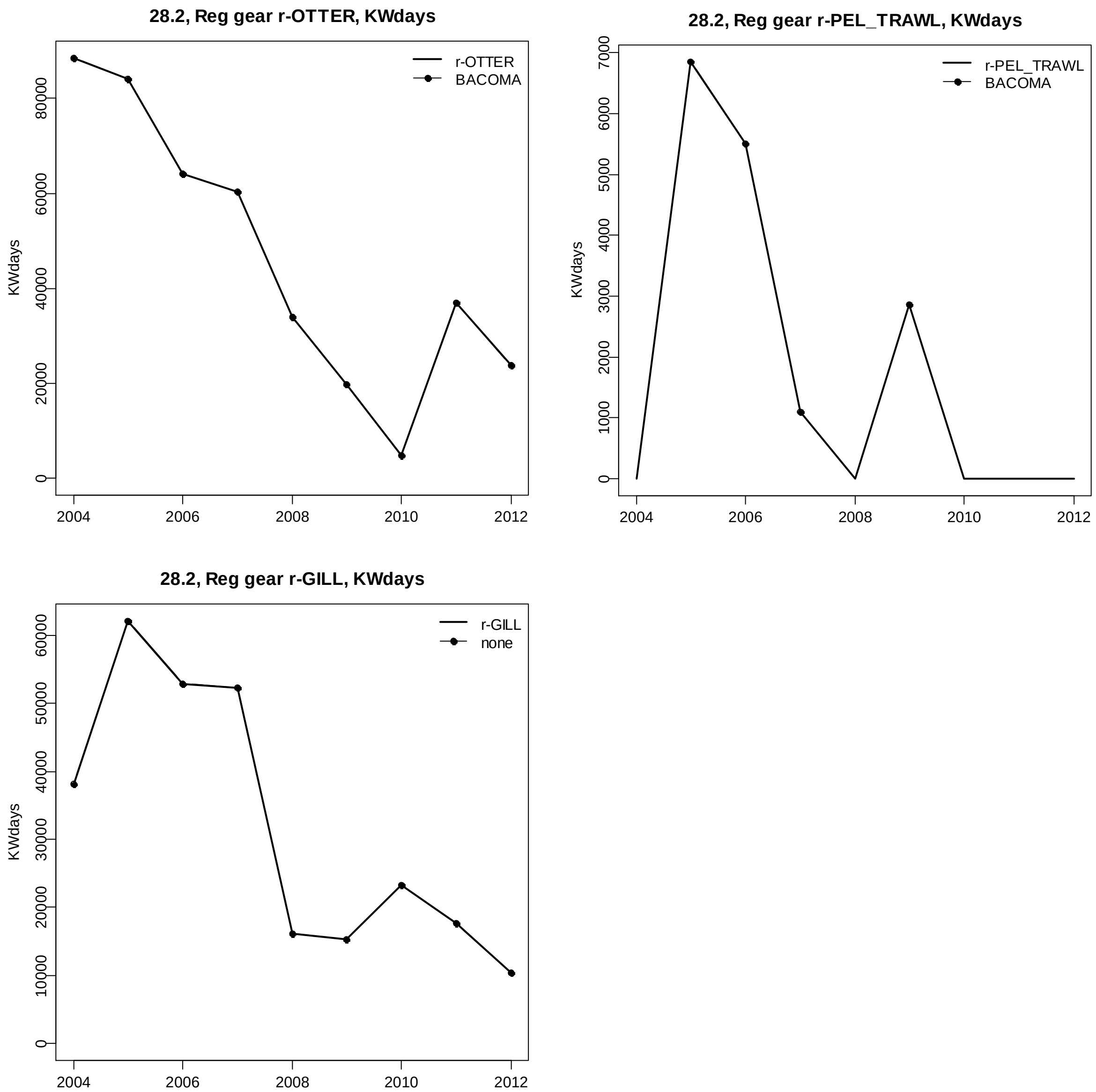


Figure 5.1.1.8. Sub-division 28.2. Baltic: Trend in nominal effort by special conditions, 2004-2012 (kW *days at sea). Note that data from Poland, Latvia and Lithuania are only available from 2004 and from Estonian from 2005 onwards. Therefore, effort trends are shown from 2004 to 2012. No data from Finland.

5.1.2 ToR 1.b Fishing activity and capacity by area, fisheries and Member State

Table 5.1.2.1 lists the estimated days at sea by area, main regulated gears (r-otter and r-gill) and Member State. The results show a clear decreasing trend over the areas A and B from total of 153,000 days at sea in 2004 to 76,000 days in 2011. In 2012 the overall number of days at sea increased again to 82,000 days. The total decrease in fishing activity has been mostly driven by the respective trend in area B only (from 104,000 to 45,000 days). The decreasing trend was observed both in regulated gillnets and otter-trawls. At the same time the fishing activity in area A has stabilised around 37,000-38,000 days in 2010-2012. The figures presented in the table should be, however, taken cautiously, since the multi-fold counting may have taken place in the cases where certain vessels may have deployed more than one specific regulated gear.

Uptake of days at sea against the available days at sea by Member State and area for regulated and non-regulated gear types in 2008-2012 is presented in the Section 5.1.7.

Table 5.1.2.1 Days at sea by area, regulated gear and Member State.

REG AREA COD	REG GEAR COD	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012
A	r-GILL	DEU	7219	14201	22002	21213	17262	13418	11971	11310	11142
		DNK	5661	15776	13324	11008	11983	9358	8284	7917	7813
		EST		115	124	68	125	151			
		LTU									
		LVA	811	1044	997	145	47	12	48	21	10
		POL	3908	4173	2656	4062	2912	1914	1129	1106	1551
		SWE	5329	5743	5015	4958	5547	4643	4057	3944	3331
	r-OTTER	DEU	9467	8771	8125	7952	6727	5677	5239	5317	5002
		DNK	15836	16086	11915	9922	9264	8205	6945	6105	6535
		EST		7					6		
		LTU									
		LVA		76		84			36		
		POL	748	1361	589	2374	1323	940	717	733	1120
		SWE	705	589	807	960	728	415	331	691	498
Total A			**49684**	**67942**	**65554**	**62746**	**55918**	**44733**	**38763**	**37144**	**37002**
B	r-GILL	DEU	50	361	82	58	24	50			
		DNK	1886	3243	2974	2320	2367	2050	1617	1676	1224
		EST		462	458	308	140	101			
		LTU						944	821	635	538
		LVA	9376	4413	3501	3306	3024	2447	2213	2140	1715
		POL	40916	25446	21835	17523	13910	11214	10733	10156	14991
		SWE	15348	12125	10484	9220	10766	9395	6868	6188	5121
	r-OTTER	DEU	644	996	625	282	775	1078	1365	485	666
		DNK	4190	4775	5880	2790	2644	2749	3137	4145	4532
		EST		100	26	43			171	281	313
		LTU						1300	1508	1812	2202
		LVA	1421	1054	1546	797	1012	806	892	2005	1422
		POL	24902	15831	17179	10038	7031	4601	5562	5647	8628
		SWE	5079	4262	4041	2640	2847	2539	2810	3427	3454
Total B			**103812**	**73068**	**68631**	**49325**	**44540**	**39274**	**37697**	**38597**	**44806**
Grand Total A+B			**153496**	**141010**	**134185**	**112071**	**100458**	**84007**	**76460**	**75741**	**81808**

5.1.3 ToR 1.b Catches (landings and discards) of cod in weight and numbers at age by fisheries

The following tables list the landings and discards for cod by gear category, area and Member State (Table 5.1.3.1) as well as aggregated over Member States (Table 5.1.3.2). Discard rates per year, gear category, area and country can be found in Table 5.1.3.3 and aggregated over Member States in Table 5.1.3.2. In addition, in Table 5.1.3.4 discard rates by areas, gear category and years are presented, while in Table 5.1.3.5 discard and landing data by age is listed. Figures on landings and discards for the most important gear categories catching cod were also provided (Figure 5.1.3.1).

The overall problem highlighted in this section is the poor quality of discard data in terms of fisheries coverage, as already outlined. In addition, data from Poland are only available from 2004 and for Estonia, from 2005 onwards. Therefore, for the analyses of catch and discard trends, year 2003 was be excluded from analyses as in previous years.

The overall landings of Baltic cod in 2012 were 2.3% higher compared to 2011 (ICES, 2012). Discards fluctuate around low values without any trend over years. Despite the quality of discard estimates has essentially improved since the introduction of EU Data Collection Programs, the estimates should still be taken with caution.

Most cod landings stem from areas A and B. According to the available data area C plays only a marginal role in cod present distribution pattern in the Baltic (e.g. landings of 2012 in A+B = 68222 tonnes; landings in area C = 76 tonnes 0.1% of total).

Cod discard rates are higher in area B followed by area A, showing certain increase in most recent years for regulated otter trawls (Figure 5.1.3.1). This can be explained with the increase of the Eastern Baltic cod stock (ICES, 2012). For regulated gears the average discard rate in area B was 13% against 5% in area A in 2012 (Table 5.1.3.1). For area C only very minor discard rate has been observed in gillnet fishery. This probably reflects the distribution of the cod stock. Average discard rates were higher for regulated otter trawls (up to 16% and for pelagic trawls – 13% in area B in 2012). The discards from gillnet fishery generally remained below 10%. Discard rates between Member States are of comparable magnitude. Only in area B the discard rates for r-Otter were significantly higher for Sweden, Germany and Poland compared to the other countries in some years.

1.3% of total cod landings were taken in Fully Documented Fishery (FDF). The discard rates in FDF of cod were available for 2012 and areas A and B only. Only in regulated demersal seine fishery the share of FDF was in the comparable magnitude (around 50% of total) . The average discard rates in FDF and non-FDF by comparable regulated gear types in 2012 are presented in the Table 5.1.8.1.1. The data suggests that the discard rates were significantly lower in FDF in demersal seine and otter trawl whereas in pelagic trawl fisheries the values were similar.

Table 5.1.3.1 Landings (t) and discards (t) for cod in 2004-2012 by gear category, area and Member State. An “r” in front of the gear type indicates regulated gears in accordance with Council Regulation (EC) 1098/2007. Gear types without an “r” are non-regulated gears. Data from Estonia are only available from 2005 onwards.

REG_AREA	REG_GEAR	SPECON	COUNTRY	2004 L	2004 D	2005 L	2005 D	2006 L	2006 D	2007 L	2007 D	2008 L	2008 D	2009 L	2009 D	2010 L	2010 D	2011 L	2011 D	2012 L	2012 D
28.2	GILL	none	EST																	0	
28.2	GILL	none	LVA													0		0		0	
28.2	OTTER	none	LVA			0		0													
28.2	PEL_TRAWL	none	EST															0			
28.2	PEL_TRAWL	none	LVA	17		9		9		13		5				1		3		1	
28.2	POTS	none	EST																	0	
28.2	r-GILL	none	LVA	74		151	4	90	1	102	7	39	1	39	0	37	0	36	0	33	
28.2	r-OTTER	BACOMA	EST							1											
28.2	r-OTTER	BACOMA	LTU																	14	
28.2	r-OTTER	BACOMA	LVA	173	1	195		168	1	93		57		121		12		41		114	
28.2	r-PEL_TRAWL	BACOMA	LVA																		
A	BEAM	none	DEU													2		3			
A	DEM_SEINE	none	DNK	0	0	1		7		0											
A	DEM_SEINE	none	POL	0	0					0											
A	DREDGE	none	DNK																		
A	GILL	none	DEU	0	0	22	1	21		17		4		1	0	3	0	0	0	1	0
A	GILL	none	DNK	58	0	216	24	123		117		21		12	0	7	0	7	0	2	0
A	GILL	none	POL	9	0	1	0	1		5		3		1	0	0	0			0	0
A	GILL	none	SWE	0	0	1	0	0		1		0		1	0	1	0	2	0	1	0
A	none	none	DEU	3		18		34	1	9		3		3						0	
A	none	none	DNK	2829		446		849	18	110		59		27		46	0	47		63	
A	none	none	SWE	1		23		7	0	35		15		6		17	0				
A	OTTER	none	DEU	21		77		60		39		57		33	0	22	34	52		8	0
A	OTTER	none	DNK	77		124		125		51		23		24	0	8	15	9		7	0
A	OTTER	none	POL	3		3		1		1		0						7		0	0
A	OTTER	none	SWE	1		0		1		0				0	0					1	0
A	PEL_TRAWL	none	DEU	26	0	65		83		50		47		17	0	17	0	6	2	3	0
A	PEL_TRAWL	none	DNK	36	0	86		92		47		28		18	0	20	0	11	4	4	0
A	PEL_TRAWL	none	LVA							11				0	0						
A	PEL_TRAWL	none	POL	10	0	35		40		9		16		0	0	1	0	1	1	1	0
A	PEL_TRAWL	none	SWE	60	1	71		53		31		27		23	0	28	0	25	9	3	1
A	POTS	none	DEU	2		0		2		0		1		4		14	0	4	0	3	0
A	POTS	none	DNK			278		86		180		66		60		87	0	49	1	43	1
A	POTS	none	POL	0				1													
A	POTS	none	SWE	3		3		4		6		1		0		2	0	4	0	4	0
A	r-BEAM	BACOMA	DEU									9									
A	r-BEAM	none	DEU																		
A	r-DEM_SEINE	BACOMA	DEU					51		143		250		194		51		71		4	
A	r-DEM_SEINE	none	DEU	6	1	37															
A	r-DEM_SEINE	none	DNK	1369	171	1014		1392		1460		1268	10	601	48	481	85	388	42	438	9
A	r-GILL	none	DEU	624	13	1140	48	1744	0	1699	0	1534	1	874	88	1174	40	864	29	1030	16
A	r-GILL	none	DNK	1490	18	2935	145	2382	1	2177	1	1933	3	1447	78	1426	130	1516	0	1518	24
A	r-GILL	none	EST			60	4	102	0	52	0	132	0	194	8						
A	r-GILL	none	LVA	247	2	406	21	580	1	90	0	30	0	23	1	71	4	24	1	11	0
A	r-GILL	none	POL	316	9	449	19	436	0	884	0	641	0	266	36	168	8	225	4	403	9
A	r-GILL	none	SWE	1217	18	1151	46	1063	0	1153	1	1245	2	946	40	817	17	870	15	873	11
A	r-LONGLINE	none	DEU	24	1	59	4	32		20	0	20		13	0	32	0	27	1	14	0
A	r-LONGLINE	none	DNK	313	5	617	31	497		432	12	136		127	1	164	0	229	3	202	3
A	r-LONGLINE	none	LTU			8	0														
A	r-LONGLINE	none	POL	33	1	258	14	128		265	1	78		10	0	13	0	20	0	29	0
A	r-LONGLINE	none	SWE	113	3	204	7	100		54	0	58		157	0	107	0	167	2	231	4
A	r-OTTER	BACOMA	DEU					4944	333	4941	319	3155	231	2623	300	2556	567	3133	411	3028	170
A	r-OTTER	BACOMA	EST			1	0									0	0			3	0
A	r-OTTER	BACOMA	LVA			57	0	1	0	173	14					87	11				
A	r-OTTER	BACOMA	POL	129	12	309	1	177	15	1182	80	611	39	238	21	127	12	224	49		
A	r-OTTER	BACOMA	SWE	755	40	634	2	1217	60	1525	132	1256	51	879	91	429	45	1241	542	984	161
A	r-OTTER	none	DEU	3685	440	4670	1207	22	2	9	1	18	2	4	0	1	0	17	1	1	0
A	r-OTTER	none	DNK	7697	814	6866	1823	6675	634	7170	554	5708	486	5531	503	4543	963	5546	692	5876	293
A	r-OTTER	none	LTU			129	28	42	5												
A	r-OTTER	none	POL															7	1	386	32
A	r-OTTER	none	SWE													19	2				
A	r-OTTER	T90	SWE													45	4	149	65	173	39
A	r-PEL_TRAWL	BACOMA	DEU					76	0	187		5	0			13		13	4	5	
A	r-PEL_TRAWL	BACOMA	EST			1	0			10											
A	r-PEL_TRAWL	BACOMA	POL			27	0	2	0	3											
A	r-PEL_TRAWL	BACOMA	SWE	8	0	5	0	7	0			2	0					6	2		
A	r-PEL_TRAWL	none	DEU	11	2	35	6	0	0												
A	r-PEL_TRAWL	none	DNK	17	2	41	10	102	10	19	1	8	1	24	2	36	6	0		1	0
A	r-PEL_TRAWL	none	LTU			10	2														
A	r-TRAMMEL	none	DEU	2	0	16	1	29		88		96	0	61	8	42	3	77	0	103	3
A	r-TRAMMEL	none	DNK	251	4	482	60	496		473		471	0	297	14	359	35	395	0	557	12
A	r-TRAMMEL	none	SWE	24	0	65	5	80		36		47	0	47	1	89	1	71	1	56	1
A	TRAMMEL	none	DEU			3		2		3		1		0				0			
A	TRAMMEL	none	DNK	4		18		4		4		6		0		1		0		0	
A	TRAMMEL	none	POL	0																	
A	TRAMMEL	none	SWE																		

Table 5.1.3.1 continued

B	DEM_SEINE	none	DNK															1			
B	DEM_SEINE	none	EST			0															
B	DREDGE	none	DNK									6									
B	GILL	none	DNK	49		87	1	56		40		8		1	0						
B	GILL	none	EST																	0	0
B	GILL	none	LVA															0	0		
B	GILL	none	POL	6		2	0	2		1		1		2	0	1	0	13	1	5	0
B	GILL	none	SWE			0	0	0		0		0		0	0	0	0	0	0	0	0
B	none	none	DNK	1099		43		85		11		3				2	0			184	
B	none	none	SWE	5		3		11		8		7		4		0	0				
B	OTTER	none	DEU									0		6	1	0	0	0	0		
B	OTTER	none	DNK	67		76		35		10		3		7	1	1	0	2	0		
B	OTTER	none	LTU													0	0				
B	OTTER	none	LVA																		
B	OTTER	none	POL	38		32		8		3		2				0	0	31	4	22	5
B	OTTER	none	SWE	24		22		15		16		16		22	2	10	0	3	1	2	0
B	PEL_TRAWL	none	DEU	5						0						0	0				
B	PEL_TRAWL	none	DNK	36		96		22		25		6		14	1	5	6	1	0	0	0
B	PEL_TRAWL	none	EST			47		0		40		19		17	1			7	1		
B	PEL_TRAWL	none	LTU											52	0	31	43	27	0	2	1
B	PEL_TRAWL	none	LVA	57		69		56		207		149		177	15	159	108	254	28	20	6
B	PEL_TRAWL	none	POL	321		352		262		133		143		58	6	58	54	13	1	32	10
B	PEL_TRAWL	none	SWE	102		96		36		100		79		96	12	22	0	13	3	2	0
B	POTS	none	DNK			0				0											
B	POTS	none	EST																	0	0
B	POTS	none	POL	0		0		1										2	0		
B	POTS	none	SWE	0		0		0		0		1		12	1	8	0	0	0	1	0
B	r-DEM_SEINE	BACOMA	DEU					67		58		94		339		233		365		208	
B	r-DEM_SEINE	none	DEU	1																	
B	r-DEM_SEINE	none	DNK	0		162		85		46								93		257	
B	r-GILL	none	DEU	19	1	172	5	16	1	2	0	8	0	19	1						
B	r-GILL	none	DNK	631	17	791	23	750	27	757	54	903	35	816	31	483	46	419	19	258	16
B	r-GILL	none	EST			301	9	296	13	229	21	168	7	161	5						
B	r-GILL	none	LTU			3	0			1	0			451	16	484	139	305	0	188	10
B	r-GILL	none	LVA	3380	147	2106	70	1821	68	1657	195	1964	73	2333	74	2336	237	1710	86	1235	113
B	r-GILL	none	POL	5217	162	3496	112	3582	143	2048	136	2788	73	3448	144	3323	259	2939	174	3477	209
B	r-GILL	none	SWE	2894	40	1864	58	1629	60	1517	94	1969	78	1835	98	1081	32	802	40	710	19
B	r-LONGLINE	none	DEU	0	0	1	0	0				0	0			0	0				
B	r-LONGLINE	none	DNK	257	4	519	11	332		205		117	0	92	6	144	17	127	6	60	2
B	r-LONGLINE	none	LTU											29	0	22	0	17	0		
B	r-LONGLINE	none	POL	2122	28	1804	26	2553		1371		913	3	514	36	1372	175	1104	45	709	26
B	r-LONGLINE	none	SWE	1197	16	951	19	896		537		724	1	621	48	412	62	356	21	316	14
B	r-OTTER	BACOMA	DEU					1199	221	596	111	1960	123	1991	260	2456	244	793	103	1634	279
B	r-OTTER	BACOMA	EST			73	5	28	5	63	12					526	55	622	113	404	98
B	r-OTTER	BACOMA	LTU											2042	189	2595	232	2702	110	2165	117
B	r-OTTER	BACOMA	LVA	623	26	931	22	1603	107	1043	40	1658	158	1776	130	2434	314	2856	445	2692	454
B	r-OTTER	BACOMA	POL	5366	283	5291	360	6282	706	3399	510	4466	275	5478	491	6548	626	6039	919		
B	r-OTTER	BACOMA	SWE	7131	426	4502	649	5357	1334	6108	1459	5792	665	6785	982	7030	656	7009	1623	8085	2629
B	r-OTTER	none	DEU	1039	56	1570	113					26	1	34	2						
B	r-OTTER	none	DNK	3899	252	3740	303	6692	832	4717	571	6068	336	6943	502	9851	584	10017	849	11232	1366
B	r-OTTER	none	LTU			23	2	112	12	669	71										
B	r-OTTER	none	POL															474	40	9187	1398
B	r-OTTER	none	SWE											156	21	274	27				
B	r-OTTER	T90	SWE											77	12	887	75	1145	277	753	229
B	r-PEL_TRAWL	BACOMA	DEU					728	125	870	95	260	12	842	78	1228	34	1896	316	590	91
B	r-PEL_TRAWL	BACOMA	EST			103		277	42	446	42	611	64	445	38	266	8	547	108	278	47
B	r-PEL_TRAWL	BACOMA	LTU															37	0	60	10
B	r-PEL_TRAWL	BACOMA	LVA	348	9	6		140	28	751	87	32	3	122	11					135	23
B	r-PEL_TRAWL	BACOMA	POL	1188	20	235		1111	23	1378	21	34	1	261	9	28	1	150	28		
B	r-PEL_TRAWL	BACOMA	SWE	494	26	321		1596	393	1226	227	162	32	394	46	114	9	553	181	95	30
B	r-PEL_TRAWL	none	DEU	1530	28	578	22														
B	r-PEL_TRAWL	none	DNK	416	32	201	18	563	63	369	41	15	1	94	7	57	3	51	4	22	3
B	r-PEL_TRAWL	none	LTU			122	5	791	81	1732	180			218	0	13	0				
B	r-PEL_TRAWL	none	POL															17	1	83	12
B	r-PEL_TRAWL	none	SWE																	4	1
B	r-PEL_TRAWL	T90	SWE															24	7		
B	r-TRAMMEL	none	DNK	8	0	2	0	4		38		27		70	0	10		2	0	1	0
B	r-TRAMMEL	none	SWE	2	0	1	0	0		0		1		0	0			0	0	0	0
B	TRAMMEL	none	SWE	1	0	0	0	0				0									
C	GILL	none	EST																	0	
C	GILL	none	FIN	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0		
C	GILL	none	SWE			1	0	0	0							0	0				
C	OTTER	none	SWE	0		0		4												1	0
C	PEL_TRAWL	none	DNK																		
C	POTS	none	EST																	0	
C	POTS	none	FIN	0	0	0	0							0	0						
C	r-GILL	none	POL																	1	0
C	r-GILL	none	SWE	12		10		10		13		15		34	2	41	1	60	3	65	2
C	r-LONGLINE	none	SWE									0									
C	r-OTTER	BACOMA	SWE									1									
GRAND TOTAL A+B+C				61062	3133	53984	5344	63087	5364	57412	5083	50302	2769	53673	4522	57667	6034	59105	7441	61246	8011
GRAND TOTAL 28.2				264	1	355	4	267	2	209	7	101	1	160	0	50	0	80	0	162	

Table 5.1.3.2. Landings (t) and discards (t) for cod in 2004-2012 by gear category and area. An “r” in front of the gear type indicates regulated gears in accordance with Council Regulation (EC) 1098/2007. Gear types without an “r” are non-regulated gears. Data from Estonia are only available from 2005 onwards.

REG_AREA	REG_GEAR	SPECON	2004 L	2004 D	2005 L	2005 D	2006 L	2006 D	2007 L	2007 D	2008 L	2008 D	2009 L	2009 D	2010 L	2010 D	2011 L	2011 D	2012 L	2012 D
28.2	GILL	none													0		0		0	
28.2	OTTER	none			0		0													
28.2	PEL_TRAWL	none	17		9		9		13		5				1		4		1	
28.2	POTS	none																	0	
28.2	r-GILL	none	74		151	4	90	1	102	7	39	1	39	0	37	0	36	0	33	
28.2	r-OTTER	BACOMA	173	1	195		168	1	94		57		121		12		41		128	
28.2	r-PEL_TRAWL	BACOMA																		
A	BEAM	none													2		3			
A	DEM_SEINE	none	0	0	1		7		0											
A	DREDGE	none																		
A	GILL	none	67	0	240	25	146		139		29		14	0	10	0	9	0	5	0
A	none	none	2833		487		890	19	155		77		36		63	0	47		63	
A	OTTER	none	103		204		187		91		80		57	0	30	49	69		16	0
A	PEL_TRAWL	none	132	1	256		269		148		117		59	0	66	0	43	16	11	1
A	POTS	none	5		282		93		186		68		64		102	0	57	1	50	1
A	r-BEAM	BACOMA									9									
A	r-BEAM	none																		
A	r-DEM_SEINE	BACOMA					51		143		250		194		51		71		4	
A	r-DEM_SEINE	none	1375	172	1051		1392		1460		1268	10	601	48	481	85	388	42	438	9
A	r-GILL	none	3893	61	6141	283	6307	3	6054	3	5513	6	3750	251	3655	200	3499	48	3837	61
A	r-LONGLINE	none	483	9	1145	56	757		772	14	291		308	2	316	0	442	6	476	7
A	r-OTTER	BACOMA	884	52	1003	3	6339	409	7821	544	5022	321	3740	412	3199	635	4597	1002	4016	332
A	r-OTTER	none	11382	1254	11665	3059	6739	640	7179	555	5726	487	5535	503	4562	965	5570	695	6262	325
A	r-OTTER	T90													45	4	149	65	173	39
A	r-PEL_TRAWL	BACOMA	8	0	32	0	85	1	200		7	0			13		18	6	5	
A	r-PEL_TRAWL	none	28	5	86	19	102	10	19	1	8	1	24	2	36	6	0		1	0
A	r-TRAMMEL	none	276	4	563	66	606		597		613	0	404	22	490	39	544	2	716	16
A	TRAMMEL	none	4		21		5		7		7		0		1		0		0	
B	DEM_SEINE	none			0												1			
B	DREDGE	none									6									
B	GILL	none	55		89	1	58		40		9		3	0	1	0	14	1	5	0
B	none	none	1104		46		95		19		10		4		2	0			184	
B	OTTER	none	129		129		57		29		21		35	4	11	0	35	5	24	6
B	PEL_TRAWL	none	521		661		376		505		397		413	36	273	212	315	33	56	17
B	POTS	none	0		0		2		0		1		12	1	8	0	3	0	1	0
B	r-DEM_SEINE	BACOMA					67		58		94		339		233		365		208	
B	r-DEM_SEINE	none	1		162		85		46								93		257	
B	r-GILL	none	12142	367	8733	278	8094	312	6210	499	7799	267	9063	369	7706	713	6174	319	5869	366
B	r-LONGLINE	none	3576	48	3276	56	3781		2113		1754	4	1256	90	1950	254	1604	72	1085	42
B	r-OTTER	BACOMA	13120	736	10796	1036	14469	2373	11209	2131	13877	1221	18071	2052	21588	2128	20021	3312	14980	3577
B	r-OTTER	none	4938	308	5333	417	6804	844	5387	642	6093	338	7133	526	10125	611	10490	889	20419	2764
B	r-OTTER	T90											77	12	887	75	1145	277	753	229
B	r-PEL_TRAWL	BACOMA	2030	56	664		3852	611	4670	473	1098	113	2065	182	1636	52	3184	633	1158	201
B	r-PEL_TRAWL	none	1946	60	902	45	1354	144	2101	221	15	1	312	7	71	3	69	5	108	15
B	r-PEL_TRAWL	T90															24	7		
B	r-TRAMMEL	none	10	0	3	0	4		38		28		70	0	10		2	0	1	0
B	TRAMMEL	none	1	0	0	0	0				0									
C	GILL	none	0	0	1	0	0	0	0	0	0	0	0	0	2	0	1	0	0	
C	OTTER	none	0		0		4												1	0
C	PEL_TRAWL	none																		
C	POTS	none	0	0	0	0							0	0					0	
C	r-GILL	none	12		10		10		13		15		34	2	41	1	60	3	66	2
C	r-LONGLINE	none									0									
C	r-OTTER	BACOMA									1									

Table 5.1.3.3. Discard rates for cod 2004-2012 by gear category, area and country. An “r” in front of the gear type indicates regulated gears in accordance with Council Regulation (EC) 1098/2007). Gear types without an “r” are non-regulated gears. Data from Estonia are only available from 2005 onwards.

REG_AREA	REG_GEAR	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012
28.2	GILL	none	EST									
28.2	GILL	none	LVA									
28.2	OTTER	none	LVA									
28.2	PEL_TRAWL	none	EST									
28.2	PEL_TRAWL	none	LVA									
28.2	POTS	none	EST									
28.2	r-GILL	none	LVA		0.024	0.016	0.068	0.03	0.003	0.001	0.008	
28.2	r-OTTER	BACOMA	EST									
28.2	r-OTTER	BACOMA	LTU									
28.2	r-OTTER	BACOMA	LVA	0.003		0.003						
28.2	r-PEL_TRAWL	BACOMA	LVA									
A	BEAM	none	DEU									
A	DEM_SEINE	none	DNK	1								
A	DEM_SEINE	none	POL	0								
A	DREDGE	none	DNK									
A	GILL	none	DEU	0	0.038				0	0	0.012	0.017
A	GILL	none	DNK	0	0.101				0	0	0.008	0.014
A	GILL	none	POL	0	0.155				0	0		0.02
A	GILL	none	SWE	0	0.053				0.016	0	0.01	0.015
A	none	none	DEU			0.028						
A	none	none	DNK			0.02				0		
A	none	none	SWE			0.004				0		
A	OTTER	none	DEU						0	0.605		0
A	OTTER	none	DNK						0	0.653		0.047
A	OTTER	none	POL									0
A	OTTER	none	SWE						0.091			0.028
A	PEL_TRAWL	none	DEU	0.008					0	0	0.269	0.07
A	PEL_TRAWL	none	DNK	0.004					0	0	0.285	0.098
A	PEL_TRAWL	none	LVA						0			
A	PEL_TRAWL	none	POL	0.01					0.022	0	0.302	0.235
A	PEL_TRAWL	none	SWE	0.008					0.001	0	0.271	0.164
A	POTS	none	DEU							0	0.02	0.016
A	POTS	none	DNK							0	0.02	0.017
A	POTS	none	POL									
A	POTS	none	SWE							0	0.02	0.01
A	r-BEAM	BACOMA	DEU									
A	r-BEAM	none	DEU									
A	r-DEM_SEINE	BACOMA	DEU									
A	r-DEM_SEINE	none	DEU	0.126								
A	r-DEM_SEINE	none	DNK	0.111				0.008	0.074	0.15	0.097	0.02
A	r-GILL	none	DEU	0.021	0.041	0	0	0.001	0.091	0.033	0.033	0.015
A	r-GILL	none	DNK	0.012	0.047	0	0	0.001	0.051	0.084	0	0.016
A	r-GILL	none	EST		0.06	0.002	0.001	0.001	0.04			
A	r-GILL	none	LVA	0.009	0.05	0.001	0	0	0.048	0.054	0.024	0.011
A	r-GILL	none	POL	0.027	0.04	0.001	0.001	0	0.12	0.046	0.016	0.021
A	r-GILL	none	SWE	0.015	0.038	0	0.001	0.002	0.04	0.021	0.016	0.013
A	r-LONGLINE	none	DEU	0.022	0.057		0.021		0.024	0	0.018	0.013
A	r-LONGLINE	none	DNK	0.017	0.049		0.028		0.008	0	0.013	0.014
A	r-LONGLINE	none	LTU		0.053							
A	r-LONGLINE	none	POL	0.033	0.05		0.005		0.014	0	0.017	0.013
A	r-LONGLINE	none	SWE	0.022	0.034		0.003		0.001	0	0.013	0.016

Table 5.1.3.3 continued.

A	r-OTTER	BACOMA	DEU			0.063	0.061	0.068	0.103	0.182	0.116	0.053
A	r-OTTER	BACOMA	EST		0.011					0.093		0.072
A	r-OTTER	BACOMA	LVA		0.004	0.055	0.075			0.113		
A	r-OTTER	BACOMA	POL	0.087	0.002	0.081	0.063	0.061	0.081	0.088	0.179	
A	r-OTTER	BACOMA	SWE	0.05	0.003	0.047	0.079	0.039	0.094	0.094	0.304	0.141
A	r-OTTER	none	DEU	0.107	0.205	0.082	0.073	0.077	0.086	0.178	0.081	0.046
A	r-OTTER	none	DNK	0.096	0.21	0.087	0.072	0.078	0.083	0.175	0.111	0.047
A	r-OTTER	none	LTU		0.179	0.098						
A	r-OTTER	none	POL								0.122	0.077
A	r-OTTER	none	SWE							0.08		
A	r-OTTER	T90	SWE							0.088	0.303	0.185
A	r-PEL_TRAWL	BACOMA	DEU			0.006		0.023			0.238	
A	r-PEL_TRAWL	BACOMA	EST		0.013							
A	r-PEL_TRAWL	BACOMA	POL		0.005	0.028						
A	r-PEL_TRAWL	BACOMA	SWE	0.016	0	0.022		0.033			0.27	
A	r-PEL_TRAWL	none	DEU	0.163	0.155	0.077						
A	r-PEL_TRAWL	none	DNK	0.125	0.203	0.087	0.072	0.079	0.083	0.148		0.037
A	r-PEL_TRAWL	none	LTU		0.178							
A	r-TRAMMEL	none	DEU	0.015	0.078			0.001	0.111	0.077	0.002	0.024
A	r-TRAMMEL	none	DNK	0.015	0.111			0.001	0.045	0.089	0	0.022
A	r-TRAMMEL	none	SWE	0.016	0.065			0.001	0.019	0.009	0.02	0.013
A	TRAMMEL	none	DEU									
A	TRAMMEL	none	DNK									
A	TRAMMEL	none	POL									
A	TRAMMEL	none	SWE									
B	DEM_SEINE	none	DNK									
B	DEM_SEINE	none	EST									
B	DREDGE	none	DNK									
B	GILL	none	DNK		0.006				0.018			
B	GILL	none	EST									0
B	GILL	none	LVA								0.03	
B	GILL	none	POL		0.023				0.078	0	0.053	0
B	GILL	none	SWE		0.067				0.062	0	0.051	0
B	none	none	DNK							0		
B	none	none	SWE							0		
B	OTTER	none	DEU						0.102	0	0.246	
B	OTTER	none	DNK						0.102	0	0.176	
B	OTTER	none	LTU							0		
B	OTTER	none	LVA									
B	OTTER	none	POL							0	0.125	0.2
B	OTTER	none	SWE						0.1	0	0.186	0.203
B	PEL_TRAWL	none	DEU							0.623		
B	PEL_TRAWL	none	DNK						0.088	0.568	0.092	0.2
B	PEL_TRAWL	none	EST						0.072		0.102	
B	PEL_TRAWL	none	LTU						0	0.588	0	0.24
B	PEL_TRAWL	none	LVA						0.08	0.404	0.098	0.224
B	PEL_TRAWL	none	POL						0.093	0.486	0.085	0.246
B	PEL_TRAWL	none	SWE						0.113	0	0.188	0.16
B	POTS	none	DNK									
B	POTS	none	EST									0.043
B	POTS	none	POL								0.071	
B	POTS	none	SWE						0.057	0	0.069	0.03
B	r-DEM_SEINE	BACOMA	DEU									
B	r-DEM_SEINE	none	DEU									
B	r-DEM_SEINE	none	DNK									

Table 5.1.3.3 continued.

B	r-GILL	none	DEU	0.046	0.029	0.042	0.059	0.036	0.034			
B	r-GILL	none	DNK	0.026	0.029	0.035	0.067	0.037	0.037	0.086	0.044	0.057
B	r-GILL	none	EST		0.029	0.042	0.083	0.038	0.029			
B	r-GILL	none	LTU		0.022		0.032		0.034	0.224	0	0.052
B	r-GILL	none	LVA	0.042	0.032	0.036	0.105	0.036	0.031	0.092	0.048	0.084
B	r-GILL	none	POL	0.03	0.031	0.038	0.062	0.026	0.04	0.072	0.056	0.057
B	r-GILL	none	SWE	0.014	0.03	0.035	0.058	0.038	0.051	0.029	0.048	0.026
B	r-LONGLINE	none	DEU	0	0.013			0		0.056		
B	r-LONGLINE	none	DNK	0.014	0.02			0.001	0.063	0.104	0.047	0.035
B	r-LONGLINE	none	LTU						0	0	0	
B	r-LONGLINE	none	POL	0.013	0.014			0.003	0.066	0.113	0.039	0.036
B	r-LONGLINE	none	SWE	0.013	0.02			0.001	0.072	0.132	0.056	0.041
B	r-OTTER	BACOMA	DEU			0.156	0.156	0.059	0.115	0.09	0.115	0.146
B	r-OTTER	BACOMA	EST		0.064	0.142	0.157			0.095	0.153	0.195
B	r-OTTER	BACOMA	LTU						0.085	0.082	0.039	0.051
B	r-OTTER	BACOMA	LVA	0.04	0.023	0.063	0.036	0.087	0.068	0.114	0.135	0.144
B	r-OTTER	BACOMA	POL	0.05	0.064	0.101	0.131	0.058	0.082	0.087	0.132	
B	r-OTTER	BACOMA	SWE	0.056	0.126	0.199	0.193	0.103	0.126	0.085	0.188	0.245
B	r-OTTER	none	DEU	0.051	0.067			0.053	0.067			
B	r-OTTER	none	DNK	0.061	0.075	0.111	0.108	0.053	0.067	0.056	0.078	0.108
B	r-OTTER	none	LTU		0.064	0.096	0.096					
B	r-OTTER	none	POL								0.078	0.132
B	r-OTTER	none	SWE						0.119	0.09		
B	r-OTTER	T90	SWE						0.137	0.078	0.195	0.234
B	r-PEL_TRAWL	BACOMA	DEU			0.146	0.099	0.046	0.085	0.027	0.143	0.134
B	r-PEL_TRAWL	BACOMA	EST			0.132	0.086	0.095	0.079	0.029	0.165	0.145
B	r-PEL_TRAWL	BACOMA	LTU								0	0.145
B	r-PEL_TRAWL	BACOMA	LVA	0.026		0.168	0.104	0.083	0.08			0.145
B	r-PEL_TRAWL	BACOMA	POL	0.017		0.02	0.015	0.037	0.035	0.029	0.16	
B	r-PEL_TRAWL	BACOMA	SWE	0.05		0.197	0.156	0.164	0.104	0.076	0.246	0.237
B	r-PEL_TRAWL	none	DEU	0.018	0.037							
B	r-PEL_TRAWL	none	DNK	0.071	0.08	0.101	0.1	0.05	0.069	0.055	0.076	0.107
B	r-PEL_TRAWL	none	LTU		0.039	0.093	0.094		0	0		
B	r-PEL_TRAWL	none	POL								0.031	0.123
B	r-PEL_TRAWL	none	SWE									0.222
B	r-PEL_TRAWL	T90	SWE								0.238	
B	r-TRAMMEL	none	DNK	0.013	0				0.006		0	0.018
B	r-TRAMMEL	none	SWE	0.014	0.023				0.058		0	0.037
B	TRAMMEL	none	SWE	0.018	0.016							
C	GILL	none	EST									
C	GILL	none	FIN	0	0	0	0	0	0.011	0	0.001	
C	GILL	none	SWE		0	0				0		
C	OTTER	none	SWE									0.044
C	PEL_TRAWL	none	DNK									
C	POTS	none	EST									
C	POTS	none	FIN	0	0				0.333			
C	r-GILL	none	POL									0.044
C	r-GILL	none	SWE						0.047	0.03	0.054	0.028
C	r-LONGLINE	none	SWE									
C	r-OTTER	BACOMA	SWE									
Fully Documented Fishery												
A	PEL_TRAWL	FDFBAL	DNK									
A	r-DEM_SEINE	FDFBAL	DNK									0.002
A	r-OTTER	FDFBAL	DNK									0.057
B	PEL_TRAWL	FDFBAL	DNK									
B	r-OTTER	FDFBAL	DNK									0.083
B	r-PEL_TRAWL	FDFBAL	DNK									0.108

Table 5.1.3.4. Discard rates for cod 2004-2012 by gear category and area. An “r” in front of the gear type indicates regulated gears in accordance with Council Regulation (EC) 1098/2007. Gear types without an “r” are non-regulated gears. Data from Estonia are only available from 2005 onwards. Qualifier for discard estimates (DQI): A>66% of landings were covered with discard estimates, 33%>B<=66%, C<=33%.

REG_AREA	REG_GEAR	SPECON	2004 DQI	2005 DQI	2006 DQI	2007 DQI	2008 DQI	2009 DQI	2010 DQI	2011 DQI	2012 DQI
28.2	GILL	none									
28.2	OTTER	none									
28.2	PEL_TRAWL	none									
28.2	POTS	none									
28.2	r-GILL	none		0.024 C	0.016 C	0.068 A	0.03 B	0.003 B	0.001 C	0.008 C	
28.2	r-OTTER	BACOMA	0.003 B		0.003 B						
28.2	r-PEL_TRAWL	BACOMA									
A	BEAM	none									
A	DEM_SEINE	none	0.25 C								
A	DREDGE	none									
A	GILL	none	0 C	0.096 C				0.001 C	0 C	0.009 C	0.015 C
A	none	none			0.02 C				0 C		
A	OTTER	none						0 C	0.619 C		0.022 C
A	PEL_TRAWL	none	0.007 C					0.001 C	0 B	0.275 B	0.121 C
A	POTS	none							0 C	0.02 C	0.017 C
A	r-BEAM	BACOMA									
A	r-BEAM	none									
A	r-DEM_SEINE	BACOMA									
A	r-DEM_SEINE	none	0.111 A				0.008 A	0.074 A	0.15 A	0.097 A	0.02 A
A	r-GILL	none	0.015 C	0.044 C	0 C	0 C	0.001 C	0.063 C	0.052 A	0.014 A	0.016 B
A	r-LONGLINE	none	0.019 C	0.047 C		0.018 C		0.005 C	0 B	0.013 B	0.015 B
A	r-OTTER	BACOMA	0.056 B	0.003 C	0.061 B	0.065 B	0.06 A	0.099 A	0.166 A	0.179 A	0.076 A
A	r-OTTER	none	0.099 A	0.208 A	0.087 A	0.072 A	0.078 A	0.083 A	0.175 A	0.111 A	0.049 A
A	r-OTTER	T90							0.088 A	0.303 A	0.185 A
A	r-PEL_TRAWL	BACOMA	0.016 C	0.004 C	0.007 C		0.025 C			0.248 C	
A	r-PEL_TRAWL	none	0.14 B	0.181 B	0.087 A	0.072 A	0.079 A	0.083 A	0.148 A		0.037 A
A	r-TRAMMEL	none	0.015 C	0.105 C			0.001 C	0.053 C	0.074 A	0.003 A	0.022 C
A	TRAMMEL	NONE									
B	DEM_SEINE	none									
B	DREDGE	none									
B	GILL	none		0.006 C				0.054 C	0 C	0.052 C	0 C
B	none	none							0 C		
B	OTTER	none						0.101 B	0 A	0.133 C	0.2 C
B	PEL_TRAWL	none						0.08 B	0.437 C	0.094 C	0.235 C
B	POTS	none						0.057 A	0 A	0.071 C	0.03 A
B	r-DEM_SEINE	BACOMA									
B	r-DEM_SEINE	none									
B	r-GILL	none	0.029 B	0.031 C	0.037 C	0.074 C	0.033 C	0.039 B	0.085 B	0.049 B	0.059 B
B	r-LONGLINE	none	0.013 C	0.017 C			0.002 C	0.067 B	0.115 C	0.043 C	0.037 C
B	r-OTTER	BACOMA	0.053 B	0.088 B	0.141 B	0.16 A	0.081 A	0.102 A	0.09 B	0.142 A	0.193 A
B	r-OTTER	none	0.059 A	0.072 A	0.11 A	0.107 A	0.053 A	0.069 A	0.057 A	0.078 A	0.119 A
B	r-OTTER	T90						0.137 A	0.078 A	0.195 A	0.234 A
B	r-PEL_TRAWL	BACOMA	0.027 B		0.137 A	0.092 A	0.093 B	0.081 A	0.031 A	0.166 A	0.148 B
B	r-PEL_TRAWL	none	0.03 A	0.047 A	0.096 B	0.095 C	0.05 A	0.022 A	0.045 A	0.065 A	0.124 C
B	r-PEL_TRAWL	T90								0.238 A	
B	r-TRAMMEL	none	0.014 C	0.005 C				0.007 C		0 C	0.022 C
B	TRAMMEL	none	0.018 A	0.016 C							
C	GILL	none	0 A	0 C	0 A	0 A	0 A	0.011 A	0 A	0.001 A	
C	OTTER	none									0.044 A
C	PEL_TRAWL	none									
C	POTS	none	0 A	0 A				0.333 A			
C	r-GILL	none						0.047 A	0.03 A	0.054 A	0.028 A
C	r-LONGLINE	none									
C	r-OTTER	BACOMA									
Fully Documented Fishery											
A	PEL_TRAWL	FDFBAL									
A	r-DEM_SEINE	FDFBAL									0.002 A
A	r-OTTER	FDFBAL									0.057 A
B	PEL_TRAWL	FDFBAL									
B	r-OTTER	FDFBAL									0.083 A
B	r-PEL_TRAWL	FDFBAL									0.108 A

Table 5.1.3.5. Cod landings (L) and discards (D) at ages 1-5 (‘000) by gear category and area 2003-2012.Landing and discard estimates in tons are for all age range (1-9). An “r” in front of the gear type indicates regulated gears in accordance with Council Regulation (EC) 1098/2007 (see section 2.6). Gear types without an “r” are non-regulated gears. Data on age distribution were available for areas A and B only. Data from Estonia are only available from 2005 onwards. Full dataset is available in Annex 03.

REG_AREA	Year	REG_GEAR	SPECON	Landings t	Discards t	AGE 0L	AGE 0D	AGE 1L	AGE 1D	AGE 2L	AGE 2D	AGE 3L	AGE 3D	AGE 4L	AGE 4D	AGE 5L	AGE 5D
28.2	2003	r-GILL	none	242,442	5,675	0,000	0,000	0,000	1,310	0,000	0,816	10,419	7,726	166,899	2,333	80,304	0,291
28.2	2003	r-OTTER	BACOMA	108,358	0,400	0,000	0,000	0,000	0,000	0,079	0,015	2,161	0,166	20,566	0,575	36,293	0,004
28.2	2004	r-OTTER	BACOMA	173,254	0,501	0,000	0,000	0,000	0,000	0,000	0,000	0,727	0,000	9,787	0,000	29,728	0,000
28.2	2005	r-OTTER	BACOMA	195,468	0,000	0,000	0,000	0,000	0,000	0,000	0,000	3,959	0,000	77,516	0,000	83,452	0,000
28.2	2006	r-GILL	none	89,968	1,428	0,000	0,000	0,000	0,000	0,000	0,077	0,501	0,644	30,662	1,134	46,102	0,060
28.2	2006	r-OTTER	BACOMA	167,766	0,500	0,000	0,000	0,000	0,000	0,000	0,000	18,528	0,000	77,589	0,000	49,796	0,000
28.2	2007	r-GILL	none	101,768	7,395	0,000	0,000	0,000	0,628	0,110	6,210	4,525	5,449	35,336	0,355	42,299	0,175
28.2	2008	r-GILL	none	39,315	1,220	0,000	0,000	0,000	0,022	0,000	0,707	5,182	1,239	11,685	0,197	12,642	0,044
A	2003	DREDGE	none	8,795	0,000	0,000	0,000	1,418	0,000	9,286	0,000	0,507	0,000	0,010	0,000	0,003	0,000
A	2003	GILL	none	105,543	5,355	0,000	0,000	3,363	2,892	34,113	13,184	25,607	0,766	11,869	0,005	2,588	0,000
A	2003	none	none	2734,176	0,000	0,000	0,000	133,256	0,000	1250,361	0,000	687,504	0,000	254,332	0,000	49,569	0,000
A	2003	OTTER	none	158,778	0,000	0,000	0,000	20,095	0,000	90,164	0,000	43,402	0,000	8,748	0,000	2,167	0,000
A	2003	PEL_TRAWL	none	118,099	0,000	0,000	0,000	4,686	0,000	62,937	0,000	41,928	0,000	9,483	0,000	2,015	0,000
A	2003	TRAMMEL	none	4,308	0,186	0,000	0,000	0,000	0,098	0,587	0,457	0,812	0,029	0,608	0,000	0,146	0,000
A	2003	r-DEM_SEIN	none	1398,457	163,944	0,000	0,000	190,387	69,062	654,885	306,867	491,030	31,495	109,946	0,991	21,726	0,000
A	2003	r-GILL	none	3936,838	130,647	0,000	0,000	174,845	70,294	1430,652	318,490	1012,326	18,840	392,061	0,203	86,425	0,000
A	2003	r-LONGLINE	none	366,763	5,168	0,000	0,000	8,363	0,000	124,813	0,000	160,955	0,000	39,043	0,000	10,770	0,000
A	2003	r-OTTER	none	11126,456	2800,158	0,000	7,468	1112,470	1502,030	5704,457	4995,317	3676,498	438,571	934,000	5,180	165,095	0,342
A	2003	r-PEL_TRAW	none	82,747	9,906	0,000	0,052	15,901	4,551	50,156	19,617	17,967	1,804	3,439	0,037	0,704	0,000
A	2003	r-TRAMMEL	none	311,497	17,387	0,000	0,000	2,325	9,384	46,944	42,808	43,877	2,496	44,351	0,025	10,364	0,000
A	2004	GILL	none	67,035	0,000	0,000	0,000	2,335	0,000	11,446	0,000	26,996	0,000	5,843	0,000	1,468	0,000
A	2004	none	none	2833,301	0,000	0,000	0,000	185,010	0,000	768,794	0,000	1334,224	0,000	241,663	0,000	40,894	0,000
A	2004	OTTER	none	102,599	0,000	0,000	0,000	10,030	0,000	38,837	0,000	39,709	0,000	7,125	0,000	1,511	0,000
A	2004	PEL_TRAWL	none	132,471	0,960	0,000	0,000	10,498	0,000	26,973	0,000	65,329	0,000	9,997	0,000	2,406	0,000
A	2004	TRAMMEL	none	4,402	0,000	0,000	0,000	0,003	0,000	0,060	0,000	1,361	0,000	0,653	0,000	0,180	0,000
A	2004	r-DEM_SEIN	none	1375,380	171,893	0,000	0,000	94,997	104,942	484,682	201,856	757,995	132,580	66,648	0,000	14,056	0,000
A	2004	r-GILL	none	3893,437	60,960	0,000	0,000	128,022	8,700	885,610	15,267	1384,634	9,079	386,699	0,000	75,459	0,000
A	2004	r-LONGLINE	none	482,777	9,428	0,000	0,000	28,536	3,031	184,832	5,355	173,437	3,429	40,700	0,000	7,293	0,000
A	2004	r-OTTER	none	11381,583	1254,266	0,000	0,000	577,692	833,868	2983,786	1471,611	6694,522	942,534	796,820	0,000	156,169	0,000
A	2004	r-PEL_TRAW	none	28,304	4,622	0,000	0,000	3,256	3,071	15,022	5,419	9,644	3,466	2,586	0,000	0,212	0,000
A	2004	r-TRAMMEL	none	276,432	4,207	0,000	0,000	2,907	0,000	8,630	0,000	77,989	0,000	33,685	0,000	10,229	0,000
A	2005	DEM_SEINE	none	0,506	0,000	0,000	0,000	0,001	0,000	0,226	0,000	0,086	0,000	0,093	0,000	0,020	0,000
A	2005	GILL	none	240,218	25,463	0,000	0,000	7,357	9,031	102,642	44,896	33,624	2,166	37,541	0,239	8,816	0,120
A	2005	none	none	486,624	0,000	0,000	0,000	9,698	0,000	201,728	0,000	65,227	0,000	97,155	0,000	14,095	0,000
A	2005	OTTER	none	204,472	0,000	0,000	0,000	6,688	0,000	115,023	0,000	38,524	0,000	32,242	0,000	8,022	0,000
A	2005	r-PEL_TRAW	BACOMA	32,330	0,141	0,000	0,000	0,000	0,000	0,000	0,038	2,933	0,308	20,794	0,011	7,095	0,000
A	2005	r-PEL_TRAW	none	86,252	19,086	0,000	0,000	1,366	8,392	52,657	41,848	19,487	1,972	13,700	0,256	4,806	0,126
A	2005	POTS	none	281,631	0,000	0,000	0,000	33,196	0,000	229,427	0,000	30,965	0,000	17,971	0,000	4,277	0,000
A	2005	TRAMMEL	none	20,909	0,000	0,000	0,000	0,378	0,000	4,364	0,000	1,500	0,000	4,630	0,000	0,775	0,000
A	2005	r-DEM_SEIN	none	1051,193	0,000	0,000	0,000	54,575	0,000	730,950	0,000	206,704	0,000	137,037	0,000	23,801	0,000
A	2005	r-GILL	none	6140,981	283,293	0,000	0,000	191,645	91,922	2635,377	313,933	881,598	15,195	941,689	1,723	227,624	0,870
A	2005	r-LONGLINE	none	1145,408	56,206	0,000	0,000	14,660	0,000	534,727	0,000	239,649	0,000	148,441	0,000	54,279	0,000
A	2005	r-OTTER	none	11665,061	3058,567	0,000	0,000	441,511	1880,248	7178,875	6178,209	2096,723	263,876	1742,035	34,388	413,883	16,987
A	2005	r-OTTER	BACOMA	1002,574	3,062	0,000	0,000	0,000	0,000	0,000	2,458	32,160	4,895	234,715	0,829	208,977	0,000
A	2005	r-PEL_TRAW	none	86,252	19,086	0,000	0,000	1,366	8,392	52,657	41,848	19,487	1,972	13,700	0,256	4,806	0,126
A	2005	r-PEL_TRAW	BACOMA	32,330	0,141	0,000	0,000	0,000	0,000	0,000	0,038	2,933	0,308	20,794	0,011	7,095	0,000
A	2005	r-TRAMMEL	none	563,390	65,862	0,000	0,000	8,071	24,147	114,602	120,330	34,827	5,686	135,119	0,715	17,453	0,345
A	2006	DEM_SEINE	none	6,594	0,000	0,000	0,000	0,352	0,000	1,962	0,000	2,955	0,000	0,355	0,000	0,069	0,000
A	2006	GILL	none	146,171	0,000	0,000	0,000	2,169	0,000	24,474	0,000	83,994	0,000	7,576	0,000	3,988	0,000
A	2006	none	none	889,788	18,586	0,000	0,000	12,765	3,208	140,293	18,586	503,504	23,712	42,537	1,280	31,479	0,000
A	2006	OTTER	none	186,667	0,000	0,000	0,000	0,249	0,000	12,767	0,000	135,730	0,000	7,539	0,000	7,204	0,000
A	2006	PEL_TRAWL	none	268,690	0,000	0,000	0,000	1,746	0,000	20,649	0,000	177,610	0,000	7,369	0,000	9,509	0,000
A	2006	POTS	none	93,015	0,000	0,000	0,000	3,208	0,000	26,142	0,000	53,292	0,000	3,682	0,000	1,060	0,000
A	2006	TRAMMEL	none	5,461	0,000	0,000	0,000	0,055	0,000	0,340	0,000	1,805	0,000	0,189	0,000	0,365	0,000
A	2006	r-DEM_SEIN	none	1391,601	0,000	0,000	0,000	26,704	0,000	222,779	0,000	1055,681	0,000	66,730	0,000	26,074	0,000
A	2006	r-GILL	none	6306,766	2,762	0,000	0,000	97,548	2,719	986,136	2,365	3177,159	0,976	355,581	0,000	229,456	0,000
A	2006	r-LONGLINE	none	756,842	0,000	0,000	0,000	3,441	0,000	123,912	0,000	440,729	0,000	35,895	0,000	22,597	0,000
A	2006	r-OTTER	BACOMA	6338,549	409,084	0,000	0,000	211,947	399,305	1675,254	319,994	4225,444	171,639	106,040	0,000	37,891	0,000
A	2006	r-OTTER	none	6739,476	640,469	0,000	0,000	95,551	111,653	1011,860	638,773	4853,112	797,364	291,387	50,688	196,383	3,388
A	2006	r-PEL_TRAW	none	102,090	9,702	0,000	0,000	6,033	1,692	34,160	9,677	60,498	12,080	4,874	0,768	1,429	0,052
A	2006	r-TRAMMEL	none	605,785	0,000	0,000	0,000	2,788	0,000	27,096	0,000	236,791	0,000	33,287	0,000	44,762	0,000
A	2007	DEM_SEINE	none	0,233	0,000	0,000	0,000	0,001	0,000	0,037	0,000	0,060	0,000	0,066	0,000	0,025	0,000
A	2007	GILL	none	139,386	0,000	0,000	0,000	0,451	0,000	20,412	0,000	29,672	0,000	45,552	0,000	11,717	0,000

Table 5.1.3.5 continued.

A	2007	none	none	154,875	0,000	0,000	0,000	0,951	0,000	31,964	0,000	28,888	0,000	40,084	0,000	9,126	0,000
A	2007	OTTER	none	90,843	0,000	0,000	0,000	0,062	0,000	9,212	0,000	15,909	0,000	33,210	0,000	6,155	0,000
A	2007	PEL_TRAWL	none	148,132	0,000	0,000	0,000	0,042	0,000	13,267	0,000	17,425	0,000	46,137	0,000	5,914	0,000
A	2007	POTS	none	186,091	0,000	0,000	0,000	2,260	0,000	52,113	0,000	61,268	0,000	61,552	0,000	14,881	0,000
A	2007	TRAMMEL	none	7,317	0,000	0,000	0,000	0,000	0,000	0,187	0,000	0,282	0,000	1,788	0,000	0,334	0,000
A	2007	r-DEM_SEIN	none	1460,247	0,000	0,000	0,000	3,826	0,000	234,072	0,000	387,580	0,000	574,943	0,000	123,718	0,000
A	2007	r-GILL	none	6054,472	2,617	0,000	0,000	43,744	1,462	678,642	3,632	1091,873	0,290	1833,389	0,000	407,805	0,000
A	2007	r-LONGLINE	none	772,041	14,324	0,000	0,000	3,063	0,713	103,758	18,622	136,096	14,324	219,008	5,011	50,505	0,713
A	2007	r-OTTER	BACOMA	14999,390	1098,757	0,000	0,000	853,633	743,958	3877,274	1375,546	3891,482	608,410	4103,649	211,422	559,512	36,504
A	2007	r-PEL_TRAW	none	19,190	1,493	0,000	0,000	0,150	0,109	3,628	1,879	5,469	1,440	6,627	0,499	1,423	0,098
A	2007	r-TRAMMEL	none	597,414	0,000	0,000	0,000	0,683	0,000	31,854	0,000	31,801	0,000	144,985	0,000	27,910	0,000
A	2008	GILL	none	28,817	0,000	0,000	0,000	0,034	0,000	1,283	0,000	4,834	0,000	4,461	0,000	3,689	0,000
A	2008	none	none	76,854	0,000	0,000	0,000	0,407	0,000	7,055	0,000	16,695	0,000	11,748	0,000	8,549	0,000
A	2008	OTTER	none	80,065	0,000	0,000	0,000	0,227	0,000	5,218	0,000	18,692	0,000	17,568	0,000	8,825	0,000
A	2008	PEL_TRAWL	none	116,775	0,000	0,000	0,000	182,767	0,000	51,899	0,000	21,972	0,000	16,302	0,000	7,524	0,000
A	2008	POTS	none	68,294	0,000	0,000	0,000	1,597	0,000	12,868	0,000	20,337	0,000	14,764	0,000	8,591	0,000
A	2008	TRAMMEL	none	7,257	0,000	0,000	0,000	0,000	0,000	0,013	0,000	0,297	0,000	0,466	0,000	0,954	0,000
A	2008	r-DEM_SEIN	none	1267,765	10,105	0,000	0,377	4,403	9,225	94,060	26,550	385,754	13,079	325,146	2,286	227,674	0,253
A	2008	r-GILL	none	5513,246	6,279	0,000	0,000	6,707	2,150	341,299	8,448	1137,736	4,211	769,266	0,481	672,391	0,031
A	2008	r-LONGLINE	none	290,809	0,000	0,000	0,000	1,843	0,000	36,023	0,000	74,412	0,000	63,028	0,000	41,925	0,000
A	2008	r-OTTER	BACOMA	5021,790	320,983	0,000	0,000	138,265	196,334	1489,197	440,498	2306,215	194,064	765,944	20,750	213,850	0,712
A	2008	r-OTTER	none	5726,272	487,297	0,000	0,089	25,862	72,648	647,799	390,854	1450,842	455,904	1164,535	223,080	862,176	21,827
A	2008	r-PEL_TRAW	none	7,719	0,664	0,000	0,000	0,015	0,098	1,064	0,532	1,395	0,622	0,944	0,304	0,977	0,029
A	2008	r-TRAMMEL	none	613,282	0,444	0,000	0,000	0,742	0,173	12,900	0,487	64,129	0,328	56,120	0,120	59,461	0,012
A	2009	GILL	none	13,864	0,012	0,000	0,000	0,591	0,008	0,520	0,024	2,187	0,009	3,860	0,000	1,899	0,000
A	2009	none	none	36,231	0,000	0,000	0,000	3,327	0,000	4,072	0,000	7,701	0,000	10,539	0,000	4,647	0,000
A	2009	OTTER	none	56,998	0,005	0,000	0,000	1013,205	0,002	0,352	0,009	4,339	0,004	7,980	0,000	6,074	0,000
A	2009	PEL_TRAWL	none	58,931	0,040	0,000	0,000	139,908	0,000	61,877	0,000	14,885	0,000	6,737	0,000	4,299	0,000
A	2009	POTS	none	64,351	0,000	0,000	0,000	13,557	0,000	16,979	0,000	16,251	0,000	19,831	0,000	7,514	0,000
A	2009	TRAMMEL	none	0,290	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,058	0,000	0,058	0,000	0,000	0,000
A	2009	r-DEM_SEIN	none	601,495	47,854	0,000	0,000	10,767	3,116	24,062	34,273	150,606	58,782	215,093	23,443	114,395	3,344
A	2009	r-GILL	none	3750,198	250,737	0,000	0,000	46,533	64,023	78,031	206,492	481,925	266,488	841,817	66,125	441,510	3,582
A	2009	r-LONGLINE	none	307,758	1,664	0,000	0,000	3,932	1,023	10,138	3,302	57,315	1,241	97,314	0,040	49,397	0,000
A	2009	r-OTTER	BACOMA	3739,569	412,246	0,000	0,000	17,819	142,284	339,036	373,526	1487,656	442,329	1365,046	160,057	339,768	9,825
A	2009	r-OTTER	none	5534,930	503,310	0,000	0,000	172,644	33,897	404,320	360,800	1378,985	618,270	2043,857	246,540	914,817	35,194
A	2009	r-PEL_TRAW	none	23,821	2,164	0,000	0,000	2,675	0,141	5,654	1,550	6,486	2,658	8,221	1,060	2,995	0,151
A	2009	r-TRAMMEL	none	404,346	22,447	0,000	0,000	8,995	11,975	6,644	37,399	19,747	22,752	49,571	3,653	44,415	0,109
A	2010	GILL	none	10,311	0,000	0,000	0,000	0,007	0,000	1,933	0,000	3,354	0,000	2,334	0,000	0,922	0,000
A	2010	none	none	62,566	0,000	0,000	0,000	0,526	0,000	18,696	0,000	19,694	0,000	11,839	0,000	5,142	0,000
A	2010	OTTER	none	30,343	49,363	0,000	0,000	0,000	0,000	1,645	0,000	3,972	0,000	4,563	0,000	3,308	0,000
A	2010	PEL_TRAWL	none	65,755	0,000	0,000	0,000	0,014	0,000	16,017	0,000	15,995	0,000	7,044	0,000	4,573	0,000
A	2010	POTS	none	102,277	0,000	0,000	0,000	0,053	0,000	31,279	0,000	43,507	0,000	29,752	0,000	10,047	0,000
A	2010	TRAMMEL	none	0,518	0,000	0,000	0,000	0,000	0,000	0,055	0,000	0,180	0,000	0,115	0,000	0,059	0,000
A	2010	r-DEM_SEIN	none	481,093	85,135	0,000	0,000	0,000	1,288	79,373	93,963	147,026	109,632	154,697	39,362	71,078	4,311
A	2010	r-GILL	none	3655,238	199,794	0,000	3,434	13,929	51,232	781,066	259,641	925,521	266,784	613,217	72,112	312,453	7,133
A	2010	r-LONGLINE	none	315,807	0,000	0,000	0,000	0,239	0,000	83,194	0,000	89,773	0,000	62,454	0,000	28,094	0,000
A	2010	r-OTTER	BACOMA	3199,417	635,266	0,000	0,000	52,748	647,978	1494,484	975,888	994,199	58,206	260,027	0,000	64,698	0,000
A	2010	r-OTTER	none	4562,303	964,992	0,000	0,006	1,912	15,937	840,136	1082,751	1416,354	1245,651	1259,741	444,775	606,947	48,706
A	2010	r-OTTER	T90	44,805	4,304	0,000	0,000	1,202	4,487	20,933	6,734	13,174	0,349	3,954	0,000	1,057	0,000
A	2010	r-PEL_TRAW	none	36,408	6,339	0,000	0,000	0,000	0,096	7,078	6,997	11,663	8,163	11,342	2,931	5,367	0,321
A	2010	r-TRAMMEL	none	490,012	39,351	0,000	0,032	2,416	2,570	55,942	54,051	64,846	58,105	57,390	15,746	51,157	1,559
A	2011	GILL	none	8,886	0,078	0,000	0,000	0,000	0,018	0,156	0,075	1,638	0,055	3,143	0,000	1,079	0,000
A	2011	none	none	46,687	0,000	0,000	0,000	0,000	0,000	0,872	0,000	12,342	0,000	14,653	0,000	7,264	0,000
A	2011	OTTER	none	68,568	0,000	0,000	0,000	0,000	0,000	0,956	0,000	15,114	0,000	24,488	0,000	8,227	0,000
A	2011	PEL_TRAWL	none	43,041	16,305	0,000	0,000	0,032	2,364	5,266	19,019	16,413	13,815	12,322	0,359	3,140	0,000
A	2011	POTS	none	56,807	1,138	0,000	0,000	0,000	0,493	3,428	1,273	26,299	0,286	18,477	0,003	4,089	0,000
A	2011	TRAMMEL	none	0,236	0,000	0,000	0,000	0,000	0,000	0,002	0,000	0,050	0,000	0,093	0,000	0,030	0,000
A	2011	r-DEM_SEIN	none	388,043	41,812	0,000	0,000	0,000	0,022	2,207	3,566	66,064	46,463	159,704	55,485	77,599	6,550
A	2011	r-GILL	none	3498,519	48,298	0,000	0,000	8,396	32,418	320,085	63,589	1009,718	24,838	773,023	0,731	277,468	0,195
A	2011	r-LONGLINE	none	441,707	6,041	0,000	0,000	0,000	2,017	28,395	7,663	130,567	3,560	118,013	0,081	61,089	0,041
A	2011	r-OTTER	BACOMA	4597,402	1001,577	0,000	0,000	84,873	335,143	1850,980	1284,899	2027,690	519,243	481,701	11,695	92,519	0,000
A	2011	r-OTTER	none	5569,917	694,780	0,000	0,000	0,219	0,445	98,798	59,595	1310,138	771,963	2113,085	921,707	1076,486	108,814
A	2011	r-OTTER	T90	149,196	64,834	0,000	0,000	0,000	12,178	49,083	80,762	74,244	41,872	27,446	0,448	5,934	0,000
A	2011	r-PEL_TRAW	BACOMA	18,285	6,034	0,000	0,000	0,000	0,334	1,812	7,567	12,388	5,026	4,338	0,020	0,864	0,000
A	2011	r-PEL_TRAW	none	0,096	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,009	0,000	0,040	0,000	0,008	0,000
A	2011	r-TRAMMEL	none	543,574	1,661	0,000	0,000	0,000	0,702	11,687	2,139	80,843	0,879	131,043	0,019	40,333	0,005
A	2012	GILL	none	4,553	0,069	0,000	0,000	0,000	0,082	0,466	0,039	1,336	0,015	1,184	0,007	0,579	0,000
A	2012	none	none	62,651	0,000	0,000	0,000	0,000	0,000	1,087	0,000	10,676	0,000	28,272	0,000	15,091	0,000
A	2012	OTTER	none	16,389	0,367	0,000	0,000	0,000	0,019	0,633	0,130	1,868	0,377	4,252	0,344	3,055	0,031

Table 5.1.3.5 continued.

A	2012	PEL_TRAWL	none	10,774	1,477	0,000	0,000	0,000	0,045	1,010	1,494	2,404	1,454	4,841	0,606	1,809	0,078
A	2012	POTS	none	50,143	0,847	0,000	0,000	0,000	1,543	2,783	0,699	17,430	0,096	19,855	0,057	9,105	0,000
A	2012	TRAMMEL	none	0,201	0,000	0,000	0,000	0,000	0,000	0,011	0,000	0,051	0,000	0,067	0,000	0,041	0,000
A	2012	r-DEM_SEIN	none	437,903	8,740	0,000	0,000	0,000	0,068	7,779	1,747	104,453	9,791	186,686	9,033	91,594	0,832
A	2012	r-GILL	none	3836,835	60,582	0,000	6,050	71,804	68,528	698,417	73,525	660,471	20,534	925,538	6,672	418,819	0,726
A	2012	r-LONGLINE	none	476,250	7,161	0,000	0,000	0,000	9,184	28,142	6,155	92,612	2,643	215,492	1,497	82,615	0,182
A	2012	r-OTTER	BACOMA	4015,657	331,956	0,000	3,961	218,386	104,727	962,984	355,818	1310,275	243,595	1188,712	70,960	141,655	8,942
A	2012	r-OTTER	none	6262,260	324,825	0,000	0,000	0,000	2,455	45,139	76,068	1106,915	363,408	3216,977	323,628	1483,365	29,627
A	2012	r-OTTER	T90	172,840	39,223	0,000	0,000	0,000	1,683	9,024	40,541	42,476	37,540	109,162	15,669	23,961	1,973
A	2012	r-PEL_TRAW	none	0,568	0,022	0,000	0,000	0,000	0,000	0,000	0,004	0,062	0,024	0,431	0,022	0,180	0,002
A	2012	r-TRAMMEL	none	715,763	15,743	0,000	0,095	0,326	13,068	11,897	27,892	46,167	3,378	81,319	0,719	110,410	0,019
B	2003	GILL	none	31,528	0,000	0,000	0,000	0,000	0,000	1,571	0,000	15,189	0,000	11,032	0,000	1,577	0,000
B	2003	none	none	1238,725	0,000	0,000	0,000	0,000	0,000	132,161	0,000	544,132	0,000	342,507	0,000	96,809	0,000
B	2003	OTTER	none	64,638	0,000	0,000	0,000	0,000	0,000	7,472	0,000	41,982	0,000	16,308	0,000	2,612	0,000
B	2003	PEL_TRAWL	none	98,249	0,000	0,000	0,000	0,000	0,000	14,071	0,000	60,629	0,000	22,583	0,000	5,088	0,000
B	2003	r-TRAMMEL	none	13,143	0,407	0,000	0,000	0,000	0,000	0,584	0,000	5,941	0,000	4,617	0,000	0,870	0,000
B	2003	r-DEM_SEIN	none	7,459	0,000	0,000	0,000	0,000	0,000	5,328	0,000	4,115	0,000	0,496	0,000	0,073	0,000
B	2003	r-GILL	none	8120,135	197,911	0,000	0,000	0,000	0,000	1056,765	19,230	2350,174	38,983	2080,705	21,291	1182,381	10,831
B	2003	r-LONGLINE	none	1294,942	34,086	0,000	0,000	0,000	0,000	87,150	0,000	356,529	0,000	295,695	0,000	129,524	0,000
B	2003	r-OTTER	BACOMA	4245,679	550,258	0,000	0,000	0,000	7,514	2,437	182,925	446,544	1007,852	1982,102	258,804	1599,822	4,406
B	2003	r-OTTER	none	9723,659	2061,095	0,000	0,000	186,754	841,772	1912,766	2944,511	5254,801	1539,552	2313,363	0,000	692,708	0,000
B	2003	r-PEL_TRAW	none	170,383	44,462	0,000	0,000	0,000	17,657	15,857	63,172	100,825	34,406	49,832	0,000	13,131	0,000
B	2003	r-TRAMMEL	none	13,143	0,407	0,000	0,000	0,000	0,000	0,584	0,000	5,941	0,000	4,617	0,000	0,870	0,000
B	2004	GILL	none	55,110	0,000	0,000	0,000	0,000	0,000	1,592	0,000	16,013	0,000	19,629	0,000	4,892	0,000
B	2004	none	none	1104,282	0,000	0,000	0,000	0,000	0,000	59,085	0,000	360,377	0,000	374,332	0,000	83,013	0,000
B	2004	OTTER	none	128,921	0,000	0,000	0,000	0,000	0,000	7,340	0,000	57,671	0,000	46,040	0,000	6,967	0,000
B	2004	PEL_TRAWL	none	515,735	0,000	0,000	0,000	0,000	0,000	58,095	0,000	243,399	0,000	169,956	0,000	24,031	0,000
B	2004	r-DEM_SEIN	none	0,303	0,000	0,000	0,000	0,000	0,000	0,011	0,000	0,188	0,000	0,116	0,000	0,011	0,000
B	2004	r-GILL	none	12122,992	365,897	0,000	0,000	0,000	12,740	168,172	76,237	2467,915	236,639	4214,353	66,474	2172,492	37,373
B	2004	r-LONGLINE	none	3576,300	48,032	0,000	0,000	0,000	0,000	284,670	0,000	1256,400	0,000	1037,213	0,000	220,499	0,000
B	2004	r-OTTER	BACOMA	13120,166	735,572	0,000	0,000	0,000	0,000	0,000	405,200	1439,184	1112,037	4091,680	250,888	3083,751	4,392
B	2004	r-OTTER	none	3899,472	252,222	0,000	0,000	0,000	102,557	358,008	348,679	1948,481	171,779	1463,408	2,755	208,698	0,000
B	2004	r-PEL_TRAW	BACOMA	2030,425	55,618	0,000	0,000	0,000	0,000	1,005	21,237	323,172	91,154	888,683	0,145	286,590	0,000
B	2004	r-PEL_TRAW	none	416,153	32,008	0,000	0,000	11,760	13,015	11,212	44,251	70,797	21,800	59,906	0,352	10,045	0,000
B	2004	r-TRAMMEL	none	9,736	0,134	0,000	0,000	0,000	0,000	0,182	0,000	2,575	0,000	3,919	0,000	0,842	0,000
B	2005	GILL	none	89,315	0,552	0,000	0,000	0,000	0,000	8,142	0,000	19,954	0,000	29,404	0,000	12,260	0,000
B	2005	none	none	45,994	0,000	0,000	0,000	0,000	0,000	3,088	0,000	18,234	0,000	22,121	0,000	4,148	0,000
B	2005	OTTER	none	129,049	0,000	0,000	0,000	0,000	0,000	14,571	0,000	44,941	0,000	52,465	0,000	12,033	0,000
B	2005	PEL_TRAWL	none	661,256	0,000	0,000	0,000	0,000	0,000	82,517	0,000	240,106	0,000	272,651	0,000	59,921	0,000
B	2005	POTS	none	0,427	0,000	0,000	0,000	0,000	0,000	0,034	0,000	0,166	0,000	0,213	0,000	0,047	0,000
B	2005	r-DEM_SEIN	none	161,643	0,000	0,000	0,000	0,000	0,000	66,131	0,000	58,650	0,000	28,336	0,000	8,664	0,000
B	2005	r-GILL	none	8561,637	272,902	0,000	0,000	0,000	0,000	354,695	40,525	2387,492	166,510	3149,161	61,044	1246,451	11,258
B	2005	r-LONGLINE	none	3274,410	56,157	0,000	0,000	0,000	0,159	395,872	0,000	1334,551	23,699	1059,401	0,000	270,086	0,000
B	2005	r-OTTER	BACOMA	10796,252	1035,666	0,000	0,000	0,000	13,221	86,211	944,119	2879,072	1230,591	3892,831	322,075	2493,484	40,789
B	2005	r-OTTER	none	3763,402	304,250	0,000	0,000	0,000	117,283	792,526	707,369	1431,798	97,845	1288,979	0,000	277,595	0,000
B	2005	r-PEL_TRAW	none	323,544	22,564	0,000	0,000	8,617	25,306	150,592	35,220	76,179	3,151	50,407	0,000	8,996	0,000
B	2005	r-TRAMMEL	none	3,191	0,017	0,000	0,000	0,000	0,000	0,521	0,000	0,752	0,000	0,664	0,000	0,299	0,000
B	2006	GILL	none	58,208	0,000	0,000	0,000	0,000	0,000	4,733	0,000	29,625	0,000	13,514	0,000	4,317	0,000
B	2006	none	none	95,366	0,000	0,000	0,000	0,000	0,000	8,218	0,000	51,977	0,000	21,091	0,000	6,123	0,000
B	2006	OTTER	none	57,044	0,000	0,000	0,000	0,000	0,000	6,324	0,000	40,169	0,000	14,542	0,000	3,335	0,000
B	2006	PEL_TRAWL	none	375,971	0,000	0,000	0,000	0,000	0,000	56,988	0,000	266,235	0,000	86,029	0,000	19,695	0,000
B	2006	r-DEM_SEIN	none	85,156	0,000	0,000	0,000	0,000	0,000	7,874	0,000	56,869	0,000	23,479	0,000	5,463	0,000
B	2006	r-GILL	none	8078,003	310,869	0,000	0,000	0,000	2,112	265,433	31,488	2931,962	172,236	2472,701	210,281	1694,074	14,490
B	2006	r-LONGLINE	none	3781,001	0,000	0,000	0,000	0,000	0,000	320,795	0,000	1975,799	0,000	1128,439	0,000	299,642	0,000
B	2006	r-OTTER	BACOMA	13270,645	2152,157	0,000	0,000	0,000	1,715	408,876	1334,366	5345,561	3625,404	5573,658	254,314	2313,141	42,629
B	2006	r-OTTER	none	6804,347	843,576	0,000	0,000	0,000	5,124	745,305	483,356	4928,197	1599,919	1927,948	132,678	426,729	0,000
B	2006	r-PEL_TRAW	BACOMA	4478,501	630,208	0,000	0,000	0,000	0,876	99,520	234,945	3273,450	1318,442	1378,261	22,686	294,636	0,000
B	2006	r-TRAMMEL	none	4,476	0,000	0,000	0,000	0,000	0,000	0,592	0,000	2,296	0,000	0,769	0,000	0,270	0,000
B	2007	GILL	none	40,493	0,000	0,000	0,000	0,000	0,000	0,063	0,000	2,528	0,000	14,784	0,000	11,165	0,000
B	2007	none	none	18,756	0,000	0,000	0,000	0,000	0,000	0,149	0,000	2,011	0,000	8,989	0,000	5,466	0,000
B	2007	OTTER	none	28,813	0,000	0,000	0,000	0,000	0,000	0,170	0,000	3,458	0,000	15,348	0,000	9,339	0,000
B	2007	PEL_TRAWL	none	504,949	0,000	0,000	0,000	0,000	0,000	2,091	0,000	52,181	0,000	261,264	0,000	172,379	0,000
B	2007	POTS	none	0,323	0,000	0,000	0,000	0,000	0,000	0,006	0,000	0,054	0,000	0,161	0,000	0,066	0,000
B	2007	r-DEM_SEIN	none	46,469	0,000	0,000	0,000	0,000	0,000	0,000	0,000	4,328	0,000	25,058	0,000	15,757	0,000
B	2007	r-GILL	none	6208,746	498,907	0,000	0,000	0,000	48,173	37,625	218,950	978,365	208,825	2499,211	75,159	1471,979	69,180
B	2007	r-LONGLINE	none	2113,310	0,000	0,000	0,000	0,000	0,000	3,725	0,000	350,248	0,000	1039,613	0,000	414,076	0,000
B	2007	r-OTTER	BACOMA	10612,297	2020,333	0,000	0,000	0,000	0,000	30,871	639,470	1568,782	2217,177	3377,864	153,357	3625,667	0,000
B	2007	r-OTTER	none	5386,859	642,141	0,000	0,000	0,000	2,747	34,925	99,967	673,803	549,734	3128,276	672,518	1853,047	195,106
B	2007	r-PEL_TRAW	BACOMA	3800,237	377,237	0,000	0,000	209,301	230,404	636,694	374,342	1226,690	262,764	1731,113	29,689	224,482	0,000
B	2007	r-PEL_TRAW	none	2101,460	221,193	0,000	0,000	0,000	0,952	0,167	34,436	220,150	189,362	1186,120	231,663	797,716	67,211

Table 5.1.3.5 continued.

B	2007	r-TRAMMEL	none	38,160	0,000	0,000	0,000	0,000	0,000	0,084	0,000	2,239	0,000	13,555	0,000	10,708	0,000
B	2008	DREDGE	none	6,043	0,000	0,000	0,000	0,000	0,000	0,041	0,000	0,873	0,000	2,815	0,000	2,713	0,000
B	2008	GILL	none	8,637	0,000	0,000	0,000	0,000	0,000	0,126	0,000	1,084	0,000	1,898	0,000	2,216	0,000
B	2008	none	none	9,675	0,000	0,000	0,000	0,000	0,000	0,151	0,000	2,076	0,000	3,098	0,000	2,496	0,000
B	2008	OTTER	none	20,495	0,000	0,000	0,000	0,000	0,000	0,361	0,000	4,907	0,000	8,598	0,000	7,096	0,000
B	2008	PEL_TRAWL	none	396,640	0,000	0,000	0,000	0,000	0,000	9,281	0,000	89,703	0,000	150,847	0,000	131,912	0,000
B	2008	r-GILL	none	7791,219	266,605	0,000	0,000	0,000	1,838	28,776	166,189	1863,144	239,703	2150,026	66,735	2096,495	32,379
B	2008	r-LONGLINE	none	1754,144	3,880	0,000	0,000	0,000	0,000	6,156	0,000	472,553	0,000	770,126	0,000	249,890	0,000
B	2008	r-OTTER	BACOMA	11916,364	1098,417	0,000	0,000	149,288	153,732	1590,381	850,014	4472,054	1395,370	4782,521	144,907	1471,002	24,575
B	2008	r-OTTER	none	6093,474	337,800	0,000	0,000	0,000	0,418	122,572	42,342	1415,644	300,478	2407,057	294,112	2026,280	121,774
B	2008	r-PEL_TRAW	BACOMA	1112,369	113,342	0,000	0,000	30,223	33,868	333,656	153,861	517,845	83,980	208,626	9,668	60,510	0,601
B	2008	r-TRAMMEL	none	28,353	0,000	0,000	0,000	0,000	0,000	0,373	0,000	6,999	0,000	8,219	0,000	5,084	0,000
B	2009	GILL	none	2,989	0,171	0,000	0,000	0,000	0,000	0,000	0,171	0,279	0,171	0,880	0,000	0,797	0,000
B	2009	OTTER	none	34,614	3,878	0,000	0,000	0,000	0,385	0,112	5,441	4,327	4,533	13,636	0,289	9,847	0,000
B	2009	PEL_TRAWL	none	413,476	36,176	0,000	0,000	0,000	1,349	0,079	42,467	36,843	51,154	134,141	2,435	112,782	0,000
B	2009	r-GILL	none	9062,544	369,035	0,000	0,000	0,000	59,662	255,722	626,162	1712,125	384,337	2405,398	20,321	2054,033	6,159
B	2009	r-LONGLINE	none	1255,514	90,493	0,000	0,000	0,000	21,621	104,921	176,558	478,484	84,196	310,710	2,415	143,953	0,000
B	2009	r-OTTER	BACOMA	18071,000	2052,499	0,000	0,000	24,610	215,044	764,414	2449,634	8085,416	2539,333	8059,779	254,711	2077,618	9,056
B	2009	r-OTTER	none	7133,436	525,734	0,000	0,000	0,000	1,103	50,114	83,422	1658,670	499,746	3337,205	482,191	2162,661	141,325
B	2009	r-PEL_TRAW	BACOMA	2376,819	188,702	0,000	0,000	3,954	11,474	111,875	124,260	833,189	203,856	923,997	66,395	317,687	7,510
B	2009	r-TRAMMEL	none	70,443	0,466	0,000	0,000	0,000	0,277	0,031	1,103	3,927	0,129	17,374	0,037	18,677	0,000
B	2010	GILL	none	1,239	0,000	0,000	0,000	0,000	0,000	0,096	0,000	0,529	0,000	0,405	0,000	0,086	0,000
B	2010	none	none	1,816	0,000	0,000	0,000	0,000	0,000	0,017	0,000	0,276	0,000	0,725	0,000	0,485	0,000
B	2010	OTTER	none	11,199	0,000	0,000	0,000	0,000	0,000	0,694	0,000	4,431	0,000	4,491	0,000	1,296	0,000
B	2010	PEL_TRAWL	none	273,136	211,914	0,000	0,000	0,000	0,000	5,987	0,000	69,558	0,000	119,341	0,000	37,076	0,000
B	2010	POTS	none	7,641	0,000	0,000	0,000	0,000	0,000	0,557	0,000	2,995	0,000	2,659	0,000	0,728	0,000
B	2010	r-GILL	none	7706,365	712,828	0,000	0,000	0,000	181,799	248,873	1128,392	2034,126	870,209	2896,642	156,689	1205,142	0,000
B	2010	r-LONGLINE	none	1949,737	254,215	0,000	0,000	0,000	27,354	35,755	352,314	606,979	332,342	823,338	23,476	254,530	0,456
B	2010	r-OTTER	BACOMA	21588,374	2127,636	0,000	0,000	0,000	310,719	966,903	2839,646	8693,222	2598,773	9983,226	185,949	2276,169	3,118
B	2010	r-OTTER	none	10124,523	611,447	0,000	0,000	0,000	5,291	55,491	100,314	1256,954	381,637	5679,440	784,581	3226,323	186,687
B	2010	r-OTTER	T90	886,700	74,835	0,000	0,000	0,000	16,033	52,274	117,621	348,701	56,324	374,120	4,291	81,793	0,068
B	2011	DEM_SEINE	none	1,082	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,101	0,000	0,495	0,000	0,504	0,000
B	2011	GILL	none	13,711	0,757	0,000	0,000	0,000	0,142	1,645	1,372	9,120	0,193	3,280	0,000	0,654	0,000
B	2011	OTTER	none	35,161	5,386	0,000	0,000	0,000	0,992	9,929	9,779	17,863	2,317	6,354	0,034	3,774	0,000
B	2011	PEL_TRAWL	none	315,074	32,737	0,000	0,000	0,000	6,456	65,506	60,562	220,961	12,951	54,011	0,127	13,793	0,000
B	2011	POTS	none	2,700	0,206	0,000	0,000	0,000	0,071	0,404	0,429	1,740	0,034	0,605	0,000	0,136	0,000
B	2011	r-DEM_SEIN	none	93,312	0,000	0,000	0,000	0,000	0,000	0,000	0,000	4,575	0,000	33,279	0,000	42,322	0,000
B	2011	r-GILL	none	6173,926	319,345	0,000	0,000	0,000	129,171	547,427	611,833	2552,157	87,671	2037,039	1,856	997,704	1,951
B	2011	r-LONGLINE	none	1603,978	72,465	0,000	0,000	0,000	13,272	184,832	133,072	764,367	38,907	508,672	0,589	197,607	0,200
B	2011	r-OTTER	BACOMA	20021,413	3311,837	0,000	0,000	32,272	273,825	3984,488	5083,217	11338,987	2533,254	5566,180	119,413	1881,637	12,001
B	2011	r-OTTER	none	10490,397	889,470	0,000	0,000	0,000	2,063	9,379	62,776	1204,313	694,894	4423,991	1226,073	4604,909	362,276
B	2011	r-OTTER	T90	1145,249	277,341	0,000	0,000	0,000	12,003	168,884	427,147	952,817	218,338	215,263	1,419	23,276	0,000
B	2011	r-PEL_TRAW	BACOMA	3183,896	633,439	0,000	0,000	98,789	146,066	1360,286	924,228	1998,537	459,687	417,126	9,888	49,081	0,164
B	2011	r-PEL_TRAW	none	68,634	4,787	0,000	0,000	0,000	0,011	0,000	0,338	2,963	3,739	24,862	6,599	32,813	1,951
B	2011	r-PEL_TRAW	T90	23,938	7,493	0,000	0,000	0,000	0,049	2,451	10,979	20,953	6,589	4,960	0,004	0,401	0,000
B	2011	r-TRAMMEL	none	1,538	0,000	0,000	0,000	0,000	0,000	0,002	0,000	0,135	0,000	0,507	0,000	0,511	0,000
B	2012	GILL	none	5,263	0,000	0,000	0,000	0,000	0,000	0,000	0,000	1,815	0,000	2,003	0,000	0,115	0,000
B	2012	none	none	184,128	0,000	0,000	0,000	0,000	0,000	0,083	0,000	11,425	0,000	85,362	0,000	93,005	0,000
B	2012	OTTER	none	23,730	5,929	0,000	0,000	0,000	0,175	2,236	4,740	20,362	8,823	6,498	2,114	1,083	0,000
B	2012	PEL_TRAWL	none	55,798	17,130	0,000	0,000	0,000	0,082	1,259	5,167	39,147	34,663	26,943	7,367	3,727	0,002
B	2012	POTS	none	1,052	0,033	0,000	0,000	0,000	0,025	0,038	0,035	0,501	0,043	0,494	0,005	0,129	0,000
B	2012	r-DEM_SEIN	none	257,080	0,000	0,000	0,000	0,000	0,000	0,000	0,000	14,338	0,000	136,754	0,000	155,468	0,000
B	2012	r-GILL	none	5868,838	366,326	0,000	0,000	0,000	184,577	190,993	229,049	2072,650	273,597	1870,805	125,369	1081,324	124,277
B	2012	r-LONGLINE	none	1085,295	42,137	0,000	0,000	0,000	23,980	51,727	28,929	562,240	57,001	413,948	19,256	154,357	0,545
B	2012	r-OTTER	BACOMA	14979,899	3577,229	0,000	0,000	0,000	39,256	829,551	1252,610	8910,497	5665,798	4990,605	1763,891	1341,699	449,610
B	2012	r-OTTER	none	20418,548	2763,958	0,000	0,000	0,000	8,774	162,732	530,606	4555,018	2346,346	10961,636	2650,029	8953,221	1369,514
B	2012	r-OTTER	T90	752,612	229,499	0,000	0,000	0,000	3,871	43,951	104,657	579,521	402,450	296,209	96,155	49,003	2,053
B	2012	r-PEL_TRAW	BACOMA	1158,093	200,851	0,000	0,000	0,000	1,734	118,507	81,013	534,927	375,861	415,564	54,870	98,779	0,110
B	2012	r-PEL_TRAW	none	108,386	15,292	0,000	0,000	0,000	0,092	0,316	2,665	12,760	13,410	65,149	14,825	58,022	7,595
C	2010	r-GILL	none	41,104	0,000	0,000	0,371	2,209	7,635	3,674	1,250	0,000	1,544	2,075	0,515	0,032	0,000
C	2011	r-GILL	none	59,892	0,000	0,000	0,363	7,114	8,473	4,574	3,427	0,000	0,713	6,826	1,236	0,001	0,010
C	2012	OTTER	none	0,500	0,000	0,000	0,000	0,050	0,080	0,044	0,023	0,000	0,039	0,036	0,015	0,002	0,000
C	2012	r-GILL	none	65,513	0,000	0,000	0,003	0,958	5,282	5,497	1,903	0,000	0,622	1,406	3,044	0,523	0,014
A	2012	PEL_TRAWL	FDFBAL	0,071	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,006	0,000	0,047	0,000	0,023	0,000
A	2012	r-DEM_SEIN	FDFBAL	256,520	0,519	0,000	0,000	0,000	0,004	6,379	0,104	76,209	0,581	98,828	0,536	48,519	0,050
A	2012	r-OTTER	FDFBAL	76,642	4,654	0,000	0,000	0,000	0,037	0,902	0,929	25,494	5,215	49,338	4,811	17,556	0,442
B	2012	PEL_TRAWL	FDFBAL	0,008	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,001	0,000	0,007	0,000	0,005	0,000
B	2012	r-OTTER	FDFBAL	404,892	36,693	0,000	0,000	0,000	0,167	0,490	2,642	37,005	16,667	224,276	46,657	211,689	25,983
B	2012	r-PEL_TRAW	FDFBAL	1,436	0,174	0,000	0,000	0,000	0,001	0,000	0,013	0,075	0,079	0,822	0,221	0,863	0,123

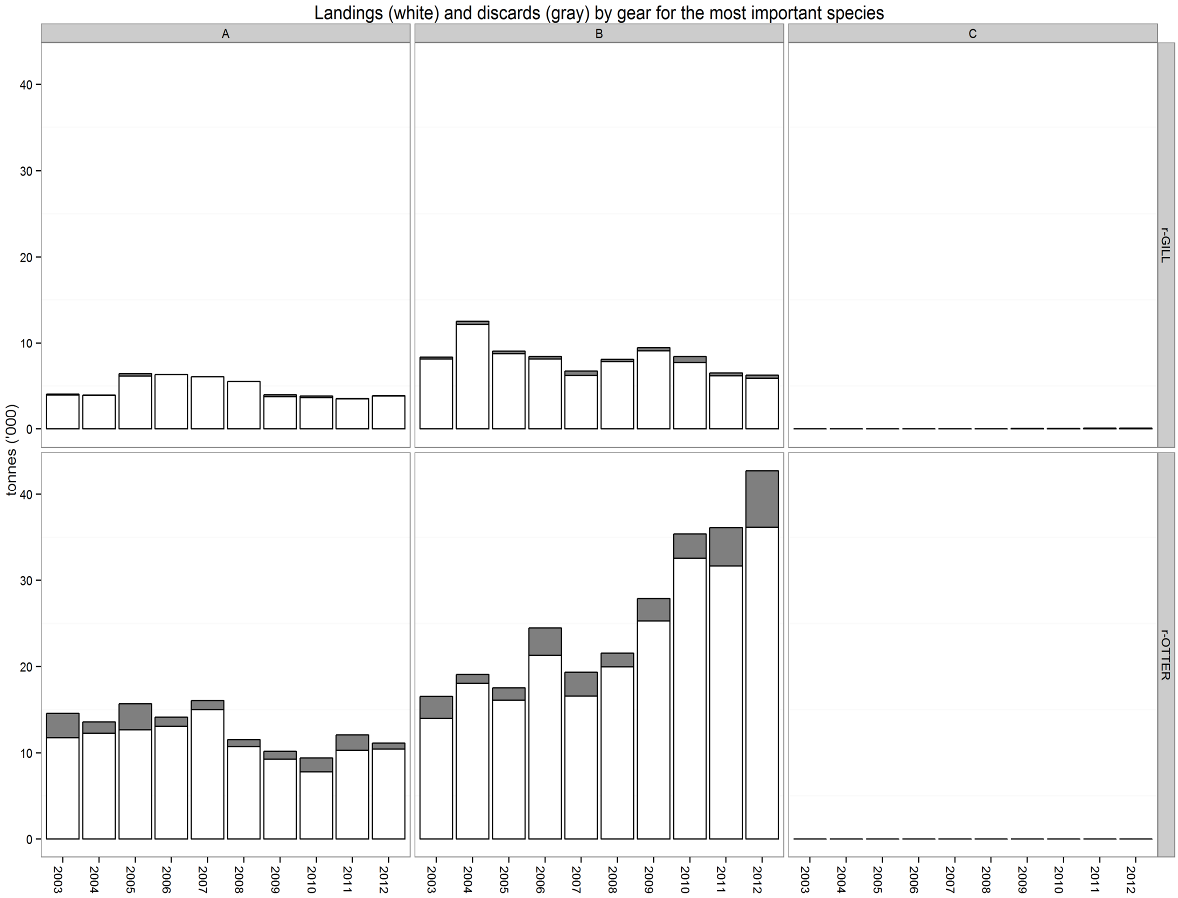


Figure 5.1.3.1. Catch and landings in tonnes of Baltic cod by area and gear category 2003-2012. Upper panels represent regulated gillnets, lower panels regulated otter trawls in accordance with R(EC) 1098/2007 (see Section 2.6). White bars show landings, grey bars discards.

5.1.4 Tor 1.d Catches (landings and discards) of non-cod species in weight and numbers at age by area, Member State and fisheries

The information on landings and discards of major NON-COD species by the gear types and fishing areas is presented in the Table 5.1.4.1. The Table 5.1.4.2 presents the available discard information for main pelagic species herring and sprat. According to the data uploaded by Member States during the 2013 effort data call the discarding rate of pelagics is generally low. So for herring in area A only the regulated otter trawl without SPECON showed the consistent discard rates. However, according to quality index the discard data provided for this segment of fishery can be regarded as covered by a high proportion of landings with discard information (>66%) for 3 years only. Some discarding has been reported also for gillnet fishery in all areas. The coverage of landings with discard information however remained in most cases below 33%.

For sprat the consistent but low-level discarding was reported for gillnet fishery in area C.

Table 5.1.4.1. Major non-cod species caught at ages 1-9 (thousands) in landings, discards and discard rates in the Baltic by area, gears (r-indicates regulated gears). Please note that data is only for 2012. Complete data set from 2004 to 2012 is available in Appendix 03.

REG_AREA	SPECIES	REG_GEAR	SPECON	Landings t	Discards t	AGE 0L	AGE 0D	AGE 1L	AGE 1D	AGE 2L	AGE 2D	AGE 3L	AGE 3D	AGE 4L	AGE 4D	AGE 5L	AGE 5D	AGE 6L	AGE 6D	AGE 7L	AGE 7D	AGE 8L	AGE 8D	AGE 9L	AGE 9D
28.2	FLX	POTS	none	0,423	0,027	0,000	0,000	0,000	0,033	0,000	0,339	0,055	0,266	0,633	0,000	0,585	0,000	0,601	0,000	0,519	0,000	0,246	0,000	0,091	0,000
28.2	FLX	r-GILL	none	4,508	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,438	0,000	2,191	0,000	4,390	0,000	2,197	0,000	4,245	0,000	2,098	0,000	1,460	0,000
28.2	FLX	r-DEM_SEINE	none	114,310	2,772	0,000	0,000	0,000	0,000	0,000	0,000	0,000	33,951	84,119	0,000	168,234	0,000	182,256	0,000	56,077	0,000	112,158	0,000	28,038	0,000
28.2	FLX	r-OTTER	BACOMA	93,301	0,000	0,000	0,000	0,000	0,000	0,000	0,000	3,042	0,000	10,349	0,000	19,965	0,000	20,161	0,000	31,318	0,000	56,782	0,000	31,843	0,000
28.2	HER	PEL_TRAWL	none	2630,702	0,000	3,590	0,000	4093,739	0,000	2804,143	0,000	2771,248	0,000	9244,577	0,000	15359,600	0,000	8990,991	0,000	5857,850	0,000	2952,326	0,000	3515,101	0,000
28.2	SPR	PEL_TRAWL	none	31526,988	0,000	106743,621	0,000	523031,797	0,000	753448,290	0,000	346186,417	0,000	1074120,932	0,000	154617,911	0,000	121371,196	0,000	75554,414	0,000	70442,862	0,000	0,000	0,000
A	FLX	GILL	none	4,948	0,000	0,000	0,000	0,000	0,000	0,547	0,000	3,053	0,000	4,427	0,000	1,711	0,000	1,931	0,000	0,027	0,000	0,018	0,000	0,000	0,000
A	FLX	none	none	8,739	0,000	0,000	0,000	0,173	0,000	8,619	0,000	6,250	0,000	4,984	0,000	1,680	0,000	1,352	0,000	0,078	0,000	0,069	0,000	0,000	0,000
A	FLX	OTTER	none	1,787	0,101	0,000	0,000	0,099	0,005	3,569	0,095	1,718	0,105	0,387	0,083	0,000	0,021	0,000	0,012	0,000	0,003	0,000	0,001	0,000	0,001
A	FLX	PEL_TRAWL	none	0,526	0,000	0,000	0,000	0,000	0,000	0,011	0,000	0,305	0,000	0,492	0,000	0,281	0,000	0,053	0,000	0,025	0,000	0,037	0,000	0,036	0,000
A	FLX	POTS	none	18,015	0,000	0,000	0,000	0,398	0,000	14,846	0,000	12,034	0,000	11,860	0,000	5,279	0,000	2,903	0,000	0,729	0,000	0,225	0,000	0,000	0,000
A	FLX	TRAMMEL	none	0,362	0,000	0,000	0,000	0,000	0,000	0,545	0,000	0,304	0,000	0,080	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
A	FLX	r-DEM_SEINE	none	15,248	92,981	0,000	0,000	0,277	4,606	17,828	87,391	13,449	97,400	6,573	76,400	4,642	19,641	1,644	11,298	0,610	3,284	0,138	1,106	0,000	1,275
A	FLX	r-GILL	none	701,406	1450,170	0,000	0,000	0,000	0,000	201,566	0,000	322,741	0,000	446,243	0,000	593,049	0,000	128,164	0,000	61,750	0,000	50,101	0,000	24,467	0,000
A	FLX	r-LONGLINE	none	2,076	0,000	0,000	0,000	0,037	0,000	0,875	0,000	1,170	0,000	1,619	0,000	0,919	0,000	0,306	0,000	0,459	0,000	0,000	0,000	0,000	0,000
A	FLX	r-OTTER	none	1326,337	1453,431	0,000	0,000	29,661	70,482	1783,614	1590,127	1165,829	1490,069	672,864	1168,796	289,176	300,478	77,935	172,836	42,587	50,248	15,872	16,877	12,700	19,461
A	FLX	r-TRAMMEL	none	70,284	79,008	0,000	0,000	0,098	0,000	78,127	0,000	57,495	0,000	28,517	0,000	9,334	0,000	8,429	0,000	0,571	0,000	0,154	0,000	0,167	0,000
A	HER	GILL	none	4795,301	0,000	0,000	0,000	0,000	0,000	0,000	0,000	400,226	0,000	176,878	0,000	16142,230	0,000	7224,000	0,000	2828,534	0,000	33,688	0,000	0,000	0,000
A	HER	PEL_TRAWL	none	12041,400	0,000	0,000	0,000	15993,815	0,000	59175,725	0,000	54972,984	0,000	17136,669	0,000	8985,206	0,000	3225,371	0,000	4736,072	0,000	185,199	0,000	410,489	0,000
A	HER	POTS	none	385,349	0,000	0,000	0,000	0,000	0,000	1115,417	0,000	1028,608	0,000	1132,645	0,000	676,836	0,000	291,292	0,000	88,961	0,000	23,364	0,000	48,371	0,000
A	PLE	GILL	none	0,868	0,000	0,000	0,000	0,000	0,000	0,124	0,000	1,213	0,000	0,552	0,000	0,164	0,000	0,105	0,000	0,047	0,000	0,022	0,000	0,010	0,000
A	PLE	none	none	4,087	0,000	0,000	0,000	0,005	0,000	1,874	0,000	5,075	0,000	2,778	0,000	0,414	0,000	0,166	0,000	0,051	0,000	0,023	0,000	0,061	0,000
A	PLE	OTTER	none	2,996	0,049	0,000	0,000	0,006	0,003	2,445	0,087	3,638	0,083	1,586	0,028	0,262	0,002	0,024	0,000	0,006	0,000	0,003	0,000	0,009	0,000
A	PLE	PEL_TRAWL	none	1,193	0,000	0,000	0,000	0,000	0,000	0,114	0,000	2,216	0,000	1,205	0,000	0,375	0,000	0,035	0,000	0,005	0,000	0,002	0,000	0,000	0,000
A	PLE	POTS	none	1,560	0,000	0,000	0,000	0,029	0,000	0,968	0,000	1,711	0,000	0,678	0,000	0,306	0,000	0,152	0,000	0,160	0,000	0,032	0,000	0,007	0,000
A	PLE	TRAMMEL	none	0,082	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,079	0,000	0,086	0,000	0,003	0,000	0,003	0,000	0,000	0,000	0,000	0,000	0,006	0,000
A	PLE	r-DEM_SEINE	none	23,310	55,635	0,000	0,000	0,221	5,493	8,687	113,100	28,319	147,272	11,308	15,154	5,484	1,066	3,063	0,000	2,261	0,000	0,858	0,102	0,086	0,000
A	PLE	r-GILL	none	409,970	162,403	0,000	0,000	0,694	7,934	138,407	113,036	498,225	274,203	259,870	126,991	50,619	6,147	29,342	0,337	13,240	0,000	5,797	0,000	5,334	0,000
A	PLE	r-LONGLINE	none	0,021	0,000	0,000	0,000	0,000	0,000	0,001	0,000	0,062	0,000	0,007	0,000	0,002	0,000	0,001	0,000	0,001	0,000	0,000	0,000	0,000	0,000
A	PLE	r-OTTER	BACOMA	341,313	293,770	0,000	0,000	0,000	34,773	96,890	795,122	523,705	1033,120	393,397	115,631	87,896	4,453	17,759	1,079	7,644	0,455	2,401	0,181	0,924	0,000
A	PLE	r-OTTER	none	1018,585	757,396	0,000	0,000	6,524	75,748	659,145	1546,977	1382,307	2031,612	614,136	197,830	205,808	14,101	53,473	0,000	41,075	0,000	18,553	1,280	3,635	0,000
A	PLE	r-PEL_TRAWL	none	0,001	0,005	0,000	0,000	0,000	0,001	0,000	0,011	0,003	0,016	0,000	0,001	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
A	PLE	r-TRAMMEL	none	263,715	56,522	0,000	0,000	0,314	0,000	66,613	3,376	270,923	45,119	185,910	44,730	30,964	7,200	23,777	0,554	7,962	0,000	3,867	0,000	4,741	0,000
A	SPR	PEL_TRAWL	none	8358,001	0,000	0,000	0,000	82226,407	0,000	261997,552	0,000	154983,828	0,000	88029,608	0,000	21315,854	0,000	3538,886	0,000	1179,626	0,000	0,000	0,000	0,000	0,000
B	FLX	r-GILL	none	2268,917	1343,359	0,000	0,000	0,000	0,000	0,000	356,797	264,604	1714,091	741,251	1993,332	1333,932	1035,423	630,777	174,504	796,284	465,359	820,524	0,000	878,554	77,550
B	FLX	r-OTTER	BACOMA	1042,050	2040,200	0,000	0,000	0,000	0,284	8,765	31,262	100,109	730,366	471,300	1990,664	708,546	1471,142	483,128	514,199	426,962	400,036	230,454	207,162	444,145	397,203
B	FLX	r-OTTER	none	5901,797	58178,395	0,000	0,000	0,000	0,000	0,000	0,000	4383,635	0,000	5841,520	0,000	4712,868	0,000	1184,770	0,000	342,959	0,000	56,120	0,000	89,791	0,000
B	FLX	r-OTTER	T90	5,017	119,229	0,000	0,000	0,000	0,016	0,029	1,996	0,183	42,279	2,832	113,490	3,167	85,568	2,176	30,845	1,296	24,457	1,282	12,096	1,907	24,076
B	HER	GILL	none	502,966	0,000	0,000	0,000	0,000	0,000	0,000	0,000	171,275	0,000	381,237	0,000	1439,703	0,000	451,030	0,000	549,047	0,000	281,125	0,000	438,579	0,000
B	HER	OTTER	none	4783,035	0,000	0,000	0,000	6629,816	0,000	5979,591	0,000	2622,163	0,000	14510,401	0,000	27254,000	0,000	5244,333	0,000	8262,422	0,000	3710,561	0,000	3265,493	0,000
B	HER	PEL_TRAWL	none	47388,338	0,000	5596,122	0,000	152084,078	0,000	119446,810	0,000	176287,902	0,000	183861,379	0,000	316027,563	0,000	87875,980	0,000	108414,294	0,000	47123,454	0,000	27792,420	0,000
B	HER	POTS	none	7690,575	0,000	0,000	0,000	0,000	0,000	16425,111	0,000	44733,766	0,000	58511,996	0,000	65869,484	0,000	10050,258	0,000	35824,961	0,000	4825,212	0,000	1959,412	0,000
B	PLE	none	none	0,049	0,000	0,000	0,000	0,000	0,000	0,095	0,000	0,056	0,000	0,007	0,000	0,003	0,000	0,002	0,000	0,001	0,000	0,001	0,000	0,000	0,000
B	PLE	r-DEM_SEINE	none	0,087	0,000	0,000	0,000	0,000	0,000	0,001	0,000	0,044	0,000	0,050	0,000	0,042	0,000	0,019	0,000	0,015	0,000	0,012	0,000	0,002	0,000
B	PLE	r-GILL	none	43,996	121,146	0,000	0,000	0,000	0,000	0,887	0,000	39,785	0,000	23,383	0,000	18,618	0,000	8,534	0,000	6,426	0,000	5,320	0,000	1,109	0,000
B	PLE	r-OTTER	BACOMA	37,124	307,453	0,000	0,000	0,000	58,308	0,673	324,417	55,587	1555,291	60,336	166,982	8,213	0,000	0,641	0,000	0,358	0,000	0,000	0,000	0,000	0,000
B	PLE	r-OTTER	none	138,935	388,732	0,000	0,000	0,000	63,996	268,458	1225,704	152,997	746,194	18,469	34,205	13,528	10,890	6,503	2,933	4,978	0,000	3,657	0,383	0,614	0,000
B	PLE	r-TRAMMEL	none	0,834	0,008	0,000	0,000	0,000	0,000	0,142	0,000	1,301	0,000	0,387	0,000	0,166	0,000	0,127	0,000	0,063	0,000	0,031	0,000	0,000	0,000
B	SPR	PEL_TRAWL	none	118172,765	0,000	20098,700	0,000	2508498,707	0,000	2711903,449	0,000	2155352,311	0,000	3653811,312	0,000	579993,101	0,000	197409,281	0,000	98509,001	0,000	83110,796	0,000	1201,889	0,000
C	HER	PEL_TRAWL	none	15998,535	0,000	9819,382	0,000	158847,271	0,000	97610,959	0,000	170750,842	0,000	177093,848	0,000	163576,581	0,000	45200,531	0,000	30162,435	0,000	2707,532	0,000	2629,247	0,000
C	HER	POTS	none	713,785	0,000	0,000	0,000	55,999	0,000	714,245	0,000	2688,002	0,000	5559,694	0,000	8002,094	0,000	3122,229	0,000	2283,230	0,000	857,682	0,000	688,698	0,000
C	SPR	PEL_TRAWL	none	42215,988	0,000	8675,366	0,000	1405008,588	0,000	1160950,199	0,000	457987,407	0,000	1440329,250	0,000	299074,609	0,000	165435,959	0,000	72903,281	0,000	158463,719	0,000	0,000	0,000

Table 5.1.4.2. Discard rates for small pelagic species (herring and sprat) in 2004-2012 by gear category and area. An “r” in front of the gear type indicates regulated gears in accordance with Council Regulation (EC) 1098/2007. Gear types without an “r” are non-regulated gears. Data from Estonia are only available from 2005 onwards. Qualifier for discard estimates: A>66% of landings were covered with discard estimates, 33%>B<=66%, C<=33%.

SPECIES	REG_AREA	REG_GEAR	SPECON	2004 DQI	2005 DQI	2006 DQI	2007 DQI	2008 DQI	2009 DQI	2010 DQI	2011 DQI	2012 DQI
HER	A	DEM_SEINE	none	0 C								
HER	A	GILL	none							0 C	0 C	0 C
HER	A	none	none									
HER	A	OTTER	none						0.055 C	0.111 C		
HER	A	PEL_SEINE	NONE									
HER	A	PEL_TRAWL	none						0 C			
HER	A	POTS	none									
HER	A	TRAMMEL	none									
HER	A	r-DEM_SEINE	none	1 A				0.911 A	1 A		1 A	1 A
HER	A	r-GILL	none						0.092 C	0 B	0.265 C	0.249 C
HER	A	r-LONGLINE	none									
HER	A	r-OTTER	BACOMA						0.039 C		0 C	0.046 A
HER	A	r-OTTER	none	0.491 C	0.926 A	0.876 C	0.669 C	0.994 C	0.975 A	0.949 C	0.807 A	0.997 C
HER	A	r-PEL_TRAWL	BACOMA									
HER	A	r-PEL_TRAWL	none	0 C	0 C	0.007 C		1 A		1 A		
HER	A	r-TRAMMEL	none		0 C				0.12 C	0 B	0.28 B	0.394 C
HER	B	DEM_SEINE	none								0 A	
HER	B	GILL	none						0 C	0 C	0 C	0 C
HER	B	none	none									
HER	B	OTTER	none							0 C	0 A	
HER	B	PEL_SEINE	none								0 A	
HER	B	PEL_TRAWL	none						0 C	0 C	0.004 C	
HER	B	POTS	none									
HER	B	TRAMMEL	none									
HER	B	r-DEM_SEINE	BACOMA									
HER	B	r-GILL	none						0.408 C	0.079 C	0.14 C	0.861 C
HER	B	r-LONGLINE	none									
HER	B	r-OTTER	BACOMA								0.01 C	1 A
HER	B	r-OTTER	none	0 B	0 A	0.202 A	0 A	0 A	0 A	0 A		
HER	B	r-OTTER	T90								1 A	1 A
HER	B	r-PEL_TRAWL	BACOMA									
HER	B	r-PEL_TRAWL	none			1 A						
HER	C	GILL	none	0.001 C	0.006 C	0.015 C	0.1 C	0.05 C	0.045 C	0.043 C	0.052 C	
HER	C	none	none									
HER	C	OTTER	none								0 A	
HER	C	PEL_TRAWL	none						0 C	0 C	0 C	
HER	C	POTS	none	0.001 A	0 A	0.026 A	0.003 A	0 A	0.001 A	0 B	0.002 B	
HER	C	r-DEM_SEINE	none									
HER	C	r-GILL	none									0.167 C
SPR	A	none	none									
SPR	A	OTTER	none						0.009 C	0.02 C		
SPR	A	PEL_TRAWL	none						0 C	0 C	0 C	
SPR	A	TRAMMEL	none									
SPR	A	r-DEM_SEINE	none					1 A				1 A
SPR	A	r-GILL	none									
SPR	A	r-LONGLINE	none									
SPR	A	r-OTTER	BACOMA									0.006 A
SPR	A	r-OTTER	none	0.001 C	0 C	0.879 C	0 A	0.148 C	0.117 C	0.004 C	0.002 C	0.058 C
SPR	A	r-PEL_TRAWL	none		0 C	1 A		0 C	0 C	0 C		
SPR	B	DEM_SEINE	none									
SPR	B	GILL	none									
SPR	B	none	none									
SPR	B	OTTER	none								0 A	
SPR	B	PEL_SEINE	none									
SPR	B	PEL_TRAWL	none						0 C	0 C	0.003 C	
SPR	B	POTS	NONE									
SPR	B	r-OTTER	BACOMA								0 C	
SPR	B	r-OTTER	none	0 C	0 C							
SPR	B	r-PEL_TRAWL	BACOMA									
SPR	B	r-PEL_TRAWL	none									
SPR	C	GILL	none	0.016 A	0.083 A	0.108 A	0.01 A	0.008 A	0.014 A	0.154 A	0.168 A	
SPR	C	none	none									
SPR	C	OTTER	none								0 C	
SPR	C	PEL_TRAWL	none						0 C	0 C	0 C	
SPR	C	POTS	none	0 A	0 A	1 A	0 A	0 A			0 A	
SPR	C	r-DEM_SEINE	none									

5.1.5 ToR 1.e CPUE and LPUE of cod by area, fisheries and Member State

Although it was explicitly asked to analyse CPUE and LPUE time series of Baltic cod for gear categories which are in accordance with Council Regulation (EC) 2187/2005 only, the STECF EWG used the categories from the cod management plan to be consistent within the report and to provide respective advice.

The Tables 5.1.5.1, 5.1.5.2 and Figures 5.1.5.1-5.1.5.2 provide data on CPUE and LPUE by year and derogation as well as aggregated over countries. The CPUE figures in the table should only be considered indicative since estimated discard ratios depend on sampling intensity.

CPUEs and LPUEs were in general higher for otter trawls, demersal seines and pelagic trawls compared to gill nets. CPUEs and LPUEs varied considerably between countries. CPUE and LPUE aggregated over countries and years have shown a generally increasing trend in areas A –C up to 2011, although CPUEs and LPUEs showed some inter-annual variability. In 2012 both the CPUE and LPUE trends indicated certain variability. In area A the CPUE in r-otter decreased somewhat from the level of 2011, while LPUE estimate was stable, indicating decreased discarding. For r-gill both CPUE and LPUE retained the level close to recent years. In area B CPUEs and LPUEs decreased somewhat in 2011 for r-gill and retained the level in r-otter. The relatively high CPUE and LPUE values in areas B and C in the most recent years can be explained by the dynamics of Eastern Baltic cod stock (ICES, 2012; Tables 3.4.2.1 and 3.4.2.2).

The updated information on CPUE and LPUE by area, gear and Member States, made available to EWG13-06 and EWG13-13 can be found on STECF website in the Appendix 4: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313. Analysis of CPUE and LPUE data broken down by area, gear and Member State revealed that the temporal dynamics of respective CPUE and LPUE values was rather similar. Below only the CPUE values from Baltic cod fishery by country and effort-regulated gears are considered.

CPUE (g/kW*days) of cod in regulated gillnet fisheries by Member States, areas combined is presented in Figure 5.1.5.3. In general, the cod CPUE values in the effort-regulated gillnet fishery did not reveal any clear trend in most of the Member States and fluctuated around 3000 (DNK), 1500 (SWE) and 1700 g/kW*days (DEU) average values respectively during the period. The highest CPUE has shown LTU (around 4500 g/kW*days in 2009-2012. Also LVA has shown high values since 2004.The POL CPUE index has increased from 1200 g/kW*days in 2004 up to 3600 g/kW*days in 2011-2012.

Effort-regulated otter-trawl fishery (R-OTTER) CPUE (g/kW*days) of cod in r-otter gear fisheries by Member States, areas combined is presented in the Figure 5.1.5.4. The overall CPUE trend in effort-regulated otter trawl fishery has been decreasing in the most recent period, mainly driven by the exceptional values in POL and LVA data sets (values of 2011 and 2010, respectively). The CPUE index of DNK increased 2.3 times from around 4000 up to 8000 g/kW*days in 2004-2012. The DEU CPUE index was also increasing reaching maximum value above 7000 g/kW*days in 2008 but then decreased to the level of 2006-2007. The LVA CPUE index was fluctuating significantly over the period, reaching 12000 g/kW*days in 2010 but decreasing to 7000-8000 g/kW*days in 2011-2012. The SWE CPUE index has increased steadily in 2004-2012 except in 2008 and 2010 exceeding 6000 g/kW*days in 2012. The data available to the EWG13-06/13-13 of POL CPUE show the steady increase in 2004-2009, following sudden drop in 2011 and increase to the highest on record in 2012. Analyses of cod CPUE by country have shown (Figure 5.1.5.5) that overall average CPUE of r-otter trawl fisheries has been almost twice bigger than that of r-gillnet fisheries CPUE in 2004-2012 period. Analyses of CPUE dynamics by areas A and B (Figure 5.1.5.5.) show that average CPUE (g/kW*days) of cod in r-otter gear fisheries in area B was app. 52% higher than in area A (6300 and

3000 g/kW*days, respectively). EST, LVA and LTU data were excluded from the area A, since the total proportion of these Member States was only marginal in the area A (from 0 to maximum 2% of the total annual effort). The different average CPUE level in areas A and B can indicate at recently increased Eastern Baltic cod stock abundance, supporting the higher fishing efficiency in area B when compared to the area A in 2004-2012.

Table 5.1.5.1. Baltic: Cod CPUE (g/KW*days) by derogation, and year, 2004-2012 for areas A, B, C and 28.2.

REG AREA	REG GEAR	SPECON	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012	CPUE 2010-2012
28.2	GILL	none	0	0	0	0	0		0	0	0	0
28.2	OTTER	none		0	0		0	0	0	0	0	0
28.2	PEL_TRAWL	none	13	2	3	7	3		1	2	1	1
28.2	r-GILL	none	1912	2513	1740	2087	2542	2549	1594	2044	3168	2069
28.2	r-OTTER	BACOMA	1966	2330	2620	1559	1674	6131	2467	1109	5381	2758
28.2	r-PEL_TRAWL	BACOMA	0				0		0	0	0	0
A	BEAM	none	0						2262	3394	0	2341
A	DEM_SEINE	none	0	0	406	0			0	0	0	0
A	DREDGE	none							0	0	0	0
A	GILL	none	130	305	215	198	46	27	26	26	9	20
A	none	none	45174	3796	5756	1148	704	357	810	886	860	847
A	OTTER	none	100	208	239	156	181	138	272	227	70	196
A	PEL_TRAWL	none	91	180	205	150	100	65	119	121	22	86
A	POTS	none	28	1218	401	740	315	312	518	334	254	370
A	r-BEAM	BACOMA	0	0	0	0	2327	0	0	0	0	0
A	r-BEAM	none	0	0	0	0	0	0	0	0	0	0
A	r-DEM_SEINE	BACOMA	0	0	2177	3789	6510	4583	5354	5077	2268	4987
A	r-DEM_SEINE	none	3849	3952	5497	6093	7028	5481	6161	7804	4970	6091
A	r-GILL	none	1796	1781	1821	1904	1825	1701	1886	1839	2066	1928
A	r-LONGLINE	none	2131	2159	1847	2620	1753	1500	1963	2551	2361	2304
A	r-OTTER	BACOMA	2544	1724	3322	3339	2924	3024	3263	4620	3983	3962
A	r-OTTER	none	2751	3209	3525	4154	3632	4210	4743	5232	4890	4954
A	r-OTTER	T90	0	0	0	0	0	0	2195	5229	5781	4754
A	r-PEL_TRAWL	BACOMA	1568	904	3305	5758	1441	0	3333	2992	3005	3092
A	r-PEL_TRAWL	none	2115	3314	4526	3362	2826	9475	5642	0	3106	5174
A	r-TRAMMEL	none	1232	1345	1431	1229	1161	783	1201	1309	1511	1346
A	TRAMMEL	none	1566	1347	669	1118	475	0	402	0	0	89
B	DEM_SEINE	none		0	0				0	87	0	57
B	DREDGE	none	0	0	0	0	4525	0	0	0	0	0
B	GILL	none	256	417	398	324	57	28	14	96	34	53
B	none	none	103400	2925	6332	1307	1116	379	312	0	64358	9098
B	OTTER	none	84	110	66	33	32	44	15	75	76	51
B	PEL_TRAWL	none	44	27	25	37	36	48	57	33	15	38
B	POTS	none	0	0	3	0	5	85	52	28	8	32
B	r-DEM_SEINE	BACOMA	0	0	5699	6444	12079	17195	8659	9456	7461	8631
B	r-DEM_SEINE	none	588	14459	8690	10731	0	0	0	11670	12399	12197
B	r-GILL	none	1656	1817	2001	1985	2778	4065	4245	3663	3111	3672
B	r-LONGLINE	none	2994	2760	2939	2991	3102	1935	3362	2715	3069	3053
B	r-OTTER	BACOMA	1818	1959	2533	3312	4129	7505	7792	9990	7667	8411
B	r-OTTER	none	3736	3751	5253	8721	9032	11523	11438	5306	8452	7775
B	r-OTTER	T90	0	0	0	0	0	9333	6952	6034	6177	6315
B	r-PEL_TRAWL	BACOMA	1767	1240	2691	3212	1424	6486	8630	4110	7573	5265
B	r-PEL_TRAWL	none	8579	5033	15802	74687	14205	12758	13962	2785	6423	5314
B	r-TRAMMEL	none	967	439	473	2557	2579	4154	2660	952	0	1349
B	TRAMMEL	none	0	0	0		0		0	0	0	0
C	GILL	none	0	1	0	0	0	0	1	1	0	1
C	OTTER	none	0	0	14				0	0	3	1
C	PEL_TRAWL	none							0	0	0	0
C	POTS	none	0	0				0	0	0	0	0
C	r-GILL	none	133	107	104	161	213	556	585	1079	905	840
C	r-LONGLINE	none	0	0	0	0	0	0	0	0	0	0
C	r-OTTER	BACOMA	0	0	0	0	463	0	0	0	0	0

Table 5.1.5.2 Baltic: Cod LPUE (g/KW*days) by derogation and year, 2004-2011 for areas A, B, C and 28.2.

REG AREA COD	REG GEAR COD	SPECON	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2010-2012
28.2	GILL	none	0	0	0	0	0		0	0	0	0
28.2	OTTER	none		0	0		0	0	0	0	0	0
28.2	PEL_TRAWL	none	13	2	3	7	3		1	2	1	1
28.2	r-GILL	none	1912	2432	1702	1953	2480	2549	1594	2044	3168	2069
28.2	r-OTTER	BACOMA	1955	2330	2620	1559	1674	6131	2467	1109	5381	2758
28.2	r-PEL_TRAWL	BACOMA	0				0		0	0	0	0
A	BEAM	none	0						2262	3394	0	2341
A	DEM_SEINE	none	0	0	406	0			0	0	0	0
A	DREDGE	none							0	0	0	0
A	GILL	none	130	276	215	198	46	27	26	26	9	20
A	none	none	45174	3796	5642	1148	704	357	810	886	860	847
A	OTTER	none	100	208	239	156	181	138	107	227	70	138
A	PEL_TRAWL	none	89	180	205	150	100	65	119	88	18	74
A	POTS	none	28	1218	401	740	315	312	518	328	254	368
A	r-BEAM	BACOMA	0	0	0	0	2327	0	0	0	0	0
A	r-BEAM	none	0	0	0	0	0	0	0	0	0	0
A	r-DEM_SEINE	BACOMA	0	0	2177	3789	6510	4583	5354	5077	2268	4987
A	r-DEM_SEINE	none	3421	3952	5497	6093	6973	5084	5236	7058	4881	5525
A	r-GILL	none	1767	1703	1820	1902	1822	1592	1789	1814	2033	1876
A	r-LONGLINE	none	2084	2060	1847	2573	1753	1495	1963	2517	2332	2282
A	r-OTTER	BACOMA	2400	1718	3120	3121	2749	2724	2723	3793	3679	3396
A	r-OTTER	none	2478	2542	3220	3856	3347	3858	3916	4650	4650	4420
A	r-OTTER	T90	0	0	0	0	0	0	2016	3641	4717	3673
A	r-PEL_TRAWL	BACOMA	1568	904	3305	5758	1441	0	3333	2472	3005	2798
A	r-PEL_TRAWL	none	1851	2772	4122	3042	2826	8746	4724	0	3106	4351
A	r-TRAMMEL	none	1219	1202	1431	1229	1161	741	1110	1302	1480	1303
A	TRAMMEL	none	1566	1347	669	1118	475	0	402	0	0	89
B	DEM_SEINE	none		0	0				0	87	0	57
B	DREDGE	none	0	0	0	0	4525	0	0	0	0	0
B	GILL	none	256	412	398	324	57	19	14	89	34	51
B	none	none	103400	2925	6332	1307	1116	379	312	0	64358	9098
B	OTTER	none	84	110	66	33	32	42	15	66	58	43
B	PEL_TRAWL	none	44	27	25	37	36	44	32	30	11	27
B	POTS	none	0	0	3	0	5	85	52	19	8	29
B	r-DEM_SEINE	BACOMA	0	0	5699	6444	12079	17195	8659	9456	7461	8631
B	r-DEM_SEINE	none	588	14459	8690	10731	0	0	0	11670	12399	12197
B	r-GILL	none	1608	1761	1928	1837	2687	3906	3885	3484	2929	3429
B	r-LONGLINE	none	2956	2715	2939	2991	3095	1804	2975	2599	2954	2829
B	r-OTTER	BACOMA	1722	1787	2176	2783	3795	6740	7093	8572	6189	7255
B	r-OTTER	none	3517	3479	4673	7793	8559	10734	10785	4891	7444	7042
B	r-OTTER	T90	0	0	0	0	0	8075	6410	4855	4741	5225
B	r-PEL_TRAWL	BACOMA	1719	1240	2323	2917	1289	5961	8364	3428	6443	4584
B	r-PEL_TRAWL	none	8319	4793	14283	67550	14205	12478	13208	2596	5594	4826
B	r-TRAMMEL	none	967	439	473	2557	2579	4096	2660	952	0	1349
B	TRAMMEL	none	0	0	0		0		0	0	0	0
C	GILL	none	0	1	0	0	0	0	1	1	0	1
C	OTTER	none	0	0	14				0	0	0	0
C	PEL_TRAWL	none							0	0	0	0
C	POTS	none	0	0				0	0	0	0	0
C	r-GILL	none	133	107	104	161	213	541	571	1028	865	806
C	r-LONGLINE	none	0	0	0	0	0	0	0	0	0	0
C	r-OTTER	BACOMA	0	0	0	0	463	0	0	0	0	0

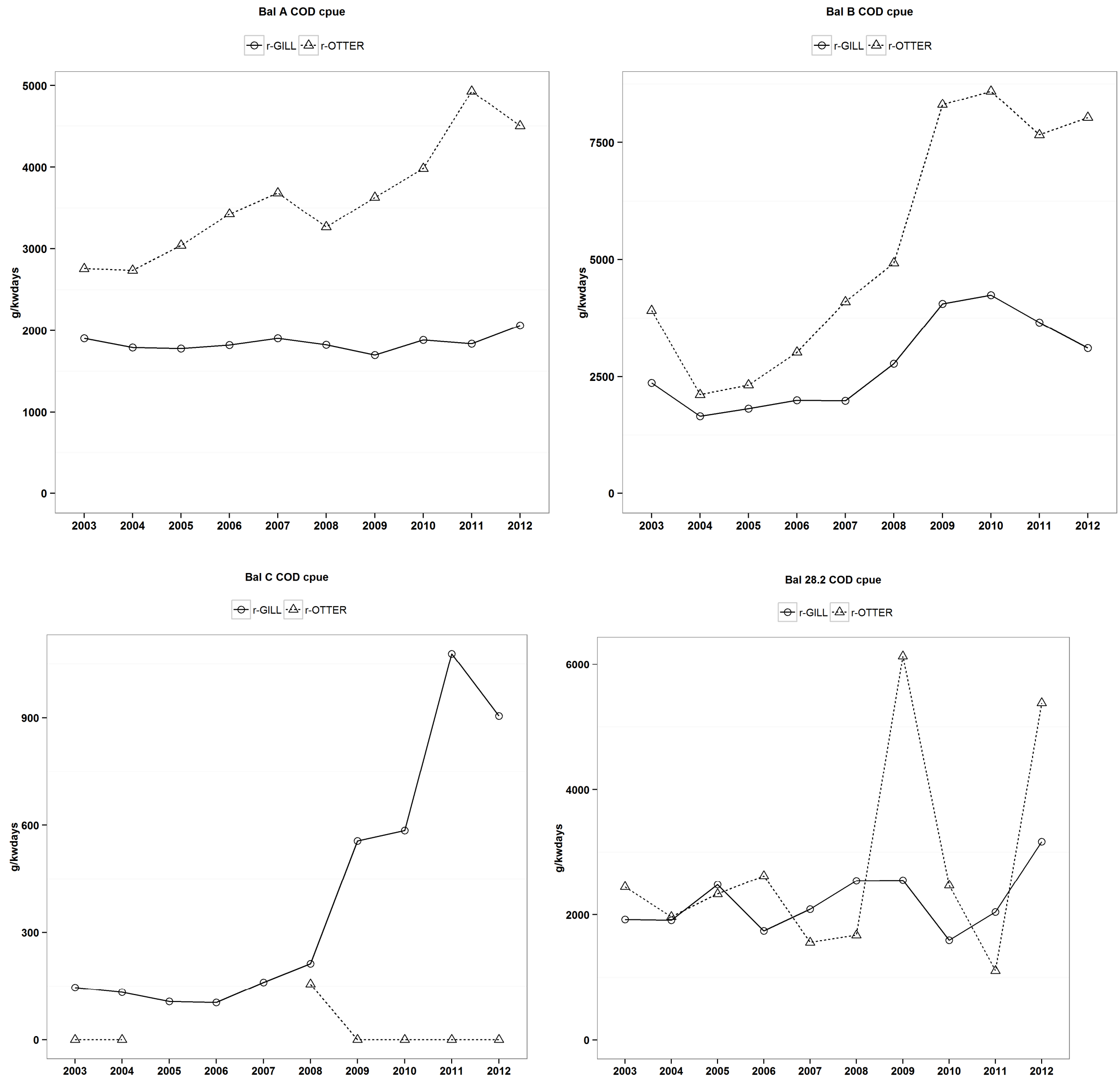


Figure 5.1.5.1. Cod CPUE (g/KW*days) by derogation, country and year, 2003-2012 for areas A, B, C and 28.2.

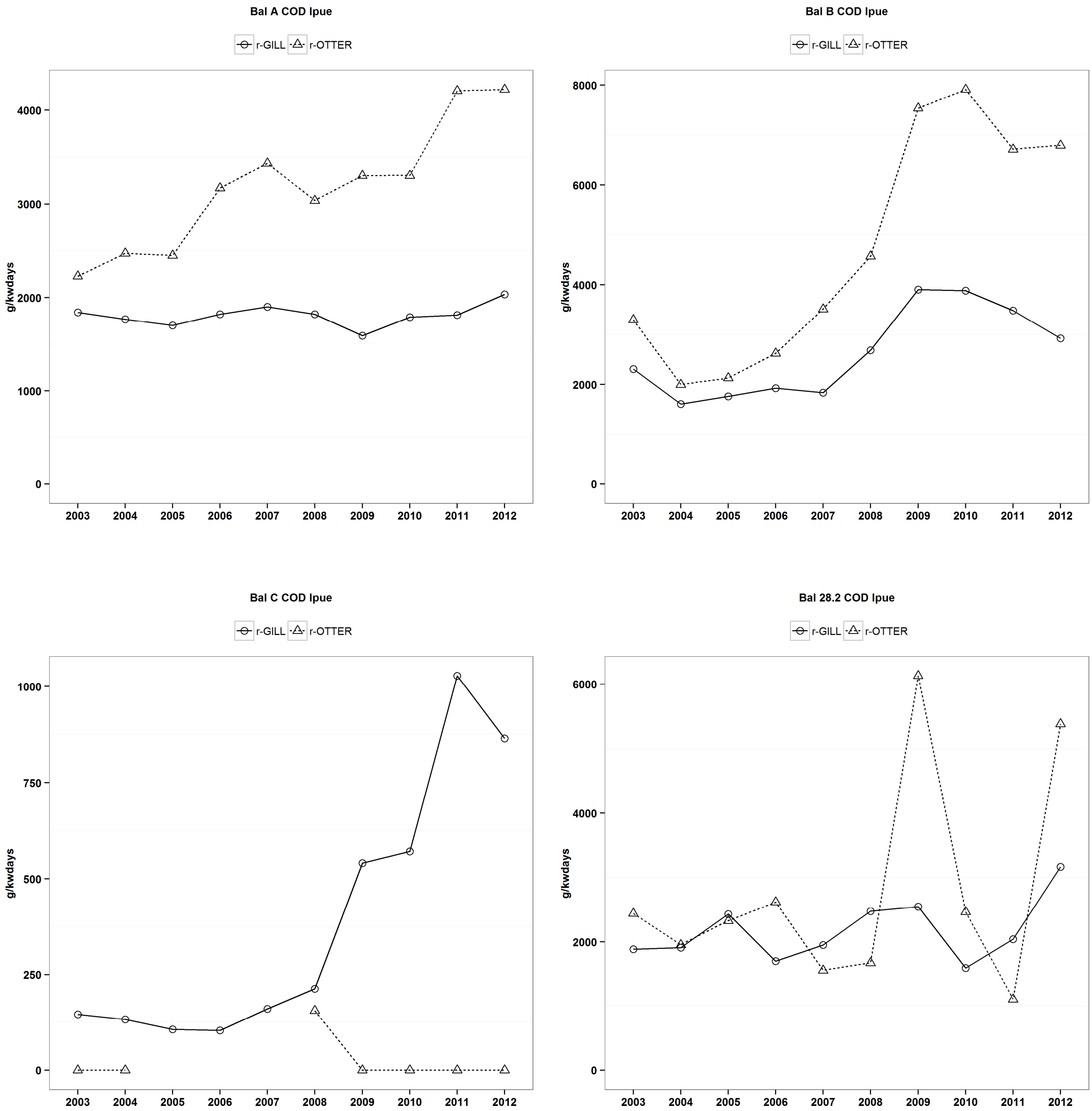


Figure 5.1.5.2. Cod LPUE (g/KW*days) by derogation, country and year, 2003-2012 for areas A, B, C and 28.2.

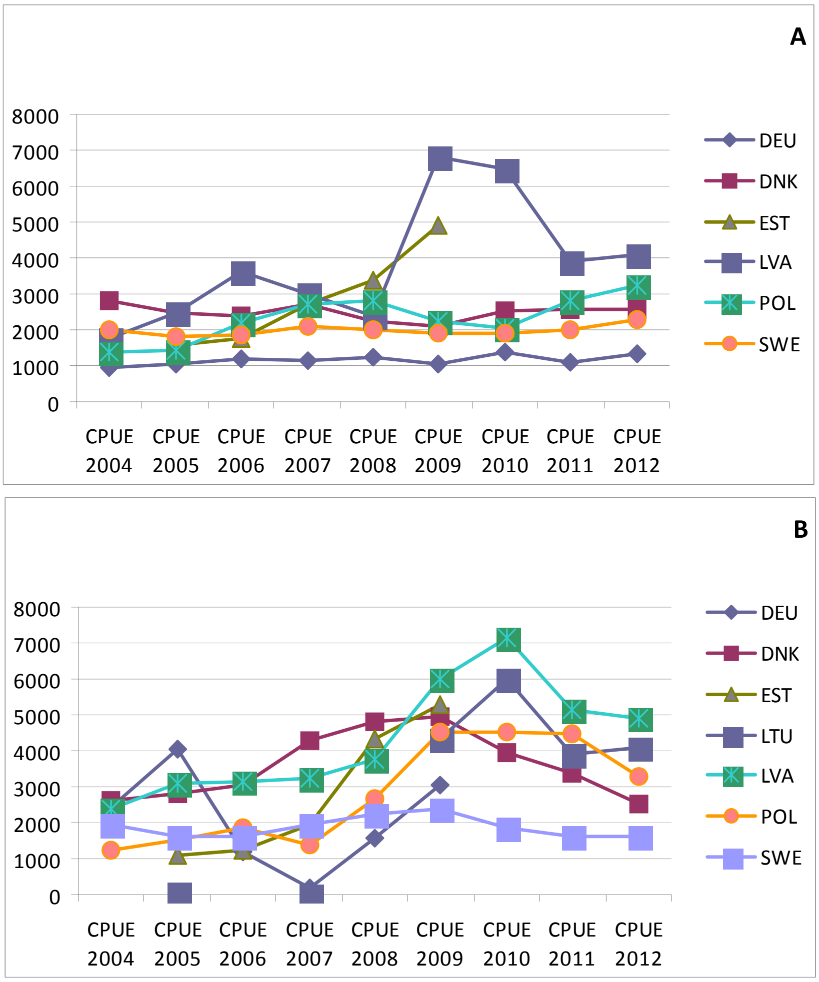


Figure 5.1.5.3. CPUE (g/kW*days) of cod in regulated gill net fisheries in the areas A and B, Baltic Sea by Member States, 2004-2012.

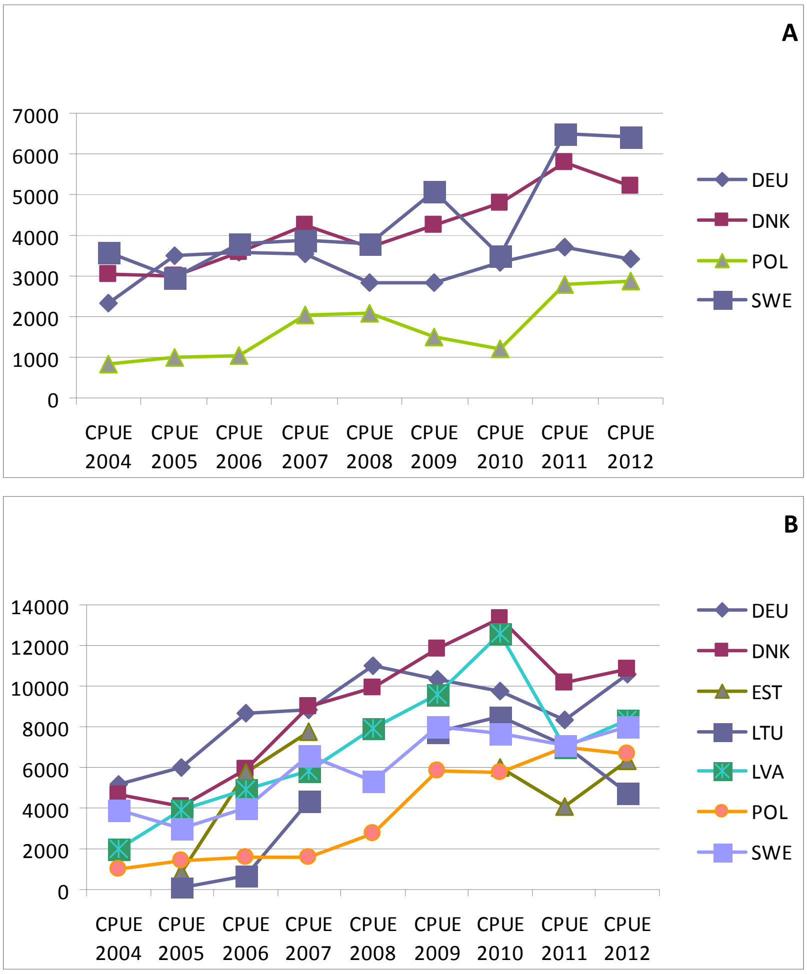


Figure 5.1.5.4. CPUE (g/kW*days) of cod in regulated otter trawl fisheries in the areas A and B, Baltic Sea by Member States, 2004-2012.

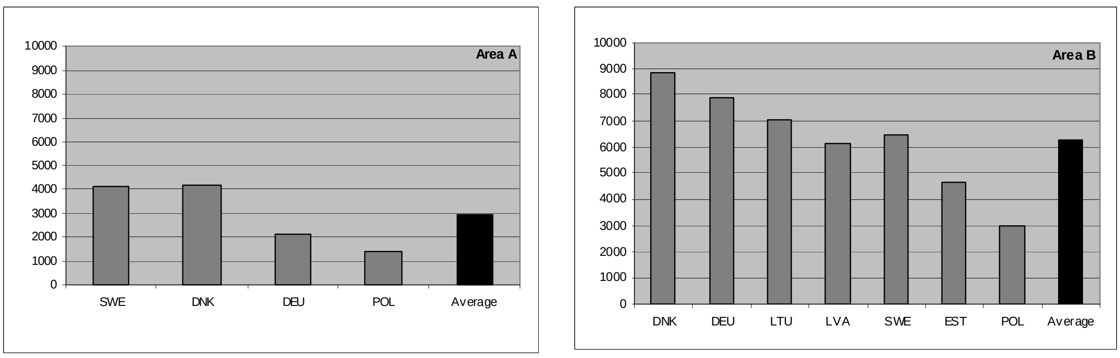


Figure 5.1.5.5. Average CPUE (g/kW*days) of cod in r-otter trawl fisheries by Member States in area A and area B (Sub-division 28.2. included), in 2004-2012.

Ranked gear categories according to catches and landings of cod by area can be found in Tables 5.1.5.3 and 5.1.5.4.

There are some differences in the dominating gear that are responsible for the cod catches. Throughout the period of observations the otter trawl fishery was dominant in areas A and B with gillnet fishery as the second most important cod catching gear. In area C, gillnets were the major gears although the total amount of cod catches was low compared to the areas A and B. The variation in the dominance of particular gear types between years is limited in areas A and B. Gillnets were clearly dominating gear in area C in 2003-2012. In the Sub-division 28.2, only trawls and gillnets were involved in cod fishery during the period (except minor catch by pelagic trawls in 2003). The proportion between gears had been changing on annual basis without clear trend. However, due to the present distribution pattern of the Eastern Baltic cod stock, the cod is taken only as by-catch in the Sub-division 28.2. According to available data, cod catches from unregulated gear types do not play a significant role.

Table 5.1.5.3. Ranked gear categories according to the proportional catches of cod 2003-2012, ascending ranking according to 2012.

REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel
28.2	COD	r-PEL_TRAWL	0.030									
28.2	COD	r-GILL	0.674	0.298	0.441	0.354	0.537	0.418	0.244	0.755	0.468	0.205
28.2	COD	r-OTTER	0.296	0.702	0.559	0.646	0.463	0.582	0.756	0.245	0.532	0.795

REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel
A	COD	r-BEAM	0.000					0.000				
A	COD	r-PEL_TRAWL	0.004	0.002	0.005	0.008	0.009	0.001	0.002	0.004	0.001	0.000
A	COD	r-LONGLINE	0.018	0.025	0.048	0.032	0.031	0.015	0.020	0.021	0.026	0.029
A	COD	r-DEM_SEINE	0.074	0.078	0.042	0.062	0.063	0.078	0.053	0.042	0.029	0.027
A	COD	r-TRAMMEL	0.016	0.014	0.025	0.026	0.024	0.031	0.027	0.036	0.032	0.044
A	COD	r-GILL	0.194	0.199	0.255	0.269	0.239	0.283	0.253	0.261	0.207	0.233
A	COD	r-OTTER	0.694	0.683	0.625	0.603	0.635	0.592	0.645	0.637	0.705	0.667

REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel
B	COD	r-TRAMMEL	0.000	0.000	0.000	0.000	0.001	0.001	0.002	0.000	0.000	0.000
B	COD	r-DEM_SEINE	0.000	0.000	0.005	0.004	0.003	0.003	0.008	0.005	0.009	0.009
B	COD	r-LONGLINE	0.050	0.092	0.105	0.088	0.059	0.054	0.032	0.046	0.034	0.022
B	COD	r-PEL_TRAWL	0.009	0.104	0.051	0.139	0.209	0.037	0.062	0.037	0.081	0.029
B	COD	r-GILL	0.314	0.318	0.284	0.196	0.187	0.247	0.226	0.175	0.133	0.120
B	COD	r-OTTER	0.626	0.486	0.555	0.572	0.541	0.659	0.670	0.737	0.742	0.821

REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel
C	COD	r-OTTER						0.063				
C	COD	r-LONGLINE						0				
C	COD	r-GILL	1	1	1	1	1	0.938	1	1	1	1

Table 5.1.5.4 Ranked gear categories according to the proportional landings of cod 2003-2012, ascending ranking according to 2012.

REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel
28.2	COD	r-PEL_TRAWL	0.030									
28.2	COD	r-GILL	0.670	0.300	0.436	0.349	0.520	0.406	0.244	0.755	0.468	0.205
28.2	COD	r-OTTER	0.299	0.700	0.564	0.651	0.480	0.594	0.756	0.245	0.532	0.795

REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel
A	COD	r-BEAM	0.000					0.000				
A	COD	r-PEL_TRAWL	0.005	0.002	0.005	0.008	0.009	0.001	0.002	0.004	0.001	0.000
A	COD	r-LONGLINE	0.021	0.026	0.053	0.034	0.032	0.016	0.021	0.025	0.029	0.030
A	COD	r-DEM_SEINE	0.078	0.075	0.048	0.064	0.066	0.081	0.055	0.041	0.030	0.028
A	COD	r-TRAMMEL	0.017	0.015	0.026	0.027	0.025	0.033	0.028	0.038	0.036	0.045
A	COD	r-GILL	0.220	0.212	0.283	0.282	0.250	0.295	0.258	0.284	0.229	0.241
A	COD	r-OTTER	0.659	0.669	0.584	0.584	0.619	0.575	0.637	0.608	0.675	0.656

REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel
B	COD	r-TRAMMEL	0.001	0.000	0.000	0.000	0.001	0.001	0.002	0.000	0.000	0.000
B	COD	r-DEM_SEINE	0.000	0.000	0.005	0.004	0.003	0.003	0.009	0.005	0.011	0.010
B	COD	r-LONGLINE	0.055	0.095	0.110	0.098	0.066	0.057	0.033	0.044	0.037	0.024
B	COD	r-PEL_TRAWL	0.009	0.105	0.052	0.135	0.213	0.036	0.062	0.039	0.076	0.028
B	COD	r-GILL	0.344	0.322	0.292	0.210	0.195	0.254	0.236	0.174	0.143	0.131
B	COD	r-OTTER	0.592	0.478	0.540	0.552	0.521	0.649	0.659	0.737	0.733	0.806

REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel
C	COD	r-OTTER						0.063				
C	COD	r-LONGLINE						0				
C	COD	r-GILL	1	1	1	1	1	0.938	1	1	1	1

5.1.6 ToR 2 Information on small boats (<8m by area)

An updated dataset on fishing effort and catches (landings and discards) of cod corresponding to vessels of the overall length l below 8 m by gear and Member State were made available for EWG 13-06 and 13-13 .Lithuania provided data from 2006-2012 and Latvia from 2009-2012. Estonia did not provide effort data for this fleet segment.

5.1.6.1 Fishing effort of small boats by area, Member State and fisheries

According to provided information (Table 5.1.6.1.1), in 2003-2012 the highest fishing effort was deployed by Finland, Sweden and Poland (86% of total fishing effort in that fleet segment in 2012) (Figure 5.1.6.1.1).

The most of efforts were distributed between non regulated gill nets (44%), pots (31%) and regulated gill nets (16%) (Figure 5.1.6.1.2). Only 9% of fishing effort was deployed by other types of fishing gears.

The highest fishing effort was deployed in the area C (62% on average comparing with total fishing effort); the lowest in the area A (10% on average comparing with total fishing effort) (Figure 5.1.6.1.3). 28% of fishing effort was deployed in area B. Fishing effort in the Sub-division 28.2 consisted <1% of all fishing efforts in the area B only in 2012. Dynamics of fishing efforts in areas A, B, C has shown that from 2004 fishing effort in the area B significantly decreased; in the areas A, C fishing efforts fluctuated around its average.

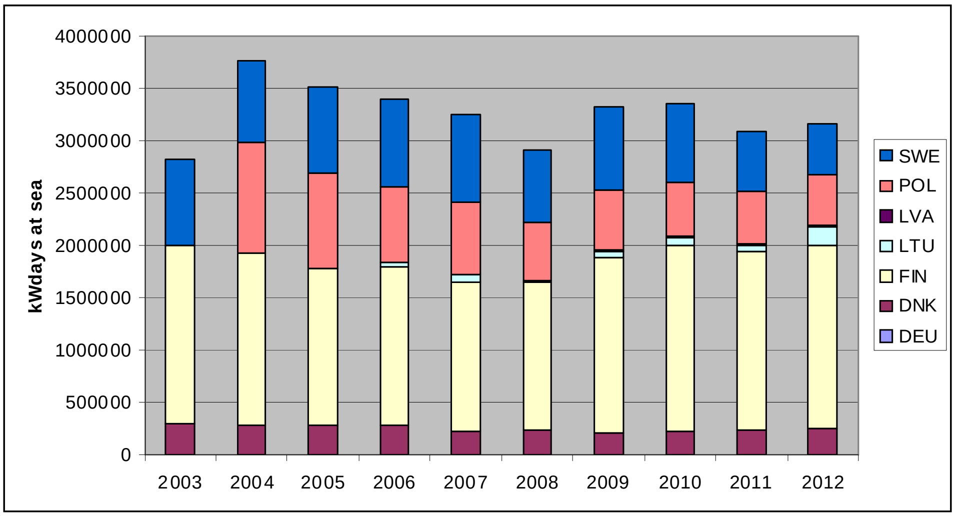


Figure 5.1.6.1.1. Distribution of fishing effort (kW days at sea) by Member States in 2003 – 2012. Small boats.

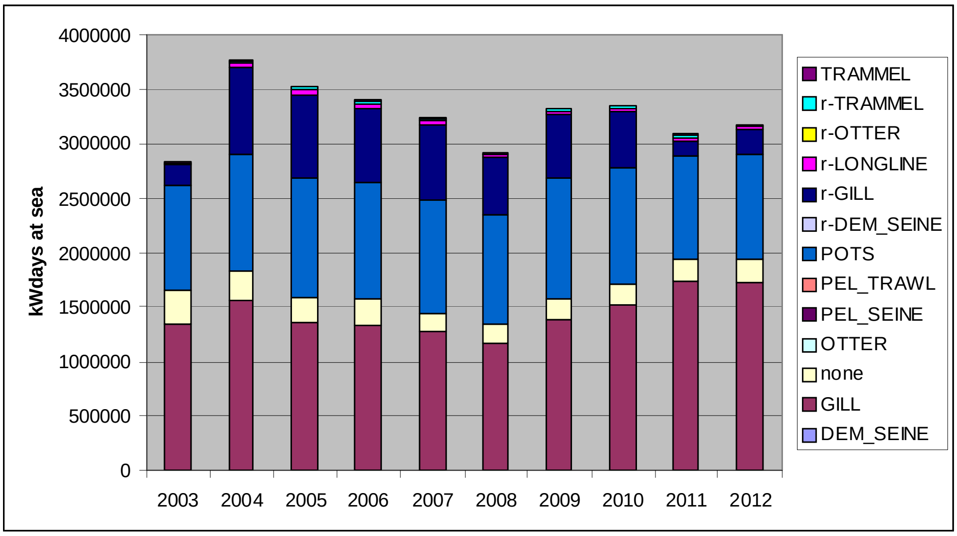


Figure 5.1.6.1.2. Distribution of fishing effort (kW days at sea) by different fishing gears in 2003 – 2012. Small boats.

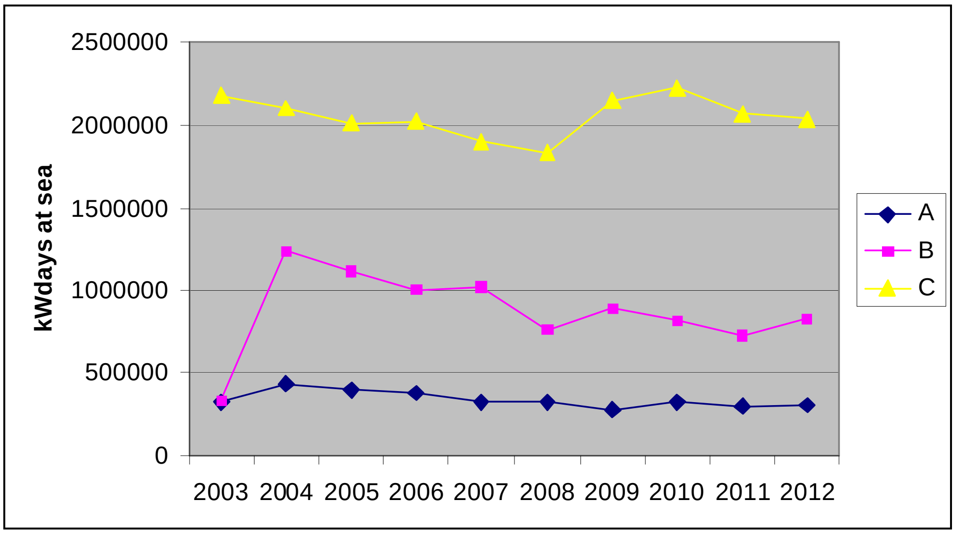


Figure 5.1.6.1.3. Dynamics of fishing effort (kW days at sea) in areas A, B, C. Small boats.

Table 5.1.5.1.1 Fishing effort (kWdays at sea) of small boats by area, Member State and fisheries in 2003-2012.

ANNEX	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Bal	28.2	GILL	none	LVA							2460	1024		594
Bal	28.2	r-DEM_SEINE	none	LVA							46	36		
Bal	28.2	r-GILL	none	LVA							7387	5022	6518	3432
Bal	A	DEM_SEINE	none	DNK				34			32			
Bal	A	DEM_SEINE	none	POL		1925	1035							
Bal	A	DEM_SEINE	none	SWE			16							
Bal	A	GILL	none	DNK	664	356	4026	7693	4976	4158	3089	1542	3049	2575
Bal	A	GILL	none	POL		70644	49864	34033	43230	35850	21984	35190	40226	48359
Bal	A	GILL	none	SWE	2871	6271	383	885			1353	485	313	442
Bal	A	none	none	DNK	263032	248064	204447	207229	144252	154790	142535	168846	184330	200985
Bal	A	none	none	SWE	22	74	2813	4251	2659	5197	279	706		
Bal	A	OTTER	none	DNK		8		19		15				
Bal	A	OTTER	none	POL						21				
Bal	A	POTS	none	DNK			12524	13839	16716	11219	5304	5506	2272	2455
Bal	A	POTS	none	POL		26730	20268	14502	15888	25323	21954	20576	13086	8841
Bal	A	POTS	none	SWE	28974	23886	25365	28788	23451	12845	23090	29839	8425	14312
Bal	A	r-DEM_SEINE	none	DNK			8				32			32
Bal	A	r-GILL	none	DEU									192	
Bal	A	r-GILL	none	DNK	62	46	15677	15957	14579	21185	15050	12637	10723	11759
Bal	A	r-GILL	none	POL		26014	19941	15700	18809	17544	15584	9865		
Bal	A	r-GILL	none	SWE	24692	13884	15332	16650	15614	15720	7406	13074	15376	9473
Bal	A	r-LONGLINE	none	DNK	782	621	2766	4149	6128	2210	996	982	798	793
Bal	A	r-LONGLINE	none	POL		658			29	97	753	102	173	826
Bal	A	r-LONGLINE	none	SWE		2522	392							
Bal	A	r-OTTER	none	DNK		23	79	121	54	158	63	232		
Bal	A	r-TRAMMEL	none	DNK	419		7361	9765	7424	10027	7100	8239	9080	2845
Bal	A	r-TRAMMEL	none	SWE	3672	8118	10053	8683	7146	7657	7687	14540	9764	6458
Bal	A	TRAMMEL	none	DNK			86	197	40	240	135	4	24	212
Bal	A	TRAMMEL	none	POL		3058	2708	2357	5414	1367	971	112		
Bal	B	DEM_SEINE	none	POL		3111	959	31		59		82	1054	
Bal	B	DEM_SEINE	none	SWE						44				
Bal	B	GILL	none	DNK			56	19		23				
Bal	B	GILL	none	LTU							34504	30277	16793	48662
Bal	B	GILL	none	LVA							844	462	720	1013
Bal	B	GILL	none	POL		145108	109011	72210	71172	60146	51258	50365	397312	386491
Bal	B	GILL	none	SWE	11760	17940	17036	18779	21529	17550	27674	31454	28688	33454
Bal	B	none	none	DNK	34833	25493	22940	27175	22623	24599	29787	23237	25846	19750
Bal	B	none	none	SWE	249	9		1014	4495	1166	1175	998		1798
Bal	B	PEL_SEINE	none	POL									22	
Bal	B	PEL_TRAWL	none	POL			59							
Bal	B	POTS	none	DNK					8					
Bal	B	POTS	NONE	LTU									5018	4869
Bal	B	POTS	none	POL		124796	107603	69044	59160	46886	44134	69259	29144	36719
Bal	B	POTS	none	SWE	152174	138253	149638	180982	205254	137653	162669	129568	85842	85807
Bal	B	r-DEM_SEINE	none	LVA										0
Bal	B	r-GILL	none	DNK			1060	207	610	3465	3415	2783	45	79
Bal	B	r-GILL	none	LTU				30799	67068	16778				
Bal	B	r-GILL	none	LTU							28808	42127	42080	127316
Bal	B	r-GILL	none	LVA							1078	1979	3266	1694
Bal	B	r-GILL	none	POL		613889	572660	483645	447619	343626	398418	322538	22	40
Bal	B	r-GILL	none	SWE	118038	111340	86034	71269	79583	81410	68069	61424	42923	55460
Bal	B	r-LONGLINE	none	DNK			223		718	2210	2163	1041	117	18
Bal	B	r-LONGLINE	none	LTU				1966	10496	132				
Bal	B	r-LONGLINE	none	LTU							2170	3787	7999	2981
Bal	B	r-LONGLINE	none	POL		30606	27836	21358	19258	12028	14925	13281	8997	6490
Bal	B	r-LONGLINE	none	SWE	6965	12481	15858	8229	8089	6978	6209	5882	3589	4140
Bal	B	r-OTTER	none	DNK						54				
Bal	B	r-TRAMMEL	none	SWE	1423	3881	3238	3931	3740	3410	1530	11884	10915	9024
Bal	B	TRAMMEL	none	POL		119			37	31				
Bal	B	TRAMMEL	none	SWE	6098	6999	3406	11500	5455	4858	5238	5030	5433	
Bal	C	DEM_SEINE	none	SWE	1827	824			526					
Bal	C	GILL	none	FIN	1168557	1152304	1000201	1033994	957521	888768	1057622	1188962	1101469	1087866
Bal	C	GILL	none	POL									102	
Bal	C	GILL	none	SWE	165644	160268	173471	166700	168797	154373	185927	169655	139908	106857
Bal	C	none	none	SWE	3523	257	1269	4478	2030	2206	9670	331	6665	2469
Bal	C	OTTER	none	SWE	816			66						
Bal	C	POTS	none	FIN	532031	505759	510189	483518	472706	527856	609518	586124	599198	664637
Bal	C	POTS	none	SWE	255454	240193	275226	277286	251989	227243	247262	234842	191732	140684
Bal	C	r-GILL	none	SWE	47268	39858	49762	46841	40313	28534	38939	38007	25078	29051
Bal	C	r-LONGLINE	none	SWE				3077						
Bal	C	TRAMMEL	none	SWE	912	912								

5.1.6.2 Catches (landings and discards) of small boats by area, Member State and fisheries

STECF notes that discard observation and estimation are scarce for small boats. Using the information available, the estimated catches are believed to represent rather landings. According to provided information (Table 5.1.6.2.1) the biggest cod landings on average were taken with fishing gears named as “none” (34%) and regulated gill nets (34%) (Figure 5.1.6.2.1). Other important gears for cod landings were unregulated gill nets (23%) and regulated longlines (7%). By other types of fishing gears 2% of cod was fished only.

The landings of cod were taken almost equally from the areas A and B (Figure 5.1.6.2.2). The landings of cod in the area C consisted of less than 0.1% of total landings. The landings of cod in the Sub-division 28.2 consisted of 2% of all landings in the area B. The negative trend in total cod landings observed since 2005, reversed in 2012 mainly due to the increased landing figures in area B. Comparison of the most recent period (2010-2012) can be characterized by increase of the share of non-regulated gillnet catches . The share of r-gill remains unchanged in 2011-2012 (Figure 5.1.6.2.1). Landings of cod corresponding to vessels of the overall length less than 8 m consist of 4.2% of total catches in the area A, 1.6% - in the areas B+C and 2.2% - for all Baltic.

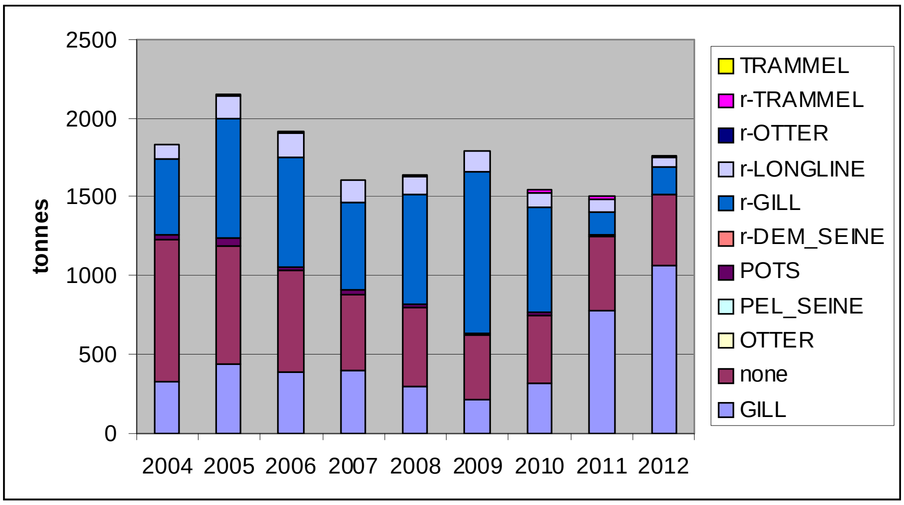


Figure 5.1.6.2.1 Distribution of cod landings taken by different gear types in 2004–2012. Small boats.

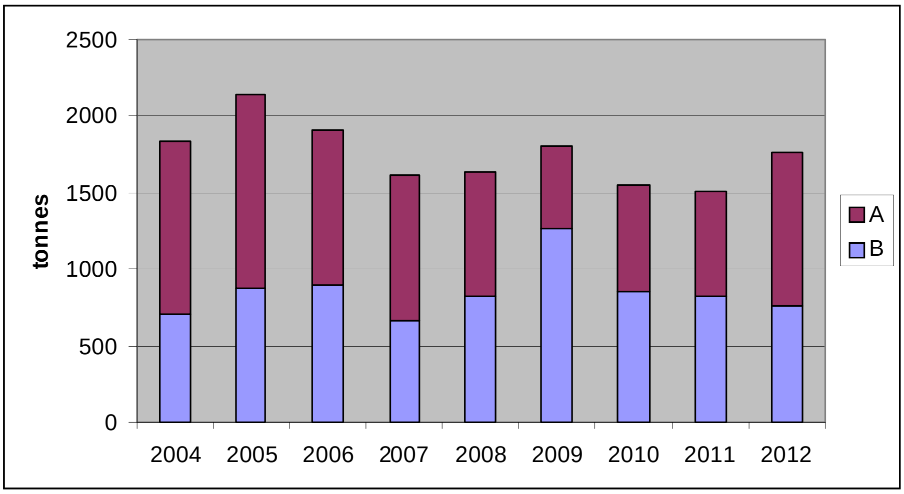


Figure 5.1.6.2.2. Dynamics of cod landings in 2004 – 2012 in the areas A and B. Small boats.

Table 5.1.6.2.1. Cod landings and discards taken by < 8 m vessels by area, gear type and Member State in 2004-2012 (t).

REG_AREA	REG_GEAR	COUNTRY	SPECON	2004 L	2004 D	2005 L	2005 D	2006 L	2006 D	2007 L	2007 D	2008 L	2008 D	2009 L	2009 D	2010 L	2010 D	2011 L	2011 D	2012 L	2012 D
28.2	GILL	EST	none			0.139	0	0.03	0	0.12	0	0.182	0	0.243	0	0.168	0	0.282	0	0.263	0
28.2	POTS	EST	none			0.002	0					0.198	0	0.104	0	0.15	0	0.164	0	0.147	0
28.2	r-LONGLINE	EST	none									0.004	0					0.013	0		
28.2	GILL	LVA	none							0.137	0	0.12	0			0.011	0			0.05	0
28.2	r-DEM_SEINE	LVA	none									0.012	0			0.005	0				
28.2	r-GILL	LVA	none			8.417	0	39.05	0	50.342	0	35.52	0	8.461	0	5.85	0	3.65	0	4.422	0
A	GILL	DEU	none	318.361	0	426.537	0	371.402	0	375.492	0	274.343	0	193.613	0	307.331	0	257.194	0	578.837	0
A	none	DEU	none	0.019	0	2.784	0	0.291	0	0.289	0										
A	POTS	DEU	none	0.064	0			0.139	0	0.351	0	0.093	0	0.3	0	1.47	0	0.384	0	1.327	0.004
A	r-LONGLINE	DEU	none	2.881	0	3.798	0.085	3.461	0	2.289	0	1.157	0	0.198	0	0.032	0	0.049	0	2.472	0
A	GILL	DNK	none	1.564	0	9.493	0	9.268	0	11.897	0	16.02	0	5.864	0	0.698	0	2.492	0	1.068	0
A	none	DNK	none	717.51	0	594.038	0	478.029	0	345.447	0	329.187	0	227.117	0	290.895	0	337.403	0	352.823	0
A	OTTER	DNK	none					0.087	0			0.027	0								
A	POTS	DNK	none			20.175	0	9.164	0	9.549	0	1.061	0	1.485	0	6.09	0	2.333	0.051	5.117	0.086
A	r-DEM_SEINE	DNK	none											0.001	0						
A	r-GILL	DNK	none	0.013	0.001	115.975	5.335	71.609	0	68.508	0	76.074	0	47.482	0.323	29.899	3.21	26.826	0	33.286	0.546
A	r-LONGLINE	DNK	none	0.702	0.035	20.701	0.847	10.281	0	43.403	0	16.735	0	9.947	0	8.416	0	6.199	0	6.682	0
A	r-OTTER	DNK	none	0.736	0.057	0.019	0.021	0.193	0.017	0.05	0.004	0.57	0.044	0.022	0.004	0.022	0.086				
A	r-TRAMMEL	DNK	none			2.873	0.124	3.466	0	5.409	0	9.24	0	3.575	0.012	6.342	0.785	16.619	0	5.254	0.023
A	TRAMMEL	DNK	none			0.002	0	0.263	0			0.008	0	0.016	0						
A	GILL	POL	none	0.65	0	0.4	0	0.23	0	0.506	0	0.952	0	0.126	0			3.598	0		
A	POTS	POL	none	0.2	0					0.002	0										
A	r-GILL	POL	none	36.704	0.809	13.365	0.493	15.393	0	23.144	0	17.898	0	15.835	0	10.235	0.539				
A	r-LONGLINE	POL	none									0.37	0								
A	none	SWE	none	1.43	0	1.435	0	2.172	0	3.375	0	5.805	0	0.08	0	0.645	0				
A	POTS	SWE	none	9.587	0	13.549	0	6.745	0	13.212	0	4.28	0	2.671	0.017	1.932	0	2.736	0.062	2.861	0.059
A	r-GILL	SWE	none	38.975	0.582	41.163	1.868	30.316	0	39.144	0	62.261	0	23.732	0.081	26.38	0.522	28.962	0.512	14.813	0.219
A	r-LONGLINE	SWE	none	6.315	0.18	3.153	0.144														
A	r-TRAMMEL	SWE	none	1.397	0.018	3.143	0.248	0.124	0			0.018	0	0.361	0.001	0.551	0.009	2.967	0.046	1	0.016
B	GILL	DNK	none									0.178	0								
B	none	DNK	none	185.557	0	147.197	0	152.503	0	136.781	0	169.28	0	180.255	0	136.908	0	130.394	0	87.022	0
B	r-GILL	DNK	none			3.814	0.035			6.27	0	23.087	0.039	21.622	0.489	10.153	0.181	0.027	0.002	0.189	0.008
B	r-LONGLINE	DNK	none			0.337	0.02			4.602	0	13.7	0	17.455	1.046	9.046	1.522	0.503	0.007	0.039	0.001
B	r-OTTER	DNK	none									0.256	0.037								
B	GILL	EST	none			0.427	0	0.204	0	0.283	0	0.338	0	0.359	0.002	0.342	0	0.444	0	0.517	0.003
B	POTS	EST	none			0.42	0	0.11	0	0.147	0	0.552	0	0.314	0.022	0.382	0	0.285	0.02	0.317	0.013
B	r-LONGLINE	EST	none									0.004	0					0.013	0.001		
B	r-GILL	LTU	none			107.68	0	60.534	0	55.577	0	48.012	0	30.7	0	48.2	0	25.1	0	50.3	2.133
B	r-LONGLINE	LTU	none					1.043	0			2.095	0	7	0	11.6	0	23.2	0	5.1	0.078
B	GILL	LVA	none					0.12	0			0.01	0							0.05	0
B	r-GILL	LVA	none			6.885	0.034	62.759	4.497	68.333	0	30.885	0.025	7.076	0.214	10.703	0.312	9.696	0.375	15.246	0.554
B	GILL	POL	none	5.646	0	1.748	0	4.235	0	1.44	0	2.072	0	5.916	0.049	6.826	0	510.719	0	484.779	2.975
B	PEL_SEINE	POL	none															0.005	0		
B	POTS	POL	none	0.793	0	1.858	0	0.814	0	0.005	0	0.213	0	0.425	0.034	0.1	0	0.449	0.032	0.167	0.006
B	r-GILL	POL	none	285.318	3.725	420.446	4.07	382.058	39.525	194.836	0	329.042	0.826	794.467	21.538	467.33	13.536			0.2	0.009
B	r-LONGLINE	POL	none	32.274	0.411	52.882	1.075	102.677	0	66.001	0	43.576	0	82.984	5.693	67.851	6.742	50.686	1.297	34.35	1.234
B	GILL	SWE	none			0.14	0	0.001	0	0.001	0	0.09	0	0.055	0.003	0.044	0			0.02	0.001
B	none	SWE	none	0.211	0			5.423	0	1.791	0	2.946	0	1.422	0	1.403	0			0.016	0
B	POTS	SWE	none	13.459	0	12.079	0	12.951	0	11.378	0	13.754	0	7.051	0.491	6.025	0	3.822	0.262	2.456	0.096
B	r-GILL	SWE	none	117.981	1.689	59.795	1.781	74.419	11.134	96.492	0	99.658	0.234	86.209	4.777	63.722	1.771	54.547	3.303	58.127	1.963
B	r-LONGLINE	SWE	none	57.466	0.768	57.702	1.064	32.653	0	24.713	0	37.134	0	17.31	1.239	5.163	0.715	6	0.409	13.593	0.466
B	r-TRAMMEL	SWE	none	0.108	0.001	0.359	0.012	0.2	0	0.308	0	0.148	0	0.021	0.001	5.345	0.107	0.883	0.044	1.626	0.079
B	TRAMMEL	SWE	none	0.176	0.003	0.186	0.008	0.288	0			0.007	0	0.002	0	0.002	0				
C	GILL	EST	none			0.455	0	0.263	0	0.369	0	1.468	0	3.139	0.047	2.85	0.08	2.636	0.029	2.159	0.045
C	POTS	EST	none			0.012	0	0.004	0	0.035	0	0.037	0	0.114	0.001	0.121	0	0.117	0	0.107	0.009
C	r-GILL	EST	none					0.004	0												
C	r-LONGLINE	EST	none											0.002	0					0.003	0
C	GILL	FIN	none	0.061	0	0.063	0	0.124	0	0.045	0	0.268	0	0.643	0.009	1.058	0.02	0.836	0.005	0.462	0.011
C	POTS	FIN	none	0.009	0			0.002	0	0.005	0	0.004	0	0.086	0.001	0.123	0	0.012	0	0.058	0.005
C	GILL	SWE	none	0.2	0	0.004	0			0.002	0	0.246	0			0.004	0			0.008	0
C	POTS	SWE	none																		
C	r-GILL	SWE	none											0.117	0.008	0.004	0				

Table 5.1.6.2.2. Cod landings and discards taken by < 8 m vessels by area and gear type in 2004-2011 2012 (t).

REG_AREA	REG_GEAR	SPECON	2004 L	2004 D	2005 L	2005 D	2006 L	2006 D	2007 L	2007 D	2008 L	2008 D	2009L	2009 D	2010L	2010 D	2011L	2011 D	2012 L	2012 D
28.2	GILL	none			0.139	0	0.03	0	0.257	0	0.302	0	0.343	0	0.179	0	0.282	0	0.313	0
28.2	POTS	none			0.002	0					0.198	0	0.104	0	0.15	0	0.164	0	0.147	0
28.2	r-DEM_SEINE	none									0.012	0			0.005	0				
28.2	r-GILL	none			8.417	0	39.05	0	50.342	0	35.52	0	8.461	0	5.85	0	3.65	0	4.422	0
28.2	r-LONGLINE	none									0.004	0					0.013	0		
A	GILL	none	320.575	0	436.43	0	380.9	0	387.895	0	291.315	0	199.608	0	308.029	0	263.284	0	579.905	0
A	none	none	718.959	0	598.257	0	480.492	0	349.111	0	334.992	0	227.197	0	291.54	0	337.403	0	352.823	0
A	OTTER	none					0.087	0			0.027	0								
A	POTS	none	9.851	0	33.724	0	16.048	0	23.114	0	5.434	0	4.456	0.017	9.492	0	5.453	0.113	9.305	0.149
A	r-DEM_SEINE	none											0.001	0						
A	r-GILL	none	75.692	1.392	170.503	7.696	117.318	0	130.796	0	156.233	0	87.048	0.404	66.514	4.271	55.788	0.512	48.099	0.765
A	r-LONGLINE	none	9.898	0.215	27.652	1.076	13.742	0	45.692	0	18.262	0	10.145	0	8.448	0	6.248	0	9.154	0
A	r-OTTER	none	0.736	0.057	0.019	0.021	0.193	0.017	0.05	0.004	0.57	0.044	0.022	0.004	0.022	0.086				
A	r-TRAMMEL	none	1.397	0.018	6.016	0.372	3.59	0	5.409	0	9.258	0	3.586	0.013	6.893	0.794	19.586	0.046	6.254	0.039
A	TRAMMEL	none			0.002	0	0.263	0			0.008	0	0.016	0						
B	GILL	none	5.646	0	2.315	0	4.36	0	1.724	0	2.688	0	6.33	0.054	7.212	0	511.163	0	485.366	2.979
B	none	none	185.768	0	147.197	0	157.926	0	138.572	0	172.226	0	181.677	0	138.311	0	130.394	0	87.038	0
B	PEL_SEINE	none															0.005	0		
B	POTS	none	14.252	0	14.357	0	13.875	0	11.53	0	14.519	0	7.79	0.547	6.507	0	4.536	0.314	2.94	0.115
B	r-GILL	none	403.299	5.414	598.62	5.92	579.77	55.156	421.508	0	530.684	1.124	940.074	27.018	600.108	15.8	89.37	3.68	124.062	4.667
B	r-LONGLINE	none	89.74	1.179	110.921	2.159	136.373	0	95.316	0	96.509	0	124.749	7.978	93.66	8.979	80.402	1.714	53.082	1.779
B	r-OTTER	none									0.256	0.037								
B	r-TRAMMEL	none	0.108	0.001	0.359	0.012	0.2	0	0.308	0	0.148	0	0.021	0.001	5.345	0.107	0.883	0.044	1.626	0.079
B	TRAMMEL	none	0.176	0.003	0.186	0.008	0.288	0			0.007	0	0.002	0	0.002	0				
C	GILL	none	0.261	0	0.522	0	0.387	0	0.416	0	1.982	0	3.782	0.056	3.912	0.1	3.472	0.034	2.629	0.056
C	POTS	none	0.009	0	0.012	0	0.006	0	0.04	0	0.041	0	0.2	0.002	0.244	0	0.129	0	0.165	0.014
C	r-GILL	none					0.004	0					0.117	0.008	0.004	0				
C	r-LONGLINE	none											0.002	0					0.003	0

5.1.7 ToR 3 Fishing effort (days at sea) uptake analysis, by Member State, gear type and fishing area.

The EWG 13-06 was addressed the task of quantifying the evolution of the calculated maximum effort allocated to the cod fleet (ceiling of days using regulated gear types) in relation to the effort actually used by that fleet and was asked to highlight possible shifts between métiers.

The uptake of days at sea against the available days at sea by Member State and area for regulated and non-regulated gear types in 2008-2012 is presented in the Table 5.1.7.1. and on the Figures 5.1.7.1 – 5.1.7.3. The uptake of days at sea with regulated gears remained clearly below the available maximum in all areas and Member States. The average uptake of available days at sea over the time period 2008-2012 remained in the range of 36-38% in area A, 34-47% in the area B and 53-83% for the areas A and B combined. Only one Member State slightly exceeded the allowed limit for regulated gears in areas A and B combined in 2011 (Figure 5.1.7.3). No clear trend in average uptake could be revealed over the observed period.

Table 5.1.7.1. Uptake of available days at sea by Member State and area for regulated and nonregulated gear types in 2008-2012.

Reg	Area	MS	Category	Gear types	2008	2009	2010	2011	2012
BAL	A	**DEU**	**Limit**		**65339**	**53868**	**45612**	**41728**	**39772**
BAL	A		**Uptake**	**Nonreg**	2034	889	863	609	448
BAL	A		**Uptake**	**Reg**	33414	25373	21911	23187	21568
BAL	A	**DNK**	**Limit**		**69799**	**53265**	**41268**	**40587**	**35534**
BAL	A		**Uptake**	**Nonreg**	1942	1789	1857	1890	2064
BAL	A		**Uptake**	**Reg**	22923	17797	15505	15568	15139
BAL	A	**POL**	**Limit**		**10035**	**7638**	**4887**	**2934**	**4401**
BAL	A		**Uptake**	**Nonreg**	6438	5608	5234	5624	5726
BAL	A		**Uptake**	**Reg**	872	925	466	315	592
BAL	A	**SWE**	**Limit**		**11373**	**7638**	**7240**	**6194**	**6683**
BAL	A		**Uptake**	**Nonreg**	1618	2416	1870	1144	1080
BAL	A		**Uptake**	**Reg**	5124	4007	3638	3003	2864
BAL	B	**DEU**	**Limit**		**534**	**160**	**160**	**320**	**320**
BAL	B		**Uptake**	**Nonreg**				165	217
BAL	B		**Uptake**	**Reg**	139	32	24	79	25
BAL	B	**DNK**	**Limit**		**3382**	**2080**	**3200**	**3200**	1920
BAL	B		**Uptake**	**Nonreg**	871	1215	967	460	259
BAL	B		**Uptake**	**Reg**	1530	1070	1361	2045	967
BAL	B	**EST**	**Limit**		**1602**	**960**	**480**	**1440**	**1440**
BAL	B		**Uptake**	**Nonreg**	869	960	1136	1111	3733
BAL	B		**Uptake**	**Reg**	221	89	58	521	180
BAL	B	**LTU**	**Limit**			**5120**	**4320**	**3840**	**4320**
BAL	B		**Uptake**	**Nonreg**		397	433	522	254
BAL	B		**Uptake**	**Reg**		3006	2690	2526	3207
BAL	B	**LVA**	**Limit**		**9968**	**9920**	**7840**	**6240**	**6880**
BAL	B		**Uptake**	**Nonreg**	3527	2763	2650	2667	1793
BAL	B		**Uptake**	**Reg**	4853	4567	3388	4518	4357
BAL	B	**POL**	**Limit**		**55714**	**39520**	**41440**	**36000**	**46880**
BAL	B		**Uptake**	**Nonreg**	6272	8824	8529	8837	8280
BAL	B		**Uptake**	**Reg**	15244	11885	13845	11775	17024
BAL	B	**SWE**	**Limit**		**27768**	**24800**	**20960**	**16960**	**18080**
BAL	B		**Uptake**	**Nonreg**	7121	6680	5899	5031	3923
BAL	B		**Uptake**	**Reg**	11654	10479	8190	5827	5015
BAL	AB				**2008**	**2009**	**2010**	**2011**	**2012**
BAL	AB	**DEU**	**Limit**		10035	11457	9412	4727	4401
BAL	AB		**Uptake**	**Nonreg**	300	375	397	102	
BAL	AB		**Uptake**	**Reg**	5705	7347	6046	3581	3431
BAL	AB	**DNK**	**Limit**		**23861**	**23316**	**17919**	**12551**	**14344**
BAL	AB		**Uptake**	**Nonreg**	123	342	342	444	454
BAL	AB		**Uptake**	**Reg**	10494	11181	10496	8565	10580
BAL	AB	**EST**	**Limit**		**446**	**402**	**362**		**326**
BAL	AB		**Uptake**	**Nonreg**					22
BAL	AB		**Uptake**	**Reg**	265	258	218		253
BAL	AB	**LTU**	**Limit**						
BAL	AB		**Uptake**	**Nonreg**		90	146	124	
BAL	AB			**Reg**					
BAL	AB	**LVA**	**Limit**		**669**	**402**	**1448**	**163**	**163**
BAL	AB		**Uptake**	**Nonreg**				113	
BAL	AB		**Uptake**	**Reg**	501	261	1166	223	151
BAL	AB	**POL**	**Limit**		**33896**	**16482**	**10317**	**10921**	**15485**
BAL	AB		**Uptake**	**Nonreg**	3050	3469	1622	3449	3091
BAL	AB		**Uptake**	**Reg**	12029	6780	5874	6974	10343
BAL	AB	**SWE**	**Limit**		**16725**	**15075**	**11222**	**14181**	**13855**
BAL	AB		**Uptake**	**Nonreg**	3606	3573	2045	2719	2185
BAL	AB		**Uptake**	**Reg**	7707	7970	6545	10280	9767

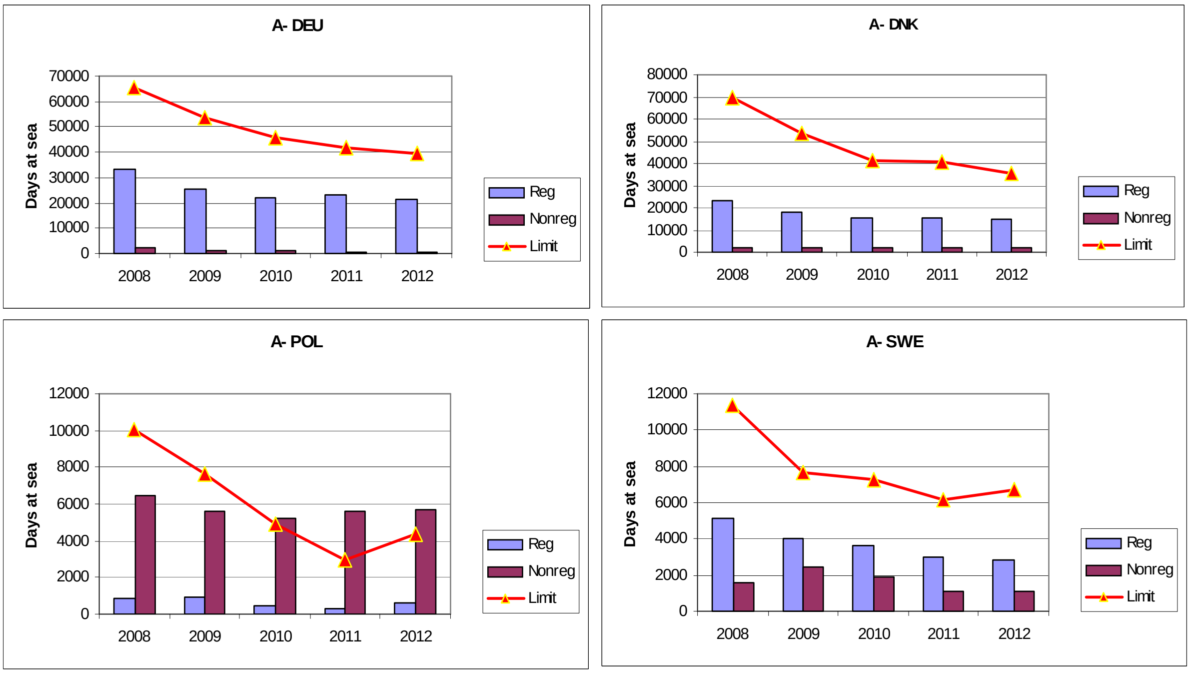


Figure 5.1.7.1. Fishing area A. Uptake of available days at sea by Member States and regulated and non-regulated gears.

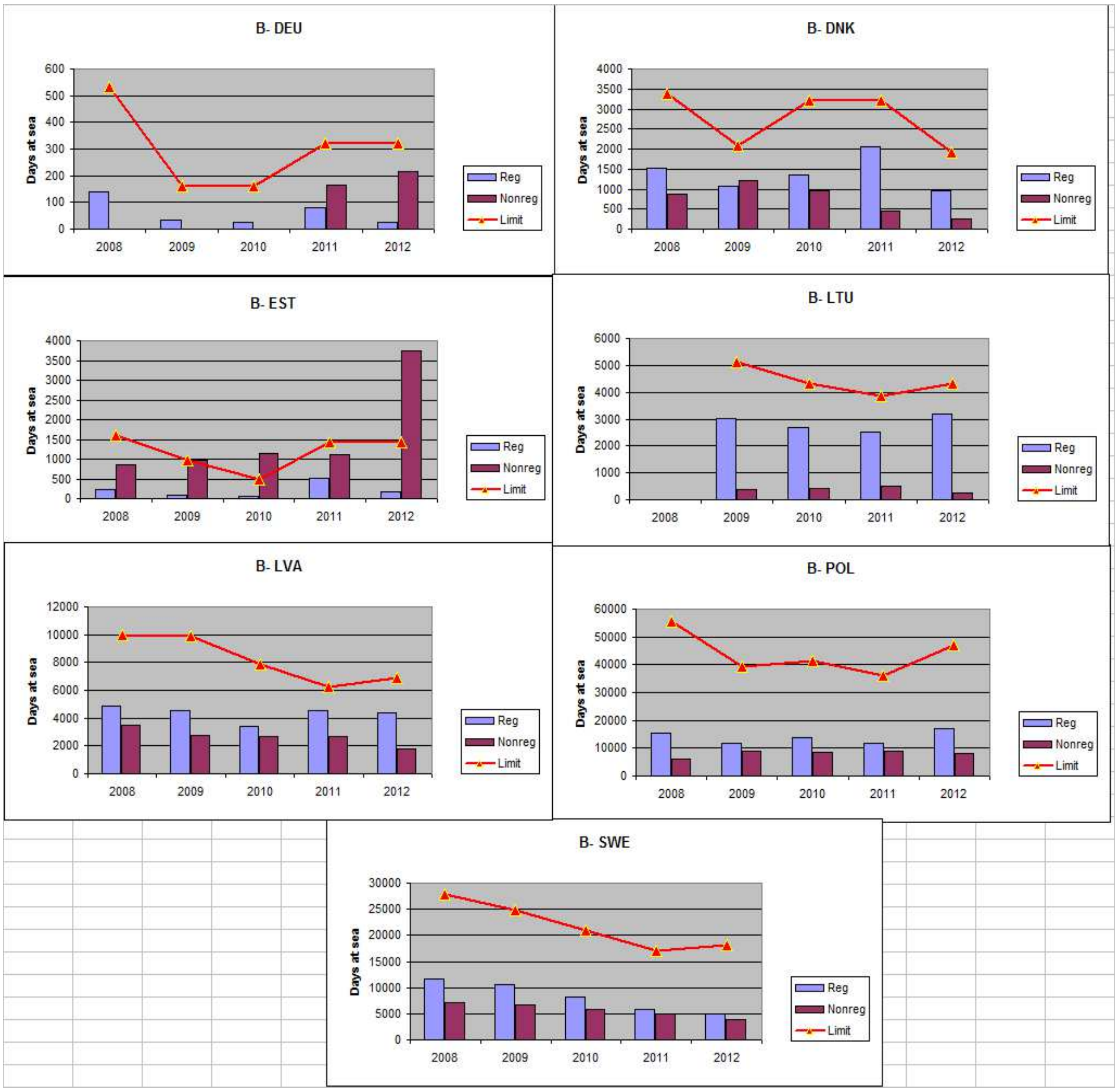


Figure 5.1.7.2. Fishing area B. Uptake of available days at sea by Member States and regulated and non-regulated gears.

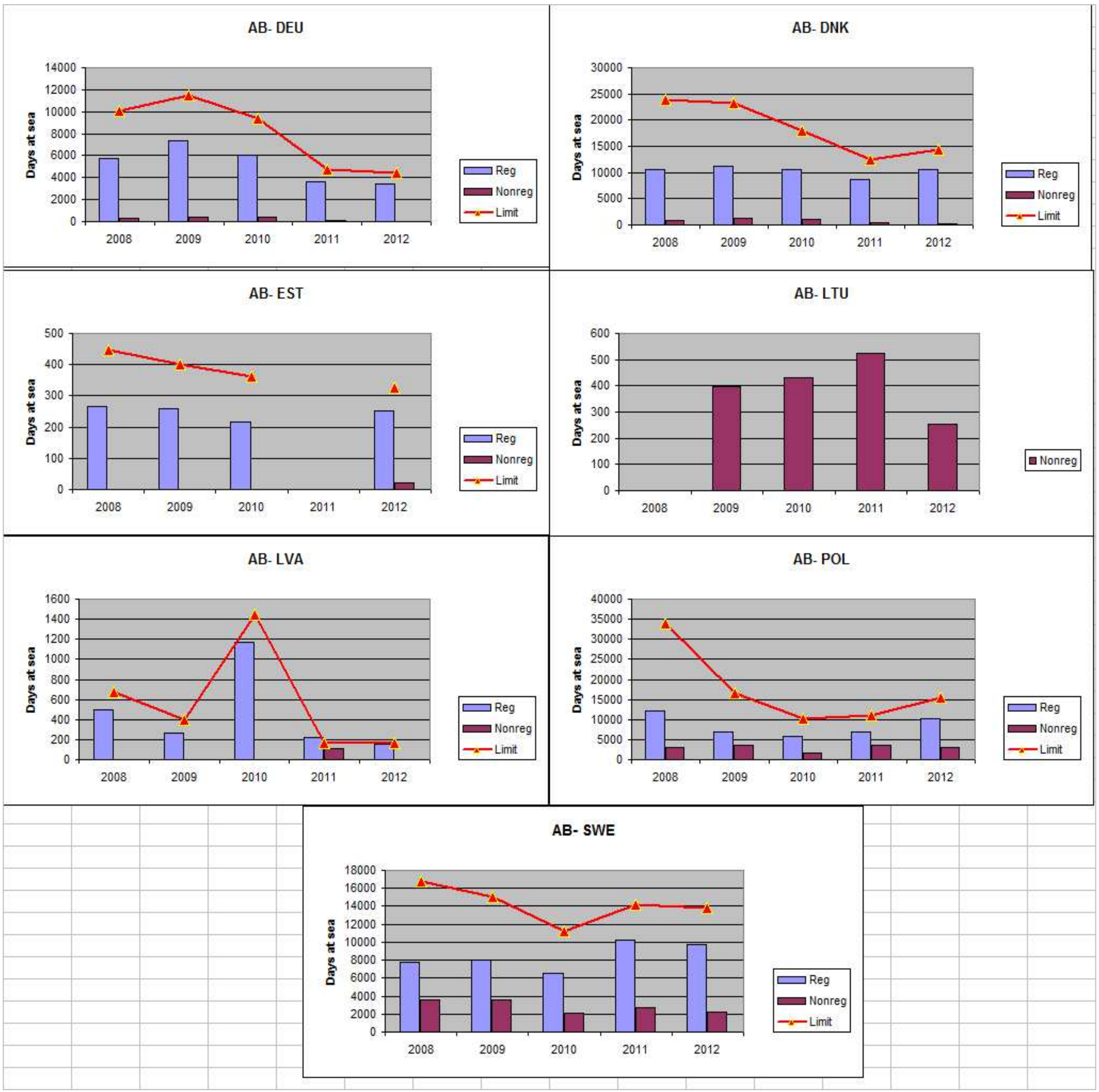


Figure 5.1.7.3. Fishing areas A and B combined. Uptake of available days at sea by Member States and regulated and non-regulated gears.

5.1.8 ToR 4 Evaluation of fully documented fisheries FDF

5.1.8.1 Fishing effort of FDF vessels by area, Member State and fisheries in comparison with fisheries not working under FDF provisions

Only Denmark has reported FDF fisheries in the Baltic in 2012 in both areas A (Western Baltic) and B (Eastern Baltic). Table 5.1.8.1.1 provides the information on effort deployed in fully documented fishery, which was made available to EWG 13-13. The fully documented fishery represented on average 2.3% of the total Danish regulated effort deployed in both areas A and B in 2012. FDF share in overall effort used with respective gear types was generally below 1%. Only for regulated demersal seine in area A the share of FDF reached 37%.

Table 5.1.8.1.1 Danish fishing effort (kW*days at sea) in Fully Documented Fishery (FDF) and total (all countries) non-FDF effort in 2012 by areas A (Western Baltic) and B (Eastern Baltic).

Area	Specon	MS	REG Gear_COD	FDF Effort	All Non-FDF effort	%
A	FDFBAL	DNK	PEL_TRAWL	880	548950	0.2
A	FDFBAL	DNK	r-DEM_SEINE	33798	91495	36.9
A	FDFBAL	DNK	r-OTTER	7810	2475071	0.3
B	FDFBAL	DNK	PEL_TRAWL	7040	5005154	0.1
B	FDFBAL	DNK	r-OTTER	33660	5321587	0.6
B	FDFBAL	DNK	r-PEL_TRAWL	770	198883	0.4

5.1.8.2 Catches (landings and discards) of cod and other species taken by FDF fisheries by area, Member State and fisheries in comparison with fisheries not working under FDF provisions

The reported Danish landings of cod from the fully documented fishery with regulated gears amounted to 333 t in area A and 406 t in area B (total 739 t) in 2012 (Table 5.1.3.5.). The landings from FDF covered 4% from the reported cod landings in these areas in 2012. The discards from FDF are presented in the Section 5.1.3 of the current report. FDF reported about 42 t of cod discards in 2012.

5.1.8.3 Comparative analysis of cod selectivity by FDF fisheries and non-FDF fisheries

STECF EWG 13-06 discussed its new ToR to compare cod selectivity in FDF and non-FDF fisheries. STECF EWG 13-06 interpreted the task as to compare age specific fishing patters (partial Fs by fishery and age group). As a first step into the requested analyses, STECF EWG 13-06 estimated and presented the landing and discards at age by FDF and non-FDF fisheries. STECF EWG 13-06 noted that any attempt to compare the selectivity of FDF and non-FDF fisheries implies that Member States sampling and raising procedures to estimate the specific age compositions of landings and discards are specific for these fisheries. Since the data of Danish FDF in 2012 only were made available, the EWG decided to evaluate the age composition of landings and discards of comparative gear types from FDF and nonFDF. STECF EWG-13-13 further elaborated the available information looking solutions for different pattern in landings and discard age structures observed in areas A and B. The findings of both non-FDF and FDF fisheries for the Western and Eastern cod stocks are presented below in Sections 5.1.8.3.1 and 5.1.8.3.2 respectively.

5.1.8.3.1 ToR 4 Cod selectivity by FDF fisheries and non-FDF fisheries of the Western Baltic cod

Table 5.1.8.1 and Figure 5.1.8.1 provide the overview of age composition of landings taken with regulated gears in FDF and non-FDF in area A (Sub-divisions 22-24, Western Baltic cod).

The main gears in the area A (r-otter and r-demersal seine) show now difference in age composition of cod landings from FDF and non-FDF fisheries. In both gears landings are dominated by the age groups 3-5. However, the age composition of discards shows certain fisheries-dependent pattern in case of r-otter, where the share of age group 2 in non-FDF significantly exceeded the respective value of FDF. In case of r-demersal seine, the discard structure of both fisheries was identical.

The same age groups dominate also the age composition of discards and thus hint at a clear difference in age composition in age range 2-5. The age composition of landings from non-FDF fisheries were shifted to the younger age groups indicating at the substantial difference in selectivity. However, the data should be taken with caution because of potential systematic differences in age reading in areas A and B.

Table 5.1.8.1. Age composition of cod landings and discards in FDF and non-FDF in area A (Western Baltic) in 2012 t.

Landings

REG-AREA	ANNEX	REG_GEAR	SPECON	Landings t	Landings no	AGE 0L	AGE 1L	AGE 2L	AGE 3L	AGE 4L	AGE 5L	AGE 6L	AGE 7L	AGE 8L	AGE 9L	AGE 10L	AGE 11L
A	Bal	PEL_TRAWL	none	10.774	10.472	0	0	1.01	2.404	4.841	1.809	0.364	0.039	0.005	0	0	0
A	**FDFBAL**	**PEL_TRAWL**	**FDFBAL**	**0.071**	**0.079**	**0**	**0**	**0**	**0.006**	**0.047**	**0.023**	**0.002**	**0.001**	**0**	**0**	**0**	**0**
A	Bal	r-DEM_SEINE	none	437.903	414.98	0	0	7.779	104.453	186.686	91.594	23.208	1.013	0.157	0.09	0	0
A	**FDFBAL**	**r-DEM_SEINE**	**FDFBAL**	**256.52**	**244.024**	**0**	**0**	**6.379**	**76.209**	**98.828**	**48.519**	**13.515**	**0.478**	**0.061**	**0.035**	**0**	**0**
A	Bal	r-OTTER	BACOMA	4015.657	3848.549	0	218.386	962.984	1310.275	1188.712	141.655	21.941	3.506	0.85	0.161	0.079	0
A	Bal	r-OTTER	none	6262.26	6181.5	0	0	45.139	1106.915	3216.977	1483.365	296.954	27.777	3.542	0.831	0	0
A	Bal	r-OTTER	T90	172.84	189.386	0	0	9.024	42.476	109.162	23.961	3.762	0.73	0.218	0.042	0.011	0
A	**FDFBAL**	**r-OTTER**	**FDFBAL**	**76.642**	**95.916**	**0**	**0**	**0.902**	**25.494**	**49.338**	**17.556**	**2.09**	**0.517**	**0.019**	**0**	**0**	**0**

Discards

REG-AREA	ANNEX	REG_GEAR	SPECON	Discards t	Discards no	AGE 0D	AGE 1D	AGE 2D	AGE 3D	AGE 4D	AGE 5D	AGE 6D	AGE 7D	AGE 8D
A	Bal	PEL_TRAWL	none	1.477	3.677	0	0.045	1.494	1.454	0.606	0.078	0	0	0
A	**FDFBAL**	**PEL_TRAWL**	**FDFBAL**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
A	Bal	r-DEM_SEINE	none	8.74	21.686	0	0.068	1.747	9.791	9.033	0.832	0.215	0	0
A	**FDFBAL**	**r-DEM_SEINE**	**FDFBAL**	**0.519**	**1.287**	**0**	**0.004**	**0.104**	**0.581**	**0.536**	**0.05**	**0.012**	**0**	**0**
A	Bal	r-OTTER	BACOMA	331.956	788.075	3.961	104.727	355.818	243.595	70.96	8.942	0.046	0.026	0
A	Bal	r-OTTER	none	324.825	802.898	0	2.455	76.068	363.408	323.628	29.627	7.712	0	0
A	Bal	r-OTTER	T90	39.223	97.411	0	1.683	40.541	37.54	15.669	1.973	0.003	0.002	0
A	**FDFBAL**	**r-OTTER**	**FDFBAL**	**4.654**	**11.549**	**0**	**0.037**	**0.929**	**5.215**	**4.811**	**0.442**	**0.115**	**0**	**0**

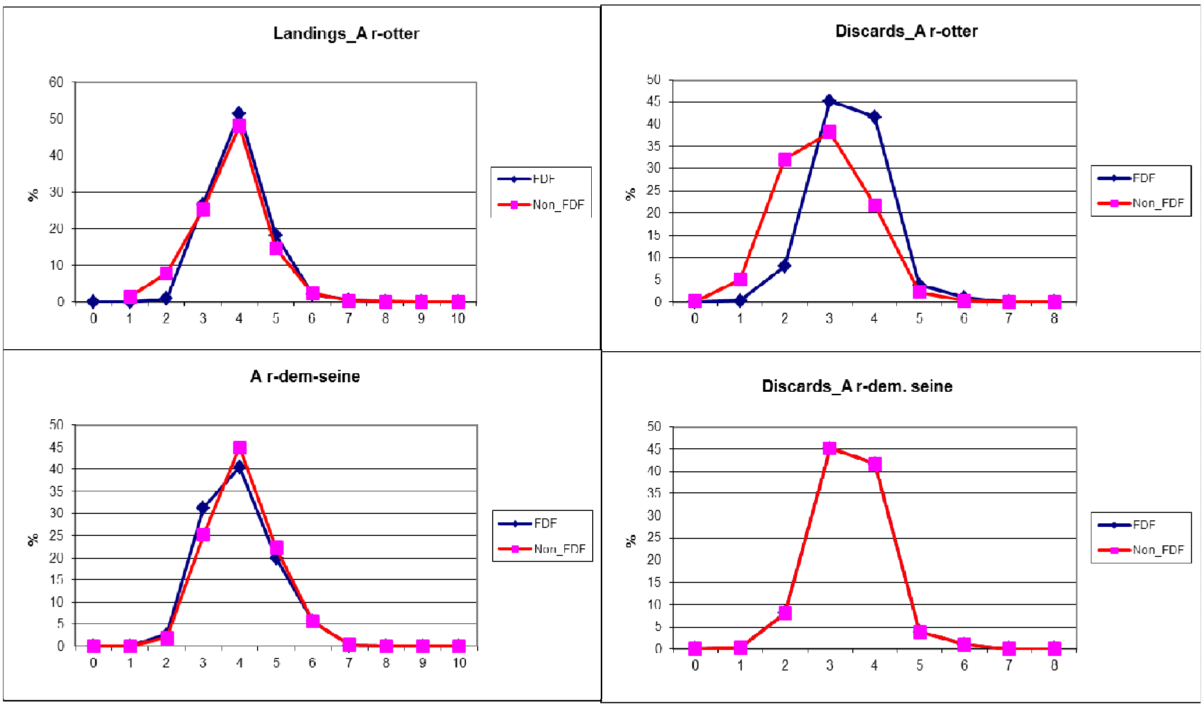


Figure 5.1.8.1. Age composition of cod landings (left panels) and discards from Fully Documented Fishery (FDF) and non-FDF in area A in 2012.

5.1.8.3.2 ToR 4 Cod selectivity by FDF fisheries and non-FDF fisheries of the Eastern Baltic cod

Table 5.1.8.2 and Figure 5.1.8.2 provide the overview of age composition of landings taken with regulated gears in FDF and non-FDF in area A (Sub-divisions 25-28, Eastern Baltic cod). The main comparable gears (r-otter and r-gill) show a clear difference in age compositions over the ages 3-5. The age composition of landings in non-FDF was shifted towards the younger age groups in both gear types indicating potential difference in selectivity. The main difference occurs in age group 3, which is significantly higher represented in the non-FDF. The similar pattern can be observed in the discard composition.

Table 5.1.8.2. Age composition of cod discards in FDF and non-FDF in area B (Eastern Baltic) in 2012, t.

Landings

REG_AREA	ANNEX	REG_GEAR	SPECON	Landings t	Landings no	AGE 0L	AGE 1L	AGE 2L	AGE 3L	AGE 4L	AGE 5L	AGE 6L	AGE 7L	AGE 8L	AGE 9L	AGE 10L	AGE 11L
B	Bal	PEL_TRAWL	none	55.798	72.29	0	0	1.259	39.147	26.943	3.727	1.202	0.008	0.002	0.002	0	0
B	**FDFBAL**	**PEL_TRAWL**	**FDFBAL**	**0.008**	**0.014**	**0**	**0**	**0**	**0.001**	**0.007**	**0.005**	**0.001**	**0**	**0**	**0**	**0**	**0**
B	Bal	r-OTTER	BACOMA	14979.899	17813.862	0	0	829.551	8910.497	4990.605	1341.699	1023.244	409.885	224.181	60.009	24.191	0
B	Bal	r-OTTER	none	20418.548	27254.002	0	0	162.732	4555.018	10961.636	8953.221	2222.529	308.05	84.665	4.709	1.048	0.394
B	Bal	r-OTTER	T90	752.612	984.9	0	0	43.951	579.521	296.209	49.003	14.449	1.396	0.278	0.077	0.016	0
B	**FDFBAL**	**r-OTTER**	**FDFBAL**	**404.892**	**536.325**	**0**	**0**	**0.49**	**37.005**	**224.276**	**211.689**	**52.469**	**8.022**	**2.235**	**0.108**	**0.031**	**0**
B	Bal	r-PEL_TRAWL	BACOMA	1158.093	1185.22	0	0	118.507	534.927	415.564	98.779	15.818	0.944	0.673	0.008	0	0
B	Bal	r-PEL_TRAWL	none	108.386	149.793	0	0	0.316	12.76	65.149	58.022	11.822	1.515	0.183	0.026	0	0
B	**FDFBAL**	**r-PEL_TRAWL**	**FDFBAL**	**1.436**	**1.964**	**0**	**0**	**0**	**0.075**	**0.822**	**0.863**	**0.176**	**0.025**	**0.003**	**0**	**0**	**0**

Discards

REG_AREA	ANNEX	REG_GEAR	SPECON	Discards t	Discards no	AGE 0D	AGE 1D	AGE 2D	AGE 3D	AGE 4D	AGE 5D	AGE 6D	AGE 7D	AGE 8D
B	Bal	PEL_TRAWL	none	17.13	47.281	0	0.082	5.167	34.663	7.367	0.002	0	0	0
B	**FDFBAL**	**PEL_TRAWL**	**FDFBAL**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
B	Bal	r-OTTER	BACOMA	3577.229	9370.848	0	39.256	1252.61	5665.798	1763.891	449.61	174.155	24.335	1.193
B	Bal	r-OTTER	none	2763.958	7053.126	0	8.774	530.606	2346.346	2650.029	1369.514	145.943	1.914	0
B	Bal	r-OTTER	T90	229.499	609.222	0	3.871	104.657	402.45	96.155	2.053	0	0.019	0.017
B	**FDFBAL**	**r-OTTER**	**FDFBAL**	**36.693**	**94.92**	**0**	**0.167**	**2.642**	**16.667**	**46.657**	**25.983**	**2.768**	**0.036**	**0**
B	Bal	r-PEL_TRAWL	BACOMA	200.851	513.588	0	1.734	81.013	375.861	54.87	0.11	0	0	0
B	Bal	r-PEL_TRAWL	none	15.292	39.405	0	0.092	2.665	13.41	14.825	7.595	0.811	0.007	0
B	**FDFBAL**	**r-PEL_TRAWL**	**FDFBAL**	**0.174**	**0.45**	**0**	**0.001**	**0.013**	**0.079**	**0.221**	**0.123**	**0.013**	**0**	**0**

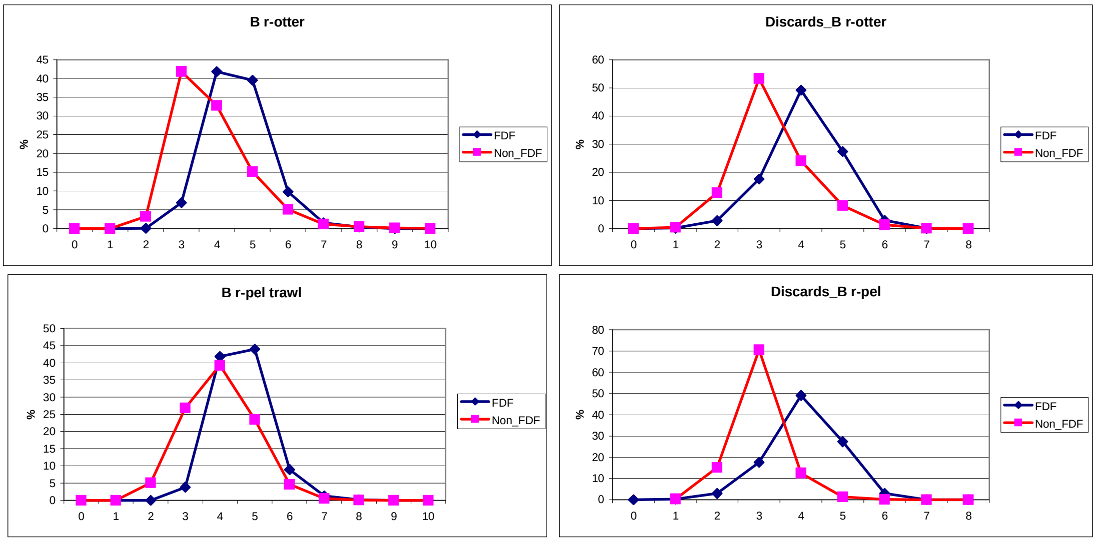


Figure 5.1.8.2. Age composition of cod landings (left panels) and discards from Fully Documented Fishery (FDF) and non-FDF in area B in 2012.

The ICES Baltic Fisheries Assessment Working Group has reiterated in its reports that the age composition data of Eastern Baltic cod from both the commercial catches and the survey suffer from severe in-consistencies, between countries and years (ICES 2013). ICES has tried to solve the problem by establishing a special study groups. For example the Report of the ICES Study Group on Baltic Cod Age Reading (ICES 2000) presents the observed differences in age reading results between countries, indicating that the age reading countries fall into 3 groups showing similar results: 1) Sweden+Germany, 2) Denmark and 3) Poland+Latvia+Russia. The different age interpretation can also be observed in CANUM data presented in the Reports of the Baltic Fisheries Assessment Working Group (ICES 2006, 2012, 2013).

Therefore, the presented above results from the FDF analysis should be taken with caution because of potential differences in age reading in areas A and B. Differently from the area A, the age reading of cod from non-FDF in area B is executed in a number of institutes, with distinct differences in interpretation of cod otoliths. As the FDF data currently stem from Denmark it may imply that differences between FDF and non-FDF age compositions in area B (Eastern stock) may at least partly result from potential inconsistencies in age interpretation between Denmark and other Baltic countries.

Since the majority (56% of otter trawl landings) in area A stem from Denmark, as well as the age readings, the potential country effect does not emerge here.

5.1.9 ToR 5 Spatio-temporal patterns in effective effort by area and fisheries

According to available effort data in units of fished hours, the spatial distribution of deployed otter trawl effort (Figure 5.1.9.1) did not show any particular trend over the time series. During 2003–2005 the highest fishing effort concentration was observed in areas of Bornholm Deep and in the northern part of Polish EEZ. However, the effort seems to be distributed more evenly across the areas A-C after 2006.

The gillnet effort has been concentrated in areas A and B without any clear temporal pattern (Figure 5.1.9.2). During 2003–2012 period the biggest fishing efforts concentration was in the Polish coastal areas. The Figure 5.1.9.3 shows the general distribution pattern of another big contributor of effort in the Baltic – the pelagic trawls. The distribution pattern indicates the high concentration of effort in the areas of Bornholm and Gdansk Deep as well as in the Sub-division 28.2 in 2003-2007.

The pelagic trawl effort was distributed rather evenly in the most recent years. This can be explained with northward distribution of sprat stock in recent years (ICES, 2012).

A full set of effort distribution figures, will be made available on the web page of the EWG 13-06/13-13.

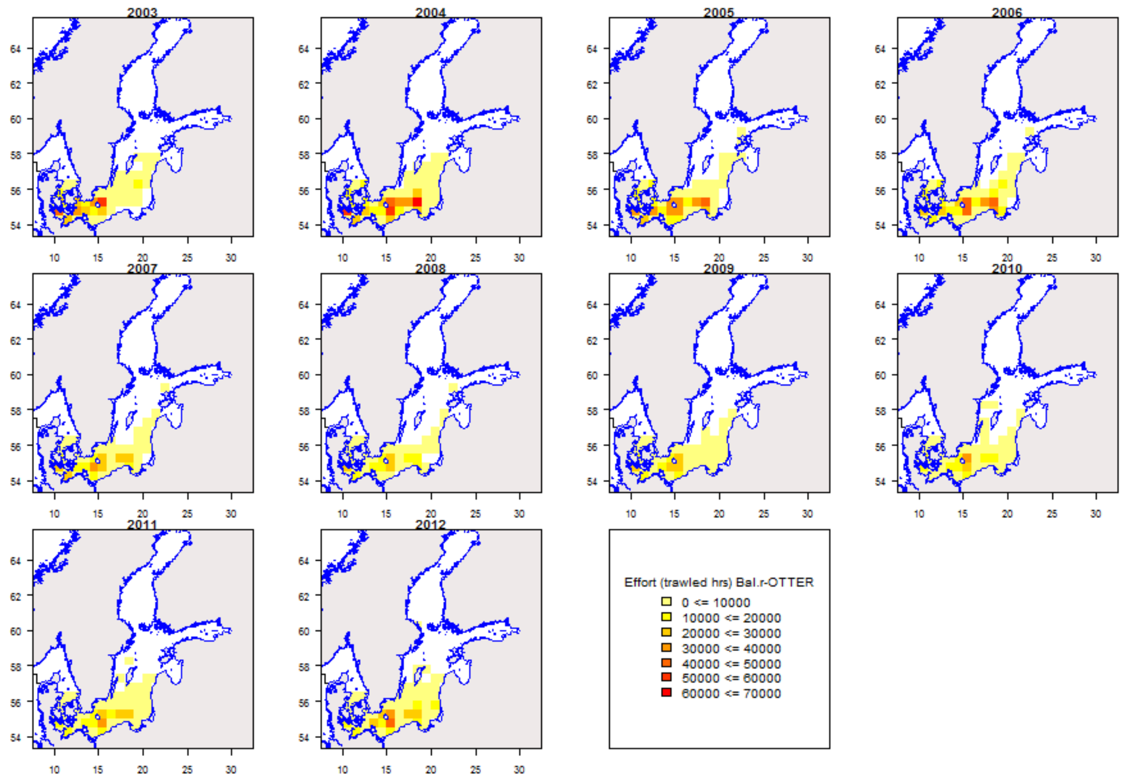


Figure 5.1.9.1 Spatial distribution of effective effort (trawled hours) r-OTTER 2003-2012. There was no data reported on the spatial distribution from Finland.

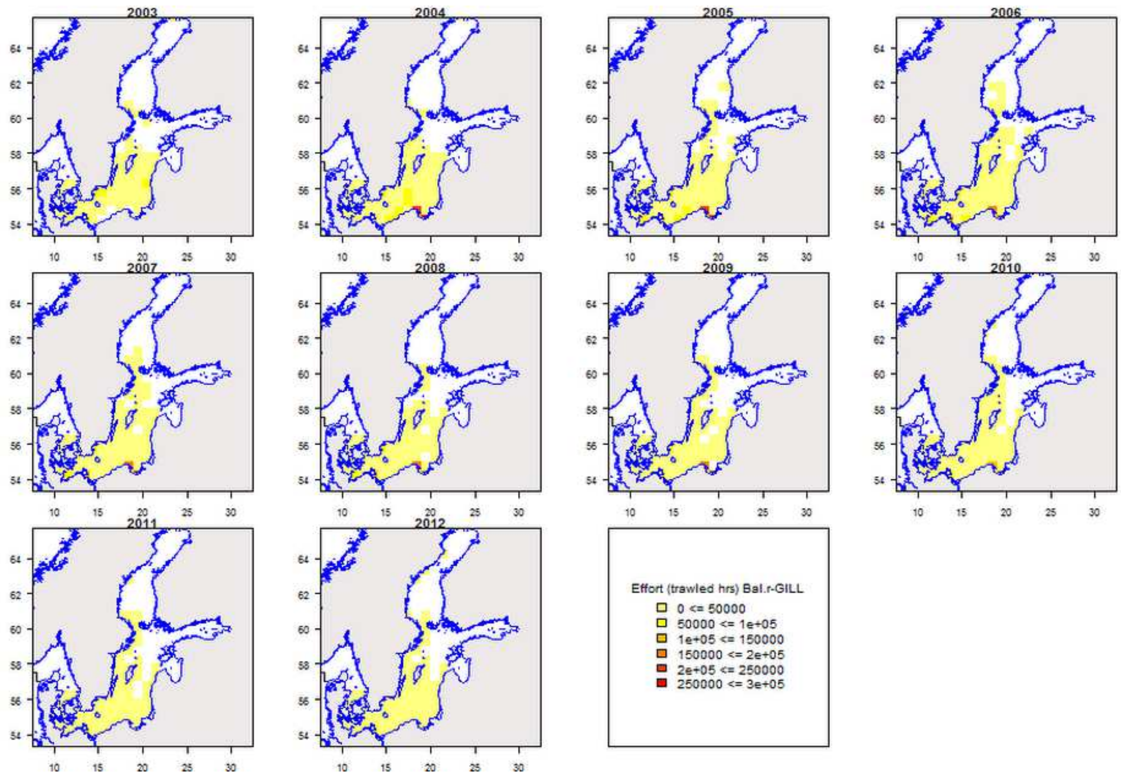


Figure. 5.1.9.2 Spatial distribution of effective effort (fishing hours) r-Gill 2003-2012. There was no data reported on the spatial distribution from Finland.

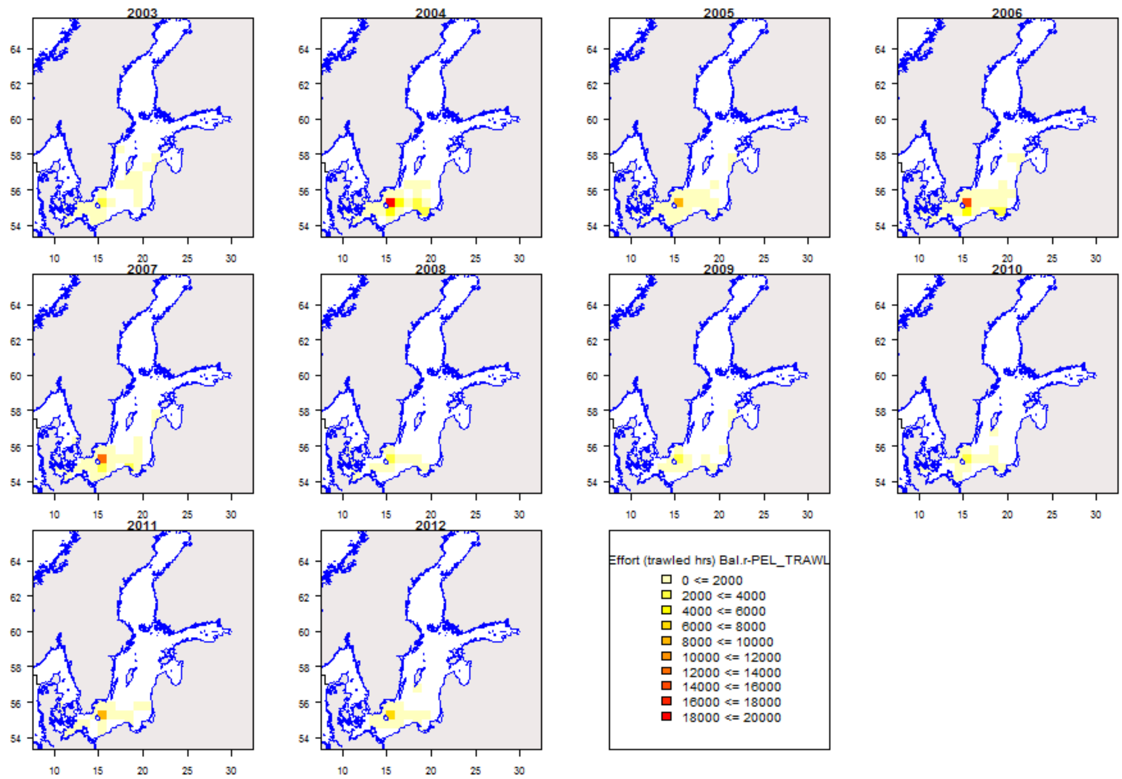


Figure 5.1.9.3 Spatial distribution of effective effort (fishing hours) pelagic trawls 2003-2012. There was no data reported on the spatial distribution from Finland.

5.1.10 *ToR 6 Remarks on quality of catches and discard estimates*

Discard estimates were available from all Baltic Member States except for Finland. This country, however has landed small quantities of the eastern cod stock (approximately 1% of the total landings). It seems that the sampling intensity, particularly in passive gears, was generally lower as compared to active gears. This might imply that even if all major métiers were sampled, the discard estimate is an underestimate compared to the real discard. Therefore, variation in discard figures from year to year must be taken with caution and may not reflect the true exploitation pattern of the fishery. The EU Data Collection Framework (DCF) defines which metiers (Level 6) are to be sampled in a country following the rules of the fisheries metiers ranking system. The sampling strata include also Baltic ICES Sub-divisions (not ICES rectangles) and months. Independently of the uncertainties in the discard estimates available to the STECF EWG, the changes in discard level reflect relatively well the year-classes strength of the eastern Baltic cod stock, which is in particular evident for the active gears (see Figure 5.1.3.1). Also discard ratio estimates for the Member States for the same year and fishing gears are close and follow the same trends across years studied.

5.1.11 *ToR 7 Estimation of partial fishing mortalities of cod by area, Member State and fisheries and correlation between partial cod mortality and fishing effort by area, Member State and fisheries*

5.1.11.1 Western Baltic cod in area A

The STECF EWG 13-06 presents partial fishing mortalities by fisheries using regulated gears and Member States in relation to the estimated fishing mortality by ICES (2013) and the catches (s. Tab. 5.1.11.1.1), landings (s. Tab. 5.1.11.1.2) and discards volumes (s. Tab. 5.1.11.1.3), respectively. The full list of partial fishing mortalities of all fisheries can be downloaded from the EWG's web page. The anticipated trend in fishing mortality and fishing effort in units of kW days at sea as derived from the cod plan is also presented in upper parts of such tables. The sustainable exploitation target is defined as Fmsy= 0.26. The trends in fishing effort in units of kWdays at sea of the relevant fisheries are also presented in Tables 5.1.11.1.1-3. The presented parameters r (value of Pearson's coefficient of correlation), numbers of points considered as well as a p value to quantify the statistical significance (≤0.05) allow conclusions about the quality of the correlation between the partial F and fisheries specific fishing effort. The correlations between partial F and fishing effort are shown in Fig. 5.1.11.1.1.

It can be concluded from the estimated F in 2012 (Tab. 5.1.11.1.1) that the stock is subject to overfishing and that the annual F reductions are not following the plan. Discard mortality is generally low (Tab. 5.1.11.1.3). In recent years the listed effort regulated fisheries do contribute more than 82% to the total fishing mortality.

STECF EWG 13-06/13-13 note that the correlations between the summed partial Fs of regulated fisheries for catch and landings of the major fisheries and their estimated fishing efforts are significant. The correlation between the rather low partial Fs of discards and effort is not significant, but discarding is considered a minor issue in the Western Baltic anyway. The partial Fs of most of the Member States fisheries using regulated gears are also closely correlated with their specific effort estimates in kW days at sea. This indicates that effective fisheries management by fishing effort in units of kWdays at sea appears possible, also as an auxiliary measure to catch constraints and technical measures.

Table 5.1.11.1.1 Western Baltic cod in area A. The upper left part of the table lists estimated F trajectories from the management plan and the ICES 2013 assessment, as well as partial Fs based on catches of fisheries using regulated gears. The lower left part lists the estimated partial F based on estimated catches from the regulated fisheries. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

2008 moving reference year annual F reductions by 10 percent until F<=0.6, Fmsy=0.26													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan								0.765	0.689	0.62	0.558	0.502	0.452
reduction F plan									-0.10	-0.10	-0.10	-0.10	-0.10
F estimated				1.042	1.076	0.995	0.766	0.765	0.802	0.797	0.769	0.761	0.698
reduction F estimated									0.05	-0.01	-0.04	-0.01	-0.08
Fpar													
Country	Gear	Specon	catch.cate	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
DEU	r-BEAM	none	catches	0.00002					0.00032				
DEU	r-DEM_SE	none	catches		0.00028	0.00124	0.00148	0.00391	0.00871	0.00825	0.00219	0.00285	0.00015
DEU	r-GILL	none	catches	0.03612	0.02657	0.03942	0.05016	0.04654	0.05342	0.04088	0.05174	0.03590	0.03628
DEU	r-LONGLIN	none	catches	0.00050	0.00102	0.00209	0.00092	0.00057	0.00069	0.00058	0.00137	0.00111	0.00050
DEU	r-OTTER	none	catches	0.17086	0.17206	0.19490	0.15245	0.14432	0.11854	0.12447	0.13318	0.14323	0.11092
DEU	r-PEL_TRA	none	catches	0.00156	0.00055	0.00138	0.00219	0.00512	0.00017		0.00055	0.00067	0.00019
DEU	r-TRAMMI	none	catches	0.00008	0.00008	0.00057	0.00085	0.00242	0.00335	0.00290	0.00195	0.00312	0.00367
DNK	r-DEM_SE	none	catches	0.05193	0.06425	0.03362	0.04002	0.03999	0.04448	0.02761	0.02414	0.01728	0.01548
DNK	r-GILL	none	catches	0.05039	0.06293	0.10216	0.06853	0.05965	0.06736	0.06485	0.06633	0.06096	0.05347
DNK	r-LONGLIN	none	catches	0.01088	0.01326	0.02152	0.01428	0.01218	0.00472	0.00547	0.00698	0.00931	0.00711
DNK	r-OTTER	none	catches	0.28211	0.35498	0.28814	0.21016	0.21154	0.21559	0.25655	0.23472	0.25079	0.21385
DNK	r-PEL_TRA	none	catches	0.00152	0.00082	0.00170	0.00321	0.00057	0.00029	0.00110	0.00182	0.00000	0.00002
DNK	r-TRAMMI	none	catches	0.01003	0.01062	0.01798	0.01427	0.01296	0.01639	0.01322	0.01678	0.01589	0.01974
EST	r-GILL	none	catches			0.00211	0.00294	0.00142	0.00460	0.00861			
EST	r-OTTER	none	catches			0.00005					0.00002		0.00012
EST	r-PEL_TRA	none	catches			0.00004		0.00027					
LTU	r-LONGLIN	none	catches			0.00027							
LTU	r-OTTER	none	catches			0.00521	0.00135						
LTU	r-PEL_TRA	none	catches			0.00041							
LVA	r-GILL	none	catches	0.00425	0.01038	0.01415	0.01669	0.00246	0.00103	0.00101	0.00321	0.00098	0.00040
LVA	r-OTTER	none	catches	0.00008		0.00191	0.00003	0.00512			0.00417		
POL	r-GILL	none	catches		0.01353	0.01549	0.01253	0.02423	0.02230	0.01284	0.00749	0.00919	0.01429
POL	r-LONGLIN	none	catches		0.00142	0.00899	0.00369	0.00730	0.00271	0.00045	0.00055	0.00080	0.00100
POL	r-OTTER	none	catches		0.00590	0.01028	0.00553	0.03455	0.02265	0.01100	0.00593	0.01126	0.01449
POL	r-PEL_TRA	none	catches			0.00088	0.00005	0.00008					
SWE	r-GILL	none	catches	0.04442	0.05152	0.03969	0.03057	0.03159	0.04341	0.04191	0.03556	0.03557	0.03068
SWE	r-LONGLIN	none	catches	0.00098	0.00482	0.00699	0.00286	0.00149	0.00200	0.00666	0.00456	0.00679	0.00814
SWE	r-OTTER	none	catches	0.03124	0.03315	0.02111	0.03672	0.04537	0.04547	0.04126	0.02318	0.08026	0.04707
SWE	r-PEL_TRA	none	catches		0.00035	0.00015	0.00022		0.00007			0.00031	
SWE	r-TRAMMI	none	catches	0.00083	0.00101	0.00232	0.00230	0.00098	0.00163	0.00203	0.00384	0.00291	0.00195
Sum				0.69780	0.82950	0.83477	0.67400	0.69463	0.67990	0.67165	0.63026	0.68918	0.57952
check sum Fpar/F				0.67	0.77	0.84	0.88	0.91	0.85	0.84	0.82	0.91	0.83

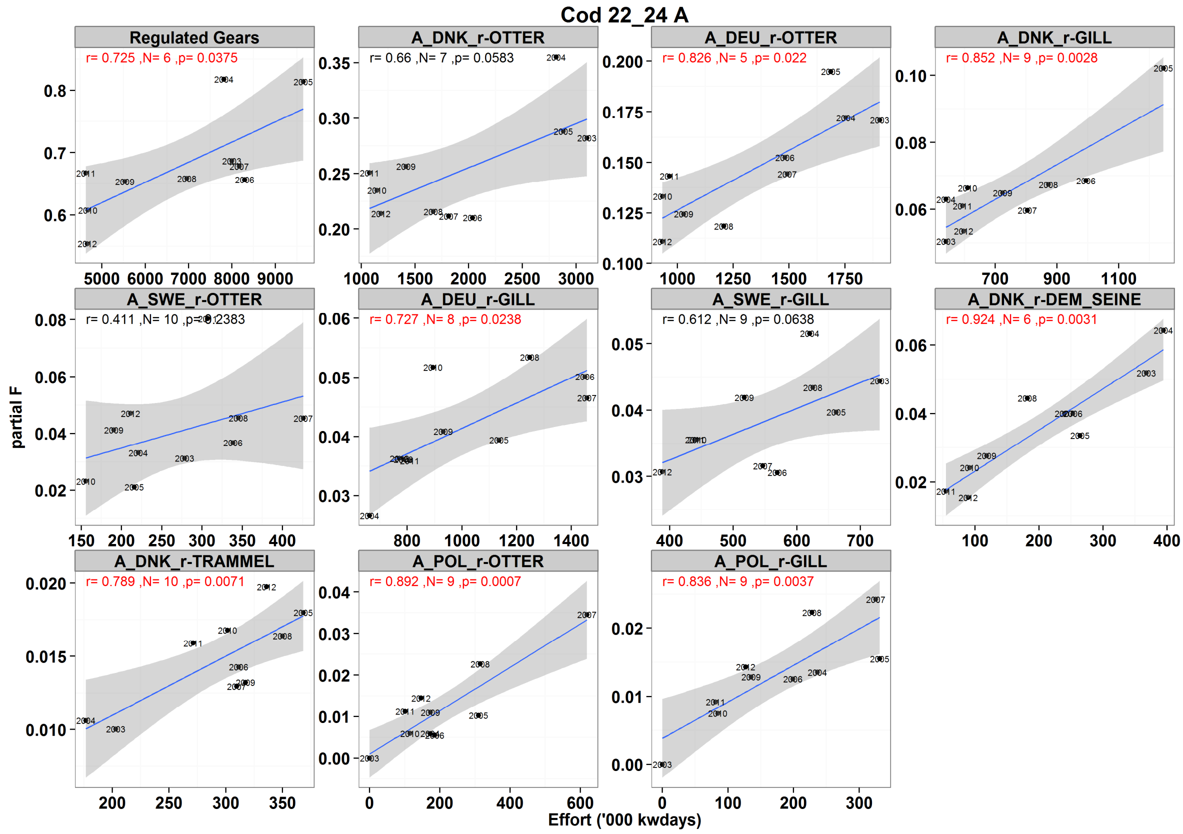
		Effort kWdays at sea													
			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012			
		Effort plan/ TAC regulations not applicable as days at sea per vessel													
		reduction													
		Effort estimated (re	8247255	8044362	10115581	8716570	8655803	7489576	6076753	5121182	5048804	5145003			
		reduction						-0.13	-0.19	-0.16	-0.01	0.02			
		EFFORT											2003-2012		
Country	Gear	kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n
DEU	r-BEAM		442					3867							
DEU	r-DEM_SE			7398	1912	23422	37741	38400	42327	9713	13789	1764	0.865	0.003	9
DEU	r-GILL		786357	662527	1135980	1449940	1457215	1247682	932027	893907	809150	771580	0.727	0.017	10
DEU	r-LONGLIN		78859	80543	122727	119348	100892	97335	122409	74286	62880	58865	0.239	0.506	10
DEU	r-OTTER		1906314	1753928	1686831	1481387	1491775	1207722	1028646	933844	964057	932751	0.826	0.003	10
DEU	r-PEL_TRA		14111	3975	17039	20699	30856	3443		3740	5756	1607	0.946	0.000	9
DEU	r-TRAMMI		10392	21308	40549	67494	132416	128657	134669	77750	106349	104519	0.906	0.000	10
DNK	r-DEM_SE		367804	394563	264002	253210	239604	181854	118417	91866	54972	89731	0.924	0.000	10
DNK	r-GILL		540709	540757	1245235	993868	804366	872897	723711	610449	593694	597244	0.852	0.002	10
DNK	r-LONGLIN		89919	86314	164621	202815	126714	32557	33817	42527	46243	56902	0.837	0.003	10
DNK	r-OTTER		3101135	2814169	2879424	2035587	1812121	1669672	1415553	1145919	1077878	1182374	0.660	0.038	10
DNK	r-PEL_TRA		16820	11156	14346	24308	6246	2831	2744	7621	561	322	0.882	0.001	10
DNK	r-TRAMMI		203137	176833	368285	311401	309684	349896	317238	301565	271304	335772	0.789	0.007	10
EST	r-GILL				40887	57436	19041	39051	41349				0.252	0.683	5
EST	r-OTTER				4199					4248		2650			
EST	r-PEL_TRA				662		1269								
LTU	r-LONGLIN				12533	0									
LTU	r-OTTER				57602	84342									
LTU	r-PEL_TRA				16799	0									
LVA	r-GILL		79148	142491	171002	161456	30116	12676	3528	11604	6174	2940	0.964	0.000	10
LVA	r-OTTER		880		17632		18488			7920			0.608	0.392	4
POL	r-GILL			236261	331555	199045	325354	228173	135263	84558	81024	126904	0.747	0.021	9
POL	r-LONGLIN			17962	143615	46306	53736	21615	6391	4502	6118	7932	0.920	0.000	9
POL	r-OTTER			172618	310416	185144	618979	315079	172795	114560	101350	146051	0.867	0.002	9
POL	r-PEL_TRA			2220	16612	1258	2612			160			0.999	0.000	5
SWE	r-GILL		730577	620542	661911	569385	546464	625243	517212	442913	439498	388585	0.612	0.060	10
SWE	r-LONGLIN		7730	46041	112396	40756	19061	14536	43369	39643	60377	80848	0.844	0.002	10
SWE	r-OTTER		278503	220717	215686	338505	425893	345335	190277	155830	306992	211245	0.411	0.238	10
SWE	r-PEL_TRA			2882	2424	4198		720			1930	390			
SWE	r-TRAMMI		34418	29157	58699	45260	45160	50335	95011	62057	38708	44027	0.372	0.290	10
Sum			8247255	8044362	10115581	8716570	8655803	7489576	6076753	5121182	5048804	5145003	0.699	0.024	10
check sum Fpar/F															

Table 5.1.11.1.2 Western Baltic cod in area A. The upper left part of the table lists estimated F trajectories from the management plan and the ICES 2013 assessment, as well as partial Fs based on landings of fisheries using regulated gears. The lower left part lists the estimated partial F based on landings from the regulated fisheries. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

2008 moving reference year annual F reductions by 10 percent until F<=0.6, Fmsy=0.26														Effort kWdays at sea													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012			
F plan								0.765	0.689	0.62	0.558	0.502	0.452	Effort plan/ TAC regulations not applicable as days at sea per vessel													
reduction F plan									-0.10	-0.10	-0.10	-0.10	-0.10	reduction													
F estimated				1.042	1.076	0.995	0.766	0.765	0.802	0.797	0.769	0.761	0.698	Effort estimated (re	8247255	8044362	10115581	8716570	8655803	7489576	6076753	5121182	5048804	5145003			
reduction F estimated									0.05	-0.01	-0.04	-0.01	-0.08	reduction						-0.13	-0.19	-0.16	-0.01	0.02			
Fpar														EFFORT											2003-2012		
Country	Gear	Specon	catch.cate	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n
DEU	r-BEAM	none	landings	0.00002					0.00032						442					3867							
DEU	r-DEM_SE	none	landings		0.00025	0.00124	0.00148	0.00391	0.00871	0.00825	0.00219	0.00285	0.00015			7398	1912	23422	37741	38400	42327	9713	13789	1764	0.865	0.003	9
DEU	r-GILL	none	landings	0.03506	0.02602	0.03782	0.05015	0.04653	0.05339	0.03715	0.05004	0.03472	0.03573		786357	662527	1135980	1449940	1457215	1247682	932027	893907	809150	771580	0.756	0.011	10
DEU	r-LONGLIN	none	landings	0.00049	0.00100	0.00197	0.00092	0.00056	0.00069	0.00056	0.00137	0.00109	0.00050		78859	80543	122727	119348	100892	97335	122409	74286	62880	58865	0.219	0.543	10
DEU	r-OTTER	none	landings	0.12208	0.15370	0.15486	0.14282	0.13557	0.11045	0.11170	0.10899	0.12663	0.10500		1906314	1753928	1686831	1481387	1491775	1207722	1028646	933844	964057	932751	0.716	0.020	10
DEU	r-PEL_TRA	none	landings	0.00145	0.00046	0.00117	0.00218	0.00512	0.00017		0.00055	0.00051	0.00019		14111	3975	17039	20699	30856	3443		3740	5756	1607	0.936	0.000	9
DEU	r-TRAMMI	none	landings	0.00007	0.00007	0.00053	0.00085	0.00242	0.00334	0.00258	0.00180	0.00311	0.00358		10392	21308	40549	67494	132416	128657	134669	77750	106349	104519	0.899	0.000	10
DNK	r-DEM_SE	none	landings	0.04648	0.05712	0.03362	0.04002	0.03999	0.04413	0.02558	0.02051	0.01560	0.01518		367804	394563	264002	253210	239604	181854	118417	91866	54972	89731	0.916	0.000	10
DNK	r-GILL	none	landings	0.04794	0.06216	0.09734	0.06850	0.05963	0.06727	0.06155	0.06078	0.06095	0.05263		540709	540757	1245235	993868	804366	872897	723711	610449	593694	597244	0.883	0.001	10
DNK	r-LONGLIN	none	landings	0.01073	0.01304	0.02047	0.01428	0.01184	0.00472	0.00542	0.00698	0.00919	0.00702		89919	86314	164621	202815	126714	32557	33817	42527	46243	56902	0.849	0.002	10
DNK	r-OTTER	none	landings	0.24017	0.32103	0.22769	0.19193	0.19637	0.19868	0.23516	0.19366	0.22296	0.20370		3101135	2814169	2879424	2035587	1812121	1669672	1415553	1145919	1077878	1182374	0.554	0.097	10
DNK	r-PEL_TRA	none	landings	0.00130	0.00072	0.00135	0.00293	0.00053	0.00027	0.00101	0.00155	0.00000	0.00002		16820	11156	14346	24308	6246	2831	2744	7621	561	322	0.876	0.001	10
DNK	r-TRAMMI	none	landings	0.00948	0.01046	0.01599	0.01427	0.01296	0.01638	0.01262	0.01529	0.01589	0.01931		203137	176833	368285	311401	309684	349896	317238	301565	271304	335772	0.765	0.010	10
EST	r-GILL	none	landings			0.00199	0.00293	0.00142	0.00460	0.00827							40887	57436	19041	39051	41349				0.256	0.677	5
EST	r-OTTER	none	landings			0.00005					0.00002		0.00011				4199					4248		2650			
EST	r-PEL_TRA	none	landings			0.00004		0.00027									662		1269								
LTU	r-LONGLIN	none	landings			0.00025											12533	0									
LTU	r-OTTER	none	landings			0.00427	0.00122										57602	84342									
LTU	r-PEL_TRA	none	landings			0.00034											16799	0									
LVA	r-GILL	none	landings	0.00413	0.01029	0.01345	0.01667	0.00246	0.00103	0.00097	0.00304	0.00095	0.00040		79148	142491	171002	161456	30116	12676	3528	11604	6174	2940	0.961	0.000	10
LVA	r-OTTER	none	landings	0.00008		0.00190	0.00002	0.00473			0.00370				880		17632		18488			7920			0.647	0.353	4
POL	r-GILL	none	landings		0.01316	0.01487	0.01253	0.02422	0.02229	0.01130	0.00714	0.00904	0.01399			236261	331555	199045	325354	228173	135263	84558	81024	126904	0.741	0.022	9
POL	r-LONGLIN	none	landings		0.00137	0.00854	0.00369	0.00726	0.00271	0.00044	0.00055	0.00078	0.00099			17962	143615	46306	53736	21615	6391	4502	6118	7932	0.908	0.001	9
POL	r-OTTER	none	landings		0.00539	0.01026	0.00508	0.03237	0.02127	0.01011	0.00541	0.00926	0.01338			172618	310416	185144	618979	315079	172795	114560	101350	146051	0.885	0.002	9
POL	r-PEL_TRA	none	landings			0.00088	0.00004	0.00008								2220	16612	1258	2612			160			0.999	0.000	5
SWE	r-GILL	none	landings	0.04371	0.05077	0.03817	0.03056	0.03157	0.04332	0.04023	0.03483	0.03498	0.03028		730577	620542	661911	569385	546464	625243	517212	442913	439498	388585	0.621	0.055	10
SWE	r-LONGLIN	none	landings	0.00097	0.00472	0.00675	0.00286	0.00149	0.00200	0.00666	0.00456	0.00670	0.00801		7730	46041	112396	40756	19061	14536	43369	39643	60377	80848	0.832	0.003	10
SWE	r-OTTER	none	landings	0.02890	0.03150	0.02104	0.03498	0.04176	0.04370	0.03738	0.02102	0.05588	0.04012		278503	220717	215686	338505	425893	345335	190277	155830	306992	211245	0.551	0.099	10
SWE	r-PEL_TRA	none	landings		0.00035	0.00015	0.00021		0.00007			0.00023				2882	2424	4198		720			1930	390			
SWE	r-TRAMMI	none	landings	0.00080	0.00100	0.00217	0.00230	0.00098	0.00162	0.00199	0.00380	0.00285	0.00192		34418	29157	58699	45260	45160	50335	95011	62057	38708	44027	0.366	0.298	10
Sum				0.59386	0.76458	0.71917	0.64342	0.66404	0.65113	0.61893	0.54778	0.61417	0.55221		8247255	8044362	10115581	8716570	8655803	7489576	6076753	5121182	5048804	5145003	0.710	0.021	10
check sum Fpar/F				0.57	0.71	0.72	0.84	0.87	0.81	0.78	0.71	0.81	0.79														

Table 5.1.11.1.3 Western Baltic cod in area A. The upper left part of the table lists estimated F trajectories from the management plan and the ICES 2013 assessment, as well as partial Fs based on discards of fisheries using regulated gears. The lower left part lists the estimated partial F based on landings from the regulated fisheries. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort -regulated gears to the overall F estimate of the stock.

2008 moving reference year annual F reductions by 10 percent until F<=0.6, Fmsy=0.26														Effort kWdays at sea													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012			
F plan								0.765	0.689	0.62	0.558	0.502	0.452	Effort plan/ TAC regulations not applicable as days at sea per vessel													
reduction F plan									-0.10	-0.10	-0.10	-0.10	-0.10	reduction													
F estimated				1.042	1.076	0.995	0.766	0.765	0.802	0.797	0.769	0.761	0.698	Effort estimated (re	8247255	8044362	10115581	8716570	8655803	7489576	6076753	5121182	5048804	5145003			
reduction F estimated									0.05	-0.01	-0.04	-0.01	-0.08	reduction						-0.13	-0.19	-0.16	-0.01	0.02			
Fpar														EFFORT											2003-2012		
Country	Gear	Specon	catch.cate	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n
DEU	r-BEAM	none	discards	0.00000					0.00000						442					3867							
DEU	r-DEM_SEINE	none	discards		0.00004	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000			7398	1912	23422	37741	38400	42327	9713	13789	1764			
DEU	r-GILL	none	discards	0.00106	0.00056	0.00160	0.00001	0.00001	0.00003	0.00373	0.00171	0.00118	0.00055		786357	662527	1135980	1449940	1457215	1247682	932027	893907	809150	771580	-0.378	0.281	10
DEU	r-LONGLINE	none	discards	0.00001	0.00002	0.00012	0.00000	0.00001	0.00000	0.00001	0.00000	0.00002	0.00001		78859	80543	122727	119348	100892	97335	122409	74286	62880	58865			
DEU	r-OTTER	none	discards	0.04879	0.01837	0.04004	0.00964	0.00875	0.00809	0.01277	0.02418	0.01660	0.00591		1906314	1753928	1686831	1481387	1491775	1207722	1028646	933844	964057	932751	0.590	0.073	10
DEU	r-PEL_TRAWL	none	discards	0.00011	0.00009	0.00021	0.00001	0.00000	0.00000		0.00000	0.00016	0.00000		14111	3975	17039	20699	30856	3443		3740	5756	1607			
DEU	r-TRAMMEL	none	discards	0.00000	0.00000	0.00004	0.00000	0.00000	0.00000	0.00032	0.00015	0.00001	0.00009		10392	21308	40549	67494	132416	128657	134669	77750	106349	104519			
DNK	r-DEM_SEINE	none	discards	0.00545	0.00713	0.00000	0.00000	0.00000	0.00035	0.00203	0.00363	0.00168	0.00030		367804	394563	264002	253210	239604	181854	118417	91866	54972	89731	0.495	0.146	10
DNK	r-GILL	none	discards	0.00245	0.00077	0.00482	0.00003	0.00002	0.00010	0.00331	0.00556	0.00000	0.00085		540709	540757	1245235	993868	804366	872897	723711	610449	593694	597244	0.159	0.661	10
DNK	r-LONGLINE	none	discards	0.00015	0.00022	0.00104	0.00000	0.00034	0.00000	0.00005	0.00000	0.00012	0.00010		89919	86314	164621	202815	126714	32557	33817	42527	46243	56902	0.488	0.153	10
DNK	r-OTTER	none	discards	0.04193	0.03395	0.06045	0.01823	0.01517	0.01691	0.02138	0.04106	0.02783	0.01015		3101135	2814169	2879424	2035587	1812121	1669672	1415553	1145919	1077878	1182374	0.579	0.079	10
DNK	r-PEL_TRAWL	none	discards	0.00022	0.00010	0.00034	0.00028	0.00004	0.00002	0.00009	0.00027	0.00000	0.00000		16820	11156	14346	24308	6246	2831	2744	7621	561	322			
DNK	r-TRAMMEL	none	discards	0.00055	0.00016	0.00199	0.00000	0.00000	0.00001	0.00060	0.00149	0.00000	0.00043		203137	176833	368285	311401	309684	349896	317238	301565	271304	335772	0.313	0.379	10
EST	r-GILL	none	discards			0.00013	0.00001	0.00000	0.00001	0.00035							40887	57436	19041	39051	41349						
EST	r-OTTER	none	discards			0.00000					0.00000		0.00001				4199					4248		2650			
EST	r-PEL_TRAWL	none	discards			0.00000		0.00000									662		1269								
LTU	r-LONGLINE	none	discards			0.00001											12533	0									
LTU	r-OTTER	none	discards			0.00093	0.00013										57602	84342									
LTU	r-PEL_TRAWL	none	discards			0.00007											16799	0									
LVA	r-GILL	none	discards	0.00012	0.00010	0.00070	0.00002	0.00000	0.00000	0.00005	0.00017	0.00002	0.00000		79148	142491	171002	161456	30116	12676	3528	11604	6174	2940	0.562	0.091	10
LVA	r-OTTER	none	discards	0.00000		0.00001	0.00000	0.00039			0.00047				880		17632		18488			7920					
POL	r-GILL	none	discards		0.00037	0.00062	0.00001	0.00001	0.00000	0.00155	0.00035	0.00015	0.00030			236261	331555	199045	325354	228173	135263	84558	81024	126904	-0.176	0.651	9
POL	r-LONGLINE	none	discards		0.00005	0.00045	0.00000	0.00004	0.00000	0.00001	0.00000	0.00001	0.00001			17962	143615	46306	53736	21615	6391	4502	6118	7932			
POL	r-OTTER	none	discards		0.00051	0.00002	0.00045	0.00218	0.00137	0.00090	0.00052	0.00199	0.00111			172618	310416	185144	618979	315079	172795	114560	101350	146051	0.411	0.272	9
POL	r-PEL_TRAWL	none	discards			0.00000	0.00000	0.00000								2220	16612	1258	2612			160					
SWE	r-GILL	none	discards	0.00071	0.00075	0.00152	0.00001	0.00002	0.00008	0.00168	0.00073	0.00058	0.00040		730577	620542	661911	569385	546464	625243	517212	442913	439498	388585	0.119	0.743	10
SWE	r-LONGLINE	none	discards	0.00001	0.00011	0.00023	0.00000	0.00000	0.00000	0.00001	0.00000	0.00009	0.00013		7730	46041	112396	40756	19061	14536	43369	39643	60377	80848			
SWE	r-OTTER	none	discards	0.00235	0.00166	0.00007	0.00174	0.00361	0.00177	0.00388	0.00216	0.02438	0.00695		278503	220717	215686	338505	425893	345335	190277	155830	306992	211245	0.137	0.706	10
SWE	r-PEL_TRAWL	none	discards		0.00001	0.00000	0.00000		0.00000			0.00008				2882	2424	4198		720			1930	390			
SWE	r-TRAMMEL	none	discards	0.00003	0.00002	0.00015	0.00000	0.00000	0.00000	0.00004	0.00004	0.00006	0.00002		34418	29157	58699	45260	45160	50335	95011	62057	38708	44027			
Sum				0.10394	0.06499	0.11556	0.03057	0.03059	0.02874	0.05276	0.08249	0.07496	0.02732		8247255	8044362	10115581	8716570	8655803	7489576	6076753	5121182	5048804	5145003	0.210	0.560	10
check sum Fpar/F				0.1	0.06	0.12	0.04	0.04	0.04	0.07	0.11	0.1	0.04														



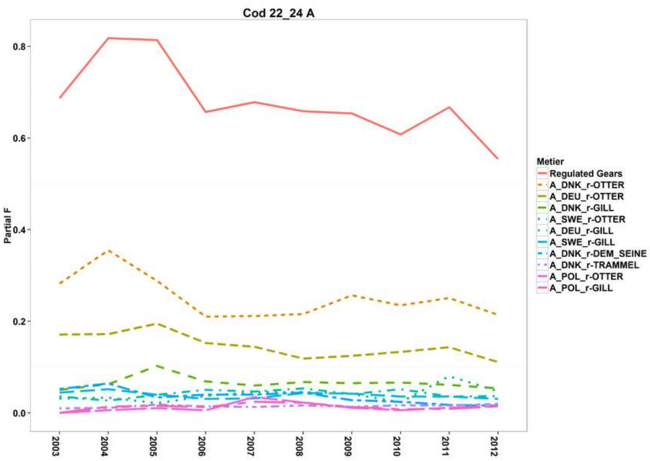


Fig. 5.1.11.1.1 Western Baltic cod in area A. Effort estimates versus partial fishing mortality by Member state and regulated gears in 2003-1012. The lower panel shows the temporal trends in partial Fs. Eastern Baltic cod in area B

The STECF EWG presents partial fishing mortalities by fisheries using regulated gears and Member States in relation to the estimated fishing mortality by ICES (2013) and the catches (see Table 5.1.11.2.1), landings (see Table 5.1.11.2.2) and discards volumes (see Table 5.1.11.2.3), respectively. The full list of partial fishing mortalities of all fisheries can be downloaded from the EWG's web page. The anticipated trend in fishing mortality and fishing effort in units of kW days at sea as derived from the cod plan is also presented in upper parts of such tables. The sustainable exploitation target is defined as Fmsy=0.46. The trends in fishing effort in units of kWdays at sea of the relevant fisheries are also presented in Tables 5.1.11.2.1-3. The presented parameters r (value of Pearson's coefficient of correlation), numbers of points considered as well as a p value to quantify the statistical significance (≤ 0.05) allow conclusions about the quality of the correlation between the partial F and fisheries specific fishing effort. The correlations between partial F and fishing effort are shown in Fig. 5.1.11.2.1.

It can be concluded from the estimated F in 2012 (Table 5.1.11.2.1) that the stock is sustainably exploited and that the annual F reductions had been following the plan since 2008. According to Eero et al. (2012), the stock recovery is due to increased productivity (recruitment) and improved control over catches. Discard mortality is generally low. Since 2009, the listed effort regulated fisheries do contribute 80% or more to the total fishing mortality.

STECF EWG 13-06/13-13 note that the correlations between the summed partial Fs for catch and landings of the many effort regulated fisheries and their estimated fishing efforts are highly significant. There is no significant correlation between the partial Fs and fisheries specific discards, which constitute minor parts to the overall fishing mortality. The partial Fs of most of the Member States fisheries using regulated gears are also closely correlated with their specific effort estimates in kW days at sea. This indicates that effective fisheries management by fishing effort in units of kWdays at sea appears possible, also as an auxiliary measure to catch constraints and technical measures.

Table 5.1.11.2.1 Eastern Baltic cod in areas B and C. The upper left part of the table lists estimated F trajectories from the management plan and the ICES 2013 assessment, as well as partial Fs based on catches of fisheries using regulated gears. The lower left part lists the estimated partial F based on estimated catches from the regulated fisheries. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

2008 moving reference year annual F reductions by 10 percent until F<=0.3, Fmsy=0.46									Reference year				
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan								0.771	0.694	0.625	0.563	0.507	0.456
reduction F plan									-0.10	-0.10	-0.10	-0.10	-0.10
F estimated				1.063	1.224	1.003	0.906	0.771	0.552	0.468	0.422	0.392	0.373
reduction F estimated									-0.28	-0.15	-0.10	-0.07	-0.05
Fpar													
Country	Gear	Specon	catch.cate	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
DEU	r-DEM_SEINE	none	catches		0.00001		0.00081	0.00081	0.00113	0.00306	0.00182	0.00264	0.00134
DEU	r-GILL	none	catches	0.00074	0.00036	0.00311	0.00020	0.00002	0.00010	0.00018			
DEU	r-LONGLINE	none	catches		0.00000	0.00002	0.00000		0.00000		0.00000		
DEU	r-OTTER	none	catches	0.01941	0.01918	0.02958	0.01726	0.00987	0.02533	0.02066	0.02117	0.00647	0.01235
DEU	r-PEL_TRAWL	none	catches		0.02728	0.01056	0.01037	0.01348	0.00326	0.00831	0.00989	0.01597	0.00440
DNK	r-DEM_SEINE	none	catches	0.00011	0.00001	0.00284	0.00104	0.00065				0.00067	0.00166
DNK	r-GILL	none	catches	0.01484	0.01135	0.01432	0.00946	0.01132	0.01126	0.00765	0.00414	0.00316	0.00176
DNK	r-LONGLINE	none	catches	0.00533	0.00456	0.00931	0.00404	0.00287	0.00140	0.00089	0.00126	0.00096	0.00040
DNK	r-OTTER	none	catches	0.10503	0.07269	0.07110	0.09151	0.07386	0.07686	0.06726	0.08181	0.07842	0.08131
DNK	r-PEL_TRAWL	none	catches	0.00317	0.00785	0.00385	0.00762	0.00573	0.00018	0.00091	0.00048	0.00040	0.00016
DNK	r-TRAMMEL	none	catches	0.00018	0.00014	0.00004	0.00005	0.00053	0.00033	0.00064	0.00008	0.00001	0.00000
EST	r-GILL	none	catches			0.00545	0.00376	0.00349	0.00209	0.00149			
EST	r-OTTER	none	catches			0.00138	0.00040	0.00104			0.00455	0.00530	0.00324
EST	r-PEL_TRAWL	none	catches			0.00181	0.00389	0.00681	0.00810	0.00436	0.00215	0.00473	0.00210
LTU	r-GILL	none	catches			0.00006		0.00002		0.00421	0.00489	0.00220	0.00128
LTU	r-LONGLINE	none	catches							0.00026	0.00017	0.00013	
LTU	r-OTTER	none	catches			0.00044	0.00151	0.01034		0.02015	0.02216	0.02029	0.01473
LTU	r-PEL_TRAWL	none	catches			0.00224	0.01061	0.02671		0.00197	0.00010	0.00027	0.00045
LVA	r-GILL	none	catches	0.04656	0.06176	0.03828	0.02298	0.02587	0.02445	0.02175	0.02017	0.01296	0.00870
LVA	r-OTTER	none	catches	0.01193	0.01137	0.01675	0.02080	0.01512	0.02179	0.01722	0.02154	0.02382	0.02031
LVA	r-PEL_TRAWL	none	catches	0.00045	0.00626	0.00010	0.00204	0.01171	0.00042	0.00120			0.00102
POL	r-GILL	none	catches		0.09419	0.06346	0.04530	0.03050	0.03434	0.03245	0.02808	0.02247	0.02379
POL	r-LONGLINE	none	catches		0.03766	0.03220	0.03105	0.01915	0.01099	0.00497	0.01213	0.00829	0.00474
POL	r-OTTER	none	catches		0.09891	0.09937	0.08500	0.05459	0.05691	0.05392	0.05625	0.05393	0.06831
POL	r-PEL_TRAWL	none	catches		0.02116	0.00413	0.01380	0.01954	0.00042	0.00245	0.00023	0.00142	0.00061
SWE	r-GILL	none	catches	0.06079	0.05138	0.03380	0.02054	0.02249	0.02457	0.01746	0.00872	0.00607	0.00471
SWE	r-LONGLINE	none	catches	0.01431	0.02124	0.01707	0.01090	0.00750	0.00870	0.00604	0.00372	0.00273	0.00213
SWE	r-OTTER	none	catches	0.10866	0.13232	0.09058	0.08138	0.10568	0.07750	0.07258	0.07016	0.07256	0.07549
SWE	r-PEL_TRAWL	none	catches		0.00911	0.00564	0.02419	0.02028	0.00233	0.00398	0.00097	0.00552	0.00084
SWE	r-TRAMMEL	none	catches	0.00002	0.00004	0.00001	0.00000	0.00001	0.00001	0.00000		0.00000	0.00000
Sum				0.39153	0.68883	0.55750	0.52051	0.49999	0.39247	0.37602	0.37664	0.35139	0.33583
check sum Fpar/F				0.37	0.56	0.56	0.57	0.65	0.71	0.8	0.89	0.9	0.9

Country	Gear														
		Effort kW days at sea													
			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012			
		Effort plan/ TAC regulations not applicable as days at sea per vessel													
		reduction													
		Effort estimated (re	8391212	19214038	14481187	15375052	10465985	8708136	6779579	6991700	8110058	7943563			
								-0.17	-0.22	0.03	0.16	-0.02			
		EFFORT											2003-2012		
		kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011		r	p	n
DEU	r-DEM_SEINE			822		11756	9000	7782	19715	26908	38601	27877	0.750	0.032	8
DEU	r-GILL		11696	8290	43704	14527	11824	5048	6594				0.958	0.001	7
DEU	r-LONGLINE		10248	11771	15007	9881	11920	17580	12580	6600	2420				
DEU	r-OTTER		334236	211999	280977	163096	80177	191198	220844	276398	108001	180536	0.717	0.020	10
DEU	r-PEL_TRAWL			182107	143688	141492	70379	16691	36135	61303	128870	48484	0.789	0.011	9
DNK	r-DEM_SEINE		729	880	11204	9781	4380				7936	20727	0.707	0.076	7
DNK	r-GILL		286771	247793	288548	255355	190114	195224	170484	133853	129032	109307	0.918	0.000	10
DNK	r-LONGLINE		228195	112769	154482	157371	86736	45320	63169	76826	76881	41313	0.757	0.011	10
DNK	r-OTTER		1369397	891009	993201	1279055	585792	644737	629248	781262	1071791	1160176	0.765	0.010	10
DNK	r-PEL_TRAWL		68442	51827	44286	94797	31103	1056	4030	3536	5080	3750	0.831	0.003	10
DNK	r-TRAMMEL		3278	2167	5598	7550	12631	5910	15546	3693	1185	546	0.875	0.001	10
EST	r-GILL				287824	253368	128268	40036	31107				0.935	0.020	5
EST	r-OTTER				94896	5729	9503			96642	179832	79178	0.856	0.030	6
EST	r-PEL_TRAWL				214426	355398	702922	703021	219177	114680	714754	86256	0.864	0.006	8
LTU	r-GILL				93187	55397	90686	128949	107267	104170	78123	48511	0.454	0.259	8
LTU	r-LONGLINE				264	59543	35332	34991	6664	3956	5514				
LTU	r-OTTER				342503	192759	170844	382050	286887	332848	398109	477440	0.390	0.340	8
LTU	r-PEL_TRAWL				1100	89918	85447	61407	20974	1764	4420	6837	0.854	0.007	8
LVA	r-GILL		1397564	1471236	701180	596996	568781	539579	401856	361015	350477	273839	0.949	0.000	10
LVA	r-OTTER		458330	322019	242532	350925	186093	229860	198632	218426	473943	376406	0.035	0.924	10
LVA	r-PEL_TRAWL		5065	114489	4122	29965	122803	10521	14473			18648	0.948	0.000	8
POL	r-GILL			4339027	2361250	1992875	1556930	1079645	791231	788566	695263	1121302	0.965	0.000	9
POL	r-LONGLINE			712715	691955	738832	410561	270046	412292	391897	324267	187100	0.925	0.000	9
POL	r-OTTER			5657875	3902889	4457610	2534977	1715576	1018609	1245924	1064287	1582454	0.898	0.001	9
POL	r-PEL_TRAWL			921668	193724	628134	440888	21895	36317	3424	2428	14087	0.932	0.000	9
SWE	r-GILL		1820884	1485621	1183969	1031157	833204	914404	811692	595833	519421	450915	0.986	0.000	10
SWE	r-LONGLINE		316942	373136	345327	321205	162491	198545	200874	176489	208160	139164	0.912	0.000	10
SWE	r-OTTER		2070339	1942010	1716974	1655822	1151533	1205260	1001145	1169421	1420549	1465397	0.650	0.042	10
SWE	r-PEL_TRAWL			144639	121133	413844	178434	36859	40493	16200	99798	20821	0.919	0.000	9
SWE	r-TRAMMEL		9096	8169	1237	914	2232	4946	1544	66	916	2492			
Sum			8391212	19214038	14481187	15375052	10465985	8708136	6779579	6991700	8110058	7943563	0.955	0.000	10
check sum Fpar/F															

Table 5.1.11.2.2 Eastern Baltic cod in areas B and C. The upper left part of the table lists estimated F trajectories from the management plan and the ICES 2013 assessment, as well as partial Fs based on landings of fisheries using regulated gears. The lower left part lists the estimated partial F based on estimated catches from the regulated fisheries. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

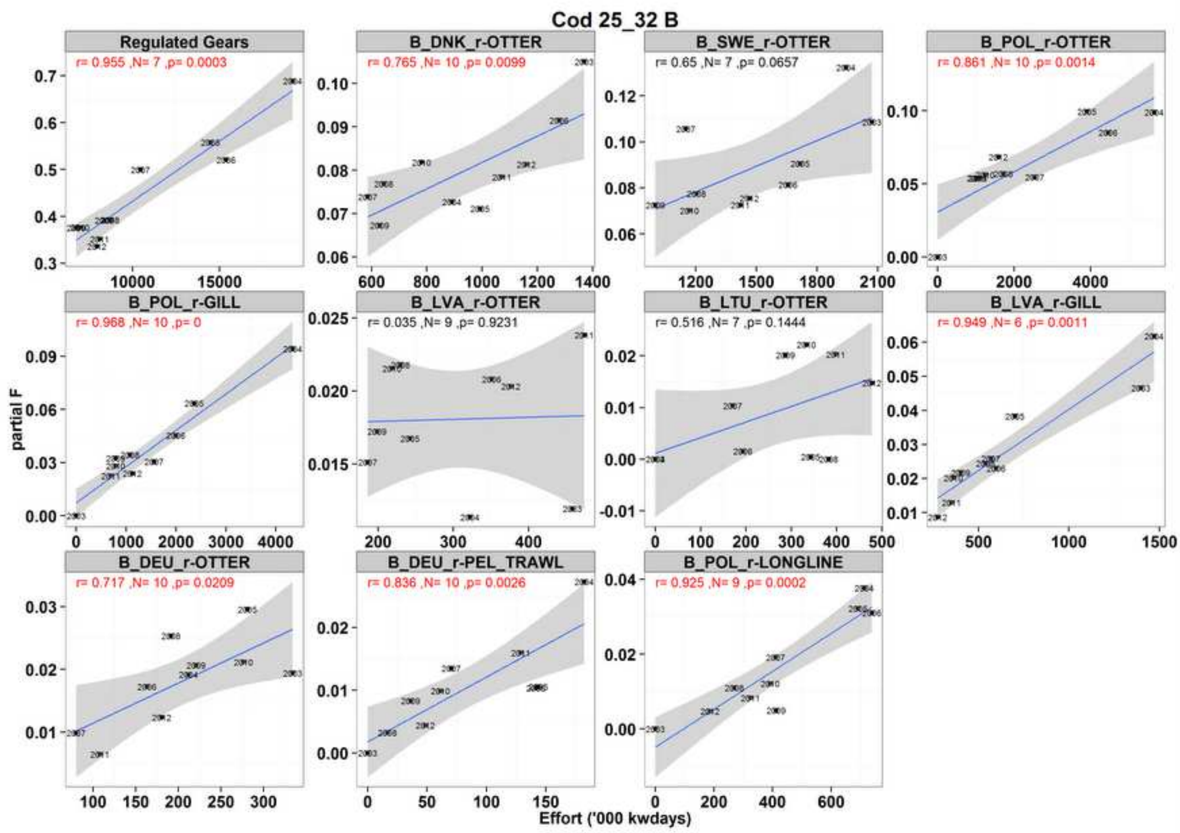
2008 moving reference year annual F reductions by 10 percent until F<=0.3, Fmsy=0.46									Reference year				
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan								0.771	0.694	0.625	0.563	0.507	0.456
reduction F plan									-0.10	-0.10	-0.10	-0.10	-0.10
F estimated				1.063	1.224	1.003	0.906	0.771	0.552	0.468	0.422	0.392	0.373
reduction F estimated									-0.28	-0.15	-0.10	-0.07	-0.05
Fpar													
Country	Gear	Specon	catch.cate	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
DEU	r-DEM_SEINE	none	landings		0.00001		0.00081	0.00081	0.00113	0.00306	0.00182	0.00264	0.00134
DEU	r-GILL	none	landings	0.00073	0.00034	0.00302	0.00019	0.00002	0.00010	0.00017			
DEU	r-LONGLINE	none	landings		0.00000	0.00002	0.00000		0.00000		0.00000		
DEU	r-OTTER	none	landings	0.01833	0.01819	0.02760	0.01458	0.00833	0.02383	0.01829	0.01926	0.00572	0.01055
DEU	r-PEL_TRAWL	none	landings		0.02679	0.01017	0.00885	0.01215	0.00312	0.00761	0.00963	0.01369	0.00381
DNK	r-DEM_SEINE	none	landings	0.00011	0.00001	0.00284	0.00104	0.00065				0.00067	0.00166
DNK	r-GILL	none	landings	0.01450	0.01105	0.01391	0.00912	0.01057	0.01083	0.00737	0.00378	0.00302	0.00166
DNK	r-LONGLINE	none	landings	0.00520	0.00450	0.00912	0.00404	0.00287	0.00140	0.00084	0.00113	0.00091	0.00039
DNK	r-OTTER	none	landings	0.08359	0.06828	0.06577	0.08139	0.06589	0.07282	0.06272	0.07723	0.07229	0.07249
DNK	r-PEL_TRAWL	none	landings	0.00252	0.00729	0.00354	0.00685	0.00516	0.00017	0.00085	0.00045	0.00037	0.00014
DNK	r-TRAMMEL	none	landings	0.00017	0.00013	0.00004	0.00005	0.00053	0.00033	0.00063	0.00008	0.00001	0.00000
EST	r-GILL	none	landings			0.00529	0.00360	0.00320	0.00201	0.00145			
EST	r-OTTER	none	landings			0.00129	0.00035	0.00087			0.00412	0.00449	0.00261
EST	r-PEL_TRAWL	none	landings			0.00181	0.00337	0.00623	0.00733	0.00402	0.00209	0.00395	0.00179
LTU	r-GILL	none	landings			0.00006		0.00002		0.00407	0.00379	0.00220	0.00121
LTU	r-LONGLINE	none	landings							0.00026	0.00017	0.00013	
LTU	r-OTTER	none	landings			0.00041	0.00137	0.00935		0.01844	0.02034	0.01950	0.01397
LTU	r-PEL_TRAWL	none	landings			0.00215	0.00962	0.02419		0.00197	0.00010	0.00027	0.00039
LVA	r-GILL	none	landings	0.04544	0.05918	0.03704	0.02215	0.02315	0.02357	0.02108	0.01831	0.01234	0.00797
LVA	r-OTTER	none	landings	0.01133	0.01091	0.01637	0.01950	0.01457	0.01989	0.01605	0.01908	0.02061	0.01738
LVA	r-PEL_TRAWL	none	landings	0.00045	0.00610	0.00010	0.00170	0.01049	0.00038	0.00110			0.00087
POL	r-GILL	none	landings		0.09135	0.06148	0.04356	0.02861	0.03346	0.03115	0.02605	0.02121	0.02244
POL	r-LONGLINE	none	landings		0.03716	0.03174	0.03105	0.01915	0.01096	0.00464	0.01075	0.00796	0.00457
POL	r-OTTER	none	landings		0.09396	0.09304	0.07641	0.04747	0.05360	0.04949	0.05134	0.04700	0.05929
POL	r-PEL_TRAWL	none	landings		0.02080	0.00413	0.01352	0.01924	0.00040	0.00236	0.00022	0.00121	0.00053
SWE	r-GILL	none	landings	0.05934	0.05068	0.03279	0.01981	0.02118	0.02363	0.01657	0.00847	0.00579	0.00459
SWE	r-LONGLINE	none	landings	0.01394	0.02096	0.01673	0.01090	0.00750	0.00869	0.00561	0.00323	0.00257	0.00204
SWE	r-OTTER	none	landings	0.09320	0.12485	0.07917	0.06515	0.08530	0.06951	0.06340	0.06422	0.05885	0.05704
SWE	r-PEL_TRAWL	none	landings		0.00865	0.00564	0.01941	0.01712	0.00194	0.00356	0.00089	0.00417	0.00064
SWE	r-TRAMMEL	none	landings	0.00002	0.00004	0.00001	0.00000	0.00001	0.00001	0.00000		0.00000	0.00000
Sum				0.34887	0.66123	0.52528	0.46839	0.44463	0.36911	0.34676	0.34655	0.31157	0.28937
check sum Fpar/F				0.33	0.54	0.52	0.52	0.58	0.67	0.74	0.82	0.79	0.78

		Effort kW days at sea													
			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012			
F plan		Effort plan/ TAC regulations not applicable as days at sea per vessel													
reduction F plan		reduction													
F estimated		Effort estimated (re	8391212	19214038	14481187	15375052	10465985	8708136	6779579	6991700	8110058	7943563			
reduction F estimated								-0.17	-0.22	0.03	0.16	-0.02			
Fpar		EFFORT											2003-2012		
Country	Gear	kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011		r	p	n
DEU	r-DEM_SEINE			822		11756	9000	7782	19715	26908	38601	27877	0.750	0.032	8
DEU	r-GILL		11696	8290	43704	14527	11824	5048	6594				0.957	0.001	7
DEU	r-LONGLINE		10248	11771	15007	9881	11920	17580	12580	6600	2420				
DEU	r-OTTER		334236	211999	280977	163096	80177	191198	220844	276398	108001	180536	0.731	0.016	10
DEU	r-PEL_TRAWL			182107	143688	141492	70379	16691	36135	61303	128870	48484	0.771	0.015	9
DNK	r-DEM_SEINE		729	880	11204	9781	4380				7936	20727	0.707	0.076	7
DNK	r-GILL		286771	247793	288548	255355	190114	195224	170484	133853	129032	109307	0.926	0.000	10
DNK	r-LONGLINE		228195	112769	154482	157371	86736	45320	63169	76826	76881	41313	0.756	0.011	10
DNK	r-OTTER		1369397	891009	993201	1279055	585792	644737	629248	781262	1071791	1160176	0.700	0.024	10
DNK	r-PEL_TRAWL		68442	51827	44286	94797	31103	1056	4030	3536	5080	3750	0.810	0.005	10
DNK	r-TRAMMEL		3278	2167	5598	7550	12631	5910	15546	3693	1185	546	0.878	0.001	10
EST	r-GILL				287824	253368	128268	40036	31107				0.939	0.018	5
EST	r-OTTER				94896	5729	9503			96642	179832	79178	0.853	0.031	6
EST	r-PEL_TRAWL				214426	355398	702922	703021	219177	114680	714754	86256	0.839	0.009	8
LTU	r-GILL				93187	55397	90686	128949	107267	104170	78123	48511	0.429	0.289	8
LTU	r-LONGLINE				264	59543	35332	34991	6664	3956	5514				
LTU	r-OTTER				342503	192759	170844	382050	286887	332848	398109	477440	0.414	0.308	8
LTU	r-PEL_TRAWL				1100	89918	85447	61407	20974	1764	4420	6837	0.854	0.007	8
LVA	r-GILL		1397564	1471236	701180	596996	568781	539579	401856	361015	350477	273839	0.952	0.000	10
LVA	r-OTTER		458330	322019	242532	350925	186093	229860	198632	218426	473943	376406	-0.056	0.878	10
LVA	r-PEL_TRAWL		5065	114489	4122	29965	122803	10521	14473			18648	0.960	0.000	8
POL	r-GILL			4339027	2361250	1992875	1556930	1079645	791231	788566	695263	1121302	0.964	0.000	9
POL	r-LONGLINE			712715	691955	738832	410561	270046	412292	391897	324267	187100	0.922	0.000	9
POL	r-OTTER			5657875	3902889	4457610	2534977	1715576	1018609	1245924	1064287	1582454	0.896	0.001	9
POL	r-PEL_TRAWL			921668	193724	628134	440888	21895	36317	3424	2428	14087	0.932	0.000	9
SWE	r-GILL		1820884	1485621	1183969	1031157	833204	914404	811692	595833	519421	450915	0.986	0.000	10
SWE	r-LONGLINE		316942	373136	345327	321205	162491	198545	200874	176489	208160	139164	0.910	0.000	10
SWE	r-OTTER		2070339	1942010	1716974	1655822	1151533	1205260	1001145	1169421	1420549	1465397	0.614	0.059	10
SWE	r-PEL_TRAWL			144639	121133	413844	178434	36859	40493	16200	99798	20821	0.910	0.001	9
SWE	r-TRAMMEL		9096	8169	1237	914	2232	4946	1544	66	916	2492			
Sum			8391212	19214038	14481187	15375052	10465985	8708136	6779579	6991700	8110058	7943563	0.945	0.000	10
check sum Fpar/F															

Table 5.1.11.2.3 Eastern Baltic cod in areas B and C. The upper left part of the table lists estimated F trajectories from the management plan and the ICES 2013 assessment, as well as partial Fs based on discards of fisheries using regulated gears. The lower left part lists the estimated partial F based on estimated catches from the regulated fisheries. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

2008 moving reference year annual F reductions by 10 percent until F<=0.3, Fmsy=0.46									Reference year				
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan								0.771	0.694	0.625	0.563	0.507	0.456
reduction F plan									-0.10	-0.10	-0.10	-0.10	-0.10
F estimated				1.063	1.224	1.003	0.906	0.771	0.552	0.468	0.422	0.392	0.373
reduction F estimated									-0.28	-0.15	-0.10	-0.07	-0.05
Fpar													
Country	Gear	Specon	catch.cate	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
DEU	r-DEM_SEINE	none	discards		0.00000		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
DEU	r-GILL	none	discards	0.00001	0.00002	0.00009	0.00001	0.00000	0.00000	0.00001			
DEU	r-LONGLINE	none	discards		0.00000	0.00000	0.00000		0.00000		0.00000		
DEU	r-OTTER	none	discards	0.00108	0.00098	0.00198	0.00269	0.00154	0.00149	0.00237	0.00191	0.00074	0.00180
DEU	r-PEL_TRAWL	none	discards		0.00049	0.00039	0.00152	0.00133	0.00015	0.00070	0.00027	0.00228	0.00059
DNK	r-DEM_SEINE	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000				0.00000	0.00000
DNK	r-GILL	none	discards	0.00034	0.00029	0.00041	0.00033	0.00075	0.00042	0.00028	0.00036	0.00014	0.00010
DNK	r-LONGLINE	none	discards	0.00014	0.00006	0.00019	0.00000	0.00000	0.00000	0.00006	0.00013	0.00004	0.00001
DNK	r-OTTER	none	discards	0.02144	0.00442	0.00532	0.01012	0.00798	0.00404	0.00454	0.00458	0.00613	0.00882
DNK	r-PEL_TRAWL	none	discards	0.00066	0.00056	0.00031	0.00077	0.00057	0.00001	0.00006	0.00003	0.00003	0.00002
DNK	r-TRAMMEL	none	discards	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
EST	r-GILL	none	discards			0.00016	0.00016	0.00029	0.00008	0.00004			
EST	r-OTTER	none	discards			0.00009	0.00006	0.00016			0.00043	0.00081	0.00063
EST	r-PEL_TRAWL	none	discards			0.00000	0.00051	0.00059	0.00077	0.00034	0.00006	0.00078	0.00030
LTU	r-GILL	none	discards			0.00000		0.00000		0.00014	0.00109	0.00000	0.00007
LTU	r-LONGLINE	none	discards							0.00000	0.00000	0.00000	
LTU	r-OTTER	none	discards			0.00003	0.00015	0.00099		0.00171	0.00182	0.00079	0.00075
LTU	r-PEL_TRAWL	none	discards			0.00009	0.00099	0.00252		0.00000	0.00000	0.00000	0.00007
LVA	r-GILL	none	discards	0.00112	0.00258	0.00124	0.00083	0.00272	0.00088	0.00067	0.00186	0.00062	0.00073
LVA	r-OTTER	none	discards	0.00060	0.00046	0.00039	0.00130	0.00055	0.00189	0.00118	0.00246	0.00321	0.00293
LVA	r-PEL_TRAWL	none	discards	0.00000	0.00016	0.00000	0.00034	0.00122	0.00003	0.00010			0.00015
POL	r-GILL	none	discards		0.00284	0.00198	0.00174	0.00189	0.00088	0.00130	0.00203	0.00126	0.00135
POL	r-LONGLINE	none	discards		0.00050	0.00046	0.00000	0.00000	0.00003	0.00033	0.00137	0.00032	0.00017
POL	r-OTTER	none	discards		0.00495	0.00633	0.00859	0.00712	0.00331	0.00443	0.00491	0.00692	0.00902
POL	r-PEL_TRAWL	none	discards		0.00036	0.00000	0.00028	0.00030	0.00002	0.00008	0.00001	0.00021	0.00007
SWE	r-GILL	none	discards	0.00145	0.00070	0.00101	0.00073	0.00131	0.00094	0.00089	0.00025	0.00029	0.00012
SWE	r-LONGLINE	none	discards	0.00037	0.00028	0.00034	0.00000	0.00000	0.00001	0.00043	0.00049	0.00015	0.00009
SWE	r-OTTER	none	discards	0.01547	0.00747	0.01141	0.01623	0.02038	0.00798	0.00918	0.00594	0.01371	0.01845
SWE	r-PEL_TRAWL	none	discards		0.00046	0.00000	0.00478	0.00316	0.00038	0.00041	0.00007	0.00136	0.00020
SWE	r-TRAMMEL	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		0.00000	0.00000
Sum				0.04269	0.02758	0.03222	0.05213	0.05537	0.02331	0.02925	0.03007	0.03979	0.04644
check sum Fpar/F				0.04	0.02	0.03	0.06	0.07	0.04	0.06	0.07	0.1	0.12

		Effort kW days at sea												
			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		
		Effort plan/ TAC regulations not applicable as days at sea per vessel												
		reduction												
		Effort estimated (re	8391212	19214038	14481187	15375052	10465985	8708136	6779579	6991700	8110058	7943563		
								-0.17	-0.22	0.03	0.16	-0.02		
		EFFORT											2003-2012		
Country	Gear	kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011		r	p	n
DEU	r-DEM_SEINE			822		11756	9000	7782	19715	26908	38601	27877			
DEU	r-GILL		11696	8290	43704	14527	11824	5048	6594						
DEU	r-LONGLINE		10248	11771	15007	9881	11920	17580	12580	6600	2420				
DEU	r-OTTER		334236	211999	280977	163096	80177	191198	220844	276398	108001	180536	0.077	0.833	10
DEU	r-PEL_TRAWL			182107	143688	141492	70379	16691	36135	61303	128870	48484	0.336	0.377	9
DNK	r-DEM_SEINE		729	880	11204	9781	4380				7936	20727			
DNK	r-GILL		286771	247793	288548	255355	190114	195224	170484	133853	129032	109307	0.333	0.347	10
DNK	r-LONGLINE		228195	112769	154482	157371	86736	45320	63169	76826	76881	41313			
DNK	r-OTTER		1369397	891009	993201	1279055	585792	644737	629248	781262	1071791	1160176	0.700	0.024	10
DNK	r-PEL_TRAWL		68442	51827	44286	94797	31103	1056	4030	3536	5080	3750	0.938	0.000	10
DNK	r-TRAMMEL		3278	2167	5598	7550	12631	5910	15546	3693	1185	546			
EST	r-GILL				287824	253368	128268	40036	31107						
EST	r-OTTER				94896	5729	9503			96642	179832	79178	0.779	0.068	6
EST	r-PEL_TRAWL				214426	355398	702922	703021	219177	114680	714754	86256	0.874	0.005	8
LTU	r-GILL				93187	55397	90686	128949	107267	104170	78123	48511	0.406	0.318	8
LTU	r-LONGLINE				264	59543	35332	34991	6664	3956	5514				
LTU	r-OTTER				342503	192759	170844	382050	286887	332848	398109	477440	0.033	0.938	8
LTU	r-PEL_TRAWL				1100	89918	85447	61407	20974	1764	4420	6837	0.854	0.007	8
LVA	r-GILL		1397564	1471236	701180	596996	568781	539579	401856	361015	350477	273839	0.424	0.222	10
LVA	r-OTTER		458330	322019	242532	350925	186093	229860	198632	218426	473943	376406	0.323	0.363	10
LVA	r-PEL_TRAWL		5065	114489	4122	29965	122803	10521	14473			18648	0.732	0.039	8
POL	r-GILL			4339027	2361250	1992875	1556930	1079645	791231	788566	695263	1121302	0.815	0.007	9
POL	r-LONGLINE			712715	691955	738832	410561	270046	412292	391897	324267	187100	0.041	0.916	9
POL	r-OTTER			5657875	3902889	4457610	2534977	1715576	1018609	1245924	1064287	1582454	0.147	0.706	9
POL	r-PEL_TRAWL			921668	193724	628134	440888	21895	36317	3424	2428	14087			
SWE	r-GILL		1820884	1485621	1183969	1031157	833204	914404	811692	595833	519421	450915	0.711	0.021	10
SWE	r-LONGLINE		316942	373136	345327	321205	162491	198545	200874	176489	208160	139164			
SWE	r-OTTER		2070339	1942010	1716974	1655822	1151533	1205260	1001145	1169421	1420549	1465397	0.121	0.739	10
SWE	r-PEL_TRAWL			144639	121133	413844	178434	36859	40493	16200	99798	20821	0.896	0.001	9
SWE	r-TRAMMEL		9096	8169	1237	914	2232	4946	1544	66	916	2492			
Sum			8391212	19214038	14481187	15375052	10465985	8708136	6779579	6991700	8110058	7943563	0.013	0.971	10
check sum Fpar/F															



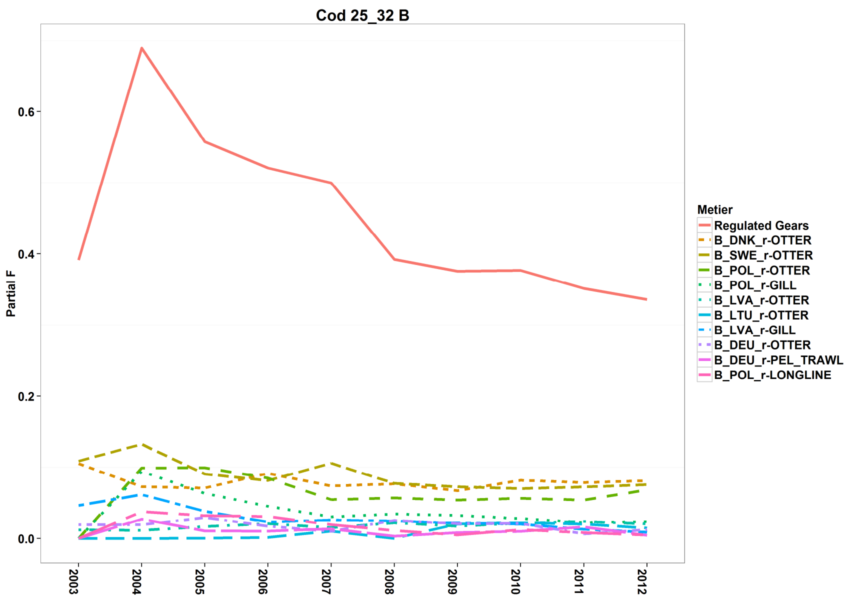


Fig. 5.1.11.2.1 Eastern Baltic cod area B and C. Effort estimates versus partial fishing mortality by Member State and regulated gears in 2003-1012. The lower panel shows the temporal trends in partial Fs.

5.1.12 ToR 8 Spatio-temoral pattern in standardized catchability indices for cod

5.1.12.1 Introduction

Catchability (q) is defined as the relationship between the catch rate (CPUE) and the true population size. Consequently, the unit of catchability is fish caught per fish available per effort unit and per time unit, or, in easier words, catchability can conceptually be considered as the probability of any single fish being caught (Jul-Larsen *et al*., 2003).

Many factors are related to catchability, e.g. mainly fish abundance at a certain time in a certain area and gear efficiency (fishing power) including use of the gear and fishers' experience (Marchal *et al*., 2001). A standard solution to evaluate changes in catchability is therefore to compare catch rates from commercial and research fishing where the catchability of the research fishing is holding constant from year to year (Neis *et al*., 1999):

CPUE (fishery)/CPUE (survey) = q (fishery)/q (survey)

This catchability index has no units. STECF EWG 13-13 interprets the resulting ratio as an index of fishing mortality per individual fish independent of stock size, which allows spatio-temporal analyses. The calculation of catchability indices for cod per ICES statistical square (rectangle) and year from standardized and averaged ratios between CPUE by fishery /BITS Q1-Q4 indices are therefore believed to provide indications of spatio-temporal patterns.

5.1.12.2 Data

STECF EWG13-13 performed the analyses using DCF data from 2013 DCF data call to support fishing effort regime evaluations and Baltic International Trawl Survey (BITS) data from 2006-2012, Below the approach , taken by EWG and main findings are presented. The database of scientific survey data used by the EWG can be found at ICES DATRAS web page: http://datras.ices.dk/Data_products/Download/Download_Data_public.aspx

BITS Q1 and Q4 data were downloaded from ICES DATRAS server, i.e. station data and catch data for the years 2003-2012. Only hauls assigned valid and with haul duration equal or longer the 20 min. were considered. Stations with cod catches were selected using the species codes 164712 (TSN from the Integrated Taxonomic Information System ITIS) and 126436 (WoRMS, Word Register of Marine Species), as appropriate. The two data sets were linked and CatCatchWg (grams) was standardized to kg/hour.

Annual average Q1-Q4 abundance indices (kg/hours) per rectangle were calculated for cod and averaged the period 2006-2012.

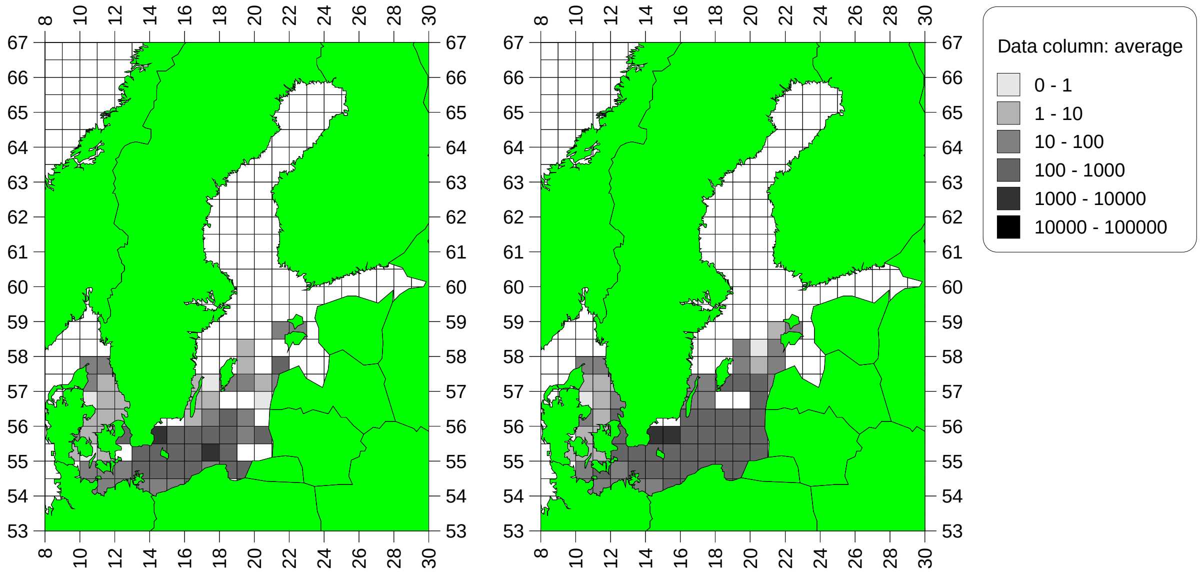


Fig. 5.1.12.1. Average annual Baltic Sea BITS Q1-4 CPUE indices (kg/hours) per rectangle for cod in 2012 (left panel) and averaged over 2006-2011 (right panel).

In 2012, cod appears widely distributed over the central and southern Baltic Sea into the Belts (Fig. 5.1.12.1.). There highest abundances are quite homogeneously concentrated in the Central Baltic Sea what is expected according to the relatively good state of the Eastern Baltic cod stock in recent years. Cod becomes less abundant around the central Baltic, in particular in the northern rectangles. These pronounced patterns are stable in 2012 and as average over the years 2006-2011.

DCF data on annual landings per rectangle (Table E, landings in tons) were summed for all effort regulated gear groups by rectangle and year, excluding the recorded landings of small vessels (<8m). The landings per rectangle and fishery (métier) were raised to catches based on discard rates estimated by year, management area, gear, mesh size, special condition (derogation, where applicable for effort regulated gears), and nation. The additional consideration of the nation (additional to the defined management areas of the DCF) during the process of catch estimation by rectangle (landings plus raised estimates of discards by rectangles) is assumed to improve the calculation of specific geographical fisheries effects. The estimated cod catches per rectangle are shown in Fig. 5.1.12.2. Average geographical distribution of estimated catches resembles the stock distribution as perceived from the BITS Q1-Q4 survey indices (Fig. 5.1.12.1. and 5.1.12.2). Highest catches are seen in the central and southern Baltic Sea, while there seems almost no cod fishing in the northern Baltic Sea. These patterns appear quite steady, as the geographical patterns in average estimates of cod catches over 2006-2011 is very similar with the recent situation in 2012 (Fig. 5.1.12.2).

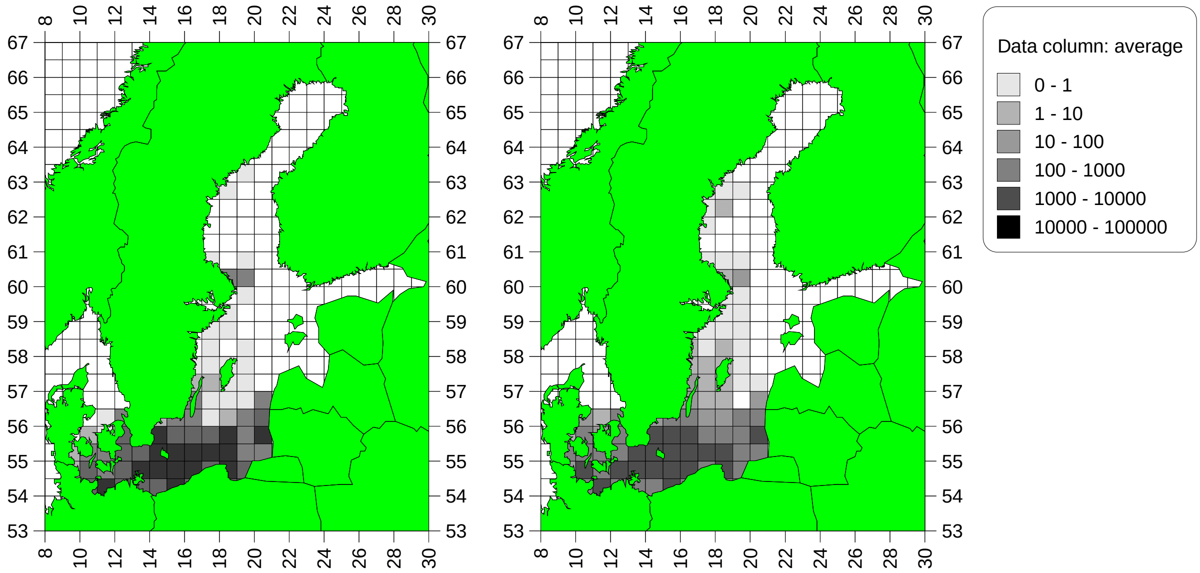


Fig. 5.1.12.2. Annual cod catches (t) of effort regulated gear groups per rectangle in 2012 (left panel) and averaged for the period 2006-2011 (right panel).

Fisheries specific DCF data on annual fishing effort per rectangle (Table C, fished hours per rectangle) were summed across all effort regulated gear groups and years, excluding the under 8m boats. The resulting annual fishing effort estimates per rectangle and year were averaged for the period 2006-2011 and the geographical distribution patterns are shown in Fig. 5.1.12.3. Again, the effort patterns reveal a picture where most of it is concentrated in the central and southern Baltic Sea, while northern areas show significantly lower effort figures. The lighter grey shaded rectangles of the most recent data (2012) indicate a similar geographical pattern but with a significant reduction in effort deployed by effort regulated gears.

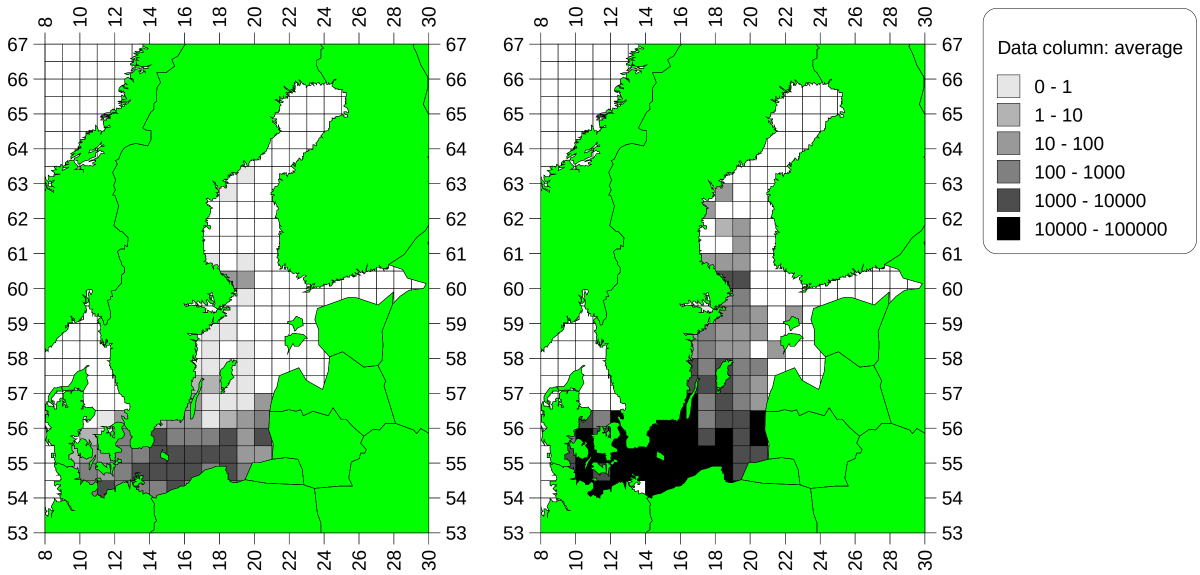


Fig. 5.1.12.3. Annual fishing effort (hours fished) of effort regulated gear groups per rectangle in 2012 (left panel) and averaged for the period 2006-2011 (right panel).

The annual effective effort data of effort regulated gears by rectangle (Table C, in units of hours fished) and estimated annual cod catches of effort regulated gears per rectangle data (Table E, in units of tons) were linked and for each fishery the annual CPUE (kg/hours) was calculated.

Annual catchability coefficients by fishery and rectangle are determined from the log-transformed CPUE per fishery divided by the log-transformed BITS survey indices for cod. Log-transformation was done like $f(x) = \ln(x+1)$ to decrease the variation and to avoid negative values. Such standardised catchability indices were then averaged over each of the rectangles and over period 2006-2011 and compared with the 2012 estimates.

5.1.12.3 Spatial pattern of cod catchability

The resulting geographical patterns in cod catchability values are shown in Fig. 5.1.12.4. The catchabily is estimated to be quite homogeneous over the rectangles where catches, fishing effort and stock abundance are high, i.e. in the central and southern Baltic Sea. There appears to be no specific pattern to distinguish between the Eastern and Western Baltic cod stocks despite to the differences in stock size.

The reason could be linked to the suggested increase in westward feeding migrations of the Eastern Baltic cod and elevated mixing rate in the most recent period (ICES 2013). Where stock abundance is estimated lower based on BITS survey indices, the catchability is increased and scattered, i.e. in the rectangles around the major distribution of the cod stocks and their fisheries. Houghton and Flatman (1981) have demonstrated an inverse correlation between catchability and abundance also for the North Sea cod.

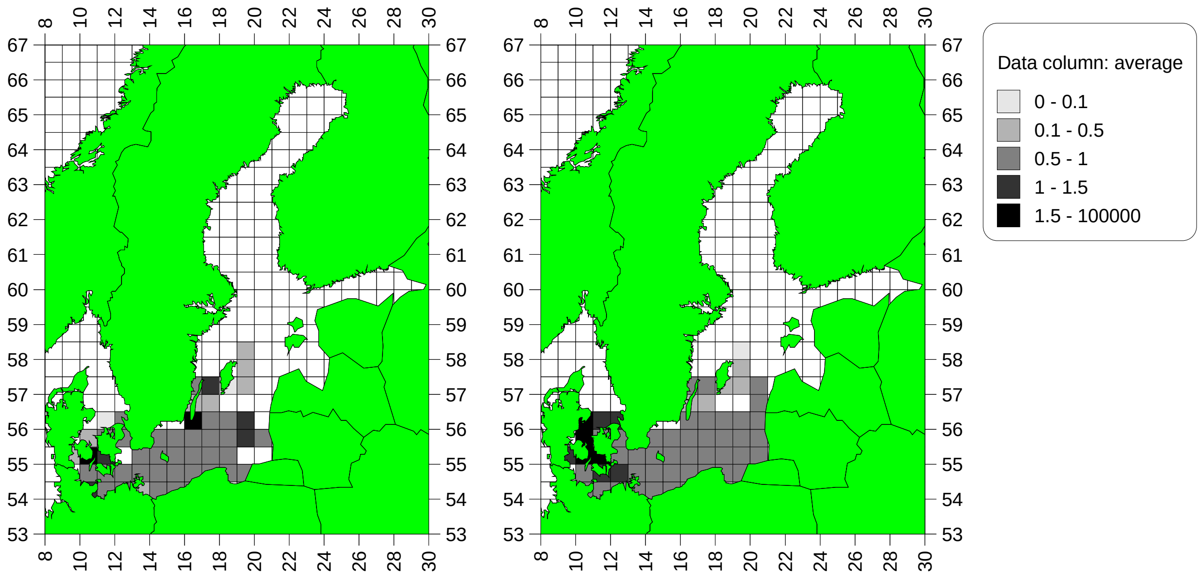


Fig. 5.1.12.4. Average cod catchability (ln(CPUE)/(ln(BITS Q1 index)) of all regulated gear groups per rectangle in 2012 (left panel) and averaged for the period 2006-2011 (right panel).

5.2 Kattegat effort regime evaluation in the context of Annex IIA to Council Regulation (EC) No 57/2011)

5.2.1 ToR 1.a Fishing effort in kWdays, GTdays, kW and number of vessels by Member State and fisheries

Trends in effort by the new cod plan gear groups and by country are shown in Table (5.2.1.1). In 2012 70% of the total effort was deployed by gears that are under effort regulation in the cod plan, dominated by the TR2 fishery, and the total effort in Kattegat has decreased by 42% between 2003 and 2012. The effort deployed by regulated gears has decreased by 54% since 2003 but between 2011 and 2012 it increased by 11% (266 406 kW*days). The largest part (233 353 kW*days) of the increase is found in the Danish TR2 fishery, which is under the derogation CPart13c from 2010 onwards. The Danish TR2 fishery effort decreased by 35% between 2003 and 2006 and has since then remained quite stable. The Swedish regulated TR2 effort has decreased by 81% since 2003, partly due to a move towards the unregulated CPart11 (using a 35mm Nephrops sorting grid, introduced in 2003) which constituted 68% of the Swedish TR2 effort in 2012 and partly to an overall decrease in effort (41% since 2003).

The effort carried out by unregulated gears, including the Swedish Nephrops sorting grid under the derogation CPart11, has increased from 776 555 kW*days in 2003 to 1 158 146 kW*days in 2012, an increase by 49% (Table 5.2.1.3).

Table 5.2.1.1 Kattegat: Trend in nominal effort (kW*days at sea) by regulated gear group and country. 2003-2012. The gear category TR2 does not include effort carried out under the derogation CPart11 (from 2009 onwards) or IIA83b (2004-2008).

REG AREA	REG GEAR	COUNTRY	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Rel. 2003	Rel. 2011
3a	GN1	DEU	13612	14289	26827	38486	39725	31562	23156	19526	21484	11860	0.87	0.55
3a	GN1	DNK	184739	111648	129061	103851	72616	65829	80031	64536	46211	19778	0.11	0.43
3a	GN1	SWE	20309	17690	9609	14748	14949	32697	33120	32270	27481	35082	1.73	1.28
3a	GT1	DNK	12963	14791	28220	24754	11927	11758	22410	13398	11408	5279	0.41	0.46
3a	GT1	SWE	25558	11254	12833	19178	34170	29266	17518	26612	25205	14941	0.58	0.59
3a	LL1	DNK	3240	3080		220					221	397	0.12	1.80
3a	LL1	SWE	5683	1376	10684	27478	37856	25234					0.00	
3a	TR1	DEU	894	2390	4985	5262	5526	1964				4309	4.82	
3a	TR1	DNK	201690	191743	203625	191632	184599	156198	100777	67525	48671	100989	0.50	2.07
3a	TR1	SWE	44370	15121	24870	5160	19799	57592	6985	13626	1006		0.00	0.00
3a	TR2	DEU	35966	31861	7505	10318	35338	38716	19918	30730	13670	2645	0.07	0.19
3a	TR2	DNK	3457175	3062610	2546820	2250888	2026560	2148333	2208298	2378545	2000136	2233489	0.65	1.12
3a	TR2	SWE	1369635	1043622	1046257	1062871	1041966	920320	436355	284594	271686	260287	0.19	0.96
3a	TR3	DEU												
3a	TR3	DNK	655409	483712	485616	359693	301698	146119	75792	27110	25572	70101	0.11	2.74
3a	TR3	SWE					1470		1148					
Total			6031243	5005187	4536912	4114539	3828199	3665588	3025508	2958472	2492751	2759157	0.46	1.11

Table 5.2.1.2 Kattegat: Trend in nominal effort (kW*days at sea) by regulated gear group and derogation 2003-2012. All the Danish TR2 effort is under the derogation CPart13C from 2010 onwards while the German TR2 effort is partly under the derogation CPart13B between 2010 and 2011.

REG AREA	REG GEAR	SPECON	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Rel. 2003	Rel. 2011
3a	GN1	none	218660	143627	165497	157085	127290	130088	136307	116332	95176	66720	0.31	0.70
3a	GT1	none	38521	26045	41053	43932	46097	41024	39928	40010	36613	20220	0.52	0.55
3a	LL1	none	8923	4456	10684	27698	37856	25234			221	397	0.04	1.80
3a	TR1	none	246954	209254	233480	202054	209924	215754	107762	81151	49677	105298	0.43	2.12
3a	TR2	CPart13B								20020	4180			0.00
3a	TR2	CPart13C								2378545	2000136	2233489		1.12
3a	TR2	none	4862776	4128181	3486593	3324077	3103864	3107369	2664571	295304	281176	262932	0.05	0.94
3a	TR3	none	655409	483712	485616	359693	303168	146119	76940	27110	25572	70101	0.11	2.74
Total			6031243	4995275	4422923	4114539	3828199	3665588	3025508	2958472	2492751	2759157	0.46	1.11

Table 5.2.1.3 Trend in nominal effort (kW*days at sea) of unregulated gears in Kattegat 2003-2012. Sweden is the only country using the derogation Cpart11/IIIA83B.

REG AREA	GEAR	SPECON	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Rel. 2003	Rel. 2011
3a	BEAM	none	126	118									0.00	
3a	DEM_SEINE	none	813		354								0.00	
3a	DREDGE	none	1136	426	26658	39802	50977	55259	35442	36517	51741	67491	59.41	1.30
3a	none	none	1047	3318	2579	2806	2712	188	19260	16306	15267	34391	32.85	2.25
3a	OTTER	none	292195	206117	189146	258514	198403	151091	229931	72299	30432	60366	0.21	1.98
3a	PEL_SEINE	none	31059	20680	25640	52976	32560	16157	11000	19876	19160	2760	0.09	0.14
3a	PEL_TRAWL	none	395285	392938	450906	374702	358100	195358	340860	277918	336209	400608	1.01	1.19
3a	POTS	none	54894	85806	65321	75311	86516	75233	64289	29897	32929	46114	0.84	1.40
3a	TR2	CPart11							415194	482432	426638	546416		1.28
3a	TR2	IIA83B		9912	113989	165425	233076	307336						
Total			776555	719315	874593	969536	962344	800622	1115976	935245	912376	1158146	1.49	1.27

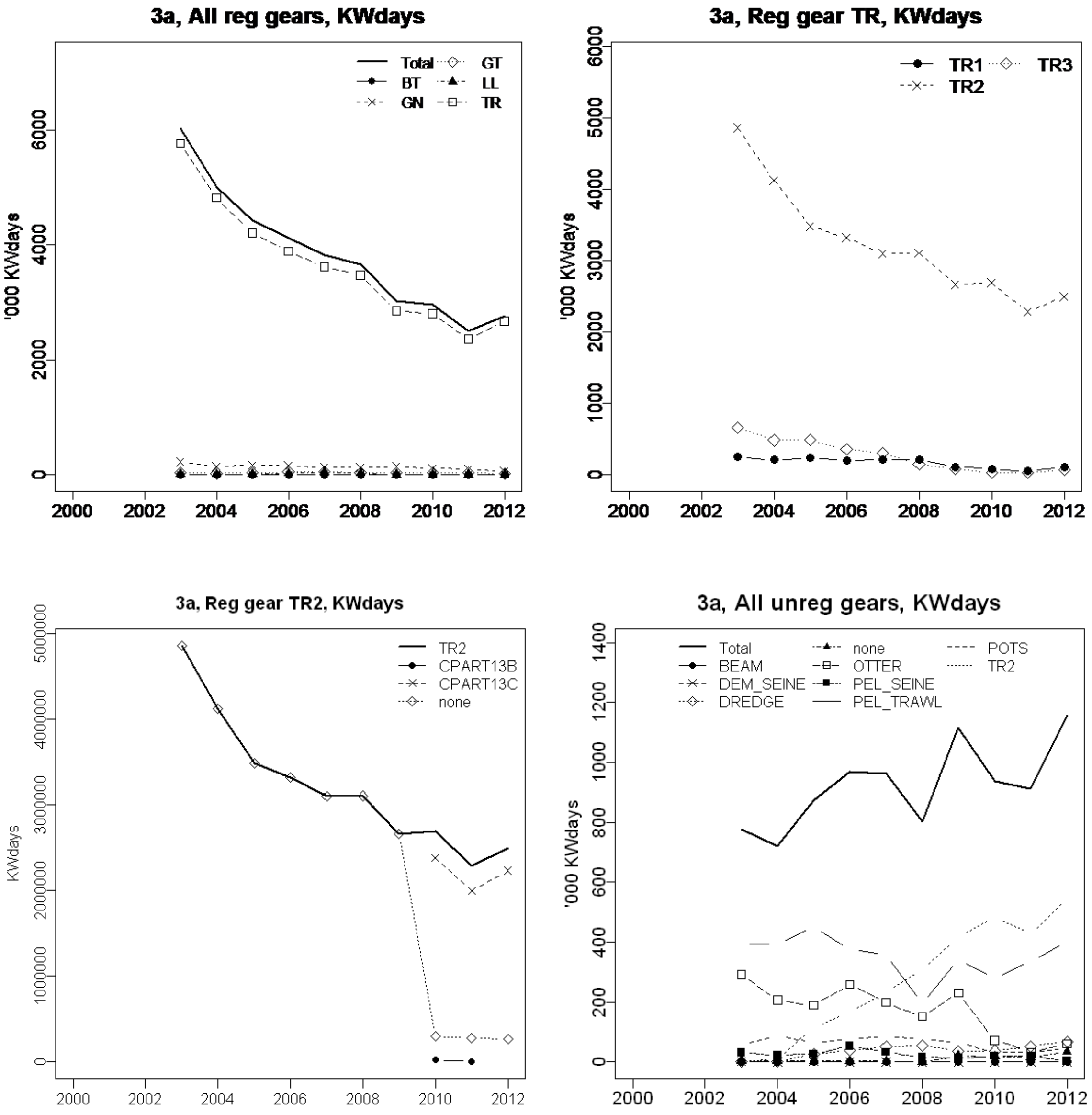


Figure 5.2.1.1. Kattegat: Top left: Trend in nominal effort (Kw *days at sea) by regulated gear types, 2003-2012. TR=Demersal trawl, BT=Beam trawl, GN=Gillnet, GT=Trammel net, LL=Longline. Note that the derogations CPart11 and IIA83b are not included in the TR gear category since they are considered unregulated.

Top right: effort by gear types within gear group TR; TR1=mesh size ≥100mm; TR2=mesh size ≥70, ≤100mm; TR3 ≥16, ≤32 mm. The derogations CPart11 and IIA83b are not included in the TR2 category.

Bottom left: Effort by derogation within gear type TR2. Note that the derogations CPart11 and IIA83b are not included in the TR2 category.

Bottom right: effort by unregulated gear categories. The TR2 effort here is the effort carried out under the derogations IIA83B (2003-2008) and CPart11 (2009-2012).

The effort deployed in Gross tonnage days (GTdays), number of vessels and fishing capacity in kW by metier are not described in this report but can be found on the STECF EWG 13-13 website under the Final Report section: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1306:

Relative changes in data since last submissions:

Since previous year´s data submission Sweden has not made any changes, while Denmark has revised all data, both catch and effort, for the whole time series. The relative change in nominal effort data is presented in Table 5.2.1.4. The largest relative changes in effort are found in unregulated gears that constitutes a small part of the deployed effort in Kattegat in absolute values.

Table 5.2.1.4. Relative change in nominal effort (kW*days at sea) compared to the previous year´s data submissions, by country, gear and vessel length.

ANNEX	REG AREA	REG GEAR COD	COUNTRY	VESSEL_LENGTH	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
IIa	3a	DEM_SEINE	DNK	O10T15M				0								
IIa	3a	DEM_SEINE	DNK	O15M				0		0						
IIa	3a	DREDGE	DNK	O15M	-0.075	-0.924	-0.919	-0.849	-0.934	-0.209	0	0	0	-0.036	0	0
IIa	3a	GN1	DNK	O10T15M	0	-0.003	0	0	0	-0.005	0	-0.002	-0.006	-0.061	-0.049	0
IIa	3a	GN1	DNK	O15M	0	0	0	0	0	-0.019	-0.013	-0.012	-0.009	0.005	0	0
IIa	3a	GT1	DNK	O10T15M	0	-0.012	-0.098	-0.217	0	0	-0.007	-0.016	0	-0.043	-0.065	0
IIa	3a	GT1	DNK	O15M	0.003			0.032		0		0		0	0	0
IIa	3a	LL1	DNK	O10T15M	0		0	0								
IIa	3a	LL1	DNK	O15M		0	0	0	0		0					0
IIa	3a	none	DNK	O10T15M	-0.119	-0.211	-0.017	-0.338	-0.447	-0.871		-0.813	-0.943	-0.969	-0.853	0
IIa	3a	none	DNK	O15M	-0.084	-0.267	-0.719		-0.891	-0.645	-0.83	-0.831				-0.466
IIa	3a	OTTER	DNK	O10T15M	0	0	0	0	0	0	0	0	0	-0.2	0	0
IIa	3a	OTTER	DNK	O15M	-0.003	-0.003	-0.004	0.005	0.001	-0.003	0	-0.011	-0.061	-0.021	-0.075	0.004
IIa	3a	PEL_TRAWL	DNK	O10T15M	0	0	0	0	0	0	0	0	0	-0.235	-0.288	0.089
IIa	3a	PEL_TRAWL	DNK	O15M	0	0	0	0	0.013	0.016	0	0.065	0.028	-0.164	-0.102	0.028
IIa	3a	POTS	DNK	O10T15M				0			0					
IIa	3a	POTS	DNK	O15M	0			0		0	0	0				0
IIa	3a	TR1	DNK	O10T15M	0	0	0.001	-0.001	0.001	-0.013	-0.009	-0.008	-0.002	-0.032	-0.012	0
IIa	3a	TR1	DNK	O15M	-0.001	0.005	0	0	0	-0.009	-0.011	-0.014	-0.041	-0.032	-0.056	0
IIa	3a	TR2	DNK	O10T15M	0	0	0	0	0	-0.001	-0.002	0	0	-0.007		
IIa	3a	TR2	DNK	O15M	0	0	0	0.001	0.002	0	-0.001	0	0	0		
IIa	3a	TR3	DNK	O10T15M	0	0	0	0.002	0.011	0	-0.005	-0.003	0	-0.35	-0.461	0
IIa	3a	TR3	DNK	O15M	-0.005	0	0	0.002	0.003	0	0.005	-0.016	-0.047	-0.174	-0.083	0

5.2.1.1 Uptake of effort baseline

The uptake of effort baselines is presented on Figure 5.2.1.1.1). Care must be taken in the interpretation of this figure, for a number of reasons, including e.g: i) the baseline displayed here is extracted from the TAC and quotas regulations nr 43/2009, 53/2010, 57/2011, 44/2012 and 40/2013, and do not take into account the effort buyback performed by Member states as part of Article 13 and/or other agreements. This information is sometimes publicly available for some Member States, but not for all and STECF EWG 13-13 has not been provided with this information specifically; ii) as described in section 4, the effort information provided to STECF EWG 13-13 by a number of Member States is calculated in calendar days, whereas the actual regulation of effort uptake is based on 24h periods, which can lead to some differences especially in coastal fisheries; iii) STECF data are calculated by calendar year whereas the effort baselines apply from February to January.

All regulated gear categories in Kattegat are well below the effort base line apart from the TR2 fishery, which is the predominant fishery in the area. The TR2 overshoot is probably due a combination of the points mentioned above and particularly the fact that the Danish TR2 fishery, which constituted 89% of the total TR2 nominal effort 2012, is entirely under the derogation CPart13c which allows effort to be bought back by the Member State.

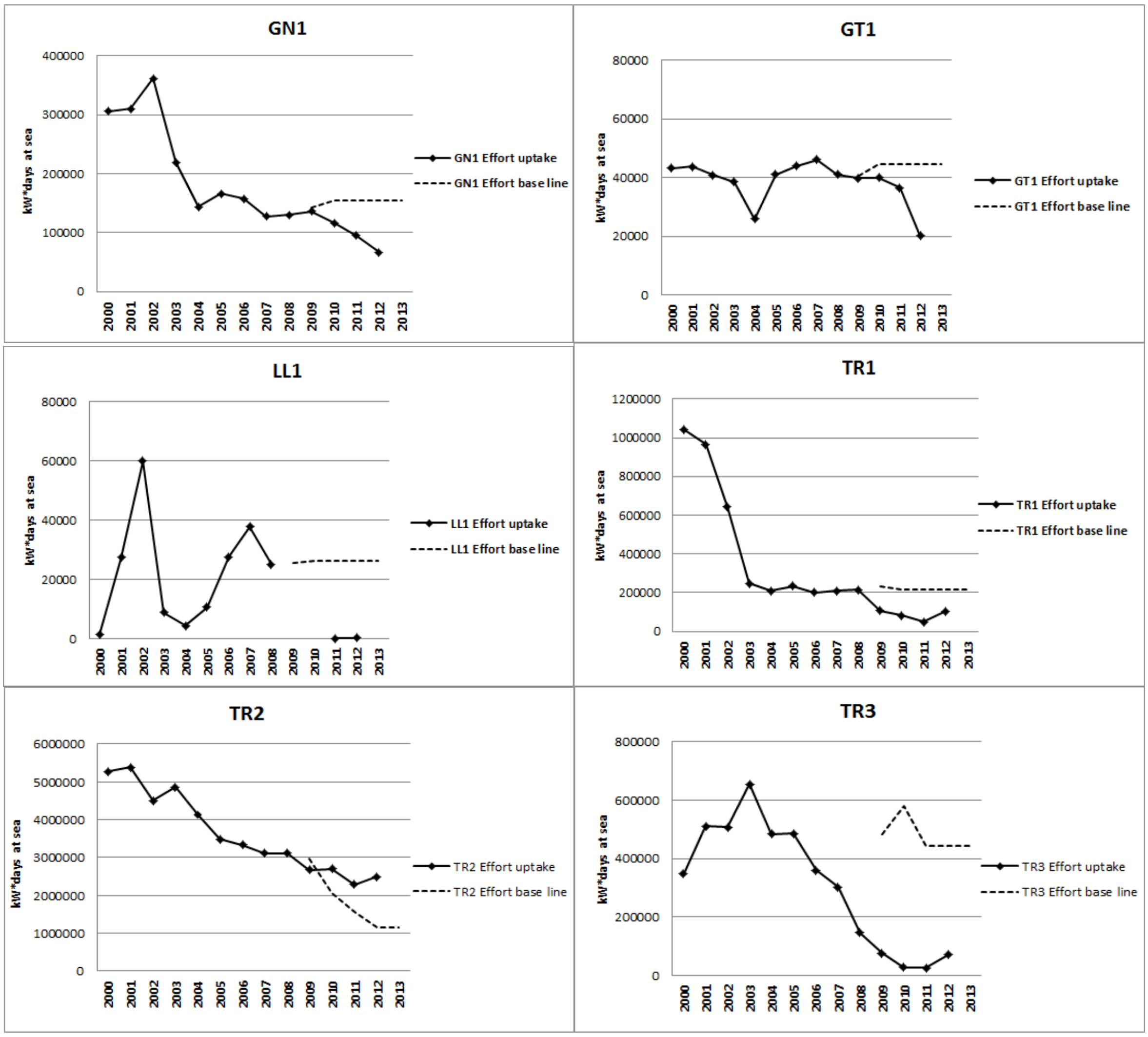


Figure 5.2.1.1.1 Management area 3a, Kattegat. Uptake of effort 2000-2012 by regulated gear category. Solid line=deployed effort in kW*days at sea, dashed line=Effort base line from the TAC and quota regulation for the years 2009-2013.

5.2.2 ToR 1.b and c Catches (landings and discards) of cod and non-cod species in weight and numbers at age by fisheries

STECF EWG 13-13 presents the requested cod and non-cod species in weight by fisheries. Age specific data are not presented here but are available on the internet page of the STECF EWG 13-13: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1306

The total landings of cod in Kattegat, all gears included, have decreased substantially from 2036 tonnes in 2003 to 84 tonnes in 2012, whereof 77 tonnes were taken by regulated gears and 87% were taken by the regulated TR2 gear category. The cod landings taken by gill nets and trammel nets were very small, less than 1 tonne in 2012. The majority of the cod discards are also generated by the TR fishery, 122 tonnes in 2012. The landings of non-cod species in Kattegat have also decreased steadily since 2003, apart from the landings of Nephrops, the main target species in Kattegat in recent years, which have remained quite stable through the whole time series. The landings and discards of the most important species for regulated gears are shown in Table 5.2.2.1a and b.

Pelagic fisheries are not sampled for discards in Kattegat and it is therefore not possible to give a meaningful estimate of pelagic discards. Discards in pelagic fisheries are to the large extent caused by slipping (discarding of the whole catch), which is very difficult to sample since the frequence of slipping events is believed to vary largely between seasons and areas and could also potentially be subject to a significant observer effect.

For the first time the STECF EWG 13-13 report includes an index of discard coverage DQI, by year, gear category, derogation and species, which is presented in Table 5.2.2.9. The criteria of the index are described in section 4.5.

Table 5.2.2.1.a. Kattegat landings (L), discards (D) and discard rate (R) of cod (COD), haddock (HAD), Nephrops (NEP), plaice (PLE), sole (SOL) and whiting (WGH) by regulated gear category and derogation 2003-2007. The derogations CPart11 and IIA83B are considered unregulated and are not included. Landings of the most important species by unregulated gears are shown in Table 5.2.2.3-6.

REG_AREA	REG_GEAR	SPECON	SPECIES	2003 L	2003 D	2003 R	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R
3a	GN1	none	COD	90.712	1357.697	0.937	35.977	199.049	0.847	26.641			25.552			28.81		
3a	GT1	none	COD	20.997	36.509	0.635	14.662	1.491	0.092	6.667			3.187			4.097		
3a	LL1	none	COD	20.064			1.566			0.687			2.649			0.228		
3a	TR1	none	COD	206.984	85.035	0.291	110.844	57.038	0.34	120.203	29.484	0.197	50.902	20.232	0.284	84.996	55.374	0.394
3a	TR2	CPart13B	COD															
3a	TR2	CPart13C	COD															
3a	TR2	none	COD	1618.85	1029.504	0.389	983.038	1152.44	0.54	643.056	485.42	0.43	641.663	821.111	0.561	461.626	440.378	0.488
3a	TR3	none	COD	51.079	55.415	0.52	8.102	57.134	0.876	7.187			2.759			1.08		
Sum of COD landings				2008.686			1154.189			804.441			726.712			580.837		
3a	GN1	none	HAD	5.48			2.614	0.093	0.034	0.115			0.075			0.82		
3a	GT1	none	HAD	0.036			0.02	0.005	0.2	0.278			0.09			0.222		
3a	LL1	none	HAD	0.869									0.045					
3a	TR1	none	HAD	16.866	5.697	0.252	2.262	1.05	0.317	3.883	0.444	0.103	2.749	5.696	0.674	8.84	3.105	0.26
3a	TR2	CPart13B	HAD															
3a	TR2	CPart13C	HAD															
3a	TR2	none	HAD	254.815	87.571	0.256	48.991	111.135	0.694	116.936	37.23	0.241	60.975	158.015	0.722	141.557	27.291	0.162
3a	TR3	none	HAD	44.855	0.143	0.003	0.764	0.112	0.128	0.034			0.038			0.013		
Sum of HAD landings				322.921			54.651			121.246			63.972			151.452		
3a	GN1	none	NEP	0.012	0.178	0.937	0.409	0.287	0.412	0.025			0.056			0.17		
3a	GT1	none	NEP	1.241	1.936	0.609	0	0.015	1	0.786			0.003			0.28		
3a	LL1	none	NEP															
3a	TR1	none	NEP	10.392	29.846	0.742	5.976	2.397	0.286	6.404	3.899	0.378	5.623	10.749	0.657	29.202	34.506	0.542
3a	TR2	CPart13B	NEP															
3a	TR2	CPart13C	NEP															
3a	TR2	none	NEP	1592.15	3657.413	0.697	1610.176	833.378	0.341	1424.215	719.093	0.336	1193.638	644.332	0.351	1583.065	974.173	0.381
3a	TR3	none	NEP	7.303	302.091	0.976	0.248	0.191	0.435	0.297			1.71			0.523		
Sum of NEP landings				1611.098			1616.809			1431.727			1201.03			1613.24		
3a	GN1	none	PLE	115.134	410.255	0.781	114.03	246.979	0.684	77.001			72.264			63.86		
3a	GT1	none	PLE	53.352	240.772	0.819	34.974	45.808	0.567	36.214			44.965			28.538		
3a	LL1	none	PLE	0.003														
3a	TR1	none	PLE	270.782	276.784	0.505	331.451	264.625	0.444	407.52	181.228	0.308	484.57	273.844	0.361	449.194	355.869	0.442
3a	TR2	CPart13B	PLE															
3a	TR2	CPart13C	PLE															
3a	TR2	none	PLE	1601.993	2064.586	0.563	800.15	752.743	0.485	495.556	363.532	0.423	693.635	538.285	0.437	588.122	642.968	0.522
3a	TR3	none	PLE	6.571	215.232	0.97	0.589	3.632	0.86	0.127			0.654			0.395		
Sum of PLE landings				2047.835			1281.194			1016.418			1296.088			1130.109		
3a	GN1	none	SOL	31.977	0	0	32.85	652.861	0.952	109.759			102.533			64.605		
3a	GT1	none	SOL	5.219	0	0	4.336	50.834	0.921	17.111			16.729			15.094		
3a	LL1	none	SOL															
3a	TR1	none	SOL	4.648	19.931	0.811	4.583	1.356	0.228	9.694	0.055	0.006	17.276	0.049	0.003	9.231	0.18	0.019
3a	TR2	CPart13B	SOL															
3a	TR2	CPart13C	SOL															
3a	TR2	none	SOL	127.216	835.283	0.868	163.218	72.403	0.307	249.57	4.042	0.016	270.645	3.17	0.012	215.462	3.393	0.016
3a	TR3	none	SOL	1.045	0	0	0.013	4.545	0.997	0.064			0.041			0.026		
Sum of SOL landings				170.105			205			386.198			407.224			304.418		
3a	GN1	none	WHG	0.025	2.148	0.988	0.123	0.379	0.755	0.068			0.017			0.097		
3a	GT1	none	WHG	0.092	0.138	0.6	0.004	0.02	0.833	0.011			0.067			0.181		
3a	LL1	none	WHG							0.007			0.02			0.002		
3a	TR1	none	WHG	2.402	74.42	0.969	0.302	5.714	0.95	1.388	5.531	0.799	0.288	8.748	0.968	1.9	21.016	0.917
3a	TR2	CPart13B	WHG															
3a	TR2	CPart13C	WHG															
3a	TR2	none	WHG	79.388	3088.033	0.975	81.003	2280.338	0.966	65.84	891.909	0.931	69.387	627.848	0.9	65.269	1001.148	0.939
3a	TR3	none	WHG	0.892	171.157	0.995	0.013	0.106	0.891	0.001						0.01		
Sum of WHG landings				82.799			81.445			67.315			69.779			67.459		

Table 5.2.2.1.b. Kattegat landings (L), discards (D) and discard rate (R) of cod (COD), haddock (HAD), Nephrops (NEP), plaice (PLE), sole (SOL) and whiting (WGH) by regulated gear category and derogation 2008-2012. The derogations CPart11 and IIA83B are considered unregulated and are not included. Landings of the most important species by unregulated gears are shown in Table 5.2.2.3-6.

REG_AREA	REG_GEAR	SPECON	SPECIES	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R
3a	GN1	none	COD	46.62			13.615	100.748	0.881	10.048	4.178	0.294	2.864	35.352	0.925	0.545	0.156	0.223
3a	GT1	none	COD	3.106			1.208	1.312	0.521	0.73	0	0	0.016	0.276	0.945	0.03	0.011	0.268
3a	LL1	none	COD	13.507														
3a	TR1	none	COD	32.749	9.715	0.229	17.437	0.614	0.034	4.078	2.304	0.361	1.522	3.846	0.716	1.989	4.467	0.692
3a	TR2	CPart13B	COD							0.15			0.018					
3a	TR2	CPart13C	COD							85.105	177.723	0.676	81.139	155.18	0.657	49	104.224	0.68
3a	TR2	none	COD	305.275	136.914	0.31	123.781	55.427	0.309	27.336	10.257	0.273	38.127	21.426	0.36	24.263	18.246	0.429
3a	TR3	none	COD	0.283			0.075						0.053			0.74		
Sum of COD landings				401.54			156.116			127.447			123.739			76.567		
3a	GN1	none	HAD	2.239			0.16			0.002	0	0				0.002	0	0
3a	GT1	none	HAD	1.173			0.16			0.014	0	0	0.006					
3a	LL1	none	HAD	0.91														
3a	TR1	none	HAD	6.662	2.264	0.254	5.912	0.472	0.074	0.804	1.21	0.601	0.154	1.056	0.873	0.283	0.311	0.524
3a	TR2	CPart13B	HAD							0.067			0.002					
3a	TR2	CPart13C	HAD							17.512	56.923	0.765	11.067	114.067	0.912	3.929	4.387	0.528
3a	TR2	none	HAD	136.987	35.725	0.207	67.801	46.55	0.407	6.457	5.728	0.47	3.99	2.874	0.419	0.654	11.701	0.947
3a	TR3	none	HAD	0.034									0.003			1.729		
Sum of HAD landings				148.005			74.033			24.856			15.222			6.597		
3a	GN1	none	NEP	0.221			0	0.061	1	0.001	0	0	0.091	0	0			
3a	GT1	none	NEP	0.126			1.15	0.003	0.003	0.002			0.986					
3a	LL1	none	NEP													0.152		
3a	TR1	none	NEP	63.402	41.858	0.398	17.321	10.062	0.367	34.668	17.456	0.335	20.467	17.945	0.467	65.613	94.075	0.589
3a	TR2	CPart13B	NEP							16.387			5.258					
3a	TR2	CPart13C	NEP							1680.755	848.767	0.336	1086.195	1278.643	0.541	1350.869	1972.919	0.594
3a	TR2	none	NEP	1779.912	888.781	0.333	1628.267	1050.76	0.392	133.253	119.169	0.472	101.141	67.138	0.399	112.569	103.012	0.478
3a	TR3	none	NEP	1.096			0.807			0.003			1.097					
Sum of NEP landings				1844.757			1647.545			1865.069			1215.235			1529.203		
3a	GN1	none	PLE	61.128			26.98	9.782	0.266	21.522	4.561	0.175	10.499	18.813	0.642	11.291	5.003	0.307
3a	GT1	none	PLE	39.505			6.626	0.867	0.116	9.976	0.548	0.052	5.714	14.124	0.712	2.689	1.415	0.345
3a	LL1	none	PLE															
3a	TR1	none	PLE	281.734	225.288	0.444	187.133	73.565	0.282	55.411	42.551	0.434	60.669	35.543	0.369	21.831	53.254	0.709
3a	TR2	CPart13B	PLE							1.791			0.166					
3a	TR2	CPart13C	PLE							256.354	1029.602	0.801	202.833	1090.616	0.843	136.954	314.269	0.696
3a	TR2	none	PLE	481.069	294.351	0.38	295.97	606.134	0.672	34.688	94.444	0.731	14.202	59.214	0.807	12.264	16.974	0.581
3a	TR3	none	PLE	0.534			0.191			0.221			0.066			0.257		
Sum of PLE landings				863.97			516.9			379.963			294.149			185.286		
3a	GN1	none	SOL	57.436			72.474	3.129	0.041	58.238	1.762	0.029	60.753	0.678	0.011	26.421	0.202	0.008
3a	GT1	none	SOL	15.818			14.651	0.263	0.018	21.044	0.303	0.014	20.182	0.177	0.009	8.778	0.102	0.011
3a	LL1	none	SOL													0.003		
3a	TR1	none	SOL	6.881	0.748	0.098	2.252	0.231	0.093	1.638	0.683	0.294	0.975	0.157	0.139	4.082	0.042	0.01
3a	TR2	CPart13B	SOL							1.094			0.007					
3a	TR2	CPart13C	SOL							132.504	45.96	0.258	153.813	16.938	0.099	102.579	2.212	0.021
3a	TR2	none	SOL	214.77	12.984	0.057	170.131	15.777	0.085	6.146	0.607	0.09	4.048	0.415	0.093	0.689	2.55	0.787
3a	TR3	none	SOL	0.201			0.147			0.082			0.005					
Sum of SOL landings				295.106			259.655			220.746			239.783			142.552		
3a	GN1	none	WHG	0.356			0	1.089	1	0	0.8	1	0	0.114	1			
3a	GT1	none	WHG	0.175			0	0.092	1	0.012	0.271	0.958	0	0.053	1			
3a	LL1	none	WHG															
3a	TR1	none	WHG	1.506	9.001	0.857	0.359	1.15	0.762	0.116	0.874	0.883	0.006	0.1	0.943	0.009	0.741	0.988
3a	TR2	CPart13B	WHG							0.004			0.003					
3a	TR2	CPart13C	WHG							7.644	305.756	0.976	7.152	288.584	0.976	4.901	124.5	0.962
3a	TR2	none	WHG	40.719	255.159	0.862	22.495	170.373	0.883	6.758	37.712	0.848	5.108	34.651	0.872	1.838	11.653	0.864
3a	TR3	none	WHG	0.001			0.001									22.77		
Sum of WHG landings				42.757			22.855			14.534			12.269			29.518		

Detailed information by country is downloadable and provided on the STECF EWG 13-13 website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

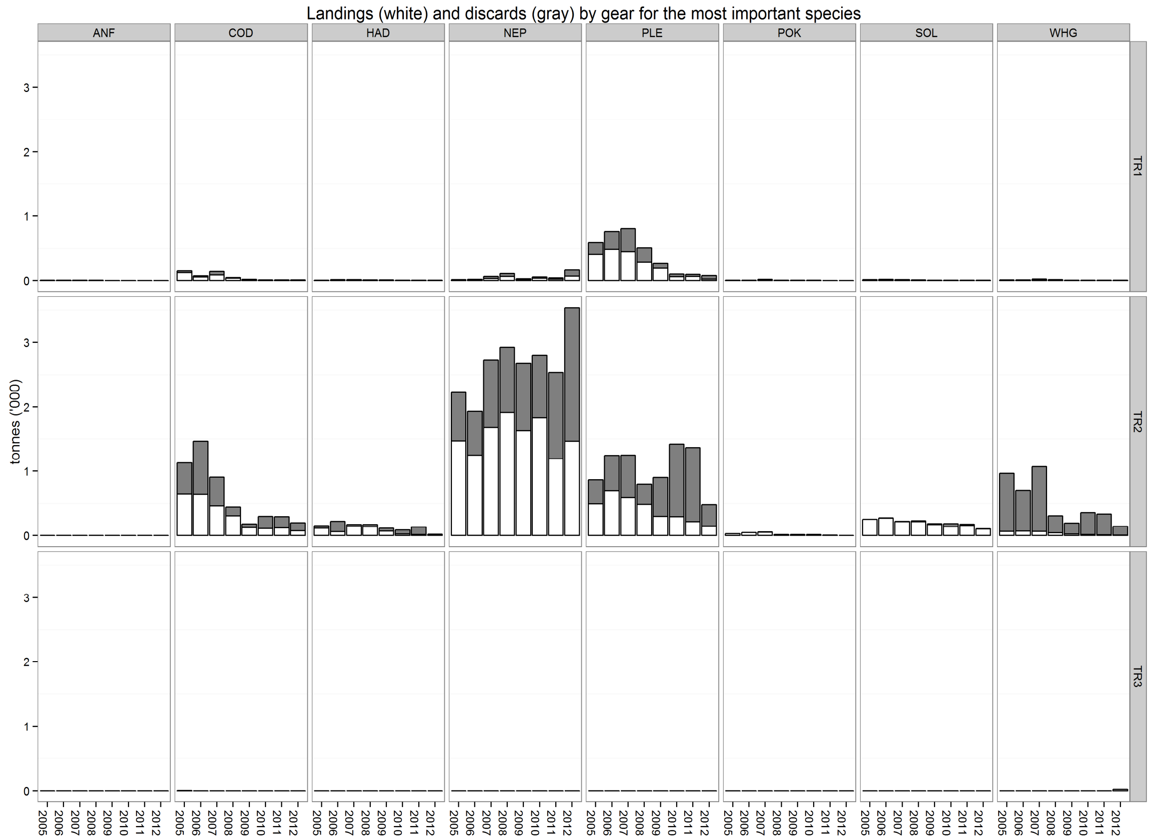


Figure 5.2.2.2. Landings (white) and discards (grey) in tonnes by the regulated gear categories TR1, TR2 and TR3 and by species in Kattegat 2005-2012. The derogations CPart11 and IIA83b are not included in the TR2 gear category above, since they are considered unregulated.

Table 5.2.2.3 Unregulated gears, landings (t) of cod in Kattegat 2003-2012. Discards for unregulated gears are not sampled for discards in Kattegat except for the Swedish sorting grid, derogation CPart11. The discards of cod for the derogation CPart11 in 2012 were 12,1 tonnes.

REG_AREA	COUNTRY	REG_GEAR	SPECON	SPECIES	2003 L	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L
3a	DNK	DEM_SEINE	none	COD	0.8	0	0	0	0	0	0	0	0	0
3a	DNK	none	none	COD	6.4	3.0	5.7	10.2	1.1	0.1	0.2	0	0.3	0.4
3a	DNK	OTTER	none	COD	16.9	8.0	7.6	13.9	0.6	0	0.0	0.2	0	0
3a	DNK	PEL_TRAWL	none	COD	2.0	3.8	5.0	5.0	0.4	0.1	0.1	0.1	0.2	3.8
3a	DNK	POTS	none	COD	0	0	0	0	0	0	0	0	0	0
3a	SWE	none	none	COD	0	0	0	0	0	0	0	0	0.3	0
3a	SWE	OTTER	none	COD	1.8	0.6	4.9	4.5	4.6	4.4	8.7	3.2	1.1	2.9
3a	SWE	PEL_TRAWL	none	COD	0	0	0	0	3.6	0	0	0	0	0
3a	SWE	POTS	none	COD	0	0	0	0	0	0	0	0	0	0
3a	SWE	TR2	CPART11	COD	0	0	0	0	0	0	0.1	0.2	0.4	0.1
3a	SWE	TR2	IIA83b	COD	0	0	0.3	0	0.3	0.2	0	0	0	0
Total					28.1	15.5	23.6	33.7	10.7	5.0	9.3	3.8	2.4	7.4

Table 5.2.2.4 Unregulated gears, landings (t) of plaice in Kattegat 2003-2012. Discards for unregulated gears are not sampled for discards in Kattegat except for the Swedish sorting grid, derogation CPart11. The discards of plaice for the derogation CPart11 in 2012 were 19 tonnes.

REG_AREA	COUNTRY	REG_GEAR	SPECON	SPECIES	2003 L	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L
3a	DEU	OTTER	none	PLE	0	0	0	0	0	0	0	0	0	0
3a	DNK	DEM_SEINE	none	PLE	0.3		0.7	0	0	0	0	0	0	0
3a	DNK	none	none	PLE	24.0	11.1	1.3	3.9	7.2	1.8	0.6	0.7	0.3	1.6
3a	DNK	OTTER	none	PLE	0.9	0.2	0.6	4.4	1.6	0.6	0.4	0.3	0.1	0
3a	DNK	PEL_TRAWL	none	PLE	0.5	0.3	0.0	0.5	0.2	0.1	0.1	0.1	0	1.2
3a	DNK	POTS	none	PLE	0.04	0	0	0	0	0	0	0	0.03	0
3a	SWE	OTTER	NONE	PLE	0.1	0	0.1	0.8	0.7	1.1	3.2	1.9	0.1	0.2
3a	SWE	TR2	CPART11	PLE	0	0	0	0	0	0	3.2	2.8	1.2	1.0
3a	SWE	TR2	IIA83b	PLE	0	0	0.1	0.3	0.7	1.7	0	0	0	0
Total					25.8	11.6	2.9	9.9	10.4	5.2	7.6	5.8	1.7	4.1

Table 5.2.2.5 Unregulated gears, landings of sole in Kattegat 2003-2012. Discards for unregulated gears are not sampled for discards in Kattegat except for the Swedish sorting grid, derogation CPart11. The discards of sole for the derogation CPart11 in 2012 were 4,6 tonnes.

REG_AREA	COUNTRY	REG_GEAR	SPECON	SPECIES	2003 L	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L
3a	DEU	OTTER	none	SOL	0	0	0	0.1	0	0	0	0	0	0
3a	DNK	DEM_SEINE	none	SOL	0	0	0	0	0	0	0	0	0	0
3a	DNK	none	none	SOL	2.2	1.3	2.4	2.2	2.7	1.3	0.2	0.1	0.2	1.8
3a	DNK	OTTER	none	SOL	0.3	0	0.3	1.5	0.3	0.1	0.2	0.1	0.1	0
3a	DNK	PEL_TRAWL	none	SOL	0	0.2	0	0	0	0	0	0.1	0	0
3a	DNK	POTS	none	SOL	0.4	0	0	0	0	0	0	0	0.01	0
3a	SWE	OTTER	none	SOL	0	0.01	0	0	0.03	0	0.02	0	0	0
3a	SWE	TR2	CPART11	SOL	0	0	0	0	0	0	0.8	1.7	1.5	0.4
3a	SWE	TR2	IIA83b	SOL	0	0	0.5	0.5	0.8	0.9	0	0	0	0
Total					2.9	1.5	3.2	4.2	3.8	2.3	1.2	1.9	1.9	2.2

Table 5.2.2.6 Unregulated gears, landings of Nephrops in Kattegat 2003-2012. Discards for unregulated gears are not sampled for discards in Kattegat except for the Swedish sorting grid, derogation CPart11. The discards of Nephrops for the derogation CPart11 in 2012 were 227 tonnes.

REG_AREA	COUNTRY	REG_GEAR	SPECON	SPECIES	2003 L	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L
3a	DEU	OTTER	none	NEP	0	0	0	0	0	0	0	0	0	0
3a	DNK	none	none	NEP	2.0	2.1	1.9	6.2	4.5	2.0	1.9	0.7	0.9	6.0
3a	DNK	OTTER	none	NEP	2.2	0.7	1.2	1.3	0.3	0.7	1.6	1.9	0.7	0
3a	DNK	PEL_TRAWL	none	NEP	6.9	0.5	0.1	1.5	0	0.8	0.1	0.9	0	0
3a	DNK	POTS	none	NEP	0.3	0	0	0	0	0	0	0	0	0
3a	SWE	OTTER	none	NEP	0.1	0	0.1	0.4	0.2	0.4	1.4	0.3	0	0.1
3a	SWE	POTS	none	NEP	1.8	7.3	3.9	6.4	9.9	9.9	8.0	5.8	4.7	8.5
3a	SWE	TR2	CPART11	NEP	0	0	0	0	0	0	240.9	264.0	202.2	274.4
3a	SWE	TR2	IIA83b	NEP	0	2.9	46.2	51.3	95.5	129.3	0	0	0	0
Total					13.2	13.4	53.5	67.1	110.3	143.2	253.8	273.6	208.5	288.9

Relative changes in catch data since last submissions:

Since previous year´s data submission Sweden has not made any changes, while Denmark has revised all data, both catch and effort, for the whole time series. The relative change in landings and discards for the most important species is presented in Table 5.2.2.7 and 5.2.2.8 respectively.

Table 5.2.2.7. Relative change in landings compared to the previous year´s data submissions, by country, regulated gear category and vessel length, for cod (COD), haddock (HAD), Nephrops (NEP), plaice (PLE), sole (SOL) and whiting (WHG).

REG_AREA	COUNTRY	REG_GEAR	VESSEL_LENGTH	SPECON	SPECIES	2003 L	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L
3a	DNK	GN1	o10t15m	none	COD	0.041	0.011	0.039	0.038	0.042	0.04	0.042	0.034	0.043
3a	DNK	GN1	o15m	none	COD	0.041	0.043	-0.504	0.035	0.047	0.037	0.059		0.044
3a	DNK	GT1	o10t15m	none	COD	0.033	0.041	0.047	0.031	0.039	0.041	0.045	0.04	0.136
3a	DNK	GT1	o15m	none	COD	0.023		0.048				0.036		
3a	DNK	LL1	o10t15m	none	COD	0.047								
3a	DNK	LL1	o15m	none	COD	0.038	0.041							
3a	DNK	TR1	o10t15m	none	COD	0.039	0.035	0.048	0.041	0.041	0.039	0.037	0.037	0.035
3a	DNK	TR1	o15m	none	COD	0.036	0.039	0.034	0.039	0.04	0.039	0.038	0.04	0.038
3a	DNK	TR2	o10t15m	none	COD	0.038	0.041	0.037	0.038	0.04	0.037	0.037		
3a	DNK	TR2	o15m	none	COD	0.035	0.041	0.039	0.037	0.039	0.037	0.029		
3a	DNK	TR3	o10t15m	none	COD	-0.404	-0.133	-0.019	-0.83	0.038	-0.708	0.03		0.053
3a	DNK	TR3	o15m	none	COD	-0.354	-0.703	-0.569	-0.934	-0.88	-0.99	-0.296		
3a	DNK	GN1	o10t15m	none	HAD	0.042	0.085	0.039	0.025	0.033	0.469	0.045	0.005	
3a	DNK	GN1	o15m	none	HAD	0.043	0.126			-0.153				
3a	DNK	GT1	o10t15m	none	HAD			0.059				0.045	0.088	
3a	DNK	GT1	o15m	none	HAD			-0.153				-0.259		0.026
3a	DNK	LL1	o10t15m	none	HAD	0.695								
3a	DNK	LL1	o15m	none	HAD	0.042								
3a	DNK	TR1	o10t15m	none	HAD	0.045	0.05	0.119	0.029	0.04	0.07	0.047	0.036	0.048
3a	DNK	TR1	o15m	none	HAD	0.043	0.039	0.037	0.065	0.041	0.072	0.037	0.045	-0.363
3a	DNK	TR2	o10t15m	none	HAD	0.043	0.042	0.038	0.032	0.035	0.041	0.043		
3a	DNK	TR2	o15m	none	HAD	0.043	0.044	0.038	0.034	0.036	0.041	0.043		
3a	DNK	TR3	o10t15m	none	HAD	0.078	-0.983				0.029			0.024
3a	DNK	TR3	o15m	none	HAD	-0.37	-0.945	-0.994	0.039	-0.992				
3a	DNK	GN1	o10t15m	none	NEP	-0.075	-0.002	0.004	0.01		0.002		1	0.22
3a	DNK	GN1	o15m	none	NEP		-0.002		0	0.003				-0.267
3a	DNK	GT1	o10t15m	none	NEP	0		0		-0.002		-0.001		0.092
3a	DNK	GT1	o15m	none	NEP	0		0		0		0		-0.346
3a	DNK	TR1	o10t15m	none	NEP	0	-0.019	0.001	0.002	-0.003	0.001	-0.004	-0.003	-0.001
3a	DNK	TR1	o15m	none	NEP	0	-0.005	-0.009	0.036	-0.003	0	-0.006	-0.004	0.005
3a	DNK	TR2	o10t15m	none	NEP	0	-0.001	-0.001	-0.001	0	0	0		
3a	DNK	TR2	o15m	none	NEP	0	0.001	0.001	0	0	0	0.001		
3a	DNK	TR3	o10t15m	none	NEP	-0.002		0.004	-0.106	0	0	0	0	0
3a	DNK	TR3	o15m	none	NEP	-0.35	-0.278	-0.85	-0.043	0.022	0	0.001		0
3a	DNK	GN1	o10t15m	none	PLE	0.047	0.042	0.044	0.035	0.035	0.037	0.04	0.031	0.034
3a	DNK	GN1	o15m	none	PLE	0.048	0.044	0.084	0.038	0.035	0.038	0.048	0.03	0.032
3a	DNK	GT1	o10t15m	none	PLE	-0.586	0.049	0.012	0.033	0.166	0.037	0.054	0.043	0.032
3a	DNK	GT1	o15m	none	PLE	0.05		0.042		0.19		0.035	0.032	0.032
3a	DNK	LL1	o10t15m	none	PLE	0.435								
3a	DNK	TR1	o10t15m	none	PLE	0.049	0.049	0.041	0.036	0.035	0.038	0.029	0.022	0.034
3a	DNK	TR1	o15m	none	PLE	0.049	0.047	0.041	0.036	0.036	0.038	0.041	0.045	0.034
3a	DNK	TR2	o10t15m	none	PLE	0.046	0.044	0.041	0.036	0.035	0.037	0.037		
3a	DNK	TR2	o15m	none	PLE	0.047	0.045	0.04	0.035	0.036	0.039	0.036		
3a	DNK	TR3	o10t15m	none	PLE	-0.093	0.905	0.114	-0.065	0.037	0.039	0.038	0.032	0.032
3a	DNK	TR3	o15m	none	PLE	-0.656	-0.936	-0.984	-0.608	-0.983	0.034	-0.06		-0.024
3a	DNK	GN1	o10t15m	none	SOL	0.025	-0.013	0.03	0.027	0.034	0.013	0.033	0.03	0.042
3a	DNK	GN1	o15m	none	SOL	0.028	0.015	0.043	0.032	0.034	0.02	0.035	0.021	0.042
3a	DNK	GT1	o10t15m	none	SOL	-0.073	0.019	0.024	0.021	0.034	0.02	0.031	0.038	0.046
3a	DNK	GT1	o15m	none	SOL	0.026		0.027				0.026	0.017	0.03
3a	DNK	TR1	o10t15m	none	SOL	0.015	0.016	0.019	0.031	0.037	0.019	0.037	0.028	0.051
3a	DNK	TR1	o15m	none	SOL	0.023	0.019	0.03	0.028	0.035	0.019	0.03	0.027	0.038
3a	DNK	TR2	o10t15m	none	SOL	0.021	0.021	0.024	0.027	0.035	0.02	0.029		
3a	DNK	TR2	o15m	none	SOL	0.021	0.022	0.024	0.024	0.034	0.02	0.029		
3a	DNK	TR3	o10t15m	none	SOL	0.017	0.923	0.064	-0.488	0.032	0.024	0.023	0.018	-0.196
3a	DNK	TR3	o15m	none	SOL	-0.002	2.458	-0.024	-0.019		-0.039			-0.02
3a	DNK	GN1	o10t15m	none	WHG	-0.295	-1	-0.003	-0.038					
3a	DNK	GN1	o15m	none	WHG	-0.153	-0.01		0.059					
3a	DNK	GT1	o10t15m	none	WHG			0.695		-0.153		-1	-0.153	
3a	DNK	GT1	o15m	none	WHG	-0.997								
3a	DNK	TR1	o10t15m	none	WHG	0.015	-0.985	-0.002	-0.033	0.068	0.044	-0.95	-0.194	
3a	DNK	TR1	o15m	none	WHG	-0.505	-0.916	-0.925	-0.008	0.018	0.106	-1		-0.121
3a	DNK	TR2	o10t15m	none	WHG	-0.02	0.001	0	0.006	0.003	0	-0.001		
3a	DNK	TR2	o15m	none	WHG	-0.215	-0.019	-0.031	-0.315	-0.002	-0.176	-0.001		
3a	DNK	TR3	o10t15m	none	WHG	-0.997								
3a	DNK	TR3	o15m	none	WHG	-0.998	-1	-1		-1	-1	-1		

Table 5.2.2.7. Relative change in discards compared to the previous year´s data submissions, by country, regulated gear category and vessel length, for cod (COD), haddock (HAD), Nephrops (NEP), plaice (PLE) and sole (SOL).

ANNEX	REG_AREA	COUNTRY	REG_GEAR	VESSEL_LENGTH	SPECON	SPECIES	2003 D	2004 D	2005 D	2006 D	2007 D	2008 D	2009 D	2010 D	2011 D
IIa	3a	DNK	GN1	o10t15m	none	COD									
IIa	3a	DNK	GN1	o15m	none	COD									
IIa	3a	DNK	GT1	o10t15m	none	COD									
IIa	3a	DNK	GT1	o15m	none	COD									
IIa	3a	DNK	LL1	o10t15m	none	COD									
IIa	3a	DNK	LL1	o15m	none	COD									
IIa	3a	DNK	TR1	o10t15m	none	COD	0.459	-0.421	-0.478	1.028	0.535	3.08	-0.978		
IIa	3a	DNK	TR1	o15m	none	COD	0.828	-0.51	-0.695	0.712	0.025		-0.971		
IIa	3a	DNK	TR2	o10t15m	none	COD	1.965	8.073	405.745	620.188	319.91	3.11	2.84		
IIa	3a	DNK	TR2	o15m	none	COD	0.374	-0.1	-0.292	0.116	-0.123	-0.442	-0.566		
IIa	3a	DNK	TR3	o10t15m	none	COD									
IIa	3a	DNK	TR3	o15m	none	COD									
IIa	3a	DNK	GN1	o10t15m	none	HAD									
IIa	3a	DNK	GN1	o15m	none	HAD									
IIa	3a	DNK	GT1	o10t15m	none	HAD									
IIa	3a	DNK	GT1	o15m	none	HAD									
IIa	3a	DNK	LL1	o10t15m	none	HAD									
IIa	3a	DNK	LL1	o15m	none	HAD									
IIa	3a	DNK	TR1	o10t15m	none	HAD	-0.157	-0.72	-0.95	0.178	-0.795	-0.375		-0.218	
IIa	3a	DNK	TR1	o15m	none	HAD	-0.033	-0.93	-0.995	-0.257	-0.295				
IIa	3a	DNK	TR2	o10t15m	none	HAD	0.468	-0.197	-0.734	1.438	-0.906	-0.648	0.541		
IIa	3a	DNK	TR2	o15m	none	HAD	1.956	-0.649	-0.59	1.661	-0.844	-0.359	0.83		
IIa	3a	DNK	TR3	o10t15m	none	HAD									
IIa	3a	DNK	TR3	o15m	none	HAD									
IIa	3a	DNK	GN1	o10t15m	none	NEP									
IIa	3a	DNK	GN1	o15m	none	NEP									
IIa	3a	DNK	GT1	o10t15m	none	NEP									
IIa	3a	DNK	GT1	o15m	none	NEP									
IIa	3a	DNK	TR1	o10t15m	none	NEP		-0.531			-0.953	-0.86	-0.212	-0.484	
IIa	3a	DNK	TR1	o15m	none	NEP	19.221	0.412			-0.948	-0.986	-0.472	-0.576	
IIa	3a	DNK	TR2	o10t15m	none	NEP	5.97	-0.542	-0.719	-0.716	-0.756	-0.872	-0.117		
IIa	3a	DNK	TR2	o15m	none	NEP	4.67	0.57	1.162	1.031	0.47	-0.153	0.53		
IIa	3a	DNK	TR3	o10t15m	none	NEP									
IIa	3a	DNK	TR3	o15m	none	NEP									
IIa	3a	DNK	GN1	o10t15m	none	PLE									
IIa	3a	DNK	GN1	o15m	none	PLE									
IIa	3a	DNK	GT1	o10t15m	none	PLE									
IIa	3a	DNK	GT1	o15m	none	PLE									
IIa	3a	DNK	LL1	o10t15m	none	PLE									
IIa	3a	DNK	TR1	o10t15m	none	PLE	-0.497	1.456	0.087	0.533	0.388	1.274	0.059	-0.635	
IIa	3a	DNK	TR1	o15m	none	PLE	-0.85	0.548	-0.013	0.448	0.971	1.396	0.003	-0.884	
IIa	3a	DNK	TR2	o10t15m	none	PLE	-0.326	1.848	15.863	20.595	42.089	23.125	6.365		
IIa	3a	DNK	TR2	o15m	none	PLE	-0.397	-0.491	-0.507	-0.03	-0.214	-0.301	0.377		
IIa	3a	DNK	TR3	o10t15m	none	PLE									
IIa	3a	DNK	TR3	o15m	none	PLE									
IIa	3a	DNK	GN1	o10t15m	none	SOL									
IIa	3a	DNK	GN1	o15m	none	SOL									
IIa	3a	DNK	GT1	o10t15m	none	SOL									
IIa	3a	DNK	GT1	o15m	none	SOL									
IIa	3a	DNK	TR1	o10t15m	none	SOL	10.573				-0.986				
IIa	3a	DNK	TR1	o15m	none	SOL	7.165				-0.978				
IIa	3a	DNK	TR2	o10t15m	none	SOL	-0.912	11.104	-0.908	-0.315	1.116	-0.562	5.036		
IIa	3a	DNK	TR2	o15m	none	SOL	-0.908	-0.31	-0.926	-0.961	-0.936	-0.294	0.177		
IIa	3a	DNK	TR3	o10t15m	none	SOL									
IIa	3a	DNK	TR3	o15m	none	SOL									
IIa	3a	DNK	GN1	o10t15m	none	WHG									
IIa	3a	DNK	GN1	o15m	none	WHG									
IIa	3a	DNK	GT1	o10t15m	none	WHG									
IIa	3a	DNK	GT1	o15m	none	WHG									
IIa	3a	DNK	TR1	o10t15m	none	WHG	86.128	25.308	1.187				-0.954		
IIa	3a	DNK	TR1	o15m	none	WHG	6.786	-0.747	-0.944	2772.03					
IIa	3a	DNK	TR2	o10t15m	none	WHG	4.205	14.655	22.567	0.418	986.116	255.865	27.827		
IIa	3a	DNK	TR2	o15m	none	WHG	0.515	-0.209	-0.139	-0.414	0.297	-0.643	-0.197		
IIa	3a	DNK	TR3	o10t15m	none	WHG									
IIa	3a	DNK	TR3	o15m	none	WHG									

Table 5.2.2.9. Kattegat Index of Discard Coverage (DQI) for cod (COD), Nephrops (NEP), plaice (PLE), sole (SOL) and whiting (WHG) by regulated gear category and derogation 2003-2012. The derogations CPart11 and IIA83B are considered unregulated and are not included. A≥67% of landings are covered with discard estimates, B≥34% and ≤66% of the landings are covered with discard estimates, C≤33% of the landings are covered with discard estimates.

ANNEX	REG_AREA	REG_GEAR	SPECON	SPECIES	2003 DQI	2004 DQI	2005 DQI	2006 DQI	2007 DQI	2008 DQI	2009 DQI	2010 DQI	2011 DQI	2012 DQI
IIa	3a	GN1	none	COD	C	C					C	A	C	A
IIa	3a	GT1	none	COD	C	C					C	A	C	C
IIa	3a	LL1	none	COD										
IIa	3a	TR1	none	COD	A	A	A	A	B	A	A	A	A	C
IIa	3a	TR2	CPart13B	COD										
IIa	3a	TR2	CPart13C	COD								A	A	A
IIa	3a	TR2	none	COD	A	A	A	A	A	A	A	A	A	A
IIa	3a	TR3	none	COD	C	C								
IIa	3a	GN1	none	HAD		C						A		A
IIa	3a	GT1	none	HAD		C						A		
IIa	3a	LL1	none	HAD										
IIa	3a	TR1	none	HAD	A	A	A	A	B	A	A	A	A	C
IIa	3a	TR2	CPart13B	HAD										
IIa	3a	TR2	CPart13C	HAD								A	A	A
IIa	3a	TR2	none	HAD	A	A	A	A	A	A	A	A	A	A
IIa	3a	TR3	none	HAD	C	C								
IIa	3a	GN1	none	NEP	C	C					A	A	C	
IIa	3a	GT1	none	NEP	B	A					C			
IIa	3a	LL1	none	NEP										
IIa	3a	TR1	none	NEP	A	A	A	A	A	A	A	A	A	B
IIa	3a	TR2	CPart13B	NEP										
IIa	3a	TR2	CPart13C	NEP								A	A	A
IIa	3a	TR2	none	NEP	B	A	A	A	A	A	A	A	A	A
IIa	3a	TR3	none	NEP	A	B								
IIa	3a	GN1	none	PLE	C	C					B	A	B	A
IIa	3a	GT1	none	PLE	C	C					B	A	C	C
IIa	3a	LL1	none	PLE										
IIa	3a	TR1	none	PLE	A	A	A	A	C	A	A	A	A	C
IIa	3a	TR2	CPart13B	PLE										
IIa	3a	TR2	CPart13C	PLE								A	A	A
IIa	3a	TR2	none	PLE	A	A	A	A	A	A	A	A	A	A
IIa	3a	TR3	none	PLE	B	B								
IIa	3a	GN1	none	SOL	C	C					B	B	C	C
IIa	3a	GT1	none	SOL	C	C					B	C	C	C
IIa	3a	LL1	none	SOL										
IIa	3a	TR1	none	SOL	A	A	A	A	A	A	A	A	A	C
IIa	3a	TR2	CPart13B	SOL										
IIa	3a	TR2	CPart13C	SOL								A	A	A
IIa	3a	TR2	none	SOL	A	A	A	A	A	A	A	A	A	B
IIa	3a	TR3	none	SOL	C	A								
IIa	3a	GN1	none	WHG	C	C					A	A	A	
IIa	3a	GT1	none	WHG	C	C					A	C	A	
IIa	3a	LL1	none	WHG										
IIa	3a	TR1	none	WHG	A	A	A	A	A	A	A	A	C	A
IIa	3a	TR2	CPart13B	WHG										
IIa	3a	TR2	CPart13C	WHG								A	A	A
IIa	3a	TR2	none	WHG	A	B	A	A	A	A	A	A	A	A
IIa	3a	TR3	none	WHG	C	C								

5.2.3 ToR 1.d CPUE and LPUE of cod by fisheries and Member States

STECF EWG 13-13 presents the estimated trends in CPUE and LPUE for cod, plaice and sole in figures and tables below. CPUE and LPUE by gear and Member State is not presented in this report but can be found on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1306

The very high CPUE values for gillnets (GN1) and trammel nets (GT1) in 2003 and 2004 are due to a very high discard rate for those gears and is believed to be the result of poor discard estimates, which is also reflected in the Index of Discard Coverage (shown in Table 5.2.2.9).

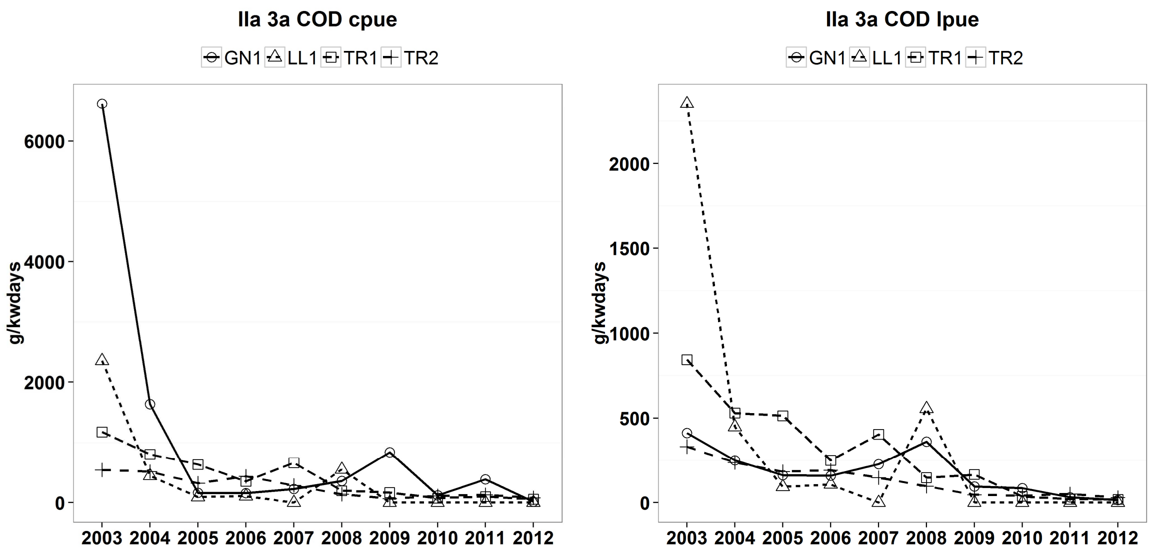


Figure 5.2.3.1 Left: CPUE (g/kWday) of cod by gear category (no special conditions) 2003-2012. Right: LPUE (g/kWday) of cod by gear category 2003-2012. CPUE and LPUE for the derogations CPart11 and IIA83b are not included in the TR2 gear category in this figure. Note that the scale on the y-axis differs between the panels.

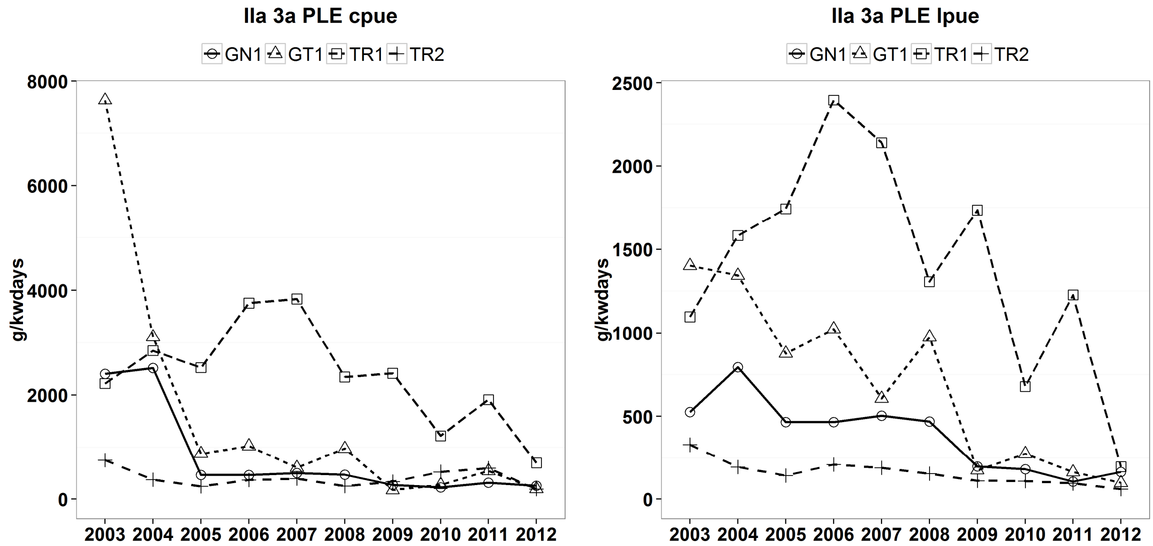


Figure 5.2.3.2 Left: CPUE (g/kWday) of plaice by gear category (no special condition) 2003-2012. Right: LPUE (g/kWday) of plaice by gear category 2003-2012. CPUE and LPUE for the derogations CPart11 and IIA83b are not included in the TR2 gear category in this figure. Note that the scale on the y-axis differs between the panels.

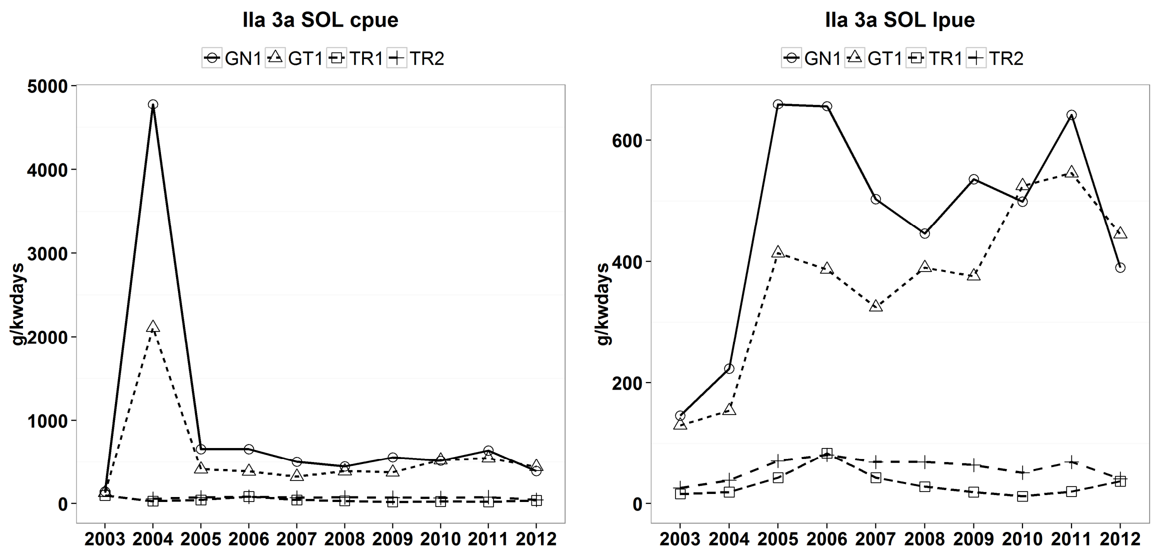


Figure 5.2.3.3 Left: CPUE (g/kWday)of sole by gear category (no special condition) 2003-2012. Right: LPUE (g/kWday) of sole by gear category 2003-2011. CPUE and LPUE for the derogations CPart11 and

IIA83b are not included in the TR2 gear category in this figure. Note that the scale on the y-axis differs between the panels.

Table 5.2.3.1. CPUE (g/kWd) of cod (COD), Nephrops (NEP), sole (SOL) and plaice (PLE) by regulated gear and derogation in Kattegat 2003-2012. The derogation CPart11/IIa83b is not included in the TR2 CPUE, since it is considered an unregulated gear.

ANNEX	SPECIES	REG AREA	REG GEAR	SPECON	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012	CPUE 2010-2012
IIa	COD	3a	GN1	none	6622	1636	163	159	228	361	844	120	389	15	187
IIa	COD	3a	GT1	none	1480	614	171	68	87	73	50	0	0	0	0
IIa	COD	3a	LL1	none	2353	449	94	108	0	555	0	0	0	0	0
IIa	COD	3a	TR1	none	1178	808	638	356	667	199	167	74	101	57	72
IIa	COD	3a	TR2	CPart13B	0	0	0	0	0	0	0	0	0	0	0
IIa	COD	3a	TR2	CPart13C	0	0	0	0	0	0	0	111	118	69	99
IIa	COD	3a	TR2	none	545	518	324	440	290	142	67	129	210	164	167
IIa	COD	3a	TR3	none	162	134	14	8	3	0	0	0	0	14	8
IIa	NEP	3a	GN1	none	0	0	0	0	0	0	0	0	0	0	0
IIa	NEP	3a	GT1	none	78	0	24	0	0	0	25	0	27	0	10
IIa	NEP	3a	LL1	none							0	0	0	0	0
IIa	NEP	3a	TR1	none	166	38	47	79	300	487	260	641	785	1510	1059
IIa	NEP	3a	TR2	CPart13B	0	0	0	0	0	0	0	799	1196	0	868
IIa	NEP	3a	TR2	CPart13C	0	0	0	0	0	0	0	1063	1182	1488	1243
IIa	NEP	3a	TR2	none	1079	592	615	553	823	859	1005	857	597	822	759
IIa	NEP	3a	TR3	none	471	0	0	6	0	7	0	0	39	0	8
IIa	PLE	3a	GN1	none	2401	2513	465	465	503	469	271	223	315	255	262
IIa	PLE	3a	GT1	none	7632	3110	877	1024	607	975	175	275	546	198	361
IIa	PLE	3a	LL1	none	0						0	0	0	0	0
IIa	PLE	3a	TR1	none	2219	2848	2523	3756	3835	2345	2413	1220	1912	712	1139
IIa	PLE	3a	TR2	CPart13B	0	0	0	0	0	0	0	100	0	0	83
IIa	PLE	3a	TR2	CPart13C	0	0	0	0	0	0	0	541	647	202	458
IIa	PLE	3a	TR2	none	754	376	246	371	397	250	339	440	263	110	278
IIa	PLE	3a	TR3	none	339	8	0	3	0	0	0	0	0	0	0
IIa	SOL	3a	GN1	none	146	4776	659	656	503	446	558	516	641	390	528
IIa	SOL	3a	GT1	none	130	2112	414	387	325	390	376	525	546	445	516
IIa	SOL	3a	LL1	none							0	0	0	0	0
IIa	SOL	3a	TR1	none	97	29	43	84	43	32	19	25	20	38	30
IIa	SOL	3a	TR2	CPart13B	0	0	0	0	0	0	0	50	0	0	41
IIa	SOL	3a	TR2	CPart13C	0	0	0	0	0	0	0	75	85	47	69
IIa	SOL	3a	TR2	none	198	57	73	82	71	73	70	24	14	15	18
IIa	SOL	3a	TR3	none	2	10	0	0	0	0	0	0	0	0	0

Table 5.2.3.2 LPUE (g/kWd) of cod (COD), Nephrops (NEP), sole (SOL) and plaice (PLE) by gear and derogation in Kattegat 2003-2012. The derogation CPart11/IIa83b is not included in the TR2 CPUE, since it is considered an unregulated gear.

ANNEX	SPECIES	REG AREA	REG GEAR	SPECON	LPUE 2003	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2010-2012
IIa	COD	3a	GN1	none	412	251	163	159	228	361	95	86	32	15	50
IIa	COD	3a	GT1	none	519	576	171	68	87	73	25	0	0	0	0
IIa	COD	3a	LL1	none	2353	449	94	108	0	555	0	0	0	0	0
IIa	COD	3a	TR1	none	842	530	514	252	405	148	167	37	20	19	25
IIa	COD	3a	TR2	CPart13B	0	0	0	0	0	0	0	0	0	0	0
IIa	COD	3a	TR2	CPart13C	0	0	0	0	0	0	0	36	40	22	33
IIa	COD	3a	TR2	none	333	238	184	193	149	98	47	91	135	95	107
IIa	COD	3a	TR3	none	78	19	14	8	3	0	0	0	0	14	8
IIa	NEP	3a	GN1	none	0	0	0	0	0	0	0	0	0	0	0
IIa	NEP	3a	GT1	none	26	0	24	0	0	0	25	0	27	0	10
IIa	NEP	3a	LL1	none							0	0	0	0	0
IIa	NEP	3a	TR1	none	40	29	26	30	138	292	158	431	423	617	512
IIa	NEP	3a	TR2	CPart13B	0	0	0	0	0	0	0	799	1196	0	868
IIa	NEP	3a	TR2	CPart13C	0	0	0	0	0	0	0	707	543	605	623
IIa	NEP	3a	TR2	none	327	390	408	359	510	573	611	450	359	430	413
IIa	NEP	3a	TR3	none	11	0	0	6	0	7	0	0	39	0	8
IIa	PLE	3a	GN1	none	526	794	465	465	503	469	198	181	105	165	151
IIa	PLE	3a	GT1	none	1402	1344	877	1024	607	975	175	275	164	99	196
IIa	PLE	3a	LL1	none	0						0	0	0	0	0
IIa	PLE	3a	TR1	none	1097	1582	1743	2395	2139	1307	1735	678	1228	199	580
IIa	PLE	3a	TR2	CPart13B	0	0	0	0	0	0	0	100	0	0	83
IIa	PLE	3a	TR2	CPart13C	0	0	0	0	0	0	0	108	101	61	90
IIa	PLE	3a	TR2	none	329	194	142	209	189	155	111	119	50	46	73
IIa	PLE	3a	TR3	none	9	2	0	3	0	0	0	0	0	0	0
IIa	SOL	3a	GN1	none	146	223	659	656	503	446	536	499	641	390	521
IIa	SOL	3a	GT1	none	130	154	414	387	325	390	376	525	546	445	516
IIa	SOL	3a	LL1	none							0	0	0	0	0
IIa	SOL	3a	TR1	none	16	19	43	84	43	28	19	12	20	38	25
IIa	SOL	3a	TR2	CPart13B	0	0	0	0	0	0	0	50	0	0	41
IIa	SOL	3a	TR2	CPart13C	0	0	0	0	0	0	0	55	77	46	59
IIa	SOL	3a	TR2	none	26	39	71	81	69	69	64	17	11	0	10
IIa	SOL	3a	TR3	none	2	0	0	0	0	0	0	0	0	0	0

5.2.4 ToR 2 Rank regulated gear groups on the basis of catches expressed both in weight and in number of cod

STECF EWG 13-13 presents the gear groups ranked to their relative importance of catches and landings of cod, Nephrops, plaice and sole in 2012. The TR2 category dominates the fishery of all listed species in recent years.

Table 5.2.4.1 Ranked regulated gear categories according to the proportional catches of cod, Nephrops, plaice and sole 2003-2012. Note that the derogations CPart11 and IIA83b are not included in the TR2 category below, since they are considered unregulated.

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel
IIa	3a	COD	TR2	0.58	0.81	0.85	0.93	0.84	0.81	0.57	0.93	0.87	0.96
IIa	3a	COD	TR1	0.06	0.06	0.11	0.05	0.13	0.08	0.06	0.02	0.01	0.03
IIa	3a	COD	GN1	0.32	0.09	0.02	0.02	0.03	0.09	0.36	0.04	0.11	0.00
IIa	3a	COD	TR3	0.02	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIa	3a	COD	GT1	0.01	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.00	0.00
IIa	3a	COD	LL1	0.00	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
IIa	3a	NEP	TR2	0.94	1.00	0.99	0.99	0.98	0.96	0.99	0.98	0.98	0.96
IIa	3a	NEP	TR1	0.01	0.00	0.00	0.01	0.02	0.04	0.01	0.02	0.01	0.04
IIa	3a	NEP	LL1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIa	3a	NEP	GN1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIa	3a	NEP	GT1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIa	3a	NEP	TR3	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIa	3a	PLE	TR2	0.70	0.60	0.55	0.58	0.58	0.56	0.75	0.91	0.90	0.83
IIa	3a	PLE	TR1	0.10	0.23	0.38	0.36	0.38	0.37	0.22	0.06	0.06	0.13
IIa	3a	PLE	GN1	0.10	0.14	0.05	0.03	0.03	0.04	0.03	0.02	0.02	0.03
IIa	3a	PLE	GT1	0.06	0.03	0.02	0.02	0.01	0.03	0.01	0.01	0.01	0.01
IIa	3a	PLE	TR3	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIa	3a	PLE	LL1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIa	3a	SOL	TR2	0.94	0.24	0.65	0.67	0.71	0.74	0.67	0.69	0.68	0.73
IIa	3a	SOL	GN1	0.03	0.69	0.28	0.25	0.21	0.18	0.27	0.22	0.24	0.18
IIa	3a	SOL	GT1	0.00	0.06	0.04	0.04	0.05	0.05	0.05	0.08	0.08	0.06
IIa	3a	SOL	TR1	0.02	0.01	0.03	0.04	0.03	0.03	0.01	0.01	0.00	0.03
IIa	3a	SOL	LL1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
IIa	3a	SOL	TR3	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 5.2.4.2 Ranked regulated gear categories according to the proportional landings of cod, Nephrops, plaice and sole 2003-2012. Note that the derogations CPart11 and IIA83b are not included in the TR2 category in this table, since they are considered unregulated.

REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel
3a	COD	TR2	0.81	0.85	0.80	0.88	0.80	0.76	0.79	0.88	0.96	0.95
3a	COD	TR1	0.10	0.10	0.15	0.07	0.15	0.08	0.11	0.03	0.02	0.03
3a	COD	GN1	0.05	0.03	0.03	0.04	0.05	0.12	0.09	0.08	0.02	0.01
3a	COD	TR3	0.03	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
3a	COD	GT1	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.00	0.00
3a	COD	LL1	0.01	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00
3a	NEP	TR2	0.99	1.00	1.00	0.99	0.98	0.97	0.99	0.98	0.98	0.96
3a	NEP	TR1	0.01	0.00	0.00	0.00	0.02	0.03	0.01	0.02	0.02	0.04
3a	NEP	LL1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3a	NEP	GN1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3a	NEP	GT1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3a	NEP	TR3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3a	PLE	TR2	0.78	0.62	0.49	0.54	0.52	0.56	0.57	0.77	0.74	0.81
3a	PLE	TR1	0.13	0.26	0.40	0.37	0.40	0.33	0.36	0.14	0.21	0.12
3a	PLE	GN1	0.06	0.09	0.08	0.06	0.06	0.07	0.05	0.06	0.03	0.06
3a	PLE	GT1	0.03	0.03	0.04	0.03	0.03	0.05	0.01	0.03	0.02	0.02
3a	PLE	TR3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3a	PLE	LL1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3a	SOL	TR2	0.75	0.80	0.65	0.66	0.71	0.73	0.66	0.63	0.66	0.73
3a	SOL	GN1	0.19	0.16	0.28	0.25	0.21	0.19	0.28	0.26	0.25	0.18
3a	SOL	GT1	0.03	0.02	0.04	0.04	0.05	0.05	0.06	0.10	0.08	0.06
3a	SOL	TR1	0.03	0.02	0.03	0.04	0.03	0.02	0.01	0.01	0.00	0.03
3a	SOL	LL1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3a	SOL	TR3	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.2.5 ToR 3 Information on small boats (<10m)

5.2.5.1 Fishing effort of small boats by Member State

Vessels <10m LOA are exempted from the effort regulation in Kattegat with regard to the cod plan. Tables 5.2.5.1.1 and 5.2.5.1.2 show the nominal effort (kW*days at sea) of vessels <10m LOA in Kattegat. In 2012 the nominal effort deployed by small vessels constituted 12% of the total effort in the area. The Danish effort for this group of vessels has decreased in general since 2005 and between 2011 and 2012 except for pots, that increased slightly between 2011 and 2012 but deploy a very small amount of effort. The German effort in this vessel category is insignificant. The Swedish effort of small vessels has increased by 12% since 2009.

Table 5.2.5.1.1 Nominal effort (kW*days at sea) deployed by vessels <10m LOA in Kattegat 2003-2012. Swedish effort data for vessels <10m LOA is not considered reliable before 2009 and are excluded from the table.

ANNEX	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Rel.2003	Rel.2009	Rel.2011
IIa	3a	GN1	none	DEU				378									
IIa	3a	DREDGE	none	DNK							243						
IIa	3a	GN1	none	DNK	33319	29006	52205	65655	47184	62330	46955	53325	49306	28118	0.84	0.60	0.57
IIa	3a	GT1	none	DNK	7919	1335	8914	16783	8930	5112	5023	5609	2993	1810	0.23	0.36	0.60
IIa	3a	LL1	none	DNK	118		201	692	256		16				0.00	0.00	
IIa	3a	none	none	DNK	413225	388817	381605	345393	289656	243566	238901	212724	234535	182939	0.44	0.77	0.78
IIa	3a	OTTER	none	DNK			406	1072	96	672	192			576		3.00	
IIa	3a	PEL_TRAWL	none	DNK			336										
IIa	3a	POTS	none	DNK			6611	7950	6942	6702	5308	4503	4506	5255		0.99	1.17
IIa	3a	TR1	none	DNK	510		3210	1410	5350	80	276		910	294	0.58	1.07	0.32
IIa	3a	TR2	CPart13C	DNK								45373	27981	15317			0.55
IIa	3a	TR2	none	DNK	4430	7672	9307	28840	28572	33945	30304				0.00	0.00	
IIa	3a	TR3	none	DNK			23		23	164	34					0.00	
IIa	3a	GN1	none	SWE							62122	93134	45170	65829		1.06	1.46
IIa	3a	GT1	none	SWE							38574	41407	25114	30193		0.78	1.20
IIa	3a	LL1	none	SWE								209	55	0			0.00
IIa	3a	none	none	SWE							39161	21438	21887	30542		0.78	1.40
IIa	3a	OTTER	none	SWE							128					0.00	
IIa	3a	PEL_SEINE	none	SWE													
IIa	3a	POTS	none	SWE							134604	182519	105753	128945		0.96	1.22
IIa	3a	TR1	none	SWE							828	966	1242	4867		5.88	3.92
IIa	3a	TR2	CPART11	SWE							2891	7932	4607	3189		1.10	0.69
IIa	3a	TR2	IIA83B	SWE													
IIa	3a	TR2	none	SWE							4801	17516	36719	54523		11.36	1.48
Tot. kWd DNK and DEU					459521	426830	462818	468173	387009	352571	327252	321534	320231	234309		0.72	0.73
Tot. kWd SWE											283109	365121	240547	318088		1.12	1.32
Total kWd all countries											610361	686655	560778	552397		0.91	0.99

Table 5.2.5.1.2 . Number of vessels <10m LOA operating in Kattegat 2003-2012. Sweden has not submitted number of vessels for vessels <10m LOA before 2009.

ANNEX	REG AREA	REG GEAR	SPECON	COUNTRY	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Rel.2003	Rel.2009	Rel.2011
IIa	3a	GN1	none	DEU				1									
IIa	3a	DREDGE	none	DNK							1						
IIa	3a	GN1	none	DNK	8	5	18	23	14	24	13	14	10	10	1.25	0.77	1.00
IIa	3a	GT1	none	DNK	2	1	5	6	4	3	3	5	2	2	1.00	0.67	1.00
IIa	3a	LL1	none	DNK	1		2	2	2		1				0.00	0.00	
IIa	3a	none	none	DNK	258	243	238	211	186	174	176	154	159	156	0.60	0.89	0.98
IIa	3a	OTTER	none	DNK			2	1	1	1	1			1		1.00	
IIa	3a	PEL_TRAW	none	DNK			1										
IIa	3a	POTS	none	DNK			7	7	6	8	9	8	8	8		0.89	1.00
IIa	3a	TR1	none	DNK	4		2	3	3	1	2		2	2	0.50	1.00	1.00
IIa	3a	TR2	CPart13C	DNK								7	5	4			0.80
IIa	3a	TR2	none	DNK	1	1	3	8	5	5	5				0.00	0.00	
IIa	3a	TR3	none	DNK			1		1	2	1					0.00	
IIa	3a	GN1	none	SWE							18	15	13	18		1.00	1.38
IIa	3a	GT1	none	SWE							6	9	7	6		1.00	0.86
IIa	3a	LL1	none	SWE								1	15	1			0.07
IIa	3a	none	none	SWE							18	17	14	19		1.06	1.36
IIa	3a	OTTER	none	SWE							1					0.00	
IIa	3a	PEL_SEINE	none	SWE													
IIa	3a	POTS	none	SWE							43	37	37	38		0.88	1.03
IIa	3a	TR1	none	SWE							1	1	1	1		1.00	1.00
IIa	3a	TR2	CPART11	SWE							4	4	6	3		0.75	0.50
IIa	3a	TR2	IIA83B	SWE													
IIa	3a	TR2	none	SWE							4	3	8	6		1.50	0.75
Total no vessels DNK and DEU					274	250	279	262	222	218	212	188	186	183		0.86	0.98
Tot. no vessels SWE											289	260	274	257		0.89	0.94
Tot. no vessels all countries											289	260	274	257		0.89	0.94

5.2.5.2 Catches (landings and discards) of cod and associated species by small boats by Member State

Landings of cod, Nephrops, plaice and sole by vessels <10m LOA in Kattegat are presented in Table 5.2.5.2.1 and the percentage of the total landings of the same species in Table 5.2.4.2.2. The landings by small vessels show largely the same pattern as the total landings and the percentage portions have remained fairly stable through the time series.

Table 5.2.5.2.1 Landings (t) of cod, plaice, sole and Nephrops by vessels <10m LOA, 2003-2012.

SPECIES	GEAR	2003 L	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L
COD	GN1	41.4	17.0	24.0	31.6	22.0	7.9	5.4	7.6	6.7	3.5
COD	GT1	0.1	0.2	0.9	1.8	1.1	1.7	3.7	3.3	1.9	1.0
COD	LL1	1.3	0.5	1.9	6.0	7.5	1.1	0.2	0	0	0
COD	none	203.6	129.8	103.1	117.6	44.1	26.4	20.2	10.7	8.1	6.7
COD	OTTER	0	0	0.02	0.02	0	0	0	0	0	0
COD	PEL_TRAWL	0	0	0	0	0	0	0	0	0	0
COD	POTS	0.3	0.04	0.2	0.1	0.1	0.1	0	0.1	0.05	0.1
COD	TR1	2.1	0	0.3	2.2	1.6	0.2	0.5	0.00	0.04	1.0
COD	TR2	0.8	1.9	0.8	3.6	2.4	1.4	0.5	0.9	1.2	1.2
COD	TR3	0	0	0	0	0	0.001	0	0	0	0
COD total		249.5	149.4	131.3	163.0	78.9	38.8	30.6	22.6	18.0	13.5
NEP	GN1	0	0	0.1	0.2	0.1	0	0	0	0	0
NEP	GT1	0	0	0	0	0	0	0	0	0	0
NEP	none	9.9	11.1	7.8	3.6	5.3	5.8	9.0	8.5	25.7	33.9
NEP	OTTER	0	0	0	0.02	0.00	0.02	0.02	0	0	0
NEP	PEL_TRAWL	0	0	0	0	0	0	0	0	0	0
NEP	POTS	2.9	3.9	4.4	4.5	4.5	5.6	8.4	11.1	11.4	24.9
NEP	TR1	0	0	0	0.0	0.1	0	0.1	0.2	0.3	1.4
NEP	TR2	3.0	1.6	3.9	4.8	9.0	9.9	6.4	30.2	17.4	24.6
NEP	TR3	0	0	0	0	0	0.01	0	0	0	0
NEP total		15.8	16.6	16.2	13.1	19.1	21.2	23.9	50.1	54.7	84.8
PLE	DREDGE	0	0	0	0	0	0	0.2	0	0	0
PLE	GN1	29.3	31.4	31.9	43.2	46.7	26.6	19.5	14.6	5.4	5.3
PLE	GT1	11.9	3.1	7.5	12.2	13.4	9.8	24.7	12.9	14.0	8.8
PLE	LL1	0	0	0	0.00	0.01	0	0	0	0	0
PLE	none	264.8	253.8	190.1	213.9	194.9	124.0	93.5	69.0	35.2	19.1
PLE	OTTER	0	0	0	0.1	0	0	0	0	0	0
PLE	PEL_TRAWL	0	0	0.1	0	0	0	0	0	0	0
PLE	POTS	0	0	0.02	0.01	0.00	0.00	0	0	0	0.01
PLE	TR1	0.01	0	1.6	1.2	11.4	0.04	0.1	0	7.0	2.7
PLE	TR2	11.7	15.1	1.9	11.2	16.8	10.9	14.5	15.4	10.6	2.9
PLE total		317.7	303.4	233.1	281.8	283.2	171.3	152.4	112.0	72.1	38.7
SOL	DREDGE	0	0	0	0	0	0	0.01	0	0	0
SOL	GN1	2.7	4.3	25.1	23.7	15.4	19.4	17.3	24.1	21.5	13.6
SOL	GT1	0.5	0.1	6.6	10.3	10.4	9.7	11.7	9.7	8.1	3.5
SOL	LL1	0	0	0	0	0.06	0	0	0	0	0
SOL	none	50.7	73.4	176.6	153.5	106.8	92.6	90.6	79.6	53.8	30.7
SOL	OTTER	0	0	0	0.00	0	0	0	0	0	0
SOL	PEL_TRAWL	0	0	0.1	0	0	0	0	0	0	0
SOL	POTS	0.03	0	0.1	0.7	0.3	0.2	0.1	0.043	0.04	0.00
SOL	TR1	0.00	0	1.9	0.4	0.6	0.1	0.00	0	0.02	0.00
SOL	TR2	0.02	0.8	2.2	7.4	9.2	9.2	11.0	13.4	8.6	1.2
SOL total		54.0	78.6	212.5	196.0	142.8	131.2	130.8	126.8	92.2	49.0

Table 5.2.5.2.2 Percentage of total landings of cod, Nephrops, plaice and sole by vessels <10m LOA 2003-2012.

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
COD	11%	11%	14%	18%	12%	9%	16%	15%	12%	14%
NEP	1%	1%	1%	1%	1%	1%	1%	2%	4%	4%
PLE	13%	19%	19%	18%	20%	16%	23%	22%	20%	17%
SOL	24%	28%	35%	32%	32%	31%	33%	36%	28%	25%

5.2.6 ToR 4 Evaluation of fully documented fisheries FDF

Since there are no FDF fisheries in Kattegat, ToR 4 could not be addressed.

5.2.7 ToR 5 Spatio-temporal patterns in effective effort by fisheries

Figures 5.2.7.1 to 5.2.7.3 show the effective effort in fishing hours carried out by the gear categories TR2, TR1 and GN1 respectively.

It should be noted that Kattegat is a rather small management area to find any changes in the pattern of the distribution of effort between the gears using statistical rectangles. A smaller grid would be required in order to pick up any spatial changes in this area.

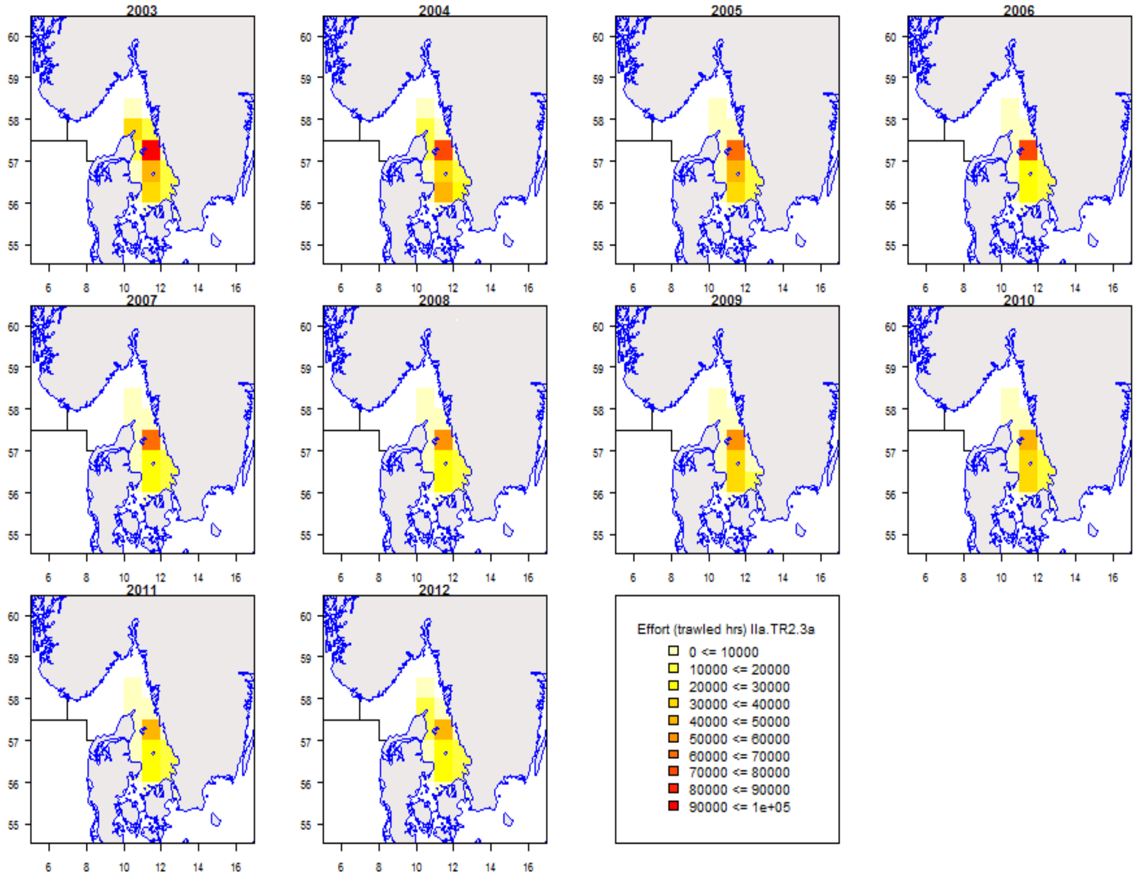


Figure 5.2.7.1 Spatial distribution of effective effort (fishing hours) for the gear category TR2 including the unregulated CPart11 and IIA83b in Kattegat 2003-2012.

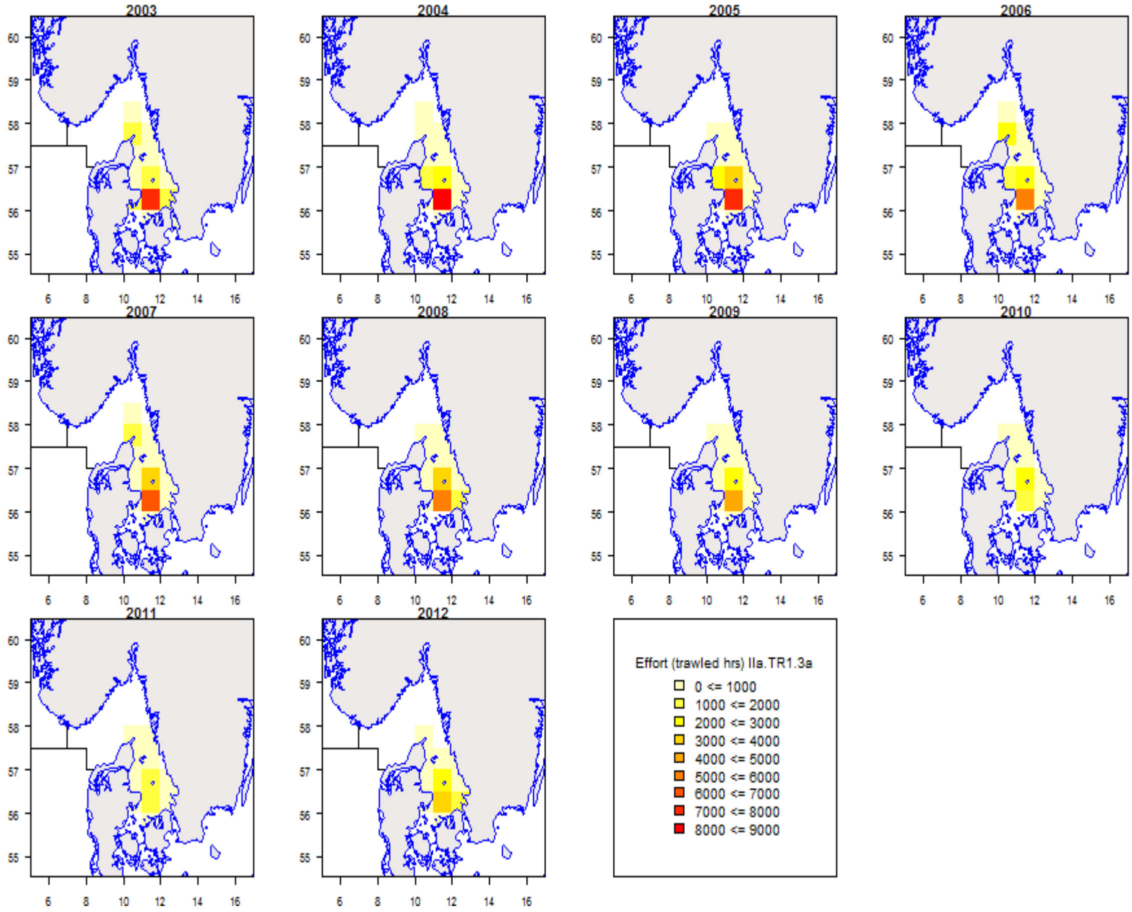


Figure 5.2.7.2 Spatial distribution of effective effort (fishing hours) for the gear category TR1 in Kattegat 2003-2012.

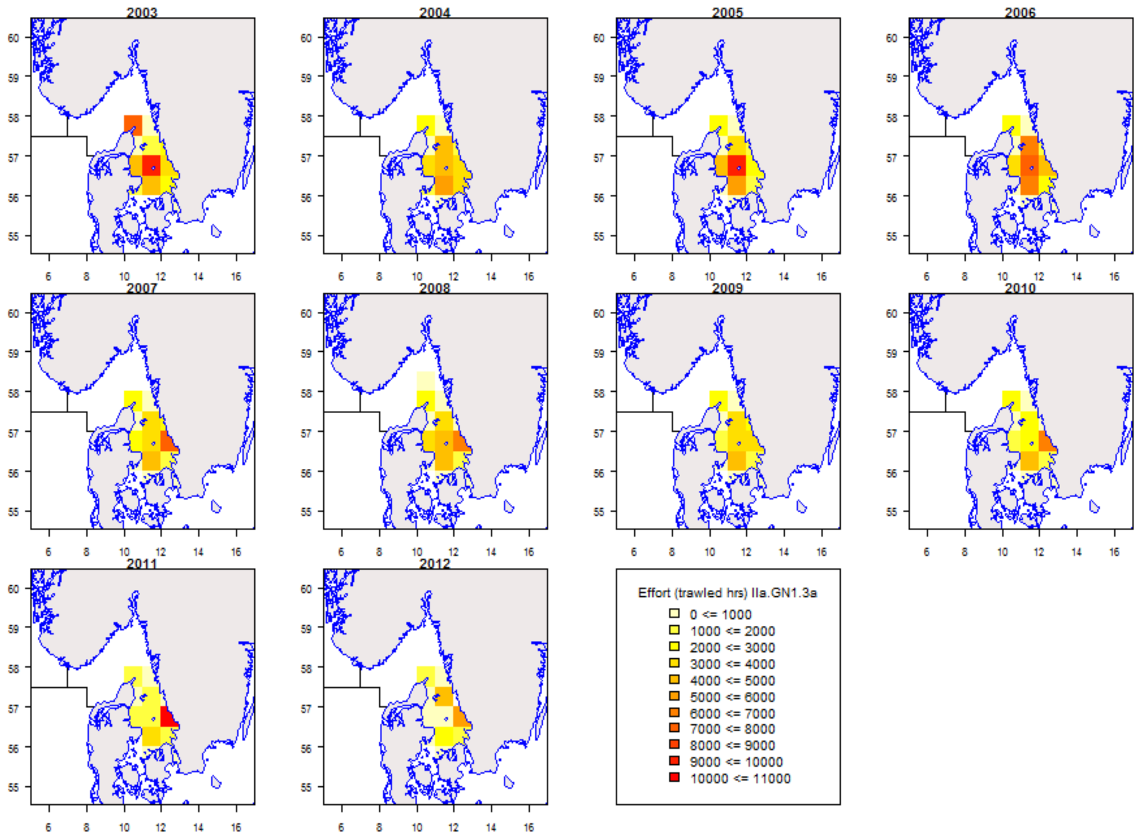


Figure 5.2.7.3. Spatial distribution of effective effort (fishing hours) for the gear category GN1 in Kattegat 2003-2012.

5.2.8 ToR 6 Remarks on quality of catches and discard estimates

The STECF EWG 13-13 expresses overall high confidence in the data and results.

5.2.9 ToR 7 Estimation of conversion factors to be applied for effort transfers between regulated gear groups

STECF EWG 13-13 presents the estimated cod CPUE and respective effort transfer factors between donor and receiving regulated gear groups in Table 5.2.8.1

Table 5.2.8.1 Cod CPUE and respective effort transfer factors between donor and receiving regulated gear groups based on averages 2010-2012. Red cells are indicated to be imprecise due to lack of adequate discard information. Yellow cells indicate sufficient sampling and green cells good sampling information.

Kattegat													
	donor gear	receiving gear							2010-2012				
		GN1	GT1	LL1	TR1	TR2	TR3		CPUE	LPUE		factor =	CPUE donor/CPUE receiving
3a	GN1		1	1	1	1	1		187	50		if factor > 1 then	
3a	GT1	0.005		1	0.014	0.009	0.125		1	1		factor = 1	
3a	LL1	0.005	1		0.014	0.009	0.125		1	1			
3a	TR1	0.38	1	1		0.67	1		71	25		if CPUE=0 or LPUE = 0 then	
3a	TR2	0.567	1	1	1		1		106	41		CPUE=1 or LPUE=1	
3a	TR3	0.043	1	1	0.113	0.075			8	8			

5.2.10 ToR 8 Correlation between partial cod mortality and fishing effort by Member State and fisheries

STECF EWG 13-13 noted that ICES did not provide an analytical assessment of cod in the Kattegat in 2013. STECF EWG 13-13 is therefore unable to deal with the ToR 8.

5.2.11 ToR 9 Trends in fishing mortality and fishing effort by Member State and fisheries with regards to the cod plan (R (EC) No 1342/2008) provisions, in particular with regard to Article 13

STECF EWG 13-13 noted that ICES did not provide an analytical assessment of cod in the Kattegat in 2013. STECF EWG 13-13 is therefore unable to deal with the ToR 9.

STECF EWG 13-13 is therefore also unable to estimate the fishing effort commensurate with the fishing mortality level to be achieved in 2012 and to estimate any excessive amount of effort.

5.3 Skagerrak, North Sea and II EU Eastern Channel effort regime evaluation in the context of Annex IIA to Council Regulation (EC) No 57/2011)

5.3.1 ToR 1.a Fishing effort in kWdays, GTdays, kW and number of vessels by Member State and fisheries

In 2013, data were made available at the sub area level (3b1= Skagerrak, 3b2 = North Sea and 2 EU, 3b3 = Eastern Channel), allowing a better understanding of the general trends. Most plots and figures within this report have been now provided by sub-area accordingly, but in case of more details are needed, all information are available in the relevant digital Appendixes:

http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

5.3.1.1 Fishing effort of regulated gears, management area 3b

Catch and effort data including the special conditions in force since 2009 (CPart11 and CPart13) have been provided by all Member States with significant fishing activity in this area. Additionally, distinction is now provided across the various CPart13 specifications (A, B, or C). The data are considered to represent a complete account of fishing effort by regulated gears in the area as reported by national administrations. As a result, any inconsistencies or problems in the data arise from the reported data rather than the subsequent compilation by the working group.

Data are given from 2005 in the tables to ease readability. Because of obvious inconsistencies in the French 2002 data, times series figures are displayed from 2003 only. As noted in previous years, the French 2009 figures should still be regarded as preliminary; they have not been revised yet.

In 2013, the group pursued its investigation of the consistencies between data submitted to STECF and data submitted to ICES WGMIXFISH for the North Sea, the Skagerrak and the Eastern English Channel (ICES, 2013). The group noted that the 2011 effort data appeared very consistent between both data sources (see chapter 4.12), with few deviations only. There is an ongoing collaboration between both groups in order to further check and improve these estimates and reduce the risk of different sources providing different figures.

Information on nominal effort (kW days at sea) by regulated in the Skagerrak, North Sea (incl. 2EU) and the Eastern Channel are listed by country and by area in Table 5.3.1.1 for the current cod plan categories. Additional information including GTdays and numbers of vessels or the extended time series can be found on the STECF website and in the Appendices.

Information related to the Fully Documented Fishery (FDF) is dealt with specifically in section 5.3.8 further below.

Overall trends in nominal aggregated effort in kilowatt-days by gear category and sub-areas are given in Tables 5.3.1.2 and shown in Figures 5.3.1.1 (by gear type) and 5.3.1.2 (by mesh size grouping). An overview on effort from unregulated gears by subarea is given in table 5.3.1.3 as well as the share of regulated gear effort in total effort in table 5.3.1.4. A more detailed analysis of unregulated gears is presented in section 5.3.1.2.

The North Sea is the main fishing area (78% of the total 2012 regulated effort in area 3b), followed by The English Channel (16%), while the Skagerrak represents a smaller component (6%).

In all three sub areas, regulated effort has decreased since 2003. Overall, the share of regulated gears to total effort in area 3b has also decreased regularly, down to 63% in 2012 on average (but no more than 45% in Skagerrak).

In area 3b2 (North Sea), regulated effort is equally shared between beam trawls and demersal trawls/seines (49% and 45% of total 2012 regulated effort respectively). Small mesh beam trawling (80-119 mm, BT2) and demersal trawls/seines with larger mesh sizes (>=100mm, TR1) are the predominant fisheries. In the Eastern Channel, demersal trawls/seines are also the main gears (65% of the 2012 regulated effort in the area, mainly smaller mesh size 70-99mm TR2), but with beam trawls and passive gears representing important fisheries as well (19% and 15% of the 2012 regulated effort respectively). The main gears in management area 3b1 (Skagerrak) are demersal trawls/seines (88% of the 2012 regulated effort), with a predominance of TR2.

The overall effort by demersal trawls / seines has shown a reduction since 2003, especially in the North Sea. The effort by larger mesh (TR1) had remained relatively stable over the previous cod plan (2004-2009) but has been declining since the full implementation of the new cod plan in 2010. A part of the TR1 decrease observed in 2012 (-14% between 2011 and 2012) is linked to the shift of the French saithe fishery into unregulated Article11 for that year.

In the Skagerrak, trawling effort has been slightly more stable since 2007. In the Eastern Channel TR2 effort has also remained constant over the last three years.

It must be kept in mind that the current grouping covers many different fisheries. TR2 in particular gathers as different fisheries as e.g. *Nephrops* trawling, mainly in the Northern North Sea, and whiting trawling in the south-western North Sea, and these local fisheries may follow different dynamics. Similarly, TR1 fisheries cover a mixed whitefish fishery, a saithe-targeted fishery as well as a plaice targeted fishery in the southern North Sea.

A number of CPArt 13 SPECON has been applied over the recent years, as displayed in Figures 5.3.1.3 and 5.3.1.4. In 2013, distinction has been made over the various types.

For the whole area 3b, 53% and 68% of the regulated effort (i.e. excluding article 11) by TR1 and TR2 is under Article 13

Many English fisheries other than demersal trawls/Seines have been reported under Article13B, i.e. catching less than 5%, both in the North Sea and in the Eastern Channel.

There are a number of Article 13 derogations used for trawls/seines fisheries (both TR1 and TR2) in the North Sea. Germany, Scotland and England have reported 60%, 72% and 100% of their TR1 effort in Article 13 respectively. UK has also reported 100% of TR2 effort under Article 13.

Article 13C has represented the largest Specon. It is only used by the UK, but is overall operated at fishing effort levels comparable to the “none” specon. The Art13B has been applied by the UK as well, but also by Germany. Article13A has only been reported by Northern Irland in 2012.

There is only a limited use of Article 13 in the Skagerrak (3b1), operated by the German saithe fishery.

As a quality check, STECF routinely compares the data currently submitted with the data submitted during the previous year, as is displayed in table 5.3.1.5. Compared to the data submitted in 2012, updates were primarily reported by Denmark, England, with few other minor changes by other countries. Belgium revised data between the effort part1 and 2 meetings. While some changes ratio can appear large in the table below, they usually apply to categories with limited effort, and this does not affect the overall perception of trends from previous years' report. The updates represent some improvements of the quality of the data submitted, so this year's data are considered more consistent.

Table 5.3.1.1 Area 3b: Trend in regulated nominal effort (kW *days at sea) by Gear group, country and specon, 2005-2012 (the extended time series is available on the STECF website). NB TR2 CPArt11 and SPECON IIA83b is accounted for in the *un*regulated gears

ANNEX	REG AREA	REG GEAR	COUNTRY	SPECON	2005	2006	2007	2008	2009	2010	2011	2012	rel 05-07	rel 2011
IIa	3b1	BT1	DEU	NONE				884						
IIa	3b1	BT1	DNK	none	320631	277249	329335	78260	42335	52098	59305	123592	0.40	2.08
IIa	3b1	BT1	NLD	none	137531	70311	108445	22570	27415	109513	442			
IIa	3b1	BT1	SCO	none		4476								
IIa	3b1	BT2	DEU	NONE										
IIa	3b1	BT2	DNK	none	38835	50351	103304	36836	29052	3678				
IIa	3b1	BT2	NLD	none	522477	542233	519000	74615	31846	138751	884			
IIa	3b1	GN1	DEU	none	1579	1158	6919	3174	1980	660		17636	5.48	
IIa	3b1	GN1	DNK	none	322715	294630	283147	321868	371533	327758	306895	242996	0.81	0.79
IIa	3b1	GN1	SWE	none	89748	76409	58618	96877	101209	67326	70682	76606	1.02	1.08
IIa	3b1	GT1	DNK	none	2450	9463	236	25240	36891	44205	40159	37525	9.27	0.93
IIa	3b1	GT1	SWE	none	27824	56771	62309	63022	36250	21260	23899	25752	0.53	1.08
IIa	3b1	LL1	DNK	none	2501	3130	1814	2255	1173	2481	33199	30454	12.27	0.92
IIa	3b1	LL1	SWE	none	38665	108455	153999	42453	0		396	660	0.01	1.67
IIa	3b1	TR1	DEU	CPart13B					119193	20700	30300	16063		0.53
IIa	3b1	TR1	DEU	none	178369	260596	304370	189600	132585	82954	64169	82526	0.33	1.29
IIa	3b1	TR1	DNK	none	1299770	1276319	1449368	1290895	1285901	1351258	918690	999170	0.74	1.09
IIa	3b1	TR1	NLD	none			16547	11576	1369	120821				
IIa	3b1	TR1	SCO	none		575								
IIa	3b1	TR1	SWE	none	109502	55251	88670	92874	10554	11528	27124	25524	0.30	0.94
IIa	3b1	TR2	DEU	none					660	4180	2200			
IIa	3b1	TR2	DNK	none	3998032	3290591	2359541	2613146	2817250	2759331	2941652	2436599	0.76	0.83
IIa	3b1	TR2	NLD	none				2942	732	2942				
IIa	3b1	TR2	SWE	IIA83B	542007	664971	894575	735039						
IIa	3b1	TR2	SWE	none	1428840	1450466	1158228	1364854	781107	661331	514449	467823	0.35	0.91
IIa	3b1	TR3	DNK	none	233393	71910	37373	17405	18494	11401	1145	3621	0.03	3.16
IIa	3b1	TR3	SWE	none	1564	588	919			1986				
IIa	3b2	BT1	BEL	none	1509759	1333012	1320169	984056	575501	535636	671368	963867	0.69	1.44
IIa	3b2	BT1	DEU	none	2128	53986	30297	16790		884	1535	2793	0.10	1.82
IIa	3b2	BT1	DNK	none	996227	511642	527282	370939	366679	513056	373757	317294	0.47	0.85
IIa	3b2	BT1	ENG	CPart13B						202685	169873	384590		2.26
IIa	3b2	BT1	ENG	none	618160	1321240	305837	228530	265710			40284	0.05	
IIa	3b2	BT1	FRA	none										
IIa	3b2	BT1	NIR	none	36825									
IIa	3b2	BT1	NLD	none	719292	1528652	720068	370417	412420	378796	308516	1090258	1.10	3.53
IIa	3b2	BT1	SCO	none	730810	598616	349914	68568	53082					
IIa	3b2	BT2	BEL	none	3884007	3418751	2707991	3536979	3327143	2480357	1742532	1269319	0.38	0.73
IIa	3b2	BT2	DEU	NONE	2212397	1927398	1590823	1464163	1666322	1801775	1242171	1071896	0.56	0.86
IIa	3b2	BT2	DNK	none	62036	42447	1390	2894	49163		440	242	0.01	0.55
IIa	3b2	BT2	ENG	CPart13B					47771	2863860	2644958	2412375		0.91
IIa	3b2	BT2	ENG	none	4046341	2974409	3251512	1975399	2444807	401247	96356	79036	0.02	0.82
IIa	3b2	BT2	FRA	none	75129	66203	103453	88053	88053	40118	67545	57044	0.70	0.84
IIa	3b2	BT2	NIR	none	16785									
IIa	3b2	BT2	NLD	none	44478122	38823660	37931313	27646215	28696410	28510104	25776297	22428296	0.56	0.87
IIa	3b2	BT2	SCO	none	4185262	3108933	2790115	1351720	554376	144306		68262	0.02	
IIa	3b2	GN1	BEL	none	148827	127951	128626	158409	161734	97609	95383	45103	0.33	0.47
IIa	3b2	GN1	DEU	none	271624	235427	145714	278008	233164	275364	225797	269836	1.24	1.20
IIa	3b2	GN1	DNK	none	2031057	1795453	949658	1003603	1050057	1195617	1136118	1080149	0.68	0.95
IIa	3b2	GN1	ENG	CPart13B						111390	152556	102172		0.67
IIa	3b2	GN1	ENG	none	308275	308517	180503	70981	175602	74835	73826	61957	0.23	0.84
IIa	3b2	GN1	FRA	none	46058	31231	61545	47746	46493	2149	7803	3322	0.07	0.43
IIa	3b2	GN1	NLD	none	387945	511580	521697	507733	419797	357091	316070	295035	0.62	0.93
IIa	3b2	GN1	SCO	none	165644	293823	320785	417076	376332	440579	607650	569749	2.19	0.94
IIa	3b2	GT1	BEL	none			15402	18000	5014	19041	18155	25216	1.64	1.39
IIa	3b2	GT1	DEU	none		1547			15444	1188	924			
IIa	3b2	GT1	DNK	none	237800	175339	98614	100902	158205	130662	182841	321220	1.88	1.76
IIa	3b2	GT1	ENG	none	5342	11100	3291	12918	12654	17355	12003	5823	0.89	0.49
IIa	3b2	GT1	FRA	none	813190	1785801	1703889	1010253	1010253	634781	690428	636164	0.44	0.92
IIa	3b2	GT1	NLD	none				740	26917	37399	21431	29054		1.36

Table 5.3.1.1 (ctd)

IIa	3b2	LL1	BEL	none				1768		1660	128	786		6.14
IIa	3b2	LL1	DNK	none	41626	42159	15924	25347	28769	45576	29388	21089	0.63	0.72
IIa	3b2	LL1	ENG	CPart13B					143					
IIa	3b2	LL1	ENG	none	142602	54974	15752	6164	4318	12052	6253	15449	0.22	2.47
IIa	3b2	LL1	FRA	none				99602	99602	48552	7644	14962		1.96
IIa	3b2	LL1	NLD	none						142				
IIa	3b2	LL1	SCO	none		7542	1487	276898	621114	301689	183352	68192	15.11	0.37
IIa	3b2	LL1	SWE	none	4239	15026	11020	10928	11352	6600	8184	5016	0.50	0.61
IIa	3b2	TR1	BEL	none			161520	201379	220428	212429	128701	183682	1.14	1.43
IIa	3b2	TR1	DEU	CPart13B					808679	898007	815730	747693		0.92
IIa	3b2	TR1	DEU	none	1988209	2176131	1736694	1585192	759368	829604	741965	495051	0.25	0.67
IIa	3b2	TR1	DNK	none	6405176	6020308	3801069	4034203	3793148	3592389	3664621	3593770	0.66	0.98
IIa	3b2	TR1	ENG	CPart13B					898933	964206	874021	939503		1.07
IIa	3b2	TR1	ENG	CPart13c					1242445	1144923	1254762	931671		0.74
IIa	3b2	TR1	ENG	none	1254880	1823891	1501499	1846925						
IIa	3b2	TR1	FRA	CPart13B								29600		
IIa	3b2	TR1	FRA	NONE	1901534	2675348	2418190	2714146	2622538	1913401	1727371	324	0.00	0.00
IIa	3b2	TR1	IRL	NONE										
IIa	3b2	TR1	NIR	CPart13A								2672		
IIa	3b2	TR1	NIR	CPart13B					41944	23326	33246	16573		0.50
IIa	3b2	TR1	NIR	CPart13c					14196	6034		2781		
IIa	3b2	TR1	NIR	none	70710	51951	61460	49104						
IIa	3b2	TR1	NLD	none	547564	532260	631492	1400068	1316055	1290080	1173220	1329299	2.33	1.13
IIa	3b2	TR1	SCO	CPart13B					692932	955808	810706	36937		0.05
IIa	3b2	TR1	SCO	CPart13C					11552644	9486824	9185531	9265940		1.01
IIa	3b2	TR1	SCO	none	12158295	11660764	11022982	12176292						
IIa	3b2	TR1	SWE	none	387252	237269	269171	333387	245040	196354	189867	190816	0.64	1.00
IIa	3b2	TR2	BEL	none	343840	366940	298814	425374	506865	476033	435961	484371	1.44	1.11
IIa	3b2	TR2	DEU	CPart13B					2420	39820	31240	14740		0.47
IIa	3b2	TR2	DEU	none	704404	771597	680681	457259	470754	420345	408157	320809	0.45	0.79
IIa	3b2	TR2	DNK	none	1916695	1405216	1080616	706247	569359	431399	370536	312765	0.21	0.84
IIa	3b2	TR2	ENG	CPart13B					260311	873808	721452	865045		1.20
IIa	3b2	TR2	ENG	CPart13c					1376367	482080	524579	267661		0.51
IIa	3b2	TR2	ENG	none	1937849	1707774	1621394	1794132						
IIa	3b2	TR2	FRA	none	1713917	1558413	1727617	1930459	1924156	1089380	960559	725367	0.44	0.76
IIa	3b2	TR2	GBJ	none	660									
IIa	3b2	TR2	IRL	NONE										
IIa	3b2	TR2	NIR	CPart13A								90338		
IIa	3b2	TR2	NIR	CPart13B					65544	161981	207697	109647		0.53
IIa	3b2	TR2	NIR	CPart13c					320087	236516	70443	25672		0.36
IIa	3b2	TR2	NIR	none	221904	532885	758972	409182						
IIa	3b2	TR2	NLD	none	1298918	1224916	1384658	1853682	1334665	1231860	1313554	1277297	0.98	0.97
IIa	3b2	TR2	SCO	CPart13B					4219929	7467356	5277096	287446		0.05
IIa	3b2	TR2	SCO	CPart13C					3796988	490013	1285425	4861297		3.78
IIa	3b2	TR2	SCO	none	9108232	8561812	8678139	8855742						
IIa	3b2	TR2	SWE	none	1192	1298	2515	1059		0		3930	2.36	
IIa	3b2	TR3	BEL	none				663		1899		1175		
IIa	3b2	TR3	DEU	none		772	884	4410	426					
IIa	3b2	TR3	DNK	none	2373302	1761200	799803	916558	577813	1063007	336257	477168	0.29	1.42
IIa	3b2	TR3	ENG	none	3315	6360	1220	492	82	718	621	246	0.07	0.40
IIa	3b2	TR3	FRA	none	7121	1319		2184	2184	13827	2210	1250	0.30	0.57
IIa	3b2	TR3	IRL	none							2247			
IIa	3b2	TR3	NLD	none	43261	20649	20589	4038	274	31973	23268	25897	0.92	1.11
IIa	3b2	TR3	SCO	none	2356	116	11896		33117	27524		20706	4.32	
IIa	3b3	BT1	BEL	none				3578						
IIa	3b3	BT1	FRA	none								318		
IIa	3b3	BT2	BEL	none	2068612	2782454	3183635	2691356	2204585	1907807	1861455	1541411	0.58	0.83
IIa	3b3	BT2	ENG	CPart13B					108485	123228	101532	144684		1.43
IIa	3b3	BT2	ENG	none	423730	359264	324577	368882	295714	148793	99461	96917	0.26	0.97
IIa	3b3	BT2	FRA	none	919129	1258094	1135160	1106661	1106661	570711	542158	675860	0.61	1.25

Table 5.3.1.1 (ctd)

IIa	3b3	BT2	GBJ	none	10346									
IIa	3b3	BT2	NLD	none		4796			1471		663			
IIa	3b3	BT2	SCO	none			9776	3055	6353					
IIa	3b3	GN1	BEL	none	19026	23556	906	10560	19527	10885				
IIa	3b3	GN1	DEU	none										
IIa	3b3	GN1	ENG	CPart13B								309		
IIa	3b3	GN1	ENG	none	219	2529	1699	4957	12756	25620	25787	10339	6.97	0.40
IIa	3b3	GN1	FRA	none	243018	301125	386493	150995	150995	98661	45185	109662	0.35	2.43
IIa	3b3	GN1	NLD	none		442								
IIa	3b3	GT1	BEL	none			26676	16200	7416	21600	30600	34086	1.28	1.11
IIa	3b3	GT1	ENG	none	9183	6081	7708	9580	5968	8324	8075	8332	1.09	1.03
IIa	3b3	GT1	FRA	none	3308229	3681721	3588824	2611489	2607735	1796377	1839296	1771276	0.50	0.96
IIa	3b3	GT1	IRL	none								220		
IIa	3b3	LL1	ENG	CPart13B						30899	25183	24565		0.98
IIa	3b3	LL1	ENG	none	39988	40165	37923	39699	40081	15397	13022	11097	0.28	0.85
IIa	3b3	LL1	ESP	none								672		
IIa	3b3	LL1	FRA	none	97311	114742	162573	116680	116680	118214	86512	69920	0.56	0.81
IIa	3b3	TR1	BEL	none						10219	1858	4645		2.50
IIa	3b3	TR1	ENG	CPart13c					4350	2226	11276	1229		0.11
IIa	3b3	TR1	ENG	none	1306	788	268	4154						
IIa	3b3	TR1	FRA	none	60402	49633	224000	73652	73652	91341	113909	53370	0.48	0.47
IIa	3b3	TR1	NLD	none					5888	4981	3472			
IIa	3b3	TR1	SCO	CPart13B								3750		
IIa	3b3	TR1	SCO	CPart13C							1292			
IIa	3b3	TR1	SCO	none										
IIa	3b3	TR2	BEL	none	10703	23328	13756	15816	46344	132308	189285	212691	13.35	1.12
IIa	3b3	TR2	ENG	CPart13B					87339	281244	301325	404526		1.34
IIa	3b3	TR2	ENG	CPart13c					193078	89159	73206	82494		1.13
IIa	3b3	TR2	ENG	none	249748	184677	148256	165497						
IIa	3b3	TR2	FRA	CPart13B								289041		
IIa	3b3	TR2	FRA	none	11713996	13485158	13060035	10070068	9834906	6980814	6766474	6300774	0.49	0.93
IIa	3b3	TR2	GBJ	CPart13B					7480					
IIa	3b3	TR2	GBJ	none	23483	10560	13420	9680						
IIa	3b3	TR2	IRL	none								945		
IIa	3b3	TR2	NLD	none	344814	287224	434839	625656	602354	701538	608347	706896	1.99	1.16
IIa	3b3	TR2	SCO	CPart13B					66292	250268	158225	90437		0.57
IIa	3b3	TR2	SCO	CPart13C					264567		67063	52632		0.78
IIa	3b3	TR2	SCO	none		116011	209124	340147						
IIa	3b3	TR3	ENG	none			252							
IIa	3b3	TR3	FRA	none	99705	114293	138596	65643	64323	134347	122925	92978	0.79	0.76
IIa	3b3	TR3	NLD	none										
Sum					141507476	135618152	125521159	109444366	106456621	97088202	87575501	79077612	0.59	0.90

Table 5.3.1.2 Area 3b: Trend in nominal effort (Kw *days at sea) by Gear group and subarea. 2005-2012 (the extended time series is available on the STECF website). NB TR2 CPArt11 and SPECON IIA83b is accounted for in the *un*regulated gears

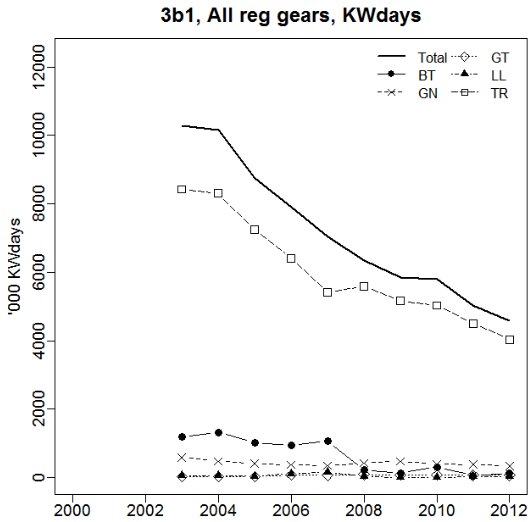
ANNEX	REG AREA	REG GEAR	SPECON	2005	2006	2007	2008	2009	2010	2011	2012	rel 05-07	rel 2011
IIa	3b1	BT1	NONE	458162	352036	437780	101714	69750	161611	59747	123592	0.30	2.07
IIa	3b1	BT2	NONE	561312	592584	622304	111451	60898	142429	884			
IIa	3b1	GN1	none	414042	372197	348684	421919	474722	395744	377577	337238	0.89	0.89
IIa	3b1	GT1	none	30274	66234	62545	88262	73141	65465	64058	63277	1.19	0.99
IIa	3b1	LL1	none	41166	111585	155813	44708	1173	2481	33595	31114	0.30	0.93
IIa	3b1	TR1	CPart13B					119193	20700	30300	16063		0.53
IIa	3b1	TR1	none	1587641	1592741	1858955	1584945	1430409	1566561	1009983	1107220	0.66	1.10
IIa	3b1	TR2	IIA83B	542007	664971	894575	735039						
IIa	3b1	TR2	none	5426872	4741057	3517769	3980942	3599749	3427784	3458301	2904422	0.64	0.84
IIa	3b1	TR3	none	234957	72498	38292	17405	18494	13387	1145	3621	0.03	3.16
Sum				9296433	8565903	7936717	7086385	5847529	5796162	5035590	4586547	0.53	0.91
IIa	3b2	BT1	CPart13B						202685	169873	384590		2.26
IIa	3b2	BT1	none	4613201	5347148	3253567	2039300	1673392	1428372	1355176	2414496	0.55	1.78
IIa	3b2	BT2	CPart13B					47771	2863860	2644958	2412375		0.91
IIa	3b2	BT2	none	58960079	50361801	48376597	36065423	36826274	33377907	28925341	24974095	0.48	0.86
IIa	3b2	GN1	CPart13B						111390	152556	102172		0.67
IIa	3b2	GN1	none	3359430	3303982	2308528	2483556	2463179	2443244	2462647	2325151	0.78	0.94
IIa	3b2	GT1	none	1056332	1973787	1821196	1142813	1228487	840426	925782	1017477	0.63	1.10
IIa	3b2	LL1	CPart13B					143					
IIa	3b2	LL1	none	188467	119701	44183	420707	765155	416271	234949	125494	1.07	0.53
IIa	3b2	TR1	CPart13A								2672		
IIa	3b2	TR1	CPart13B					2442488	2841347	2533703	1770306		0.70
IIa	3b2	TR1	CPart13c					12809285	10637781	10440293	10200392		0.98
IIa	3b2	TR1	none	24713620	25177922	21604077	24340696	8956577	8034257	7625745	5792942	0.24	0.76
IIa	3b2	TR2	CPart13A								90338		
IIa	3b2	TR2	CPart13B					4548204	8542965	6237485	1276878		0.20
IIa	3b2	TR2	CPart13c					5493442	1208609	1880447	5154630		2.74
IIa	3b2	TR2	none	17247611	16130851	16233406	16433136	4805799	3649017	3488767	3124539	0.19	0.90
IIa	3b2	TR3	none	2429355	1790416	834392	928345	613896	1138948	364603	526442	0.31	1.44
Sum				112568095	104205608	94475946	83853976	82674092	77737079	69442325	61694989	0.59	0.89
IIa	3b3	BT1	none				3578				318		
IIa	3b3	BT2	CPart13B					108485	123228	101532	144684		1.43
IIa	3b3	BT2	none	3421817	4404608	4653148	4169954	3614784	2627311	2503737	2314188	0.56	0.92
IIa	3b3	GN1	CPart13B								309		
IIa	3b3	GN1	none	262263	327652	389098	166512	183278	135166	70972	120001	0.37	1.69
IIa	3b3	GT1	none	3317412	3687802	3623208	2637269	2621119	1826301	1877971	1813914	0.51	0.97
IIa	3b3	LL1	CPart13B						30899	25183	24565		0.98
IIa	3b3	LL1	none	137299	154907	200496	156379	156761	133611	99534	81689	0.50	0.82
IIa	3b3	TR1	CPart13B								3750		
IIa	3b3	TR1	CPart13c					4350	2226	12568	1229		0.10
IIa	3b3	TR1	none	61708	50421	224268	77806	79540	106541	119239	58015	0.52	0.49
IIa	3b3	TR2	CPart13B					161111	531512	459550	784004		1.71
IIa	3b3	TR2	CPart13c					457645	89159	140269	135126		0.96
IIa	3b3	TR2	none	12342744	14106958	13879430	11226864	10483604	7814660	7564106	7221306	0.54	0.95
IIa	3b3	TR3	none	99705	114293	138848	65643	64323	134347	122925	92978	0.79	0.76
Sum				19642948	22846641	23108496	18504005	17935000	13554961	13097586	12796076	0.59	0.98
Grand sum				141507476	135618152	125521159	109444366	106456621	97088202	87575501	79077612	0.59	0.90

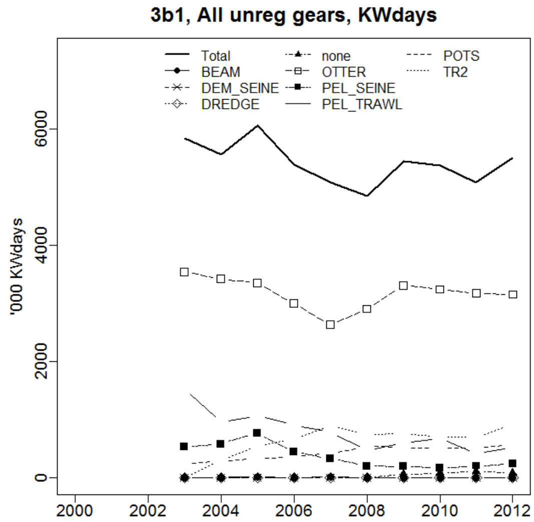
Table 5.3.1.3 Area 3b: Trend in nominal effort (Kw *days at sea) of unregulated gears by subarea. 2005-2012 (the extended time series is available on the STECF website). NB TR2 CPArt11 and SPECON IIA83b is accounted for in the *un*regulated gears. The last line gives the total effort of all gears in Area 3b.

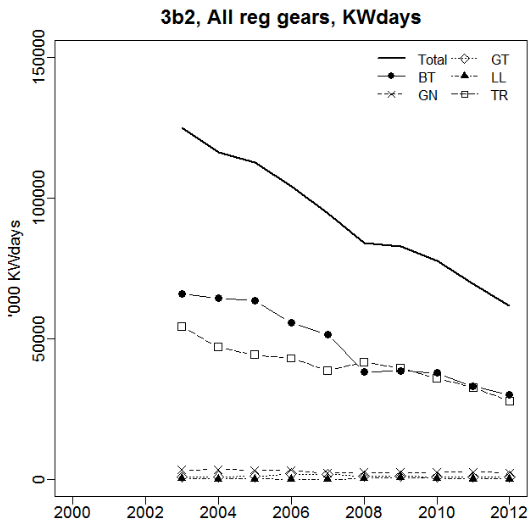
REG AREA COD	non-REG GEAR	2005	2006	2007	2008	2009	2010	2011	2012	Rel 04-06	Rel 2011
3b1	all	6064813	5397317	5082719	4855283	5455095	5382084	5083047	5506112	0.97	1.08
3b2	all	40843512	38091923	34907032	31156761	33879763	32139321	29937738	36071640	0.83	1.20
3b3	all	10267830	6901208	7101292	5916597	6421808	6705668	5292201	5616550	0.68	1.06
Grand total (all 3b areas combined)		57176155	50390448	47091043	41928641	45756666	44227073	40312986	47194302	0.82	1.17
Grand total (reg + unreg gears)		198141624	185343629	171717627	150637968	152213287	141315275	127888487	126271914	0.64	0.99

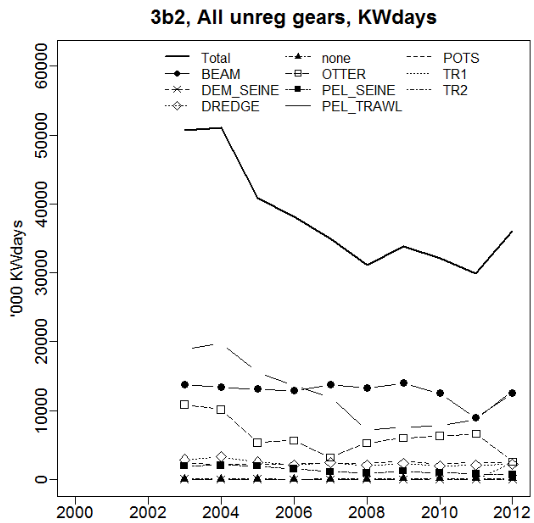
Table 5.3.1.4 Area 3b: Share of regulated effort in total effort by subarea. 2005-2012 (the extended time series is available on the STECF website).

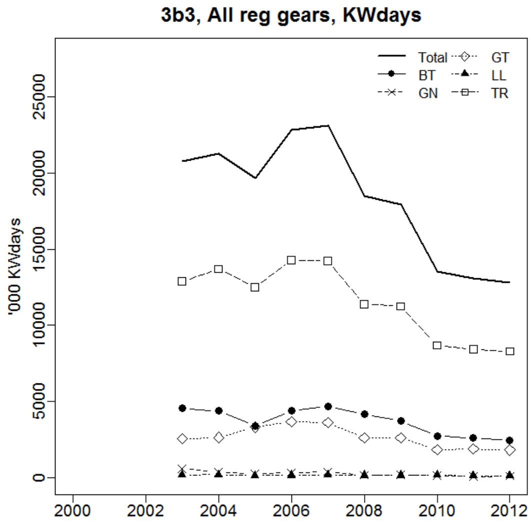
REG AREA COD	2005	2006	2007	2008	2009	2010	2011	2012
3b1	0.59	0.59	0.58	0.57	0.52	0.52	0.50	0.45
3b2	0.73	0.73	0.73	0.73	0.71	0.71	0.70	0.63
3b3	0.66	0.77	0.76	0.76	0.74	0.67	0.71	0.69
3b combined	0.71	0.73	0.73	0.72	0.70	0.69	0.68	0.63


3b1, All reg gears, KWdays
'000 KWdays
Total
BT
GN
GT
LL
TR
0
2000
4000
6000
8000
10000
12000
2000
2002
2004
2006
2008
2010
2012


3b1, All unreg gears, KWdays
'000 KWdays
Total
BEAM
DEM_SEINE
DREDGE
none
OTTER
PEL_SEINE
PEL_TRAWL
POTS
TR2
0
2000
4000
6000
2000
2002
2004
2006
2008
2010
2012


3b2, All reg gears, KWdays
'000 KWdays
Total
BT
GN
GT
LL
TR
0
50000
100000
150000
2000
2002
2004
2006
2008
2010
2012


3b2, All unreg gears, KWdays
'000 KWdays
Total
BEAM
DEM_SEINE
DREDGE
none
OTTER
PEL_SEINE
PEL_TRAWL
POTS
TR1
TR2
0
10000
20000
30000
40000
50000
60000
2000
2002
2004
2006
2008
2010
2012



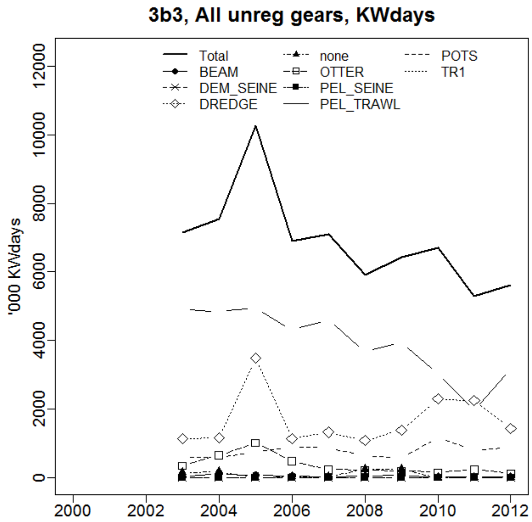
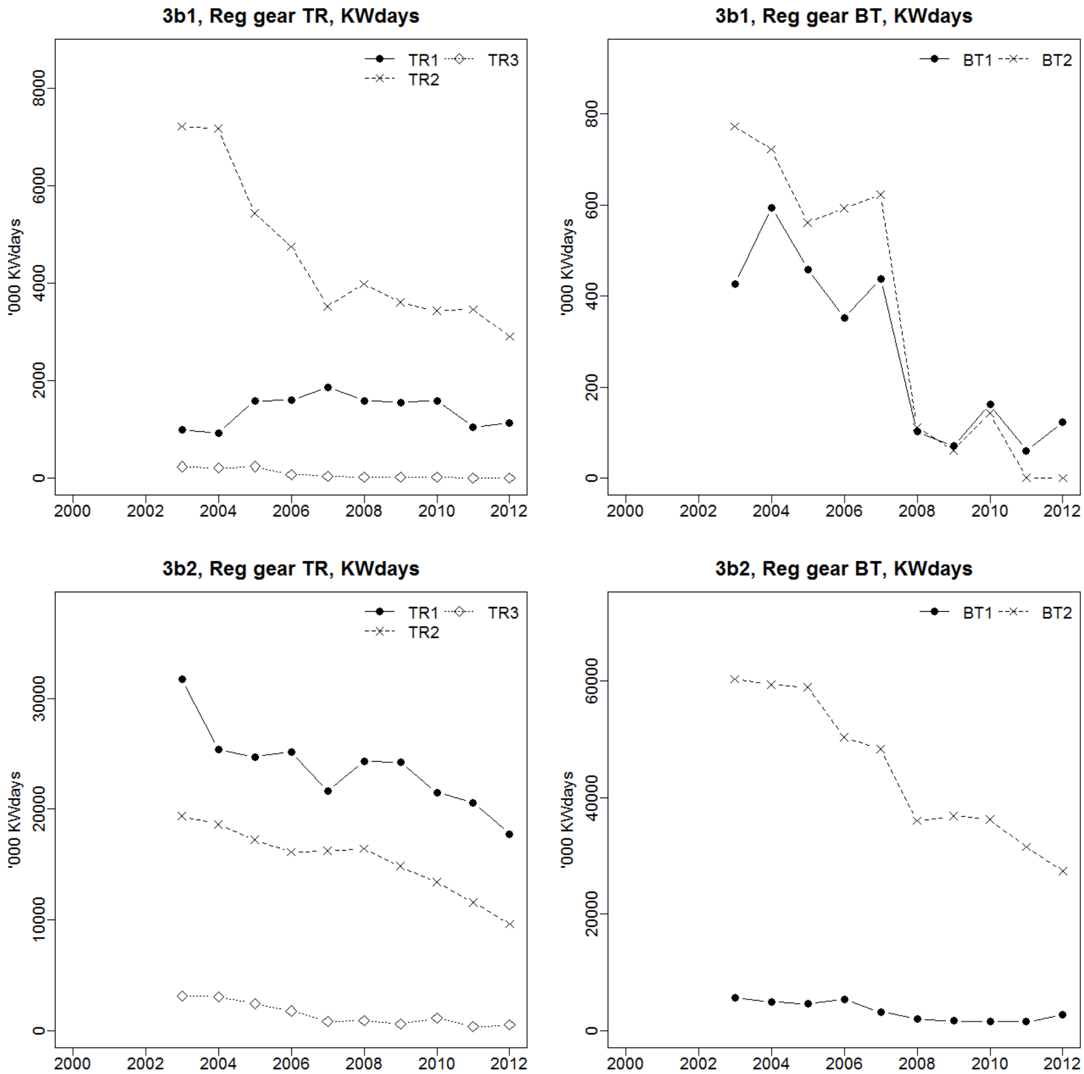


Figure 5.3.1.1. Management area 3b. Effort trends for regulated (left) and unregulated (right, TR regards CPArt11) gear types by subarea. TR = demersal otter trawl and demersal seine, BT = Beam trawl, GN = Gillnet, GT = Trammel net, LL = Longline. NB y-axis scale varies across plots.


3b1, Reg gear TR, KWdays
TR1 TR3
TR2
'000 KWdays
3b1, Reg gear BT, KWdays
BT1 BT2
'000 KWdays
3b2, Reg gear TR, KWdays
TR1 TR3
TR2
'000 KWdays
3b2, Reg gear BT, KWdays
BT1 BT2
'000 KWdays

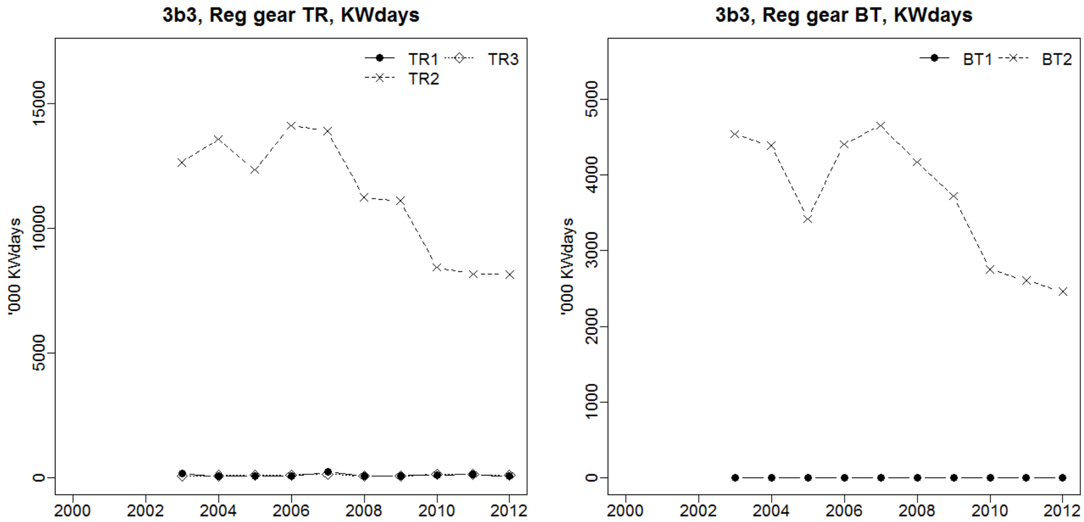


Figure 5.3.1.2. Management area 3b. Effort trends for regulated TR and BT gear by sub-area disaggregated by mesh size range. NB y-axis scale varies across plots.

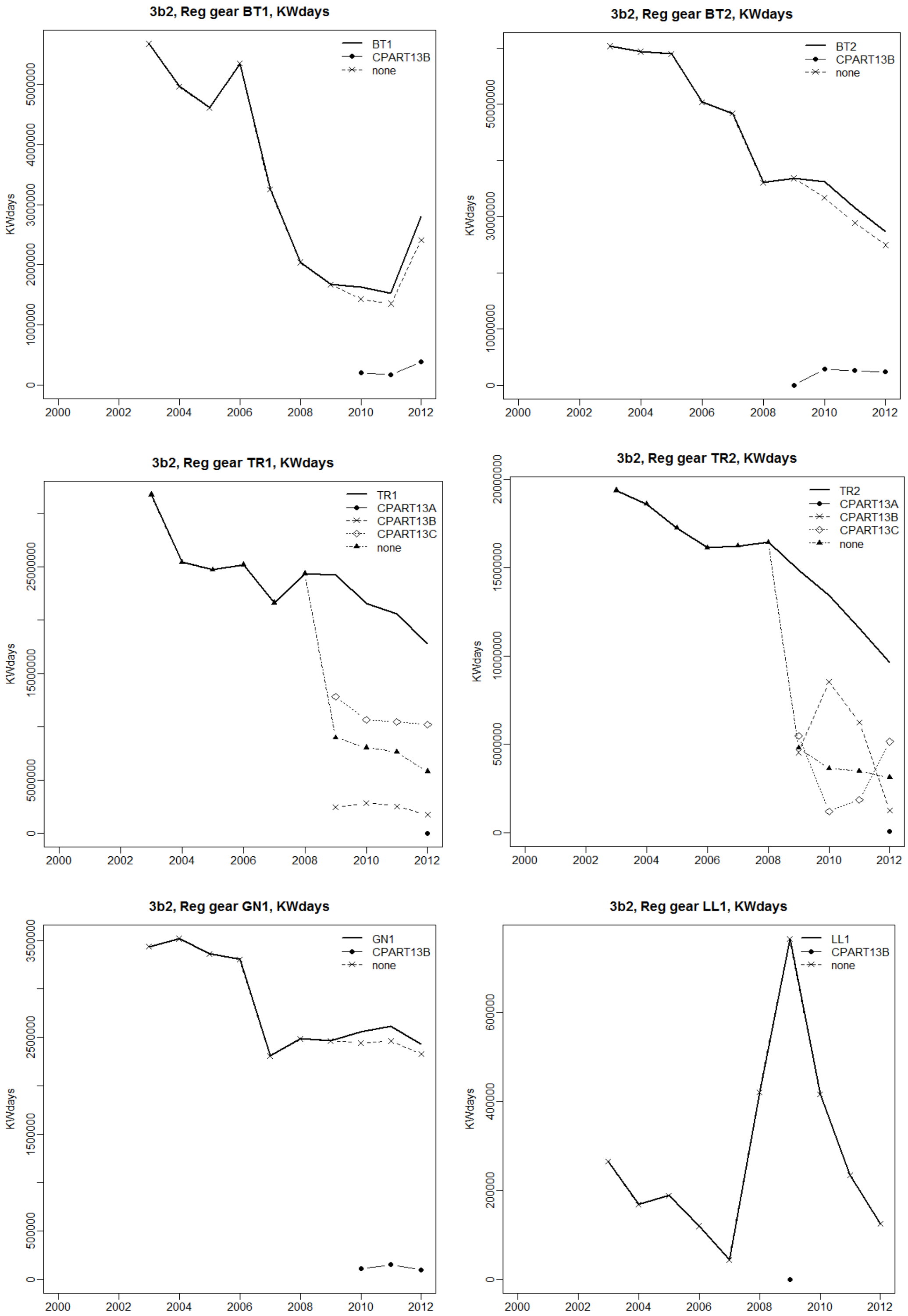


Figure 5.3.1.3. Management area 3b, subarea 3b2 (North Sea). Effort separated by each individual SPECON within regulated gear type when applied.

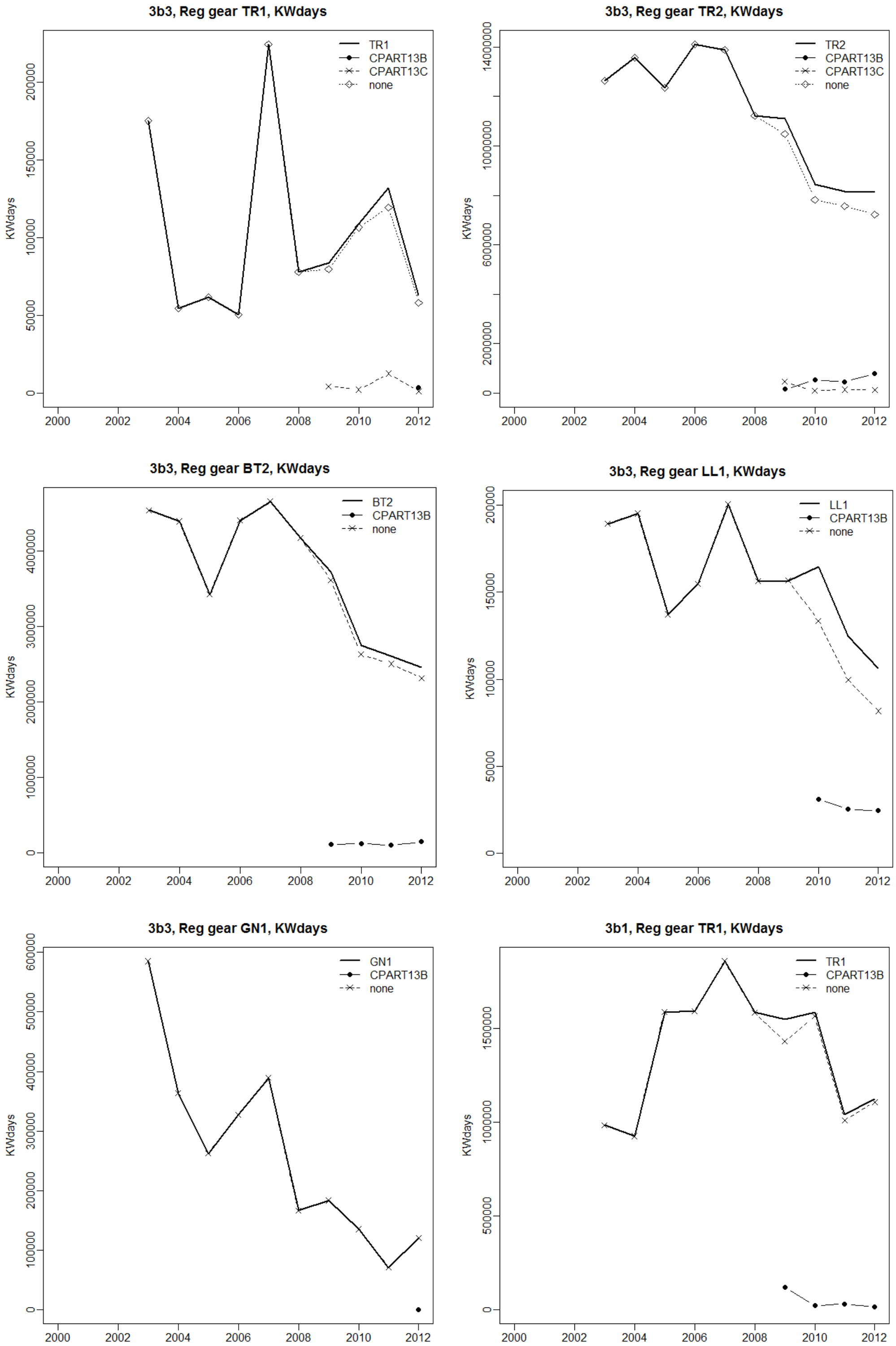


Figure 5.3.1.4. Management area 3b, subarea 3b3 (Eastern Channel) and 3b1 (Skagerrak). Effort separated by each individual SPECON within regulated gear type when applied.

Table. 5.3.1.5 Area 3b: Relative change in nominal effort 2013 data submission compared to 2012 submission (kW *days at sea) by subarea, country, gear, derogation and vessel length 2000-2011. Only the lines with non-zeros values are displayed

ANNEX	REG AREA	REG GEAR COD	SPECON	COUNTRY	VESSEL_LE	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
IIa	3b1	DEM_SEINE	none	DNK	O10T15M	-0.014		0	0			0					0
IIa	3b1	DREDGE	none	DNK	O10T15M	0	-0.044	-0.039		0			0		0	0	0
IIa	3b1	GN1	none	DNK	O10T15M	-0.001	-0.001	-0.001	0	0.001	-0.009	-0.006	-0.001	-0.013	-0.071	-0.102	0
IIa	3b1	GN1	none	DNK	O15M	-0.003	0	-0.003	0	0	-0.041	-0.005	0.004	-0.004	-0.052	-0.007	0
IIa	3b1	GT1	none	DNK	O10T15M		0	0	0	0	0	0	0	-0.003	-0.012	-0.054	0
IIa	3b1	GT1	none	DNK	O15M		0		0	0					-0.073	0	0
IIa	3b1	LL1	none	DNK	O10T15M	0	0.006	0	-0.016	0	0	-0.051	0	0	-0.138	-0.046	0
IIa	3b1	LL1	none	DNK	O15M	0	0	-0.057	0	0		0	0			0	0
IIa	3b1	none	none	DNK	O10T15M	0	-0.217	-0.199	-0.335	-0.871	-0.633	-0.966	-0.876	-0.985	-0.978		
IIa	3b1	none	none	DNK	O15M	-0.516	-0.432	0	0			-0.977	-0.903	-0.999	-0.999	-0.976	-0.961
IIa	3b1	OTTER	none	DNK	O10T15M	0	0	0	0	0	0	0	0	0	-0.018	-0.082	0
IIa	3b1	OTTER	none	DNK	O15M	0.002	0.009	0.002	0.005	-0.007	0.005	0.006	0.004	0.002	0.003	-0.008	0
IIa	3b1	PEL_SEINE	none	DNK	O15M	0.156	0.099	0.122	0.292	0.256	0.078	-0.104	0.134	-0.088	-0.128		0
IIa	3b1	PEL_TRAWL	none	DNK	O10T15M	0	0	0	0	0	0	0	0		0	-0.3	-0.127
IIa	3b1	PEL_TRAWL	none	DNK	O15M	0.043	0.099	0.12	0.08	0.029	0.055	0.03	-0.023	-0.026	-0.157	-0.051	-0.005
IIa	3b1	TR1	NONE	DEU	O15M	0	0	0	0	0	0	0	0	0	0	0	0.015
IIa	3b1	TR1	none	DNK	O10T15M	0	0	0	0	-0.006	-0.002	0	-0.001	-0.005	-0.025	-0.027	-0.002
IIa	3b1	TR1	none	DNK	O15M	-0.001	-0.001	0	0	0.006	-0.019	0.006	-0.004	0	-0.014	-0.002	-0.001
IIa	3b1	TR2	none	DNK	O10T15M	0	0	0	0.001	0	0	0	-0.001	-0.001	-0.008	-0.011	0
IIa	3b1	TR2	none	DNK	O15M	-0.002	-0.001	0	0.001	0.001	0.001	0	0.002	0.003	-0.004	-0.002	-0.002
IIa	3b1	TR3	none	DNK	O10T15M	0	0	0	0	-0.244	0	0	0		-0.114	-0.088	0
IIa	3b1	TR3	none	DNK	O15M	-0.143	-0.007	-0.004	-0.004	-0.002	-0.006	0	-0.029	-0.023	-0.122	-0.162	0
IIa	3b2	BEAM	none	BEL	O10T15M	0	0	0	0	0	0	0	0	0		-0.203	
IIa	3b2	BEAM	none	BEL	O15M	0	0	0	0	0	0	0	0	0	0	-0.299	0.002
IIa	3b2	BEAM	none	DNK	O15M	0	0	0	0	0	0	0	-0.001	0	-0.001	0	0
IIa	3b2	BEAM	none	ENG	O10T15M				0	0	0	0	0	0	0	0.015	0.011
IIa	3b2	BEAM	none	ENG	O15M				0	0	0	0	0	0	0	-0.056	0.038
IIa	3b2	BT1	none	BEL	O15M	0	0	0	0	0	0	0	0	0	0	0.101	0.041
IIa	3b2	BT1	none	DNK	O15M	0	0	0	0	0	0	0	0	0	-0.012	-0.009	0
IIa	3b2	BT2	none	BEL	O10T15M	0	0	0	0	0	0	0				-0.434	
IIa	3b2	BT2	none	BEL	O15M	0	0	0	0	0	0	0	0	0	0	0.007	0.022
IIa	3b2	BT2	NONE	DEU	O15M	0	0	0	0	0	0	0	0	0	0	0	0.001
IIa	3b2	BT2	NONE	ENG	O10T15M				0	0	0	0	0	0	-0.272	0	0
IIa	3b2	BT2	NONE	ENG	O15M				0	0	0	0	0	0	-0.018	-0.878	-0.966
IIa	3b2	DREDGE	none	BEL	O15M									0	0	-0.633	0
IIa	3b2	DREDGE	none	DNK	O10T15M	0	0	0	-0.002	0	0.002	0.001	0.001	0.002	-0.003	-0.01	0
IIa	3b2	DREDGE	none	DNK	O15M	0	0	0	0	0	0	0	0.007	-0.035	-0.03	-0.02	0
IIa	3b2	DREDGE	none	ENG	O10T15M				0	0	0	0	0	0	0	0.001	0.004
IIa	3b2	DREDGE	none	IOM	O15M						0	0	0	0	-0.978	-0.797	
IIa	3b2	DREDGE	none	SCO	O10T15M	0	0	0	0	0	0	0	0	-0.002	0	0	0
IIa	3b2	DREDGE	none	SCO	O15M	0	0	0	0	0	0.004	0	0	0.001	0	0	0.005
IIa	3b2	GN1	none	BEL	O10T15M	0	0	0	0	0	0	0	0	0	0	-0.504	0
IIa	3b2	GN1	none	BEL	O15M		0	0	0	0	0	0	0	0	0	-0.005	
IIa	3b2	GN1	none	DNK	O10T15M	0	-0.002	0	0.001	0.002	0	0	-0.001	0.001	-0.07	-0.048	0
IIa	3b2	GN1	none	DNK	O15M	0	0	0	0.001	0.005	0.002	0.004	-0.002	0	-0.005	-0.002	0
IIa	3b2	GN1	NONE	ENG	O10T15M				0	0	0	0	0	0	0	0.004	0
IIa	3b2	GN1	NONE	ENG	O15M				0	0	0	0	0	0	-0.005	-0.676	-0.803
IIa	3b2	GT1	none	BEL	O10T15M											-0.2	
IIa	3b2	GT1	none	BEL	O15M								0	0	0	-0.039	0
IIa	3b2	GT1	none	DNK	O10T15M	0	-0.018	-0.014	-0.001	-0.004	-0.01	0	0	0	-0.024	-0.012	0
IIa	3b2	GT1	none	DNK	O15M	0	0	0	0	0	0	0	0.005	0	-0.005	-0.012	0
IIa	3b2	LL1	none	BEL	O10T15M									0		-0.458	0
IIa	3b2	LL1	none	BEL	O15M											-0.421	
IIa	3b2	LL1	none	DNK	O10T15M	-0.005	0.01	0.007	0.012	0.002	0	0.005	-0.167	-0.033	-0.06	-0.005	0
IIa	3b2	LL1	none	DNK	O15M	0	0	0.007	-0.006	0	-0.043	0	0	0	-0.011	0	0
IIa	3b2	LL1	none	ENG	O10T15M				0	0	0	0	0	0	-0.077	0	0
IIa	3b2	LL1	none	SCO	O10T15M	0	0	0	0	0		0	0	1	0.302	0	
IIa	3b2	LL1	none	SCO	O15M	0	0	0	0	0		0		0	0	0	0.173
IIa	3b2	none	none	DNK	O10T15M	-0.062	-0.164	-0.181	-0.202	-0.21	-0.43	-0.581	-0.262	-0.412	-0.409	-0.179	-0.27

Table. 5.3.1.5 continued.

IIa	3b2	none	none	DNK	O15M	-0.182	-0.34	-0.39	-0.778	-0.812	-0.909	-0.945	-0.974	-0.995	-0.708	-0.27	-0.347
IIa	3b2	none	none	SCO	O10T15M	0	0	0	0	0	0	0	0	-0.005	-0.006	0.101	0.076
IIa	3b2	OTTER	none	DNK	O10T15M	-0.002	0	-0.008	0	0	0	0.003	-0.037	0	-0.027	-0.051	0
IIa	3b2	OTTER	none	DNK	O15M	-0.006	-0.008	-0.004	0.001	-0.002	-0.002	-0.004	-0.003	0.004	0.004	0.001	-0.009
IIa	3b2	OTTER	none	ENG	O10T15M				0	0	0	0	0	0		-0.963	-0.613
IIa	3b2	OTTER	none	ENG	O15M				0	0	0	0	0	0	0	-0.029	0.017
IIa	3b2	OTTER	NONE	IRL	O15M	0	0	0			0			0			0.003
IIa	3b2	OTTER	none	NIR	O15M							0	0	0		-0.218	-0.215
IIa	3b2	PEL_SEINE	none	DNK	O15M	-0.008	-0.02	-0.067	-0.049	-0.073	-0.009	-0.01	-0.017	-0.007	0.003	0.028	-0.017
IIa	3b2	PEL_TRAWL	none	DNK	O10T15M	0	0	0	0.001	0	-0.012	0	0	0	-0.232	-0.186	0.005
IIa	3b2	PEL_TRAWL	none	DNK	O15M	-0.036	-0.037	-0.037	-0.02	0.014	-0.018	-0.028	-0.012	-0.04	-0.047	-0.004	0
IIa	3b2	PEL_TRAWL	NONE	IRL	O15M	0	0	0	0	0	0	0	0	0	0	0	0.005
IIa	3b2	PEL_TRAWL	none	SCO	O15M	0	0	0	0.004	0	0	0	0	0	0	0	0
IIa	3b2	POTS	none	DNK	O10T15M	0			0	0	0	0	0.001	0	-0.062	-0.05	0
IIa	3b2	POTS	none	ENG	O10T15M				0	0	0	0	0	0	0	0.006	0.001
IIa	3b2	POTS	none	ENG	O15M				0.001	0	0	0	0	0	0	0	0.008
IIa	3b2	POTS	NONE	IRL	O15M						0	0	0	0	0	0	0.089
IIa	3b2	POTS	none	SCO	O10T15M	0	0	0	0	0	0	0	0	0.001	0	0.001	0.001
IIa	3b2	POTS	none	SCO	O15M	0	0	0	0	0	0	0	0	0	0	0	0.013
IIa	3b2	TR1	none	BEL	O10T15M											-0.239	
IIa	3b2	TR1	none	BEL	O15M					0			0	0	0	0.013	0
IIa	3b2	TR1	none	DNK	O10T15M	-0.001	0	0	0	0.002	-0.002	-0.003	-0.006	-0.004	-0.033	-0.014	0
IIa	3b2	TR1	none	DNK	O15M	-0.006	-0.02	-0.014	-0.034	-0.015	-0.02	-0.019	-0.034	-0.005	-0.004	-0.005	0
IIa	3b2	TR2	CPART11	SCO	O10T15M											0.075	0.008
IIa	3b2	TR2	none	BEL	O10T15M						0	0		0	0	-0.337	0
IIa	3b2	TR2	none	BEL	O15M					0	0	0	0	0	0	-0.051	0.034
IIa	3b2	TR2	none	DNK	O10T15M	0	0	0	0	0.001	0.02	-0.179	0	0	0		0
IIa	3b2	TR2	none	DNK	O15M	-0.026	0	0	0	0.001	-0.001	0.006	0.003	0.005	0.011	0	0
IIa	3b2	TR2	NONE	SCO	O10T15M	0	0	0	0	0.001	0	0	0	0			
IIa	3b2	TR3	none	BEL	O10T15M									0		-0.463	
IIa	3b2	TR3	none	DNK	O10T15M	0	-0.005	0.019	-0.004	0	-0.002	0.012	0	0	-0.25	-0.098	0
IIa	3b2	TR3	none	DNK	O15M	-0.194	0.03	0.009	0.014	0.003	0.01	0.006	-0.01	-0.006	-0.014	0	0.008
IIa	3b3	BEAM	none	BEL	O15M						0		0	0	0	0	0.415
IIa	3b3	BT2	none	BEL	O15M	0	0	0	0	0	0	0	0	0	0	0.002	0.054
IIa	3b3	BT2	NONE	ENG	O10T15M				0	0	0	0	0	0.003	-0.539	-0.554	-0.572
IIa	3b3	BT2	NONE	ENG	O15M				0	0	0	0	0	0	0.014	-0.224	-0.232
IIa	3b3	DREDGE	none	BEL	O15M								0	0	0	0	0.219
IIa	3b3	DREDGE	none	ENG	O10T15M				0	0	0	0	0	0	-0.115	-0.25	-0.391
IIa	3b3	DREDGE	none	ENG	O15M				0	0	0	0	0	0	0	-0.351	-0.017
IIa	3b3	DREDGE	none	SCO	O15M	0	0	0	0	0	0	0	0	-0.071	0	0	0.001
IIa	3b3	GN1	NONE	ENG	O10T15M				0	0	0	0	0	0	0.079	0.004	0
IIa	3b3	GT1	none	BEL	O15M								0	0	0	0	0.092
IIa	3b3	GT1	NONE	ENG	O10T15M				0	0	0	0	0	0	0.031	0.039	0.006
IIa	3b3	LL1	none	ENG	O10T15M				0	0	0	0	0	0	0.042	-0.663	-0.659
IIa	3b3	POTS	none	ENG	O10T15M				0	0	0	0	0.01	0.002	0.077	0.028	-0.003
IIa	3b3	TR1	none	BEL	O15M											0	0.787
IIa	3b3	TR2	none	BEL	O10T15M												0.018
IIa	3b3	TR2	none	BEL	O15M					0	0	0	0	0	0	0	0.06

5.3.1.2 Fishing effort of unregulated gears, management area 3b

Effort trends by unregulated gears (including CPArt11 and SPECON IIA83b) are given in Table 5.3.1.6 and shown in Figure 5.3.1.1.1 together with the regulated effort in the previous section. Category ‘none’ represents unregulated gear types and mesh sizes in addition to unidentified mesh sizes, and this category represents 0.5% of the unregulated effort in 2012.

The unregulated effort has increased in all three sub-areas in 2012 compared to 2011. This, together with the decrease of regulated effort, make that unregulated effort represents now almost 40% of the total effort in area 3b. One of the most noticeable changes in 2012 is the switch of nearly all French TR1 effort to CPart11 exemption, which was also accompanied to an increase of effort of this fishery back to its 2009 level.

In Skagerrak (3b1), the main unregulated effort is performed with otter trawls with other mesh sizes (57%, including the major small meshed *Pandalus* trawling), and with unregulated TR2 fishing for *Nephrops* under CPArt11 exemption (17%). In the North Sea (3b2), most of the unregulated effort is performed by pelagic fisheries and unregulated beam trawls (mainly the small mesh-sized *Crangon* beam fishery), with 37% and 35% of the 2012 unregulated effort in the area respectively. In the Eastern Channel (3b3), nearly all unregulated effort is performed using pelagic trawls, dredges and pots (57%, 25% and 16% of 2012 unregulated effort respectively).

Table 5.3.1.6. Effort (kWdays) of unregulated gear by subarea in area 3b 2005-2012. The full time series is available on the STECF website.

REG AREA COD	REG GEAR COD	SPECON	2005	2006	2007	2008	2009	2010	2011	2012	Rel 04-06	Rel 2011
3b1	BEAM	none	9484		13085	442				4597	0.57	
	DEM_SEINE	none		439		368	177		104			
	DREDGE	none			94		94	484	390	128	0.24	0.33
	none	none	469	727	10119	217	58975	85324	100480	80578	179.19	0.80
	OTTER	none	3354592	3007470	2633605	2905565	3313077	3246259	3175442	3158753	0.97	0.99
	PEL_SEINE	none	771370	447103	329070	198654	196295	165770	201916	244262	0.41	1.21
	PEL_TRAWL	none	1064576	910470	785364	474195	600538	680827	404710	524294	0.54	1.30
	POTS	none	322315	366137	416807	540803	519185	504260	504191	573080	1.75	1.14
	TR2	CPart11					766754	699160	695814	920420		1.32
		IIA83B	542007	664971	894575	735039						
3b1 Total			6064813	5397317	5082719	4855283	5455095	5382084	5083047	5506112	0.97	1.08
3b2	BEAM	none	13150790	12887540	13735577	13288264	13977649	12502485	8988168	12511111	0.95	1.39
	DEM_SEINE	none	23138	2146	13017	4846	14128	17871		27144	2.33	
	DREDGE	none	2508437	2073566	2479674	2035480	2315671	1988726	2132577	2210516	0.84	1.04
	none	none	64797	50106	73483	63328	184191	117074	148230	174266	2.58	1.18
	OTTER	none	5377674	5659003	3209016	5298165	6004949	6339670	6630044	2587249	0.37	0.39
	PEL_SEINE	none	1962646	1522402	1087940	932519	1221321	971554	819015	662248	0.36	0.81
	PEL_TRAWL	none	15590942	13622148	11994660	7183610	7585415	7758977	8761269	12959556	0.79	1.48
	POTS	none	2165088	2275012	2313665	2350549	2576439	2343830	2419764	2447558	1.10	1.01
	TR1	CPart11								2469180		
	TR2	CPart11						99134	38671	22812		0.59
3b2 Total			40843512	38091923	34907032	31156761	33879763	32139321	29937738	36071640	0.83	1.20
3b3	BEAM	none	70108	51418	32339	48248	69118	26586	24517	21417	0.26	0.87
	DEM_SEINE	none						21500	1125			
	DREDGE	none	3483715	1144701	1323782	1080856	1391023	2291506	2241794	1426359	0.74	0.64
	none	none	2468	32944	19603	241609	241609		4141			
	OTTER	none	1016771	477940	242207	224612	199366	151753	240336	108974	0.15	0.45
	PEL_SEINE	none				7764	7764		1650			
	PEL_TRAWL	none	4939656	4312174	4599318	3687254	3942055	3048145	1966515	3177736	0.68	1.62
	POTS	none	755112	882031	884043	626254	570873	1166178	812123	872370	1.18	1.07
	TR1	CPart11								9694		
3b3 Total			10267830	6901208	7101292	5916597	6421808	6705668	5292201	5616550	0.68	1.06
Grand total (all 3b areas combined)			57176155	50390448	47091043	41928641	45756666	44227073	40312986	47194302	0.82	1.17

Statistics on fishing capacity can be taken from the electronic appendixes to the present report, which can be downloaded from: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

5.3.1.3 Uptake of effort baseline

The uptake of effort baselines is presented on Figure 5.3.1.5). Care must be taken in the interpretation of this figure, for a number of reasons, including e.g: i) the baseline displayed here is extracted from the TAC and quotas regulations nr 43/2009, 53/2010, 57/2011, 44/2012 and 40/2013, and do not take into account the effort buyback performed by Member states as part of Article 13 and/or other agreements. This information is sometimes publicly available for some Member States, but not for all and STECF has not been provided with this information specifically; ii) as described in section 4, the effort information provided to STECF by a number of Member States is calculated in calendar days, whereas the actual regulation of effort uptake is based on 24h period, which can lead to some differences especially in coastal fisheries; iii) STECF data are calculated by calendar year whereas the effort baselines apply from February to January.

The point i) above is particularly important for the demersal trawls/seines fishery, as 49% and 36% of the regulated effort (i.e. excluding article 11) by TR1 and TR2 respectively is operated under article 13, and the actual effort is therefore much higher than the official baseline.

For all other regulated gears, the actual overall effort is not constrained by the baseline, however a break down by individual member states would show that some national segments are more constrained than others.

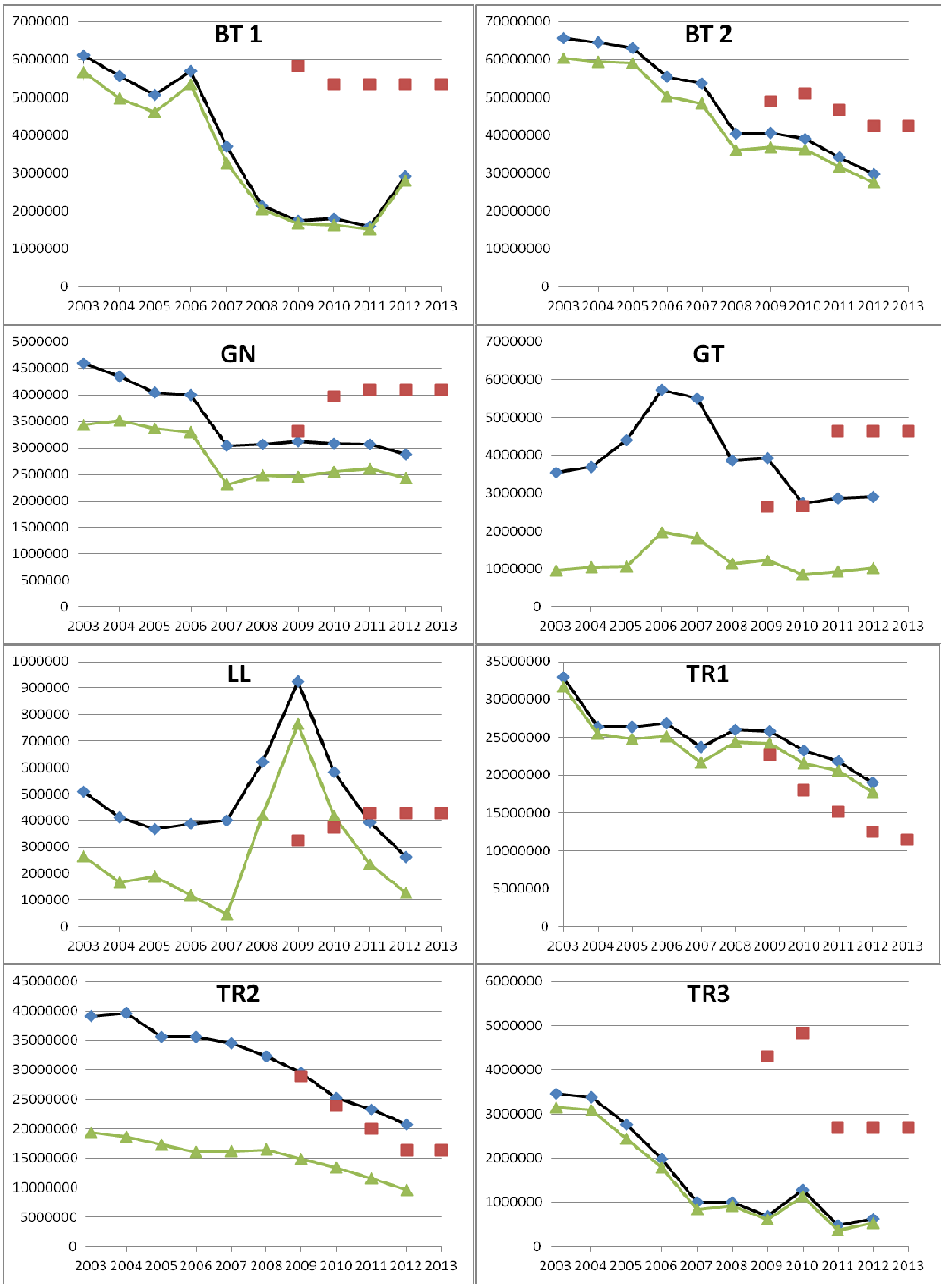


Figure 5.3.1.5 Management area 3b. Uptake of effort ceilings. Red squares: effort ceiling. Blue diamonds: regulated effort in whole area 3b (CPart 11 excluded). Green triangles: regulated effort in North Sea (subarea 3b2) alone.

5.3.2 ToR 1.b Catches (landings and discards) of cod in weight and numbers at age by fisheries

Estimated landings and discards of cod by cod plan gear category for the areas 3b1, 3b2 and 3b3 are given in Table 5.3.2.1. The same is displayed for unregulated gears (Table 5.3.2.3). Detailed data on age compositions of landings are not given here, but are available on the web site. The same applies to estimates by country. In addition, a discard coverage index is presented in tables 5.3.2.2 and 5.3.2.4. Especially discard rates classified with a C have to be treated with great care. In general, because of the limited availability and reliability of discard information for some species and from some countries contributing substantially to landings, care is required in the use of these data to draw firm conclusions about catch composition. In addition, the procedure used to raise discards as explained in section 4 may not be fully consistent with the procedures used in other contexts and therefore may not be directly comparable.

Information related to the Fully Documented Fishery (FDF) is dealt with specifically in section 5.3.8 further below.

As for the report of 2012, a number of figures are included in this report, displaying total landings (white) and discards (grey – when available) in weight for all regulated gears from 2005 to 2012 (Figures 5.3.2.1 – 5.3.2.3).

For the first time landings and discards of cod were analysed for the Skagerrak, the North Sea and the Eastern Channel separately (Table 5.3.2.1 and 5.3.2.3). Discard rates for TR1 (none and CPart13 b+c) and TR2 none categories are generally higher in the Skagerrak than in the North Sea in most of the years. Only TR2 CPart13c shows very high discard rates in the North Sea in 2012 and in the years before. TR2 CPart13b has a substantially lower discard rate in 2012 compared to previous years. In the Eastern Channel discard information is very scarce and not representative. Especially for the TR2 fisheries not enough discard information is available for area 3b3.

Overall, cod discard rates have decreased after 2008 especially for TR1. High discard rates can still be found for TR2 gears.

Catches from unregulated gears do not play a major role apart from one high discard estimate for unregulated otter trawls in 2005. This value appears as outlier in the time series.

Numbers of age by fisheries is not dealt with in this section, and can be found at the website http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313 in Appendix 3.

Table 5.3.2.1 Skagerrak (3b1), North Sea (incl. 2EU; 3b2)), and Eastern Channel (3b3): Landings (t), discards (t) and relative discard rates in weight for cod by regulated gear, 2005-2012.

REG_AREA	REG_GE	SPECON	2005_L	2005_D	2005_R	2006_L	2006_D	2006_R	2007_L	2007_D	2007_R	2008_L	2008_D	2008_R	2009_L	2009_D	2009_R	2010_L	2010_D	2010_R	2011_L	2011_D	2011_R	2012_L	2012_D	2012_R
3b1	BT1	none	20.42			3.30			12.03			2.19			1.10			17.12			7.67			10.82		
3b1	BT2	none	2.03			2.02			3.88			7.80			11.38			3.45								
3b1	GN1	none	643.76			432.95			559.54			589.90			672.51	25.23	0.04	760.69	15.53	0.02	668.89	13.81	0.02	640.07	11.76	0.02
3b1	GT1	none	6.99			8.67			6.73			47.39			86.80	4.73	0.05	67.41	1.62	0.02	74.18	2.30	0.03	92.92	2.05	0.02
3b1	LL1	none	27.12			30.08			88.70			62.73			5.59			9.36			22.81	0.06	0.00	22.66		
3b1	TR1	CPart13B													2.67	0.03	0.01	2.01	0.02	0.01	0.23			0.95		
3b1	TR1	none	446.92	898.15	0.67	443.43	1389.51	0.76	615.10	1648.54	0.73	756.50	348.74	0.32	1017.10	732.44	0.42	1158.28	548.85	0.32	1016.47	403.54	0.28	1375.27	346.73	0.20
3b1	TR2	none	1453.36	1956.88	0.57	1268.86	2405.54	0.66	892.70	1810.75	0.67	965.08	738.19	0.43	1224.34	1296.20	0.51	1196.67	1076.25	0.47	1234.09	1456.02	0.54	1253.66	1332.32	0.52
3b1	TR3	none	1.60	1.38	0.46	1.42	0.20	0.12	0.03						0.59			0.56	0.00	0.00	0.02					
3b1 Total			**2602.21**			**2190.73**			**2178.71**			**2431.58**			**3022.08**			**3215.55**			**3024.34**			**3396.35**		
3b2	BT1	CPart13B																1.25			3.24			4.28		
3b2	BT1	none	1107.87			1001.40	350.64	0.26	678.36			334.31	212.02	0.39	230.42			306.27			400.94			683.29		
3b2	BT2	CPart13B													1.77			50.81			46.26			31.86		
3b2	BT2	none	2128.74	828.87	0.28	2153.59	420.33	0.16	1980.30	194.35	0.09	2447.77	854.40	0.26	2233.00	441.01	0.17	1739.25	264.97	0.13	1257.52	97.70	0.07	979.95	137.63	0.12
3b2	GN1	none	3144.48	127.50	0.04	2755.03	97.14	0.03	1782.34			1928.85	1.56	0.00	2200.60			2605.27	13.98	0.01	2208.95	112.94	0.05	1763.75	59.00	0.03
3b2	GT1	none	195.54	0.66	0.00	169.99	6.18	0.04	132.12	0.07	0.00	187.78	0.17	0.00	249.01	2.41	0.01	195.51	0.06	0.00	135.37	13.26	0.09	194.34	10.35	0.05
3b2	LL1	none	105.02			197.36			90.95			141.76			119.45			280.68			157.23	1.46	0.01	141.67	0.14	0.00
3b2	TR1	CPart13A																						0.07		
3b2	TR1	CPart13B													511.72	278.09	0.35	671.70	164.87	0.20	323.93	70.41	0.18	194.51	3.38	0.02
3b2	TR1	CPart13c													9454.95	5737.69	0.38	11952.10	2848.70	0.19	10984.57	1371.64	0.11	11056.45	2227.26	0.17
3b2	TR1	none	11806.98	3421.03	0.23	11492.56	2567.86	0.18	10313.31	6501.76	0.39	12237.70	14394.35	0.54	6946.00	1286.87	0.16	6763.45	571.97	0.08	5809.77	239.52	0.04	6305.54	511.47	0.08
3b2	TR2	CPart13A																						0.00		
3b2	TR2	CPart13B													111.71	296.34	0.73	443.38	971.63	0.69	166.89	554.74	0.77	44.19	7.19	0.14
3b2	TR2	CPart13c													409.53	904.41	0.69	149.01	91.24	0.38	184.91	533.34	0.74	227.72	1027.63	0.82
3b2	TR2	none	1457.11	912.87	0.39	1236.82	1509.99	0.55	1309.70	4027.23	0.76	1383.23	2394.24	0.63	986.06	334.72	0.25	664.49	186.16	0.22	741.62	348.08	0.32	381.31	84.19	0.18
3b2	TR3	none	14.32	0.70	0.05	6.25			4.15			0.24			0.90			10.79			1.85			0.60		
3b2 Total			**19960.07**			**19013.00**			**16291.22**			**18661.62**			**23455.12**			**25833.96**			**22423.03**			**22009.52**		
3b3	BT1	none										1.04														
3b3	BT2	CPart13B													2.63			0.47	0.23	0.33	0.25	0.00	0.00	0.50	0.05	0.09
3b3	BT2	none	66.58	2.21	0.03	102.69	19.71	0.16	101.19	30.87	0.23	165.25	85.32	0.34	84.59	8.37	0.09	55.48	5.94	0.10	53.25	2.83	0.05	37.98	2.52	0.06
3b3	GN1	none	82.49			142.59			161.61			81.73			83.73			35.67	3.44	0.09	33.76			48.12		
3b3	GT1	none	144.40			169.95			206.21			142.46			139.83			152.33	4.23	0.03	139.34	395.79	0.74	134.38	19.33	0.13
3b3	LL1	CPart13B																						0.00		
3b3	LL1	none	3.90			4.14			3.94			3.76			4.08			2.05			3.76			3.82		
3b3	TR1	CPart13c													1.27			0.16			0.16			0.21		
3b3	TR1	none	3.31			10.48			114.65			46.81			46.21			10.03	0.31	0.03	29.05	0.10	0.00	8.64		
3b3	TR2	CPart13B													8.18	0.92	0.10	12.22	0.02	0.00	7.96	0.88	0.10	11.70		
3b3	TR2	CPart13c													8.33	8.81	0.51	5.96	0.02	0.00	6.64	2.14	0.24	7.68		
3b3	TR2	none	576.39			604.21	0.00	0.00	936.87			603.72	4.83	0.01	616.49			710.70			691.73			535.49		
3b3	TR3	none	0.02						0.00			0.60			0.60			6.57			2.22			1.94		
3b3 Total			**877.10**			**1034.06**			**1524.45**			**1045.37**			**995.92**			**991.65**			**968.11**			**790.45**		
Grand Total			**23439.37**			**22237.79**			**19994.38**			**22138.57**			**27473.11**			**30041.16**			**26415.48**			**26196.32**		

Table 5.3.2.2 Skagerrak (3b1), North Sea (incl. 2EU; 3b2)), and Eastern Channel (3b3): Relative discard rates (R) in weight and Discard coverage index (DQI) for cod by regulated gear, 2005-2012. Empty cells indicate that no discard information was available.

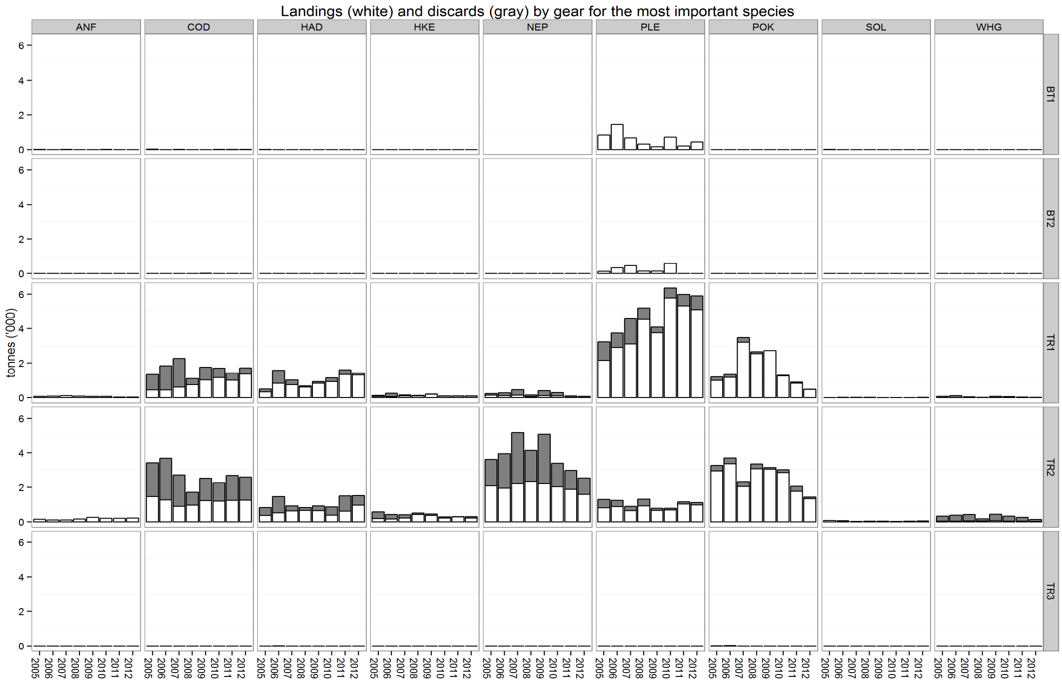
ANNEX	REG_AREA	REG_GEAR	SPECON	SPECIES	2005 R	2005 DQI	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI
IIa	3b1	BT1	none	COD																
IIa	3b1	BT2	none	COD																
IIa	3b1	GN1	none	COD									0.036	A	0.02	A	0.02	A	0.018	A
IIa	3b1	GT1	none	COD									0.052	A	0.023	A	0.03	B	0.022	B
IIa	3b1	LL1	none	COD													0.003	C		
IIa	3b1	TR1	CPart13B	COD									0.01	B	0.01	C				
IIa	3b1	TR1	none	COD	0.668	A	0.758	A	0.728	A	0.316	A	0.419	A	0.322	A	0.284	A	0.201	A
IIa	3b1	TR2	none	COD	0.574	A	0.655	A	0.67	A	0.433	A	0.514	A	0.474	A	0.541	A	0.515	A
IIa	3b1	TR3	none	COD	0.462	C	0.122	C							0	C				
IIa	3b2	BT1	CPart13B	COD																
IIa	3b2	BT1	NONE	COD			0.259	A			0.388	A								
IIa	3b2	BT2	CPart13B	COD																
IIa	3b2	BT2	NONE	COD	0.28	C	0.163	A	0.089	A	0.259	A	0.165	C	0.132	A	0.072	A	0.123	A
IIa	3b2	GN1	NONE	COD	0.039	C	0.034	C			0.001	A			0.005	C	0.049	A	0.032	A
IIa	3b2	GT1	NONE	COD	0.003	C	0.035	C	0.001	C	0.001	C	0.01	C	0	C	0.089	B	0.051	B
IIa	3b2	LL1	NONE	COD													0.009	B	0.001	C
IIa	3b2	TR1	CPart13A	COD																
IIa	3b2	TR1	CPart13B	COD									0.352	A	0.197	A	0.179	A	0.017	A
IIa	3b2	TR1	CPart13c	COD									0.378	A	0.192	A	0.111	A	0.168	A
IIa	3b2	TR1	NONE	COD	0.225	A	0.183	A	0.387	A	0.54	A	0.156	B	0.078	B	0.04	B	0.075	B
IIa	3b2	TR2	CPart13A	COD																
IIa	3b2	TR2	CPart13B	COD									0.726	A	0.687	A	0.769	A	0.14	A
IIa	3b2	TR2	CPart13c	COD									0.688	A	0.38	A	0.743	A	0.819	A
IIa	3b2	TR2	NONE	COD	0.385	A	0.55	B	0.755	B	0.634	B	0.253	C	0.219	C	0.319	C	0.181	C
IIa	3b2	TR3	NONE	COD	0.046	C														
IIa	3b3	BT1	NONE	COD																
IIa	3b3	BT2	CPart13B	COD											0.331	A	0	A	0.089	A
IIa	3b3	BT2	NONE	COD	0.032	A	0.161	A	0.234	A	0.341	A	0.09	A	0.097	A	0.051	A	0.062	A
IIa	3b3	GN1	NONE	COD											0.088	C				
IIa	3b3	GT1	NONE	COD											0.027	C	0.74	C	0.126	C
IIa	3b3	LL1	CPart13B	COD																
IIa	3b3	LL1	none	COD																
IIa	3b3	TR1	CPart13c	COD																
IIa	3b3	TR1	NONE	COD											0.03	C	0.004	B		
IIa	3b3	TR2	CPart13B	COD									0.101	C	0.002	C	0.1	C		
IIa	3b3	TR2	CPart13c	COD									0.514	C	0.003	B	0.243	B		
IIa	3b3	TR2	NONE	COD			0	C			0.008	C								
IIa	3b3	TR3	none	COD																

Table 5.3.2.3 Skagerrak (3b1), North Sea (incl. 2EU; 3b2)), and Eastern Channel (3b3): Landings (t), discards (t) and relative discard rates (R) in weight for cod by unregulated gear, 2005-2012.

REG_AREA	REG_GEAR	SPECON	2005_L	2005_D	2005_R	2006_L	2006_D	2006_R	2007_L	2007_D	2007_R	2008_L	2008_D	2008_R	2009_L	2009_D	2009_R	2010_L	2010_D	2010_R	2011_L	2011_D	2011_R	2012_L	2012_D	2012_R
3b1	DEM_SEINE	none				0.24	1.36	0.85							0.00						1.00					
3b1	DREDGE	none							1.44						0.08			0.35			0.03			0.00		
3b1	none	none	6.52			5.46			2.68			7.21			20.45			23.80	0.00	0.00	36.86			53.80		
3b1	OTTER	none	233.36	4148.99	0.95	173.80			97.01	40.41	0.29	126.61	149.03	0.54	174.70	17.36	0.09	225.83	37.98	0.14	196.27	62.97	0.24	205.34	59.16	0.22
3b1	PEL_TRAWL	none	1.82	2.71	0.60	1.20	0.57	0.32	0.56	0.37	0.40	3.12	0.09	0.03	0.17			3.61			1.04			0.88		
3b1	POTS	none	0.01			0.02			0.03			0.13			0.22			1.41	0.00	0.00	2.75			1.24		
3b1	TR2	CPart11													0.07	4.14	0.98	0.51	12.66	0.96	0.12	1.03	0.90	0.05	10.73	1.00
3b1	TR2	IIA83b	0.82	2.31	0.74	0.57	4.47	0.89	0.72	13.70	0.95	0.03	6.32	1.00												
3b1 Total			**242.53**			**181.29**			**102.44**			**137.11**			**195.69**			**255.50**			**238.07**			**261.32**		
3b2	BEAM	none	19.83	0.29	0.01	14.12			23.49			31.43			113.05	10.27	0.08	51.24	17.02	0.25	14.46			48.33	0.41	0.01
3b2	DEM_SEINE	none	1.95	1.03	0.35	3.20			0.57	0.22	0.28				1.74			9.03						19.40		
3b2	DREDGE	none	0.11			1.02			1.31			0.52						2.35	0.00	0.00	1.45	0.00	0.00	1.72		
3b2	none	none	5.46	34.20	0.86	18.51			7.98			9.76			13.43			0.35			3.48			18.36		
3b2	OTTER	none	58.78	8.16	0.12	39.61	3.99	0.09	14.60	4.15	0.22	22.73	31.47	0.58	28.61			33.01			47.60	0.00	0.00	66.28	2.85	0.04
3b2	PEL_SEINE	none	8.48	5.14	0.38	0.70	0.27	0.28										1.52	0.51	0.25				0.45	0.17	0.27
3b2	PEL_TRAWL	none	1.89	0.67	0.26	1.73	0.09	0.05	2.28			0.44	0.07	0.13	37.02			23.80			14.51			3.64		
3b2	POTS	none	16.87			13.99			10.81			6.52			6.76			13.05	0.01	0.00	5.90			6.28		
3b2	TR1	CPart11																						85.80		
3b2	TR2	CPart11																2.22								
3b2 Total			**113.36**			**92.86**			**61.05**			**71.40**			**200.61**			**136.57**			**87.39**			**250.25**		
3b3	BEAM	none	0.06			0.08			0.44			0.19			0.18			0.02								
3b3	DEM_SEINE	none																1.00								
3b3	DREDGE	none	0.20			0.02			1.43			0.13			0.20			0.10			0.07			0.15		
3b3	none	none							0.14			27.24			27.27											
3b3	OTTER	none	11.45			5.17			16.88			3.95			3.95			3.72			2.57			2.11		
3b3	PEL_SEINE	none										0.30			0.30											
3b3	PEL_TRAWL	none	2.01			5.86			3.52			3.93			3.93			1.91			7.78			7.16		
3b3	POTS	none	0.24			1.41			0.64			0.00						2.85			1.99			5.17		
3b3 Total			**13.96**			**12.54**			**23.05**			**35.74**			**35.82**			**9.60**			**12.41**			**14.59**		
Grand Total			**369.86**			**286.70**			**186.54**			**244.25**			**432.12**			**401.67**			**337.87**			**526.16**		

Table 5.3.2.4 Skagerrak (3b1), North Sea (incl. 2EU; 3b2)), and Eastern Channel (3b3): Relative discard rates (R) in weight and Discard coverage index (DQI) for cod by regulated gear, 2005-2012. Empty cells indicate that no discard information was available.

REG_AREA	REG_GEAR	SPECON	SPECIES	2005 R	2005 DQI	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI
3b1	DEM_SEINE	none	COD			0.848	A												
3b1	DREDGE	none	COD																
3b1	none	none	COD											0	A				
3b1	OTTER	none	COD	0.947	B			0.294	C	0.541	B	0.09	A	0.144	A	0.243	A	0.224	A
3b1	PEL_TRAWL	none	COD	0.598	B	0.321	B	0.401	C	0.026	C								
3b1	POTS	none	COD											0	A				
3b1	TR2	CPART11	COD									0.983	A	0.961	A	0.898	A	0.995	A
3b1	TR2	IIA83b	COD	0.739	A	0.886	A	0.95	A	0.995	A								
3b2	BEAM	NONE	COD	0.014	C							0.083	C	0.249	C			0.008	C
3b2	DEM_SEINE	none	COD	0.346	A			0.28	A										
3b2	DREDGE	none	COD											0	C	0	C		
3b2	none	NONE	COD	0.862	C														
3b2	OTTER	NONE	COD	0.122	C	0.092	C	0.221	C	0.581	C					0	C	0.041	C
3b2	PEL_SEINE	none	COD	0.378	A	0.28	A							0.252	A			0.27	A
3b2	PEL_TRAWL	none	COD	0.262	A	0.052	C			0.133	A								
3b2	POTS	NONE	COD											0.001	B				
3b2	TR1	CPart11	COD																
3b2	TR2	CPart11	COD																
3b3	BEAM	NONE	COD																
3b3	DEM_SEINE	none	COD																
3b3	DREDGE	NONE	COD																
3b3	none	NONE	COD																
3b3	OTTER	NONE	COD																
3b3	PEL_SEINE	none	COD																
3b3	PEL_TRAWL	none	COD																
3b3	POTS	none	COD																



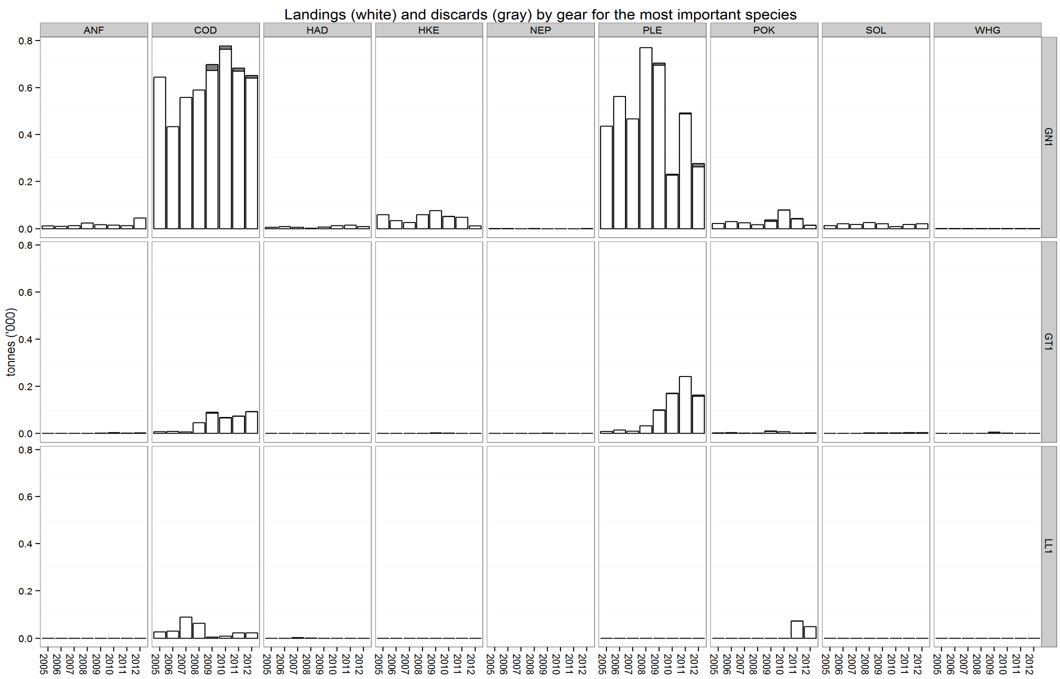
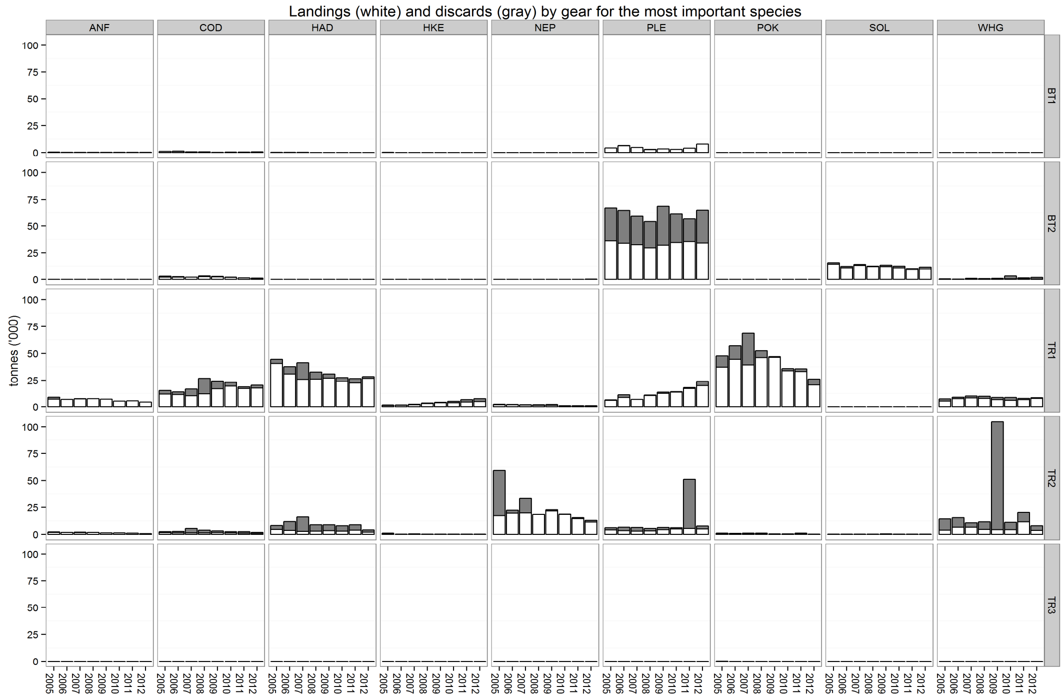


Figure 5.3.2.1; Estimated landings (white bars) and discards (grey bars) of targets species by cod plan gear categories in management area 3b1 (Skagerrak). The upper chart shows the most used gears, the lower chart the remaining gears.



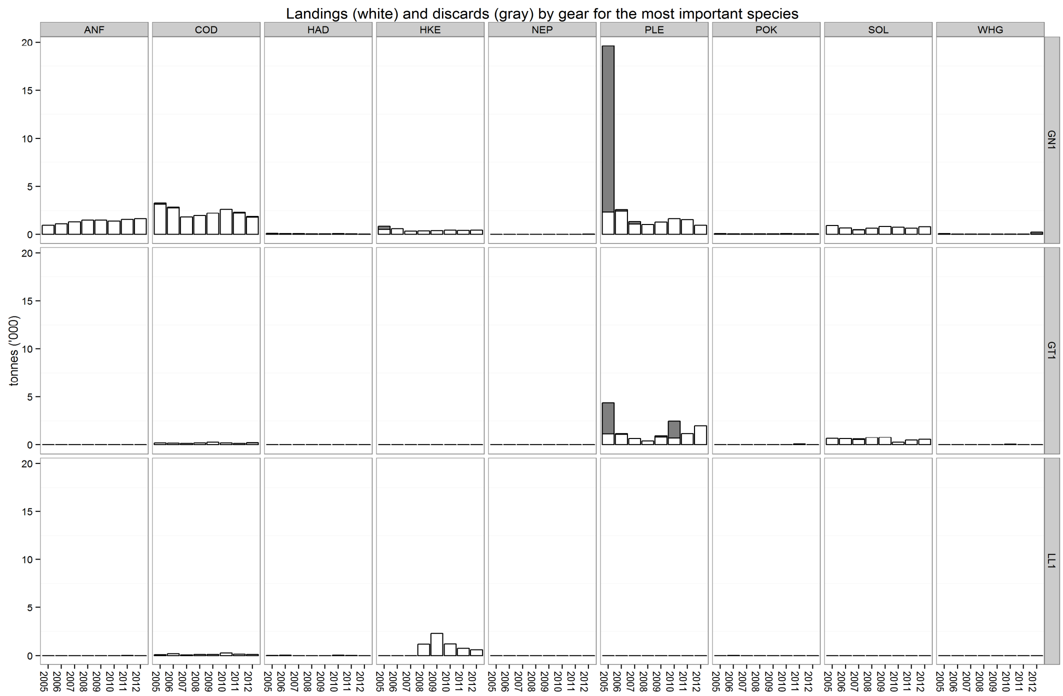
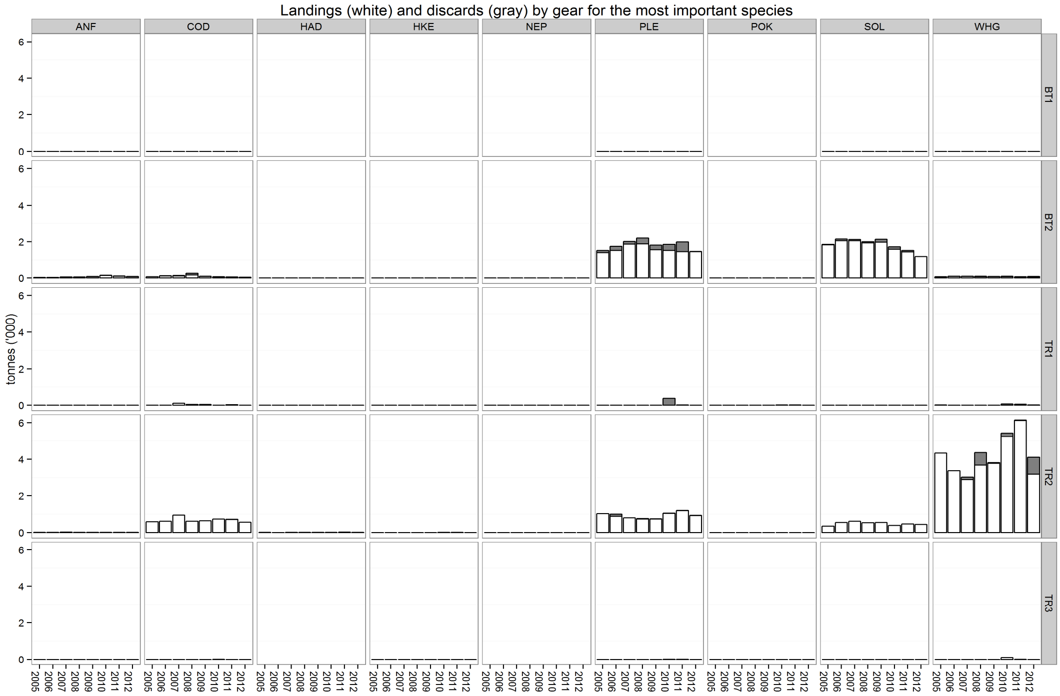


Figure 5.3.2.2; Estimated landings (white bars) and discards (grey bars) of targets species by cod plan gear categories in management area 3b2 (North Sea; 2EU). The upper chart shows the most used gears, the lower chart the remaining gears.



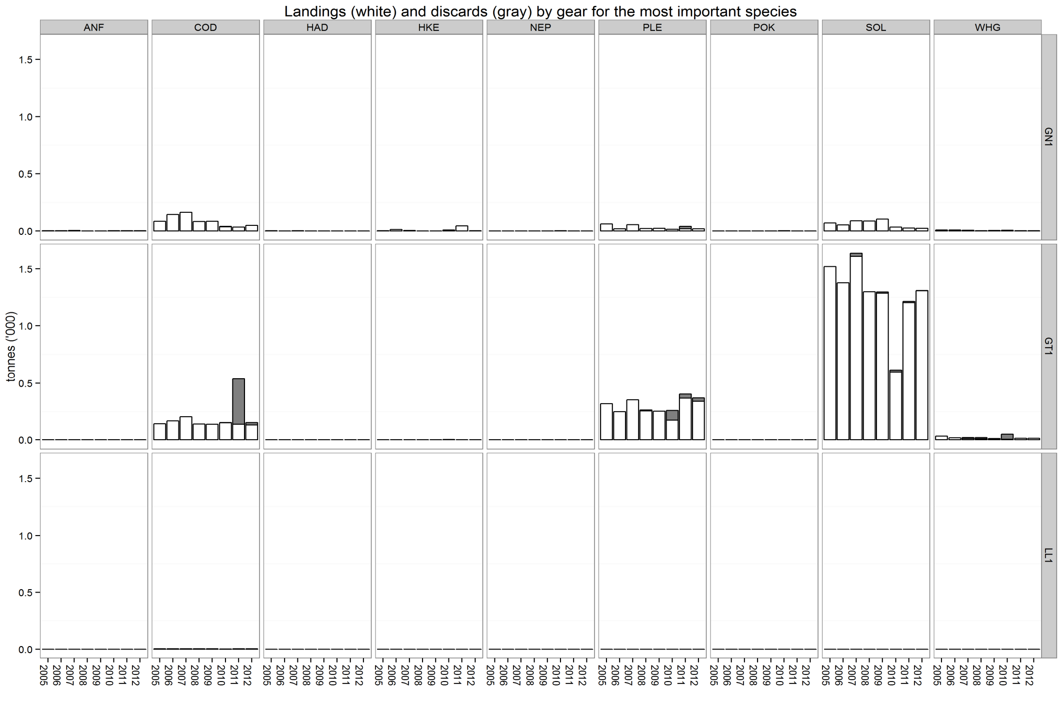


Figure 5.3.2.3; Estimated landings (white bars) and discards (grey bars) of targets species by cod plan gear categories in management area 3b3 (Eastern channel). The upper chart shows the most used gears, the lower chart the remaining gears.

5.3.3 ToR 1.c-d Catches (landings and discards) of non-cod species in weight and numbers at age by fisheries

Estimated landings and discards of haddock, whiting, anglerfish, saithe, hake, Nephrops, plaice and sole by cod plan gear category for the areas 3b1, 3b2 and 3b3 are given in Table 5.3.3.1. The same is given for the unregulated gears in table 5.3.3.2 but for sole and plaice only. Detailed data on age compositions of landings and discards are not given here, but are available on the web site. The same applies to other species. This includes some discard information for pelagic species. As discard information for pelagic species is rather scarce, great care is needed in interpreting the available information.

Information related to the Fully Documented Fishery (FDF) is dealt with specifically in section 5.3.8 further below.

Because of the limited availability and reliability of discard information for some species and from some countries contributing substantially to landings, care is required in the use of these data to draw firm conclusions about catch composition. A discard coverage index (DQI) is presented for the first time. The index values for all species in the data call can be found at the website

http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313 in Appendix 2.

In addition, the procedure used to raise discards and explained in section 4.4 may not be fully consistent with the procedures used in other contexts and therefore may not be directly comparable. In particular, some outliers are visible for the TR2 fisheries. For example, the very large whiting discards estimated for 2009 relates to averaged discard rates from other countries allocated to the large French landings in area IV rather than actual observations, which are missing from France. Also high discard estimates for plaice in the shrimp fishery with unregulated beam trawls (BEAM) in 2012 relate to average discard rates applied to the relatively large landings of the Dutch fleet. More examples can be found. These values may not be realistic because of missing discard information from some countries. Further investigations are needed during the second effort meeting in October.

A number of figures are included in this report, displaying total landings (white) and discards (grey – when available) in weight for all regulated gears from 2004 to 2012 (Figures 5.3.3.1 - 3).

Anglerfish, and saithe landings decreased since 2009. Discard rates for saithe are lower compared to former years. Plaice landings have increased and discards remain around the same proportion of the total catch (~40-45%) apart from outlier in 2011 for TR2. Whitefish landings in TR2 are globally low compared to TR1 landings but discard rates are higher. Nephrops landings have decreased in recent years.

Catches with unregulated gears of sole and plaice are very small compared with the total catch (Table 5.3.3.2).

Numbers at age by fisheries is not dealt with in this section, and can be found at the website (http://stecf.jrc.ec.europa.eu/web/stecf/ewg13) in Appendix 3.

Table 5.3.3.1 Skagerrak (3b1), North Sea (incl. 2EU; 3b2)), and Eastern Channel (3b3): Landings (t), discards (t) and relative discard rates (R) in weight by species and regulated gear, 2005-2012. DATA FOR OTHER SPECIES ARE AVAILABLE ON STECF WEBSITE.

SPECIES	REG_AR	REG_GEAR	SPECON	2005_L	2005_D	2005_R	2006_L	2006_D	2006_R	2007_L	2007_D	2007_R	2008_L	2008_D	2008_R	2009_L	2009_D	2009_R	2010_L	2010_D	2010_R	2011_L	2011_D	2011_R	2012_L	2012_D	2012_R
ANF	3b1	BT1	none	4.59			2.81			8.08			2.82			2.03			5.02			0.95			2.98		
ANF	3b1	BT2	none	0.40			0.09			1.73			3.56			0.82			1.11								
ANF	3b1	GN1	none	11.16			9.87			12.66			23.31			16.95	0.00	0.00	14.62	0.00	0.00	12.69	0.00	0.00	44.20	0.00	0.00
ANF	3b1	GT1	none	0.00			0.05						0.27			0.90	0.00	0.00	3.65	0.00	0.00	1.69	0.00	0.00	1.97	0.00	0.00
ANF	3b1	LL1	none																0.01			0.04					
ANF	3b1	TR1	CPart13B													0.02			0.01								
ANF	3b1	TR1	none	76.38	0.16	0.00	93.08	0.94	0.01	114.14	0.72	0.01	83.16	0.15	0.00	76.98	0.04	0.00	67.99	0.15	0.00	35.15	0.11	0.00	33.68	0.14	0.00
ANF	3b1	TR2	none	145.05	0.46	0.00	109.91	1.85	0.02	104.65	1.15	0.01	157.08	0.37	0.00	257.00	0.23	0.00	206.01	0.83	0.00	203.47	0.81	0.00	217.59	1.82	0.01
ANF	3b1	TR3	none	0.17	0.00	0.00	0.08			0.03						0.23			0.09								
ANF	3b1 Total			237.74			215.89			241.29			270.19			354.94			298.50			253.98			300.42		
ANF	3b2	BT1	CPart13B																1.64			1.48			1.75		
ANF	3b2	BT1	none	356.38			198.11	14.67	0.07	200.39			160.35	1.41	0.01	108.47			84.87			110.86	0.00	0.00	146.65		
ANF	3b2	BT2	CPart13B													0.06			8.51			17.01			7.81		
ANF	3b2	BT2	none	60.61	12.67	0.17	45.92	5.44	0.11	37.93	3.29	0.08	41.04	7.06	0.15	27.83	13.38	0.33	43.98	13.48	0.24	41.86	14.08	0.25	21.83		
ANF	3b2	GN1	CPart13B																211.01			241.94			189.41		
ANF	3b2	GN1	none	927.84	0.00	0.00	1083.42	0.00	0.00	1272.87			1441.11	0.00	0.00	1448.55			1129.58			1276.93	0.00	0.00	1424.97	0.00	0.00
ANF	3b2	GT1	none	1.04	0.00	0.00	3.37	0.00	0.00	0.49			0.56	0.00	0.00	5.36			1.34			4.41	0.00	0.00	16.61	0.00	0.00
ANF	3b2	LL1	none	0.22			0.59			0.01			0.05			0.07			0.24			32.44	0.00	0.00	0.10		
ANF	3b2	TR1	CPart13A																						0.05		
ANF	3b2	TR1	CPart13B													294.00			376.48			480.74			23.09		
ANF	3b2	TR1	CPart13c													5444.02			3652.75			3816.12			3103.73		
ANF	3b2	TR1	none	7073.77	1981.47	0.22	6895.56	71.25	0.01	7354.46	225.31	0.03	7626.19	21.92	0.00	1300.35	1.05	0.00	1366.24	6.58	0.01	1212.59	0.70	0.00	1249.21	9.14	0.01
ANF	3b2	TR2	CPart13A																						3.62		
ANF	3b2	TR2	CPart13B													535.95			1118.91			728.11			36.22		
ANF	3b2	TR2	CPart13c													690.05			103.72			220.32			581.17		
ANF	3b2	TR2	none	1793.56	316.19	0.15	1743.52			1611.32	423.64	0.21	1694.38			138.94	0.00	0.00	58.34	0.02	0.00	54.50	0.08	0.00	55.97	0.13	0.00
ANF	3b2	TR3	none	27.44	0.00	0.00	11.19			11.42			1.66			0.22									0.14	0.00	0.01
ANF	3b2 Total			10240.86			9981.68			10488.90			10965.34			9993.86			8157.60			8239.31			6862.33		
ANF	3b3	BT1	none										0.04														
ANF	3b3	BT2	CPart13B													0.22			1.67			2.18			2.61		
ANF	3b3	BT2	none	20.27	8.41	0.29	23.30	4.06	0.15	48.20	8.43	0.15	48.05	1.43	0.03	61.04	21.79	0.26	127.53	17.80	0.12	94.99	6.64	0.07	58.46	18.10	0.24
ANF	3b3	GN1	none	0.04			0.19			4.16						0.03			0.25			0.73			0.08		
ANF	3b3	GT1	none	1.54			0.01			0.55			0.11			0.11			0.02			0.51			0.02		
ANF	3b3	LL1	CPart13B																			0.08					
ANF	3b3	TR1	CPart13B																						0.03		
ANF	3b3	TR1	CPart13c													0.01			0.01			0.01					
ANF	3b3	TR1	none	1.59			1.60			4.44			0.92			0.91			1.52			6.11			3.22		
ANF	3b3	TR2	CPart13B													0.34			1.86			1.52			1.84		
ANF	3b3	TR2	CPart13c													0.95			0.42			0.94			0.59		
ANF	3b3	TR2	none	12.21			12.26			18.66			11.77			10.75			2.04			5.11			6.21		
ANF	3b3	TR3	none																								
ANF	3b3 Total			35.65			37.36			76.01			60.89			74.35			135.32			112.16			73.06		
ANF Total				**10514.25**	**2319.35**	**0.84**	**10234.93**	**98.20**	**0.36**	**10806.19**	**662.53**	**0.48**	**11296.42**	**32.33**	**0.19**	**10423.15**	**36.48**	**0.59**	**8591.42**	**38.84**	**0.37**	**8605.45**	**22.44**	**0.33**	**7235.80**	**29.34**	**0.27**

Table 5.3.3.1 continued

SPECIES	REG_AR	REG_GEAR	SPECON	2005_L	2005_D	2005_R	2006_L	2006_D	2006_R	2007_L	2007_D	2007_R	2008_L	2008_D	2008_R	2009_L	2009_D	2009_R	2010_L	2010_D	2010_R	2011_L	2011_D	2011_R	2012_L	2012_D	2012_R
HAD	3b1	BT1	none	11.84			0.18			1.31			0.20			0.03			0.10			0.14			1.03		
HAD	3b1	BT2	none	3.72			0.01			0.03			0.03						0.05								
HAD	3b1	GN1	none	5.59			8.45			5.08			1.88			6.20	0.10	0.02	12.99	0.01	0.00	14.52	0.03	0.00	8.15	0.00	0.00
HAD	3b1	GT1	none	0.03			0.02			0.02			0.05			0.27	0.03	0.08	0.21	0.00	0.00	0.04	0.00	0.00	0.04	0.00	0.00
HAD	3b1	LL1	none	0.03						2.77			0.98						0.00			0.51	0.00	0.00	0.55		
HAD	3b1	TR1	CPart13B													5.34	0.15	0.03	0.90	0.01	0.01	0.10			0.26		
HAD	3b1	TR1	none	336.25	169.32	0.34	828.89	756.43	0.48	748.76	274.47	0.27	608.79	79.55	0.12	822.97	100.68	0.11	934.96	216.51	0.19	1349.77	249.85	0.16	1314.99	113.08	0.08
HAD	3b1	TR2	none	364.78	452.82	0.55	518.09	945.00	0.65	625.08	294.28	0.32	651.40	171.20	0.21	642.01	272.03	0.30	382.06	479.51	0.56	616.39	886.49	0.59	960.94	552.86	0.37
HAD	3b1	TR3	none	1.63	0.06	0.03	8.40	0.04	0.01	0.02						0.04			0.15	0.01	0.04				0.04		
HAD	3b1 Total			723.87			1364.03			1383.06			1263.32			1476.86			1331.42			1981.46			2285.99		
HAD	3b2	BT1	CPart13B																0.16			0.06			0.06		
HAD	3b2	BT1	none	115.64			81.08	1.67	0.02	116.21			54.41	0.26	0.01	34.50			32.69			51.49	1.06	0.02	59.80		
HAD	3b2	BT2	CPart13B																0.62			1.02			1.02		
HAD	3b2	BT2	none	54.20	16.11	0.23	14.06	3.94	0.22	15.46	2.84	0.16	20.13	9.07	0.31	10.39			16.28			55.12	13.14	0.19	19.47		
HAD	3b2	GN1	none	95.36	0.00	0.00	71.99	0.00	0.00	54.98			47.46	0.00	0.00	31.75			55.85			44.44	0.16	0.00	22.45	2.33	0.09
HAD	3b2	GT1	none	2.29			0.74	0.00	0.00	0.81			1.25	0.00	0.00	1.41			1.53			3.15	0.00	0.00	2.36	0.45	0.16
HAD	3b2	LL1	none	24.70			65.99			9.08			10.83			13.89			44.45			37.71	0.00	0.00	5.52	0.03	0.01
HAD	3b2	TR1	CPart13A																						0.04		
HAD	3b2	TR1	CPart13B													2862.83	408.87	0.13	1434.37	189.25	0.12	1747.88	366.88	0.17	694.31	7.41	0.01
HAD	3b2	TR1	CPart13c													22247.38	3251.61	0.13	20835.45	3343.67	0.14	19304.58	3405.59	0.15	24395.20	1225.34	0.05
HAD	3b2	TR1	none	40599.67	3917.38	0.09	30752.01	6928.07	0.18	25777.82	15412.43	0.37	25987.07	6666.13	0.20	1836.72	105.99	0.06	1406.40	128.34	0.08	1394.24	189.32	0.12	1654.73	322.53	0.16
HAD	3b2	TR2	CPart13A																						9.18		
HAD	3b2	TR2	CPart13B													1507.56	2592.85	0.63	2315.01	4600.95	0.67	1617.22	3812.35	0.70	173.31	5.52	0.03
HAD	3b2	TR2	CPart13c													1766.30	2883.76	0.62	308.21	410.01	0.57	536.45	1224.50	0.70	1742.26	1997.41	0.53
HAD	3b2	TR2	none	4466.46	3650.33	0.45	3455.99	8267.72	0.71	2631.53	13395.50	0.84	2778.54	6022.45	0.68	88.83	0.00	0.00	147.49	3.07	0.02	1552.34	3.03	0.00	96.33	7.99	0.08
HAD	3b2	TR3	none	16.14	1.13	0.07	15.12			5.07			0.59			0.72			2.04						0.64	0.21	0.24
HAD	3b2 Total			45374.47			34456.97			28610.95			28900.28			30402.27			26600.56			26345.70			28876.69		
HAD	3b3	BT2	CPart13B																						0.03		
HAD	3b3	BT2	none	0.33			1.00			0.96			0.39			0.72			1.85			1.38	0.00	0.00	2.41		
HAD	3b3	GN1	none	0.04						0.04						0.00			0.02			0.00					
HAD	3b3	GT1	none																			0.06			0.37		
HAD	3b3	LL1	none																0.00								
HAD	3b3	TR1	none	4.09			0.74			2.32			1.07			1.07			9.35			8.94			3.72		
HAD	3b3	TR2	CPart13B													0.04			0.63			1.70			0.27		
HAD	3b3	TR2	CPart13c													0.00						0.35			0.03		
HAD	3b3	TR2	none	5.35			0.59			14.55			3.74			3.73			2.56			23.65			10.41		
HAD	3b3 Total			9.80			2.34			17.87			5.20			5.56			14.41			36.08			17.24		
HAD Total				**46108.14**	**8207.14**	**1.76**	**35823.34**	**16902.87**	**2.26**	**30011.88**	**29379.51**	**1.95**	**30168.79**	**12948.67**	**1.53**	**31884.69**	**9616.04**	**2.09**	**27946.38**	**9371.33**	**2.39**	**28363.24**	**10152.40**	**2.81**	**31179.92**	**4235.15**	**1.81**

Table 5.3.3.1 continued

SPECIES	REG_AR	REG_GEAR	SPECON	2005_L	2005_D	2005_R	2006_L	2006_D	2006_R	2007_L	2007_D	2007_R	2008_L	2008_D	2008_R	2009_L	2009_D	2009_R	2010_L	2010_D	2010_R	2011_L	2011_D	2011_R	2012_L	2012_D	2012_R
HKE	3b1	BT1	none	2.12			2.50			1.08			0.42			0.69			1.55			0.04			0.44		
HKE	3b1	BT2	none	0.08			0.16			0.80			1.47			0.35											
HKE	3b1	GN1	none	58.62			33.86			25.15			58.80			75.58	0.08	0.00	50.71	0.69	0.01	47.50	0.05	0.00	11.19	0.02	0.00
HKE	3b1	GT1	none	0.14			0.04			0.04			0.33			2.29	0.04	0.02	1.41	0.02	0.01	0.34	0.00	0.00	0.48	0.00	0.00
HKE	3b1	LL1	none										0.00						0.01			0.00					
HKE	3b1	TR1	CPart13B													0.28	0.10	0.27	0.06			0.03			0.16		
HKE	3b1	TR1	none	69.10	60.41	0.47	58.88	191.60	0.77	103.46	52.80	0.34	108.32	23.16	0.18	197.16	19.51	0.09	90.66	16.83	0.16	93.08	2.36	0.03	81.85	20.62	0.20
HKE	3b1	TR2	none	186.60	373.78	0.67	159.54	251.78	0.61	211.75	149.17	0.41	416.46	87.62	0.17	368.15	86.55	0.19	217.45	73.86	0.25	281.34	20.19	0.07	216.34	79.59	0.27
HKE	3b1	TR3	none	0.26	0.04	0.14	0.42	0.14	0.25	0.06						0.06			0.15	0.00	0.00						
HKE	**3b1 Total**			**316.93**			**255.39**			**342.34**			**585.81**			**644.55**			**362.00**			**422.33**			**310.47**		
HKE	3b2	BT1	CPart13B																0.91			1.50			1.30		
HKE	3b2	BT1	none	68.30			57.97	0.00	0.00	59.53			39.50	0.00	0.00	23.55			35.16			30.79	0.00	0.00	21.43		
HKE	3b2	BT2	CPart13B																2.55			2.49			1.08		
HKE	3b2	BT2	none	19.65	5.31	0.21	9.53	9.53	0.50	7.69	0.09	0.01	8.67	0.00	0.00	6.07	0.00	0.00	8.20			6.25	0.21	0.03	6.91		
HKE	3b2	GN1	none	496.53	334.14	0.40	578.49	0.00	0.00	328.42			339.08	0.00	0.00	366.78			406.58			379.95	0.00	0.00	424.17	0.18	0.00
HKE	3b2	GT1	none	1.79	0.44	0.20	1.45	0.00	0.00	0.56			17.70	0.00	0.00	3.71			14.50			3.26	0.00	0.00	4.35	0.01	0.00
HKE	3b2	LL1	none	0.05			0.06						1181.89			2311.75			1223.88			766.52	0.00	0.00	605.89	0.00	0.00
HKE	3b2	TR1	CPart13B													105.17	18.97	0.15	131.71	2.66	0.02	121.72	4.34	0.03	153.70	6.41	0.04
HKE	3b2	TR1	CPart13c													1953.75	61.79	0.03	1787.32	620.87	0.26	2268.75	77.79	0.03	2761.47	2278.52	0.45
HKE	3b2	TR1	none	1113.06	574.02	0.34	1420.06	230.15	0.14	1992.49	344.42	0.15	3105.87	338.41	0.10	1634.30	343.72	0.17	1908.27	602.40	0.24	2039.31	2129.79	0.51	1992.92	321.76	0.14
HKE	3b2	TR2	CPart13A																						0.99		
HKE	3b2	TR2	CPart13B													42.14	1.66	0.04	90.20	1.37	0.02	65.30	0.39	0.01	7.42	5.38	0.42
HKE	3b2	TR2	CPart13c													65.83	1.73	0.03	12.61	0.27	0.02	25.73	0.22	0.01	33.35	61.28	0.65
HKE	3b2	TR2	none	137.68	887.94	0.87	138.18	17.76	0.11	145.55	198.78	0.58	177.41	0.00	0.00	81.22	0.00	0.00	95.05	18.42	0.16	63.91	1.51	0.02	102.02	0.01	0.00
HKE	3b2	TR3	none	2.02	0.08	0.04	0.60			0.41						0.04									0.25		
HKE	**3b2 Total**			**1839.09**			**2206.33**			**2534.65**			**4870.12**			**6594.31**			**5716.94**			**5775.47**			**6117.24**		
HKE	3b3	BT2	none	0.29			0.21			0.50			0.50			0.21			0.36	0.00	0.00	0.12			0.26		
HKE	3b3	GN1	none	0.66			12.52			2.32									7.95			43.54			0.03		
HKE	3b3	GT1	none	0.63						0.23			0.34			0.34			2.33			0.84			0.70		
HKE	3b3	LL1	none										0.02			0.02						0.06					
HKE	3b3	TR1	CPart13c													0.00											
HKE	3b3	TR1	none	0.33			0.09			7.78			0.11			0.11			2.45			2.22			0.83		
HKE	3b3	TR2	CPart13B													0.01			0.03			0.04			0.51		
HKE	3b3	TR2	CPart13c													0.01			0.00								
HKE	3b3	TR2	none	2.16			0.81			0.32			1.72			1.70			12.00			8.62			1.67		
HKE	3b3	TR3	none																			0.02					
HKE	**3b3 Total**			**4.07**			**13.62**			**11.15**			**2.69**			**2.40**			**25.12**			**55.45**			**4.01**		
HKE Total				**2160.08**	**2236.15**	**3.32**	**2475.35**	**700.95**	**2.38**	**2888.14**	**745.26**	**1.49**	**5458.61**	**449.20**	**0.45**	**7241.26**	**534.15**	**0.99**	**6104.06**	**1337.39**	**1.15**	**6253.25**	**2236.83**	**0.74**	**6431.71**	**2773.78**	**2.17**

Table 5.3.3.1 continued

SPECIES	REG_AR	REG_GEAR	SPECON	2005_L	2005_D	2005_R	2006_L	2006_D	2006_R	2007_L	2007_D	2007_R	2008_L	2008_D	2008_R	2009_L	2009_D	2009_R	2010_L	2010_D	2010_R	2011_L	2011_D	2011_R	2012_L	2012_D	2012_R
NEP	3b1	BT2	none																								
NEP	3b1	GN1	none	0.05			0.04			0.01			0.07												0.02	0.00	0.00
NEP	3b1	GT1	none	0.05			0.37			0.01			0.04			1.06						0.01			0.02		
NEP	3b1	TR1	none	136.82	108.79	0.44	116.74	162.42	0.58	136.80	323.03	0.70	56.18	107.85	0.66	109.04	301.89	0.74	103.63	197.66	0.66	17.77	79.37	0.82	10.54	66.25	0.86
NEP	3b1	TR2	none	1761.00	1055.13	0.38	1576.87	1508.63	0.49	1805.52	2101.45	0.54	2024.65	1311.94	0.39	2200.12	2863.59	0.57	2021.28	1368.91	0.40	1874.24	1095.69	0.37	1586.05	954.64	0.38
NEP	3b1	TR3	none	0.47	0.01	0.01	0.11			1.62						0.01			2.07	0.00	0.00						
NEP	3b1 Total			1898.40			1694.12			1943.96			2080.93			2310.23			2126.97			1892.03			1596.63		
NEP	3b2	BT1	CPart13B																						0.00		
NEP	3b2	BT1	none	0.12			0.47			0.24			0.08			0.56						1.00			2.00		
NEP	3b2	BT2	CPart13B																3.21			1.65			0.95		
NEP	3b2	BT2	none	76.36	8.11	0.10	59.46			93.34			30.91			85.75			78.87			93.95			80.19	150.50	0.65
NEP	3b2	GN1	none	0.08	0.13	0.63	0.09			0.02			0.11	0.00	0.00	0.08			0.15			0.26	0.00	0.00	0.76	0.00	0.00
NEP	3b2	GT1	none																0.01			0.00	0.00	0.00			
NEP	3b2	LL1	none																								
NEP	3b2	TR1	CPart13A																						1.89		
NEP	3b2	TR1	CPart13B													204.64	230.02	0.53	285.80	11.01	0.04	273.01	0.00	0.00	8.06		
NEP	3b2	TR1	CPart13c													745.49	285.31	0.28	307.02	10.00	0.03	447.13	0.00	0.00	690.66		
NEP	3b2	TR1	none	1949.22	383.96	0.17	1907.59	277.04	0.13	1707.32	239.33	0.12	1551.74	454.49	0.23	426.47	226.64	0.35	324.76	100.43	0.24	365.85	0.82	0.00	274.23	93.03	0.25
NEP	3b2	TR2	CPart13A																						98.40		
NEP	3b2	TR2	CPart13B													10006.93	0.00	0.00	15432.83	0.00	0.00	9865.21			1646.20		
NEP	3b2	TR2	CPart13c													9647.10	0.00	0.00	1665.30	0.00	0.00	2382.54			7375.19		
NEP	3b2	TR2	none	17250.22	42199.01	0.71	19400.72	2770.66	0.13	19701.86	13766.27	0.41	18262.78			1894.91	1026.33	0.35	1342.98	163.49	0.11	2213.47	856.77	0.28	2159.91	1708.55	0.44
NEP	3b2	TR3	none	4.80	0.04	0.01	3.51			8.03						7.50									0.01		
NEP	3b2 Total			19280.80			21371.83			21510.80			19845.62			23019.43			19440.93			15644.08			12338.45		
NEP	3b3	BT2	none	0.03			0.00			0.00						0.00			0.00						0.00		
NEP	3b3	GN1	none																0.15								
NEP	3b3	GT1	none																						0.08		
NEP	3b3	TR1	none	4.10			1.46			0.22									3.79			1.68			0.48		
NEP	3b3	TR2	none				0.03						0.06			0.06			0.29			0.30			0.11		
NEP	3b3 Total			4.13			1.49			0.22			0.06			0.06			4.23			1.98			0.67		
NEP Total				**21183.32**	**43755.17**	**2.44**	**23067.44**	**4718.75**	**1.32**	**23454.98**	**16430.08**	**1.77**	**21926.61**	**1874.28**	**1.28**	**25329.72**	**4933.77**	**2.81**	**21572.13**	**1851.49**	**1.47**	**17538.08**	**2032.64**	**1.47**	**13935.76**	**2972.97**	**2.59**

Table 5.3.3.1 continued

SPECIES	REG_AR	REG_GEAR	SPECON	2005_L	2005_D	2005_R	2006_L	2006_D	2006_R	2007_L	2007_D	2007_R	2008_L	2008_D	2008_R	2009_L	2009_D	2009_R	2010_L	2010_D	2010_R	2011_L	2011_D	2011_R	2012_L	2012_D	2012_R
PLE	3b1	BT1	none	843.89			1448.00			677.36			316.37			158.97			713.91			204.77			432.19		
PLE	3b1	BT2	none	119.92			329.87			461.63			144.66			136.61			575.09			4.00					
PLE	3b1	GN1	none	435.60			563.42			465.84			768.34			694.04	9.46	0.01	226.81	3.27	0.01	487.51	3.91	0.01	261.23	14.72	0.05
PLE	3b1	GT1	none	8.11			14.14			8.95			34.53			98.83	2.32	0.02	169.32	1.51	0.01	240.94	0.28	0.00	158.23	5.27	0.03
PLE	3b1	LL1	none	0.00			0.29			0.00						0.01			0.00			0.00	0.00	0.00	0.00		
PLE	3b1	TR1	CPart13B													0.03			0.00								
PLE	3b1	TR1	none	2158.95	1077.86	0.33	2897.28	849.58	0.23	3105.85	1467.01	0.32	4533.51	654.85	0.13	3757.44	326.73	0.08	5771.62	580.80	0.09	5315.67	668.62	0.11	5093.09	810.14	0.14
PLE	3b1	TR2	none	800.96	469.61	0.37	876.96	348.39	0.28	647.55	180.88	0.22	924.89	311.01	0.25	656.60	122.56	0.16	686.76	95.45	0.12	1032.43	117.70	0.10	975.65	143.29	0.13
PLE	3b1	TR3	none	0.11	0.06	0.36	0.99	0.28	0.22	0.74						0.03			0.28			2.20			0.00		
PLE	3b1 Total			4367.54			6130.95			5367.93			6722.30			5502.53			8143.80			7287.53			6920.39		
PLE	3b2	BT1	CPart13B																538.77			561.38			1199.60		
PLE	3b2	BT1	none	4374.21			6359.90	138.36	0.02	4631.95			2723.87	72.40	0.03	3438.22			2449.69			3383.66			6675.32		
PLE	3b2	BT2	CPart13B													42.56			6616.71	1247.73	0.16	7350.16			7404.30		
PLE	3b2	BT2	none	36257.77	31011.12	0.46	34007.22	30771.51	0.48	32510.81	26680.93	0.45	29617.31	24677.33	0.46	32125.51	36549.33	0.53	28011.12	25410.34	0.48	28118.23	21149.46	0.43	26733.62	31070.46	0.54
PLE	3b2	GN1	none	2335.65	17514.71	0.88	2430.79	170.31	0.07	1057.20	252.38	0.19	994.74	10.06	0.01	1239.75			1607.46	0.00	0.00	1493.24	2.68	0.00	928.76	3.48	0.00
PLE	3b2	GT1	none	1176.11	3278.60	0.74	1109.67	75.56	0.06	645.43			383.08	0.00	0.00	850.41	111.83	0.12	697.27	1818.81	0.72	1189.05	4.78	0.00	1992.99	7.65	0.00
PLE	3b2	LL1	none	0.88			0.81			0.00			0.05			0.01			0.61			0.12	0.00	0.00	0.03		
PLE	3b2	TR1	CPart13A																						0.04		
PLE	3b2	TR1	CPart13B													1814.53	579.08	0.24	3417.16	272.15	0.07	3394.94	356.44	0.10	3431.84	643.52	0.16
PLE	3b2	TR1	CPart13c													3224.99	558.18	0.15	1669.07	209.01	0.11	2537.39	206.97	0.08	3186.93	645.43	0.17
PLE	3b2	TR1	none	5999.81	575.07	0.09	8770.47	2498.88	0.22	6823.83	184.95	0.03	10472.65	500.44	0.05	7479.79	24.78	0.00	8669.10	10.28	0.00	11316.66	181.11	0.02	13179.02	2794.25	0.18
PLE	3b2	TR2	CPart13A																						2.10		
PLE	3b2	TR2	CPart13B													123.30	124.76	0.50	1288.64	354.23	0.22	1194.62	1107.69	0.48	1179.26	531.23	0.31
PLE	3b2	TR2	CPart13c													975.54	1434.56	0.60	216.80	64.87	0.23	443.01	165.84	0.27	218.54	107.85	0.33
PLE	3b2	TR2	none	3949.34	2137.46	0.35	3251.47	3204.31	0.50	2978.47	3338.72	0.53	3051.68	2413.90	0.44	3108.53	445.27	0.13	3443.60	713.67	0.17	3650.10	44663.89	0.92	3563.58	2109.91	0.37
PLE	3b2	TR3	none	5.62	13.05	0.70	22.72			4.76			0.03			0.80			1.05			0.25			4.74	0.02	0.00
PLE	3b2 Total			54099.39			55953.05			48652.46			47243.40			54423.95			58627.06			64632.79			69700.69		
PLE	3b3	BT1	none										3.29												0.09		
PLE	3b3	BT2	CPart13B													78.06	0.53	0.01	96.93	4.47	0.04	82.87	0.45	0.01	128.38	5.23	0.04
PLE	3b3	BT2	none	1395.37	126.37	0.08	1516.66	230.57	0.13	1869.09	146.08	0.07	1880.82	316.54	0.14	1485.56	253.87	0.15	1418.84	334.47	0.19	1369.82	531.54	0.28	1320.29	14.14	0.01
PLE	3b3	GN1	none	61.21			17.59			53.39			20.66			21.56			14.77			18.07	20.91	0.54	18.08		
PLE	3b3	GT1	none	319.92			249.39			352.61	0.00	0.00	256.42	9.17	0.04	254.11			175.35	86.29	0.33	367.99	37.45	0.09	339.72	30.37	0.08
PLE	3b3	LL1	CPart13B																0.02			0.03			0.04		
PLE	3b3	LL1	none	0.21			0.60			0.24			0.09			0.58			0.39			0.65			0.20		
PLE	3b3	TR1	CPart13c													2.94			0.66	0.01	0.01	0.47			0.77		
PLE	3b3	TR1	none	1.69			2.44			4.33			5.92			3.77			3.87	374.62	0.99	9.73	3.57	0.27	4.96		
PLE	3b3	TR2	CPart13B													4.28	0.12	0.03	26.68	5.33	0.17	14.18	6.20	0.30	61.61	14.05	0.19
PLE	3b3	TR2	CPart13c													29.75	1.22	0.04	14.07	3.61	0.20	20.31	7.11	0.26	19.15	3.45	0.15
PLE	3b3	TR2	none	1016.30			881.63	120.28	0.12	798.46	0.00	0.00	722.65	28.92	0.04	700.80			999.68			1153.16			832.25		
PLE	3b3	TR3	none	1.37			0.24			1.06			0.51			0.51			10.28			8.05			4.29		
PLE	3b3 Total			2796.06			2668.54			3079.17			2890.36			2581.92			2761.54			3045.34			2729.83		
PLE Total				**61262.98**	**56203.92**	**4.36**	**64752.54**	**38408.03**	**2.33**	**57099.55**	**32250.95**	**1.81**	**56856.06**	**28994.62**	**1.57**	**62508.39**	**40544.61**	**2.76**	**69532.41**	**31590.90**	**4.33**	**74965.65**	**69236.59**	**4.27**	**79350.90**	**38954.45**	**2.88**

Table 5.3.3.1 continued

SPECIES	REG_AR	REG_GEAR	SPECON	2005_L	2005_D	2005_R	2006_L	2006_D	2006_R	2007_L	2007_D	2007_R	2008_L	2008_D	2008_R	2009_L	2009_D	2009_R	2010_L	2010_D	2010_R	2011_L	2011_D	2011_R	2012_L	2012_D	2012_R
POK	3b1	BT1	none	0.15			0.08			0.35			0.09									0.00			0.14		
POK	3b1	BT2	none	0.01						0.04						0.02											
POK	3b1	GN1	none	21.78			29.89			24.98			16.39			30.05	6.88	0.19	77.43	0.82	0.01	40.30	2.12	0.05	13.76	0.95	0.06
POK	3b1	GT1	none	2.10			3.31			1.64			1.73			8.12	1.98	0.20	7.15	0.25	0.03	0.97	0.39	0.29	1.32	0.87	0.40
POK	3b1	LL1	none	0.24			0.05			0.51			0.35									72.02	1.05	0.01	49.47		
POK	3b1	TR1	CPart13B													1396.35	0.00	0.00	112.52	0.00	0.00	344.36			128.54	0.00	0.00
POK	3b1	TR1	none	1000.60	210.98	0.17	1175.88	167.42	0.13	3202.68	282.89	0.08	2538.29	120.44	0.05	1324.26	6.89	0.01	1152.35	31.50	0.03	492.31	65.43	0.12	350.36	12.58	0.04
POK	3b1	TR2	none	2953.12	311.82	0.10	3356.09	337.16	0.09	2039.93	293.46	0.13	3069.29	273.61	0.08	3043.88	103.41	0.03	2849.38	173.59	0.06	1755.01	290.28	0.14	1331.15	98.88	0.07
POK	3b1	TR3	none	7.39	0.88	0.11	20.88			0.09						1.41			0.34	0.13	0.27						
POK	3b1 Total			**3985.38**			**4586.19**			**5270.22**			**5626.14**			**5804.08**			**4199.17**			**2704.97**			**1874.74**		
POK	3b2	BT1	CPart13B																0.00			0.03			0.00		
POK	3b2	BT1	none	9.17			10.96	0.00	0.00	9.66			4.57	1.79	0.28	1.47			1.28			2.27	0.24	0.10	1.95		
POK	3b2	BT2	CPart13B																0.01			0.06			0.06		
POK	3b2	BT2	none	1.05			0.94			0.60	0.01	0.02	0.16			0.09			0.02			0.08			0.05		
POK	3b2	GN1	none	67.42	0.00	0.00	44.84	0.00	0.00	25.69			29.19	3.23	0.10	44.56			54.99			47.86	0.01	0.00	47.96	0.23	0.01
POK	3b2	GT1	none	0.69			0.53	0.00	0.00	0.11			0.63	0.01	0.02	2.36			15.76			74.52	0.00	0.00	1.06	0.02	0.02
POK	3b2	LL1	none	3.74			19.15			2.25			3.11			7.28			4.85			3.60	0.00	0.00	4.18	0.01	0.00
POK	3b2	TR1	CPart13B													10837.79	269.33	0.02	9488.09	438.12	0.04	7359.96	358.54	0.05	5932.42	0.19	0.00
POK	3b2	TR1	CPart13c													9742.11	276.51	0.03	10515.23	1558.16	0.13	9165.73	2162.51	0.19	7554.60	5432.16	0.42
POK	3b2	TR1	none	37218.48	10426.00	0.22	44464.27	12427.23	0.22	39271.58	29301.84	0.43	46058.72	6342.58	0.12	25797.31	40.16	0.00	13723.11	48.09	0.00	16513.89	8.92	0.00	7095.64	67.68	0.01
POK	3b2	TR2	CPart13A																						0.70		
POK	3b2	TR2	CPart13B													99.94			192.73	102.68	0.35	137.31	515.37	0.79	2.05		
POK	3b2	TR2	CPart13c													263.13			24.21	7.69	0.24	94.31	353.89	0.79	140.60	32.84	0.19
POK	3b2	TR2	none	596.78	513.25	0.46	371.90	492.41	0.57	664.60	382.16	0.37	547.15	447.07	0.45	51.55	0.00	0.00	4.93	0.01	0.00	29.44	0.00	0.00	6.17	0.02	0.00
POK	3b2	TR3	none	154.33			61.71			47.79			17.78			0.14									0.00	0.00	0.00
POK	3b2 Total			**38051.65**			**44974.29**			**40022.27**			**46661.30**			**46847.72**			**34025.18**			**33429.06**			**20787.44**		
POK	3b3	BT2	none	0.02			0.06			0.15			0.01			0.08			0.02			0.10			0.21		
POK	3b3	GN1	none							0.02									0.06								
POK	3b3	GT1	none	0.00																		0.02					
POK	3b3	LL1	none										0.04			0.04											
POK	3b3	TR1	none	0.00			0.01			0.00			0.00			0.00			15.25			12.20					
POK	3b3	TR2	CPart13B																0.05			0.12			0.10		
POK	3b3	TR2	CPart13c													0.09						0.01					
POK	3b3	TR2	none	1.16			0.26			0.24			0.76			0.58			1.47			1.20			0.78		
POK	3b3	TR3	none																			0.06					
POK	3b3 Total			**1.18**			**0.33**			**0.42**			**0.81**			**0.78**			**16.85**			**13.71**			**1.08**		
POK Total				**42038.20**	**11462.92**	**1.06**	**49560.81**	**13424.22**	**1.00**	**45292.90**	**30260.37**	**1.02**	**52288.24**	**7188.73**	**1.10**	**52652.58**	**705.18**	**0.47**	**38241.20**	**2361.03**	**1.16**	**36147.74**	**3758.76**	**2.53**	**22663.26**	**5646.44**	**1.21**

Table 5.3.3.1 continued

SPECIES	REG_AR	REG_GEAR	SPECON	2005_L	2005_D	2005_R	2006_L	2006_D	2006_R	2007_L	2007_D	2007_R	2008_L	2008_D	2008_R	2009_L	2009_D	2009_R	2010_L	2010_D	2010_R	2011_L	2011_D	2011_R	2012_L	2012_D	2012_R
SOL	3b1	BT1	none	6.01			3.56			3.84			2.94			0.66			1.18			0.16			0.67		
SOL	3b1	BT2	none	0.87			0.16			2.24			0.26			0.14			3.00								
SOL	3b1	GN1	none	12.66			20.10			17.65			25.41			20.88	0.00	0.00	8.51	0.01	0.00	17.02	0.00	0.00	20.55	0.04	0.00
SOL	3b1	GT1	none	0.02			0.41			0.36			1.91			2.57	0.00	0.00	2.31	0.00	0.00	3.54	0.00	0.00	3.27	0.00	0.00
SOL	3b1	LL1	none	0.06			0.00																				
SOL	3b1	TR1	none	6.87	0.30	0.04	13.13	1.69	0.11	13.46	0.00	0.00	15.31	0.00	0.00	9.45	0.01	0.00	11.44	0.00	0.00	7.18	0.01	0.00	12.09	0.07	0.01
SOL	3b1	TR2	none	80.71	2.54	0.03	54.98	4.24	0.07	22.08	0.53	0.02	29.27	0.18	0.01	31.22	0.42	0.01	23.18	0.00	0.00	30.66	0.09	0.00	52.71	0.25	0.01
SOL	3b1	TR3	none	0.02						0.00																	
SOL	**3b1 Total**			**107.22**			**92.34**			**59.64**			**75.10**			**64.93**			**49.62**			**58.57**			**89.28**		
SOL	3b2	BT1	CPart13B																2.11			1.03			0.86		
SOL	3b2	BT1	none	37.11			48.42	0.65	0.01	26.50			18.11	0.04	0.00	25.24			11.99			14.23	0.00	0.00	21.38		
SOL	3b2	BT2	CPart13B													48.00			440.72	5.53	0.01	327.53			247.15		
SOL	3b2	BT2	none	14392.85	1305.17	0.08	10871.34	1355.63	0.11	13311.31	782.75	0.06	12050.28	539.63	0.04	12020.64	1440.62	0.11	10511.97	1473.92	0.12	8719.78	1222.04	0.12	9372.28	1915.45	0.17
SOL	3b2	GN1	CPart13B																						0.04		
SOL	3b2	GN1	none	898.04	0.00	0.00	650.40	0.00	0.00	443.26	38.24	0.08	608.43	0.67	0.00	795.18			720.33			608.66	0.00	0.00	776.17	0.00	0.00
SOL	3b2	GT1	none	657.75	0.00	0.00	633.76	0.00	0.00	551.37	61.37	0.10	754.13	7.30	0.01	779.90	11.91	0.02	265.62	9.91	0.04	486.14	0.51	0.00	568.36	4.04	0.01
SOL	3b2	LL1	none	0.00			0.00												0.08						0.00		
SOL	3b2	TR1	CPart13B													1.35			1.46	0.00	0.00	1.07			0.83		
SOL	3b2	TR1	CPart13c													8.17	0.01	0.00	4.01	0.00	0.00	4.67			3.10	0.01	0.00
SOL	3b2	TR1	none	12.29	0.00	0.00	15.48	0.00	0.00	15.96	0.03	0.00	18.10	0.00	0.00	11.85	0.09	0.01	8.50	0.00	0.00	3.40	0.00	0.00	3.42	0.03	0.01
SOL	3b2	TR2	CPart13A																						0.38		
SOL	3b2	TR2	CPart13B													6.91	0.21	0.03	14.90	0.37	0.02	43.72	0.45	0.01	29.14	0.45	0.02
SOL	3b2	TR2	CPart13c													93.13	2.51	0.03	38.06	0.99	0.03	24.17	0.16	0.01	16.60	0.32	0.02
SOL	3b2	TR2	none	151.89	0.22	0.00	129.37	0.00	0.00	147.19	86.49	0.37	247.69	13.81	0.05	173.42	0.00	0.00	163.24	0.00	0.00	143.24	0.00	0.00	81.18	23.97	0.23
SOL	3b2	TR3	none	0.02	0.00	0.00	0.42			0.03			0.01			0.02			0.05						0.09		
SOL	**3b2 Total**			**16149.95**			**12349.20**			**14495.62**			**13696.74**			**13963.80**			**12183.02**			**10377.63**			**11120.97**		
SOL	3b3	BT1	none										3.67												0.02		
SOL	3b3	BT2	CPart13B													48.97	0.10	0.00	68.63	0.94	0.01	51.92	0.03	0.00	69.53	0.07	0.00
SOL	3b3	BT2	none	1831.16	27.54	0.02	2048.83	93.17	0.04	2052.60	73.35	0.04	1933.62	69.22	0.04	1921.96	168.71	0.08	1517.61	137.63	0.08	1392.38	78.66	0.05	1124.25	0.35	0.00
SOL	3b3	GN1	none	69.12			52.62			87.29			86.26			102.54			32.94	0.11	0.00	24.10	0.57	0.02	21.29		
SOL	3b3	GT1	none	1518.48			1377.31			1610.74	30.08	0.02	1299.16	0.00	0.00	1287.37	11.16	0.01	597.91	17.04	0.03	1204.78	13.88	0.01	1308.13	1.81	0.00
SOL	3b3	LL1	CPart13B																						0.01		
SOL	3b3	LL1	none				0.01						0.01			0.52			0.20			0.96			0.52		
SOL	3b3	TR1	CPart13c													0.10			0.05			0.04			0.06		
SOL	3b3	TR1	none	0.23			2.40			0.32			2.36			2.16			1.14			5.64	0.99	0.15	0.32		
SOL	3b3	TR2	CPart13B													2.08	0.00	0.00	0.34	0.00	0.01	1.93	0.03	0.01	56.48	0.00	0.00
SOL	3b3	TR2	CPart13c													5.49	0.03	0.01	3.20	0.01	0.00	4.72	0.03	0.01	3.61	0.00	0.00
SOL	3b3	TR2	none	338.66			544.43	0.00	0.00	606.51	8.17	0.01	524.61			536.62			381.38			452.07			373.18		
SOL	3b3	TR3	none	1.85			0.36			0.88			5.57			5.57			2.96			4.05			1.69		
SOL	**3b3 Total**			**3759.49**			**4025.95**			**4358.34**			**3855.26**			**3913.39**			**2606.35**			**3142.58**			**2959.08**		
SOL Total				**20016.66**	**1335.76**	**0.17**	**16467.49**	**1455.39**	**0.35**	**18913.60**	**1081.01**	**0.70**	**17627.10**	**630.86**	**0.15**	**17942.12**	**1635.78**	**0.30**	**14839.00**	**1646.45**	**0.36**	**13578.77**	**1317.43**	**0.40**	**14169.32**	**1946.86**	**0.47**

Table 5.3.3.1 continued

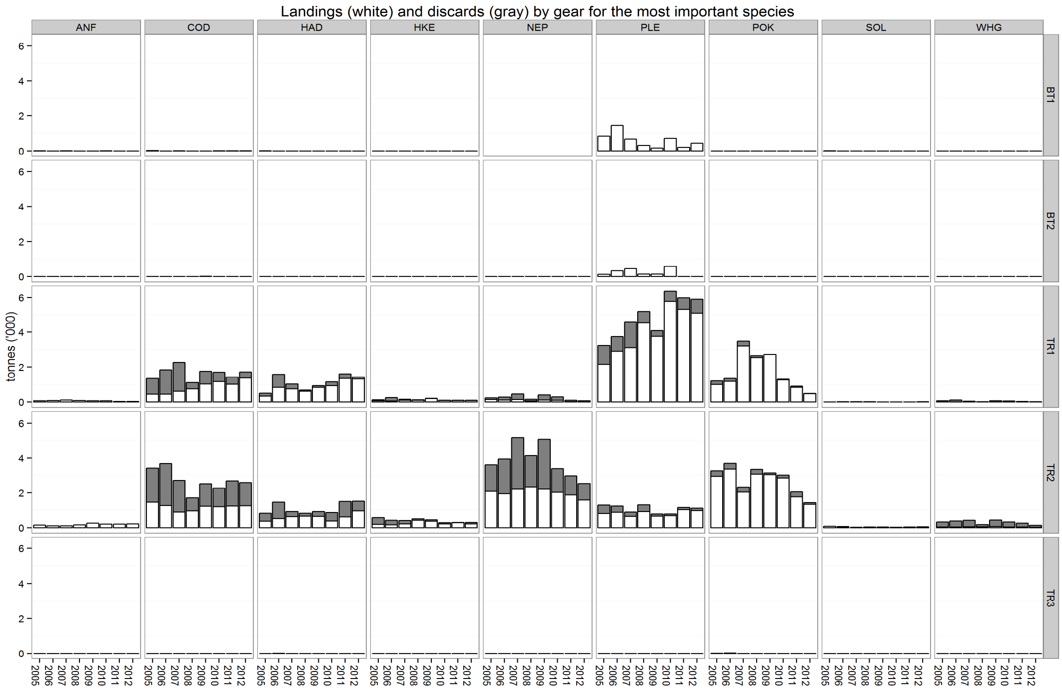
SPECIES	REG_AR	REG_GEAR	SPECON	2005_L	2005_D	2005_R	2006_L	2006_D	2006_R	2007_L	2007_D	2007_R	2008_L	2008_D	2008_R	2009_L	2009_D	2009_R	2010_L	2010_D	2010_R	2011_L	2011_D	2011_R	2012_L	2012_D	2012_R
WHG	3b1	BT1	none	0.00						0.01																	
WHG	3b1	BT2	none																								
WHG	3b1	GN1	none	0.07			0.17			0.20			0.05			0.01	0.23	0.96	0.02	0.47	0.96	0.01	0.18	0.95	0.07	0.32	0.82
WHG	3b1	GT1	none	0.08			0.14			0.31			0.41			0.17	5.77	0.97	0.02	0.64	0.97	0.02	0.02	0.50	0.00	0.00	0.50
WHG	3b1	LL1	none				0.00																				
WHG	3b1	TR1	CPart13B													0.00			0.00								
WHG	3b1	TR1	none	4.43	64.98	0.94	7.95	102.58	0.93	10.56	40.35	0.79	6.25	19.65	0.76	6.55	63.84	0.91	8.22	49.02	0.86	4.90	21.70	0.82	3.99	18.48	0.82
WHG	3b1	TR2	none	35.95	288.06	0.89	37.19	332.67	0.90	50.62	344.49	0.87	43.31	122.89	0.74	58.62	375.57	0.87	41.10	287.90	0.88	35.34	224.70	0.86	27.35	111.22	0.80
WHG	3b1	TR3	none	0.00	0.00	1.00	0.01												0.00	0.01	0.73				0.37		
WHG	3b1 Total			40.53			45.46			61.70			50.01			65.34			49.37			40.28			31.77		
WHG	3b2	BT1	CPart13B																0.07			0.03			0.01		
WHG	3b2	BT1	none	3.13			6.34	1.14	0.15	2.94			0.75	0.23	0.23	0.87			1.02			0.33	1.59	0.83	0.74		
WHG	3b2	BT2	CPart13B													1.45			14.51	4.61	0.24	9.96			6.21		
WHG	3b2	BT2	none	171.44	345.39	0.67	137.71	194.29	0.59	55.91	870.72	0.94	81.53	719.89	0.90	436.77	481.76	0.52	401.04	2700.31	0.87	404.73	916.89	0.69	274.01	1657.13	0.86
WHG	3b2	GN1	none	1.26	58.68	0.98	3.87	0.00	0.00	10.19			1.27	0.00	0.00	2.30			4.82	0.57	0.11	2.72	6.60	0.71	1.66	207.66	0.99
WHG	3b2	GT1	none	1.85	0.00	0.00	3.85	0.55	0.12	2.47			1.18	0.00	0.00	3.17	13.07	0.81	9.89	40.33	0.80	7.01	0.03	0.00	1.38	10.05	0.88
WHG	3b2	LL1	CPart13B													0.00											
WHG	3b2	LL1	none	0.28			0.12			0.17			0.32			0.10			0.17			0.07	0.00	0.00	0.04		
WHG	3b2	TR1	CPart13A																						0.30		
WHG	3b2	TR1	CPart13B													446.76	145.82	0.25	444.00	206.16	0.32	427.00	71.81	0.14	129.57	37.32	0.22
WHG	3b2	TR1	CPart13c													6094.85	1762.20	0.22	5282.22	2320.99	0.31	6094.24	892.33	0.13	7476.19	592.42	0.07
WHG	3b2	TR1	none	5367.18	1999.36	0.27	7499.27	1528.89	0.17	8247.88	1897.24	0.19	7743.82	2100.45	0.21	176.94	68.48	0.28	240.88	293.27	0.55	247.24	61.52	0.20	163.80	84.17	0.34
WHG	3b2	TR2	CPart13A																						15.37		
WHG	3b2	TR2	CPart13B													735.52	384.13	0.34	1293.62	2741.34	0.68	1303.70	2103.91	0.62	194.07	163.54	0.46
WHG	3b2	TR2	CPart13c													1174.06	587.08	0.33	419.04	298.35	0.42	700.55	1005.99	0.59	1622.04	1498.07	0.48
WHG	3b2	TR2	none	3896.66	10392.79	0.73	6457.17	8890.05	0.58	6437.62	4149.84	0.39	4525.45	7127.41	0.61	2353.49	99627.29	0.98	2506.08	3733.96	0.60	9418.08	5626.71	0.37	1642.52	2794.25	0.63
WHG	3b2	TR3	none	0.03	0.28	0.91	5.64			10.87			0.86			0.28			48.89			3.90			74.05		
WHG	3b2 Total			9441.82			14113.96			14768.05			12355.18			11426.54			10666.23			18619.56			11601.95		
WHG	3b3	BT1	none										0.10														
WHG	3b3	BT2	CPart13B													0.41	0.02	0.04	0.35	0.12	0.26	0.19	0.03	0.15	0.17	0.05	0.23
WHG	3b3	BT2	none	50.42	13.86	0.22	76.68	24.58	0.24	78.50	9.60	0.11	70.26	22.11	0.24	70.67	8.68	0.11	69.31	22.74	0.25	58.52	12.04	0.17	47.61	28.56	0.38
WHG	3b3	GN1	none	7.14			6.38			4.26			2.00			2.37			4.33			0.88			0.98		
WHG	3b3	GT1	none	31.62			16.64			10.40	10.57	0.50	8.26	11.87	0.59	8.22	4.54	0.36	5.78	43.96	0.88	12.95	2.20	0.15	13.00		
WHG	3b3	LL1	none	0.04			0.00			0.02			0.03			0.04			0.19			0.14			0.10		
WHG	3b3	TR1	CPart13B																						0.43		
WHG	3b3	TR1	CPart13c													0.47			0.79			0.05			0.21		
WHG	3b3	TR1	none	14.22			3.02			10.70			5.52			5.01			8.16	61.15	0.88	36.87	25.49	0.41	11.78		
WHG	3b3	TR2	CPart13B													52.47	15.46	0.23	209.43	187.74	0.47	227.19	17.04	0.07	219.44	896.82	0.80
WHG	3b3	TR2	CPart13c													43.17	15.88	0.27	12.28	3.60	0.23	20.29	4.07	0.17	30.62	20.49	0.40
WHG	3b3	TR2	none	4323.30			3374.47	0.00	0.00	2888.04	141.98	0.05	3676.06	685.88	0.16	3677.77			5005.57			5869.29			2931.17		
WHG	3b3	TR3	none	3.79			0.02			0.33			1.91			1.91			110.86			18.64			5.84		
WHG	3b3 Total			4430.54			3477.21			2992.24			3764.14			3862.50			5427.04			6245.01			3261.34		
WHG Total				**13912.89**	**13163.39**	**6.59**	**17636.63**	**11074.75**	**3.68**	**17821.99**	**7464.78**	**3.84**	**16169.33**	**10810.38**	**4.44**	**15354.38**	**#######**	**8.44**	**16142.64**	**12997.25**	**12.24**	**24904.85**	**10994.84**	**8.52**	**14895.06**	**8120.54**	**9.69**

Table 5.3.3.2 Skagerrak (3b1), North Sea (incl. 2EU; 3b2)), and Eastern Channel (3b3): Landings (t), discards (t) and relative discard rates (R) in weight by species and unregulated gear, 2005-2012. DATA FOR OTHER SPECIES ARE AVAILABLE ON STECF WEBSITE.

SPECIES	REG_AREA	REG_GEAR	SPECON	2005_L	2005_D	2005_R	2006_L	2006_D	2006_R	2007_L	2007_D	2007_R	2008_L	2008_D	2008_R	2009_L	2009_D	2009_R	2010_L	2010_D	2010_R	2011_L	2011_D	2011_R	2012_L	2012_D	2012_R
PLE	3b1	BEAM	none																						10.00		
PLE	3b1	DEM_SEINE	none				0.87	0.23	0.21							0.87						0.32					
PLE	3b1	DREDGE	none													0.08			0.15			3.72			0.03		
PLE	3b1	none	none	2.09			4.12			9.90			1.93			0.11			0.12			13.66			5.63		
PLE	3b1	OTTER	none	7.01	4.35	0.38	5.46			5.88	180.55	0.97	8.83	0.27	0.03	3.31	0.53	0.14	17.52	5.20	0.23	1.67	2.58	0.61	5.00	2.35	0.32
PLE	3b1	PEL_TRAWL	none	0.80	0.40	0.33	0.06	0.01	0.13	0.05	0.01	0.18	1.02	0.08	0.08	0.09			0.01			0.91			0.00		
PLE	3b1	TR2	CPart11													1.98	31.55	0.94	0.68	35.28	0.98	0.97	45.85	0.98	0.80	19.51	0.96
PLE	3b1	TR2	IIA83b	7.73	18.55	0.71	6.15	11.69	0.66	2.70	69.18	0.96	1.87	72.86	0.98												
PLE	3b1 Total			17.63			16.66			18.52			13.65			6.45			18.47			21.25			21.47		
PLE	3b2	BEAM	none	54.38	45.95	0.46	43.13			34.68			3.60			21.15	163.86	0.89	85.06	21.58	0.20	58.43	134.53	0.70	47.47	9381.79	1.00
PLE	3b2	DEM_SEINE	none	0.17			4.67									2.01			10.00						8.94		
PLE	3b2	DREDGE	none				0.52			0.52			3.75			0.03			10.55	1.29	0.11	1.09			0.51		
PLE	3b2	none	none	20.56	298.01	0.94	20.13			54.40			11.56			16.10			1.42			5.64			11.50		
PLE	3b2	OTTER	none	17.79	64.50	0.78	3.87			14.89			3.01			6.41			226.54			8.42	0.43	0.05	94.59	0.10	0.00
PLE	3b2	PEL_TRAWL	none	0.38	0.01	0.02	1.02	0.00	0.00	0.01			2.65	0.03	0.01	4.05			0.38			0.47			4.21		
PLE	3b2	POTS	none	0.15			0.22			0.06			0.02			0.13			0.70	0.00	0.00	0.53			0.17		
PLE	3b2	TR2	CPart11																0.53			0.08					
PLE	3b2 Total			93.44			73.56			104.55			24.58			49.88			335.17			74.66			167.38		
PLE	3b3	BEAM	none	19.92			1.89			5.82			8.02			5.04			4.61			1.62			3.97		
PLE	3b3	DEM_SEINE	none																2.00								
PLE	3b3	DREDGE	none	32.98			6.20			2.15			3.31			8.04			10.60			7.23			4.99		
PLE	3b3	none	none	0.39			0.23			0.43			4.34			4.62						0.07					
PLE	3b3	OTTER	none	94.92			32.03			6.01			3.05			3.05			8.44			10.51			13.89		
PLE	3b3	PEL_TRAWL	none	12.86			5.97			2.20			9.90			9.90			9.07			12.98			27.66		
PLE	3b3	POTS	none	0.20			0.50			0.51									8.19			4.61			10.17		
PLE	3b3 Total			161.28			46.82			17.12			28.62			30.65			42.91			37.01			60.68		
PLE Total				**272.34**	**431.76**	**3.62**	**137.04**	**11.93**	**0.99**	**140.19**	**249.74**	**2.11**	**66.85**	**73.25**	**1.09**	**86.98**	**195.94**	**1.97**	**396.55**	**63.35**	**1.53**	**132.92**	**183.38**	**2.33**	**249.53**	**9403.75**	**2.28**

Table 5.3.3.2 continued

SPECIES	REG_AREA	REG_GEAR	SPECON	2005_L	2005_D	2005_R	2006_L	2006_D	2006_R	2007_L	2007_D	2007_R	2008_L	2008_D	2008_R	2009_L	2009_D	2009_R	2010_L	2010_D	2010_R	2011_L	2011_D	2011_R	2012_L	2012_D	2012_R
SOL	3b1	DEM_SEINE	none																								
SOL	3b1	DREDGE	none													0.00											
SOL	3b1	none	none	0.04			0.05			0.15			0.01			0.00			0.01			0.16			1.58		
SOL	3b1	OTTER	none	0.27	0.00	0.00	0.21			0.21			0.22	0.00	0.00	0.02	0.00	0.00	0.04	0.00	0.07	0.05	0.00	0.00	0.01	0.00	0.00
SOL	3b1	PEL_TRAWL	none	0.09	0.00	0.02							0.01	0.00	0.00	0.00						0.00					
SOL	3b1	POTS	none										0.02									0.00					
SOL	3b1	TR2	CPart11													0.56	0.47	0.46	0.40	0.14	0.26	0.63	2.79	0.82	0.49	0.26	0.35
SOL	3b1	TR2	IIA83b	1.46	0.29	0.17	1.08	0.17	0.13	2.43	2.06	0.46	0.62	1.86	0.75												
SOL	3b1 Total			1.85			1.33			2.79			0.87			0.58			0.45			0.84			2.08		
SOL	3b2	BEAM	none	18.48	0.00	0.00	11.43			19.94			9.24			16.45			25.50	23.07	0.48	15.77	0.38	0.02	20.07	483.81	0.96
SOL	3b2	DEM_SEINE	none																								
SOL	3b2	DREDGE	none	0.00			0.03			0.01			0.01						0.21			0.05			0.01		
SOL	3b2	none	none	0.39	0.00	0.00	0.51			1.00			1.21			1.31			0.01			0.01			0.05		
SOL	3b2	OTTER	none	0.15	0.00	0.00	0.06			0.04			0.01			0.00			0.05			0.11			0.03	0.00	0.00
SOL	3b2	PEL_TRAWL	none				0.00						0.13	0.00	0.00				0.05			0.05			0.50		
SOL	3b2	POTS	none	0.02			0.01			0.44			0.01			0.14			0.07	0.00	0.00	0.01			0.65		
SOL	3b2 Total			19.05			12.03			21.43			10.61			17.91			25.89			16.00			21.32		
SOL	3b3	BEAM	none	21.95			6.50			6.81			7.80			8.04			4.65			1.19			2.47		
SOL	3b3	DREDGE	none	42.60			5.33			3.96			3.74			6.70			14.35			8.65			6.62		
SOL	3b3	none	none	0.51			1.89			0.64			9.50			9.54						0.28					
SOL	3b3	OTTER	none	115.00			47.34			19.37			20.06			20.06			13.90			9.20			16.63		
SOL	3b3	PEL_TRAWL	none	14.65			14.09			4.89			16.62			16.62			12.38			14.80			27.49		
SOL	3b3	POTS	none	0.00			0.36			1.26			0.05			0.00			5.29			3.15			16.95		
SOL	3b3 Total			194.72			75.51			36.92			57.77			60.96			50.58			37.26			70.15		
SOL Total				**215.61**	**0.30**	**0.19**	**88.87**	**0.17**	**0.13**	**61.13**	**2.06**	**0.46**	**69.25**	**1.86**	**0.75**	**79.45**	**0.47**	**0.46**	**76.91**	**23.21**	**0.81**	**54.10**	**3.17**	**0.84**	**93.55**	**484.07**	**1.31**



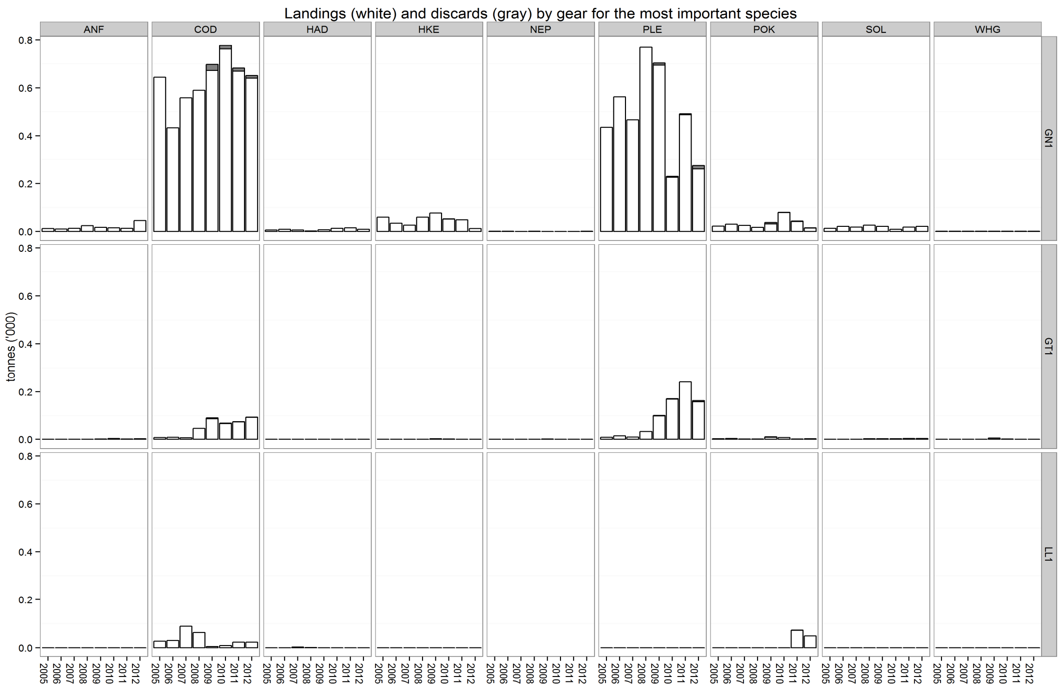
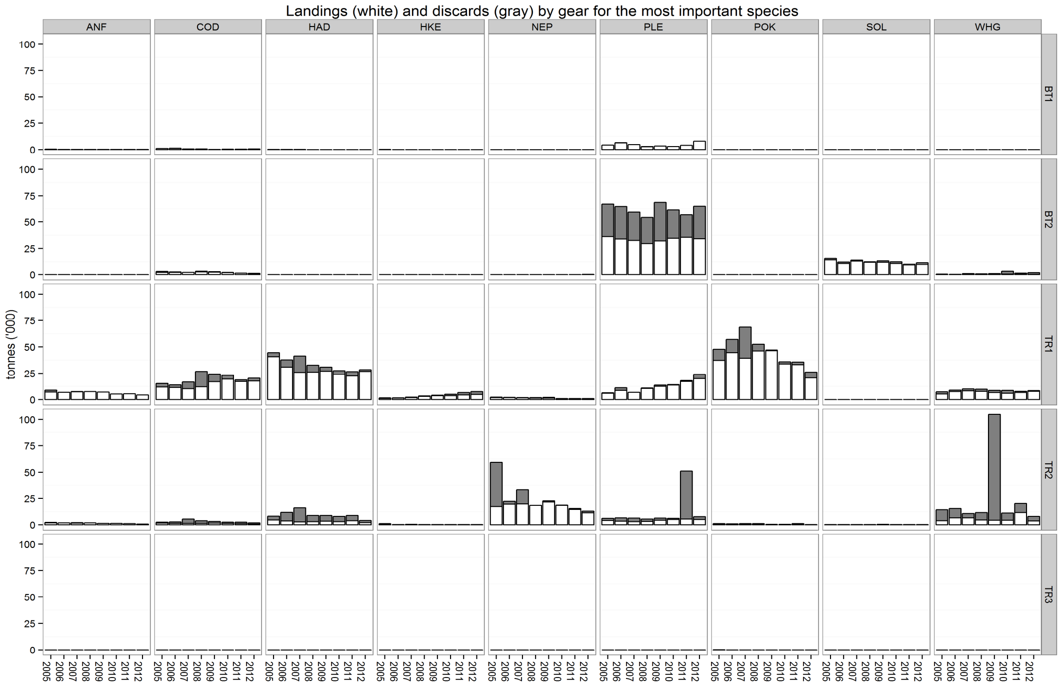


Figure 5.3.3.1; Estimated landings (white bars) and discards (grey bars) of targets species by cod plan gear categories in management area 3b1 (Skagerrak). The upper chart shows the most used gears, the lower chart the remaining gears.



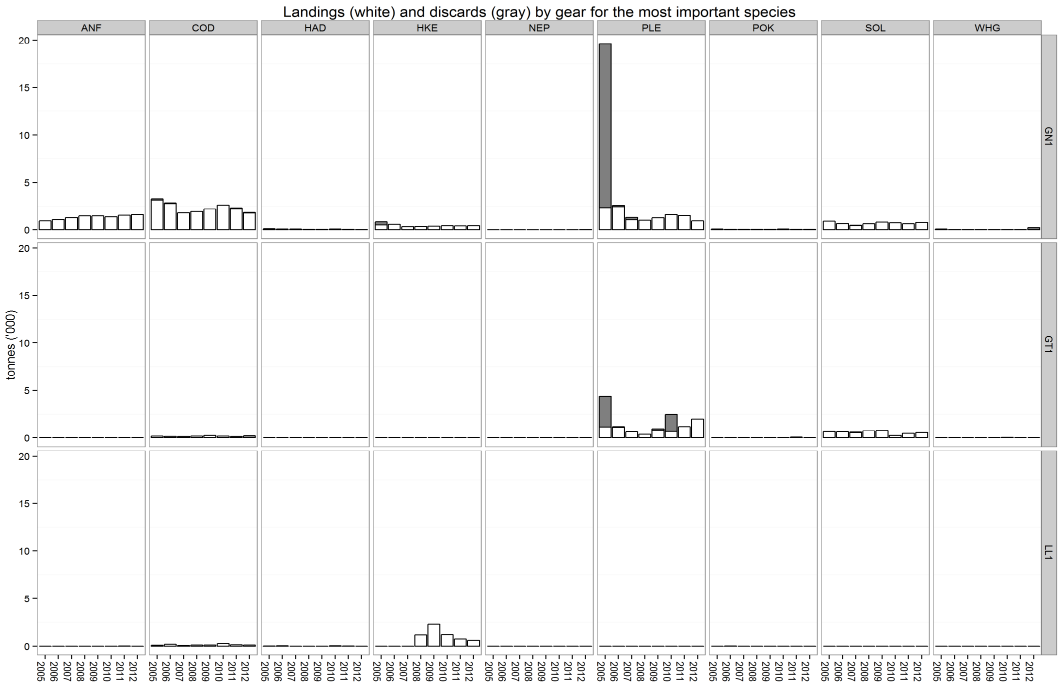


Figure 5.3.3.2; Estimated landings (white bars) and discards (grey bars) of targets species by cod plan gear categories in management area 3b2 (North Sea; 2EU). The upper chart shows the most used gears, the lower chart the remaining gears.

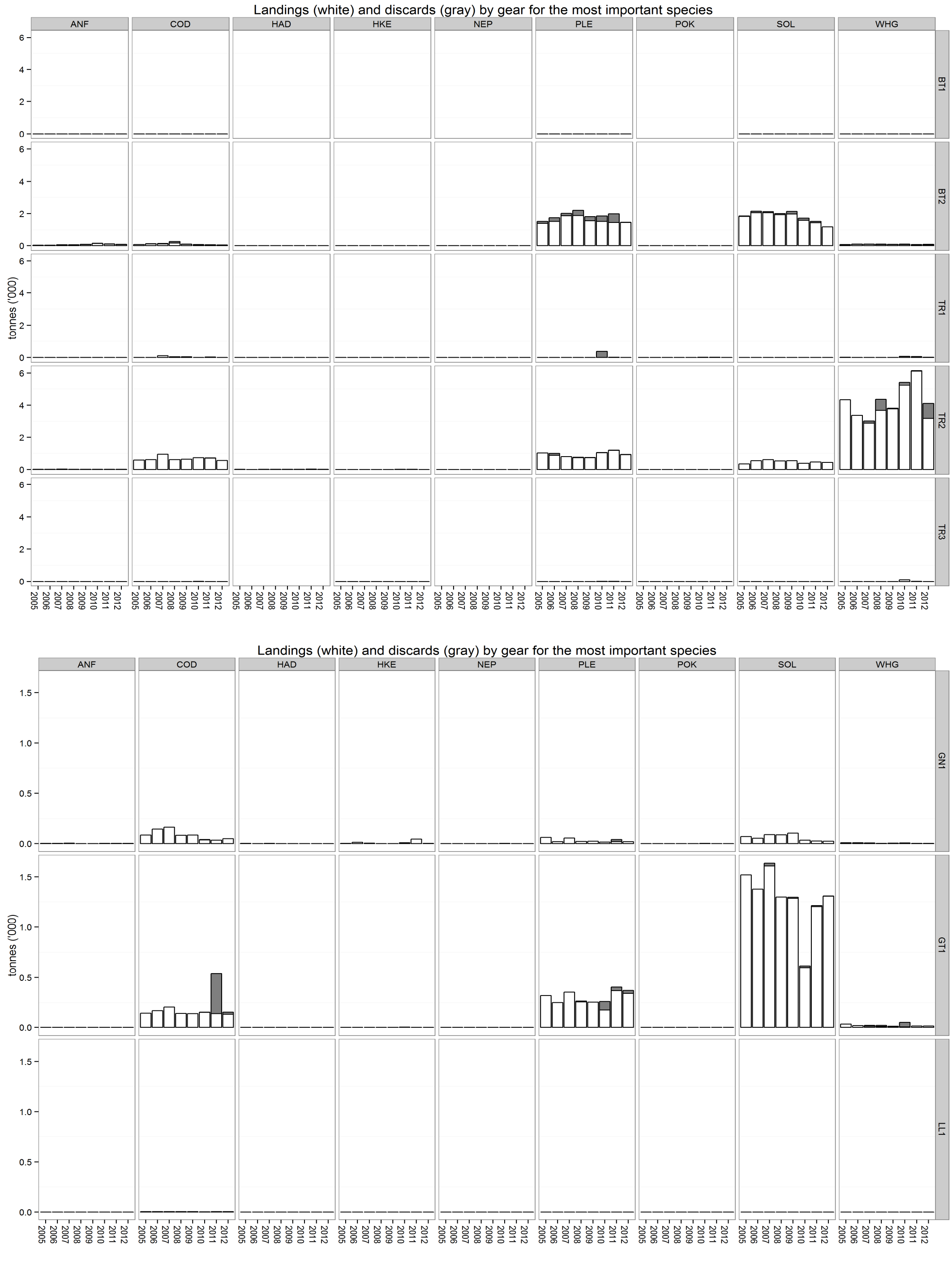


Figure 5.3.3.3; Estimated landings (white bars) and discards (grey bars) of targets species by cod plan gear categories in management area 3b3 (Eastern channel). The upper chart shows the most used gears, the lower chart the remaining gears.

5.3.4 ToR 1.e CPUE and LPUE of cod, plaice, and sole by fisheries and by Member States

Catch rates for cod, plaice and sole in g/KW-day for the regulated cod categories are given in tables 5.3.4.1 – 5.3.4.3. In some cases the data refer to landings only, depending on whether discard data were available. In the context of possible effort management measures, it is useful to summarise the impact of each gear category in terms of the relative quantity removed per unit of effort. Using this approach, the CPUE for a given gear, when compared with the CPUE of another gear for the same period, can be used as a proxy for the relative fishing power of the gear. In addition, CPUE and LPUE by year are plotted (Figure 5.3.4.1 – 5.3.4.3) by species for the first four gear categories (when ranked by 2010-2012 average) for areas 3b1, 3b2 and 3b3 separately.

For cod (Table 5.3.4.1), CPUE for most gears has increased in the Skagerrak (area 3b1) in 2012 when compared to 2009 (when the cod management plan was implemented). Only LL1 shows a strong decrease, however, the absolute landings from this gear category are small. GN1 has the highest CPUE followed by TR1, GT1 and TR2.

In area 3b2 (North Sea; 2EU) TR1 CPart13c shows the highest CPUE for cod of all gear categories, including the TR1 none category. This appears counter-intuitive but may reflect the fact that the major cod catching fleets under SPECON 13c (primarily Scotland) are operating in more northerly waters where cod is more abundant, while the TR1 none and TR1 CPart13b fleets are operating in more southerly waters or target other species (e.g., saithe). The CPUE for TR1 CPart13c and LL1 is substantially higher in 2012 compared to 2009. Many other gear categories show a stable or decreasing trend (e.g, TR1 none and CPart13b, TR2 none and TR2 CPart13b+c, BT2, GN1). This is somehow unexpected as increasing cod abundance would suggest increased catch rates also for these categories. However, it may show improved cod avoidance and again differences in stock trends between the northern and southern part of the North Sea.

In area 3b3 (eastern channel) GN1 and TR1 show by far the highest CPUE for cod compared to other gear categories. Both categories have a substantially lower CPUE in 2012 compared to 2009. However, the CPUE for TR2, the gear category with the highest cod catches, is higher in 2012 than in 2009.

With regards to flatfish, it should be noted that plaice and sole in the Skagerrak (3b1) are considered as part of the same stocks as plaice and sole in the Kattegat (management area 3a). Both stocks are considered as being distinct from the North Sea stocks, as are plaice and sole in the Eastern Channel (3b3). Notwithstanding this, large increases in catch rates for plaice have been observed in 2012 compared to 2009 for the main gears (BT1, BT2, TR1, TR2; Table 5.3.4.2) which reflects a general increasing trend over the time series which is also supported by a rapidly increasing stock biomass from the assessment (ICES, 2013). Outliers in CPUE can be linked to outliers in discard estimates. For example, the high estimate of CPUE in 2011 for 'TR2 none' arises because of a very high discard estimate of 22,000t of plaice in the Dutch TR2 fishery, some 22 times higher than other estimates in recent years and unlikely to be a representative value.

CPUE for sole (Table 5.3.4.3) is highest for passive gears (GT1 and GN1) and small mesh beam trawls (BT2) in 2012. CPUE for the dominant gear in terms of absolute landings (BT2) has decreased slightly in area 3b3 in 2012 compared to 2011, but has increased in area 3b2.

Tables showing LPUE and CPUE by gear groups (regulated and unregulated), area and nation are not presented in this report but are available on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313.

Table 5.3.4.1 Skagerrak, North Sea (incl. 2EU) and Eastern Channel. Cod CPUE (g/(kW*days)) by regulated gear category and year, 2003-2012, presented for the wider North Sea (3b) and by area (3b1, 3b2, 3b3) in descending order with regards to CPUE 2012.

ANNEX	SPECIES	REG AREA	REG GEAR	SPECON	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2010-12
IIa	COD	3b	TR1	CPart13A	0	0	0	0	0	0	0	0	0	0	0
IIa	COD	3b	TR2	CPart13A	0	0	0	0	0	0	0	0	0	0	0
IIa	COD	3b	LL1	CPart13B	0	0	0	0	0	0		0	0	0	0
IIa	COD	3b	TR3	none	11	5	7	4	4	1	3	14	8	5	10
IIa	COD	3b	BT1	CPart13B	0	0	0	0	0	0	0	5	18	10	11
IIa	COD	3b	BT2	CPart13B	0	0	0	0	0	0	32	17	17	13	16
IIa	COD	3b	BT2	NONE	54	60	48	49	43	88	69	57	45	42	49
IIa	COD	3b	TR2	CPart13B	0	0	0	0	0	0	89	157	109	30	124
IIa	COD	3b	GT1	none	142	93	79	62	62	97	124	154	265	156	192
IIa	COD	3b	TR1	CPart13B	0	0	0	0	0	0	310	293	154	111	198
IIa	COD	3b	BT1	NONE	120	214	222	238	187	256	133	203	288	273	257
IIa	COD	3b	TR2	CPart13c	0	0	0	0	0	0	224	190	359	239	260
IIa	COD	3b	TR2	none	171	154	182	201	267	192	236	258	308	271	279
IIa	COD	3b	LL1	none	429	315	371	603	459	335	140	529	500	709	557
IIa	COD	3b	TR1	none	402	470	629	593	810	1069	958	933	857	1229	987
IIa	COD	3b	GN1	none	770	961	990	855	822	848	955	1154	1043	906	1037
IIa	COD	3b	TR1	CPart13c	0	0	0	0	0	0	1186	1391	1182	1302	1292

ANNEX	SPECIES	REG AREA	REG GEAR	SPECON	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2010-12
IIa	COD	3b1	BT2	NONE	6	1	4	3	6	72	181	21	0	0	21
IIa	COD	3b1	TR1	CPart13B	0	0	0	0	0	0	25	97	0	62	45
IIa	COD	3b1	TR3	none	69	24	13	14	0		54	75	0	0	55
IIa	COD	3b1	BT1	NONE	59	45	44	9	27	20	14	105	134	89	104
IIa	COD	3b1	TR2	none	387	491	628	775	768	428	700	663	778	890	771
IIa	COD	3b1	LL1	none	663	348	656	269	565	1409	5115	4031	655	739	819
IIa	COD	3b1	GT1	none	216	547	231	121	112	544	1258	1054	1202	1501	1250
IIa	COD	3b1	TR1	none	478	654	848	1151	1217	698	1223	1089	1406	1556	1316
IIa	COD	3b1	GN1	none	1384	1165	1553	1161	1606	1401	1470	1961	1806	1930	1899
IIa	COD	3b2	TR1	CPart13A	0	0	0	0	0	0	0	0	0	0	0
IIa	COD	3b2	TR2	CPart13A	0	0	0	0	0	0	0	0	0	0	0
IIa	COD	3b2	TR3	none	7	4	6	3	5	0	0	10	5	2	7
IIa	COD	3b2	BT1	CPart13B	0	0	0	0	0	0	0	5	18	10	11
IIa	COD	3b2	BT2	CPart13B	0	0	0	0	0	0	42	18	17	13	16
IIa	COD	3b2	BT2	none	58	64	50	51	45	92	73	60	47	45	51
IIa	COD	3b2	TR2	CPart13B	0	0	0	0	0	0	90	166	115	40	136
IIa	COD	3b2	GT1	none	228	217	186	89	72	164	207	233	160	201	197
IIa	COD	3b2	TR1	CPart13B	0	0	0	0	0	0	323	295	156	112	200
IIa	COD	3b2	TR2	none	159	110	137	170	329	230	275	233	312	149	235
IIa	COD	3b2	BT1	none	125	234	240	253	209	268	137	214	295	283	267
IIa	COD	3b2	TR2	CPart13c	0	0	0	0	0	0	239	199	382	244	269
IIa	COD	3b2	LL1	none	664	624	557	1662	2082	338	157	673	672	1132	747
IIa	COD	3b2	GN1	none	727	1007	974	863	772	778	894	1072	942	784	935
IIa	COD	3b2	TR1	none	401	464	616	558	778	1094	919	913	793	1177	942
IIa	COD	3b2	TR1	CPart13c	0	0	0	0	0	0	1186	1391	1183	1302	1293
IIa	COD	3b3	BT1	none	0	0	0	0	0	279	0	0	0	0	0
IIa	COD	3b3	LL1	CPart13B	0	0	0	0	0	0	0	0	0	0	0
IIa	COD	3b3	TR1	CPart13c	0	0	0	0	0	0	230	0	0	0	0
IIa	COD	3b3	BT2	CPart13B	0	0	0	0	0	0	28	8	0	7	5
IIa	COD	3b3	TR2	CPart13B	0	0	0	0	0	0	56	23	17	14	17
IIa	COD	3b3	BT2	none	15	15	20	28	28	60	26	23	22	17	21
IIa	COD	3b3	TR3	none	0	0	0		0	15	16	45	16	22	29
IIa	COD	3b3	LL1	none	32	41	29	26	20	19	19	15	40	49	32
IIa	COD	3b3	TR2	CPart13c	0	0	0	0	0	0	37	67	57	59	60
IIa	COD	3b3	TR2	none	67	36	47	43	68	54	59	91	91	74	86
IIa	COD	3b3	GT1	none	108	42	44	46	57	54	53	86	285	84	153
IIa	COD	3b3	TR1	none	234	37	49	198	513	604	578	94	252	155	173
IIa	COD	3b3	GN1	none	407	245	313	433	414	492	453	289	465	392	365

Table 5.3.4.2 Skagerrak, North Sea (incl. 2EU) and Eastern Channel. Plaice CPUE (g/(kW*days)) by regulated gear category and year, 2003-2012, presented for the wider North Sea (3b) and by area (3b1, 3b2, 3b3) in descending order with regards to CPUE 2012.

ANNEX	SPECIES	REG AREA	REG GEAR	SPECON	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2010-12
IIa	PLE	3b	TR1	CPart13A	0	0	0	0	0	0	0	0	0	0	0
IIa	PLE	3b	LL1	CPart13B	0	0	0	0	0	0		0	0	0	0
IIa	PLE	3b	LL1	none	0	32	3	5	0	0	1	0	0	0	0
IIa	PLE	3b	TR3	none	9	5	7	12	6	0	1	9	20	14	13
IIa	PLE	3b	TR2	CPart13A	0	0	0	0	0	0	0	0	0	22	22
IIa	PLE	3b	TR2	CPart13c	0	0	0	0	0	0	410	230	315	66	149
IIa	PLE	3b	TR1	CPart13c	0	0	0	0	0	0	296	177	263	376	270
IIa	PLE	3b	TR2	CPart13B	0	0	0	0	0	0	54	185	347	866	324
IIa	PLE	3b	GN1	none	1074	747	5042	794	600	584	629	623	696	441	589
IIa	PLE	3b	GT1	none	289	354	1086	253	183	176	336	1080	642	876	863
IIa	PLE	3b	TR2	none	395	397	239	248	236	236	266	399	3488	575	1505
IIa	PLE	3b	TR1	CPart13B	0	0	0	0	0	0	935	1289	1463	2277	1596
IIa	PLE	3b	BT2	NONE	1341	1246	1095	1208	1149	1404	1742	1542	1628	2167	1750
IIa	PLE	3b	TR1	none	232	340	372	560	489	622	1108	1588	1998	3145	2155
IIa	PLE	3b	BT1	NONE	1237	1132	1029	1394	1438	1452	2064	1990	2537	2800	2500
IIa	PLE	3b	BT2	CPart13B	0	0	0	0	0	0	774	2666	2706	2948	2766
IIa	PLE	3b	BT1	CPart13B	0	0	0	0	0	0	0	2659	3302	3120	3038

ANNEX	SPECIES	REG AREA	REG GEAR	SPECON	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2010-12
IIa	PLE	3b1	LL1	none	0	41	0	0	0		0	0	0	0	0
IIa	PLE	3b1	TR1	CPart13B	0	0	0	0	0	0	0	0	0	0	0
IIa	PLE	3b1	TR3	none	47	19	0	14	0		0	0	1747	0	110
IIa	PLE	3b1	TR2	none	443	518	234	258	235	310	216	228	333	385	312
IIa	PLE	3b1	GN1	none	969	1007	1053	1513	1334	1820	1481	581	1303	821	900
IIa	PLE	3b1	GT1	none	54	164	264	211	144	397	1367	2612	3778	2576	2988
IIa	PLE	3b1	BT1	NONE	2255	2026	1842	4113	1546	3107	2280	4418	3431	3495	3917
IIa	PLE	3b1	BT2	NONE	51	244	214	557	742	1301	2250	4037	4525	0	4040
IIa	PLE	3b1	TR1	none	512	1888	2038	2353	2460	3273	2854	4055	5925	5331	4951
IIa	PLE	3b2	TR1	CPart13A	0	0	0	0	0	0	0	0	0	0	0
IIa	PLE	3b2	LL1	none	0	65	5	8	0	0	0	0	0	0	0
IIa	PLE	3b2	TR3	none	6	3	8	13	6	0	2	1	0	9	3
IIa	PLE	3b2	TR2	CPart13A	0	0	0	0	0	0	0	0	0	22	22
IIa	PLE	3b2	TR2	CPart13c	0	0	0	0	0	0	439	232	324	63	148
IIa	PLE	3b2	TR1	CPart13c	0	0	0	0	0	0	295	177	263	376	270
IIa	PLE	3b2	TR2	CPart13B	0	0	0	0	0	0	55	192	369	1339	352
IIa	PLE	3b2	GN1	none	1254	776	5909	787	567	405	503	658	607	400	558
IIa	PLE	3b2	TR1	CPart13B	0	0	0	0	0	0	980	1299	1480	2302	1612
IIa	PLE	3b2	TR1	none	224	284	266	448	324	451	838	1080	1508	2757	1685
IIa	PLE	3b2	BT2	none	1426	1312	1141	1286	1224	1505	1865	1600	1703	2315	1839
IIa	PLE	3b2	GT1	none	678	801	4216	600	354	334	784	2995	1290	1968	2052
IIa	PLE	3b2	BT1	none	1161	1024	948	1215	1423	1371	2055	1715	2497	2765	2407
IIa	PLE	3b2	BT2	CPart13B	0	0	0	0	0	0	879	2746	2779	3069	2855
IIa	PLE	3b2	BT1	CPart13B	0	0	0	0	0	0	0	2659	3302	3120	3038
IIa	PLE	3b2	TR2	none	550	470	353	400	389	332	739	1139	13848	1816	5666
IIa	PLE	3b3	BT1	none	0	0	0	0	0	838	0	0	0	0	0
IIa	PLE	3b3	LL1	CPart13B	0	0	0	0	0	0	0	0	0	0	0
IIa	PLE	3b3	LL1	none	0	0	0	6	0	0	6	0	0	0	0
IIa	PLE	3b3	TR3	none	13	48	10	0	7	0	0	82	65	43	66
IIa	PLE	3b3	TR2	CPart13B	0	0	0	0	0	0	31	60	44	96	72
IIa	PLE	3b3	TR1	CPart13c	0	0	0	0	0	0	690	449	0	814	125
IIa	PLE	3b3	TR2	none	129	233	82	71	57	67	67	128	152	115	132
IIa	PLE	3b3	TR2	CPart13c	0	0	0	0	0	0	68	191	192	170	184
IIa	PLE	3b3	GT1	none	143	179	96	68	97	100	97	143	216	205	188
IIa	PLE	3b3	GN1	none	120	127	233	52	139	120	115	111	550	150	221
IIa	PLE	3b3	BT2	none	427	516	445	397	433	527	481	667	759	577	670
IIa	PLE	3b3	BT2	CPart13B	0	0	0	0	0	0	728	820	817	926	861
IIa	PLE	3b3	TR1	none	40	18	16	59	22	77	50	3557	109	86	1399

Table 5.3.4.3 Skagerrak, North Sea (incl. 2EU) and Eastern Channel. Sole CPUE (g/(kW*days)) by regulated gear category and year, 2003-2012, presented for the wider North Sea (3b) and by area (3b1, 3b2, 3b3) in descending order with regards to CPUE 2012.

ANNEX	SPECIES	REG AREA	REG GEAR	SPECON	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2010-12
IIa	SOL	3b	LL1	CPart13B	0	0	0	0	0	0		0	0	0	0
IIa	SOL	3b	GN1	CPart13B	0	0	0	0	0	0	0	0	0	0	0
IIa	SOL	3b	TR1	CPart13c	0	0	0	0	0	0	1	0	0	0	0
IIa	SOL	3b	TR2	CPart13A	0	0	0	0	0	0	0	0	0	0	0
IIa	SOL	3b	TR1	CPart13B	0	0	0	0	0	0	0	1	0	1	1
IIa	SOL	3b	TR1	none	1	1	1	1	1	1	2	2	2	2	2
IIa	SOL	3b	LL1	none	0	0	0	0		0	1	0	3	4	2
IIa	SOL	3b	TR3	none	1	0	1	0	1	5	7	2	8	3	4
IIa	SOL	3b	BT1	CPart13B	0	0	0	0	0	0	0	10	6	3	5
IIa	SOL	3b	TR2	CPart13B	0	0	0	0	0	0	2	2	7	41	8
IIa	SOL	3b	BT1	NONE	17	14	8	9	8	12	15	8	10	9	9
IIa	SOL	3b	TR2	CPart13c	0	0	0	0	0	0	17	32	14	4	11
IIa	SOL	3b	TR2	none	23	22	16	21	26	26	39	38	43	40	40
IIa	SOL	3b	BT2	CPart13B	0	0	0	0	0	0	621	173	138	124	146
IIa	SOL	3b	GN1	none	205	222	243	180	193	234	295	256	224	294	258
IIa	SOL	3b	BT2	NONE	315	339	279	260	302	362	384	377	363	455	395
IIa	SOL	3b	GT1	none	598	528	494	351	409	533	534	326	596	651	528

ANNEX	SPECIES	REG AREA	REG GEAR	SPECON	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2010-12
IIa	SOL	3b1	LL1	none	0	0	0	0				0	0	0	0
IIa	SOL	3b1	TR3	none	4	0	0		0			0	0	0	0
IIa	SOL	3b1	BT1	NONE	9	7	13	11	9	29	14	6	0	8	6
IIa	SOL	3b1	TR1	none	4	3	4	9	8	9	7	7	7	11	8
IIa	SOL	3b1	TR2	none	5	10	15	13	6	8	9	7	9	18	11
IIa	SOL	3b1	BT2	NONE	4	0	2	0	3	0	0	21	0	0	21
IIa	SOL	3b1	GN1	none	24	23	31	54	52	59	44	23	45	62	42
IIa	SOL	3b1	GT1	none		0	0	0	0	23	41	31	62	47	47
IIa	SOL	3b2	TR2	CPart13A	0	0	0	0	0	0	0	0	0	0	0
IIa	SOL	3b2	GN1	CPart13B	0	0	0	0	0	0	0	0	0	0	0
IIa	SOL	3b2	LL1	none	0	0	0	0				0	0	0	0
IIa	SOL	3b2	TR1	CPart13c	0	0	0	0	0	0	1	0	0	0	0
IIa	SOL	3b2	TR3	none	0	0	0	0	0	0	0	0	0	0	0
IIa	SOL	3b2	TR1	none	1	1	0	1	1	1	1	1	0	1	1
IIa	SOL	3b2	TR1	CPart13B	0	0	0	0	0	0	0	1	0	1	1
IIa	SOL	3b2	TR2	CPart13B	0	0	0	0	0	0	2	2	7	23	5
IIa	SOL	3b2	BT1	CPart13B	0	0	0	0	0	0	0	10	6	3	5
IIa	SOL	3b2	BT1	none	18	14	8	9	8	9	15	8	10	9	9
IIa	SOL	3b2	TR2	CPart13c	0	0	0	0	0	0	17	31	13	3	10
IIa	SOL	3b2	TR2	none	8	15	9	8	14	16	36	45	41	34	40
IIa	SOL	3b2	BT2	CPart13B	0	0	0	0	0	0	1005	156	124	102	129
IIa	SOL	3b2	GN1	none	204	231	268	197	209	245	323	295	248	334	292
IIa	SOL	3b2	BT2	none	296	322	266	243	291	349	366	359	344	452	381
IIa	SOL	3b2	GT1	none	624	568	622	321	337	666	646	326	526	562	479
IIa	SOL	3b3	BT1	none	0	0	0	0	0	1118	0	0	0	0	0
IIa	SOL	3b3	LL1	CPart13B	0	0	0	0	0	0	0	0	0	0	0
IIa	SOL	3b3	TR1	CPart13c	0	0	0	0	0	0	0	0	0	0	0
IIa	SOL	3b3	LL1	none	0			0		0	6	0	10	12	6
IIa	SOL	3b3	TR1	none	0	0	0	40	0	26	25	9	50	0	25
IIa	SOL	3b3	TR3	none	13	12	20	0	7	76	78	22	33	22	26
IIa	SOL	3b3	TR2	CPart13B	0	0	0	0	0	0	12	0	4	71	33
IIa	SOL	3b3	TR2	CPart13c	0	0	0	0	0	0	11	34	36	30	33
IIa	SOL	3b3	TR2	none	56	40	27	38	44	47	51	49	60	52	53
IIa	SOL	3b3	GN1	none	391	391	259	159	226	522	567	237	338	175	236
IIa	SOL	3b3	BT2	CPart13B	0	0	0	0	0	0	452	568	512	477	517
IIa	SOL	3b3	GT1	none	593	516	458	373	453	493	496	337	649	722	570
IIa	SOL	3b3	BT2	none	628	621	543	486	457	480	578	630	588	486	571

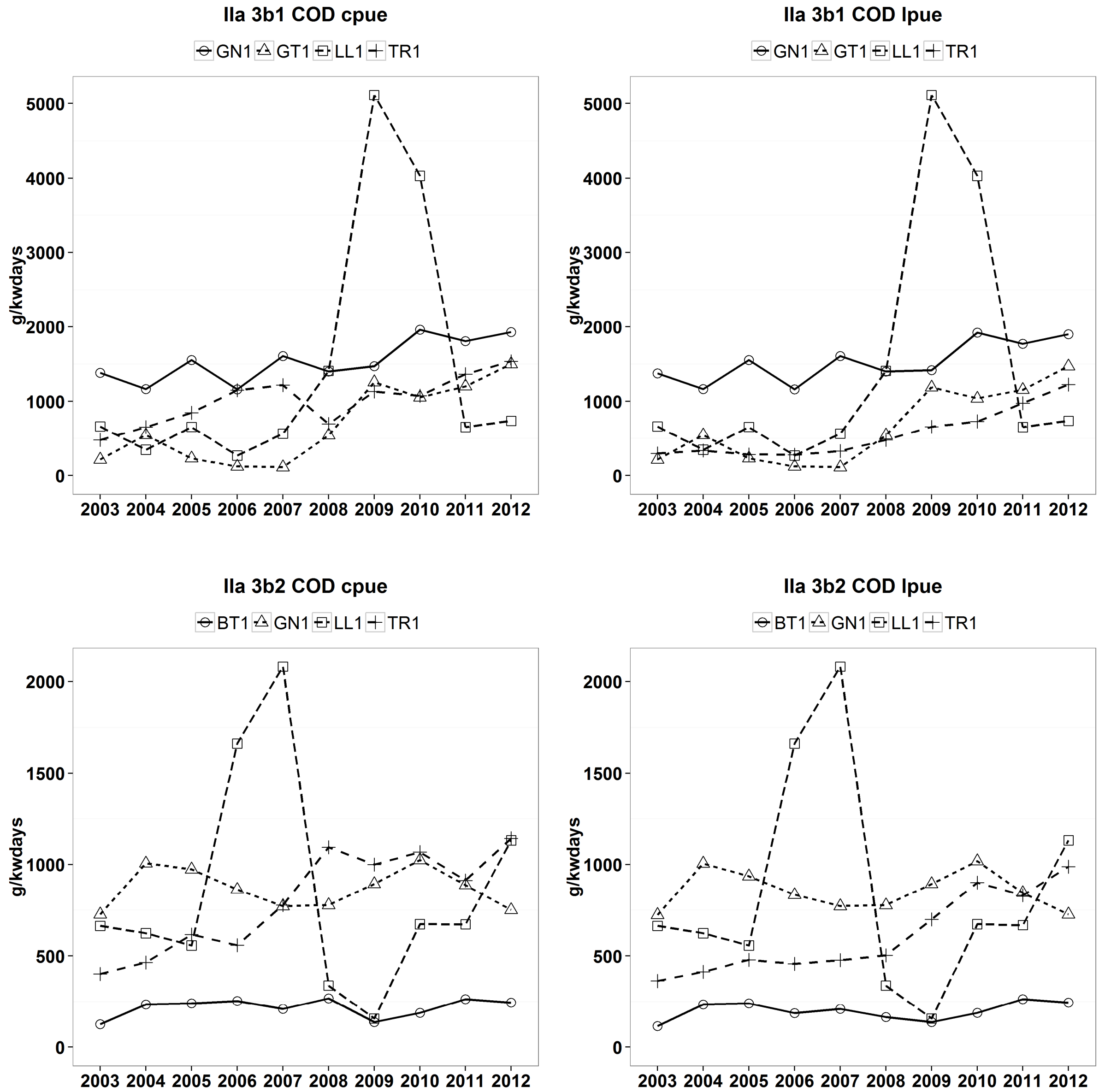


Figure 5.3.4.1 Area 3b1, 3b2 and 3b3. CPUE and LPUE (g/(kW*days) of cod for the four main cod plan categories.

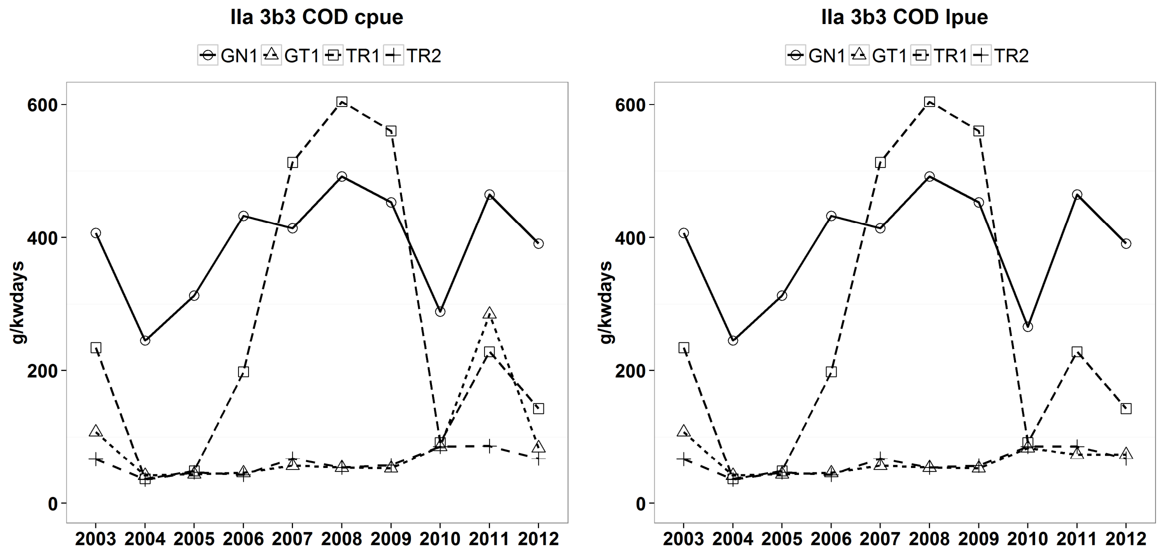


Figure 5.3.4.1 continued

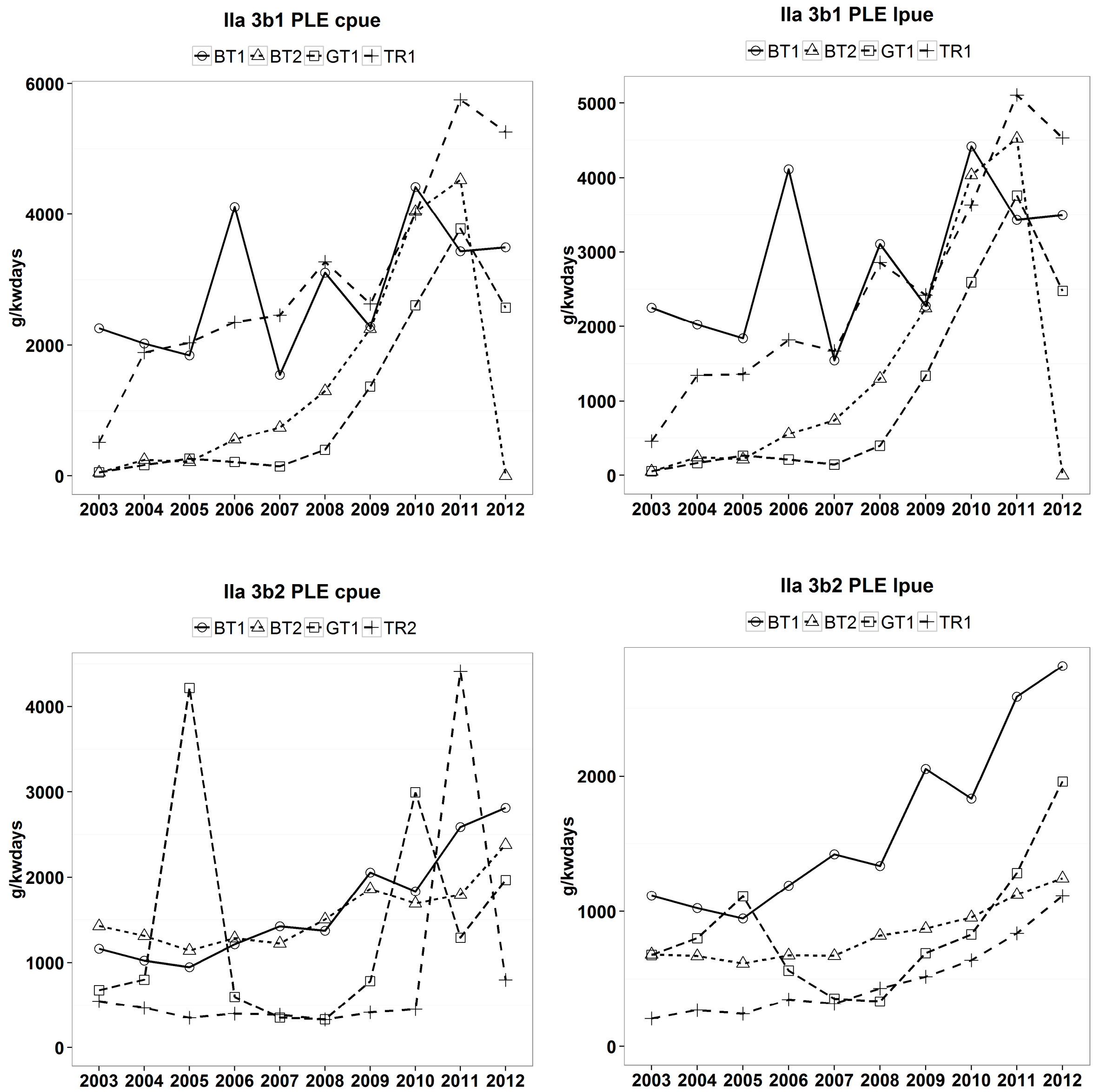


Figure 5.3.4.2 Area 3b1, 3b2 and 3b3. CPUE and LPUE (g/(kW*days) of plaice for the four main cod plan categories.

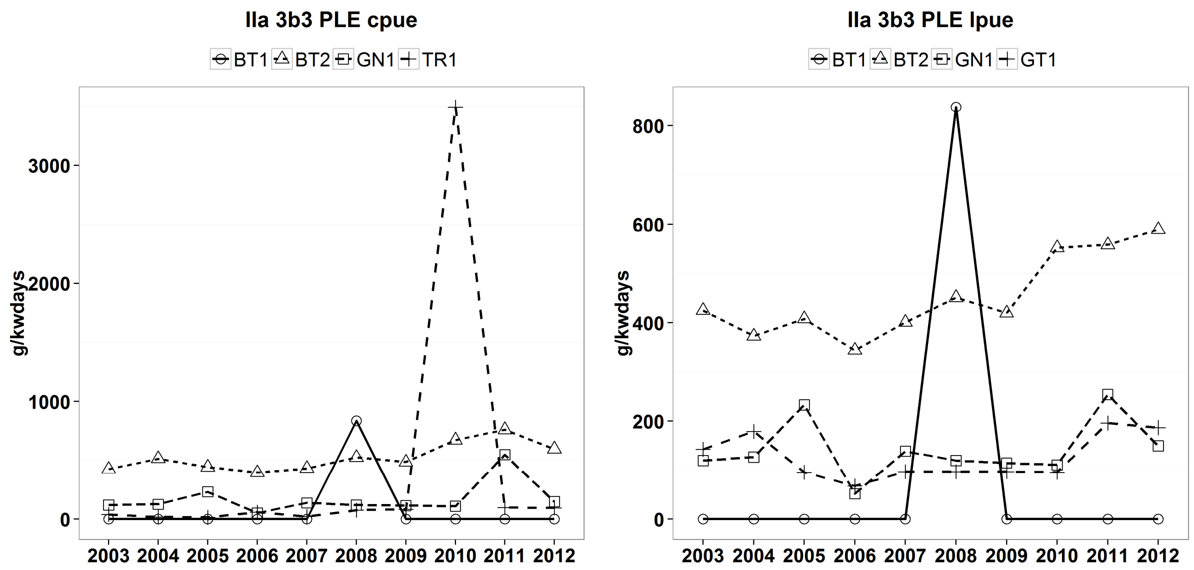


Figure 5.3.4.2 continued

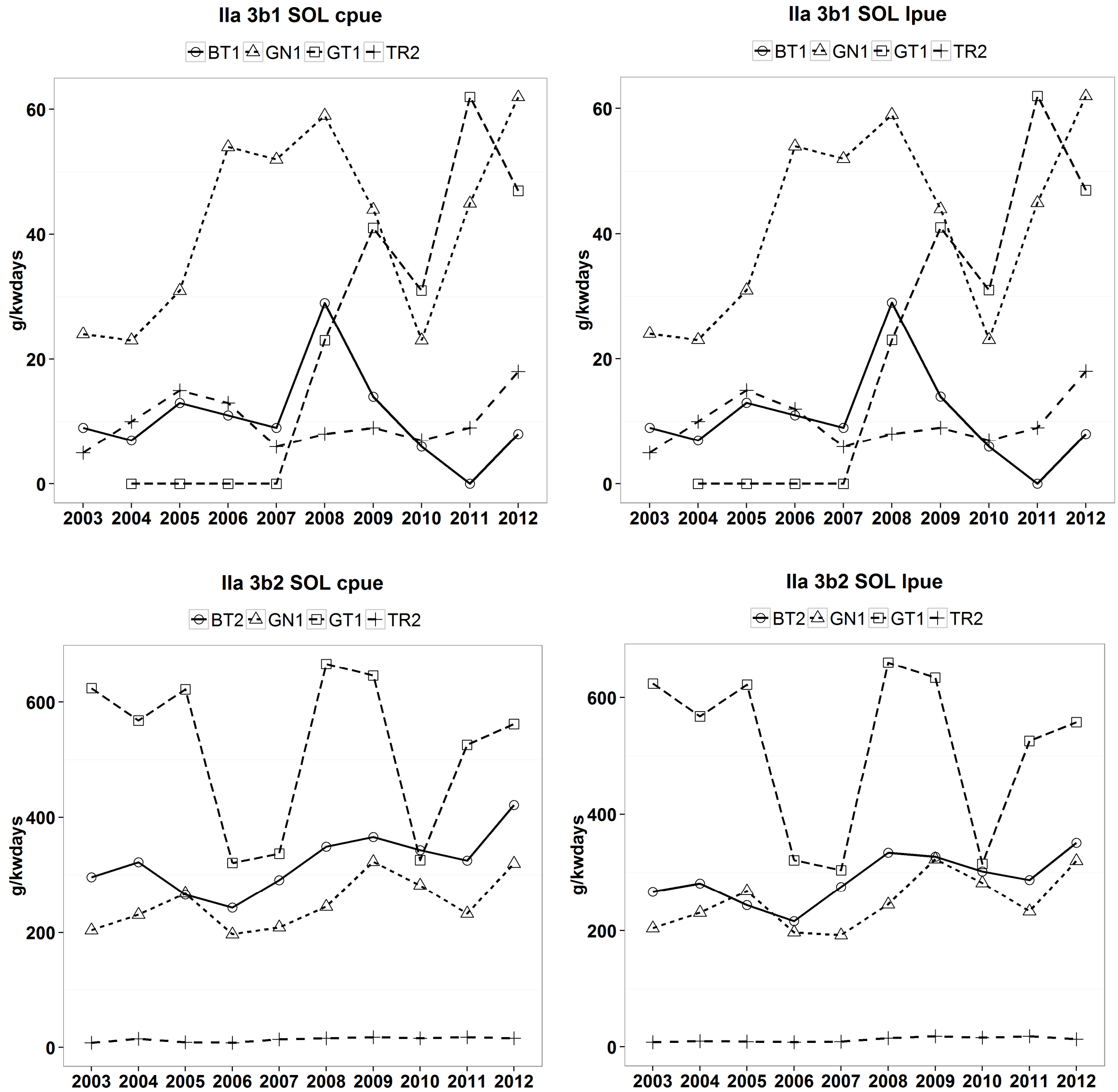
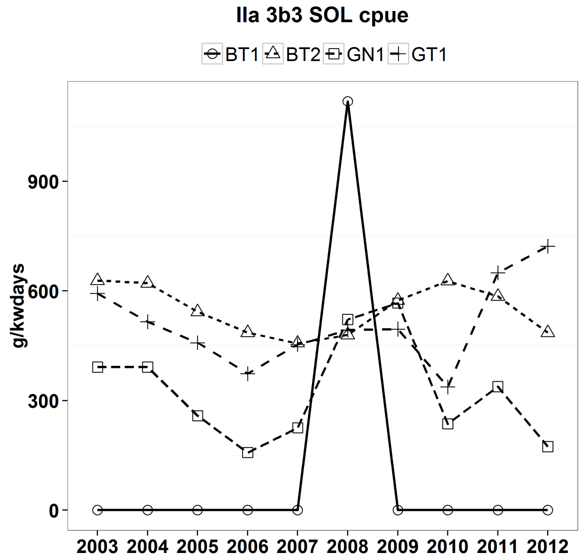


Figure 5.3.4.3 Area 3b1, 3b2 and 3b3: CPUE and LPUE (g/(kW*days) of sole for the four main cod plan categories.



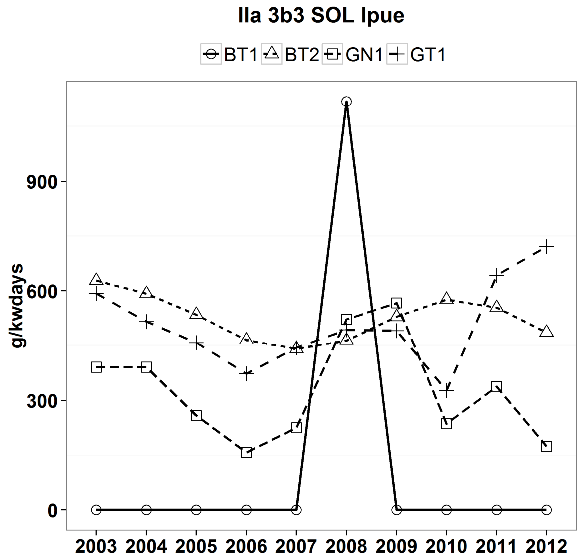


Figure 5.3.4.3 continued

5.3.5 ToR 2 Rank regulated gear groups on the basis of catches expressed both in weight and in number of cod, sole and plaice

Rankings of gears in terms of catches and landings are shown in Tables 5.3.5.1 to 5.3.5.4 for area 3b combined and for areas 3b1, 3b2 and 3b3 separated.

(Table 5.3.5.1). The most important gears for plaice are BT2 and TR1, while for sole BT2 and GT1 contribute to more than 80% of the catches. The ranking based on landings is quite similar, only for plaice now BT2, TR1 and BT1 contribute to more than 80% of the landings.

With regards to cod, the ranking of gear types is different between sub-areas 3b1, 3b2 and 3b3. In the Skagerrak TR1 and TR2 accumulate to more than 80% of the catches in 2012 while TR1 and GN1 are the most important gears in the North Sea and 2 EU. Differences can be also observed for plaice and sole between areas 3b1, 3b2 and 3b3.

Due to time constraints STECF EWG 13-13 dealt with ranking according to weight only, while the ranking according to catch in numbers has not been accomplished.

Table 5.3.5.1. Skagerrak (3b1), North Sea including 2 EU (3b2) and Eastern Channel (3b3) combined: Ranked categories according to relative cod, plaice and sole **catches** in weight in area 3b combined, 2003-2012. Ranking is according to the year 2012.

SPECIES	REG_GEAR	2003 rel	2004 rel	2005 rel	2006 rel	2007 rel	2008 rel	2009 rel	2010 rel	2011 rel	2012 rel	Cumul 2012
COD	TR1	0.464	0.440	0.525	0.513	0.561	0.675	0.670	0.671	0.632	0.689	1.000
COD	TR2	0.235	0.214	0.201	0.227	0.262	0.148	0.160	0.150	0.185	0.154	0.311
COD	GN1	0.124	0.148	0.126	0.110	0.073	0.063	0.077	0.093	0.095	0.079	0.157
COD	BT2	0.125	0.138	0.096	0.087	0.067	0.086	0.071	0.058	0.045	0.037	0.079
COD	BT1	0.026	0.042	0.036	0.044	0.020	0.013	0.006	0.009	0.013	0.022	0.041
COD	GT1	0.018	0.012	0.011	0.011	0.010	0.009	0.012	0.011	0.024	0.014	0.019
COD	LL1	0.008	0.005	0.004	0.007	0.005	0.005	0.003	0.008	0.006	0.005	0.005
COD	TR3	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
PLE	BT2	0.706	0.694	0.588	0.648	0.690	0.660	0.686	0.630	0.406	0.564	1.000
PLE	TR1	0.061	0.077	0.084	0.146	0.130	0.188	0.172	0.207	0.166	0.252	0.436
PLE	TR2	0.124	0.135	0.071	0.084	0.089	0.087	0.075	0.078	0.371	0.082	0.185
PLE	BT1	0.061	0.054	0.045	0.077	0.059	0.036	0.035	0.037	0.029	0.070	0.102
PLE	GT1	0.008	0.011	0.040	0.014	0.011	0.008	0.013	0.029	0.013	0.021	0.032
PLE	GN1	0.040	0.028	0.172	0.031	0.020	0.021	0.019	0.018	0.014	0.010	0.010
PLE	TR3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PLE	LL1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SOL	BT2	0.834	0.849	0.822	0.802	0.812	0.799	0.799	0.859	0.792	0.790	1.000
SOL	GT1	0.086	0.076	0.102	0.112	0.113	0.113	0.107	0.054	0.115	0.117	0.210
SOL	GN1	0.038	0.038	0.046	0.040	0.029	0.039	0.047	0.046	0.044	0.051	0.093
SOL	TR2	0.036	0.034	0.027	0.041	0.043	0.045	0.044	0.038	0.047	0.040	0.042
SOL	BT1	0.004	0.003	0.002	0.003	0.002	0.001	0.001	0.001	0.001	0.001	0.003
SOL	TR1	0.001	0.001	0.001	0.002	0.001	0.002	0.002	0.002	0.002	0.001	0.001
SOL	TR3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SOL	LL1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 5.3.5.2. Skagerrak (3b1), North Sea including 2 EU (3b2) and Eastern Channel (3b3) combined: Ranked categories according to relative cod, plaice and sole **landings** in weight in area 3b combined, 2003-2012. Ranking is according to the year 2012.

SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	Cumul 2102
COD	TR1	0.479	0.471	0.523	0.537	0.552	0.589	0.654	0.684	0.688	0.723	1.000
COD	TR2	0.183	0.167	0.149	0.140	0.157	0.133	0.122	0.106	0.115	0.0940	0.277
COD	GN1	0.143	0.182	0.165	0.150	0.125	0.117	0.108	0.113	0.110	0.0936	0.183
COD	BT2	0.137	0.105	0.094	0.102	0.104	0.118	0.085	0.062	0.051	0.040	0.089
COD	BT1	0.028	0.052	0.048	0.045	0.035	0.015	0.008	0.011	0.016	0.027	0.049
COD	GT1	0.020	0.015	0.015	0.016	0.017	0.017	0.017	0.014	0.013	0.016	0.023
COD	LL1	0.009	0.006	0.006	0.010	0.009	0.009	0.005	0.010	0.007	0.006	0.007
COD	TR3	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
PLE	BT2	0.593	0.599	0.617	0.554	0.610	0.557	0.542	0.528	0.493	0.448	1.000
PLE	TR1	0.096	0.117	0.133	0.180	0.174	0.264	0.260	0.281	0.301	0.314	0.552
PLE	BT1	0.100	0.091	0.085	0.121	0.093	0.054	0.058	0.053	0.055	0.105	0.238
PLE	TR2	0.131	0.130	0.094	0.077	0.077	0.083	0.090	0.096	0.100	0.086	0.133
PLE	GT1	0.014	0.019	0.025	0.021	0.018	0.012	0.019	0.015	0.024	0.031	0.047
PLE	GN1	0.066	0.044	0.046	0.047	0.028	0.031	0.031	0.027	0.027	0.015	0.015
PLE	TR3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
PLE	LL1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SOL	BT2	0.822	0.835	0.811	0.785	0.812	0.793	0.783	0.845	0.773	0.763	1.000
SOL	GT1	0.092	0.085	0.109	0.122	0.114	0.117	0.115	0.058	0.125	0.133	0.237
SOL	GN1	0.041	0.042	0.049	0.044	0.029	0.041	0.051	0.051	0.048	0.058	0.104
SOL	TR2	0.039	0.035	0.029	0.044	0.041	0.046	0.047	0.042	0.052	0.043	0.046
SOL	BT1	0.005	0.003	0.002	0.003	0.002	0.001	0.001	0.001	0.001	0.002	0.003
SOL	TR1	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.002
SOL	TR3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
SOL	LL1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Table 5.3.5.3. Skagerrak (3b1), North Sea including 2 EU (3b2) and Eastern Channel (3b3) separated: Ranked categories according to relative cod, plaice and sole **catches** in weight, 2003-2012. Ranking is according to the year 2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	Cumul 2012
IIa	3b1	COD	TR2	0.672	0.744	0.625	0.614	0.479	0.484	0.496	0.468	0.549	0.508	1.000
IIa	3b1	COD	TR1	0.113	0.127	0.247	0.306	0.402	0.314	0.345	0.352	0.290	0.338	0.492
IIa	3b1	COD	GN1	0.194	0.117	0.118	0.072	0.099	0.168	0.137	0.160	0.139	0.128	0.153
IIa	3b1	COD	GT1	0.001	0.002	0.001	0.002	0.001	0.013	0.018	0.014	0.016	0.018	0.025
IIa	3b1	COD	LL1	0.009	0.004	0.005	0.005	0.016	0.018	0.001	0.002	0.005	0.005	0.007
IIa	3b1	COD	BT1	0.006	0.006	0.004	0.001	0.002	0.001	0.000	0.004	0.002	0.002	0.002
IIa	3b1	COD	TR3	0.004	0.001	0.001	0.000	0.000		0.000	0.000	0.000		0.000
IIa	3b1	COD	BT2	0.001	0.000	0.000	0.000	0.001	0.002	0.002	0.001	0.000		0.000
IIa	3b2	COD	TR1	0.555	0.520	0.603	0.587	0.623	0.729	0.740	0.742	0.730	0.779	1.000
IIa	3b2	COD	GN1	0.109	0.156	0.129	0.119	0.066	0.053	0.067	0.085	0.090	0.070	0.221
IIa	3b2	COD	TR2	0.134	0.090	0.094	0.115	0.197	0.103	0.093	0.081	0.098	0.068	0.152
IIa	3b2	COD	BT2	0.152	0.168	0.117	0.107	0.080	0.090	0.082	0.066	0.054	0.044	0.084
IIa	3b2	COD	BT1	0.031	0.051	0.044	0.056	0.025	0.015	0.007	0.010	0.016	0.026	0.040
IIa	3b2	COD	GT1	0.010	0.010	0.008	0.007	0.005	0.005	0.008	0.006	0.006	0.008	0.013
IIa	3b2	COD	LL1	0.008	0.005	0.004	0.008	0.003	0.004	0.004	0.009	0.006	0.005	0.005
IIa	3b2	COD	TR3	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
IIa	3b3	COD	TR2	0.575	0.639	0.657	0.574	0.603	0.535	0.634	0.727	0.517	0.683	1.000
IIa	3b3	COD	GT1	0.187	0.145	0.164	0.161	0.133	0.125	0.138	0.155	0.392	0.189	0.317
IIa	3b3	COD	GN1	0.160	0.116	0.094	0.136	0.104	0.072	0.083	0.038	0.025	0.059	0.128
IIa	3b3	COD	BT2	0.047	0.087	0.078	0.116	0.084	0.221	0.093	0.062	0.041	0.050	0.069
IIa	3b3	COD	TR1	0.028	0.003	0.003	0.010	0.074	0.041	0.046	0.010	0.021	0.011	0.018
IIa	3b3	COD	LL1	0.003	0.012	0.005	0.004	0.003	0.004	0.004	0.002	0.003	0.005	0.007
IIa	3b3	COD	TR3	0.000	0.000	0.000		0.000	0.001	0.001	0.007	0.001	0.002	0.002
IIa	3b3	COD	BT1						0.001					0.000

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	Cumul 2012
IIa	3b1	PLE	TR1	0.095	0.238	0.547	0.511	0.652	0.675	0.685	0.720	0.741	0.748	1.000
IIa	3b1	PLE	TR2	0.606	0.507	0.215	0.167	0.118	0.160	0.131	0.089	0.142	0.142	0.252
IIa	3b1	PLE	BT1	0.182	0.164	0.143	0.198	0.097	0.041	0.027	0.081	0.025	0.055	0.110
IIa	3b1	PLE	GN1	0.107	0.065	0.074	0.077	0.066	0.100	0.118	0.026	0.061	0.035	0.056
IIa	3b1	PLE	GT1	0.000	0.000	0.001	0.002	0.001	0.005	0.017	0.019	0.030	0.021	0.021
IIa	3b1	PLE	LL1	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000
IIa	3b1	PLE	TR3	0.002	0.001	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000
IIa	3b1	PLE	BT2	0.007	0.024	0.020	0.045	0.066	0.019	0.023	0.065	0.001		0.000
IIa	3b2	PLE	BT2	0.746	0.760	0.621	0.698	0.748	0.725	0.729	0.691	0.427	0.606	1.000
IIa	3b2	PLE	TR1	0.062	0.070	0.061	0.121	0.088	0.146	0.145	0.161	0.136	0.222	0.394
IIa	3b2	PLE	BT1	0.057	0.050	0.040	0.070	0.059	0.037	0.036	0.034	0.030	0.073	0.172
IIa	3b2	PLE	TR2	0.092	0.085	0.056	0.069	0.080	0.073	0.066	0.069	0.387	0.072	0.099
IIa	3b2	PLE	GT1	0.006	0.008	0.040	0.013	0.008	0.005	0.010	0.028	0.009	0.019	0.027
IIa	3b2	PLE	GN1	0.037	0.027	0.181	0.028	0.017	0.013	0.013	0.018	0.011	0.009	0.009
IIa	3b2	PLE	TR3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
IIa	3b2	PLE	LL1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
IIa	3b3	PLE	BT2	0.483	0.382	0.521	0.579	0.625	0.678	0.640	0.520	0.544	0.525	1.000
IIa	3b3	PLE	TR2	0.405	0.530	0.348	0.332	0.248	0.231	0.259	0.294	0.329	0.332	0.475
IIa	3b3	PLE	GT1	0.092	0.080	0.110	0.083	0.109	0.081	0.090	0.073	0.111	0.132	0.142
IIa	3b3	PLE	GN1	0.018	0.008	0.021	0.006	0.016	0.006	0.008	0.004	0.011	0.006	0.010
IIa	3b3	PLE	TR1	0.002	0.000	0.001	0.001	0.001	0.002	0.002	0.106	0.004	0.002	0.004
IIa	3b3	PLE	TR3	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.003	0.002	0.001	0.001
IIa	3b3	PLE	BT1						0.001				0.000	0.000
IIa	3b3	PLE	LL1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	Cumul 2012
IIa	3b1	SOL	TR2	0.578	0.802	0.755	0.608	0.383	0.392	0.485	0.469	0.525	0.589	1.000
IIa	3b1	SOL	GN1	0.234	0.121	0.118	0.206	0.300	0.338	0.318	0.184	0.288	0.233	0.411
IIa	3b1	SOL	TR1	0.063	0.033	0.064	0.144	0.217	0.203	0.136	0.224	0.119	0.133	0.178
IIa	3b1	SOL	GT1		0.000	0.000	0.000	0.000	0.027	0.045	0.041	0.068	0.033	0.044
IIa	3b1	SOL	BT1	0.063	0.044	0.055	0.041	0.067	0.041	0.015	0.020	0.000	0.011	0.011
IIa	3b1	SOL	LL1	0.000	0.000	0.000	0.000							0.000
IIa	3b1	SOL	BT2	0.047	0.000	0.009	0.000	0.033	0.000	0.000	0.061			0.000
IIa	3b1	SOL	TR3	0.016	0.000	0.000		0.000			0.000			0.000
IIa	3b2	SOL	BT2	0.918	0.916	0.899	0.892	0.912	0.883	0.876	0.910	0.885	0.883	1.000
IIa	3b2	SOL	GN1	0.036	0.039	0.051	0.047	0.031	0.043	0.052	0.053	0.053	0.059	0.117
IIa	3b2	SOL	GT1	0.031	0.028	0.038	0.046	0.040	0.053	0.051	0.020	0.042	0.044	0.057
IIa	3b2	SOL	TR2	0.008	0.013	0.009	0.009	0.015	0.018	0.018	0.016	0.018	0.012	0.014
IIa	3b2	SOL	BT1	0.005	0.003	0.002	0.004	0.002	0.001	0.002	0.001	0.001	0.002	0.002
IIa	3b2	SOL	TR1	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
IIa	3b2	SOL	LL1	0.000	0.000	0.000	0.000			0.000	0.000		0.000	0.000
IIa	3b2	SOL	TR3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000
IIa	3b3	SOL	GT1	0.286	0.286	0.401	0.334	0.367	0.331	0.317	0.222	0.376	0.442	1.000
IIa	3b3	SOL	BT2	0.537	0.571	0.490	0.520	0.476	0.510	0.523	0.625	0.471	0.403	0.558
IIa	3b3	SOL	TR2	0.133	0.113	0.090	0.132	0.138	0.134	0.133	0.139	0.142	0.146	0.154
IIa	3b3	SOL	GN1	0.043	0.030	0.018	0.013	0.019	0.022	0.025	0.012	0.007	0.007	0.008
IIa	3b3	SOL	TR3	0.000	0.000	0.001	0.000	0.000	0.002	0.001	0.001	0.001	0.001	0.001
IIa	3b3	SOL	LL1	0.000			0.000		0.000	0.000	0.000	0.000	0.000	0.000
IIa	3b3	SOL	BT1						0.001				0.000	0.000
IIa	3b3	SOL	TR1	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.002	0.000	0.000

Table 5.3.5.4. Skagerrak (3b1), North Sea including 2 EU (3b2) and Eastern Channel (3b3) separated: Ranked categories according to relative cod, plaice and sole **landings** in weight in area 3b, 2003-2012. Ranking is according to the year 2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	Cumul 2012
IIa	3b1	COD	TR1	0.099	0.112	0.172	0.202	0.282	0.311	0.337	0.361	0.336	0.405	1.000
IIa	3b1	COD	TR2	0.598	0.669	0.558	0.579	0.410	0.397	0.405	0.372	0.408	0.369	0.595
IIa	3b1	COD	GN1	0.275	0.198	0.248	0.198	0.257	0.243	0.223	0.237	0.221	0.188	0.226
IIa	3b1	COD	GT1	0.001	0.004	0.003	0.004	0.003	0.019	0.029	0.021	0.024	0.027	0.037
IIa	3b1	COD	LL1	0.013	0.006	0.010	0.014	0.041	0.026	0.002	0.003	0.008	0.007	0.010
IIa	3b1	COD	BT1	0.009	0.010	0.008	0.001	0.006	0.001	0.000	0.005	0.003	0.003	0.003
IIa	3b1	COD	TR3	0.004	0.001	0.001	0.000	0.000		0.000	0.000	0.000		0.000
IIa	3b1	COD	BT2	0.002	0.000	0.001	0.001	0.002	0.003	0.004	0.001	0.000		0.000
IIa	3b2	COD	TR1	0.566	0.541	0.592	0.604	0.633	0.656	0.721	0.750	0.763	0.798	1.000
IIa	3b2	COD	GN1	0.122	0.183	0.158	0.145	0.109	0.103	0.094	0.101	0.099	0.080	0.202
IIa	3b2	COD	BT2	0.163	0.122	0.107	0.113	0.122	0.131	0.095	0.069	0.058	0.046	0.122
IIa	3b2	COD	BT1	0.032	0.060	0.056	0.053	0.042	0.018	0.010	0.012	0.018	0.031	0.076
IIa	3b2	COD	TR2	0.095	0.077	0.073	0.065	0.080	0.074	0.064	0.049	0.049	0.030	0.045
IIa	3b2	COD	GT1	0.011	0.012	0.010	0.009	0.008	0.010	0.011	0.008	0.006	0.009	0.015
IIa	3b2	COD	LL1	0.009	0.005	0.005	0.010	0.006	0.008	0.005	0.011	0.007	0.006	0.007
IIa	3b2	COD	TR3	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
IIa	3b3	COD	TR2	0.575	0.647	0.658	0.584	0.614	0.577	0.636	0.735	0.730	0.703	1.000
IIa	3b3	COD	GT1	0.187	0.146	0.164	0.164	0.135	0.136	0.141	0.153	0.144	0.170	0.297
IIa	3b3	COD	GN1	0.160	0.117	0.094	0.138	0.106	0.078	0.084	0.036	0.035	0.061	0.128
IIa	3b3	COD	BT2	0.047	0.075	0.076	0.100	0.066	0.158	0.087	0.056	0.055	0.048	0.067
IIa	3b3	COD	TR1	0.028	0.003	0.003	0.010	0.075	0.045	0.047	0.010	0.030	0.011	0.019
IIa	3b3	COD	LL1	0.003	0.012	0.005	0.004	0.003	0.004	0.004	0.002	0.004	0.005	0.008
IIa	3b3	COD	TR3	0.000	0.000	0.000		0.000	0.001	0.001	0.007	0.002	0.003	0.003
IIa	3b3	COD	BT1						0.001					0.000

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	Cumul 2012
IIa	3b1	PLE	TR1	0.094	0.214	0.494	0.473	0.579	0.674	0.683	0.709	0.729	0.736	1.000
IIa	3b1	PLE	TR2	0.577	0.466	0.183	0.143	0.121	0.138	0.119	0.084	0.142	0.141	0.264
IIa	3b1	PLE	BT1	0.201	0.207	0.193	0.236	0.126	0.047	0.029	0.088	0.028	0.062	0.123
IIa	3b1	PLE	GN1	0.118	0.082	0.100	0.092	0.087	0.114	0.126	0.028	0.067	0.038	0.061
IIa	3b1	PLE	GT1	0.000	0.001	0.002	0.002	0.002	0.005	0.018	0.021	0.033	0.023	0.023
IIa	3b1	PLE	LL1	0.000	0.000	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000
IIa	3b1	PLE	TR3	0.002	0.001	0.000	0.000	0.000		0.000	0.000	0.000	0.000	0.000
IIa	3b1	PLE	BT2	0.008	0.030	0.027	0.054	0.086	0.022	0.025	0.071	0.001		0.000
IIa	3b2	PLE	BT2	0.641	0.661	0.670	0.608	0.668	0.627	0.591	0.591	0.549	0.490	1.000
IIa	3b2	PLE	TR1	0.102	0.114	0.111	0.157	0.140	0.222	0.230	0.235	0.267	0.284	0.510
IIa	3b2	PLE	BT1	0.098	0.085	0.081	0.114	0.095	0.058	0.063	0.051	0.061	0.113	0.226
IIa	3b2	PLE	TR2	0.084	0.084	0.073	0.058	0.061	0.065	0.077	0.084	0.082	0.071	0.113
IIa	3b2	PLE	GT1	0.010	0.014	0.022	0.020	0.013	0.008	0.016	0.012	0.018	0.029	0.042
IIa	3b2	PLE	GN1	0.065	0.042	0.043	0.043	0.022	0.021	0.023	0.027	0.023	0.013	0.013
IIa	3b2	PLE	TR3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
IIa	3b2	PLE	LL1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
IIa	3b3	PLE	BT2	0.515	0.479	0.499	0.568	0.607	0.651	0.605	0.549	0.477	0.531	1.000
IIa	3b3	PLE	TR2	0.366	0.367	0.364	0.330	0.259	0.250	0.284	0.377	0.390	0.334	0.469
IIa	3b3	PLE	GT1	0.098	0.139	0.114	0.093	0.115	0.089	0.098	0.063	0.121	0.125	0.135
IIa	3b3	PLE	GN1	0.019	0.013	0.022	0.007	0.017	0.007	0.009	0.005	0.006	0.007	0.010
IIa	3b3	PLE	TR1	0.002	0.000	0.001	0.001	0.001	0.002	0.003	0.002	0.003	0.002	0.004
IIa	3b3	PLE	TR3	0.000	0.001	0.000	0.000	0.000	0.000	0.000	0.004	0.003	0.001	0.001
IIa	3b3	PLE	BT1						0.001				0.000	0.000
IIa	3b3	PLE	LL1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	Cumul 2012
IIa	3b1	SOL	TR2	0.578	0.800	0.750	0.598	0.373	0.392	0.477	0.469	0.525	0.589	1.000
IIa	3b1	SOL	GN1	0.234	0.122	0.120	0.217	0.305	0.338	0.323	0.184	0.288	0.233	0.411
IIa	3b1	SOL	TR1	0.063	0.033	0.065	0.141	0.220	0.203	0.138	0.224	0.119	0.133	0.178
IIa	3b1	SOL	GT1		0.000	0.000	0.000	0.000	0.027	0.046	0.041	0.068	0.033	0.044
IIa	3b1	SOL	BT1	0.063	0.044	0.056	0.043	0.068	0.041	0.015	0.020	0.000	0.011	0.011
IIa	3b1	SOL	LL1	0.000	0.000	0.000	0.000							0.000
IIa	3b1	SOL	BT2	0.047	0.000	0.009	0.000	0.034	0.000	0.000	0.061			0.000
IIa	3b1	SOL	TR3	0.016	0.000	0.000		0.000			0.000			0.000
IIa	3b2	SOL	BT2	0.910	0.908	0.891	0.880	0.918	0.880	0.864	0.899	0.872	0.865	1.000
IIa	3b2	SOL	GN1	0.040	0.044	0.056	0.053	0.031	0.044	0.057	0.059	0.059	0.070	0.135
IIa	3b2	SOL	GT1	0.034	0.032	0.041	0.051	0.038	0.055	0.056	0.022	0.047	0.051	0.065
IIa	3b2	SOL	TR2	0.009	0.010	0.009	0.010	0.010	0.018	0.020	0.018	0.020	0.011	0.014
IIa	3b2	SOL	BT1	0.006	0.004	0.002	0.004	0.002	0.001	0.002	0.001	0.001	0.002	0.003
IIa	3b2	SOL	TR1	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001
IIa	3b2	SOL	LL1	0.000	0.000	0.000	0.000			0.000	0.000		0.000	0.000
IIa	3b2	SOL	TR3	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000		0.000	0.000
IIa	3b3	SOL	GT1	0.287	0.294	0.404	0.342	0.370	0.337	0.329	0.229	0.383	0.442	1.000
IIa	3b3	SOL	BT2	0.537	0.560	0.487	0.509	0.471	0.502	0.504	0.609	0.459	0.404	0.558
IIa	3b3	SOL	TR2	0.133	0.116	0.090	0.135	0.139	0.136	0.139	0.148	0.146	0.146	0.154
IIa	3b3	SOL	GN1	0.043	0.031	0.018	0.013	0.020	0.022	0.026	0.013	0.008	0.007	0.008
IIa	3b3	SOL	TR3	0.000	0.000	0.001	0.000	0.000	0.002	0.002	0.001	0.001	0.001	0.001
IIa	3b3	SOL	LL1	0.000			0.000		0.000	0.000	0.000	0.000	0.000	0.000
IIa	3b3	SOL	BT1						0.001				0.000	0.000
IIa	3b3	SOL	TR1	0.000	0.000	0.000	0.001	0.000	0.001	0.001	0.000	0.002	0.000	0.000

5.3.6 ToR 3 Information on small boats (<10m)

5.3.6.1 Fishing effort of small boats by Member State

Effort (Table 5.3.6.1.1) is provided for the vessels under 10m (including Article 11 vessels!) in area 3b, for all countries except Belgium. German data are incomplete as logbook information is not mandatory for vessels under 10m in Germany. UK data are poor until the introduction of registration of buyers and sellers legislation in 2006 after which recording of effort has improved. Danish data are incomplete till 2010. Therefore, up to 2010 data have to be regarded as not representative and should not be interpreted. Especially the increase in effort around 2006 and 2010 does most likely not mean an increase in effort in reality. Between 2010 and 2011 effort was stable. In 2011 around half of the effort is operated with Pots (47%), and secondly GN1 (13%) and TR2 (12%). Unregulated gears account for 60% of total effort from vessels <10m. The highest effort in 2011 was recorded by England, Scotland and France (Table 5.3.6.1.2.)

For the whole area 3b in 2012, the effort from vessels <10m was 9% of the total effort in this area.

Table 5.3.6.1.1 Skagerrak, North Sea and Eastern Channel. Fishing effort (kWdays) by vessels <10m. Data include Art. 11 vessels!

ANNEX	REG AREA	REG GEAR CC	2005	2006	2007	2008	2009	2010	2011	2012
IIa	3b1	DEM_SEINE	301	503	457	679	6052	4971	197	8768
IIa	3b1	DREDGE					3437	10003	771	2177
IIa	3b1	GN1	100597	143850	85267	117597	210526	196336	180466	213300
IIa	3b1	GT1	7199	7542	4145	2361	49133	17339	17034	21252
IIa	3b1	LL1	12773	11632	8460	13611	809	7527	2926	1215
IIa	3b1	none	279834	228367	196976	238944	348910	359647	374678	346954
IIa	3b1	OTTER	5809	10608	6512	6815	7430	19478	23751	34663
IIa	3b1	PEL_SEINE	441	315	252	1148	1125	442	3466	252
IIa	3b1	PEL_TRAWL	53	106	17		53			
IIa	3b1	POTS	84747	163269	105493	106041	781512	859133	408138	477168
IIa	3b1	TR1	13405	19028	22638	21597	15800	18684	4932	18856
IIa	3b1	TR2	14372	14888	19943	19755	34859	75774	98526	123061
IIa	3b1	TR3	162	956	1052	603	1619	3119	1544	507
IIa	3b2	BEAM	20795	45923	73273	111576	81068	38237	49726	63895
IIa	3b2	BT1	4	4				4	4	
IIa	3b2	BT2	637	574	676	58	3466	14376	3650	802
IIa	3b2	DREDGE	103978	106632	125628	164279	183741	170258	167121	174140
IIa	3b2	GN1	310649	473886	639122	641390	565616	555102	592653	481877
IIa	3b2	GT1	141442	243251	51469	123419	132229	121147	230749	162722
IIa	3b2	LL1	185215	121158	223379	256904	193040	273637	251392	269549
IIa	3b2	none	319791	265304	241312	247650	269798	294912	315079	296765
IIa	3b2	OTTER	121290	53281	81701	68334	110265	75189	45469	32884
IIa	3b2	PEL_SEINE	5020	5225	3924	14327	18095	27139		
IIa	3b2	PEL_TRAWL	7226	316	3058	1196	13625	13159	19964	17865
IIa	3b2	POTS	1977969	3855408	4019404	4129470	4128191	4067548	4275794	4205901
IIa	3b2	TR1	74027	106819	172073	165212	145161	174062	200265	211144
IIa	3b2	TR2	966629	1032910	1191938	1064981	959253	941263	1075229	882548
IIa	3b2	TR3	7434	6465	1983	164	1344	2769	4725	3360
IIa	3b3	BEAM	15887	745		149	149	347	62	
IIa	3b3	BT2	44073	35255	61328	65598	55374	37649	26407	33732
IIa	3b3	DREDGE	170967	165851	164335	227297	189076	178185	197563	183166
IIa	3b3	GN1	242581	581413	1233830	1173083	1222671	1073271	934576	696090
IIa	3b3	GT1	469766	630019	465130	353821	384219	503202	777802	861366
IIa	3b3	LL1	69475	87057	149972	68164	84464	239074	316428	376729
IIa	3b3	none	28060	7750	24289	13867	13867		5794	
IIa	3b3	OTTER	109479	8086	3660	2817	1693	51027	31562	48307
IIa	3b3	PEL_SEINE								
IIa	3b3	PEL_TRAWL	4593	4694	8355	17874	17874	16249	7788	3636
IIa	3b3	POTS	544348	1221805	1260523	935385	792216	1657083	1213275	1382224
IIa	3b3	TR1	6450	6447	26518	172434	125897	99165	80878	136035
IIa	3b3	TR2	102348	262295	375394	180269	201305	267964	381672	301177
IIa	3b3	TR3	120992	163184	125478	52603	52128	52326	63039	42104
Sum			6690818	10092821	11178964	10781472	11407090	12516797	12385095	12116191

Table 5.3.6.1.2 Skagerrak, North Sea and Eastern Channel. Fishing effort (kWdays) by vessels <10m by country.

ANNEX	REG AREA	COUNTRY	2005	2006	2007	2008	2009	2010	2011	2012
IIa	3b1	DNK	376922	379678	303712	375610	381497	377669	388810	367146
IIa	3b1	SWE	142771	221386	147500	153541	1079768	1194784	727619	881027
IIa	3b2	DEU	8359	33326	48357	31085	38899	26849	41101	34498
IIa	3b2	DNK	388486	367508	321918	382763	361730	317980	368395	341352
IIa	3b2	ENG	1365227	2938590	3270361	3218856	2731080	2597354	3089443	2798937
IIa	3b2	FRA	87111	57751	52761	59281	59281	44940	64959	44761
IIa	3b2	GBC								
IIa	3b2	NIR	209	14136	1672		371		112	1121
IIa	3b2	NLD	155640	176535	174381	197396	215075	237672	185390	174048
IIa	3b2	SCO	2237074	2729310	2959490	3099579	3398456	3544007	3482420	3408709
IIa	3b2	SWE								26
IIa	3b3	ENG	422216	1566408	2452694	2429908	2299272	2318911	2447658	2533846
IIa	3b3	FRA	1506803	1607091	1445793	832742	829871	1849140	1586097	1530504
IIa	3b3	GBG		1074		224				
IIa	3b3	NIR		0		112				
IIa	3b3	SCO		28	325	375	11790	7491	3091	216
SUM			6690818	10092821	11178964	10781472	11407090	12516797	12385095	12116191

5.3.6.2 Catches (landings and discards) of cod and associated species by small boats by Member State

Landings are provided for the vessels under 10m in area 3b, for all countries except Belgium, for the top 10 species ranked according to landings in 2011 (Table 5.3.6.2.1). The main fishery is for edible crab, and secondly for cod, Nephrops and plaice. For the whole area 3b in 2011, the landings from vessels <10m represent around 5, 7, 9 and 2% of the total landings of cod, Nephrops, sole and plaice, respectively. Information by country is available from the STECF website.

The details by gear for cod, plaice and sole is given in Table 5.3.6.2.2. From the regulated gears passive gears are most important. However, substantial landings are reported under none for vessels <10m.

Table 5.3.6.2.1 Skagerrak (3b1), North Sea and 2 EU (3b2), Eastern Channel (3b3). Landings (t) by vessels <10m. Only top 10 species according to landings in 2012 are shown. Information for other species is available from the STECF website.

ANNEX	REG_AREA	No	SPECIES	2005	2006	2007	2008	2009	2010	2011	2012
IIa	3b1	1	PLE	453.645	609.059	447.486	662.896	476.25	599.661	625.174	564.331
IIa	3b1	2	COD	844.856	663.919	483.497	496.602	435.834	476.972	552.52	527.721
IIa	3b1	3	NEP	128.885	117.662	134.017	144.15	152.83	182.633	141.108	203.146
IIa	3b1	4	CRE	65.936	52.117	57.792	71.622	107.777	109.979	118.472	126.86
IIa	3b1	5	MAC	48.23	65.753	42.343	54.688	52.488	109.264	98.053	114.464
IIa	3b1	6	HER	36.004	42.098	50.61	45.73	63.637	32.112	26.732	66.637
IIa	3b1	7	DAB	23.389	15.58	17.721	23.027	25.773	23.735	41.897	59.233
IIa	3b1	8	SOL	30.974	28.567	29.668	35.326	42.215	19.784	41.921	50.428
IIa	3b1	9	POL	39.494	22.099	20.317	18.41	42.011	36.722	42.693	36.561
IIa	3b1	10	LEM	62.85	62.158	24.579	20.496	23.561	27.023	13.003	28.948
IIa	3b2	1	CRE	1775.545	3736.901	3738.228	3454.741	3118.615	3438.854	3539.057	4150.852
IIa	3b2	2	OTH	1678.817	1795.21	2337.166	2135.991	2610.568	2292.56	2259.521	2119.366
IIa	3b2	3	NEP	1521.185	2185.853	1873.955	1315.745	1404.149	1108.502	1158.314	1153.599
IIa	3b2	4	COD	883.818	950.955	731.504	927.226	1017.377	939.519	811.295	801.995
IIa	3b2	5	MAC	371.712	431.289	380.413	442.497	480.899	668.888	685.027	580.679
IIa	3b2	6	SCE	341.49	249.474	285.786	321.091	263.792	459.74	416.764	553.906
IIa	3b2	7	PLE	468.518	495.44	325.386	327.966	677.154	307.923	411.769	413.152
IIa	3b2	8	WHG	241.516	691.317	652.04	233.33	390.606	394.981	345.344	365.172
IIa	3b2	9	SOL	304.134	291.537	299.693	402.291	772.375	354.407	478.123	361.883
IIa	3b2	10	SPR	197.73	49.149	244.673	19.95	46.767	89.499	246.958	340.58
IIa	3b3	1	SOL	457.644	613.706	777.901	594.113	701.638	662.448	768.83	726.664
IIa	3b3	2	CRE	341.731	420.449	403.56	388.395	346.043	417.112	445.687	517.916
IIa	3b3	3	PLE	415.208	542.453	480.063	363.269	435.658	397.676	445.367	449.03
IIa	3b3	4	BSS	191.077	170.677	197.324	199.896	199.941	250.078	333.441	383.832
IIa	3b3	5	SCE	218.293	334.134	264.95	248.455	231.836	142.784	215.962	204.937
IIa	3b3	6	COD	193.18	276.738	217.358	163.102	153.658	146.683	145.928	123.949
IIa	3b3	7	POL	15.333	24.976	25.955	32.528	29.6	79.038	100.914	91.489
IIa	3b3	8	MAC	20.251	27.715	30.395	28.885	37.735	42.54	69.098	71.221
IIa	3b3	9	CSH	109.28	139.338	71.664	35.22	35.416	69.039	94.39	65.887
IIa	3b3	10	TUR	35.039	40.633	36.216	47.35	38.986	50.806	58.038	56.752

Table 5.3.6.2.2 Skagerrak, North Sea and Eastern Channel. Landings (t) of cod by vessels under 10m and major regulated and unregulated gears, 2005-2012.

ANNEX	REG_AREA	REG_GEAR	SPECIES	2005	2006	2007	2008	2009	2010	2011	2012
IIa	3b1	GN1	COD	171.463	217.477	163.457	186.128	116.545	102.63	89.881	88.491
IIa	3b1	GT1	COD	6.009	5.657	0.467	0.361	0.015	0.093	0.261	0.99
IIa	3b1	LL1	COD	20.145	23.151	15.63	15.345	0.122	3.006	9.297	3.852
IIa	3b1	none	COD	635.895	396.275	287.637	279.041	307.53	364.615	446.618	398.529
IIa	3b1	OTTER	COD	0	0.048	0.334	0.113	0			0.005
IIa	3b1	PEL_TRAWL	COD		0.612			0.294			
IIa	3b1	POTS	COD	0.255	0.397	0.004		0.033	0.131	0.16	0.063
IIa	3b1	TR1	COD	7.814	13.276	10.691	6.623	10.104	3.712	0.504	14.586
IIa	3b1	TR2	COD	3.275	7.026	5.277	8.991	1.191	2.785	5.799	21.205
IIa	3b2	BEAM	COD						0.504	0.198	
IIa	3b2	BT1	COD							0	
IIa	3b2	BT2	COD					36.081	0.023	2.024	
IIa	3b2	DREDGE	COD			0.344	0.184	1.005	0.048	3.896	0.007
IIa	3b2	GN1	COD	355.808	463.09	306.829	394.612	387.766	293.014	221.903	219.358
IIa	3b2	GT1	COD	27.544	40.061	10.093	29.364	77.404	45.375	50.825	45.224
IIa	3b2	LL1	COD	87.093	96.77	153.057	242.717	241.767	292.402	147.655	208.483
IIa	3b2	none	COD	352.698	227.028	141.054	130.104	75.056	92.427	142.564	131.277
IIa	3b2	OTTER	COD	3.365	1.723	0.521	0.134	0.165	0.524	0.176	0.623
IIa	3b2	PEL_SEINE	COD					0			
IIa	3b2	PEL_TRAWL	COD	0.493						0.003	0.03
IIa	3b2	POTS	COD	11.151	10.829	5.515	15.056	39.324	45.458	55.012	54.183
IIa	3b2	TR1	COD	27.153	32.632	41.615	58.587	69.463	67.245	66.533	64.495
IIa	3b2	TR2	COD	18.513	78.822	72.467	56.462	89.346	102.499	120.506	78.315
IIa	3b2	TR3	COD			0.009	0.006				
IIa	3b3	BEAM	COD	0.005						0.012	
IIa	3b3	BT2	COD	0.004	0.043	0.368	0.147	0.152	0.772	0.02	0.267
IIa	3b3	DREDGE	COD	0.008	0.029	0.235	0.035	0.013		0.208	0.006
IIa	3b3	GN1	COD	131.235	224.468	123.375	96.203	79.319	76.266	66.421	44.962
IIa	3b3	GT1	COD	33.128	21.739	51.388	37.172	50.993	49.14	50.69	52.869
IIa	3b3	LL1	COD	1.553	5.156	3.859	3.794	1.741	2.744	6.506	3.587
IIa	3b3	OTTER	COD	24.554	2.191	0.028			0.36	0.022	0.066
IIa	3b3	PEL_TRAWL	COD	0.01	0.2	0.005	0.002	0.002		0.016	0.004
IIa	3b3	POTS	COD	0.02	0.084	2.134	2.746	3.655	4.039	3.15	0.773
IIa	3b3	TR1	COD		1.26	1.62	12.476	7.216	4.398	8.242	14.452
IIa	3b3	TR2	COD	2.663	21.549	34.346	10.527	10.567	8.964	10.641	6.963
IIa	3b3	TR3	COD		0.019						

5.3.7 ToR 4 Evaluation of fully documented fisheries FDF

The figures in this paragraph cover area 3b. In the electronic appendices, the information by subarea 3b1 (Skagerrak), 3b2 (North Sea) and 3b3 (Eastern Channel) are available.

5.3.7.1 Fishing effort of FDF by Member State and fisheries in comparison with fisheries not working under FDF provisions

Table 5.3.8.1.1 shows that during 2011 nominal fishing effort (KW*days) by vessels operating in Fully Documented Fisheries (FDF) trials in the Skagerrak, North Sea and Eastern Channel was a small proportion of the total effort (4.9%), but was significant for the main cod gear (27.2% of effort by otter trawls of ≥120 mm mesh size (TR1)). Compared to last year's report, Germany is added as a FDF country.

In 2012 FDF is still a small proportion of the total effort (5.6%), but it's increasing. The significance for the main cod gear has increased further and is 28.9% in 2012. All FDF countries contributed to this increase.

With respect to the number of vessels that participate in FDF, EWG13-06 assumes that only vessels of the TR1 gear group target cod. The number of TR1 vessels participating in FDF increased from 44 in 2011 to 48 in 2012. These numbers must be used with care because some TR1 vessels also apply GN1 gears, so overlap can occur.

Table 5.3.7.1.1 Skagerrak, North Sea and Eastern Channel: (A part 1) total fishing effort for countries with Fully Documented Fisheries (FDF, REM/CCTV), (B) FDF (REM/CCTV) nominal fishing effort (kW days) and (A part 2, C) the percentage of total effort attributable to FDFs. The figures for 2011 are changed compared to the ones of last year's report, due to a revision of the Danish, English and Scottish effort data for 2011.

Table A, part 1

COUNTRY	GEAR	2011	2012
DEU	BEAM	3901769	5365103
	BT1	1535	2793
	BT2	1242171	1071896
	DEM_SEINE		
	DREDGE	122438	6426
	GN1	225797	287472
	GT1	924	
	none	32656	30500
	OTTER	101740	16158
	PEL_TRAWL	931868	1149843
	POTS		
	TR1	1652164	1341333
	TR2	441597	335549
	TR3		
DEU Total		8654659	9607073
DNK	BEAM	583866	851414
	BT1	433062	440886
	BT2	440	242
	DEM_SEINE	104	1190
	DREDGE	396732	385786
	GN1	1443013	1323145
	GT1	223000	358745
	LL1	62587	51543
	none	58471	69657
	OTTER	5841057	2905333
	PEL_SEINE	337529	269988
	PEL_TRAWL	3613072	4619017
	POTS	6205	6970
	TR1	4583311	4592940
	TR2	3312188	2749364
	TR3	337402	480789
DNK Total		21232039	19107009
ENG	BEAM	156166	325638
	BT1	169873	424874
	BT2	2942307	2733012
	DEM_SEINE		
	DREDGE	711217	338768
	GN1	252169	174777
	GT1	20078	14155
	LL1	44458	51111
	OTTER	182918	422
	PEL_TRAWL	896373	1417868
	POTS	1612911	1619790
	TR1	2140059	1872403
	TR2	1620562	1619726
	TR3	621	246
ENG Total		10749712	10592790

Table B

COUNTRY	GEAR	2011	2012
DEU	BEAM		
	BT1		
	BT2		
	DEM_SEINE		
	DREDGE		
	GN1		
	GT1		
	none		
	OTTER		
	PEL_TRAWL		
	POTS		
	TR1		335331
	TR2		
	TR3		
DEU Total			335331
DNK	BEAM		
	BT1		
	BT2		
	DEM_SEINE		
	DREDGE		
	GN1	12668	83232
	GT1		3249
	LL1	11445	
	none	10560	9020
	OTTER	660	
	PEL_TRAWL		
	PEL_TRAWL		
	POTS		
	TR1	2178914	2180822
	TR2	22030	72463
	TR3		
DNK Total		2236277	2348786
ENG	BEAM		
	BT1		
	BT2		
	DEM_SEINE		
	DREDGE	2685	
	GN1	31604	35681
	GT1		
	LL1		
	OTTER	3395	
	PEL_TRAWL		
	POTS		
	TR1	694484	656180
	TR2		
	TR3		
ENG Total		732168	691861

Table C

2011	2012
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	25.0%
0.0%	0.0%
0.0%	0.0%
0.0%	3.5%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.9%	6.3%
0.0%	0.9%
18.3%	0.0%
18.1%	12.9%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
47.5%	47.5%
0.7%	2.6%
0.0%	0.0%
10.5%	12.3%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.4%	0.0%
12.5%	20.4%
0.0%	0.0%
0.0%	0.0%
1.9%	0.0%
0.0%	0.0%
0.0%	0.0%
32.5%	35.0%
0.0%	0.0%
0.0%	0.0%
6.8%	6.5%

Table 5.3.7.1.1. (ctd.)

NLD	BEAM	4126270	5642413	NLD	BEAM	442	81897	0.0%	1.5%
	BT1	308958	1090258					0.0%	0.0%
	BT2	25777844	22428296		BT2		14586	0.0%	0.1%
	DEM_SEINE		9500		DEM_SEINE		4000	0.0%	42.1%
	DREDGE	497268	565191		DREDGE			0.0%	0.0%
	GN1	316070	295035		GN1	4862	4420	1.5%	1.5%
	GT1	21431	29054		GT1	663	884	3.1%	3.0%
	LL1				LL1			0.0%	0.0%
	OTTER	4111	53293		OTTER		442	0.0%	0.8%
	PEL_SEINE				PEL_SEINE			0.0%	0.0%
	PEL_TRAWL	2242925	4105752		PEL_TRAWL		1326	0.0%	0.0%
	POTS	6133	9397		POTS			0.0%	0.0%
	TR1	1176692	1329299		TR1	197344	411771	16.8%	31.0%
	TR2	1921901	1984193		TR2	211502	435725	11.0%	22.0%
	TR3	23268	25897		TR3		221	0.0%	0.9%
NLD Total		36422871	37567578	NLD Total		414813	955272	1.1%	2.5%
SCO	BEAM			SCO	BEAM			0.0%	0.0%
	BT1				BT1			0.0%	0.0%
	BT2		68262		BT2			0.0%	0.0%
	DEM_SEINE	1125	16454		DEM_SEINE			0.0%	0.0%
	DREDGE	2209299	1959531		DREDGE			0.0%	0.0%
	GN1	607650	569749		GN1			0.0%	0.0%
	LL1	183352	68192		LL1			0.0%	0.0%
	none	59440	70360		none			0.0%	0.0%
	OTTER	668510	441398		OTTER			0.0%	0.0%
	PEL_SEINE	61300	21286		PEL_SEINE			0.0%	0.0%
	PEL_TRAWL	1283926	1685322		PEL_TRAWL			0.0%	0.0%
	POTS	1060237	1022054		POTS			0.0%	0.0%
	TR1	9997529	9306627		TR1	2871664	2585992	28.7%	27.8%
	TR2	6826480	5314452		TR2			0.0%	0.0%
	TR3		20706		TR3			0.0%	0.0%
SCO Total		22958848	20564393	SCO Total		2871664	2585992	12.5%	12.6%
Grand Total		100018129	97438843	Grand Total		6254922	6917242	6.3%	7.1%

Table A, part 2

Effort of all IIa countries by gear

GEAR	2011	2012
BEAM	9006308	12528742
BT1	1558336	2057585
BT2	34043420	29052958
DEM_SEINE	1229	27144
DREDGE	4365846	3637860
GN1	3063752	2876383
GT1	2865241	2885834
LL1	393261	263018
none	252851	254844
OTTER	10045822	5854976
PEL_SEINE	1022581	906510
PEL_TRAWL	11132494	16661586
POTS	3736078	3893008
TR1	21771013	21367132
TR2	23939028	21328600
TR3	488673	622996
Grand Total	127685933	124219176

GEAR	2011	2012
BEAM	442	81897
BT1		
BT2		14586
DEM_SEINE		4000
DREDGE	2685	
GN1	49134	123333
GT1	663	4133
LL1	11445	
none	10560	9020
OTTER	4055	442
PEL_SEINE		
PEL_TRAWL		1326
POTS		
TR1	5942406	6170096
TR2	233532	508188
TR3		221
Grand Total	6254922	6917242

2011	2012
0.0%	0.7%
0.0%	0.0%
0.0%	0.1%
0.0%	14.7%
0.1%	0.0%
1.6%	4.3%
0.0%	0.1%
2.9%	0.0%
4.2%	3.5%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
27.3%	28.9%
1.0%	2.4%
0.0%	0.0%
4.9%	5.6%

5.3.7.2 Catches (landings and discards) of cod and other species taken by FDF fisheries by Member State and fisheries in comparison with fisheries not working under FDF provisions

Cod catches were recorded in fisheries using TR1, TR2, GN1 and Pots (Table 5.3.7.2.1), but most catches (94.8% of total FDF catches) were from vessels using TR1 gears. In total, 36% of cod catches by EU vessels were taken during FDF trials; 52%, 38%, 62%, 36% and 31% of German, Danish, English, Dutch and Scottish cod catches respectively.

Table 5.3.7.2.1 Skagerrak, North Sea and Eastern Channel: (A part 1) total catches for cod for countries with Fully Documented Fisheries (FDF, REM/CCTV), (B) total catches (tonnes), and (A part 2, C) the percentage of catches attributed to FDFs. The figures for 2011 are changed compared to the ones of last year's report, due to a revision of the Danish, English and Scottish data for 2011.

Table A, part 1

COUNTRY	GEAR	2011	2012
DEU	BEAM	0	0
	BT1	0	0
	BT2	36	37
	DEM_SEINE	0	0
	GN1	265	262
	GT1	0	0
	OTTER	6	0
	PEL_TRAWL	4	0
	TR1	2097	2327
	TR2	92	46
	TR3	0	0
DEU Total		2501	2671
DNK	BEAM	0	0
	BT1	34	56
	BT2	0	0
	DEM_SEINE	1	0
	DREDGE	0	0
	GN1	2475	1960
	GT1	124	183
	LL1	77	14
	none	8	19
	OTTER	60	80
	PEL_SEINE	0	0
	PEL_TRAWL	1	1
	POTS	0	0
	TR1	4509	5114
	TR2	2383	2174
	TR3	0	0
DNK Total		9673	9601
ENG	BEAM	0	0
	BT1	3	4
	BT2	55	39
	DREDGE	0	0
	GN1	210	208
	GT1	9	3
	LL1	7	4
	OTTER	8	0
	PEL_TRAWL	0	0
	POTS	5	6
	TR1	1359	886
	TR2	284	154
	TR3	0	0
ENG Total		1940	1305

Table B

COUNTRY	GEAR	2011	2012
DEU	BEAM	0	0
	BT1	0	0
	BT2	0	0
	DEM_SEINE	0	0
	GN1	0	0
	GT1	0	0
	OTTER	0	0
	PEL_TRAWL	0	0
	TR1	0	1385
	TR2	0	0
	TR3	0	0
DEU Total		0	1385
DNK	BEAM	0	0
	BT1	0	0
	BT2	0	0
	DEM_SEINE	0	0
	DREDGE	0	0
	GN1	56	242
	GT1	0	4
	LL1	57	0
	none	0	0
	OTTER	0	0
	PEL_SEINE	0	0
	PEL_TRAWL	0	0
	POTS	0	0
	TR1	2575	2967
	TR2	25	19
	TR3	0	0
DNK Total		2712	3232
ENG	BEAM	0	0
	BT1	0	0
	BT2	0	0
	DREDGE	0	0
	GN1	151	185
	GT1	0	0
	LL1	0	0
	OTTER	7	0
	PEL_TRAWL	0	0
	POTS	0	0
	TR1	693	630
	TR2	0	0
	TR3	0	0
ENG Total		850	815

Table C

2011	2012
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	59.5%
0.0%	0.0%
0.0%	0.0%
0.0%	51.9%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
2.3%	12.4%
0.0%	2.1%
73.4%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
57.1%	58.0%
1.0%	0.9%
0.0%	0.0%
28.0%	33.7%
0.0%	0.0%
0.0%	0.0%
0.0%	0.0%
9.1%	0.0%
71.8%	88.6%
0.0%	0.0%
0.0%	0.0%
88.9%	0.0%
0.0%	0.0%
0.0%	0.0%
51.0%	71.1%
0.0%	0.0%
0.0%	0.0%
43.8%	62.4%

Table 5.3.7.2.1 (ctd.)

NLD	BEAM	6	36	NLD	BEAM	0	31	0.0%	86.1%
	BT1	18	17		BT1	0	0	0.0%	0.0%
	BT2	1126	931		BT2	0	0	0.0%	0.0%
	DEM_SEINE	0	4		DEM_SEINE	0	3	0.0%	75.0%
	GN1	27	23		GN1	14	11	51.9%	47.8%
	GT1	10	8		GT1	1	1	10.0%	12.5%
	LL1	0	0		LL1	0	0	0.0%	0.0%
	none	0	0		none	0	0	0.0%	0.0%
	OTTER	1	1		OTTER	0	0	0.0%	0.0%
	PEL_TRAWL	10	2		PEL_TRAWL	0	2	0.0%	100.0%
	TR1	643	875		TR1	350	673	54.4%	76.9%
	TR2	318	220		TR2	40	44	12.6%	20.0%
	TR3	1	0		TR3	0	0	0.0%	0.0%
NLD Total		2160	2117	NLD Total		405	765	18.8%	36.1%
SCO	BEAM	0	0	SCO	BEAM	0	0	0.0%	0.0%
	BT1	0	0		BT1	0	0	0.0%	0.0%
	BT2	0	1		BT2	0	0	0.0%	0.0%
	DEM_SEINE	0	15		DEM_SEINE	0	0	0.0%	0.0%
	DREDGE	1	2		DREDGE	0	0	0.0%	0.0%
	GN1	1	1		GN1	0	0	0.0%	0.0%
	LL1	0	0		LL1	0	0	0.0%	0.0%
	none	0	0		none	0	0	0.0%	0.0%
	OTTER	13	47		OTTER	0	0	0.0%	0.0%
	PEL_SEINE	0	1		PEL_SEINE	0	0	0.0%	0.0%
	POTS	1	0		POTS	0	0	0.0%	0.0%
	TR1	11193	12450		TR1	4263	4289	38.1%	34.4%
	TR2	1149	1170		TR2	0	0	0.0%	0.0%
	TR3	0	1		TR3	0	0	0.0%	0.0%
SCO Total		12359	13687	SCO Total		4263	4289	34.5%	31.3%
Grand Total		28633	29381	Grand Total		8230	10486	28.7%	35.7%

Table A, part 2
Catches of all IIa countries by gear

GEAR	2011	2012	GEAR	2011	2012	2011	2012
BEAM	14	49	BEAM	0	31	0.0%	63.6%
BT1	412	698	BT1			0.0%	0.0%
BT2	1457	1190	BT2	0	0	0.0%	0.0%
DEM_SEINE	1	19	DEM_SEINE	0	3	0.0%	15.5%
DREDGE	2	2	DREDGE	0	0	0.1%	0.0%
GN1	3033	2519	GN1	221	438	7.3%	17.4%
GT1	758	451	GT1	1	5	0.1%	1.1%
LL1	185	168	LL1	57	0	30.5%	0.0%
none	40	72	none			0.0%	0.0%
OTTER	309	335	OTTER	7	0	2.2%	0.0%
PEL_SEINE	0	1	PEL_SEINE			0.0%	0.0%
PEL_TRAWL	23	12	PEL_TRAWL	0	2	0.0%	17.1%
POTS	11	13	POTS	0	0	0.0%	0.0%
TR1	20248	22113	TR1	7880	9945	38.9%	45.0%
TR2	5926	4922	TR2	65	63	1.1%	1.3%
TR3	4	3	TR3			0.0%	0.0%
Grand Total	32422	32566	Grand Total	8230	10486	25.4%	32.2%

5.3.7.3 Comparative analysis of cod selectivity by FDF fisheries and non-FDF fisheries

The analysis is based on the comparison of the age composition for cod catches of non FDF fisheries (table 1.1.7.3.1) and cod catches of FDF fisheries (table 1.1.7.3.2). It is done only for area 3b2 (North Sea), TR1 in 2012 for countries that raise FDF data separately. These countries are Denmark, Scotland and Sweden. It should be noted that no information is available how gaps in the sampling data are treated (e.g., missing quarters). The other countries with FDF fisheries England, Germany, and The Netherlands do not raise them separately (because there are not enough trips to do this). The catches in numbers for a certain age are expressed as a percentage of the total catch numbers (TC). Note that Sweden has no FDF fisheries in area 3b2. Note also that non FDF also includes FDF as the data call do not ask for information for non FDF separately. Therefore the analysis is biased and cannot show the full difference between non FDF and FDF fisheries.

The current figures and plots do not show a large difference between FDF and non FDF fisheries

Table 5.3.7.3.1 Age composition non FDF catches for cod.

COUNTRY	SPECON	Landings no	Discards no	Age 1C	1%TC	Age 2C	2%TC	Age 3C	3%TC	Age 4C	4%TC	Age 5C	5%TC	Age 6C	6%TC	Age 7C	7%TC	Age 8C	8%TC
DNK	none	1286.51	475.042	112.10	6.36%	632.75	35.92%	695.21	39.47%	185.47	10.53%	95.03	5.39%	32.83	1.86%	5.56	0.32%	1.71	0.10%
SCO	CPart13C	3172.98	1563.75	513.05	10.83%	880.15	18.58%	2206.41	46.58%	828.29	17.49%	155.62	3.29%	72.73	1.54%	75.54	1.59%	1.57	0.03%
SWE	none	117.746	36.617	8.79	5.69%	53.30	34.53%	62.84	40.71%	16.98	11.00%	8.70	5.63%	3.01	1.95%	0.51	0.33%	0.16	0.10%

Table 5.3.7.3.2 Age composition FDF catches for cod.

COUNTRY	SPECON	Landings no	Discards no	Age 1C	1%TC	Age 2C	2%TC	Age 3C	3%TC	Age 4C	4%TC	Age 5C	5%TC	Age 6C	6%TC	Age 7C	7%TC	Age 8C	8%TC
DNK	FDFIIA	921.324	126.593	62.97	6.01%	328.35	31.33%	446.61	42.62%	119.95	11.45%	63.24	6.03%	20.82	1.99%	4.01	0.38%	1.27	0.12%
SCO	FDFIIA	1711.6	124.252	90.87	4.95%	536.45	29.22%	818.41	44.58%	222.83	12.14%	117.48	6.40%	38.67	2.11%	7.45	0.41%	2.35	0.13%

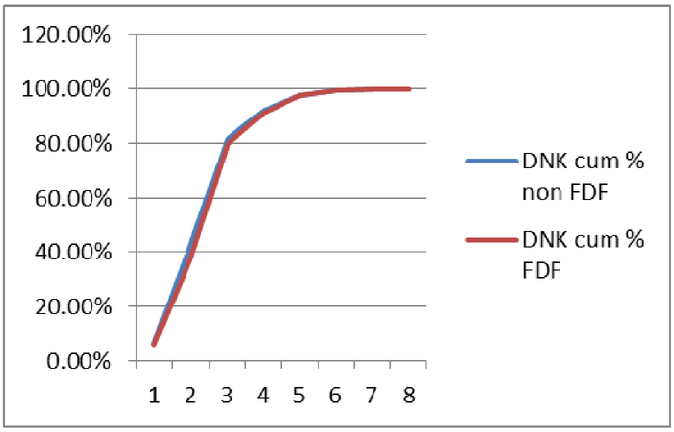


Figure 5.3.7.3.1 Cumulative percentage of catches over ages for Denmark.

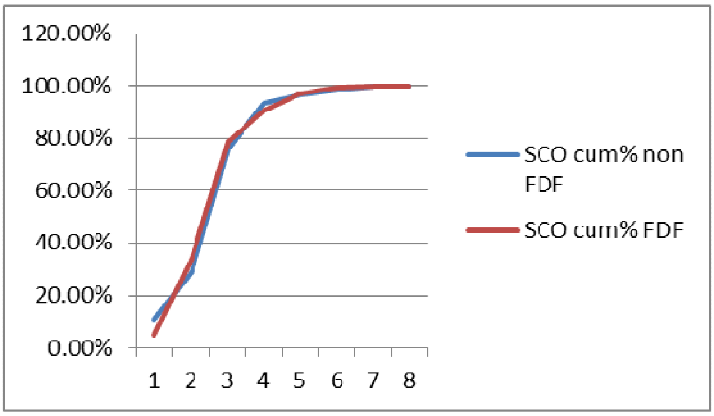


Figure 5.3.7.3.2 Cumulative percentage of catches over ages for Scotland.

5.3.8 ToR 5 Spatio-temporal patterns in effective effort by fisheries

Figures 5.3.8.1 - 5.3.8.8 show spatio-temporal patterns in fishing effort by regulated gears.

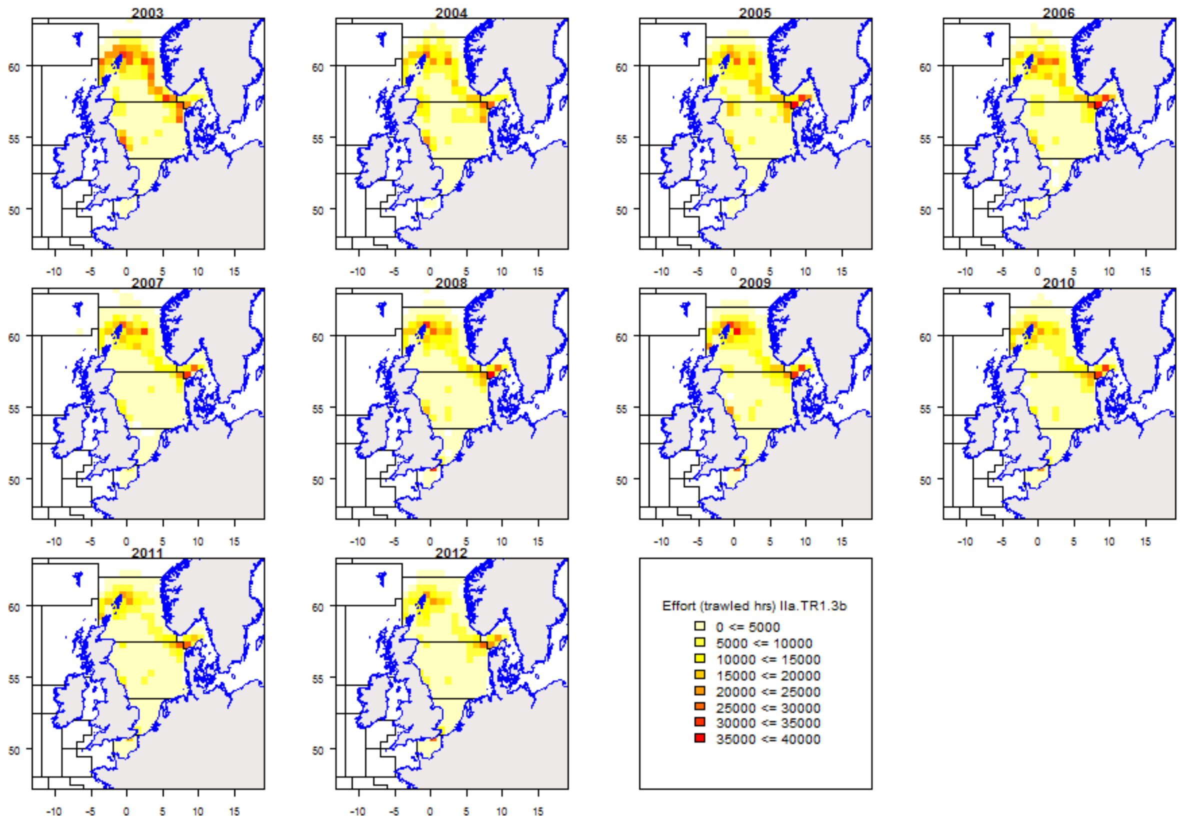


Figure 5.3.8.1. Patterns in spatio-temporal distribution for TR1 regulated gears.

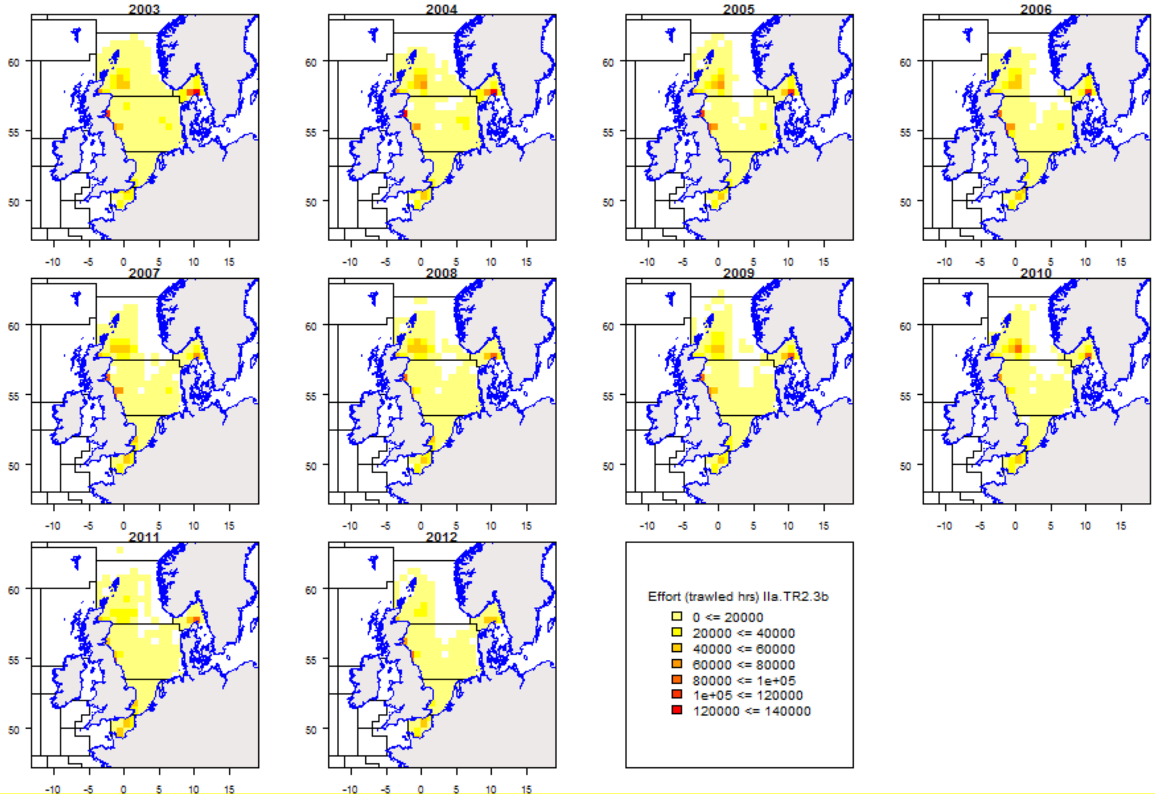


Figure 5.3.8.2. Patterns in spatio-temporal distribution for TR2 regulated gears.

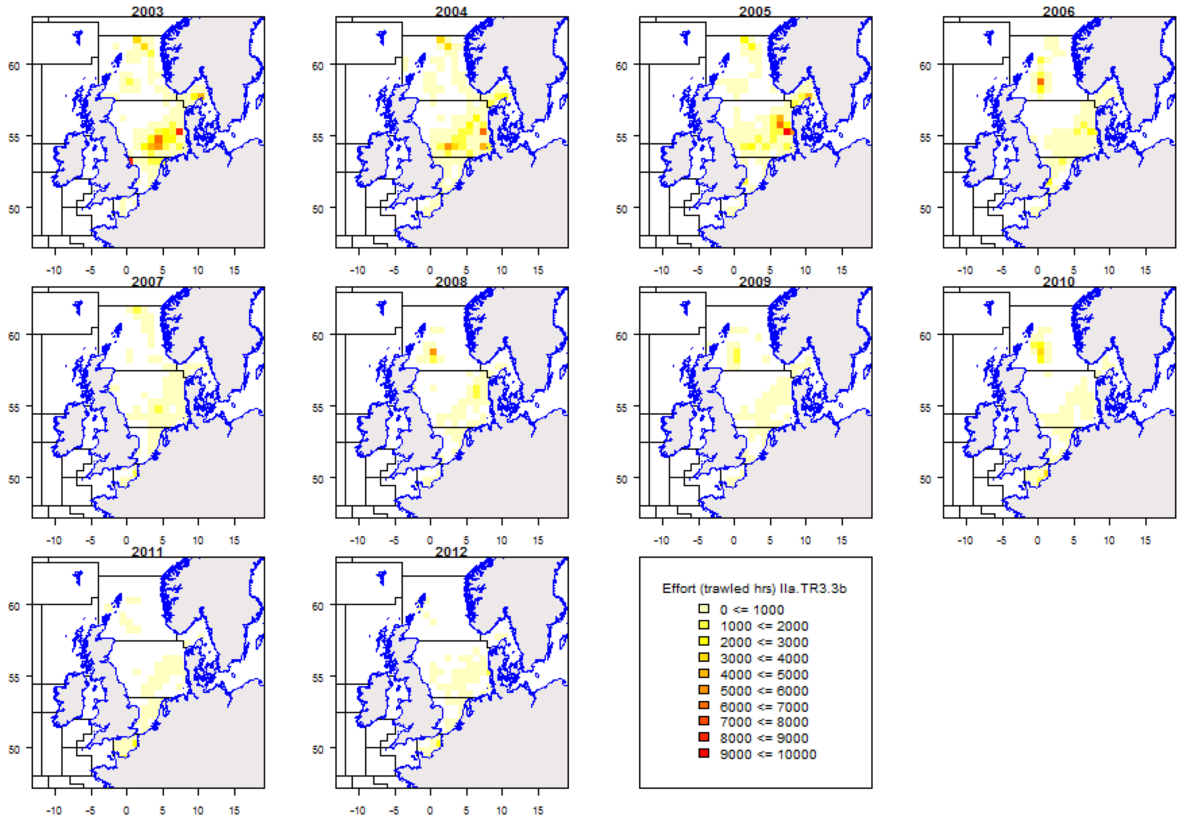


Figure 5.3.8.3. Patterns in spatio-temporal distribution for TR3 regulated gears.

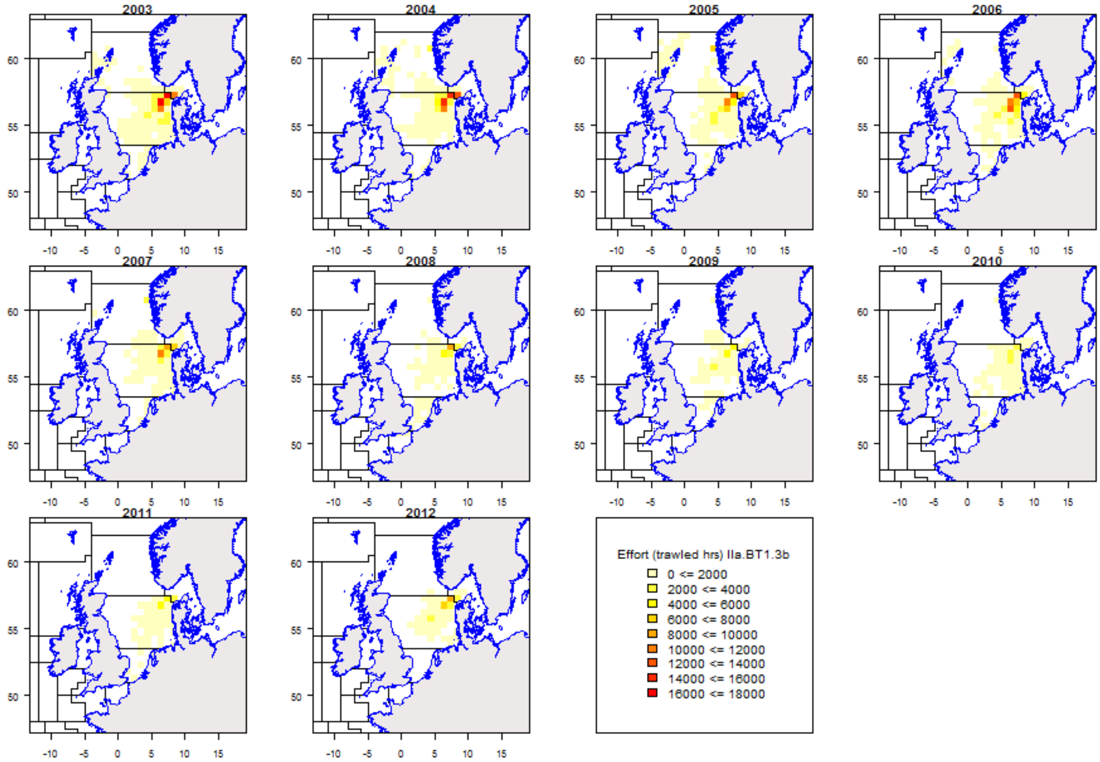


Figure 5.3.8.4. Patterns in spatio-temporal distribution for BT1 regulated gears.

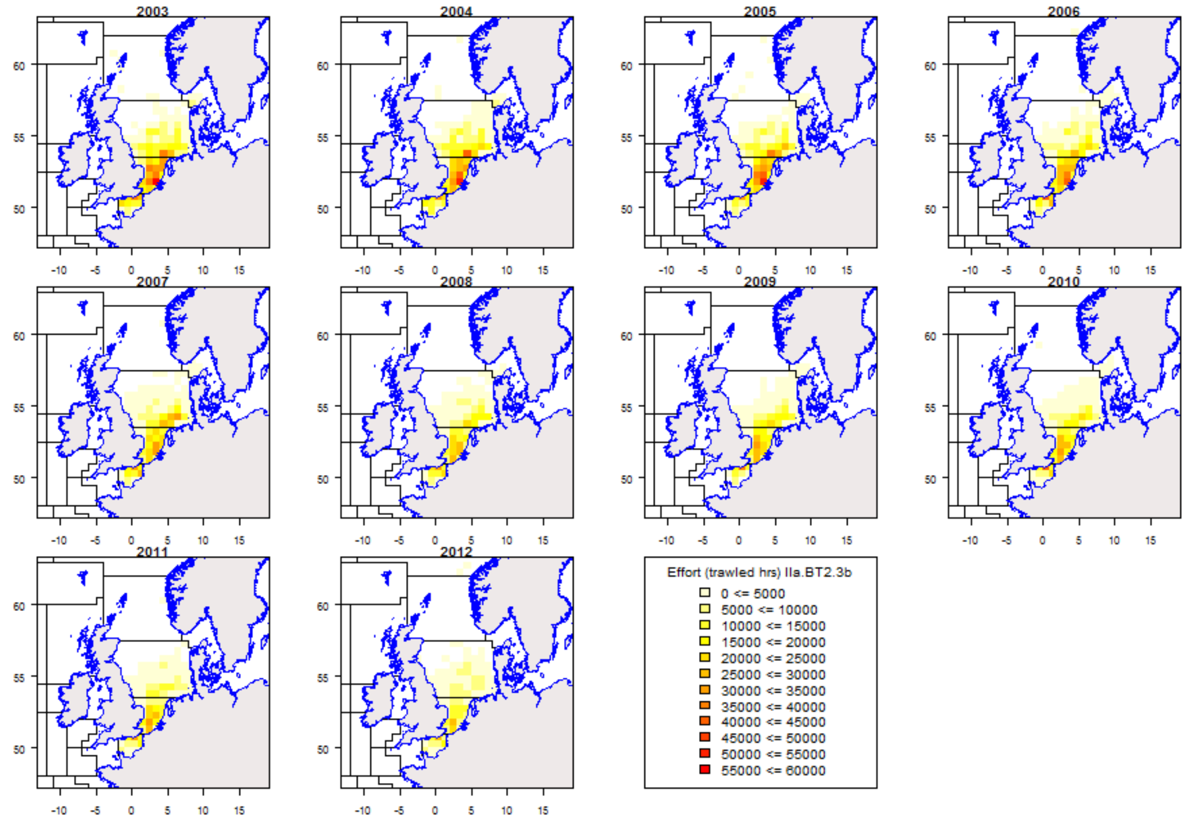


Figure 5.3.8.5. Patterns in spatio-temporal distribution for BT2 regulated gears.

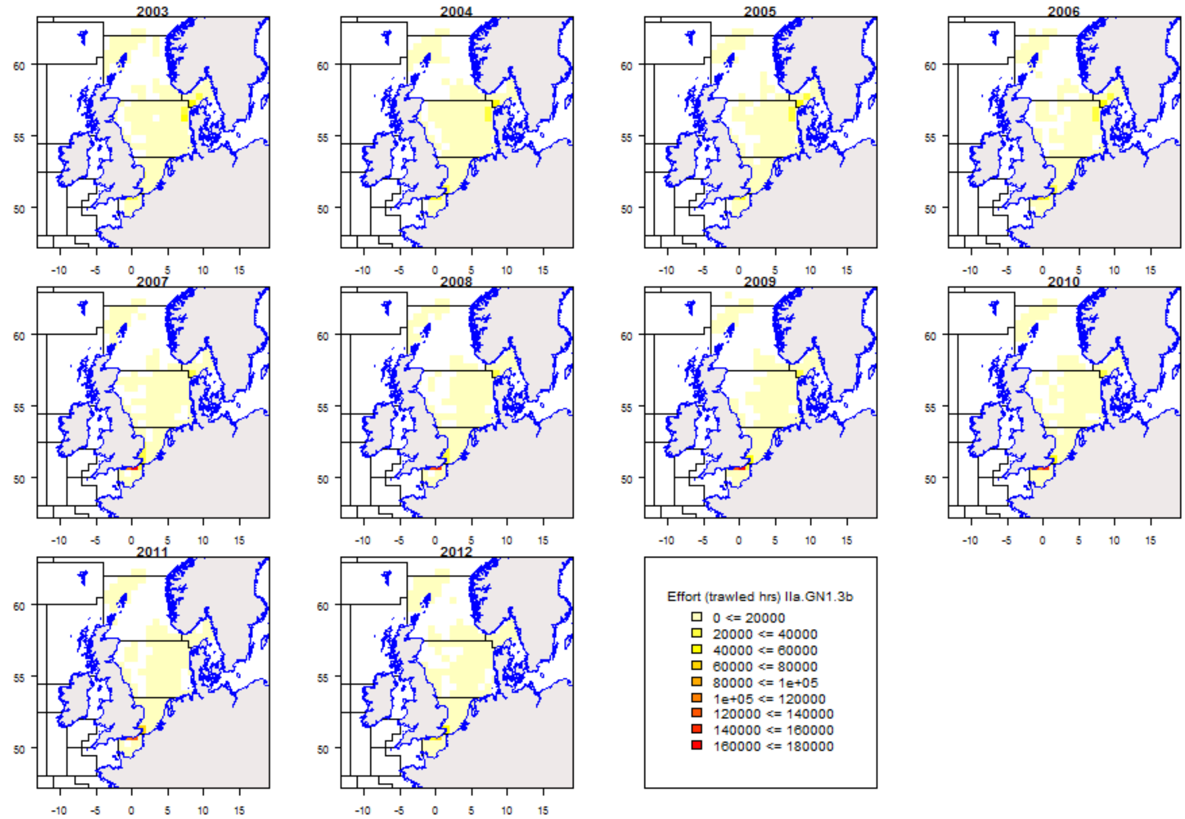


Figure 5.3.8.6. Patterns in spatio-temporal distribution for GN1 regulated gears.

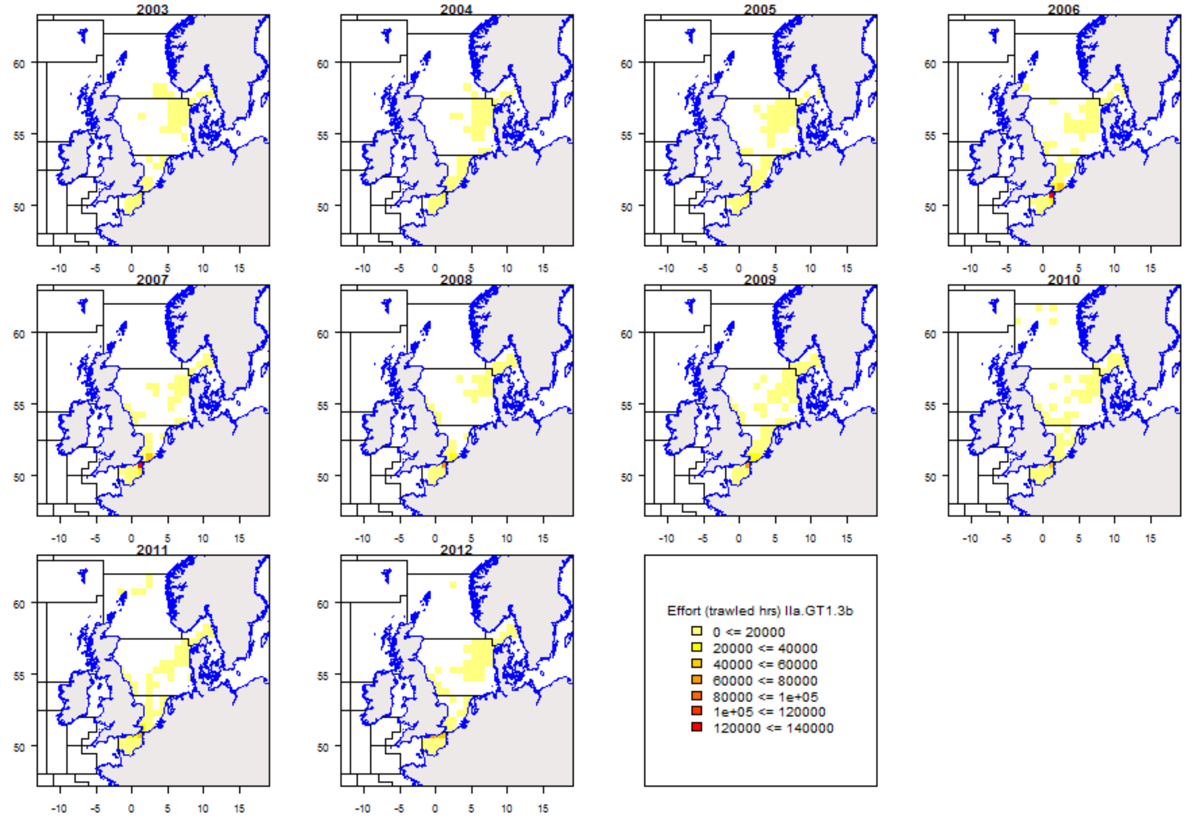


Figure 5.3.8.7. Patterns in spatio-temporal distribution for GT1 regulated gears.

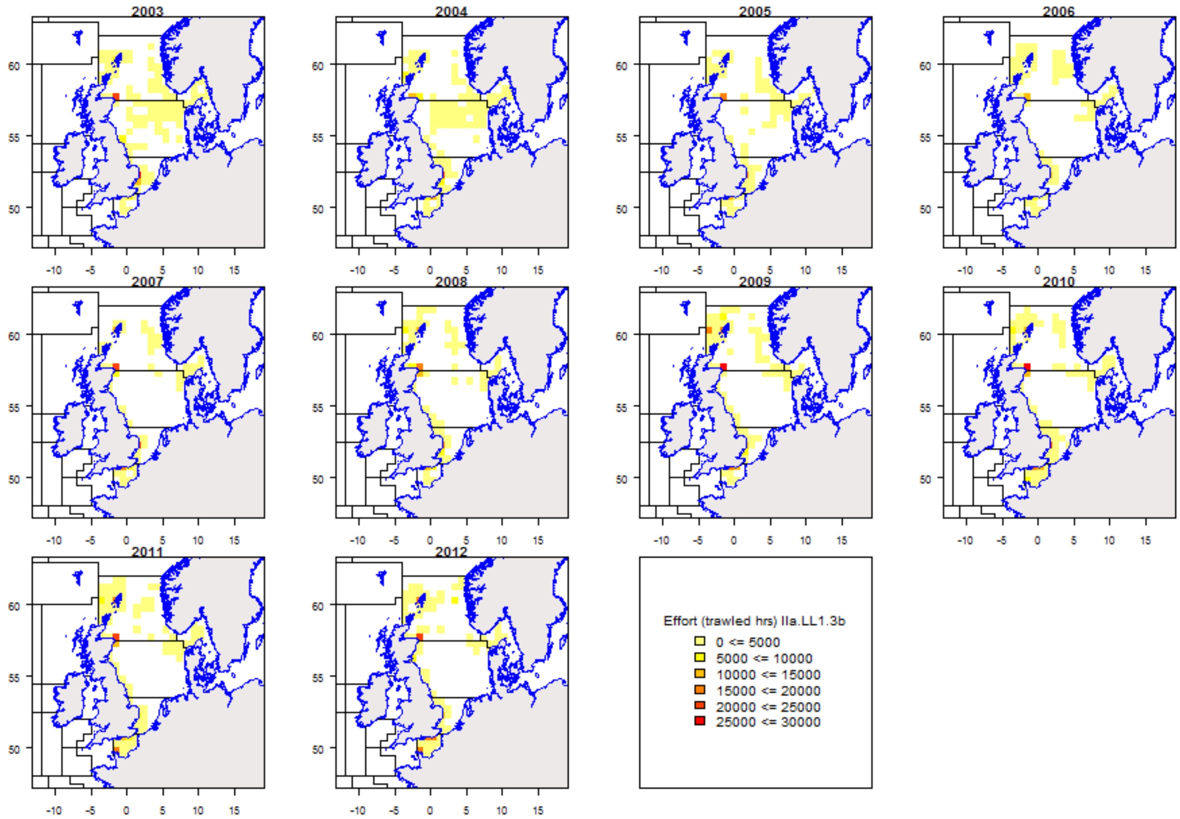


Figure 5.3.8.8. Patterns in spatio-temporal distribution for LL1 regulated gears.

ToR 6 Remarks on quality of catches and discard estimates

General comments on the quality of catch and discard estimates has been provided in section 4. A discard coverage index is presented for the first time and captures the overall uncertainties in different metiers.

In addition, the discard information for the North Sea (in 2012) was analyzed by distinguishing between landings for which discard data has been supplied ("data"), landings for which discards were filled in ("fill_in) and landings for which no discard information was available and for which no discard information could be filled in ("empty). This was generated from one of the intermediate steps in the database queries ("Catch 2012 Upload Catch Filter to Run", query: "032_discard_estimation_unsampled" by adding a fill-in indicator to the database).

Table 5.3.9.1 Overview of 2012 landing and discard data separated into “data”, “fill-in” and “empty” (all countries, Annex IIa, area 3b, all gears).

	data					fill_in					empty		Total LAND	Total DISC	Total DR
Row Labels	LAND	DISC	DR	%LAND	%DISC	LAND	DISC	DR	%LAND	%DISC	LAND	%LAND			
COD	21044	5467	0.21	79%	93%	3837	390	0.09	14%	7%	1841	7%	26722	5856	0.18
DAB	3944	27069	0.87	52%	61%	1824	17651	0.91	24%	39%	1758	23%	7527	44719	0.86
HAD	29530	4037	0.12	93%	94%	1779	248	0.12	6%	6%	319	1%	31628	4285	0.12
HKE	2333	448	0.16	34%	16%	3581	2335	0.39	52%	84%	1034	15%	6948	2783	0.29
PLE	44790	27887	0.38	56%	58%	16219	20471	0.56	20%	42%	18591	23%	79600	48358	0.38
POK	19548	4285	0.18	55%	76%	3435	1369	0.28	10%	24%	12686	36%	35669	5654	0.14
SOL	9014	1814	0.17	63%	75%	3053	617	0.17	21%	25%	2196	15%	14263	2431	0.15
WHG	9723	4183	0.30	63%	44%	1961	5393	0.73	13%	56%	3774	24%	15459	9575	0.38
Total	**139927**	**75190**	**0.35**	**64%**	**61%**	**35689**	**48473**	**0.58**	**16%**	**39%**	**42200**	**19%**	**217815**	**123663**	**0.36**

The overview indicates that for the species considered, 64% of the landings were covered by discard estimates, 16% were addressed by fill-ins and 19% of the landings did not have discard estimates. Haddock had the highest landings covered by discard estimates (93%) and hake the lowest (34%). From table 5.3.9.1 it is also apparent that around 40% of the discard estimates are derived from fill-ins.

Table 5.3.9.2 shows the subdivision of the 2012 discard estimates by country based on data (submitted by member states) and fill-ins (using information from other member states) which indicates that for some countries most of the discard information is derived from fill-ins while others are derived from the information provided.

Table 5.3.9.2 Discard estimates for 2012 by country based on data (submitted by member states) and fill-ins (using information from other member states)

	BEL		DEU		DNK		ENG		FRA		NLD		SCO		SWE		Total
Row Labels	data	fill_in	data	fill_in	data	fill_in	data	fill_in	data	fill_in	data	fill_in	data	fill_in	data	fill_in	
COD	11	9	19	161	1762	51	15	38		41	166	61	3212	2	281	26	5856
DAB	390	3886	5317	1271	1254	250	381	675		1125	19658	9170		1272	70	1	44719
HAD		0	7	58	760	72	17	22		7		36	3193	34	60	16	4281
HKE		0	1	41	296	62	129	21		3	13	3		2197	9	5	2781
PLE	1184	8493	1240	906	1253	284	530	912		123	23635	9067		683	45	2	48357
POK		0	0	8	103	2	0	1344		0		0	4120	1	62	14	5654
SOL		286	28	3	1	0	1	3		20	1784	300		5	0	0	2431
WHG	195	23	20	13	163	1425	322	577		2504	1569	451	1893	370	21	1	9549
Total	**1779**	**12698**	**6634**	**2462**	**5591**	**2148**	**1393**	**3592**		**3822**	**46825**	**19089**	**12419**	**4563**	**548**	**65**	**123628**

The additional value of the fill-in indicator is that it can be used to identify specific issues with the overall data. For example, based on the indicator, it could be established that the Dutch data for 2011 missed discard information of which the experts assumed that it had been submitted, while in fact it had not been submitted. EWG 13-13 will further develop this indicator for standard usage in the expert group.

The discard coverage index values for all species, area and gear combinations can be found at the STECF website in Appendix 02_2: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

5.3.9 ToR 7 Estimation of conversion factors to be applied for effort transfers between regulated gear groups

STECF EWG 13-13 presents the estimated cod CPUE and respective effort transfer factors between donor and receiving regulated gear groups. Red cells in Table 5.3.10.1 are indicated to be imprecise due to lack of adequate discard information. Yellow cells indicate sufficient sampling and green cells good sampling information.

Table 5.3.11.1 Cod CPUE (average 2010-2012) and respective effort transfer factors between donor and receiving regulated gear groups. Red cells are indicated to be imprecise due to lack of adequate discard information. Yellow cells are covered by adequate discard information while green cells are considered well representative.

Note: if the calculated factor > 1, then factor is set to 1. If the calculated CPUE or LPUE = 0, then the CPUE or the LPUE is set to 1. No values are presented for BT1 in the Eastern English Channel (3b3) as there was little effort and catch in this area in recent years, with CPUE values of below 1. As such, there was not adequate data on which to base conversion factors.

Skagerrak, North Sea and 2 EU, Eastern Channel

	donor gear	receiving gear								2010-2012	
		BT1	BT2	GN1	GT1	LL1	TR1	TR2	TR3	CPUE	LPUE
3b	BT1		1	0.228	1	0.437	0.217	0.962	1	227	227
3b	BT2	0.203		0.046	0.24	0.088	0.044	0.195	1	46	41
3b	GN1	1	1		1	1	0.949	1	1	995	970
3b	GT1	0.846	1	0.193		0.369	0.183	0.814	1	192	140
3b	LL1	1	1	0.523	1		0.496	1	1	520	520
3b	TR1	1	1	1	1	1		1	1	1048	902
3b	TR2	1	1	0.237	1	0.454	0.225		1	236	125
3b	TR3	0.044	0.217	0.01	0.052	0.019	0.01	0.042		10	10

Skagerrak

	donor gear	receiving gear								2010-2012	
		BT1	BT2	GN1	GT1	LL1	TR1	TR2	TR3	CPUE	LPUE
3b1	BT1		1	0.055	0.083	0.127	0.08	0.135	1	104	104
3b1	BT2	0.202		0.011	0.017	0.026	0.016	0.027	0.38	21	21
3b1	GN1	1	1		1	1	1	1	1	1899	1865
3b1	GT1	1	1	0.658		1	0.966	1	1	1250	1219
3b1	LL1	1	1	0.431	0.655		0.633	1	1	819	819
3b1	TR1	1	1	0.681	1	1		1	1	1294	947
3b1	TR2	1	1	0.406	0.617	0.941	0.596		1	771	376
3b1	TR3	0.529	1	0.029	0.044	0.067	0.043	0.071		55	55

North Sea and 2EU

	donor gear	BT1	BT2	GN1	GT1	LL1	TR1	TR2	TR3	2010-2012 CPUE	LPUE
		receiving gear									
3b2	BT1		1	0.264	1	0.315	0.227	1	1	235	235
3b2	BT2	0.204		0.054	0.244	0.064	0.046	0.245	1	48	43
3b2	GN1	1	1		1	1	0.858	1	1	890	866
3b2	GT1	0.838	1	0.221		0.264	0.19	1	1	197	189
3b2	LL1	1	1	0.839	1		0.72	1	1	747	745
3b2	TR1	1	1	1	1	1		1	1	1037	903
3b2	TR2	0.834	1	0.22	0.995	0.262	0.189		1	196	87
3b2	TR3	0.03	0.146	0.008	0.036	0.009	0.007	0.036		7	7

Eastern Channel

	donor gear	BT1	BT2	GN1	GT1	LL1	TR1	TR2	TR3	2010-2012 CPUE	LPUE
		receiving gear									
3b3	BT1		-	-	-	-	-	-	-	-	-
3b3	BT2	-		0.055	0.131	0.8	0.124	0.247	0.69	20	19
3b3	GN1	-	1		1	1	1	1	1	365	355
3b3	GT1	-	1	0.419		1	0.95	1	1	153	77
3b3	LL1	-	1	0.068	0.163		0.155	0.309	0.86	25	25
3b3	TR1	-	1	0.441	1	1		1	1	161	161
3b3	TR2	-	1	0.222	0.529	1	0.503		1	81	80
3b3	TR3	-	1	0.079	0.19	1	0.18	0.358		29	29

5.3.10 ToR 8 Estimation of partial fishing mortalities of cod, haddock, saithe, whiting, plaice and sole by area, Member State and fisheries and correlation between partial cod mortality and fishing effort by area, Member State and fisheries

Partial fishing mortalities and effort trends in areas 3b1, 3b2 and 3b3 are presented for regulated fisheries in relation to the estimated fishing mortality by ICES (2013) and the catches, landings and discards volumes in relation to the estimated total catch for the year available. The full list of all fisheries and species can be downloaded from the EWG's web page: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313. The anticipated trend in fishing mortality as derived from the cod plan is also presented in the following Tables 5.3.10.1-9. The presented parameters r (value of Pearson's coefficient of correlation), numbers of points considered, and a p value to quantify the statistical significance (≤0.05) allow conclusions about the quality of the correlation between the partial F and fisheries specific fishing effort. Those values are presented in the Tables 5.3.10.1-9 and resulting regressions are shown in Fig. 5.3.10.2-10 for regulated fisheries. It should be noted, however, that the figures may show statistical values that differ to those presented in the table, this is because i) the figures show effort and partial F relationships aggregated across special conditions for a nation and gear group (because the small number of data points for some special conditions do not allow for correlation estimation) and, b) the N and p-values adjusted to account for auto-correlation providing a more robust conclusion on the correlation significance.

The partial F values compiled by STECF EWG 13-13 account for ~74% of the total F value in 2012 as assessed by ICES in 2013. It should be noted that for all years, the sum of the partial F values calculated by STECF EWG 13-13 has been below the total F as assessed by ICES, in part because of fleets not evaluated by the group (e.g. Norway), in part because of catches by unregulated gears, and prior to 2005 because of unallocated removals which were estimated by the ICES assessment working group as an additional source of mortality on the stock (Figure 5.3.10.1).

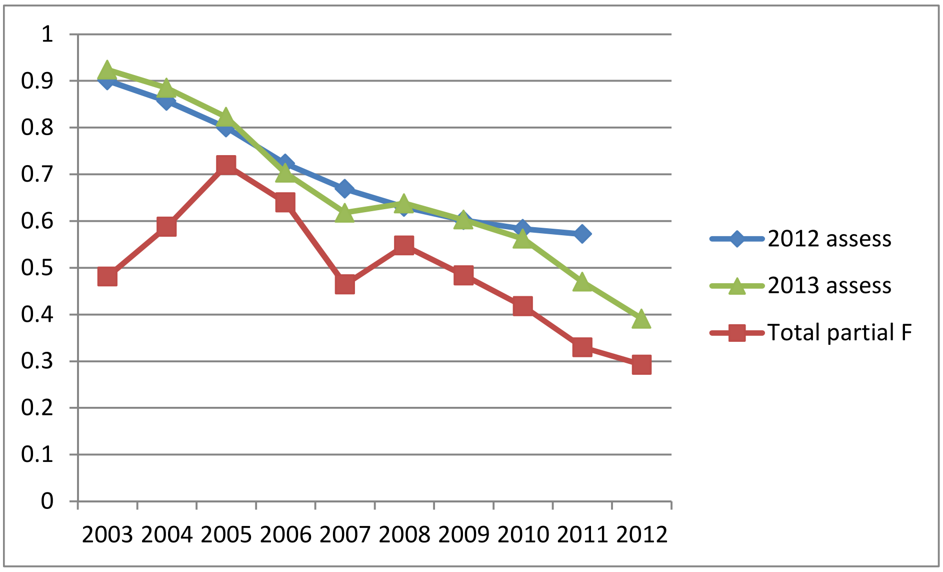


Figure 5.3.10.1. Comparison of F estimated over 2003-2012 by the ICES assessment in 2012 and in 2013, and the sum of the partial F values caculated by STECF EWG 13-13.

Notwithstanding the above, it can be concluded from the estimated F in 2012 (Table 5.3.10.1) that the annual F reductions stipulated by the cod management plan have been nearly reached. This is a major change to last year's perception of the stock. Unaccounted removals are no longer estimated for years after 2005 in the cod assessment. Discard mortality is generally high but has been reduced significantly since 2008. The regulated fisheries presented do contribute about 74% to the total fishing mortality for cod. The remainder is due to catches of non-EU states and differences in the discard raising procedures applied by ICES and STECF EWG 13-13.

STECF EWG 13-13 notes that the correlations between the partial Fs and effort are significant for some metiers catching cod but insignificant for others (Figure 5.3.10.2). The partial Fs resulting from catches of the major Scottish and Danish cod fishery using TR1 gears do not display a significant correlation between their partial F and fishing effort. For Danish gill nets, TR2 from Denmark and Scotland and TR1 from Germany in area 3b2 partial Fs are correlated significantly with fishing effort. Overall, summed regulated gears partial F for cod catches (including discard estimates) and effort are significantly correlated in all three management areas 3b1, 3,2 and 3b3 indicating that effective fisheries management by fishing effort in units of kWdays at sea may be possible, also as an auxiliary measure to catch constraints and technical measures.

STECF EWG 13-13 notes that there are indications of reductions in catchability coefficients for Scottish TR1 and English TR1 vessels operating under provisions of Article 13.2.c (Figure 5.3.10.3.1), and along with the lack of correlation between partial F and effort indicates that some cod avoidance is occurring in these fisheries. The German and French fisheries operating under the provision of article 13.2.b are either negligible or have reduced their contribution to cod fishing mortalities substantially.

The following tables 5.3.14.10-13 list the partial Fs of fisheries using effort regulated gears for plaice and sole in 4. The Figures 5.3.14.2-3 display the respective regressions between partial Fs and the fishing effort deployed for the major fisheries for plaice and sole. For plaice and sole, major gears and fisheries catching these species show a significant correlation between F and effort, indicating that effective fisheries management by fishing effort in units of kWdays at sea may be possible, also as an auxiliary measure to catch constraints and technical measures.

Information for other species is available from the STECF website.

Table 5.3.10.1 **Cod** in area **3b1**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2012 cod assessment, as well as partial Fs for **catches** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

2008 fixed baseline annual F reductions by 10 percent as F<=0.4, Fmsy=0.19													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan									0.638	0.479	0.415	0.351	0.287
reduction F plan										-0.25	-0.35	-0.45	-0.55
F estimated				0.924	0.885	0.823	0.703	0.618	0.638	0.603	0.562	0.47	0.391
reduction F estimated										-0.05	-0.12	-0.26	-0.39
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
DEU	BT1	none	catches		0.00000				0.00000				
DEU	BT2	none	catches		0.00000								
DEU	GN1	none	catches			0.00009	0.00007	0.00017	0.00009	0.00003	0.00002		0.00101
DEU	TR1	CPart13B	catches							0.00003	0.00002	0.00000	0.00001
DEU	TR1	none	catches	0.00109	0.00378	0.00511	0.00721	0.00226	0.00084	0.00091	0.00087	0.00072	0.00250
DEU	TR2	none	catches	0.00013	0.00009					0.00001	0.00001	0.00000	
DNK	BT1	none	catches	0.00042	0.00056	0.00041	0.00007	0.00016	0.00003	0.00001	0.00008	0.00008	0.00010
DNK	BT2	none	catches	0.00009	0.00002	0.00004	0.00004	0.00005	0.00010	0.00014	0.00001		
DNK	GN1	none	catches	0.01319	0.01110	0.01241	0.00848	0.00730	0.00762	0.00848	0.00855	0.00685	0.00474
DNK	GT1	none	catches	0.00000	0.00005	0.00004	0.00015	0.00001	0.00053	0.00088	0.00062	0.00050	0.00048
DNK	LL1	none	catches	0.00045	0.00014	0.00016	0.00024	0.00011	0.00009	0.00007	0.00010	0.00020	0.00012
DNK	TR1	none	catches	0.00557	0.00761	0.01936	0.02816	0.02690	0.01306	0.02055	0.01784	0.01338	0.01284
DNK	TR2	none	catches	0.03802	0.04239	0.05230	0.05988	0.02917	0.01685	0.02445	0.02178	0.02381	0.01920
DNK	TR3	none	catches	0.00026	0.00010	0.00006	0.00003	0.00000		0.00001	0.00001	0.00000	
NLD	BT1	none	catches								0.00011		
NLD	BT2	none	catches								0.00003		
NLD	TR1	none	catches								0.00017		
SWE	GN1	none	catches	0.00017	0.00026	0.00032	0.00029	0.00006	0.00005	0.00008	0.00011	0.00009	0.00010
SWE	GT1	none	catches	0.00007	0.00017	0.00010	0.00003	0.00008	0.00009	0.00025	0.00015	0.00027	0.00037
SWE	LL1	none	catches	0.00016	0.00021	0.00037	0.00037	0.00108	0.00074			0.00003	0.00008
SWE	TR1	none	catches	0.00111	0.00107	0.00230	0.00208	0.00133	0.00064	0.00008	0.00023	0.00033	0.00010
SWE	TR2	none	catches	0.00805	0.02996	0.01556	0.01520	0.00724	0.00556	0.00658	0.00365	0.00352	0.00398
SWE	TR3	none	catches		0.00000	0.00000					0.00000		
Sum				0.06878	0.09751	0.10863	0.12230	0.07592	0.04629	0.06256	0.05436	0.04978	0.04563
check sum Fpar/F				0.07	0.11	0.13	0.17	0.12	0.07	0.10	0.10	0.11	0.12

				Effort kW days running previous year baseline														
					2003	2004	2005	2006	2007	2008	2009	2010	2011	2012				
F plan				to be estimated														
reduction F plan																		
F estimated				Effort estimate	10277575	10164162	8754426	7895881	7042142	6348404	5846797	5793220	5035590	4586547				
reduction F estimated											-0.08	-0.01	-0.13	-0.09				
				EFFORT												2003-2012		
Fpar				kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n	
DEU	BT1	none	catches			1986				884								
DEU	BT2	none	catches			20501												
DEU	GN1	none	catches			202	1579	1158	6919	3174	1980	660		17636	0.972	0.000	8	10.132
DEU	TR1	CPart13B	catches								119193	20700	30300	16063				
DEU	TR1	none	catches		139645	193030	178369	260596	304370	189600	132585	82954	64169	82526	0.544	0.104	10	1.834
DEU	TR2	none	catches		27339	11891					660	4180	2200					
DNK	BT1	none	catches		376722	478214	320631	277249	329335	78260	42335	52098	59305	123592	0.863	0.001	10	4.832
DNK	BT2	none	catches		27260	49611	38835	50351	103304	36836	29052	3678						
DNK	GN1	none	catches		480702	347090	322715	294630	283147	321868	371533	327758	306895	242996	0.768	0.009	10	3.392
DNK	GT1	none	catches		4759	2059	2450	9463	236	25240	36891	44205	40159	37525	0.912	0.000	10	6.289
DNK	LL1	none	catches		23479	5620	2501	3130	1814	2255	1173	2481	33199	30454				
DNK	TR1	none	catches		672442	637030	1299770	1276319	1449368	1290895	1285901	1351258	918690	999170	0.836	0.003	10	4.309
DNK	TR2	none	catches		5059017	5514510	3998032	3290591	2359541	2613146	2817250	2759331	2941652	2436599	0.562	0.091	10	1.922
DNK	TR3	none	catches		232745	206651	233393	71910	37373	17405	18494	11401	1145	3621				
NLD	BT1	none	catches		49381	113976	137531	70311	108445	22570	27415	109513	442					
NLD	BT2	none	catches		744932	651750	522477	542233	519000	74615	31846	138751	884					
NLD	TR1	none	catches						16547	11576	1369	120821						
SWE	GN1	none	catches		102519	127286	89748	76409	58618	96877	101209	67326	70682	76606				
SWE	GT1	none	catches		13801	16206	27824	56771	62309	63022	36250	21260	23899	25752				
SWE	LL1	none	catches		32305	43165	38665	108455	153999	42453	0		396	660	0.800	0.010	9	3.528
SWE	TR1	none	catches		171636	95348	109502	55251	88670	92874	10554	11528	27124	25524	0.571	0.085	10	1.967
SWE	TR2	none	catches		2118891	1644706	1428840	1450466	1158228	1364854	781107	661331	514449	467823	0.562	0.091	10	1.922
SWE	TR3	none	catches			3330	1564	588	919			1986						
Sum					10277575	10164162	8754426	7895881	7042142	6348404	5846797	5793220	5035590	4586547	0.664	0.036	10	2.512
check sum Fpar/F																		

Table 5.3.10.2 **Cod** in area **3b1**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2012 cod assessment, as well as partial Fs for **landings** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

2008 fixed baseline annual F reductions by 10 percent as F<=0.4, Fmsy=0.19													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan									0.638	0.479	0.415	0.351	0.287
reduction F plan										-0.25	-0.35	-0.45	-0.55
F estimated				0.924	0.885	0.823	0.703	0.618	0.638	0.603	0.562	0.47	0.391
reduction F estimated										-0.05	-0.12	-0.26	-0.39
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
DEU	BT1	none	landings		0.00000				0.00000				
DEU	BT2	none	landings		0.00000								
DEU	GN1	none	landings			0.00009	0.00007	0.00017	0.00009	0.00003	0.00002		0.00099
DEU	TR1	CPart13B	landings							0.00003	0.00002	0.00000	0.00001
DEU	TR1	none	landings	0.00066	0.00181	0.00145	0.00145	0.00063	0.00057	0.00061	0.00059	0.00060	0.00221
DEU	TR2	none	landings	0.00008	0.00004					0.00000	0.00001	0.00000	
DNK	BT1	none	landings	0.00042	0.00056	0.00041	0.00007	0.00016	0.00003	0.00001	0.00008	0.00008	0.00010
DNK	BT2	none	landings	0.00009	0.00002	0.00004	0.00004	0.00005	0.00010	0.00014	0.00001		
DNK	GN1	none	landings	0.01311	0.01110	0.01241	0.00848	0.00730	0.00762	0.00818	0.00838	0.00671	0.00465
DNK	GT1	none	landings	0.00000	0.00005	0.00004	0.00015	0.00001	0.00053	0.00084	0.00060	0.00049	0.00047
DNK	LL1	none	landings	0.00045	0.00014	0.00016	0.00024	0.00011	0.00009	0.00007	0.00010	0.00020	0.00012
DNK	TR1	none	landings	0.00321	0.00412	0.00681	0.00724	0.00736	0.00899	0.01186	0.01212	0.00952	0.01003
DNK	TR2	none	landings	0.02244	0.03085	0.02322	0.02124	0.00951	0.01025	0.01176	0.01101	0.00989	0.00915
DNK	TR3	none	landings	0.00018	0.00008	0.00003	0.00003	0.00000		0.00001	0.00001	0.00000	
NLD	BT1	none	landings								0.00011		
NLD	BT2	none	landings								0.00003		
NLD	TR1	none	landings								0.00012		
SWE	GN1	none	landings	0.00017	0.00026	0.00032	0.00029	0.00006	0.00005	0.00007	0.00011	0.00009	0.00010
SWE	GT1	none	landings	0.00007	0.00017	0.00010	0.00003	0.00008	0.00009	0.00023	0.00015	0.00027	0.00036
SWE	LL1	none	landings	0.00016	0.00021	0.00037	0.00037	0.00108	0.00074			0.00003	0.00008
SWE	TR1	none	landings	0.00094	0.00052	0.00064	0.00037	0.00030	0.00039	0.00005	0.00013	0.00021	0.00008
SWE	TR2	none	landings	0.00637	0.00746	0.00570	0.00469	0.00251	0.00245	0.00331	0.00238	0.00265	0.00209
SWE	TR3	none	landings		0.00000	0.00000					0.00000		
Sum				0.04835	0.05739	0.05179	0.04476	0.02933	0.03199	0.03720	0.03598	0.03074	0.03044
check sum Fpar/F				0.05	0.06	0.06	0.06	0.05	0.05	0.06	0.06	0.07	0.08

				Effort kW days running previous year baseline														
					2003	2004	2005	2006	2007	2008	2009	2010	2011	2012				
F plan				to be estimated														
reduction F plan																		
F estimated				Effort estimated	10277575	10164162	8754426	7895881	7042142	6348404	5846797	5793220	5035590	4586547				
reduction F estimated											-0.08	-0.01	-0.13	-0.09				
				EFFORT												2003-2012		
Fpar				kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n	
DEU	BT1	none	landings			1986				884								
DEU	BT2	none	landings			20501												
DEU	GN1	none	landings			202	1579	1158	6919	3174	1980	660		17636	0.972	0.000	8	10.132
DEU	TR1	CPart13B	landings								119193	20700	30300	16063				
DEU	TR1	none	landings		139645	193030	178369	260596	304370	189600	132585	82954	64169	82526	0.015	0.968	10	0.042
DEU	TR2	none	landings		27339	11891					660	4180	2200					
DNK	BT1	none	landings		376722	478214	320631	277249	329335	78260	42335	52098	59305	123592	0.863	0.001	10	4.832
DNK	BT2	none	landings		27260	49611	38835	50351	103304	36836	29052	3678						
DNK	GN1	none	landings		480702	347090	322715	294630	283147	321868	371533	327758	306895	242996	0.753	0.012	10	3.237
DNK	GT1	none	landings		4759	2059	2450	9463	236	25240	36891	44205	40159	37525	0.915	0.000	10	6.415
DNK	LL1	none	landings		23479	5620	2501	3130	1814	2255	1173	2481	33199	30454				
DNK	TR1	none	landings		672442	637030	1299770	1276319	1449368	1290895	1285901	1351258	918690	999170	0.601	0.066	10	2.127
DNK	TR2	none	landings		5059017	5514510	3998032	3290591	2359541	2613146	2817250	2759331	2941652	2436599	0.925	0.000	10	6.886
DNK	TR3	none	landings		232745	206651	233393	71910	37373	17405	18494	11401	1145	3621				
NLD	BT1	none	landings		49381	113976	137531	70311	108445	22570	27415	109513	442					
NLD	BT2	none	landings		744932	651750	522477	542233	519000	74615	31846	138751	884					
NLD	TR1	none	landings						16547	11576	1369	120821						
SWE	GN1	none	landings		102519	127286	89748	76409	58618	96877	101209	67326	70682	76606				
SWE	GT1	none	landings		13801	16206	27824	56771	62309	63022	36250	21260	23899	25752				
SWE	LL1	none	landings		32305	43165	38665	108455	153999	42453	0		396	660	0.800	0.010	9	3.528
SWE	TR1	none	landings		171636	95348	109502	55251	88670	92874	10554	11528	27124	25524	0.955	0.000	10	9.107
SWE	TR2	none	landings		2118891	1644706	1428840	1450466	1158228	1364854	781107	661331	514449	467823	0.796	0.006	10	3.720
SWE	TR3	none	landings			3330	1564	588	919			1986						
Sum					10277575	10164162	8754426	7895881	7042142	6348404	5846797	5793220	5035590	4586547	0.878	0.001	10	5.188
check sum Fpar/F																		

Table 5.3.10.3 **Cod** in area **3b1**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2012 cod assessment, as well as partial Fs for **discards** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

2008 fixed baseline annual F reductions by 10 percent as F<=0.4, Fmsy=0.19														Effort kW days running previous year baseline														
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012				
F plan									0.638	0.479	0.415	0.351	0.287	to be estimated														
reduction F plan										-0.25	-0.35	-0.45	-0.55															
F estimated				0.924	0.885	0.823	0.703	0.618	0.638	0.603	0.562	0.47	0.391	Effort estimated	10277575	10164162	8754426	7895881	7042142	6348404	5846797	5793220	5035590	4586547				
reduction F estimated										-0.05	-0.12	-0.26	-0.39								-0.08	-0.01	-0.13	-0.09				
														EFFORT												2003-2012		
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n	
DEU	BT1	none	discards		0.00000				0.00000							1986				884								
DEU	BT2	none	discards		0.00000											20501												
DEU	GN1	none	discards			0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		0.00002			202	1579	1158	6919	3174	1980	660		17636				
DEU	TR1	CPart13B	discards							0.00000	0.00000	0.00000	0.00000								119193	20700	30300	16063				
DEU	TR1	none	discards	0.00043	0.00197	0.00366	0.00576	0.00164	0.00026	0.00030	0.00028	0.00012	0.00028		139645	193030	178369	260596	304370	189600	132585	82954	64169	82526	0.633	0.049	10	2.313
DEU	TR2	none	discards	0.00005	0.00005					0.00000	0.00001	0.00000			27339	11891					660	4180	2200					
DNK	BT1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		376722	478214	320631	277249	329335	78260	42335	52098	59305	123592				
DNK	BT2	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000				27260	49611	38835	50351	103304	36836	29052	3678						
DNK	GN1	none	discards	0.00008	0.00000	0.00000	0.00000	0.00000	0.00000	0.00031	0.00017	0.00014	0.00009		480702	347090	322715	294630	283147	321868	371533	327758	306895	242996				
DNK	GT1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00004	0.00002	0.00001	0.00001		4759	2059	2450	9463	236	25240	36891	44205	40159	37525				
DNK	LL1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		23479	5620	2501	3130	1814	2255	1173	2481	33199	30454				
DNK	TR1	none	discards	0.00236	0.00349	0.01255	0.02091	0.01954	0.00408	0.00869	0.00572	0.00386	0.00280		672442	637030	1299770	1276319	1449368	1290895	1285901	1351258	918690	999170	0.642	0.045	10	2.368
DNK	TR2	none	discards	0.01558	0.01154	0.02908	0.03864	0.01966	0.00660	0.01268	0.01077	0.01392	0.01005		5059017	5514510	3998032	3290591	2359541	2613146	2817250	2759331	2941652	2436599	0.111	0.760	10	0.316
DNK	TR3	none	discards	0.00008	0.00002	0.00003	0.00000	0.00000		0.00000	0.00000	0.00000			232745	206651	233393	71910	37373	17405	18494	11401	1145	3621				
NLD	BT1	none	discards								0.00000				49381	113976	137531	70311	108445	22570	27415	109513	442					
NLD	BT2	none	discards								0.00000				744932	651750	522477	542233	519000	74615	31846	138751	884					
NLD	TR1	none	discards								0.00005								16547	11576	1369	120821						
SWE	GN1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		102519	127286	89748	76409	58618	96877	101209	67326	70682	76606				
SWE	GT1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00002	0.00000	0.00001	0.00001		13801	16206	27824	56771	62309	63022	36250	21260	23899	25752				
SWE	LL1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000			0.00000	0.00000		32305	43165	38665	108455	153999	42453	0		396	660				
SWE	TR1	none	discards	0.00017	0.00055	0.00166	0.00172	0.00102	0.00025	0.00003	0.00010	0.00012	0.00002		171636	95348	109502	55251	88670	92874	10554	11528	27124	25524	0.286	0.423	10	0.844
SWE	TR2	none	discards	0.00168	0.02249	0.00986	0.01051	0.00473	0.00312	0.00327	0.00127	0.00087	0.00190		2118891	1644706	1428840	1450466	1158228	1364854	781107	661331	514449	467823	0.461	0.180	10	1.469
SWE	TR3	none	discards		0.00000	0.00000					0.00000					3330	1564	588	919			1986						
Sum				0.02043	0.04011	0.05684	0.07754	0.04659	0.01431	0.02534	0.01839	0.01905	0.01518		10277575	10164162	8754426	7895881	7042142	6348404	5846797	5793220	5035590	4586547	0.441	0.202	10	1.390
check sum Fpar/F				0.02	0.05	0.07	0.11	0.08	0.02	0.04	0.03	0.04	0.04															

Table 5.3.10.4 **Cod** in area **3b2**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2012 cod assessment, as well as partial Fs for **catches** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

2008 fixed baseline annual F reductions by 10 percent as F<=0.4, Fmsy=0.19														Effort kW days running previous year baseline														
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012				
F plan									0.638	0.479	0.415	0.351	0.287	to be estimated														
reduction F plan										-0.25	-0.35	-0.45	-0.55															
F estimated				0.924	0.885	0.823	0.703	0.618	0.638	0.603	0.562	0.47	0.391	Effort estimated	124944543	116172896	112567435	104205608	94475946	83754374	82574347	77576995	69279878	61577855				
reduction F estimated										-0.05	-0.12	-0.26	-0.39								-0.01	-0.06	-0.11	-0.11				
														EFFORT												2003-2012		
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n	
BEL	BT1	none	catches	0.00883	0.01965	0.01813	0.02304	0.00792	0.00635	0.00216	0.00264	0.00362	0.00557		1036595	1439951	1509759	1333012	1320169	984056	575501	535636	671368	963867	0.859	0.001	10	4.746
BEL	BT2	none	catches	0.01125	0.00927	0.01093	0.00923	0.00471	0.00858	0.00743	0.00358	0.00191	0.00130		4241216	4294884	3884007	3418751	2707991	3536979	3327143	2480357	1742532	1269319	0.961	0.000	10	9.829
BEL	GN1	none	catches	0.00152	0.00071	0.00047	0.00051	0.00028	0.00039	0.00046	0.00038	0.00017	0.00007		111613	152642	148827	127951	128626	158409	161734	97609	95383	45103	0.249	0.488	10	0.727
BEL	GT1	none	catches					0.00005	0.00009	0.00002	0.00005	0.00002	0.00002						15402	18000	5014	19041	18155	25216				
BEL	LL1	none	catches						0.00000		0.00000	0.00000	0.00001							1768		1660	128	786				
BEL	TR1	none	catches		0.00010			0.00032	0.00025	0.00028	0.00018	0.00024	0.00018			1989			161520	201379	220428	212429	128701	183682				
BEL	TR2	none	catches		0.00111	0.00107	0.00142	0.00173	0.00277	0.00133	0.00081	0.00105	0.00055			519343	343840	366940	298814	425374	506865	476033	435961	484371	-0.328	0.389	9	-0.919
BEL	TR3	none	catches								0.00000		0.00000							663		1899		1175				
DEU	BT1	none	catches	0.00006	0.00004	0.00000	0.00016	0.00004	0.00008						47736	29712	2128	53986	30297	16790		884	1535	2793				
DEU	BT2	none	catches	0.00112	0.00734	0.00128	0.00155	0.00034	0.00040	0.00072	0.00099	0.00037	0.00033		1669870	2060092	2212397	1927398	1590823	1464163	1666322	1801775	1242171	1071896	0.537	0.110	10	1.800
DEU	GN1	none	catches	0.00210	0.00562	0.00546	0.00333	0.00196	0.00196	0.00279	0.00384	0.00270	0.00135		191424	163463	271624	235427	145714	278008	233164	275364	225797	269836	-0.037	0.919	10	-0.105
DEU	GT1	none	catches							0.00002	0.00000	0.00000						1547			15444	1188	924					
DEU	TR1	CPart13B	catches							0.00176	0.00173	0.00199	0.00126								808679	898007	815730	747693	0.566	0.434	4	0.971
DEU	TR1	none	catches	0.02953	0.03929	0.05220	0.05542	0.02983	0.03262	0.02688	0.02628	0.01860	0.01710		1756193	1526666	1988209	2176131	1736694	1585192	759368	829604	741965	495051	0.852	0.002	10	4.603
DEU	TR2	CPart13B	catches							0.00002	0.00027	0.00011	0.00001								2420	39820	31240	14740				
DEU	TR2	none	catches	0.00428	0.00383	0.00388	0.00249	0.00187	0.00173	0.00114	0.00122	0.00083	0.00041		1013535	893439	704404	771597	680681	457259	470754	420345	408157	320809	0.924	0.000	10	6.835
DEU	TR3	none	catches	0.00000											1028			772	884	4410	426							
DNK	BT1	none	catches	0.00136	0.00243	0.00288	0.00231	0.00063	0.00071	0.00040	0.00058	0.00027	0.00041		1122195	887830	996227	511642	527282	370939	366679	513056	373757	317294	0.709	0.022	10	2.844
DNK	BT2	none	catches	0.00011	0.00024	0.00024	0.00006	0.00001	0.00003	0.00009					89457	38279	62036	42447	1390	2894	49163		440	242				
DNK	GN1	none	catches	0.03185	0.05892	0.05469	0.04941	0.01953	0.01947	0.01884	0.02172	0.01832	0.01284		2077492	2164307	2031057	1795453	949658	1003603	1050057	1195617	1136118	1080149	0.892	0.001	10	5.581
DNK	GT1	none	catches	0.00209	0.00411	0.00359	0.00235	0.00057	0.00101	0.00112	0.00113	0.00076	0.00116		138641	244626	237800	175339	98614	100902	158205	130662	182841	321220	0.456	0.185	10	1.449
DNK	LL1	none	catches	0.00219	0.00183	0.00134	0.00150	0.00017	0.00028	0.00027	0.00139	0.00059	0.00000		105319	79773	41626	42159	15924	25347	28769	45576	29388	21089	0.897	0.000	10	5.740
DNK	TR1	none	catches	0.03664	0.04394	0.09045	0.05080	0.03615	0.03216	0.03862	0.04266	0.03243	0.03302		7137074	6422756	6405176	6020308	3801069	4034203	3793148	3592389	3664621	3593770	0.509	0.133	10	1.673
DNK	TR2	none	catches	0.00488	0.00464	0.00550	0.00434	0.00279	0.00112	0.00055	0.00054	0.00040	0.00029		2597949	2580788	1916695	1405216	1080616	706247	569359	431399	370536	312765	0.923	0.000	10	6.784
DNK	TR3	none	catches	0.00034	0.00025	0.00030	0.00013	0.00006	0.00000	0.00001					3084554	3026636	2373302	1761200	799803	916558	577813	1063007	336257	477168				
ENG	BT1	CPart13B	catches								0.00001	0.00003	0.00004									202685	169873	384590				
ENG	BT1	none	catches	0.00051	0.00049	0.00031	0.00106	0.00013	0.00003	0.00003			0.00000		1060809	671130	618160	1321240	305837	228530	265710			40284	0.953	0.000	8	7.705
ENG	BT2	CPart13B	catches							0.00002	0.00057	0.00047	0.00029								47771	2863860	2644958	2412375	0.935	0.065	4	3.728
ENG	BT2	none	catches	0.00146	0.00262	0.00269	0.00169	0.00106	0.00084	0.00092	0.00036	0.00004	0.00004		2739407	3559560	4046341	2974409	3251512	1975399	2444807	401247	96356	79036	0.909	0.000	10	6.169
ENG	GN1	none	catches	0.00522	0.00722	0.00431	0.00469	0.00158	0.00311	0.00391	0.00288	0.00211	0.00186		337639	359134	308275	308517	180503	70981	175602	74835	73826	61957	0.834	0.003	10	4.275
ENG	GT1	none	catches	0.00000	0.00001	0.00005	0.00014	0.00005	0.00013	0.00009	0.00016	0.00008	0.00002		1092	1564	5342	11100	3291	12918	12654	17355	12003	5823				
ENG	LL1	none	catches	0.00043	0.00032	0.00028	0.00034	0.00010	0.00006	0.00008	0.00033	0.00007	0.00003		102465	83137	142602	54974	15752	6164	4318	12052	6253	15449				
ENG	TR1	CPart13B	catches							0.00081	0.00066	0.00084	0.00048								898933	964206	874021	939503	-0.742	0.258	4	-1.565
ENG	TR1	CPart13c	catches							0.01410	0.01518	0.01299	0.00747								1242445	1144923	1254762	931671	0.834	0.166	4	2.138
ENG	TR1	none	catches	0.02000	0.02312	0.01511	0.02161	0.01304	0.01623						2343719	1497618	1254880	1823891	1501499	1846925					0.355	0.490	6	0.759
ENG	TR2	CPart13B	catches							0.00062	0.00099	0.00116	0.00045								260311	873808	721452	865045	0.221	0.779	4	0.320
ENG	TR2	CPart13c	catches							0.00374	0.00133	0.00158	0.00076								1376367	482080	524579	267661	0.999	0.001	4	31.599
ENG	TR2	none	catches	0.00428	0.00399	0.00399	0.00780	0.00302	0.00306						1853471	1705154	1937849	1707774	1621394	1794132					-0.090	0.865	6	-0.181
ENG	TR3	none	catches	0.00000											1988	7840	3315	6360	1220	492	82	718	621	246				

Table 5.3.10.4 continued

FRA	BT2	none	catches	0.00009	0.00003	0.00003	0.00001	0.00013	0.00006	0.00005	0.00000	0.00000	0.00000	96232	94514	75129	66203	103453	88053	88053	40118	67545	57044				
FRA	GN1	none	catches	0.00047	0.00018	0.00006	0.00025	0.00062	0.00044	0.00039	0.00001	0.00000	0.00000	58454	64809	46058	31231	61545	47746	46493	2149	7803	3322	0.754	0.012	10	3.247
FRA	GT1	none	catches	0.00158	0.00054	0.00026	0.00111	0.00112	0.00124	0.00117	0.00047	0.00054	0.00056	830136	793053	813190	1785801	1703889	1010253	1010253	634781	690428	636164	0.484	0.156	10	1.564
FRA	TR1	CPart13B	catches										0.00003										29600				
FRA	TR1	none	catches	0.00112	0.00140	0.00959	0.01201	0.00222	0.03293	0.02025	0.00035	0.00145		3347063	2299125	1901534	2675348	2418190	2714146	2622538	1913401	1727371	324	0.285	0.425	10	0.841
FRA	TR2	none	catches	0.01119	0.00564	0.00640	0.01135	0.02307	0.01980	0.00915	0.00415	0.00610	0.00127	1961970	1911744	1713917	1558413	1727617	1930459	1924156	1089380	960559	725367	0.573	0.083	10	1.978
FRA	TR3	none	catches								0.00006	0.00001			1753	7121	1319		2184	2184	13827	2210	1250				
IRL	TR1	none	catches	0.00000										1847													
IRL	TR2	none	catches		0.00000									54	884												
NIR	BT1	none	catches	0.00026	0.00023	0.00003								965239	543305	36825											
NIR	BT2	none	catches	0.00003	0.00006	0.00001								20350	47517	16785											
NIR	TR1	CPart13A	catches										0.00000										2672				
NIR	TR1	CPart13B	catches							0.00007	0.00002	0.00000	0.00000							41944	23326	33246	16573				
NIR	TR1	CPart13c	catches							0.00001	0.00000									14196	6034		2781				
NIR	TR1	none	catches		0.00003	0.00017	0.00005	0.00012	0.00022						16948	70710	51951	61460	49104								
NIR	TR2	CPart13A	catches										0.00000										90338				
NIR	TR2	CPart13B	catches							0.00012	0.00000	0.00001	0.00000							65544	161981	207697	109647				
NIR	TR2	CPart13c	catches							0.00128	0.00033	0.00011								320087	236516	70443	25672	0.861	0.139	4	2.394
NIR	TR2	none	catches	0.00002	0.00004	0.00074	0.00169	0.00256	0.00093					6784	12440	221904	532885	758972	409182					0.984	0.000	6	11.046
NLD	BT1	none	catches							0.00025	0.00020	0.00018	0.00015	575801	700747	719292	1528652	720068	370417	412420	378796	308516	1090258				
NLD	BT2	none	catches	0.04076	0.05502	0.04122	0.03801	0.02226	0.03285	0.02334	0.01740	0.01145	0.00834	47724234	44669317	44478122	38823660	37931313	27646215	28696410	28510104	25776297	22428296	0.847	0.002	10	4.507
NLD	GN1	none	catches							0.00070	0.00047	0.00029	0.00021	460895	416025	387945	511580	521697	507733	419797	357091	316070	295035	0.999	0.000	10	63.198
NLD	GT1	none	catches							0.00067	0.00037	0.00011	0.00008						740	26917	37399	21431	29054	0.229	0.711	5	0.407
NLD	TR1	none	catches							0.01146	0.00991	0.00653	0.00784	684700	589170	547564	532260	631492	1400068	1316055	1290080	1173220	1329299	0.651	0.041	10	2.426
NLD	TR2	none	catches							0.00408	0.00280	0.00269	0.00165	1932081	1496720	1298918	1224916	1384658	1853682	1334665	1231860	1313554	1277297	0.514	0.129	10	1.695
NLD	TR3	none	catches								0.00006	0.00001		59360	42894	43261	20649	20589	4038	274	31973	23268	25897				
SCO	BT1	none	catches	0.00069	0.00106	0.00069	0.00105	0.00042	0.00001	0.00000				866665	694716	730810	598616	349914	68568	53082				0.849	0.016	7	3.593
SCO	BT2	none	catches	0.00293	0.00401	0.00245	0.00203	0.00077	0.00069	0.00037	0.00011		0.00001	3765518	4608817	4185262	3108933	2790115	1351720	554376	144306		68262	0.927	0.000	9	6.539
SCO	GN1	none	catches	0.00021	0.00027	0.00012	0.00009	0.00003	0.00004	0.00000	0.00001	0.00001	0.00001	196852	197407	165644	293823	320785	417076	376332	440579	607650	569749				
SCO	LL1	none	catches	0.00031	0.00001		0.00001		0.00005	0.00001	0.00002	0.00000		57163	4350		7542	1487	276898	621114	301689	183352	68192				
SCO	TR1	CPart13B	catches							0.00708	0.00696	0.00117								692932	955808	810706	36937	0.042	0.958	4	0.059
SCO	TR1	CPart13C	catches							0.17296	0.15047	0.11256	0.11163							11552644	9486824	9185531	9265940	0.859	0.141	4	2.373
SCO	TR1	none	catches	0.11894	0.12981	0.12843	0.14268	0.13779	0.22698					16079389	12684328	12158295	11660764	11022982	12176292					-0.300	0.563	6	-0.629
SCO	TR2	CPart13B	catches							0.00427	0.01459	0.00605								4219929	7467356	5277096	287446	0.987	0.013	4	8.685
SCO	TR2	CPart13C	catches							0.01117	0.00103	0.00562	0.01049							3796988	490013	1285425	4861297	0.934	0.066	4	3.697
SCO	TR2	none	catches	0.02614	0.02268	0.02557	0.02703	0.03675	0.02027					9998937	9485974	9108232	8561812	8678139	8855742					-0.317	0.541	6	-0.668
SCO	TR3	none	catches		0.00003					0.00001			0.00000	6377	5460	2356	116	11896		33117	27524		20706				
SWE	LL1	none	catches			0.00047	0.00218	0.00095	0.00147	0.00110	0.00140	0.00096	0.00123		1056	4239	15026	11020	10928	11352	6600	8184	5016	0.683	0.043	9	2.474
SWE	TR1	none	catches	0.00423	0.00494	0.00708	0.00472	0.00696	0.00906	0.00388	0.00271	0.00221	0.00298	381696	375455	387252	237269	269171	333387	245040	196354	189867	190816	0.624	0.054	10	2.259
SWE	TR2	none	catches	0.00003	0.00006	0.00001	0.00001	0.00008	0.00003		0.00000			4265	2055	1192	1298	2515	1059		0		3930				
Sum				0.37905	0.46713	0.50248	0.48966	0.36379	0.48053	0.40307	0.34636	0.26181	0.23380	124944543	116172896	112567435	104205608	94475946	83754374	82574347	77576995	69279878	61577855	0.686	0.028	10	2.667
check sum Fpar/F				0.41	0.53	0.61	0.70	0.59	0.75	0.67	0.62	0.56	0.60														

Table 5.3.10.5 **Cod** in area **3b2**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2012 cod assessment, as well as partial Fs for **landings** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting’s internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

2008 fixed baseline annual F reductions by 10 percent as F<=0.4, Fmsy=0.19													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan									0.638	0.479	0.415	0.351	0.287
reduction F plan										-0.25	-0.35	-0.45	-0.55
F estimated				0.924	0.885	0.823	0.703	0.618	0.638	0.603	0.562	0.47	0.391
reduction F estimated										-0.05	-0.12	-0.26	-0.39
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BEL	BT1	none	landings	0.00817	0.01965	0.01813	0.01693	0.00792	0.00386	0.00216	0.00264	0.00362	0.00557
BEL	BT2	none	landings	0.01089	0.00789	0.00771	0.00696	0.00349	0.00550	0.00621	0.00281	0.00181	0.00122
BEL	GN1	none	landings	0.00151	0.00071	0.00045	0.00049	0.00028	0.00039	0.00046	0.00038	0.00016	0.00006
BEL	GT1	none	landings					0.00005	0.00009	0.00002	0.00005	0.00001	0.00002
BEL	LL1	none	landings						0.00000		0.00000	0.00000	0.00001
BEL	TR1	none	landings		0.00008			0.00018	0.00011	0.00024	0.00016	0.00023	0.00017
BEL	TR2	none	landings		0.00081	0.00064	0.00059	0.00043	0.00087	0.00103	0.00064	0.00064	0.00048
BEL	TR3	none	landings								0.00000		0.00000
DEU	BT1	none	landings	0.00006	0.00004	0.00000	0.00012	0.00004	0.00005				
DEU	BT2	none	landings	0.00107	0.00104	0.00106	0.00097	0.00030	0.00036	0.00060	0.00088	0.00036	0.00024
DEU	GN1	none	landings	0.00209	0.00561	0.00529	0.00318	0.00196	0.00195	0.00279	0.00382	0.00261	0.00130
DEU	GT1	none	landings							0.00002	0.00000	0.00000	
DEU	TR1	CPart13B	landings							0.00127	0.00166	0.00156	0.00124
DEU	TR1	none	landings	0.02788	0.03611	0.04396	0.04614	0.02280	0.01986	0.02379	0.02472	0.01744	0.01601
DEU	TR2	CPart13B	landings							0.00001	0.00009	0.00002	0.00001
DEU	TR2	none	landings	0.00304	0.00298	0.00260	0.00140	0.00068	0.00068	0.00088	0.00095	0.00049	0.00033
DEU	TR3	none	landings	0.00000									
DNK	BT1	none	landings	0.00127	0.00243	0.00288	0.00184	0.00063	0.00046	0.00040	0.00058	0.00027	0.00041
DNK	BT2	none	landings	0.00010	0.00009	0.00018	0.00005	0.00001	0.00002	0.00007			
DNK	GN1	none	landings	0.03168	0.05884	0.05259	0.04774	0.01953	0.01946	0.01884	0.02161	0.01732	0.01239
DNK	GT1	none	landings	0.00207	0.00411	0.00358	0.00226	0.00057	0.00101	0.00111	0.00113	0.00069	0.00110
DNK	LL1	none	landings	0.00219	0.00183	0.00134	0.00150	0.00017	0.00028	0.00027	0.00139	0.00058	0.00000
DNK	TR1	none	landings	0.03144	0.03701	0.05126	0.03770	0.02093	0.02473	0.03233	0.03893	0.03160	0.03029
DNK	TR2	none	landings	0.00326	0.00397	0.00254	0.00205	0.00069	0.00047	0.00044	0.00042	0.00034	0.00026
DNK	TR3	none	landings	0.00033	0.00024	0.00028	0.00013	0.00006	0.00000	0.00001			
ENG	BT1	CPart13B	landings								0.00001	0.00003	0.00004
ENG	BT1	none	landings	0.00049	0.00049	0.00031	0.00079	0.00013	0.00002	0.00003			0.00000
ENG	BT2	CPart13B	landings							0.00002	0.00057	0.00047	0.00029
ENG	BT2	none	landings	0.00139	0.00155	0.00195	0.00156	0.00098	0.00060	0.00077	0.00033	0.00003	0.00003
ENG	GN1	none	landings	0.00520	0.00722	0.00409	0.00454	0.00158	0.00311	0.00391	0.00286	0.00207	0.00185
ENG	GT1	none	landings	0.00000	0.00001	0.00005	0.00013	0.00005	0.00013	0.00009	0.00016	0.00008	0.00002
ENG	LL1	none	landings	0.00043	0.00032	0.00028	0.00034	0.00010	0.00006	0.00008	0.00033	0.00007	0.00003
ENG	TR1	CPart13B	landings							0.00078	0.00063	0.00078	0.00047
ENG	TR1	CPart13c	landings							0.01378	0.01459	0.01242	0.00737
ENG	TR1	none	landings	0.01777	0.02131	0.01311	0.01623	0.01111	0.01139				
ENG	TR2	CPart13B	landings							0.00021	0.00064	0.00042	0.00039
ENG	TR2	CPart13c	landings							0.00170	0.00103	0.00069	0.00048
ENG	TR2	none	landings	0.00337	0.00285	0.00306	0.00350	0.00217	0.00209				
ENG	TR3	none	landings	0.00000									

			Effort kW days running previous year baseline														
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012				
			to be estimated														
			Effort estimated	124944543	116172896	112567435	104205608	94475946	83754374	82574347	77576995	69279878	61577855				
										-0.01	-0.06	-0.11	-0.11				
			EFFORT												2003-2012		
			kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n	
BEL	BT1	none		1036595	1439951	1509759	1333012	1320169	984056	575501	535636	671368	963867	0.887	0.001	10	5.433
BEL	BT2	none		4241216	4294884	3884007	3418751	2707991	3536979	3327143	2480357	1742532	1269319	0.940	0.000	10	7.793
BEL	GN1	none		111613	152642	148827	127951	128626	158409	161734	97609	95383	45103	0.253	0.480	10	0.740
BEL	GT1	none						15402	18000	5014	19041	18155	25216				
BEL	LL1	none							1768		1660	128	786				
BEL	TR1	none			1989			161520	201379	220428	212429	128701	183682				
BEL	TR2	none			519343	343840	366940	298814	425374	506865	476033	435961	484371	0.566	0.112	9	1.816
BEL	TR3	none							663		1899		1175				
DEU	BT1	none		47736	29712	2128	53986	30297	16790		884	1535	2793				
DEU	BT2	none		1669870	2060092	2212397	1927398	1590823	1464163	1666322	1801775	1242171	1071896	0.851	0.002	10	4.583
DEU	GN1	none		191424	163463	271624	235427	145714	278008	233164	275364	225797	269836	-0.054	0.882	10	-0.153
DEU	GT1	none					1547			15444	1188	924					
DEU	TR1	CPart13B								808679	898007	815730	747693	0.850	0.150	4	2.282
DEU	TR1	none		1756193	1526666	1988209	2176131	1736694	1585192	759368	829604	741965	495051	0.758	0.011	10	3.287
DEU	TR2	CPart13B								2420	39820	31240	14740				
DEU	TR2	none		1013535	893439	704404	771597	680681	457259	470754	420345	408157	320809	0.872	0.001	10	5.039
DEU	TR3	none		1028			772	884	4410	426							
DNK	BT1	none		1122195	887830	996227	511642	527282	370939	366679	513056	373757	317294	0.755	0.012	10	3.257
DNK	BT2	none		89457	38279	62036	42447	1390	2894	49163		440	242				
DNK	GN1	none		2077492	2164307	2031057	1795453	949658	1003603	1050057	1195617	1136118	1080149	0.894	0.000	10	5.643
DNK	GT1	none		138641	244626	237800	175339	98614	100902	158205	130662	182841	321220	0.444	0.199	10	1.402
DNK	LL1	none		105319	79773	41626	42159	15924	25347	28769	45576	29388	21089	0.897	0.000	10	5.740
DNK	TR1	none		7137074	6422756	6405176	6020308	3801069	4034203	3793148	3592389	3664621	3593770	0.498	0.143	10	1.624
DNK	TR2	none		2597949	2580788	1916695	1405216	1080616	706247	569359	431399	370536	312765	0.976	0.000	10	12.676
DNK	TR3	none		3084554	3026636	2373302	1761200	799803	916558	577813	1063007	336257	477168				
ENG	BT1	CPart13B									202685	169873	384590				
ENG	BT1	none		1060809	671130	618160	1321240	305837	228530	265710			40284	0.964	0.000	8	8.880
ENG	BT2	CPart13B								47771	2863860	2644958	2412375	0.935	0.065	4	3.728
ENG	BT2	none		2739407	3559560	4046341	2974409	3251512	1975399	2444807	401247	96356	79036	0.937	0.000	10	7.587
ENG	GN1	none		337639	359134	308275	308517	180503	70981	175602	74835	73826	61957	0.821	0.004	10	4.067
ENG	GT1	none		1092	1564	5342	11100	3291	12918	12654	17355	12003	5823				
ENG	LL1	none		102465	83137	142602	54974	15752	6164	4318	12052	6253	15449				
ENG	TR1	CPart13B								898933	964206	874021	939503	-0.729	0.271	4	-1.506
ENG	TR1	CPart13c								1242445	1144923	1254762	931671	0.831	0.169	4	2.113
ENG	TR1	none		2343719	1497618	1254880	1823891	1501499	1846925					0.226	0.667	6	0.464
ENG	TR2	CPart13B								260311	873808	721452	865045	0.820	0.180	4	2.026
ENG	TR2	CPart13c								1376367	482080	524579	267661	0.948	0.052	4	4.212
ENG	TR2	none		1853471	1705154	1937849	1707774	1621394	1794132					0.353	0.492	6	0.755
ENG	TR3	none		1988	7840	3315	6360	1220	492	82	718	621	246				

Table 5.3.10.5 continued

FRA	BT2	none	landings	0.00009	0.00003	0.00002	0.00001	0.00012	0.00005	0.00004	0.00000	0.00000	0.00000	96232	94514	75129	66203	103453	88053	88053	40118	67545	57044				
FRA	GN1	none	landings	0.00047	0.00018	0.00006	0.00025	0.00062	0.00044	0.00039	0.00001	0.00000	0.00000	58454	64809	46058	31231	61545	47746	46493	2149	7803	3322	0.754	0.012	10	3.247
FRA	GT1	none	landings	0.00157	0.00054	0.00026	0.00108	0.00112	0.00124	0.00116	0.00047	0.00049	0.00053	830136	793053	813190	1785801	1703889	1010253	1010253	634781	690428	636164	0.484	0.156	10	1.564
FRA	TR1	CPart13B	landings										0.00003										29600				
FRA	TR1	none	landings	0.00102	0.00126	0.00773	0.00979	0.00128	0.01729	0.01618	0.00034	0.00130		3347063	2299125	1901534	2675348	2418190	2714146	2622538	1913401	1727371	324	0.273	0.445	10	0.803
FRA	TR2	none	landings	0.00664	0.00410	0.00414	0.00384	0.00515	0.00713	0.00664	0.00321	0.00429	0.00111	1961970	1911744	1713917	1558413	1727617	1930459	1924156	1089380	960559	725367	0.808	0.005	10	3.879
FRA	TR3	none	landings								0.00006	0.00001			1753	7121	1319		2184	2184	13827	2210	1250				
IRL	TR1	none	landings	0.00000										1847													
IRL	TR2	none	landings		0.00000									54	884												
NIR	BT1	none	landings	0.00024	0.00023	0.00003								965239	543305	36825											
NIR	BT2	none	landings	0.00003	0.00005	0.00001								20350	47517	16785											
NIR	TR1	CPart13A	landings										0.00000										2672				
NIR	TR1	CPart13B	landings							0.00004	0.00001	0.00000	0.00000							41944	23326	33246	16573				
NIR	TR1	CPart13c	landings							0.00001	0.00000									14196	6034		2781				
NIR	TR1	none	landings		0.00003	0.00014	0.00004	0.00010	0.00010						16948	70710	51951	61460	49104								
NIR	TR2	CPart13A	landings										0.00000										90338				
NIR	TR2	CPart13B	landings							0.00003	0.00000	0.00000	0.00000							65544	161981	207697	109647				
NIR	TR2	CPart13c	landings							0.00039	0.00022	0.00003								320087	236516	70443	25672				
NIR	TR2	none	landings	0.00001	0.00003	0.00051	0.00063	0.00048	0.00027					6784	12440	221904	532885	758972	409182					0.766	0.076	6	2.383
NLD	BT1	none	landings							0.00025	0.00020	0.00018	0.00015	575801	700747	719292	1528652	720068	370417	412420	378796	308516	1090258				
NLD	BT2	none	landings	0.03858	0.03538	0.02967	0.03269	0.02106	0.02517	0.01949	0.01534	0.01058	0.00729	47724234	44669317	44478122	38823660	37931313	27646215	28696410	28510104	25776297	22428296	0.900	0.000	10	5.840
NLD	GN1	none	landings							0.00070	0.00047	0.00027	0.00021	460895	416025	387945	511580	521697	507733	419797	357091	316070	295035	0.998	0.000	10	44.654
NLD	GT1	none	landings							0.00067	0.00037	0.00010	0.00007						740	26917	37399	21431	29054	0.238	0.700	5	0.424
NLD	TR1	none	landings							0.00963	0.00903	0.00632	0.00729	684700	589170	547564	532260	631492	1400068	1316055	1290080	1173220	1329299	0.656	0.039	10	2.458
NLD	TR2	none	landings							0.00315	0.00222	0.00177	0.00124	1932081	1496720	1298918	1224916	1384658	1853682	1334665	1231860	1313554	1277297	0.394	0.260	10	1.212
NLD	TR3	none	landings								0.00006	0.00001		59360	42894	43261	20649	20589	4038	274	31973	23268	25897				
SCO	BT1	none	landings	0.00063	0.00106	0.00069	0.00079	0.00042	0.00001	0.00000				866665	694716	730810	598616	349914	68568	53082				0.871	0.011	7	3.964
SCO	BT2	none	landings	0.00279	0.00252	0.00177	0.00176	0.00071	0.00051	0.00031	0.00010		0.00001	3765518	4608817	4185262	3108933	2790115	1351720	554376	144306		68262	0.916	0.001	9	6.041
SCO	GN1	none	landings	0.00021	0.00027	0.00011	0.00009	0.00003	0.00004	0.00000	0.00001	0.00001	0.00001	196852	197407	165644	293823	320785	417076	376332	440579	607650	569749				
SCO	LL1	none	landings	0.00031	0.00001		0.00001		0.00005	0.00001	0.00002	0.00000		57163	4350		7542	1487	276898	621114	301689	183352	68192				
SCO	TR1	CPart13B	landings							0.00420	0.00521	0.00095								692932	955808	810706	36937	0.285	0.715	4	0.420
SCO	TR1	CPart13C	landings							0.10264	0.11918	0.09919	0.09176							11552644	9486824	9185531	9265940	0.066	0.934	4	0.094
SCO	TR1	none	landings	0.10854	0.11560	0.11341	0.12109	0.07837	0.08348					16079389	12684328	12158295	11660764	11022982	12176292					0.286	0.583	6	0.597
SCO	TR2	CPart13B	landings							0.00113	0.00423	0.00125								4219929	7467356	5277096	287446	0.958	0.042	4	4.724
SCO	TR2	CPart13C	landings							0.00295	0.00042	0.00116	0.00156							3796988	490013	1285425	4861297	0.700	0.300	4	1.386
SCO	TR2	none	landings	0.01562	0.01577	0.01550	0.01326	0.00802	0.00668					9998937	9485974	9108232	8561812	8678139	8855742					0.627	0.183	6	1.610
SCO	TR3	none	landings		0.00002					0.00001			0.00000	6377	5460	2356	116	11896		33117	27524		20706				
SWE	LL1	none	landings			0.00047	0.00218	0.00095	0.00147	0.00110	0.00140	0.00095	0.00123		1056	4239	15026	11020	10928	11352	6600	8184	5016	0.683	0.043	9	2.474
SWE	TR1	none	landings	0.00382	0.00445	0.00534	0.00382	0.00412	0.00406	0.00336	0.00252	0.00214	0.00277	381696	375455	387252	237269	269171	333387	245040	196354	189867	190816	0.852	0.002	10	4.603
SWE	TR2	none	landings	0.00002	0.00005	0.00000	0.00001	0.00002	0.00002		0.00000			4265	2055	1192	1298	2515	1059		0		3930				
Sum				0.33629	0.39877	0.39720	0.38848	0.21941	0.24556	0.28880	0.28911	0.22781	0.19734	124944543	116172896	112567435	104205608	94475946	83754374	82574347	77576995	69279878	61577855	0.809	0.005	10	3.893

Table 5.3.10.6 **Cod** in area **3b2**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2012 cod assessment, as well as partial Fs for **discards** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

2008 fixed baseline annual F reductions by 10 percent as F<=0.4, Fmsy=0.19													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan									0.638	0.479	0.415	0.351	0.287
reduction F plan										-0.25	-0.35	-0.45	-0.55
F estimated				0.924	0.885	0.823	0.703	0.618	0.638	0.603	0.562	0.47	0.391
reduction F estimated										-0.05	-0.12	-0.26	-0.39
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BEL	BT1	none	discards	0.00066	0.00000	0.00000	0.00611	0.00000	0.00249	0.00000	0.00000	0.00000	0.00000
BEL	BT2	none	discards	0.00036	0.00139	0.00322	0.00228	0.00121	0.00308	0.00122	0.00077	0.00010	0.00008
BEL	GN1	none	discards	0.00001	0.00000	0.00003	0.00002	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000
BEL	GT1	none	discards					0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
BEL	LL1	none	discards						0.00000		0.00000	0.00000	0.00000
BEL	TR1	none	discards		0.00002			0.00014	0.00014	0.00004	0.00002	0.00001	0.00001
BEL	TR2	none	discards		0.00030	0.00043	0.00084	0.00130	0.00190	0.00030	0.00017	0.00040	0.00007
BEL	TR3	none	discards								0.00000		0.00000
DEU	BT1	none	discards	0.00000	0.00000	0.00000	0.00004	0.00000	0.00003				
DEU	BT2	none	discards	0.00005	0.00630	0.00022	0.00057	0.00004	0.00004	0.00012	0.00011	0.00002	0.00009
DEU	GN1	none	discards	0.00001	0.00001	0.00018	0.00015	0.00000	0.00000	0.00000	0.00002	0.00009	0.00005
DEU	GT1	none	discards							0.00000	0.00000	0.00000	
DEU	TR1	CPart13B	discards							0.00049	0.00006	0.00043	0.00002
DEU	TR1	none	discards	0.00165	0.00318	0.00824	0.00927	0.00703	0.01276	0.00309	0.00157	0.00115	0.00109
DEU	TR2	CPart13B	discards							0.00001	0.00018	0.00008	0.00000
DEU	TR2	none	discards	0.00123	0.00085	0.00128	0.00109	0.00119	0.00106	0.00027	0.00027	0.00034	0.00007
DEU	TR3	none	discards	0.00000									
DNK	BT1	none	discards	0.00010	0.00000	0.00000	0.00048	0.00000	0.00026	0.00000	0.00000	0.00000	0.00000
DNK	BT2	none	discards	0.00001	0.00015	0.00007	0.00001	0.00000	0.00001	0.00001			
DNK	GN1	none	discards	0.00017	0.00008	0.00210	0.00167	0.00000	0.00001	0.00000	0.00011	0.00099	0.00046
DNK	GT1	none	discards	0.00002	0.00000	0.00001	0.00009	0.00000	0.00000	0.00001	0.00000	0.00007	0.00005
DNK	LL1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
DNK	TR1	none	discards	0.00519	0.00693	0.03919	0.01310	0.01522	0.00743	0.00629	0.00373	0.00083	0.00272
DNK	TR2	none	discards	0.00162	0.00066	0.00296	0.00230	0.00210	0.00065	0.00011	0.00013	0.00006	0.00004
DNK	TR3	none	discards	0.00001	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000			
ENG	BT1	CPart13B	discards								0.00000	0.00000	0.00000
ENG	BT1	none	discards	0.00003	0.00000	0.00000	0.00027	0.00000	0.00001	0.00000			0.00000
ENG	BT2	CPart13B	discards							0.00000	0.00000	0.00000	0.00000
ENG	BT2	none	discards	0.00007	0.00106	0.00074	0.00014	0.00009	0.00023	0.00015	0.00003	0.00000	0.00000
ENG	GN1	none	discards	0.00003	0.00000	0.00022	0.00015	0.00000	0.00000	0.00000	0.00002	0.00004	0.00001
ENG	GT1	none	discards	0.00000	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000
ENG	LL1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ENG	TR1	CPart13B	discards							0.00003	0.00003	0.00006	0.00001
ENG	TR1	CPart13c	discards							0.00033	0.00059	0.00057	0.00010
ENG	TR1	none	discards	0.00224	0.00181	0.00200	0.00538	0.00193	0.00483				
ENG	TR2	CPart13B	discards							0.00041	0.00034	0.00074	0.00006
ENG	TR2	CPart13c	discards							0.00204	0.00030	0.00088	0.00028
ENG	TR2	none	discards	0.00091	0.00114	0.00093	0.00430	0.00085	0.00096				
ENG	TR3	none	discards	0.00000									

			Effort kW days running previous year baseline													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012			
			to be estimated													
			Effort estimated	124944543	116172896	112567435	104205608	94475946	83754374	82574347	77576995	69279878	61577855			
			EFFORT											2003-2012		
			kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n
BEL	BT1	none		1036595	1439951	1509759	1333012	1320169	984056	575501	535636	671368	963867	0.262	0.465	10	0.768
BEL	BT2	none		4241216	4294884	3884007	3418751	2707991	3536979	3327143	2480357	1742532	1269319	0.553	0.097	10	1.877
BEL	GN1	none		111613	152642	148827	127951	128626	158409	161734	97609	95383	45103				
BEL	GT1	none						15402	18000	5014	19041	18155	25216				
BEL	LL1	none							1768		1660	128	786				
BEL	TR1	none			1989			161520	201379	220428	212429	128701	183682				
BEL	TR2	none			519343	343840	366940	298814	425374	506865	476033	435961	484371	-0.528	0.144	9	-1.645
BEL	TR3	none							663		1899		1175				
DEU	BT1	none		47736	29712	2128	53986	30297	16790		884	1535	2793				
DEU	BT2	none		1669870	2060092	2212397	1927398	1590823	1464163	1666322	1801775	1242171	1071896	0.429	0.216	10	1.343
DEU	GN1	none		191424	163463	271624	235427	145714	278008	233164	275364	225797	269836				
DEU	GT1	none					1547			15444	1188	924					
DEU	TR1	CPart13B								808679	898007	815730	747693				
DEU	TR1	none		1756193	1526666	1988209	2176131	1736694	1585192	759368	829604	741965	495051	0.683	0.029	10	2.645
DEU	TR2	CPart13B								2420	39820	31240	14740				
DEU	TR2	none		1013535	893439	704404	771597	680681	457259	470754	420345	408157	320809	0.755	0.012	10	3.257
DEU	TR3	none		1028			772	884	4410	426							
DNK	BT1	none		1122195	887830	996227	511642	527282	370939	366679	513056	373757	317294				
DNK	BT2	none		89457	38279	62036	42447	1390	2894	49163		440	242				
DNK	GN1	none		2077492	2164307	2031057	1795453	949658	1003603	1050057	1195617	1136118	1080149	0.419	0.228	10	1.305
DNK	GT1	none		138641	244626	237800	175339	98614	100902	158205	130662	182841	321220				
DNK	LL1	none		105319	79773	41626	42159	15924	25347	28769	45576	29388	21089				
DNK	TR1	none		7137074	6422756	6405176	6020308	3801069	4034203	3793148	3592389	3664621	3593770	0.424	0.222	10	1.324
DNK	TR2	none		2597949	2580788	1916695	1405216	1080616	706247	569359	431399	370536	312765	0.570	0.085	10	1.962
DNK	TR3	none		3084554	3026636	2373302	1761200	799803	916558	577813	1063007	336257	477168				
ENG	BT1	CPart13B									202685	169873	384590				
ENG	BT1	none		1060809	671130	618160	1321240	305837	228530	265710			40284				
ENG	BT2	CPart13B								47771	2863860	2644958	2412375				
ENG	BT2	none		2739407	3559560	4046341	2974409	3251512	1975399	2444807	401247	96356	79036	0.652	0.041	10	2.432
ENG	GN1	none		337639	359134	308275	308517	180503	70981	175602	74835	73826	61957				
ENG	GT1	none		1092	1564	5342	11100	3291	12918	12654	17355	12003	5823				
ENG	LL1	none		102465	83137	142602	54974	15752	6164	4318	12052	6253	15449				
ENG	TR1	CPart13B								898933	964206	874021	939503				
ENG	TR1	CPart13c								1242445	1144923	1254762	931671	0.732	0.268	4	1.519
ENG	TR1	none		2343719	1497618	1254880	1823891	1501499	1846925					0.314	0.545	6	0.661
ENG	TR2	CPart13B								260311	873808	721452	865045	-0.267	0.733	4	-0.392
ENG	TR2	CPart13c								1376367	482080	524579	267661	0.967	0.033	4	5.368
ENG	TR2	none		1853471	1705154	1937849	1707774	1621394	1794132					-0.270	0.605	6	-0.561
ENG	TR3	none		1988	7840	3315	6360	1220	492	82	718	621	246				

Table 5.3.10.6 continued

FRA	BT2	none	discards	0.00001	0.00001	0.00001	0.00000	0.00001	0.00002	0.00001	0.00000	0.00000	0.00000
FRA	GN1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
FRA	GT1	none	discards	0.00001	0.00000	0.00000	0.00003	0.00000	0.00000	0.00001	0.00000	0.00005	0.00003
FRA	TR1	CPart13B	discards										0.00000
FRA	TR1	none	discards	0.00011	0.00014	0.00186	0.00222	0.00094	0.01564	0.00408	0.00001	0.00015	
FRA	TR2	none	discards	0.00455	0.00154	0.00226	0.00750	0.01791	0.01267	0.00251	0.00094	0.00181	0.00016
FRA	TR3	none	discards								0.00000	0.00000	
IRL	TR1	none	discards	0.00000									
IRL	TR2	none	discards		0.00000								
NIR	BT1	none	discards	0.00002	0.00000	0.00000							
NIR	BT2	none	discards	0.00000	0.00001	0.00000							
NIR	TR1	CPart13A	discards										0.00000
NIR	TR1	CPart13B	discards							0.00003	0.00000	0.00000	0.00000
NIR	TR1	CPart13c	discards							0.00000	0.00000		
NIR	TR1	none	discards		0.00000	0.00003	0.00001	0.00003	0.00011				
NIR	TR2	CPart13A	discards										0.00000
NIR	TR2	CPart13B	discards							0.00009	0.00000	0.00001	0.00000
NIR	TR2	CPart13c	discards							0.00089	0.00011	0.00008	
NIR	TR2	none	discards	0.00001	0.00001	0.00023	0.00106	0.00208	0.00065				
NLD	BT1	none	discards							0.00000	0.00000	0.00000	0.00000
NLD	BT2	none	discards	0.00218	0.01964	0.01155	0.00532	0.00120	0.00767	0.00385	0.00205	0.00087	0.00106
NLD	GN1	none	discards							0.00000	0.00000	0.00002	0.00001
NLD	GT1	none	discards							0.00000	0.00000	0.00001	0.00000
NLD	TR1	none	discards							0.00183	0.00088	0.00021	0.00055
NLD	TR2	none	discards							0.00093	0.00058	0.00092	0.00042
NLD	TR3	none	discards								0.00000	0.00000	
SCO	BT1	none	discards	0.00006	0.00000	0.00000	0.00026	0.00000	0.00000	0.00000			
SCO	BT2	none	discards	0.00014	0.00148	0.00068	0.00027	0.00006	0.00018	0.00006	0.00001		0.00000
SCO	GN1	none	discards	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
SCO	LL1	none	discards	0.00000	0.00000		0.00000		0.00000	0.00000	0.00000	0.00000	
SCO	TR1	CPart13B	discards							0.00288	0.00175	0.00023	
SCO	TR1	CPart13C	discards							0.07032	0.03129	0.01337	0.01987
SCO	TR1	none	discards	0.01040	0.01421	0.01502	0.02159	0.05942	0.14350				
SCO	TR2	CPart13B	discards							0.00314	0.01035	0.00480	
SCO	TR2	CPart13C	discards							0.00821	0.00061	0.00446	0.00893
SCO	TR2	none	discards	0.01052	0.00691	0.01008	0.01377	0.02874	0.01360				
SCO	TR3	none	discards		0.00000					0.00000			0.00000
SWE	LL1	none	discards			0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000
SWE	TR1	none	discards	0.00041	0.00049	0.00174	0.00090	0.00285	0.00499	0.00052	0.00019	0.00007	0.00021
SWE	TR2	none	discards	0.00001	0.00001	0.00000	0.00000	0.00006	0.00001		0.00000		
Sum				0.04280	0.06833	0.10530	0.10120	0.14440	0.23493	0.11428	0.05722	0.03395	0.03645
check sum Fpar/F				0.05	0.08	0.13	0.14	0.23	0.37	0.19	0.10	0.07	0.09

FRA	BT2	none	discards	96232	94514	75129	66203	103453	88053	88053	40118	67545	57044				
FRA	GN1	none	discards	58454	64809	46058	31231	61545	47746	46493	2149	7803	3322				
FRA	GT1	none	discards	830136	793053	813190	1785801	1703889	1010253	1010253	634781	690428	636164				
FRA	TR1	CPart13B	discards										29600				
FRA	TR1	none	discards	3347063	2299125	1901534	2675348	2418190	2714146	2622538	1913401	1727371	324	0.268	0.454	10	0.787
FRA	TR2	none	discards	1961970	1911744	1713917	1558413	1727617	1930459	1924156	1089380	960559	725367	0.422	0.224	10	1.317
FRA	TR3	none	discards		1753	7121	1319		2184	2184	13827	2210	1250				
IRL	TR1	none	discards	1847													
IRL	TR2	none	discards	54	884												
NIR	BT1	none	discards	965239	543305	36825											
NIR	BT2	none	discards	20350	47517	16785											
NIR	TR1	CPart13A	discards										2672				
NIR	TR1	CPart13B	discards							41944	23326	33246	16573				
NIR	TR1	CPart13c	discards							14196	6034		2781				
NIR	TR1	none	discards		16948	70710	51951	61460	49104								
NIR	TR2	CPart13A	discards										90338				
NIR	TR2	CPart13B	discards							65544	161981	207697	109647				
NIR	TR2	CPart13c	discards							320087	236516	70443	25672	0.778	0.222	4	1.751
NIR	TR2	none	discards	6784	12440	221904	532885	758972	409182					0.962	0.002	6	7.046
NLD	BT1	none	discards	575801	700747	719292	1528652	720068	370417	412420	378796	308516	1090258				
NLD	BT2	none	discards	47724234	44669317	44478122	38823660	37931313	27646215	28696410	28510104	25776297	22428296	0.515	0.128	10	1.699
NLD	GN1	none	discards	460895	416025	387945	511580	521697	507733	419797	357091	316070	295035				
NLD	GT1	none	discards						740	26917	37399	21431	29054				
NLD	TR1	none	discards	684700	589170	547564	532260	631492	1400068	1316055	1290080	1173220	1329299	0.600	0.067	10	2.121
NLD	TR2	none	discards	1932081	1496720	1298918	1224916	1384658	1853682	1334665	1231860	1313554	1277297	0.758	0.011	10	3.287
NLD	TR3	none	discards	59360	42894	43261	20649	20589	4038	274	31973	23268	25897				
SCO	BT1	none	discards	866665	694716	730810	598616	349914	68568	53082							
SCO	BT2	none	discards	3765518	4608817	4185262	3108933	2790115	1351720	554376	144306		68262	0.710	0.032	9	2.668
SCO	GN1	none	discards	196852	197407	165644	293823	320785	417076	376332	440579	607650	569749				
SCO	LL1	none	discards	57163	4350		7542	1487	276898	621114	301689	183352	68192				
SCO	TR1	CPart13B	discards							692932	955808	810706	36937	-0.370	0.630	4	-0.563
SCO	TR1	CPart13C	discards							11552644	9486824	9185531	9265940	0.983	0.017	4	7.572
SCO	TR1	none	discards	16079389	12684328	12158295	11660764	11022982	12176292					-0.329	0.524	6	-0.697
SCO	TR2	CPart13B	discards							4219929	7467356	5277096	287446	0.995	0.005	4	14.089
SCO	TR2	CPart13C	discards							3796988	490013	1285425	4861297	0.958	0.042	4	4.724
SCO	TR2	none	discards	9998937	9485974	9108232	8561812	8678139	8855742					-0.568	0.240	6	-1.380
SCO	TR3	none	discards	6377	5460	2356	116	11896		33117	27524		20706				
SWE	LL1	none	discards		1056	4239	15026	11020	10928	11352	6600	8184	5016				
SWE	TR1	none	discards	381696	375455	387252	237269	269171	333387	245040	196354	189867	190816	0.350	0.321	10	1.057
SWE	TR2	none	discards	4265	2055	1192	1298	2515	1059		0		3930				
Sum				124944543	116172896	112567435	104205608	94475946	83754374	82574347	77576995	69279878	61577855	0.036	0.921	10	0.102
check sum Fpar/F																	

Table 5.3.10.7 **Cod** in area **3b3**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2012 cod assessment, as well as partial Fs for **catches** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

2008 fixed baseline annual F reductions by 10 percent as F<=0.4, Fmsy=0.19													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan									0.638	0.479	0.415	0.351	0.287
reduction F plan										-0.25	-0.35	-0.45	-0.55
F estimated				0.924	0.885	0.823	0.703	0.618	0.638	0.603	0.562	0.47	0.391
reduction F estimated										-0.05	-0.12	-0.26	-0.39
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BEL	BT1	none	catches						0.00001				
BEL	BT2	none	catches	0.00082	0.00106	0.00101	0.00195	0.00145	0.00292	0.00096	0.00063	0.00051	0.00033
BEL	GN1	none	catches	0.00005	0.00001	0.00002	0.00003	0.00000	0.00001	0.00001	0.00000		
BEL	GT1	none	catches					0.00002	0.00001	0.00000	0.00001	0.00003	0.00001
BEL	TR1	none	catches								0.00000		
BEL	TR2	none	catches		0.00002	0.00000	0.00004	0.00001	0.00006	0.00003	0.00007	0.00008	0.00004
ENG	BT2	CPart13B	catches							0.00003	0.00001	0.00000	0.00000
ENG	BT2	none	catches	0.00022	0.00021	0.00033	0.00042	0.00019	0.00029	0.00012	0.00005	0.00005	0.00003
ENG	GN1	none	catches	0.00001	0.00000	0.00001	0.00001	0.00000	0.00001	0.00004	0.00003	0.00003	0.00001
ENG	GT1	none	catches	0.00002	0.00003	0.00002	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00000
ENG	LL1	CPart13B	catches										0.00000
ENG	LL1	none	catches	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000			
ENG	TR1	CPart13c	catches							0.00002	0.00000	0.00000	0.00000
ENG	TR1	none	catches	0.00007	0.00000	0.00001		0.00000	0.00001				
ENG	TR2	CPart13B	catches							0.00009	0.00013	0.00009	0.00009
ENG	TR2	CPart13c	catches							0.00016	0.00007	0.00009	0.00007
ENG	TR2	none	catches	0.00015	0.00033	0.00044	0.00028	0.00016	0.00014				
ENG	TR3	none	catches	0.00000				0.00000					
FRA	BT2	none	catches	0.00011	0.00011	0.00003	0.00012	0.00011	0.00009	0.00006	0.00001	0.00001	0.00001
FRA	GN1	none	catches	0.00388	0.00180	0.00161	0.00287	0.00217	0.00106	0.00099	0.00041	0.00031	0.00043
FRA	GT1	none	catches	0.00459	0.00224	0.00286	0.00346	0.00275	0.00186	0.00171	0.00174	0.00540	0.00137
FRA	LL1	none	catches	0.00009	0.00018	0.00007	0.00008	0.00005	0.00005	0.00005	0.00002	0.00004	0.00003
FRA	TR1	none	catches	0.00061	0.00005	0.00006	0.00021	0.00154	0.00061	0.00057	0.00011	0.00030	0.00008
FRA	TR2	CPart13B	catches										0.00001
FRA	TR2	none	catches	0.01395	0.00965	0.01102	0.01199	0.01229	0.00769	0.00714	0.00743	0.00641	0.00444
FRA	TR3	none	catches	0.00000	0.00000	0.00000			0.00001	0.00001	0.00007	0.00002	0.00002
GBJ	BT2	none	catches	0.00000	0.00000	0.00000							
GBJ	TR2	CPart13B	catches							0.00000			
GBJ	TR2	none	catches	0.00002	0.00000	0.00000	0.00001	0.00001	0.00002				
NLD	TR2	none	catches							0.00042	0.00046	0.00054	0.00032
SCO	BT2	none	catches					0.00003					
SCO	TR2	CPart13B	catches							0.00002	0.00000	0.00000	
SCO	TR2	CPart13C	catches							0.00005		0.00000	
SCO	TR2	none	catches	0.00000			0.00003	0.00014	0.00010				
Sum				0.02459	0.01569	0.01750	0.02151	0.02093	0.01496	0.01249	0.01126	0.01392	0.00729
check sum Fpar/F				0.03	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.03	0.02

			Effort kW days running previous year baseline														
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012				
F plan			to be estimated														
reduction F plan																	
F estimated			Effort estimated	20756583	21281648	19642948	22841403	23108496	18504005	17927641	13549980	13092159	12789862				
reduction F estimated										-0.03	-0.24	-0.03	-0.02				
			EFFORT												2003-2012		
Fpar			kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n	
BEL	BT1	none							3578								
BEL	BT2	none		2583050	2422541	2068612	2782454	3183635	2691356	2204585	1907807	1861455	1541411	0.689	0.028	10	2.689
BEL	GN1	none		16607	18591	19026	23556	906	10560	19527	10885						
BEL	GT1	none						26676	16200	7416	21600	30600	34086				
BEL	TR1	none									10219	1858	4645				
BEL	TR2	none			27043	10703	23328	13756	15816	46344	132308	189285	212691				
ENG	BT2	CPart13B								108485	123228	101532	144684				
ENG	BT2	none		833384	671323	423730	359264	324577	368882	295714	148793	99461	96917				
ENG	GN1	none		4498	3373	219	2529	1699	4957	12756	25620	25787	10339				
ENG	GT1	none		11295	8742	9183	6081	7708	9580	5968	8324	8075	8332				
ENG	LL1	CPart13B									30899	25183	24565				
ENG	LL1	none		44603	31882	39988	40165	37923	39699	40081	15397	13022	11097				
ENG	TR1	CPart13c								4350	2226	11276	1229				
ENG	TR1	none		31738	473	1306	788	268	4154								
ENG	TR2	CPart13B								87339	281244	301325	404526				
ENG	TR2	CPart13c								193078	89159	73206	82494				
ENG	TR2	none		245225	271549	249748	184677	148256	165497								
ENG	TR3	none		87				252									
FRA	BT2	none		1118375	1278065	919129	1258094	1135160	1106661	1106661	570711	542158	675860				
FRA	GN1	none		563990	341495	243018	301125	386493	150995	150995	98661	45185	109662	0.947	0.000	10	8.338
FRA	GT1	none		2553851	2632950	3308229	3681721	3588824	2611489	2607735	1796377	1839296	1771276	0.076	0.834	10	0.216
FRA	LL1	none		144804	163370	97311	114742	162573	116680	116680	118214	86512	69920				
FRA	TR1	none		138153	49849	60402	49633	224000	73652	73652	91341	113909	53370	0.877	0.001	10	5.162
FRA	TR2	CPart13B											289041				
FRA	TR2	none		12192837	12929692	11713996	13485158	13060035	10070068	9834906	6980814	6766474	6300774	0.866	0.001	10	4.898
FRA	TR3	none		76197	79758	99705	114293	138596	65643	64323	134347	122925	92978				
GBJ	BT2	none		5180	14375	10346											
GBJ	TR2	CPart13B								7480							
GBJ	TR2	none		27897	20201	23483	10560	13420	9680								
NLD	TR2	none		152407	316376	344814	287224	434839	625656	602354	701538	608347	706896				
SCO	BT2	none						9776	3055	6353							
SCO	TR2	CPart13B								66292	250268	158225	90437	-0.866	0.134	4	-2.449
SCO	TR2	CPart13C								264567		67063	52632				
SCO	TR2	none		12405			116011	209124	340147								
Sum				20756583	21281648	19642948	22841403	23108496	18504005	17927641	13549980	13092159	12789862	0.823	0.003	10	4.098
check sum Fpar/F																	

Table 5.3.10.8 **Cod** in area **3b3**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2012 cod assessment, as well as partial Fs for **landings** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

2008 fixed baseline annual F reductions by 10 percent as F<=0.4, Fmsy=0.19													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan									0.638	0.479	0.415	0.351	0.287
reduction F plan										-0.25	-0.35	-0.45	-0.55
F estimated				0.924	0.885	0.823	0.703	0.618	0.638	0.603	0.562	0.47	0.391
reduction F estimated										-0.05	-0.12	-0.26	-0.39
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BEL	BT1	none	landings						0.00001				
BEL	BT2	none	landings	0.00082	0.00089	0.00097	0.00160	0.00109	0.00189	0.00088	0.00057	0.00049	0.00031
BEL	GN1	none	landings	0.00005	0.00001	0.00002	0.00003	0.00000	0.00001	0.00001	0.00000		
BEL	GT1	none	landings					0.00002	0.00001	0.00000	0.00001	0.00000	0.00001
BEL	TR1	none	landings								0.00000		
BEL	TR2	none	landings		0.00002	0.00000	0.00004	0.00001	0.00006	0.00003	0.00007	0.00008	0.00004
ENG	BT2	CPart13B	landings							0.00003	0.00001	0.00000	0.00000
ENG	BT2	none	landings	0.00022	0.00016	0.00032	0.00040	0.00017	0.00022	0.00011	0.00005	0.00005	0.00003
ENG	GN1	none	landings	0.00001	0.00000	0.00001	0.00001	0.00000	0.00001	0.00004	0.00003	0.00003	0.00001
ENG	GT1	none	landings	0.00002	0.00003	0.00002	0.00001	0.00001	0.00001	0.00001	0.00001	0.00000	0.00000
ENG	LL1	CPart13B	landings										0.00000
ENG	LL1	none	landings	0.00000	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000			
ENG	TR1	CPart13c	landings							0.00002	0.00000	0.00000	0.00000
ENG	TR1	none	landings	0.00007	0.00000	0.00001		0.00000	0.00001				
ENG	TR2	CPart13B	landings							0.00009	0.00013	0.00008	0.00009
ENG	TR2	CPart13c	landings							0.00008	0.00007	0.00006	0.00007
ENG	TR2	none	landings	0.00015	0.00033	0.00044	0.00028	0.00016	0.00014				
ENG	TR3	none	landings	0.00000				0.00000					
FRA	BT2	none	landings	0.00011	0.00009	0.00003	0.00010	0.00008	0.00006	0.00006	0.00001	0.00001	0.00001
FRA	GN1	none	landings	0.00388	0.00180	0.00161	0.00287	0.00217	0.00106	0.00099	0.00037	0.00031	0.00043
FRA	GT1	none	landings	0.00459	0.00224	0.00286	0.00346	0.00275	0.00186	0.00171	0.00169	0.00141	0.00120
FRA	LL1	none	landings	0.00009	0.00018	0.00007	0.00008	0.00005	0.00005	0.00005	0.00002	0.00004	0.00003
FRA	TR1	none	landings	0.00061	0.00005	0.00006	0.00021	0.00154	0.00061	0.00057	0.00011	0.00030	0.00008
FRA	TR2	CPart13B	landings										0.00001
FRA	TR2	none	landings	0.01395	0.00965	0.01102	0.01199	0.01229	0.00763	0.00714	0.00743	0.00641	0.00444
FRA	TR3	none	landings	0.00000	0.00000	0.00000			0.00001	0.00001	0.00007	0.00002	0.00002
GBJ	BT2	none	landings	0.00000	0.00000	0.00000							
GBJ	TR2	CPart13B	landings							0.00000			
GBJ	TR2	none	landings	0.00002	0.00000	0.00000	0.00001	0.00001	0.00002				
NLD	TR2	none	landings							0.00042	0.00046	0.00054	0.00032
SCO	BT2	none	landings					0.00002					
SCO	TR2	CPart13B	landings							0.00001	0.00000	0.00000	
SCO	TR2	CPart13C	landings							0.00002		0.00000	
SCO	TR2	none	landings	0.00000			0.00003	0.00014	0.00010				
Sum				0.02459	0.01545	0.01745	0.02112	0.02051	0.01377	0.01228	0.01111	0.00983	0.00710
check sum Fpar/F				0.03	0.02	0.02	0.03	0.03	0.02	0.02	0.02	0.02	0.02

			Effort kW days running previous year baseline														
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012				
			to be estimated														
			Effort estimated	20756583	21281648	19642948	22841403	23108496	18504005	17927641	13549980	13092159	12789862				
										-0.03	-0.24	-0.03	-0.02				
			EFFORT												2003-2012		
			kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n	
BEL	BT1	none							3578								
BEL	BT2	none		2583050	2422541	2068612	2782454	3183635	2691356	2204585	1907807	1861455	1541411	0.734	0.016	10	3.057
BEL	GN1	none		16607	18591	19026	23556	906	10560	19527	10885						
BEL	GT1	none						26676	16200	7416	21600	30600	34086				
BEL	TR1	none									10219	1858	4645				
BEL	TR2	none			27043	10703	23328	13756	15816	46344	132308	189285	212691				
ENG	BT2	CPart13B								108485	123228	101532	144684				
ENG	BT2	none		833384	671323	423730	359264	324577	368882	295714	148793	99461	96917				
ENG	GN1	none		4498	3373	219	2529	1699	4957	12756	25620	25787	10339				
ENG	GT1	none		11295	8742	9183	6081	7708	9580	5968	8324	8075	8332				
ENG	LL1	CPart13B									30899	25183	24565				
ENG	LL1	none		44603	31882	39988	40165	37923	39699	40081	15397	13022	11097				
ENG	TR1	CPart13c								4350	2226	11276	1229				
ENG	TR1	none		31738	473	1306	788	268	4154								
ENG	TR2	CPart13B								87339	281244	301325	404526				
ENG	TR2	CPart13c								193078	89159	73206	82494				
ENG	TR2	none		245225	271549	249748	184677	148256	165497								
ENG	TR3	none		87				252									
FRA	BT2	none		1118375	1278065	919129	1258094	1135160	1106661	1106661	570711	542158	675860				
FRA	GN1	none		563990	341495	243018	301125	386493	150995	150995	98661	45185	109662	0.946	0.000	10	8.254
FRA	GT1	none		2553851	2632950	3308229	3681721	3588824	2611489	2607735	1796377	1839296	1771276	0.598	0.068	10	2.110
FRA	LL1	none		144804	163370	97311	114742	162573	116680	116680	118214	86512	69920				
FRA	TR1	none		138153	49849	60402	49633	224000	73652	73652	91341	113909	53370	0.877	0.001	10	5.162
FRA	TR2	CPart13B											289041				
FRA	TR2	none		12192837	12929692	11713996	13485158	13060035	10070068	9834906	6980814	6766474	6300774	0.866	0.001	10	4.898
FRA	TR3	none		76197	79758	99705	114293	138596	65643	64323	134347	122925	92978				
GBJ	BT2	none		5180	14375	10346											
GBJ	TR2	CPart13B								7480							
GBJ	TR2	none		27897	20201	23483	10560	13420	9680								
NLD	TR2	none		152407	316376	344814	287224	434839	625656	602354	701538	608347	706896				
SCO	BT2	none						9776	3055	6353							
SCO	TR2	CPart13B								66292	250268	158225	90437	-0.866	0.134	4	-2.449
SCO	TR2	CPart13C								264567		67063	52632				
SCO	TR2	none		12405			116011	209124	340147								
Sum				20756583	21281648	19642948	22841403	23108496	18504005	17927641	13549980	13092159	12789862	0.870	0.001	10	4.991
check sum Fpar/F																	

Table 5.3.10.9 **Cod** in area **3b3**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2012 cod assessment, as well as partial Fs for **discards** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

2008 fixed baseline annual F reductions by 10 percent as F<=0.4, Fmsy=0.19													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan									0.638	0.479	0.415	0.351	0.287
reduction F plan										-0.25	-0.35	-0.45	-0.55
F estimated				0.924	0.885	0.823	0.703	0.618	0.638	0.603	0.562	0.47	0.391
reduction F estimated										-0.05	-0.12	-0.26	-0.39
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BEL	BT1	none	discards						0.00000				
BEL	BT2	none	discards	0.00000	0.00017	0.00004	0.00036	0.00036	0.00103	0.00009	0.00006	0.00003	0.00002
BEL	GN1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000		
BEL	GT1	none	discards					0.00000	0.00000	0.00000	0.00000	0.00002	0.00000
BEL	TR1	none	discards								0.00000		
BEL	TR2	none	discards		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ENG	BT2	CPart13B	discards							0.00000	0.00000	0.00000	0.00000
ENG	BT2	none	discards	0.00000	0.00005	0.00001	0.00003	0.00003	0.00006	0.00001	0.00001	0.00000	0.00000
ENG	GN1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ENG	GT1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00000
ENG	LL1	CPart13B	discards										0.00000
ENG	LL1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000			
ENG	TR1	CPart13c	discards							0.00000	0.00000	0.00000	0.00000
ENG	TR1	none	discards	0.00000	0.00000	0.00000		0.00000	0.00000				
ENG	TR2	CPart13B	discards							0.00000	0.00000	0.00001	0.00000
ENG	TR2	CPart13c	discards							0.00008	0.00000	0.00002	0.00000
ENG	TR2	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000				
ENG	TR3	none	discards	0.00000				0.00000					
FRA	BT2	none	discards	0.00000	0.00002	0.00000	0.00002	0.00003	0.00003	0.00001	0.00000	0.00000	0.00000
FRA	GN1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00004	0.00000	0.00000
FRA	GT1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00005	0.00399	0.00017
FRA	LL1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
FRA	TR1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
FRA	TR2	CPart13B	discards										0.00000
FRA	TR2	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00006	0.00000	0.00000	0.00000	0.00000
FRA	TR3	none	discards	0.00000	0.00000	0.00000			0.00000	0.00000	0.00000	0.00000	0.00000
GBJ	BT2	none	discards	0.00000	0.00000	0.00000							
GBJ	TR2	CPart13B	discards							0.00000			
GBJ	TR2	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000				
NLD	TR2	none	discards							0.00000	0.00000	0.00000	0.00000
SCO	BT2	none	discards					0.00001					
SCO	TR2	CPart13B	discards							0.00001	0.00000	0.00000	
SCO	TR2	CPart13C	discards							0.00003		0.00000	
SCO	TR2	none	discards	0.00000			0.00000	0.00000	0.00000				
Sum				0.00000	0.00024	0.00005	0.00041	0.00043	0.00118	0.00023	0.00016	0.00408	0.00019
check sum Fpar/F				0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00

			Effort kW days running previous year baseline															
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012				
			to be estimated														
			Effort estimated	20756583	21281648	19642948	22841403	23108496	18504005	17927641	13549980	13092159	12789862				
										-0.03	-0.24	-0.03	-0.02				
			EFFORT												2003-2012		
			kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n	
BEL	BT1	none							3578								
BEL	BT2	none		2583050	2422541	2068612	2782454	3183635	2691356	2204585	1907807	1861455	1541411	0.559	0.093	10	1.907
BEL	GN1	none		16607	18591	19026	23556	906	10560	19527	10885						
BEL	GT1	none						26676	16200	7416	21600	30600	34086				
BEL	TR1	none									10219	1858	4645				
BEL	TR2	none			27043	10703	23328	13756	15816	46344	132308	189285	212691				
ENG	BT2	CPart13B								108485	123228	101532	144684				
ENG	BT2	none		833384	671323	423730	359264	324577	368882	295714	148793	99461	96917				
ENG	GN1	none		4498	3373	219	2529	1699	4957	12756	25620	25787	10339				
ENG	GT1	none		11295	8742	9183	6081	7708	9580	5968	8324	8075	8332				
ENG	LL1	CPart13B									30899	25183	24565				
ENG	LL1	none		44603	31882	39988	40165	37923	39699	40081	15397	13022	11097				
ENG	TR1	CPart13c								4350	2226	11276	1229				
ENG	TR1	none		31738	473	1306	788	268	4154								
ENG	TR2	CPart13B								87339	281244	301325	404526				
ENG	TR2	CPart13c								193078	89159	73206	82494				
ENG	TR2	none		245225	271549	249748	184677	148256	165497								
ENG	TR3	none		87				252									
FRA	BT2	none		1118375	1278065	919129	1258094	1135160	1106661	1106661	570711	542158	675860				
FRA	GN1	none		563990	341495	243018	301125	386493	150995	150995	98661	45185	109662				
FRA	GT1	none		2553851	2632950	3308229	3681721	3588824	2611489	2607735	1796377	1839296	1771276	-0.421	0.226	10	-1.313
FRA	LL1	none		144804	163370	97311	114742	162573	116680	116680	118214	86512	69920				
FRA	TR1	none		138153	49849	60402	49633	224000	73652	73652	91341	113909	53370				
FRA	TR2	CPart13B											289041				
FRA	TR2	none		12192837	12929692	11713996	13485158	13060035	10070068	9834906	6980814	6766474	6300774				
FRA	TR3	none		76197	79758	99705	114293	138596	65643	64323	134347	122925	92978				
GBJ	BT2	none		5180	14375	10346											
GBJ	TR2	CPart13B								7480							
GBJ	TR2	none		27897	20201	23483	10560	13420	9680								
NLD	TR2	none		152407	316376	344814	287224	434839	625656	602354	701538	608347	706896				
SCO	BT2	none						9776	3055	6353							
SCO	TR2	CPart13B								66292	250268	158225	90437				
SCO	TR2	CPart13C								264567		67063	52632				
SCO	TR2	none		12405			116011	209124	340147								
Sum				20756583	21281648	19642948	22841403	23108496	18504005	17927641	13549980	13092159	12789862	-0.422	0.224	10	-1.317
check sum Fpar/F																	

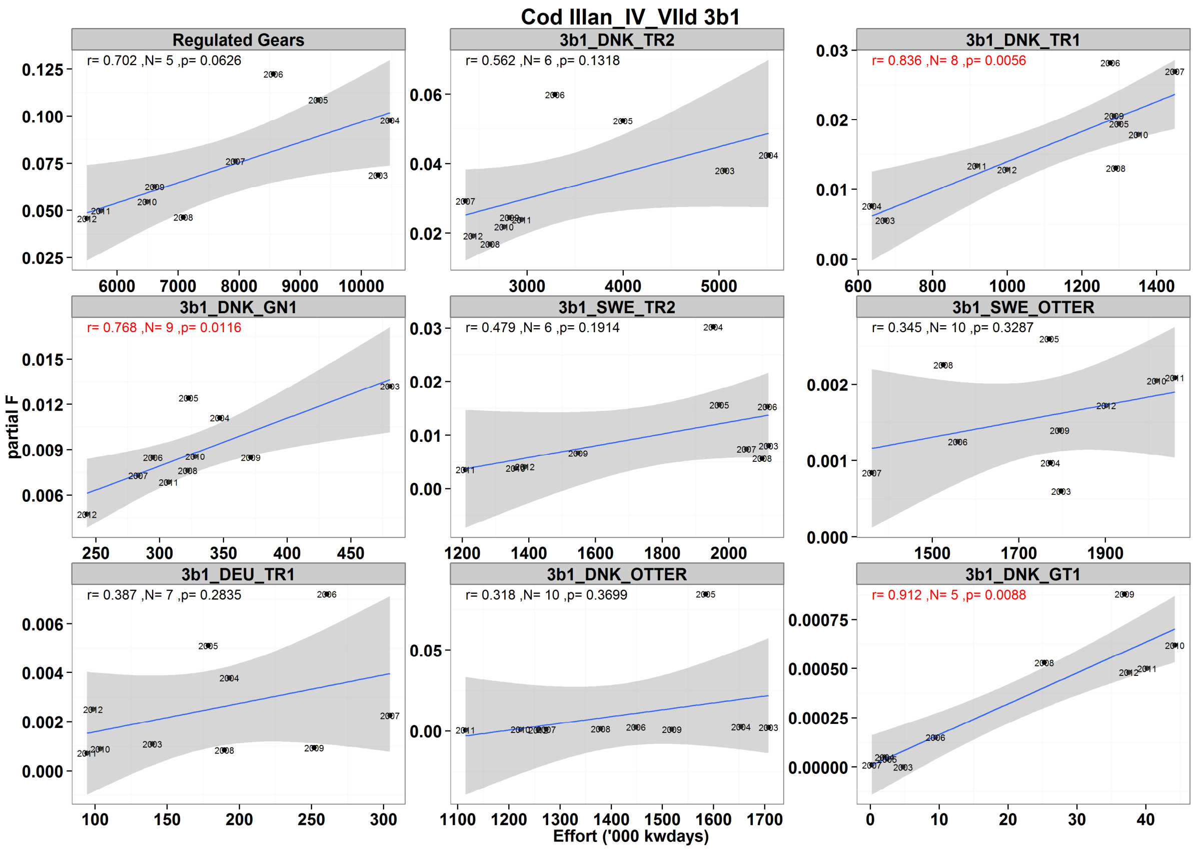


Fig. 5.3.10.2. Cod. Partial fishing mortality (based on harvest rate estimates) against effort (kWd) in area 3b1 (Skagerrak) for all regulated gears combined, and the major fisheries individually. Ten metiers with highest catch are shown where catch >1% of total for the regulated area, ranked top left to bottom right. Data 2003-2012 aggregated across special conditions. r value shows linear model fit (grey 95% confidence interval), with p-value (significant relationships at 0.05 level shown in red; N and p values adjusted for

autocorrelation).

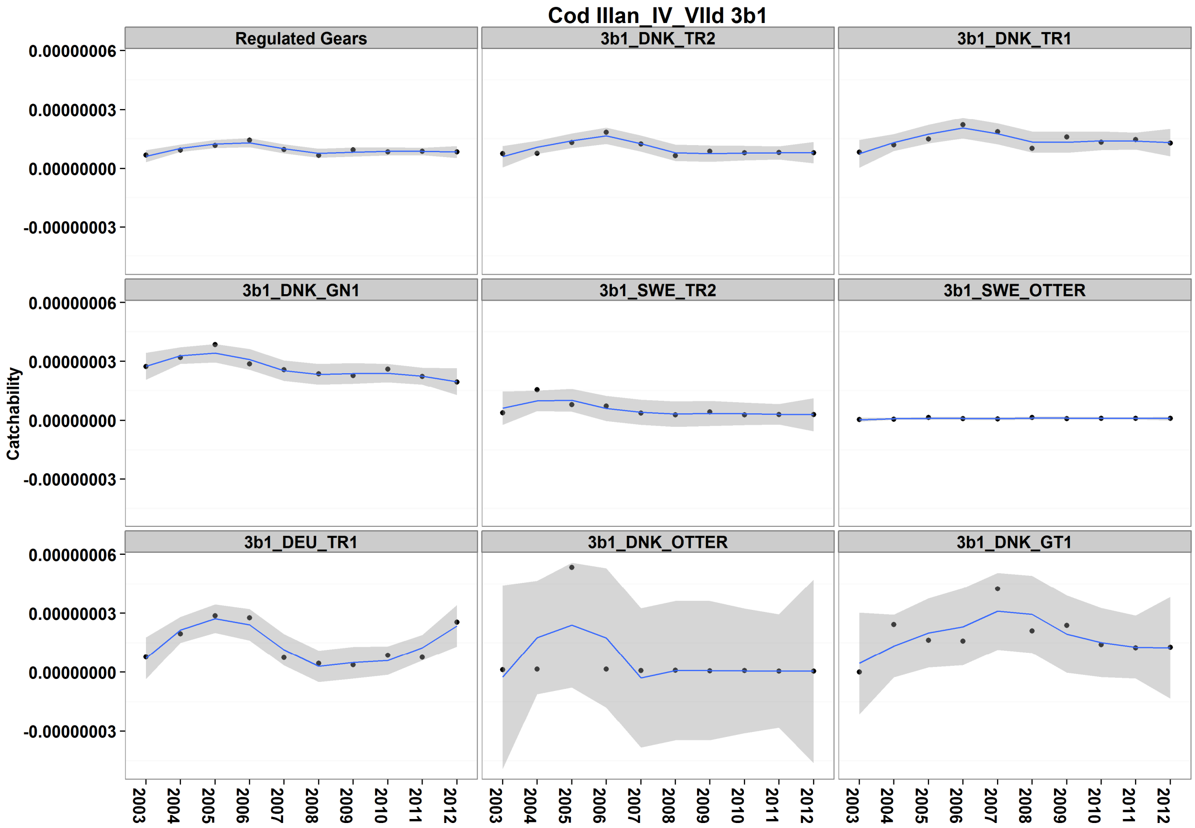


Figure 5.3.10.2.1. Cod catchability estimates in 3b1 for all regulated gears and the major fisheries individually. Catchability estimated as (pF/kw days) with the blue line indicating a local regression smoother, the grey area 95% confidence limits.

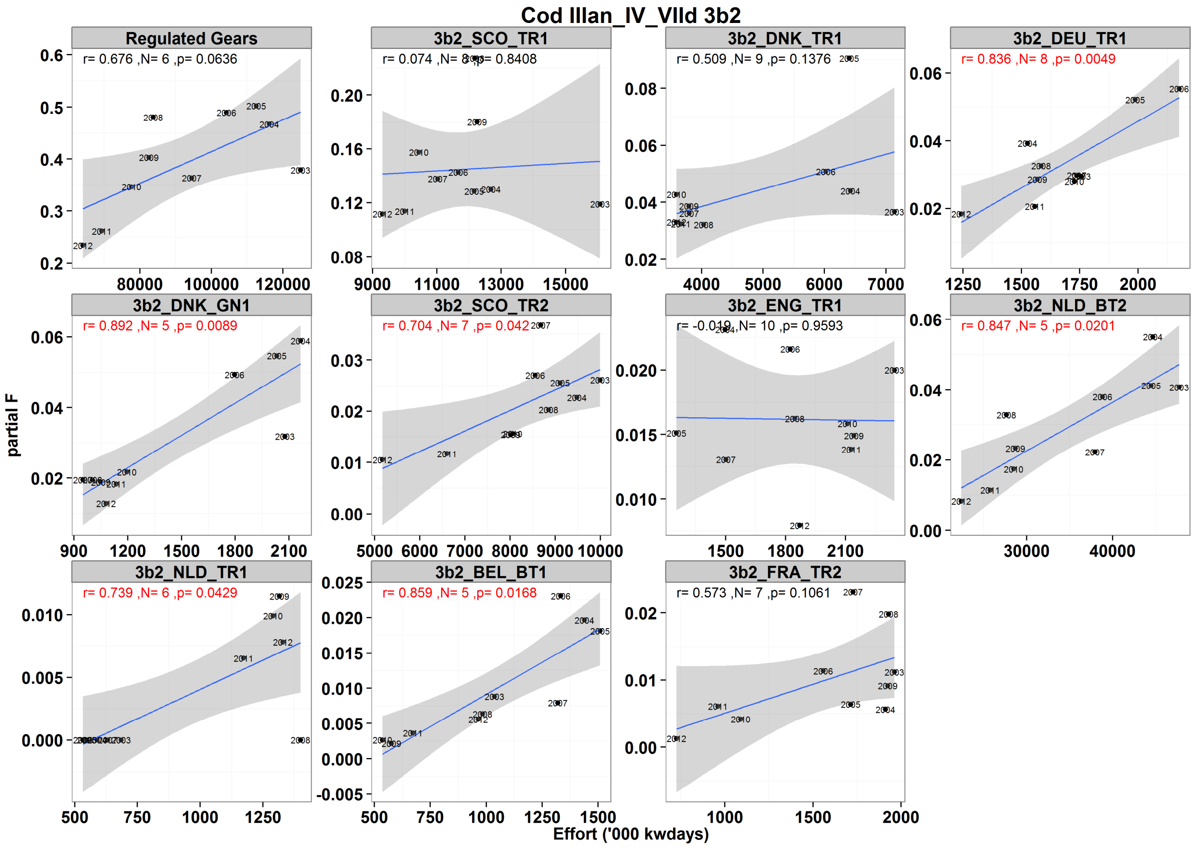


Fig. 5.3.10.3 Cod. Partial fishing mortality (based on harvest rate estimates) against effort (kWd) in area 3b2 (North Sea, 2EU) for all regulated gears combined, and the major fisheries individually. Ten metiers with highest catch are shown where catch >1% of total for the regulated area, ranked top left to bottom right. Data 2003-2012 aggregated across special conditions. r value shows linear model fit (grey 95% confidence interval), with p-value (significant relationships at 0.05 level shown in red; N and p values adjusted for autocorrelation).

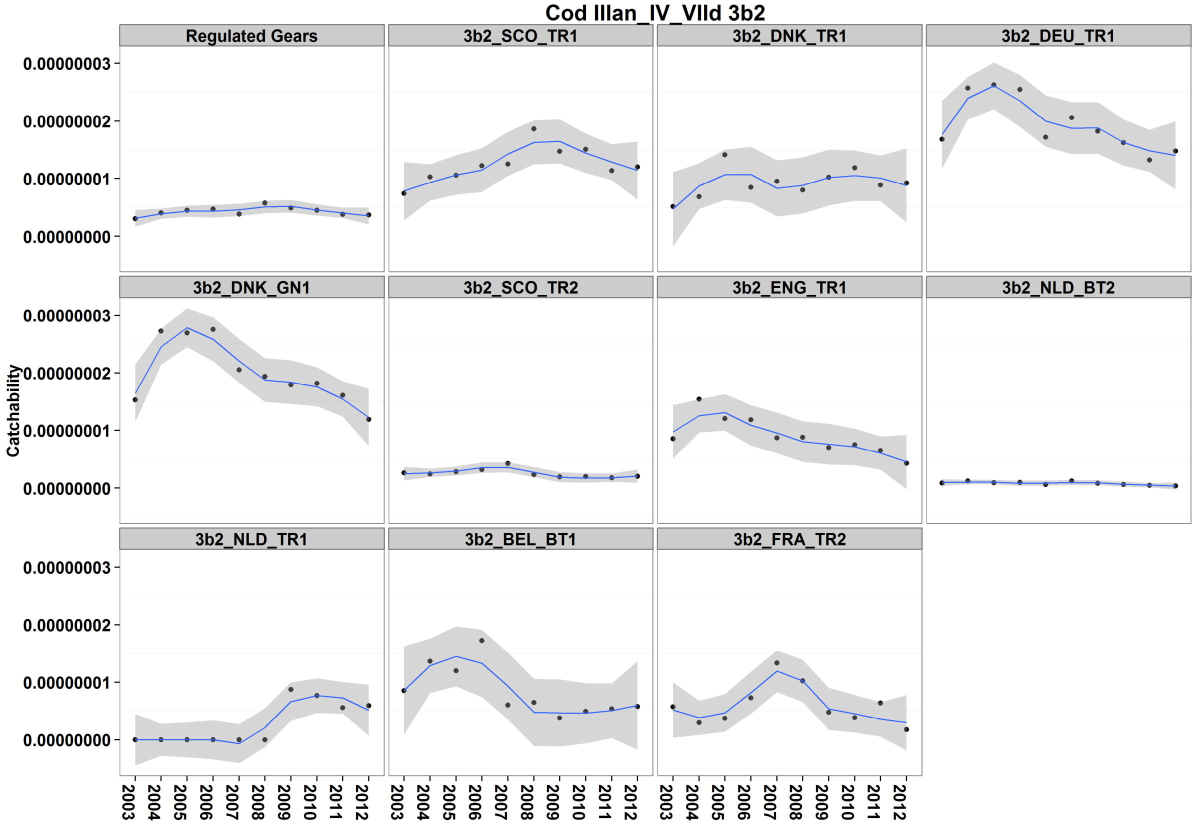


Figure 5.3.10.3.1 cod catchability estimates in 3b2 for all regulated gears and the major fisheries individually. Catchability estimated as (pF/kw days) with the blue line indicating a local regression smoother, the grey area 95% confidence limits.

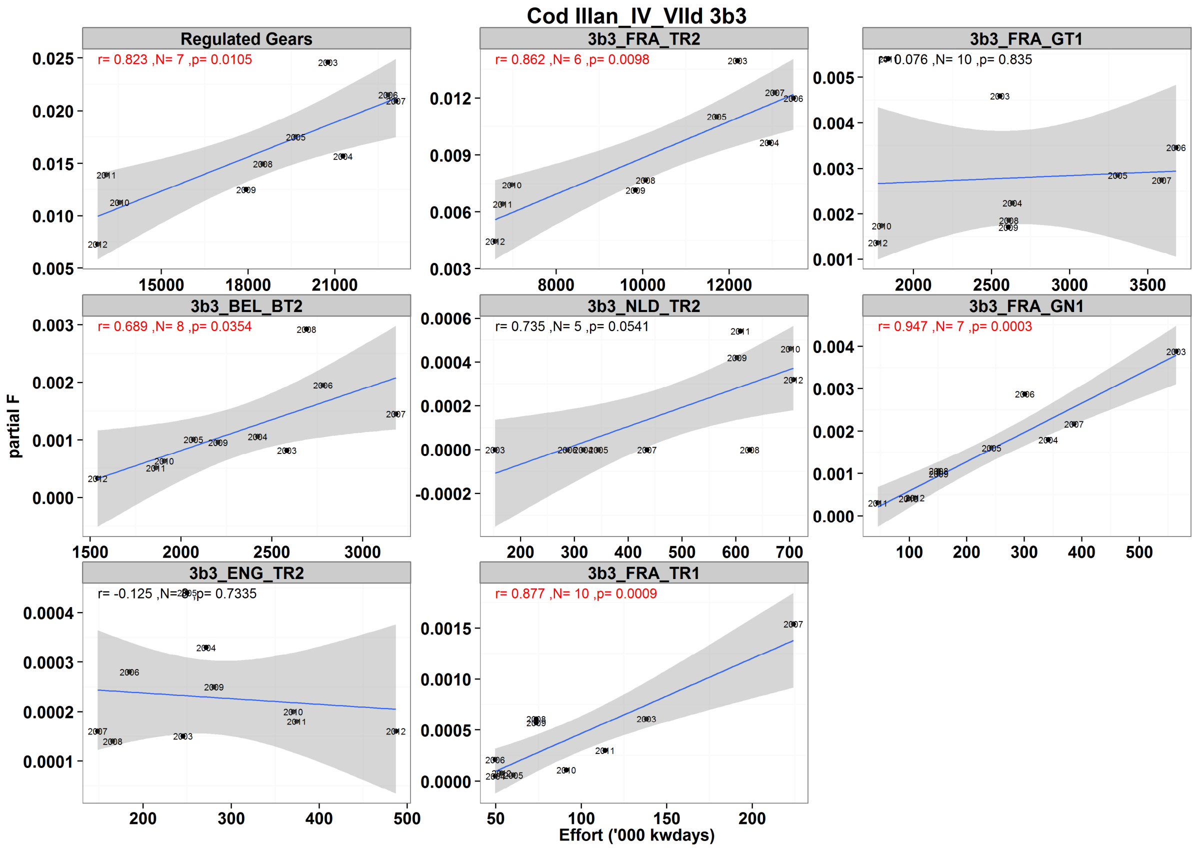


Fig. 5.3.10.4: Cod. Partial fishing mortality (based on harvest rate estimates) against effort (kWd) in area 3b3 (Eastern English Channel) for all regulated gears combined, and the major fisheries individually. Ten metiers with highest catch are shown where catch >1% of total for the regulated area, ranked top left to bottom right. Data 2003-2012 aggregated across special conditions. r value shows linear model fit (grey 95% confidence interval), with p-value (significant relationships at 0.05 level shown in red; N and p values adjusted for autocorrelation).

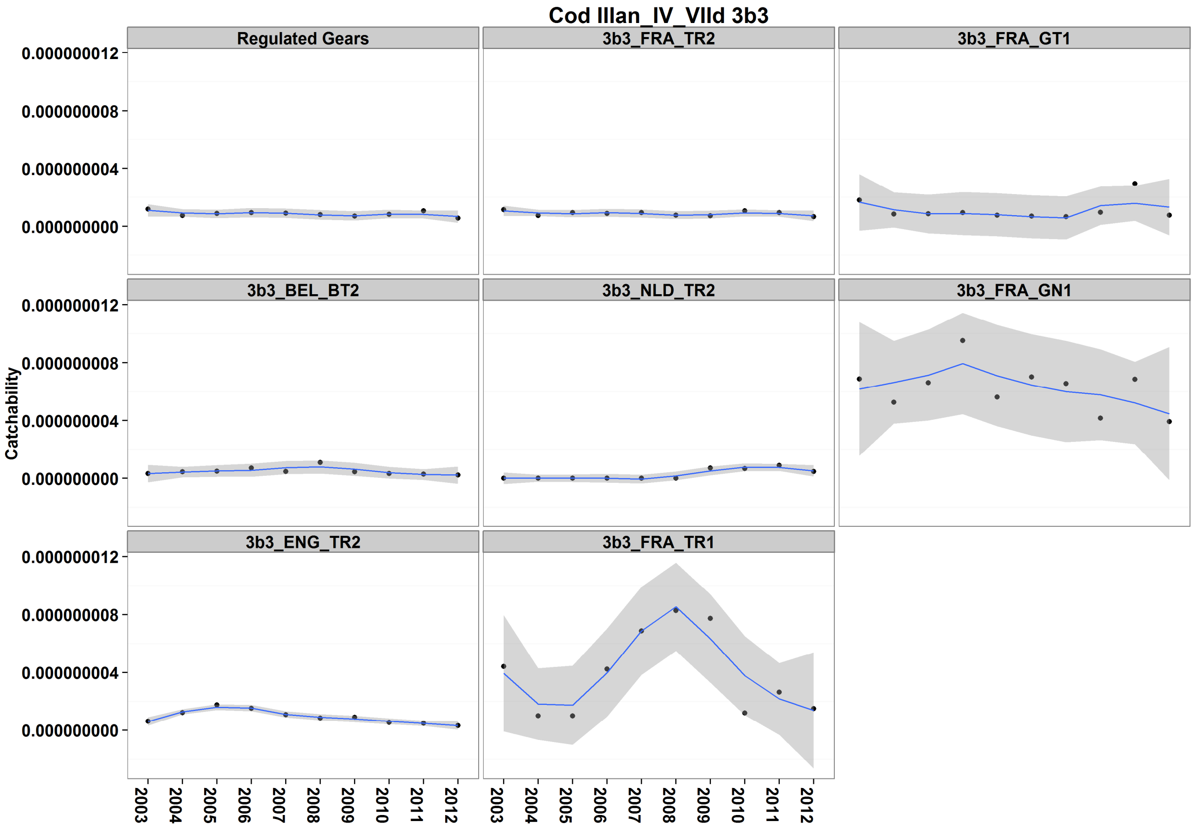


Figure 5.3.10.4.1. Cod catchability estimates in 3b3 for all regulated gears and the major fisheries individually. Catchability estimated as (pF/kw days) with the blue line indicating a local regression smoother, the grey area 95% confidence limits.

Table 5.3.10.10 **Plaice** in area **3b2**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2012 plaice assessment, as well as partial Fs for **catches** of fisheries using regulated gears (in the North Sea). The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting’s internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

2006 running base line annual F reductions by 10 percent as F<=0.3, Fmsy=0.25													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan							0.372	0.335	0.302	0.300	0.300	0.300	0.300
reduction F plan								-0.10	-0.10	-0.01	0.00	0.00	0.00
F estimated				0.602	0.47	0.394	0.372	0.314	0.239	0.22	0.207	0.2	0.232
reduction F estimated								-0.16	-0.24	-0.08	-0.06	-0.03	0.16
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BEL	BT1	none	catches	0.00434	0.00530	0.00382	0.00497	0.00717	0.00330	0.00212	0.00183	0.00301	0.00435
BEL	BT2	none	catches	0.02735	0.01365	0.00785	0.00588	0.00569	0.00540	0.00567	0.00627	0.00589	0.00486
BEL	GN1	none	catches	0.00003	0.00002	0.00025	0.00001	0.00003	0.00001	0.00001	0.00001	0.00002	0.00001
BEL	GT1	none	catches					0.00001	0.00000	0.00000	0.00000	0.00000	0.00000
BEL	LL1	none	catches								0.00000		0.00000
BEL	TR1	none	catches					0.00055	0.00047	0.00043	0.00033	0.00048	0.00067
BEL	TR2	none	catches		0.00153	0.00103	0.00133	0.00099	0.00060	0.00056	0.00050	0.00589	0.00155
BEL	TR3	none	catches								0.00000		
DEU	BT1	none	catches	0.00017	0.00012	0.00001	0.00094	0.00041	0.00014				
DEU	BT2	none	catches	0.01360	0.01910	0.01401	0.01021	0.00605	0.00368	0.00558	0.00705	0.00430	0.00464
DEU	GN1	none	catches	0.00010	0.00008	0.00050	0.00005	0.00015	0.00003	0.00005	0.00007	0.00005	0.00003
DEU	GT1	none	catches							0.00000	0.00000	0.00000	
DEU	TR1	CPart13B	catches							0.00000	0.00004	0.00009	0.00003
DEU	TR1	none	catches	0.00152	0.00086	0.00092	0.00443	0.00210	0.00367	0.00115	0.00149	0.00150	0.00200
DEU	TR2	CPart13B	catches							0.00002	0.00044	0.00043	0.00021
DEU	TR2	none	catches	0.01839	0.01164	0.00801	0.00717	0.00769	0.00353	0.00268	0.00283	0.03557	0.00337
DEU	TR3	none	catches	0.00000			0.00003						
DNK	BT1	none	catches	0.00834	0.00643	0.00672	0.00450	0.00427	0.00159	0.00150	0.00178	0.00207	0.00165
DNK	BT2	none	catches	0.00091	0.00006	0.00080	0.00044	0.00010	0.00004	0.00050			
DNK	GN1	none	catches	0.01773	0.01078	0.06988	0.00798	0.00438	0.00248	0.00264	0.00303	0.00262	0.00159
DNK	GT1	none	catches	0.00235	0.00306	0.01418	0.00334	0.00199	0.00077	0.00188	0.00409	0.00186	0.00330
DNK	LL1	none	catches	0.00000	0.00004	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
DNK	TR1	none	catches	0.01994	0.02149	0.01824	0.02252	0.01550	0.01485	0.01116	0.01172	0.01479	0.01507
DNK	TR2	none	catches	0.01666	0.01551	0.00763	0.00689	0.00674	0.00248	0.00088	0.00081	0.00136	0.00058
DNK	TR3	none	catches	0.00009	0.00003	0.00007	0.00004	0.00002	0.00000	0.00000			0.00001
ENG	BT1	CPart13B	catches								0.00104	0.00103	0.00209
ENG	BT1	none	catches	0.00604	0.00367	0.00292	0.00621	0.00236	0.00155	0.00170			0.00021
ENG	BT2	CPart13B	catches							0.00009	0.01521	0.01355	0.01293
ENG	BT2	none	catches	0.02683	0.03275	0.03023	0.01693	0.02716	0.01662	0.02195	0.00277	0.00044	0.00050
ENG	GN1	none	catches	0.00000	0.00000	0.00003	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001
ENG	GT1	none	catches	0.00000		0.00000	0.00000	0.00000	0.00000	0.00000	0.00002	0.00000	0.00000
ENG	LL1	none	catches	0.00000		0.00000							
ENG	TR1	CPart13B	catches							0.00407	0.00428	0.00454	0.00700
ENG	TR1	CPart13c	catches							0.00210	0.00072	0.00140	0.00139
ENG	TR1	none	catches	0.00344	0.00285	0.00090	0.00325	0.00281	0.00339				
ENG	TR2	CPart13B	catches							0.00013	0.00245	0.00317	0.00274
ENG	TR2	CPart13c	catches							0.00301	0.00028	0.00102	0.00012
ENG	TR2	none	catches	0.00531	0.00416	0.00337	0.00295	0.00382	0.00447				
ENG	TR3	none	catches	0.00000									

			Effort kW days running previous year baseline														
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012				
			Effort estimated	124826173	116125652	112524834	104177417	94453870	83473438	81952959	77243333	69073258	61454166				
										-0.02	-0.06	-0.11	-0.11				
			EFFORT												2003-2012		
			kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n	
BEL	BT1	none		1036595	1439951	1509759	1333012	1320169	984056	575501	535636	671368	963867	0.771	0.009	10	3.424
BEL	BT2	none		4241216	4294884	3884007	3418751	2707991	3536979	3327143	2480357	1742532	1269319	0.576	0.081	10	1.993
BEL	GN1	none		111613	152642	148827	127951	128626	158409	161734	97609	95383	45103				
BEL	GT1	none						15402	18000	5014	19041	18155	25216				
BEL	LL1	none							1768		1660	128	786				
BEL	TR1	none			1989			161520	201379	220428	212429	128701	183682	-0.399	0.375	7	-0.973
BEL	TR2	none			519343	343840	366940	298814	425374	506865	476033	435961	484371	0.035	0.929	9	0.093
BEL	TR3	none							663		1899		1175				
DEU	BT1	none		47736	29712	2128	53986	30297	16790		884	1535	2793	0.713	0.031	9	2.690
DEU	BT2	none		1669870	2060092	2212397	1927398	1590823	1464163	1666322	1801775	1242171	1071896	0.768	0.009	10	3.392
DEU	GN1	none		191424	163463	271624	235427	145714	278008	233164	275364	225797	269836				
DEU	GT1	none					1547			15444	1188	924					
DEU	TR1	CPart13B								808679	898007	815730	747693				
DEU	TR1	none		1756193	1526666	1988209	2176131	1736694	1585192	759368	829604	741965	495051	0.381	0.277	10	1.166
DEU	TR2	CPart13B								2420	39820	31240	14740				
DEU	TR2	none		1013535	893439	704404	771597	680681	457259	470754	420345	408157	320809	0.148	0.683	10	0.423
DEU	TR3	none		1028			772	884	4410	426							
DNK	BT1	none		1122195	887830	996227	511642	527282	370939	366679	513056	373757	317294	0.953	0.000	10	8.897
DNK	BT2	none		89457	38279	62036	42447	1390	2894	49163		440	242	0.901	0.001	9	5.495
DNK	GN1	none		2077492	2164307	2031057	1795453	949658	1003603	1050057	1195617	1136118	1080149	0.593	0.071	10	2.083
DNK	GT1	none		138641	244626	237800	175339	98614	100902	158205	130662	182841	321220	0.392	0.263	10	1.205
DNK	LL1	none		105319	79773	41626	42159	15924	25347	28769	45576	29388	21089				
DNK	TR1	none		7137074	6422756	6405176	6020308	3801069	4034203	3793148	3592389	3664621	3593770	0.854	0.002	10	4.643
DNK	TR2	none		2597949	2580788	1916695	1405216	1080616	706247	569359	431399	370536	312765	0.975	0.000	10	12.411
DNK	TR3	none		3084554	3026636	2373302	1761200	799803	916558	577813	1063007	336257	477168				
ENG	BT1	CPart13B									202685	169873	384590	0.991	0.085	3	7.403
ENG	BT1	none		1060809	671130	618160	1321240	305837	228530	265710			40284	0.982	0.000	8	12.735
ENG	BT2	CPart13B								47771	2863860	2644958	2412375				
ENG	BT2	none		2739407	3559560	4046341	2974409	3251512	1975399	2444807	401247	96356	79036	0.963	0.000	10	10.107
ENG	GN1	none		337639	359134	308275	308517	180503	70981	175602	74835	73826	61957				
ENG	GT1	none		1092	1564	5342	11100	3291	12918	12654	17355	12003	5823				
ENG	LL1	none		102465	83137	142602	54974	15752	6164	4318	12052	6253	15449				
ENG	TR1	CPart13B								898933	964206	874021	939503	0.289	0.711	4	0.427
ENG	TR1	CPart13c								1242445	1144923	1254762	931671	0.279	0.721	4	0.411
ENG	TR1	none		2343719	1497618	1254880	1823891	1501499	1846925					0.762	0.078	6	2.353
ENG	TR2	CPart13B								260311	873808	721452	865045	0.898	0.102	4	2.886
ENG	TR2	CPart13c								1376367	482080	524579	267661	0.981	0.019	4	7.151
ENG	TR2	none		1853471	1705154	1937849	1707774	1621394	1794132					0.201	0.703	6	0.410
ENG	TR3	none		1988	7840	3315	6360	1220	492	82	718	621	246				

Table 5.3.10.6 continued.

FRA	BT2	none	catches	0.00072	0.00032	0.00013	0.00008	0.00021	0.00016	0.00015	0.00009	0.00017	0.00017	96232	94514	75129	66203	103453	88053	88053	40118	67545	57044	0.521	0.123	10	1.726
FRA	GN1	none	catches	0.00002	0.00013	0.00037	0.00000	0.00002	0.00001	0.00001	0.00000	0.00005	0.00000	58454	64809	46058	31231	61545	47746	46493	2149	7803	3322				
FRA	GT1	none	catches	0.00038	0.00030	0.00176	0.00032	0.00026	0.00019	0.00021	0.00072	0.00027	0.00019	830136	793053	813190	1785801	1703889	1010253	1010253	634781	690428	636164	-0.214	0.553	10	-0.620
FRA	TR1	none	catches	0.00000	0.00000			0.00000	0.00000	0.00000	0.00000	0.00000		3347063	2299125	1901534	2675348	2418190	2714146	2622538	1913401	1727371	324				
FRA	TR2	none	catches	0.00082	0.00058	0.00030	0.00017	0.00061	0.00026	0.00014	0.00025	0.00143	0.00013	1961970	1911744	1713917	1558413	1727617	1930459	1924156	1089380	960559	725367	-0.124	0.733	10	-0.353
FRA	TR3	none	catches								0.00000	0.00000			1753	7121	1319		2184	2184	13827	2210	1250				
GBJ	TR2	none	catches			0.00000										660											
IRL	TR2	none	catches	0.00000	0.00000									54	884												
NIR	BT1	none	catches	0.00430	0.00259	0.00010								965239	543305	36825								0.999	0.028	3	22.344
NIR	BT2	none	catches	0.00023	0.00048	0.00020								20350	47517	16785											
NIR	TR1	CPart13A	catches										0.00000										2672				
NIR	TR1	CPart13B	catches							0.00001	0.00000	0.00000	0.00000							41944	23326	33246	16573				
NIR	TR1	CPart13c	catches							0.00000	0.00000									14196	6034		2781				
NIR	TR1	none	catches		0.00000	0.00001	0.00000	0.00001	0.00001						16948	70710	51951	61460	49104								
NIR	TR2	CPart13A	catches										0.00000										90338				
NIR	TR2	CPart13B	catches							0.00000	0.00001	0.00002	0.00001							65544	161981	207697	109647				
NIR	TR2	CPart13c	catches							0.00011	0.00001	0.00001	0.00000							320087	236516	70443	25672				
NIR	TR2	none	catches	0.00000	0.00000	0.00002	0.00008	0.00013	0.00005					6784	12440	221904	532885	758972	409182								
NLD	BT1	none	catches							0.00177	0.00112	0.00116	0.00544	575801	700747	719292	1528652	720068	370417	412420	378796	308516	1090258	0.995	0.000	10	28.178
NLD	BT2	none	catches	0.24940	0.20122	0.15692	0.14549	0.14553	0.09829	0.10912	0.08534	0.08002	0.09046	47724234	44669317	44478122	38823660	37931313	27646215	28696410	28510104	25776297	22428296	0.925	0.000	10	6.886
NLD	GN1	none	catches							0.00000	0.00000	0.00001		460895	416025	387945	511580	521697	507733	419797	357091	316070	295035				
NLD	GT1	none	catches							0.00001	0.00004	0.00006	0.00000						740	26917	37399	21431	29054				
NLD	TR1	none	catches							0.00366	0.00324	0.00442	0.01014	684700	589170	547564	532260	631492	1400068	1316055	1290080	1173220	1329299	0.368	0.296	10	1.119
NLD	TR2	none	catches							0.00351	0.00365	0.04481	0.00427	1932081	1496720	1298918	1224916	1384658	1853682	1334665	1231860	1313554	1277297	0.355	0.314	10	1.074
SCO	BT1	none	catches	0.00415	0.00242	0.00209	0.00347	0.00199	0.00043	0.00042				866665	694716	730810	598616	349914	68568	53082							
SCO	BT2	none	catches	0.03829	0.04665	0.03059	0.02128	0.02225	0.01197	0.00706	0.00183		0.00028	3765518	4608817	4185262	3108933	2790115	1351720	554376	144306		68262	0.964	0.000	9	9.592
SCO	GN1	none	catches	0.00000			0.00000							196852	197407	165644	293823	320785	417076	376332	440579	607650	569749				
SCO	TR1	CPart13B	catches							0.00115	0.00282	0.00229	0.00008							692932	955808	810706	36937				
SCO	TR1	CPart13C	catches							0.00616	0.00291	0.00366	0.00530							11552644	9486824	9185531	9265940	0.695	0.305	4	1.367
SCO	TR1	none	catches	0.00461	0.00392	0.00347	0.00464	0.00352	0.00507					16079389	12684328	12158295	11660764	11022982	12176292					0.342	0.507	6	0.728
SCO	TR2	CPart13B	catches							0.00039	0.00027	0.00062	0.00003							4219929	7467356	5277096	287446	0.583	0.417	4	1.015
SCO	TR2	CPart13C	catches							0.00215	0.00025	0.00009	0.00045							3796988	490013	1285425	4861297	0.495	0.505	4	0.806
SCO	TR2	none	catches	0.00305	0.00187	0.00142	0.00136	0.00211	0.00232					9998937	9485974	9108232	8561812	8678139	8855742					0.646	0.166	6	1.693
SCO	TR3	none	catches			0.00000							0.00000	6377	5460	2356	116	11896		33117	27524		20706				
SWE	LL1	none	catches						0.00000	0.00000	0.00000	0.00000	0.00000		1056	4239	15026	11020	10928	11352	6600	8184	5016				
SWE	TR1	none	catches	0.00001	0.00001	0.00000	0.00000	0.00001	0.00005	0.00000	0.00001	0.00000	0.00001	381696	375455	387252	237269	269171	333387	245040	196354	189867	190816				
SWE	TR2	none	catches			0.00000	0.00000	0.00000	0.00000		0.00000			4265	2055	1192	1298	2515	1059		0		3930				
Sum				0.47912	0.41362	0.38875	0.28696	0.27664	0.18788	0.20591	0.17162	0.24418	0.18787	124826173	116125652	112524834	104177417	94453870	83473438	81952959	77243333	69073258	61454166	0.910	0.000	10	6.208
check sum Fpar/F				0.80	0.88	0.99	0.77	0.88	0.79	0.94	0.83	1.22	0.81														

Table 5.3.10.11 **Plaice** in area **3b2**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2012 plaice assessment, as well as partial Fs for **landings** of fisheries using regulated gears (in the North Sea). The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

2006 running base line annual F reductions by 10 percent as F<=0.3, Fmsy=0.25													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan							0.372	0.335	0.302	0.300	0.300	0.300	0.300
reduction F plan								-0.10	-0.10	-0.01	0.00	0.00	0.00
F estimated				0.602	0.47	0.394	0.372	0.314	0.239	0.22	0.207	0.2	0.232
reduction F estimated								-0.16	-0.24	-0.08	-0.06	-0.03	0.16
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BEL	BT1	none	landings	0.00425	0.00530	0.00382	0.00485	0.00717	0.00320	0.00212	0.00183	0.00301	0.00435
BEL	BT2	none	landings	0.01268	0.01052	0.00682	0.00483	0.00489	0.00416	0.00431	0.00428	0.00418	0.00280
BEL	GN1	none	landings	0.00003	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00002	0.00001
BEL	GT1	none	landings					0.00001	0.00000	0.00000	0.00000	0.00000	0.00000
BEL	LL1	none	landings								0.00000		0.00000
BEL	TR1	none	landings					0.00053	0.00046	0.00042	0.00033	0.00048	0.00056
BEL	TR2	none	landings		0.00091	0.00065	0.00072	0.00045	0.00035	0.00047	0.00042	0.00059	0.00102
BEL	TR3	none	landings								0.00000		
DEU	BT1	none	landings	0.00015	0.00012	0.00001	0.00092	0.00041	0.00014				
DEU	BT2	none	landings	0.00550	0.00701	0.00585	0.00357	0.00284	0.00204	0.00264	0.00292	0.00273	0.00253
DEU	GN1	none	landings	0.00009	0.00006	0.00005	0.00004	0.00004	0.00002	0.00005	0.00007	0.00005	0.00003
DEU	GT1	none	landings							0.00000	0.00000	0.00000	
DEU	TR1	CPart13B	landings							0.00000	0.00004	0.00007	0.00002
DEU	TR1	none	landings	0.00141	0.00082	0.00082	0.00284	0.00203	0.00342	0.00114	0.00149	0.00137	0.00173
DEU	TR2	CPart13B	landings							0.00002	0.00035	0.00026	0.00018
DEU	TR2	none	landings	0.00857	0.00672	0.00539	0.00373	0.00368	0.00207	0.00230	0.00234	0.00256	0.00221
DEU	TR3	none	landings	0.00000			0.00003						
DNK	BT1	none	landings	0.00834	0.00643	0.00672	0.00443	0.00427	0.00155	0.00150	0.00178	0.00207	0.00165
DNK	BT2	none	landings	0.00091	0.00003	0.00037	0.00022	0.00004	0.00003	0.00026			
DNK	GN1	none	landings	0.01712	0.01014	0.00829	0.00745	0.00362	0.00246	0.00264	0.00303	0.00262	0.00158
DNK	GT1	none	landings	0.00235	0.00306	0.00394	0.00313	0.00199	0.00077	0.00168	0.00120	0.00186	0.00329
DNK	LL1	none	landings	0.00000	0.00004	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
DNK	TR1	none	landings	0.01954	0.02070	0.01672	0.01808	0.01537	0.01455	0.01113	0.01171	0.01465	0.01456
DNK	TR2	none	landings	0.00913	0.00892	0.00464	0.00336	0.00301	0.00135	0.00084	0.00069	0.00057	0.00038
DNK	TR3	none	landings	0.00008	0.00003	0.00002	0.00004	0.00002	0.00000	0.00000			0.00001
ENG	BT1	CPart13B	landings								0.00104	0.00103	0.00209
ENG	BT1	none	landings	0.00546	0.00367	0.00292	0.00608	0.00236	0.00151	0.00170			0.00021
ENG	BT2	CPart13B	landings							0.00009	0.01280	0.01355	0.01293
ENG	BT2	none	landings	0.01431	0.01908	0.01620	0.00951	0.01475	0.00889	0.00982	0.00142	0.00026	0.00028
ENG	GN1	none	landings	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00001	0.00001
ENG	GT1	none	landings	0.00000		0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ENG	LL1	none	landings	0.00000		0.00000							
ENG	TR1	CPart13B	landings							0.00307	0.00395	0.00410	0.00590
ENG	TR1	CPart13c	landings							0.00185	0.00065	0.00129	0.00116
ENG	TR1	none	landings	0.00199	0.00244	0.00081	0.00262	0.00248	0.00299				
ENG	TR2	CPart13B	landings							0.00008	0.00192	0.00151	0.00186
ENG	TR2	CPart13c	landings							0.00116	0.00020	0.00076	0.00007
ENG	TR2	none	landings	0.00270	0.00246	0.00231	0.00142	0.00195	0.00238				
ENG	TR3	none	landings	0.00000									

				Effort kW days running previous year baseline													
					2003	2004	2005	2006	2007	2008	2009	2010	2011	2012			
				Effort estimatec	124826173	116125652	112524834	104177417	94453870	83473438	81952959	77243333	69073258	61454166			
				EFFORT												2003-2012	
				kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n
BEL	BT1	none	landings		1036595	1439951	1509759	1333012	1320169	984056	575501	535636	671368	963867	0.767	0.010	10	3.381
BEL	BT2	none	landings		4241216	4294884	3884007	3418751	2707991	3536979	3327143	2480357	1742532	1269319	0.749	0.013	10	3.197
BEL	GN1	none	landings		111613	152642	148827	127951	128626	158409	161734	97609	95383	45103				
BEL	GT1	none	landings						15402	18000	5014	19041	18155	25216				
BEL	LL1	none	landings							1768		1660	128	786				
BEL	TR1	none	landings			1989			161520	201379	220428	212429	128701	183682	-0.554	0.197	7	-1.488
BEL	TR2	none	landings			519343	343840	366940	298814	425374	506865	476033	435961	484371	0.293	0.444	9	0.811
BEL	TR3	none	landings							663		1899		1175				
DEU	BT1	none	landings		47736	29712	2128	53986	30297	16790		884	1535	2793	0.700	0.036	9	2.593
DEU	BT2	none	landings		1669870	2060092	2212397	1927398	1590823	1464163	1666322	1801775	1242171	1071896	0.709	0.022	10	2.844
DEU	GN1	none	landings		191424	163463	271624	235427	145714	278008	233164	275364	225797	269836				
DEU	GT1	none	landings					1547			15444	1188	924					
DEU	TR1	CPart13B	landings								808679	898007	815730	747693				
DEU	TR1	none	landings		1756193	1526666	1988209	2176131	1736694	1585192	759368	829604	741965	495051	0.275	0.442	10	0.809
DEU	TR2	CPart13B	landings								2420	39820	31240	14740				
DEU	TR2	none	landings		1013535	893439	704404	771597	680681	457259	470754	420345	408157	320809	0.927	0.000	10	6.991
DEU	TR3	none	landings		1028			772	884	4410	426							
DNK	BT1	none	landings		1122195	887830	996227	511642	527282	370939	366679	513056	373757	317294	0.955	0.000	10	9.107
DNK	BT2	none	landings		89457	38279	62036	42447	1390	2894	49163		440	242	0.880	0.002	9	4.902
DNK	GN1	none	landings		2077492	2164307	2031057	1795453	949658	1003603	1050057	1195617	1136118	1080149	0.870	0.001	10	4.991
DNK	GT1	none	landings		138641	244626	237800	175339	98614	100902	158205	130662	182841	321220	0.765	0.010	10	3.360
DNK	LL1	none	landings		105319	79773	41626	42159	15924	25347	28769	45576	29388	21089				
DNK	TR1	none	landings		7137074	6422756	6405176	6020308	3801069	4034203	3793148	3592389	3664621	3593770	0.858	0.001	10	4.725
DNK	TR2	none	landings		2597949	2580788	1916695	1405216	1080616	706247	569359	431399	370536	312765	0.984	0.000	10	15.621
DNK	TR3	none	landings		3084554	3026636	2373302	1761200	799803	916558	577813	1063007	336257	477168				
ENG	BT1	CPart13B	landings									202685	169873	384590	0.991	0.085	3	7.403
ENG	BT1	none	landings		1060809	671130	618160	1321240	305837	228530	265710			40284	0.986	0.000	8	14.484
ENG	BT2	CPart13B	landings								47771	2863860	2644958	2412375	0.988	0.012	4	9.046
ENG	BT2	none	landings		2739407	3559560	4046341	2974409	3251512	1975399	2444807	401247	96356	79036	0.960	0.000	10	9.697
ENG	GN1	none	landings		337639	359134	308275	308517	180503	70981	175602	74835	73826	61957				
ENG	GT1	none	landings		1092	1564	5342	11100	3291	12918	12654	17355	12003	5823				
ENG	LL1	none	landings		102465	83137	142602	54974	15752	6164	4318	12052	6253	15449				
ENG	TR1	CPart13B	landings								898933	964206	874021	939503	0.353	0.647	4	0.534
ENG	TR1	CPart13c	landings								1242445	1144923	1254762	931671	0.371	0.629	4	0.565
ENG	TR1	none	landings		2343719	1497618	1254880	1823891	1501499	1846925					0.375	0.464	6	0.809
ENG	TR2	CPart13B	landings								260311	873808	721452	865045	0.999	0.001	4	31.599
ENG	TR2	CPart13c	landings								1376367	482080	524579	267661	0.888	0.112	4	2.731
ENG	TR2	none	landings		1853471	1705154	1937849	1707774	1621394	1794132					0.511	0.300	6	1.189
ENG	TR3	none	landings		1988	7840	3315	6360	1220	492	82	718	621	246				

Table 5.3.10.11 continued

FRA	BT2	none	landings	0.00033	0.00015	0.00007	0.00004	0.00012	0.00008	0.00007	0.00004	0.00010	0.00007	96232	94514	75129	66203	103453	88053	88053	40118	67545	57044				
FRA	GN1	none	landings	0.00002	0.00006	0.00001	0.00000	0.00002	0.00001	0.00001	0.00000	0.00005	0.00000	58454	64809	46058	31231	61545	47746	46493	2149	7803	3322				
FRA	GT1	none	landings	0.00038	0.00030	0.00026	0.00030	0.00026	0.00019	0.00017	0.00011	0.00027	0.00019	830136	793053	813190	1785801	1703889	1010253	1010253	634781	690428	636164				
FRA	TR1	none	landings	0.00000	0.00000			0.00000	0.00000	0.00000	0.00000	0.00000		3347063	2299125	1901534	2675348	2418190	2714146	2622538	1913401	1727371	324				
FRA	TR2	none	landings	0.00042	0.00034	0.00020	0.00009	0.00031	0.00014	0.00012	0.00020	0.00020	0.00008	1961970	1911744	1713917	1558413	1727617	1930459	1924156	1089380	960559	725367				
FRA	TR3	none	landings								0.00000	0.00000			1753	7121	1319		2184	2184	13827	2210	1250				
GBJ	TR2	none	landings			0.00000										660											
IRL	TR2	none	landings	0.00000	0.00000									54	884												
NIR	BT1	none	landings	0.00414	0.00259	0.00010								965239	543305	36825								0.997	0.049	3	12.881
NIR	BT2	none	landings	0.00012	0.00033	0.00009								20350	47517	16785											
NIR	TR1	CPart13A	landings										0.00000										2672				
NIR	TR1	CPart13B	landings							0.00001	0.00000	0.00000	0.00000							41944	23326	33246	16573				
NIR	TR1	CPart13c	landings							0.00000	0.00000									14196	6034		2781				
NIR	TR1	none	landings		0.00000	0.00001	0.00000	0.00001	0.00000						16948	70710	51951	61460	49104								
NIR	TR2	CPart13A	landings										0.00000										90338				
NIR	TR2	CPart13B	landings							0.00000	0.00001	0.00001	0.00000							65544	161981	207697	109647				
NIR	TR2	CPart13c	landings							0.00003	0.00001	0.00000	0.00000							320087	236516	70443	25672				
NIR	TR2	none	landings	0.00000	0.00000	0.00002	0.00003	0.00006	0.00003					6784	12440	221904	532885	758972	409182								
NLD	BT1	none	landings							0.00177	0.00112	0.00116	0.00544	575801	700747	719292	1528652	720068	370417	412420	378796	308516	1090258	0.995	0.000	10	28.178
NLD	BT2	none	landings	0.11853	0.09981	0.08376	0.07625	0.07890	0.05297	0.04983	0.04470	0.04456	0.04085	47724234	44669317	44478122	38823660	37931313	27646215	28696410	28510104	25776297	22428296	0.963	0.000	10	10.107
NLD	GN1	none	landings							0.00000	0.00000	0.00001		460895	416025	387945	511580	521697	507733	419797	357091	316070	295035				
NLD	GT1	none	landings							0.00001	0.00004	0.00006	0.00000						740	26917	37399	21431	29054				
NLD	TR1	none	landings							0.00364	0.00323	0.00435	0.00615	684700	589170	547564	532260	631492	1400068	1316055	1290080	1173220	1329299	0.188	0.603	10	0.541
NLD	TR2	none	landings							0.00307	0.00301	0.00280	0.00253	1932081	1496720	1298918	1224916	1384658	1853682	1334665	1231860	1313554	1277297				
SCO	BT1	none	landings	0.00394	0.00242	0.00209	0.00339	0.00199	0.00042	0.00042				866665	694716	730810	598616	349914	68568	53082							
SCO	BT2	none	landings	0.01854	0.02354	0.01660	0.01075	0.01213	0.00610	0.00326	0.00083		0.00014	3765518	4608817	4185262	3108933	2790115	1351720	554376	144306		68262	0.975	0.000	9	11.609
SCO	GN1	none	landings	0.00000			0.00000							196852	197407	165644	293823	320785	417076	376332	440579	607650	569749				
SCO	TR1	CPart13B	landings							0.00088	0.00262	0.00208	0.00007							692932	955808	810706	36937				
SCO	TR1	CPart13C	landings							0.00519	0.00258	0.00339	0.00441							11552644	9486824	9185531	9265940	0.702	0.298	4	1.394
SCO	TR1	none	landings	0.00426	0.00371	0.00311	0.00358	0.00343	0.00480					16079389	12684328	12158295	11660764	11022982	12176292					0.414	0.414	6	0.910
SCO	TR2	CPart13B	landings							0.00017	0.00022	0.00042	0.00002							4219929	7467356	5277096	287446	0.673	0.327	4	1.287
SCO	TR2	CPart13C	landings							0.00094	0.00021	0.00005	0.00031							3796988	490013	1285425	4861297				
SCO	TR2	none	landings	0.00154	0.00106	0.00093	0.00071	0.00096	0.00134					9998937	9485974	9108232	8561812	8678139	8855742					0.720	0.107	6	2.075
SCO	TR3	none	landings			0.00000							0.00000	6377	5460	2356	116	11896		33117	27524		20706				
SWE	LL1	none	landings						0.00000	0.00000	0.00000	0.00000	0.00000		1056	4239	15026	11020	10928	11352	6600	8184	5016				
SWE	TR1	none	landings	0.00001	0.00001	0.00000	0.00000	0.00001	0.00005	0.00000	0.00001	0.00000	0.00001	381696	375455	387252	237269	269171	333387	245040	196354	189867	190816				
SWE	TR2	none	landings			0.00000	0.00000	0.00000	0.00000		0.00000			4265	2055	1192	1298	2515	1059		0		3930				
Sum				0.26684	0.24279	0.19361	0.17302	0.17012	0.11848	0.11889	0.11341	0.11911	0.12169	124826173	116125652	112524834	104177417	94453870	83473438	81952959	77243333	69073258	61454166	0.924	0.000	10	6.835
check sum Fpar/F				0.44	0.52	0.49	0.47	0.54	0.50	0.54	0.55	0.60	0.52														

Table 5.3.10.12 **Plaice** in area **3b2**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2012 plaice assessment, as well as partial Fs for **discards** of fisheries using regulated gears (in the North Sea). The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

2006 running base line annual F reductions by 10 percent as F<=0.3, Fmsy=0.25													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan							0.372	0.335	0.302	0.300	0.300	0.300	0.300
reduction F plan								-0.10	-0.10	-0.01	0.00	0.00	0.00
F estimated				0.602	0.47	0.394	0.372	0.314	0.239	0.22	0.207	0.2	0.232
reduction F estimated								-0.16	-0.24	-0.08	-0.06	-0.03	0.16
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BEL	BT1	none	discards	0.00009	0.00000	0.00000	0.00012	0.00000	0.00009	0.00000	0.00000	0.00000	0.00000
BEL	BT2	none	discards	0.01467	0.00313	0.00103	0.00106	0.00080	0.00124	0.00136	0.00198	0.00172	0.00207
BEL	GN1	none	discards	0.00000	0.00001	0.00023	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000
BEL	GT1	none	discards					0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
BEL	LL1	none	discards								0.00000		0.00000
BEL	TR1	none	discards					0.00001	0.00002	0.00000	0.00000	0.00001	0.00011
BEL	TR2	none	discards		0.00062	0.00038	0.00062	0.00054	0.00025	0.00009	0.00008	0.00530	0.00053
BEL	TR3	none	discards								0.00000		
DEU	BT1	none	discards	0.00002	0.00000	0.00000	0.00002	0.00000	0.00000				
DEU	BT2	none	discards	0.00810	0.01209	0.00816	0.00665	0.00321	0.00164	0.00294	0.00414	0.00157	0.00211
DEU	GN1	none	discards	0.00001	0.00001	0.00046	0.00000	0.00010	0.00000	0.00000	0.00000	0.00000	0.00000
DEU	GT1	none	discards							0.00000	0.00000	0.00000	
DEU	TR1	CPart13B	discards							0.00000	0.00000	0.00001	0.00001
DEU	TR1	none	discards	0.00012	0.00004	0.00010	0.00159	0.00007	0.00026	0.00000	0.00000	0.00012	0.00027
DEU	TR2	CPart13B	discards							0.00001	0.00009	0.00017	0.00003
DEU	TR2	none	discards	0.00982	0.00492	0.00262	0.00345	0.00401	0.00146	0.00038	0.00048	0.03301	0.00116
DEU	TR3	none	discards	0.00000			0.00000						
DNK	BT1	none	discards	0.00000	0.00000	0.00000	0.00008	0.00000	0.00003	0.00000	0.00000	0.00000	0.00000
DNK	BT2	none	discards	0.00000	0.00003	0.00042	0.00023	0.00005	0.00001	0.00024			
DNK	GN1	none	discards	0.00062	0.00064	0.06160	0.00052	0.00076	0.00002	0.00000	0.00000	0.00000	0.00001
DNK	GT1	none	discards	0.00000	0.00000	0.01024	0.00021	0.00000	0.00000	0.00020	0.00289	0.00000	0.00001
DNK	LL1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	
DNK	TR1	none	discards	0.00040	0.00080	0.00152	0.00444	0.00013	0.00030	0.00004	0.00001	0.00013	0.00051
DNK	TR2	none	discards	0.00753	0.00659	0.00300	0.00353	0.00373	0.00113	0.00004	0.00012	0.00078	0.00020
DNK	TR3	none	discards	0.00000	0.00000	0.00005	0.00000	0.00000	0.00000	0.00000			0.00000
ENG	BT1	CPart13B	discards								0.00000	0.00000	0.00000
ENG	BT1	none	discards	0.00058	0.00000	0.00000	0.00014	0.00000	0.00004	0.00000			0.00000
ENG	BT2	CPart13B	discards							0.00000	0.00241	0.00000	0.00000
ENG	BT2	none	discards	0.01252	0.01366	0.01403	0.00741	0.01240	0.00773	0.01213	0.00134	0.00018	0.00022
ENG	GN1	none	discards	0.00000	0.00000	0.00003	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
ENG	GT1	none	discards	0.00000		0.00000	0.00000	0.00000	0.00000	0.00000	0.00002	0.00000	0.00000
ENG	LL1	none	discards	0.00000		0.00000							
ENG	TR1	CPart13B	discards							0.00100	0.00033	0.00043	0.00110
ENG	TR1	CPart13c	discards							0.00025	0.00008	0.00011	0.00023
ENG	TR1	none	discards	0.00145	0.00041	0.00008	0.00063	0.00033	0.00040				
ENG	TR2	CPart13B	discards							0.00005	0.00054	0.00166	0.00089
ENG	TR2	CPart13c	discards							0.00185	0.00008	0.00026	0.00004
ENG	TR2	none	discards	0.00261	0.00170	0.00106	0.00153	0.00187	0.00208				
ENG	TR3	none	discards	0.00000									

				Effort kW days running previous year baseline														
					2003	2004	2005	2006	2007	2008	2009	2010	2011	2012				
				Effort estimated	124826173	116125652	112524834	104177417	94453870	83473438	81952959	77243333	69073258	61454166				
											-0.02	-0.06	-0.11	-0.11				
				EFFORT												2003-2012		
				kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n	
BEL	BT1	none	discards		1036595	1439951	1509759	1333012	1320169	984056	575501	535636	671368	963867				
BEL	BT2	none	discards		4241216	4294884	3884007	3418751	2707991	3536979	3327143	2480357	1742532	1269319	0.391	0.264	10	1.202
BEL	GN1	none	discards		111613	152642	148827	127951	128626	158409	161734	97609	95383	45103				
BEL	GT1	none	discards						15402	18000	5014	19041	18155	25216				
BEL	LL1	none	discards							1768		1660	128	786				
BEL	TR1	none	discards			1989			161520	201379	220428	212429	128701	183682				
BEL	TR2	none	discards			519343	343840	366940	298814	425374	506865	476033	435961	484371	-0.006	0.988	9	-0.016
BEL	TR3	none	discards							663		1899		1175				
DEU	BT1	none	discards		47736	29712	2128	53986	30297	16790		884	1535	2793				
DEU	BT2	none	discards		1669870	2060092	2212397	1927398	1590823	1464163	1666322	1801775	1242171	1071896	0.788	0.007	10	3.620
DEU	GN1	none	discards		191424	163463	271624	235427	145714	278008	233164	275364	225797	269836				
DEU	GT1	none	discards					1547			15444	1188	924					
DEU	TR1	CPart13B	discards								808679	898007	815730	747693				
DEU	TR1	none	discards		1756193	1526666	1988209	2176131	1736694	1585192	759368	829604	741965	495051	0.465	0.176	10	1.486
DEU	TR2	CPart13B	discards								2420	39820	31240	14740				
DEU	TR2	none	discards		1013535	893439	704404	771597	680681	457259	470754	420345	408157	320809	-0.057	0.876	10	-0.161
DEU	TR3	none	discards		1028			772	884	4410	426							
DNK	BT1	none	discards		1122195	887830	996227	511642	527282	370939	366679	513056	373757	317294				
DNK	BT2	none	discards		89457	38279	62036	42447	1390	2894	49163		440	242				
DNK	GN1	none	discards		2077492	2164307	2031057	1795453	949658	1003603	1050057	1195617	1136118	1080149	0.417	0.230	10	1.298
DNK	GT1	none	discards		138641	244626	237800	175339	98614	100902	158205	130662	182841	321220	0.223	0.536	10	0.647
DNK	LL1	none	discards		105319	79773	41626	42159	15924	25347	28769	45576	29388	21089				
DNK	TR1	none	discards		7137074	6422756	6405176	6020308	3801069	4034203	3793148	3592389	3664621	3593770	0.485	0.155	10	1.569
DNK	TR2	none	discards		2597949	2580788	1916695	1405216	1080616	706247	569359	431399	370536	312765	0.947	0.000	10	8.338
DNK	TR3	none	discards		3084554	3026636	2373302	1761200	799803	916558	577813	1063007	336257	477168				
ENG	BT1	CPart13B	discards									202685	169873	384590				
ENG	BT1	none	discards		1060809	671130	618160	1321240	305837	228530	265710			40284	0.607	0.111	8	1.871
ENG	BT2	CPart13B	discards								47771	2863860	2644958	2412375	0.444	0.556	4	0.701
ENG	BT2	none	discards		2739407	3559560	4046341	2974409	3251512	1975399	2444807	401247	96356	79036	0.948	0.000	10	8.425
ENG	GN1	none	discards		337639	359134	308275	308517	180503	70981	175602	74835	73826	61957				
ENG	GT1	none	discards		1092	1564	5342	11100	3291	12918	12654	17355	12003	5823				
ENG	LL1	none	discards		102465	83137	142602	54974	15752	6164	4318	12052	6253	15449				
ENG	TR1	CPart13B	discards								898933	964206	874021	939503	-0.051	0.949	4	-0.072
ENG	TR1	CPart13c	discards								1242445	1144923	1254762	931671				
ENG	TR1	none	discards		2343719	1497618	1254880	1823891	1501499	1846925					0.936	0.006	6	5.318
ENG	TR2	CPart13B	discards								260311	873808	721452	865045	0.540	0.460	4	0.907
ENG	TR2	CPart13c	discards								1376367	482080	524579	267661	0.986	0.014	4	8.363
ENG	TR2	none	discards		1853471	1705154	1937849	1707774	1621394	1794132					-0.123	0.816	6	-0.248
ENG	TR3	none	discards		1988	7840	3315	6360	1220	492	82	718	621	246				

Table 5.3.10.12 continued

FRA	BT2	none	discards	0.00039	0.00017	0.00006	0.00004	0.00008	0.00007	0.00008	0.00005	0.00007	0.00009			96232	94514	75129	66203	103453	88053	88053	40118	67545	57044				
FRA	GN1	none	discards	0.00000	0.00007	0.00036	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000			58454	64809	46058	31231	61545	47746	46493	2149	7803	3322				
FRA	GT1	none	discards	0.00000	0.00000	0.00149	0.00002	0.00000	0.00000	0.00004	0.00061	0.00001	0.00000			830136	793053	813190	1785801	1703889	1010253	1010253	634781	690428	636164	-0.256	0.475	10	-0.749
FRA	TR1	none	discards	0.00000	0.00000			0.00000	0.00000	0.00000	0.00000	0.00000				3347063	2299125	1901534	2675348	2418190	2714146	2622538	1913401	1727371	324				
FRA	TR2	none	discards	0.00041	0.00024	0.00010	0.00009	0.00030	0.00012	0.00002	0.00005	0.00123	0.00005			1961970	1911744	1713917	1558413	1727617	1930459	1924156	1089380	960559	725367	-0.275	0.442	10	-0.809
FRA	TR3	none	discards								0.00000	0.00000					1753	7121	1319		2184	2184	13827	2210	1250				
GBJ	TR2	none	discards			0.00000												660											
IRL	TR2	none	discards	0.00000	0.00000											54	884												
NIR	BT1	none	discards	0.00017	0.00000	0.00000										965239	543305	36825											
NIR	BT2	none	discards	0.00011	0.00015	0.00011										20350	47517	16785											
NIR	TR1	CPart13A	discards										0.00000												2672				
NIR	TR1	CPart13B	discards							0.00000	0.00000	0.00000	0.00000									41944	23326	33246	16573				
NIR	TR1	CPart13c	discards							0.00000	0.00000											14196	6034		2781				
NIR	TR1	none	discards		0.00000	0.00000	0.00000	0.00000	0.00000								16948	70710	51951	61460	49104								
NIR	TR2	CPart13A	discards										0.00000												90338				
NIR	TR2	CPart13B	discards							0.00000	0.00000	0.00000	0.00000									65544	161981	207697	109647				
NIR	TR2	CPart13c	discards							0.00008	0.00000	0.00000	0.00000									320087	236516	70443	25672				
NIR	TR2	none	discards	0.00000	0.00000	0.00001	0.00004	0.00007	0.00002							6784	12440	221904	532885	758972	409182								
NLD	BT1	none	discards							0.00000	0.00000	0.00000	0.00000			575801	700747	719292	1528652	720068	370417	412420	378796	308516	1090258				
NLD	BT2	none	discards	0.13087	0.10140	0.07316	0.06924	0.06663	0.04533	0.05929	0.04064	0.03546	0.04961			47724234	44669317	44478122	38823660	37931313	27646215	28696410	28510104	25776297	22428296	0.869	0.001	10	4.967
NLD	GN1	none	discards							0.00000	0.00000	0.00000				460895	416025	387945	511580	521697	507733	419797	357091	316070	295035				
NLD	GT1	none	discards							0.00000	0.00000	0.00000	0.00000								740	26917	37399	21431	29054				
NLD	TR1	none	discards							0.00001	0.00000	0.00007	0.00399			684700	589170	547564	532260	631492	1400068	1316055	1290080	1173220	1329299	0.475	0.165	10	1.527
NLD	TR2	none	discards							0.00045	0.00064	0.04201	0.00174			1932081	1496720	1298918	1224916	1384658	1853682	1334665	1231860	1313554	1277297	0.353	0.317	10	1.067
SCO	BT1	none	discards	0.00021	0.00000	0.00000	0.00008	0.00000	0.00001	0.00000						866665	694716	730810	598616	349914	68568	53082							
SCO	BT2	none	discards	0.01975	0.02311	0.01399	0.01053	0.01012	0.00586	0.00381	0.00101		0.00014			3765518	4608817	4185262	3108933	2790115	1351720	554376	144306		68262				
SCO	GN1	none	discards	0.00000			0.00000									196852	197407	165644	293823	320785	417076	376332	440579	607650	569749				
SCO	TR1	CPart13B	discards							0.00026	0.00019	0.00021	0.00001									692932	955808	810706	36937				
SCO	TR1	CPart13C	discards							0.00097	0.00033	0.00027	0.00089									11552644	9486824	9185531	9265940				
SCO	TR1	none	discards	0.00034	0.00021	0.00036	0.00106	0.00009	0.00028							16079389	12684328	12158295	11660764	11022982	12176292					-0.094	0.859	6	-0.189
SCO	TR2	CPart13B	discards							0.00022	0.00006	0.00020	0.00000									4219929	7467356	5277096	287446	0.375	0.625	4	0.572
SCO	TR2	CPart13C	discards							0.00121	0.00004	0.00004	0.00014									3796988	490013	1285425	4861297				
SCO	TR2	none	discards	0.00151	0.00081	0.00048	0.00065	0.00116	0.00098							9998937	9485974	9108232	8561812	8678139	8855742					0.508	0.303	6	1.180
SCO	TR3	none	discards			0.00000							0.00000			6377	5460	2356	116	11896		33117	27524		20706				
SWE	LL1	none	discards						0.00000	0.00000	0.00000	0.00000	0.00000				1056	4239	15026	11020	10928	11352	6600	8184	5016				
SWE	TR1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000			381696	375455	387252	237269	269171	333387	245040	196354	189867	190816				
SWE	TR2	none	discards			0.00000	0.00000	0.00000	0.00000		0.00000					4265	2055	1192	1298	2515	1059		0		3930				
Sum				0.21230	0.17081	0.19513	0.11398	0.10647	0.06937	0.08702	0.05821	0.12503	0.06616			124826173	116125652	112524834	104177417	94453870	83473438	81952959	77243333	69073258	61454166	0.842	0.002	10	4.415

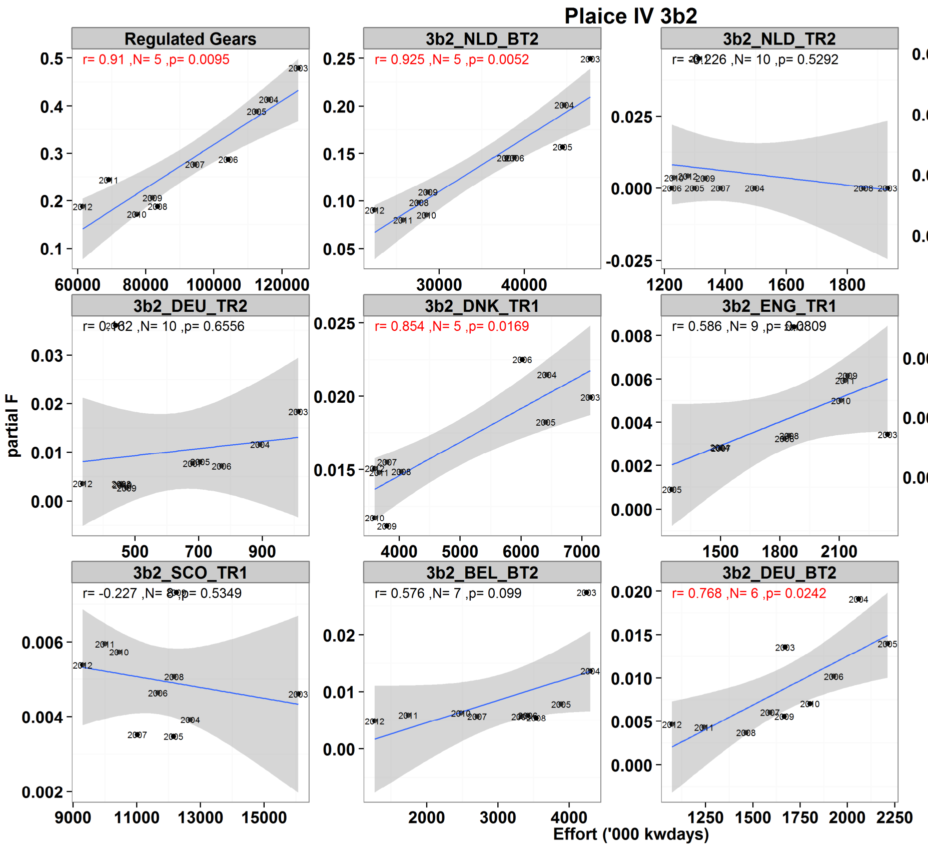


Fig. 5.3.10.5 Plaice. Partial fishing mortality (based on harvest rate estimates) against effort (kWd) in area 3b2 (North Sea) for all regulated gears combined, and the major fisheries individually. Ten metiers with highest catch are shown where catch >1% of total for the regulated area, ranked top left to bottom right. Data 2003-2012 aggregated across special conditions. r value shows linear model fit (grey 95% confidence interval), with p-value (significant relationships at 0.05 level shown in red; N and p values adjusted for autocorrelation).

Table 5.3.10.13 **Sole** in area **3b2**. The left part of the table lists estimated F trajectories from the management plan and the ICES 2012 sole assessment, as well as partial Fs for **landings** of fisheries using regulated gears (in the North Sea). The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations *). A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

2006 running base line annual F reductions by 10 percent as F<=0.2, Fmsy=0.22													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan							0.47	0.423	0.381	0.343	0.309	0.278	0.25
reduction F plan								-0.10	-0.10	-0.10	-0.10	-0.10	-0.10
F estimated				0.593	0.518	0.573	0.47	0.47	0.387	0.389	0.375	0.322	0.238
reduction F estimated								0.00	-0.18	0.01	-0.04	-0.14	-0.26
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BEL	BT1	none	landings	0.00071	0.00068	0.00047	0.00066	0.00022	0.00018	0.00009	0.00011	0.00035	0.00035
BEL	BT2	none	landings	0.04822	0.03684	0.04370	0.03384	0.02788	0.03305	0.03304	0.03197	0.02049	0.01026
BEL	GN1	none	landings	0.00079	0.00085	0.00115	0.00076	0.00070	0.00123	0.00144	0.00110	0.00055	0.00025
BEL	GT1	none	landings					0.00041	0.00032	0.00002	0.00034	0.00033	0.00022
BEL	LL1	none	landings								0.00000		0.00000
BEL	TR1	none	landings					0.00000	0.00000	0.00000	0.00006	0.00000	0.00000
BEL	TR2	none	landings		0.00168	0.00202	0.00168	0.00145	0.00319	0.00296	0.00352	0.00247	0.00113
BEL	TR3	none	landings								0.00000		0.00000
DEU	BT1	none	landings	0.00033	0.00001	0.00000	0.00009	0.00000	0.00002				
DEU	BT2	none	landings	0.01930	0.02250	0.02145	0.01352	0.01096	0.00885	0.00940	0.01040	0.00497	0.00530
DEU	GN1	none	landings	0.00246	0.00248	0.00421	0.00360	0.00232	0.00398	0.00397	0.00448	0.00353	0.00328
DEU	GT1	none	landings							0.00074	0.00010	0.00007	
DEU	TR1	CPart13B	landings								0.00000	0.00000	0.00000
DEU	TR1	none	landings	0.00002	0.00001	0.00003	0.00005	0.00001	0.00003	0.00002	0.00002	0.00000	0.00000
DEU	TR2	CPart13B	landings							0.00000	0.00003	0.00001	0.00000
DEU	TR2	none	landings	0.00235	0.00116	0.00091	0.00050	0.00065	0.00071	0.00076	0.00050	0.00058	0.00016
DEU	TR3	none	landings	0.00000			0.00001						
DNK	BT1	none	landings	0.00043	0.00058	0.00040	0.00049	0.00041	0.00023	0.00009	0.00016	0.00002	0.00005
DNK	BT2	none	landings	0.00006	0.00004	0.00004	0.00001	0.00003	0.00001	0.00006			
DNK	GN1	none	landings	0.01887	0.01789	0.02482	0.01965	0.01093	0.01114	0.01085	0.01088	0.00861	0.00784
DNK	GT1	none	landings	0.00092	0.00131	0.00183	0.00049	0.00069	0.00064	0.00089	0.00058	0.00082	0.00072
DNK	LL1	none	landings	0.00000	0.00000	0.00000	0.00000						
DNK	TR1	none	landings	0.00053	0.00037	0.00029	0.00038	0.00032	0.00026	0.00030	0.00012	0.00009	0.00006
DNK	TR2	none	landings	0.00098	0.00123	0.00073	0.00032	0.00022	0.00022	0.00011	0.00003	0.00006	0.00001
DNK	TR3	none	landings	0.00001	0.00000	0.00000	0.00000	0.00000		0.00000			
ENG	BT1	CPart13B	landings								0.00006	0.00003	0.00002
ENG	BT1	none	landings	0.00027	0.00008	0.00013	0.00025	0.00003	0.00006	0.00004			0.00000
ENG	BT2	CPart13B	landings							0.00134	0.01311	0.00918	0.00507
ENG	BT2	none	landings	0.00740	0.00774	0.01086	0.00958	0.01146	0.00514	0.01029	0.00357	0.00073	0.00031
ENG	GN1	CPart13B	landings										0.00000
ENG	GN1	none	landings	0.00004	0.00003	0.00003	0.00005	0.00014	0.00007	0.00005	0.00004	0.00007	0.00003
ENG	GT1	none	landings	0.00000	0.00000	0.00008	0.00015	0.00002	0.00005	0.00007	0.00007	0.00007	0.00003
ENG	LL1	none	landings	0.00000	0.00000		0.00000						
ENG	TR1	CPart13B	landings							0.00003	0.00003	0.00002	0.00002
ENG	TR1	CPart13c	landings							0.00021	0.00010	0.00008	0.00005
ENG	TR1	none	landings	0.00020	0.00010	0.00008	0.00013	0.00015	0.00016				
ENG	TR2	CPart13B	landings							0.00018	0.00038	0.00116	0.00060
ENG	TR2	CPart13c	landings							0.00248	0.00103	0.00067	0.00029
ENG	TR2	none	landings	0.00123	0.00086	0.00149	0.00202	0.00188	0.00236				
ENG	TR3	none	landings	0.00000									

			Effort kW days running previous year baseline													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012			
			Effort estimatec	124618679	115919674	112350743	103867154	94107654	83044375	81532158	76880020	68609980	60954265			
										-0.02	-0.06	-0.11	-0.11			
			EFFORT												2003-2012	
			kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n
BEL	BT1	none		1036595	1439951	1509759	1333012	1320169	984056	575501	535636	671368	963867	0.642	0.045	10	2.368
BEL	BT2	none		4241216	4294884	3884007	3418751	2707991	3536979	3327143	2480357	1742532	1269319	0.923	0.000	10	6.784
BEL	GN1	none		111613	152642	148827	127951	128626	158409	161734	97609	95383	45103	0.797	0.006	10	3.732
BEL	GT1	none						15402	18000	5014	19041	18155	25216				
BEL	LL1	none							1768		1660	128	786				
BEL	TR1	none			1989			161520	201379	220428	212429	128701	183682				
BEL	TR2	none			519343	343840	366940	298814	425374	506865	476033	435961	484371	0.306	0.423	9	0.850
BEL	TR3	none							663		1899		1175				
DEU	BT1	none		47736	29712	2128	53986	30297	16790		884	1535	2793				
DEU	BT2	none		1669870	2060092	2212397	1927398	1590823	1464163	1666322	1801775	1242171	1071896	0.848	0.002	10	4.526
DEU	GN1	none		191424	163463	271624	235427	145714	278008	233164	275364	225797	269836	0.884	0.001	10	5.348
DEU	GT1	none					1547			15444	1188	924					
DEU	TR1	CPart13B								808679	898007	815730	747693				
DEU	TR1	none		1756193	1526666	1988209	2176131	1736694	1585192	759368	829604	741965	495051				
DEU	TR2	CPart13B								2420	39820	31240	14740				
DEU	TR2	none		1013535	893439	704404	771597	680681	457259	470754	420345	408157	320809	0.788	0.007	10	3.620
DEU	TR3	none		1028			772	884	4410	426							
DNK	BT1	none		1122195	887830	996227	511642	527282	370939	366679	513056	373757	317294	0.709	0.022	10	2.844
DNK	BT2	none		89457	38279	62036	42447	1390	2894	49163		440	242				
DNK	GN1	none		2077492	2164307	2031057	1795453	949658	1003603	1050057	1195617	1136118	1080149	0.890	0.001	10	5.521
DNK	GT1	none		138641	244626	237800	175339	98614	100902	158205	130662	182841	321220	0.427	0.218	10	1.336
DNK	LL1	none		105319	79773	41626	42159	15924	25347	28769	45576	29388	21089				
DNK	TR1	none		7137074	6422756	6405176	6020308	3801069	4034203	3793148	3592389	3664621	3593770	0.786	0.007	10	3.596
DNK	TR2	none		2597949	2580788	1916695	1405216	1080616	706247	569359	431399	370536	312765	0.973	0.000	10	11.924
DNK	TR3	none		3084554	3026636	2373302	1761200	799803	916558	577813	1063007	336257	477168				
ENG	BT1	CPart13B									202685	169873	384590				
ENG	BT1	none		1060809	671130	618160	1321240	305837	228530	265710			40284				
ENG	BT2	CPart13B								47771	2863860	2644958	2412375	0.847	0.153	4	2.253
ENG	BT2	none		2739407	3559560	4046341	2974409	3251512	1975399	2444807	401247	96356	79036	0.914	0.000	10	6.372
ENG	GN1	CPart13B									111390	152556	102172				
ENG	GN1	none		337639	359134	308275	308517	180503	70981	175602	74835	73826	61957				
ENG	GT1	none		1092	1564	5342	11100	3291	12918	12654	17355	12003	5823				
ENG	LL1	none		102465	83137	142602	54974	15752	6164	4318	12052	6253	15449				
ENG	TR1	CPart13B								898933	964206	874021	939503				
ENG	TR1	CPart13c								1242445	1144923	1254762	931671				
ENG	TR1	none		2343719	1497618	1254880	1823891	1501499	1846925								
ENG	TR2	CPart13B								260311	873808	721452	865045	0.428	0.572	4	0.670
ENG	TR2	CPart13c								1376367	482080	524579	267661	0.981	0.019	4	7.151
ENG	TR2	none		1853471	1705154	1937849	1707774	1621394	1794132					-0.160	0.762	6	-0.324
ENG	TR3	none		1988	7840	3315	6360	1220	492	82	718	621	246				

Table 5.3.10.13 continued.

FRA	BT2	none	landings	0.00168	0.00117	0.00109	0.00071	0.00096	0.00067	0.00068	0.00051	0.00052	0.00043			96232	94514	75129	66203	103453	88053	88053	40118	67545	57044	0.660	0.038	10	2.485
FRA	GN1	none	landings	0.00102	0.00120	0.00125	0.00021	0.00014	0.00032	0.00032	0.00003	0.00002	0.00000			58454	64809	46058	31231	61545	47746	46493	2149	7803	3322	0.668	0.035	10	2.539
FRA	GT1	none	landings	0.01907	0.01499	0.02114	0.02301	0.01658	0.01973	0.02000	0.00664	0.01234	0.01043			830136	793053	813190	1785801	1703889	1010253	1010253	634781	690428	636164	0.574	0.083	10	1.983
FRA	TR1	none	landings			0.00000		0.00003			0.00000	0.00000	0.00000			3347063	2299125	1901534	2675348	2418190	2714146	2622538	1913401	1727371	324				
FRA	TR2	none	landings	0.00046	0.00033	0.00012	0.00012	0.00033	0.00011	0.00010	0.00011	0.00006	0.00004			1961970	1911744	1713917	1558413	1727617	1930459	1924156	1089380	960559	725367				
FRA	TR3	none	landings			0.00000			0.00000	0.00000			0.00000				1753	7121	1319		2184	2184	13827	2210	1250				
IRL	TR2	none	landings		0.00000											54	884												
NIR	BT1	none	landings	0.00118	0.00048	0.00012										965239	543305	36825								0.972	0.151	3	4.137
NIR	BT2	none	landings	0.00006	0.00006	0.00004										20350	47517	16785											
NIR	TR1	CPart13B	landings										0.00000									41944	23326	33246	16573				
NIR	TR1	CPart13c	landings							0.00000	0.00000		0.00000									14196	6034		2781				
NIR	TR1	none	landings			0.00000	0.00000	0.00000									16948	70710	51951	61460	49104								
NIR	TR2	CPart13A	landings										0.00001												90338				
NIR	TR2	CPart13B	landings								0.00001	0.00001	0.00000									65544	161981	207697	109647				
NIR	TR2	CPart13c	landings							0.00001	0.00001	0.00000	0.00000									320087	236516	70443	25672				
NIR	TR2	none	landings		0.00000	0.00001	0.00003	0.00001	0.00000							6784	12440	221904	532885	758972	409182								
NLD	BT1	none	landings							0.00048	0.00009	0.00003	0.00004			575801	700747	719292	1528652	720068	370417	412420	378796	308516	1090258				
NLD	BT2	none	landings	0.44789	0.38298	0.41443	0.33569	0.35978	0.27734	0.27896	0.26538	0.21776	0.17548			47724234	44669317	44478122	38823660	37931313	27646215	28696410	28510104	25776297	22428296	0.975	0.000	10	12.411
NLD	GN1	none	landings							0.00553	0.00491	0.00429	0.00451			460895	416025	387945	511580	521697	507733	419797	357091	316070	295035	0.948	0.000	10	8.425
NLD	GT1	none	landings							0.00002	0.00018		0.00025								740	26917	37399	21431	29054				
NLD	TR1	none	landings							0.00001	0.00006					684700	589170	547564	532260	631492	1400068	1316055	1290080	1173220	1329299				
NLD	TR2	none	landings							0.00090	0.00068	0.00084	0.00033			1932081	1496720	1298918	1224916	1384658	1853682	1334665	1231860	1313554	1277297				
SCO	BT1	none	landings	0.00038	0.00014	0.00018	0.00030	0.00018	0.00000	0.00001						866665	694716	730810	598616	349914	68568	53082				0.840	0.018	7	3.462
SCO	BT2	none	landings	0.00788	0.00970	0.01265	0.01237	0.01641	0.00635	0.00272	0.00096		0.00034			3765518	4608817	4185262	3108933	2790115	1351720	554376	144306		68262				
SCO	TR1	CPart13B	landings							0.00001	0.00002	0.00001										692932	955808	810706	36937	0.894	0.106	4	2.822
SCO	TR1	CPart13C	landings							0.00002	0.00002	0.00006	0.00002									11552644	9486824	9185531	9265940				
SCO	TR1	none	landings	0.00004	0.00002	0.00003	0.00002	0.00001	0.00005							16079389	12684328	12158295	11660764	11022982	12176292								
SCO	TR2	CPart13B	landings							0.00001	0.00003	0.00004										4219929	7467356	5277096	287446				
SCO	TR2	CPart13C	landings							0.00010	0.00010	0.00000	0.00005									3796988	490013	1285425	4861297				
SCO	TR2	none	landings	0.00008	0.00004	0.00004	0.00017	0.00018	0.00021							9998937	9485974	9108232	8561812	8678139	8855742								
SWE	TR1	none	landings	0.00000								0.00000				381696	375455	387252	237269	269171	333387	245040	196354	189867	190816				
Sum				0.58486	0.50755	0.56582	0.46086	0.46549	0.37668	0.38931	0.36253	0.29094	0.22798			124618679	115919674	112350743	103867154	94107654	83044375	81532158	76880020	68609980	60954265	0.972	0.000	10	11.700

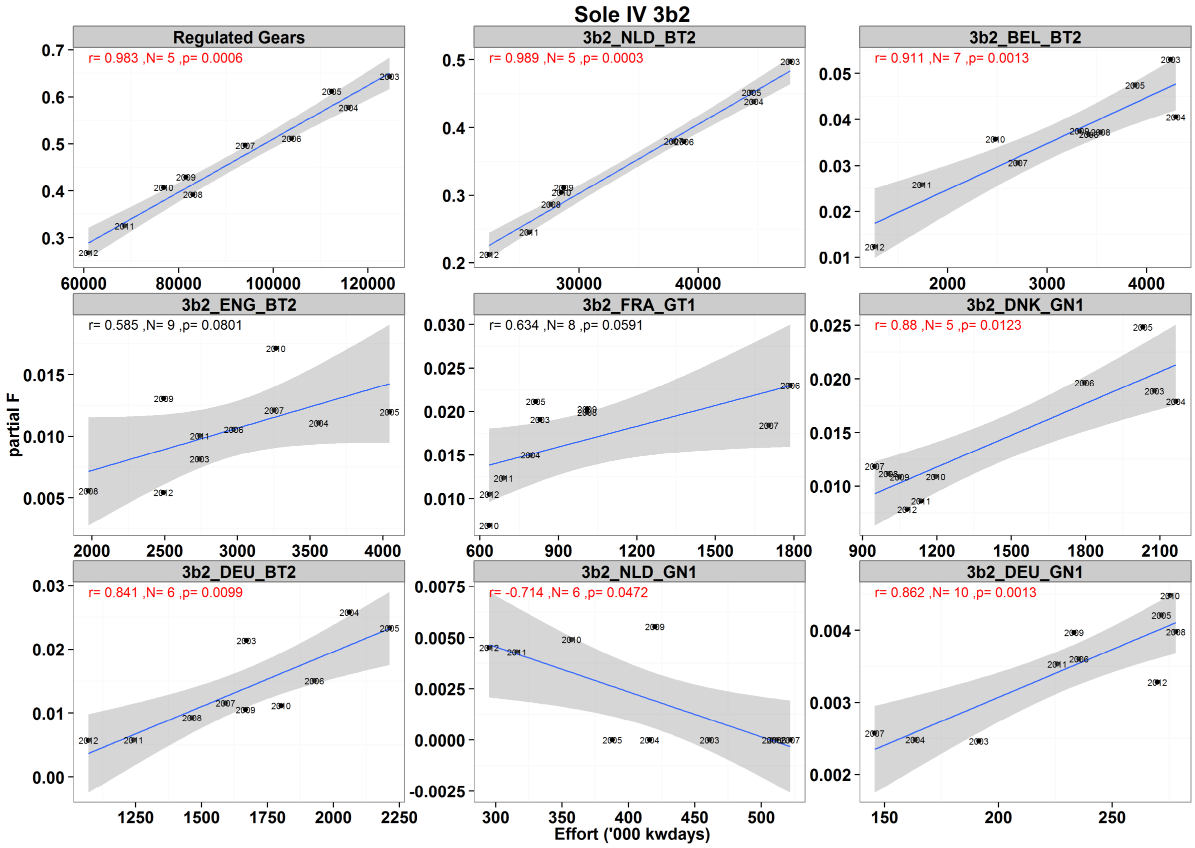


Fig. 5.3.10.6 Sole. Partial fishing mortality (based on harvest rate estimates) against effort (kWd) in area 3b2 (North Sea) for all regulated gears combined, and the major fisheries individually. Ten metiers with highest catch are shown where catch >1% of total for the regulated area, ranked top left to bottom right. Data 2003-2012 aggregated across special conditions. r value shows linear model fit (grey 95% confidence interval), with p-value (significant relationships at 0.05 level shown in red; N and p values adjusted for autocorrelation).

5.3.11 ToR 9 Trends in fishing mortality and fishing effort by Member State and fisheries with regards to the cod plan (R (EC) No 1342/2008) provisions, in particular with regard to Article 13

The detailed ToR for this task were:

"To quantitatively assess the annual trend in cod mortality that would have resulted from the fishing mortality adjustments in Article 8 and the trends in fishing effort that would have resulted from Article 12 of Council Reg. 1342/2008, for the period 2008 to 2012. STECF is then requested to quantitatively assess the partial cod fishing mortality and fishing effort trends of the regulated gears that were observed during 2008 to 2012. STECF is requested to comment on the questions if and to which extent the Member States application of Article 13, Paragraph 2, points a, b, and c have supported the reduction of cod fishing

mortality as defined in Articles 8 and 9 and whether the increased fishing effort deployed by Member States was commensurate with the fishing mortality level to be achieved in 2012. The group is requested to quantify for each Member State and effort group (Annex I to Council Reg. 1342/2008) the partial target fishing mortality of cod, and partial fishing mortality of cod generated in excess of the cod plan, and, if a significant correlation between cod fishing mortality and fishing effort exists, the corresponding amounts of target fishing effort and of the excessive fishing effort in units of kW.days at sea"

In order to address this terms of reference, STECF EWG 13-13 has divided the question into three parts;

1. To quantitatively assess the annual trend in cod mortality that would have resulted from the fishing mortality adjustments in Article 8 and the trends in fishing effort that would have resulted from Article 12 of Council Reg. 1342/2008, for the period 2008 to 2012. STECF is then requested to quantitatively assess the partial cod fishing mortality and fishing effort trends of the regulated gears that were observed during 2008 to 2012.

This ToR was addressed by ToR 8 and the 'partial F' tables produced in 'App 07 partial F evaluation by fishery stocks'. As such, no further comment is made in this section.

2. STECF is requested to comment on the questions if and to which extent the Member States application of Article 13, Paragraph 2, points a, b, and c have supported the reduction of cod fishing mortality as defined in Articles 8 and 9 and whether the increased fishing effort deployed by Member States was commensurate with the fishing mortality level to be achieved in 2012.

Figure 5.3.11.1 shows the trends in partial F and effort by Member State for regulated gears, standardised to their 2008 level. It should be noted that effort reductions have not been stipulated under the plan for all gears, and so effort levels should necessarily not have been expected to reduce to 0.45*2008 levels under implementation of the management plan. However, STECF EWG 13-13 notes that the estimated trends in partial fishing mortality are dependent on the changed perception of the exploitation status in 2011 and 2012 derived from the 2013 ICES assessment of the North Sea cod stock. It can be seen that partial F for all Member States has reduced since 2008, though such reductions have not always been consistent (i.e. linearly proportional) with changes in effort by regulated gears. In the UK, partial F appears to have reduced consistent with the overall F reductions required under the plan, though effort has not. This suggests that there has been some decoupling of cod from fishing effort, consistent with cod avoidance.

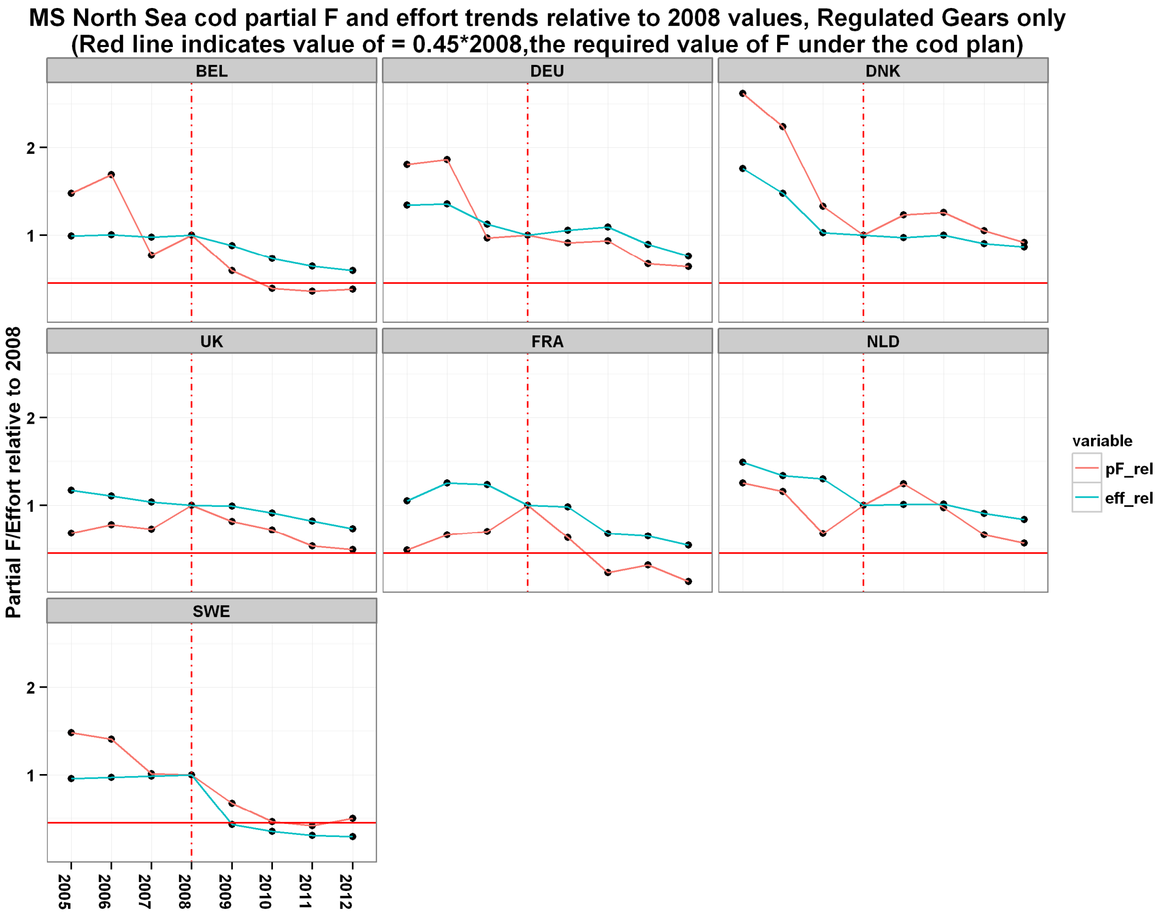


Figure 5.3.11.1. Trends in partial fishing mortality as estimated by STECG EWG 13-13 and fishing effort for Member States regulated gears, standardised to 2008 levels. Red lines indicate trends in partial F and blue lines trends in kW days fishing effort by regulated gears. Dotted red vertical line indicates 2008 level, and solid red horizontal line indicates 0.45*2008 values.

Figure 5.3.11.2 shows the catchability trends in the major cod fisheries in the North Sea with the linear trend since 2008 highlighted. It can be seen that, in general, there has been a downward trend in catchability indicating that some cod avoidance or discard reduction is occurring, and this can be seen also for the UK TR1 and TR2 fisheries, which are exclusively operating under Article 13.2c if not subject to Article 13.2b or exempted under Article 11.

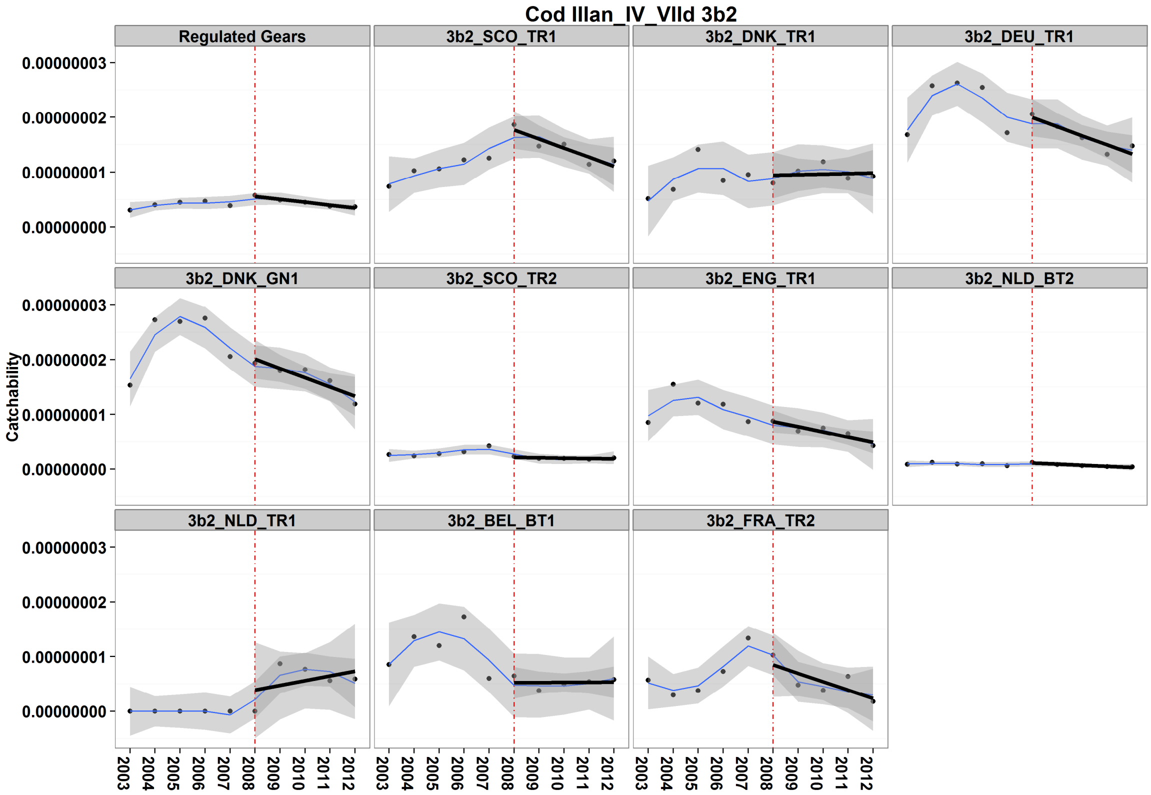


Figure 5.3.11.2 Trends in catchability (partial F/kw days fishing effort) for all regulated gears and the major fisheries in 3b2. Blue lines indicate a local regression smoother, while solid black lines indicate the linear trend since 2008 to indicate changes in catchability since the introduction of the cod plan. Grey outlines indicate 95% confidence limits, while red dotted line delinates pre- and post- 2008.

STECF EWG 13-13 notes that Article 13.2a has not been adopted by any Member State, and so there was no detailed discussion of this provision in this section.

Article 13.2b is for ‘effort groups in which the fishing activity of one or more vessels results in a catch composition of less than 5% cod per fishing trip’. STECF has already stated that a catch composition special condition was not necessarily consistent with reductions in cod mortality as it does not control the overall amount of cod caught. STECF went on to further note that Article 13.2b:

"(i) may result in significant cod catches where large volume fisheries catch cod as a bycatch and this results in significant removals, particularly where the cod stock is depleted; (ii) it offers a perverse incentive to catch more of other species in order to reduce the percentage catch of cod. If this derogation is to contribute to a reduction in exploitation of cod it is important that the total amount of cod caught by vessels under this does not contribute significantly to mortality. Therefore there is a need to have an overall cap on the catch of cod as a % of the TAC for cod taken by all vessels covered by this derogation. Such an approach would require monitoring of total catch, as with fully documented fisheries (STECF 12-13).

STECF EWG 13-13 reiterates these comments. However, STECF EWG 13-13 concludes that the contribution of all fisheries operating under Article 13.2b to the estimated fishing mortality of cod remains low and did not exceed 5% during 2009-2012.

STECF EWG 13-13 notes that Article 13.2c has only been adopted by the UK in areas 3b1, 3b2 or 3b3 and is applied to the entire fleet using regulated gears when not subject to Article 13.2b or exempted under Article 11. STECF EWG 13-13 notes that the respective UK (ENG, SCO, NIR) gear types TR1 have reduced their fishing effort in kWdays at sea by 20 % since 2009, which coincides with an estimated reduction in fishing mortality of cod by 36%. During 2009-2012, the fishing effort of TR2 gears operating under Article 13.2.c declined by 11%, with a reduction in fishing mortality by 31% over the same period. The respective fisheries by Northern Ireland are negligible and were not operative in 2012.

3. *The group is requested to quantify for each Member State and effort group (Annex I to Council Reg. 1342/2008) the partial target fishing mortality of cod, and partial fishing mortality of cod generated in excess of the cod plan, and, if a significant correlation between cod fishing mortality and fishing effort exists, the corresponding amounts of target fishing effort and of the excessive fishing effort in units of kW.days at sea*

STECF EWG 13-13 notes that the estimation of partial target fishing mortalities for cod by Member State and effort group requires the definition of proportions of overall F to be allocated to each effort group. STECF EWG 13-13 notes that these proportions have not remained stable in recent years as vessels are re-classified to a different special condition – as such, any assumption of target partial F for fleets based on recent years does not seem appropriate. Given a lack of knowledge on shares of partial F values among fisheries the estimation of partial target fishing mortalities is considered impossible.

The point of Article 13.2c is to allow greater effort by reducing catchability on cod (buying back of effort). Figure 5.3.11.1 shows the evolution of catchability for major gear groups. Since 2009, all English (ENG) and Scottish (SCO) TR1 gear groups fall under Article 13.2c, if not subject to Article 13.2b or exempted under Article 11, and display clear negative trends in catchability. However, the SCO TR2 gear group does not display a trend in cod catchability. Table 5.3.10.4 lists the correlation between cod fishing mortality and fishing effort for the regulated gear types. For SCO gear groups TR1 and TR2 and ENG gear group TR1 falling under Article 13.2c the correlations are insignificant. Only the rather small ENG gear group TR2 operating under Article 13.2c displays a significant relationship between fishing mortality and fishing effort.

STECF EWG 13-13 is unable to estimate any excessive effort for fisheries operating under the provisions of Article 13.2c as there are hardly significant correlations between partial fishing mortality and fishing effort of the relevant fisheries.

5.3.12 ToR 10 Considerations in order to accomplish spatio-temporal patterns in standardized catchability indices for cod

5.3.12.1 Introduction

Catchability (q) is defined as the relationship between the catch rate (CPUE) and the true population size. Consequently, the unit of catchability is fish caught per fish available per effort unit and per time unit, or, in easier words, catchability can conceptually be considered as the probability of any single fish being caught (Jul-Larsen *et al*., 2003).

Many factors are related to catchability, e.g. mainly fish abundance at a certain time in a certain area and gear efficiency (fishing power) including use of the gear and fishers' experience (Marchal *et al*., 2001). A standard solution to evaluate changes in catchability is therefore to compare catch rates from commercial and research fishing where the catchability of the research fishing is holding constant from year to year (Neis *et al*.,1999):

CPUE (fishery)/CPUE (survey) = q (fishery)/q (survey)

This catchability index has no units. STECF EWG 13-13 interprets the resulting ratio as an index of fishing mortality per individual fish independent of stock size, which allows spatio-temporal analyses. The calculation of catchability indices for cod per ICES statistical square (rectangle) and year from standardized and averaged ratios between CPUE by fishery /NS IBTS Q1 indices are therefore believed to provide indications of spatio-temporal patterns.

5.3.12.2 Data

NS IBTS Q1 data were downloaded from ICES DATRAS server, i.e. station data and catch data for the years 2003-2012. Only hauls assigned valid and with haul duration equal or longer the 20 min. were considered. Stations with cod catches were selected using the codes 164712 (TSN from the Integrated Taxonomic Information System ITIS) and 126436 (WoRMS, Word Register of Marine Species), as appropriate. The two data sets were linked and CatCatchWg (grams) was standardized to kg/hour.

Annual average Q1 CPUE indices (kg/hours) per rectangle were calculated for cod and averaged for the period 2006-2012.

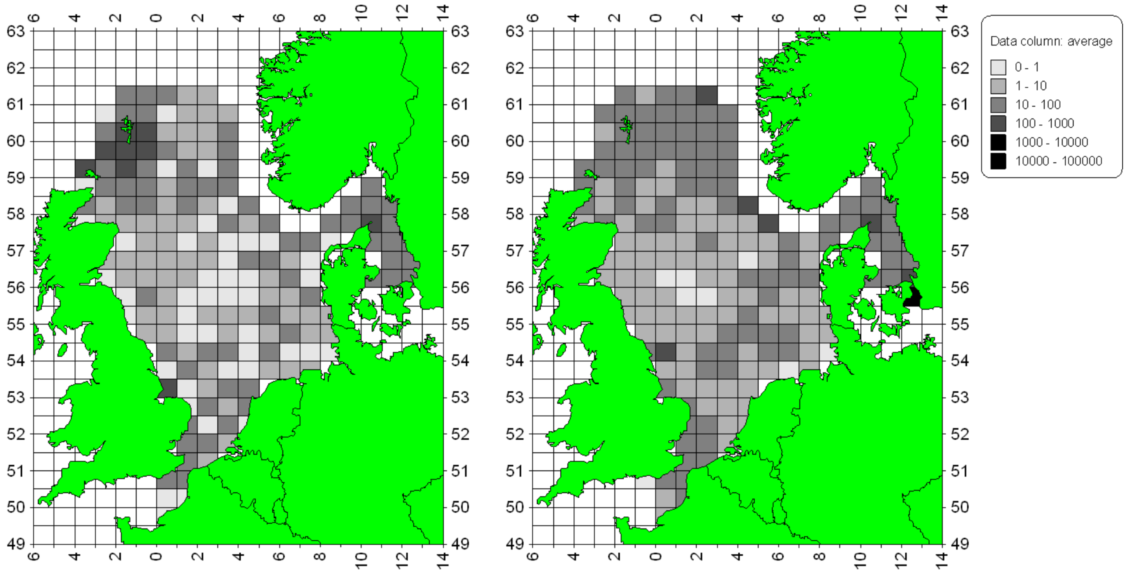


Fig. 5.3.12.2.1. Average annual NS IBTS Q1 CPUE indices (kg/hours) per rectangle for cod in 2012 (left panel) and averaged over 2006-2011 (right panel).

In 2012, cod appears widely distributed and quite scattered over the entire North Sea, Skagerrak and in the Eastern Channel (Fig. 5.3.12.2.1). Distinctly higher concentrations are recorded around the Shetland Islands, at the northern slope towards the Norwegian trench into the Skagerrak and in the southern bight into the Eastern Channel. Cod abundance in the central North Sea appears low. These patterns are more pronounced and smoother when averaged over the years 2006-2011.

DCF data on annual landings per rectangle data (Table E, landings in tons) were summed for all effort regulated gear groups by rectangle and year (2006-2012), excluding the recorded landing of small vessels (<10m). The landings per rectangle and fishery (métier) were raised to catches based on discard rates estimated by year, management area, gear, mesh size, special condition (derogation, where applicable for effort regulated gears), and nation. The additional consideration of the nation (additional to the defined management areas of the DCF) during the process of catch estimation by rectangle (landings plus raised estimates of discards by rectangles) is assumed to improve the calculation of specific geographical fisheries effects. The estimated cod catches per rectangle are shown in Fig. 5.3.12.2.2. Average geographical distribution of estimated catches resembles the stock distribution as perceived from the IBTS Q1 survey indices (Fig. 1 and 2). Highest landings are seen along the northern slopes into the Norwegian trench and the Skagerrak. Higher landings are also common in the southern bight, while the central western North Sea is the area with lowest cod landings on average.

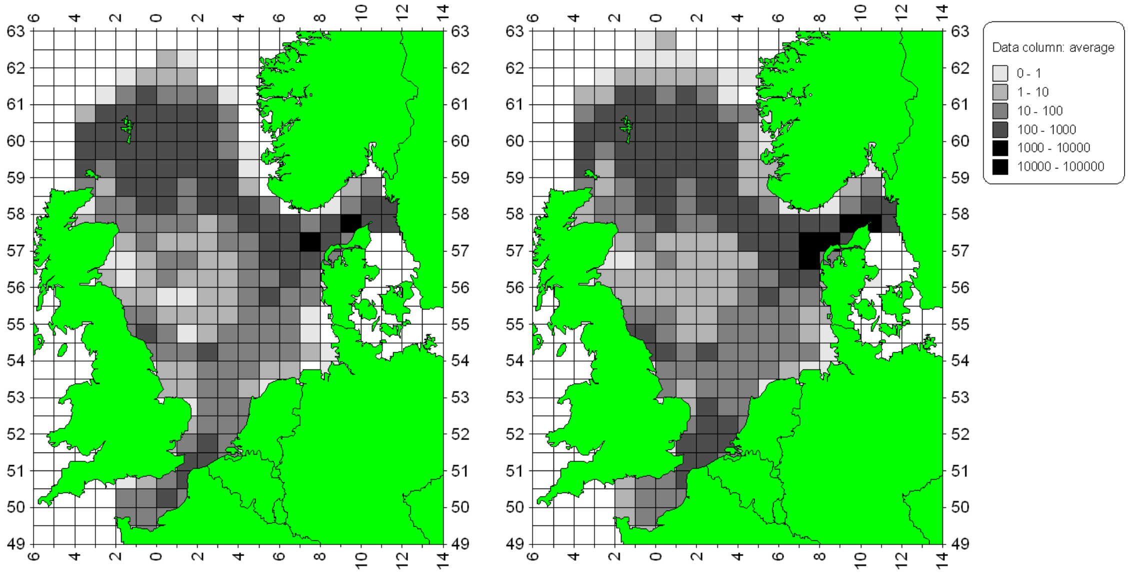


Fig. 5.3.12.2.2. Annual cod catches (t) of effort regulated gear groups per rectangle in 2012 (left panel) and averaged for the period 2006-2011 (right panel).

Fisheries specific DCF data on annual fishing effort per rectangle (Table C, fished hours per rectangle) were summed across all effort regulated gear groups and years, excluding the under 10m boats. The resulting annual fishing effort estimates per rectangle and year were averaged for the period 2006-2011 and the geographical distribution patterns are shown in Fig. 5.3.12.2.3. Again, the effort patterns reveal a picture where most of it is distributed along the northern slopes into the Norwegian trench and the Skagerrak. Higher effort amounts are also common in the southern bight, while the central western North Sea is the area with lowest fishing effort on average. Few lighter grey shaded rectangles of the most recent patterns in 2012 indicate a similar geographical structure, but the fisheries recently appear to tend to avoid central areas in 2012 and to fish closer to the coasts, as the central area of low fishing effort appears enlarged in 2012 in comparison with the average patterns in 2006-2011.

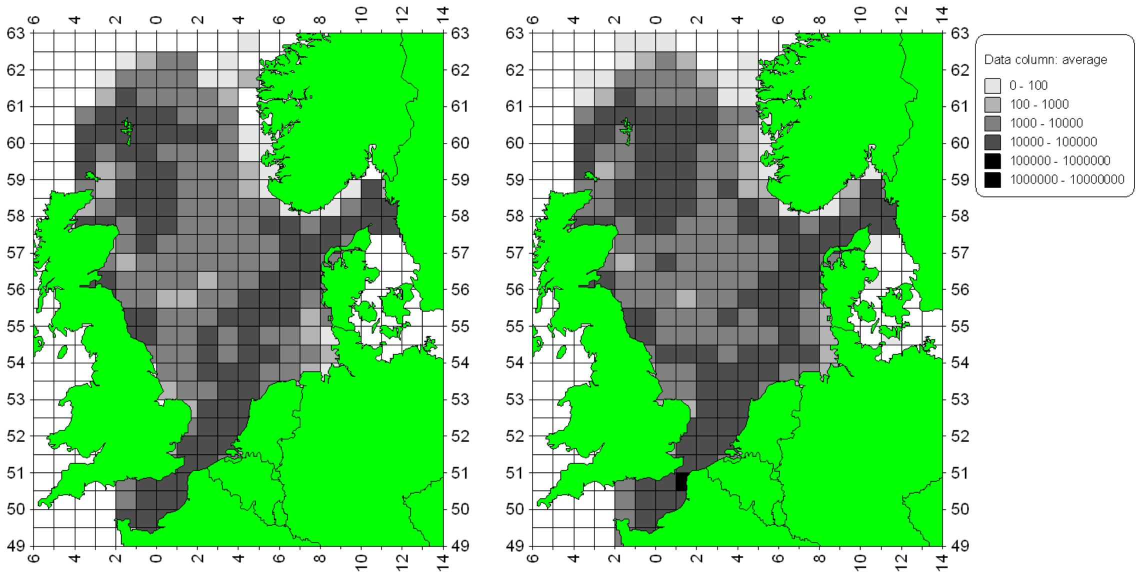


Fig. 5.3.12.2.3. Annual fishing effort (hours fished) of effort regulated gear groups per rectangle in 2012 (left panel) and averaged for the period 2006-2011 (right panel).

The annual effective effort data of effort regulated gears by rectangle (Table C, in units of hours fished) and estimated annual cod catches of effort regulated gears per rectangle data (Table E, in units of tons) were linked and for each fishery the annual CPUE (kg/hours) was calculated.

Annual catchability coefficients by fishery and rectangle are determined from the log-transformed CPUE per fishery divided by the log-transformed BITS survey indices for cod. Log-transformation was done like $f(x) = \ln(x+1)$ to decrease the variation and to avoid negative values. Such standardised catchability indices were then averaged over each of the rectangles and over period 2006-2011 and compared with the 2012 estimates.

5.3.12.3 Results

The resulting geographical patterns in catchability values are quite scattered, also as an effect of the standardisation using the highly variable indices from the NS IBTS Q1 survey, despite the applied log-transformation to the commercial LPUE and to the survey indices. The data basis to estimate catchability indices is considered biased as no cod discards are considered in the analyses due to lack of precise data. Discards of cod of the major TR1 gear ranged between 10-20 % in weight of the catch in 2010 and 2011 but higher levels were observed in earlier periods.

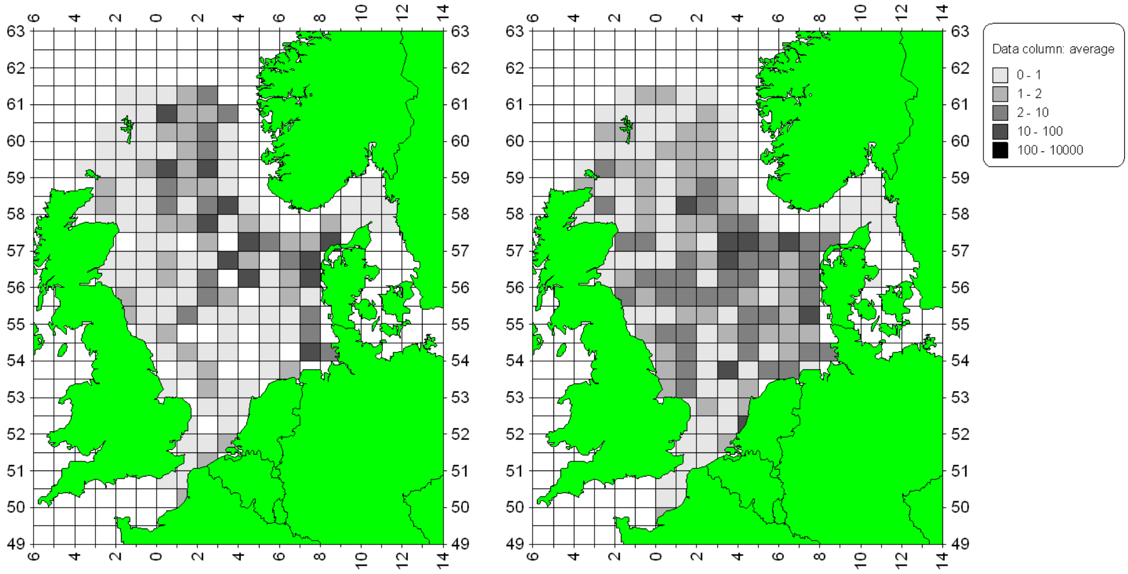


Fig. 5.3.12.3.1. Average cod catchability (ln(LPUE)/(ln(NS IBTS Q1 index)) of all regulated gear groups per rectangle in 2012 (left panel) and averaged for the period 2006-2011 (right panel).

Despite the scattered patterns it appears that cod catchability is not evenly distributed over the North Sea. The area of lowest cod catchability is generally found where cod abundance is highest, i.e. around the Shetlands in the northern North Sea, the Skagerrak and the Eastern Channel. On average, higher cod catchability is indicated in the central North Sea characterized with low cod abundance (Fig. 5.3.12.3.1). An inverse correlation between catchability of North Sea cod and abundance has also been found by Houghton and Flatman (1981).

5.4 West of Scotland effort regime evaluation in the context of Annex IIA to Council Regulation (EC) No 57/2011)

5.4.1 ToR 1.a Fishing effort in kWdays, GTdays, kW and number of vessels by Member State and fisheries

According to the data provided by Member States in 2013 aggregated by categories in Coun. Reg. (EC) 1342/2008 (cod plan) the fishery West of Scotland is primarily an otter trawl fishery; beam trawls and static gears are hardly used. Longline gears are the second most important gear category; but still much less important in terms of effort than trawl gears. Spanish data has been provided but for 2012 only. The Spanish effort represents 3.6% of large mesh trawl (TR1) effort and 47% of longline effort in 2012. Table 5.4.1.2 shows the percentage change in effort totals supplied by Member States compared to data submitted in 2012 (and as available on the STECF website).

In terms of kWdays the overall nominal effort in ICES division VIa displays a decrease of 41% since 2003. The majority of that reduction took place between 2003-2006 and 2009-2011. Effort within regulated gears is 56% less in 2012 compared to 2003. Regulated effort by trawl and seine gears (TR gears under Coun. Reg. (EC) 1342/2008) shows a long term decrease in effort and fell to its lowest level in the time series in 2011, but was stable between 2011 and 2012 for those nations reporting in both years, (Table 5.4.1.3 and Figure 5.4.1.1). With Spanish data only available for 2012 for this area, the trend in long line (LL1) effort is uncertain.

Within the trawl gear categories it can be seen from Figure 5.4.1.2 that effort is only significant in categories TR1 and TR2. TR3 effort is very low (with no effort recorded in 2010; Table 5.4.1.3). There is a clear contrast in effort trend between the TR1 and TR2 categories; effort using TR1 gears declined markedly between 2003 and 2006, was relatively stable from 2006 to 2009 before falling again. Up to 2010 patterns of effort decline or stability was similar between the TR1 and TR2 gears, but effort by TR2 gears stabilised in 2011 and there has been an increase from 2011 to 2012. As a consequence effort by regulated TR2 gear is now higher than that for TR1 gear.

Four years of data are now available regarding TR effort under articles 11 and 13 of Coun. Reg. (EC) 1342/2008. Effort under article 11 is classified as unregulated (exempt) so Figure 5.4.1.3 does not include effort with CPART11. The figure shows a sharp decline in TR1 ‘none’ effort in 2009, but this was more than compensated for by effort now categorised under CPART13 leading to a small increase in overall TR1 effort. Effort under TR1, CPART13 increased again in 2010 but the fall in ‘none’ effort was bigger. Effort in the ‘none’ category has continued to decrease and an increase in effort under CPART13 in 2012 has not prevented overall TR1 declining to its lowest value in 2012. Effort under CPART13B is chiefly from the French saithe fishery in 2012. Effort under this category rose to equal that of category CPART13D (fishing conducted west of a line known as the West of Scotland line).

Figure 5.4.1.4 shows a very large decline in TR2 ‘none’ effort in 2009 which was bigger than the effort recorded for TR2, CPART13 in 2009. Effort by vessels not qualifying for special condition has remained stable since. Vessels transferred from CPART13 to CPART11 in 2010 but there was also an overall reduction in effort. There was a considerable increase in effort assigned to CPART13C in 2012 leading to an overall increase in regulated TR2 effort.

Unregulated effort comprises: a) effort not assigned to a regulated gear type; b) effort where a special condition allows a vessel to be exempted from effort control (west of Scotland only special condition

CPART11 applies to date). Effort not assigned to a regulated gear type comprises 1) mesh size groups 32-54mm and 55-69mm targeting pelagic resources, 2) effort where mesh size was not identified in the data provided, 3) unregulated gear types such as pots and dredges. Figure 5.4.1.5 illustrates the importance of unregulated gear effort within the area. Between 2004 and 2010 total effort recorded for unregulated gears has been close to that for regulated gears (slightly greater between 2004 and 2006) while following a similar trend. Unregulated effort is increasing since 2010, exceeded that of regulated effort since 2011 and the difference has increased in 2012. However, effort of unregulated gears has fallen by 22% in 2012 compared to 2003 (Table 5.4.1.3). Table 5.4.1.4 and Figure 5.4.1.6 show trends in unregulated effort by gear type. Very small quantities of effort under TR1, CPART11 are recorded except in 2012 (doubling of Irish effort and addition of French effort under this category). In 2010-2012 approximately 1m kWdays was recorded under TR2, CPART11. Pelagic trawl is the most significant unregulated category but has also contributed most to the long term decline in unregulated effort.

Tables showing effort in terms of gross tonnage days at sea (GT*days at sea), number of vessels by derogation and capacity in kW are not presented in this report but are available on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

It should be noted that to record an annual number of vessels the maximum number from any of the four quarters within the year is chosen. Because vessels are not necessarily assigned exclusively to a single derogation, some multiple counting may occur if summing across derogations.

Table 5.4.1.1 West of Scotland. Trend in nominal effort (kW*days at sea) by derogations existing in Appendix 1 of Annex IIA of Coun. Reg. 39/2013 and Member State, 2003-2012. Derogations are sorted by gear type and country.

REG GEAR	SPECON	COUNTRY	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BT1	none	FRA	1519	15327								
		SCO	60295	151480	119958	81194	1803					
BT2	none	BEL	19005	18103	8566	4415	2356					
		ENG	1274	12067	1810							
		FRA	25827	34218								
		IRL		28827	5068	6335						
		SCO										
GN1	none	DEU	113084	79545	26780			37334	29088	36132	21816	21446
		ENG	471808	309423	201100	23028	36174		13832	2540		765
		FRA	130216	169758	145478	129344	230271	572425	572425	294925	241877	206263
		IRL	19967	20763	192	3554	13346	9949	3275	551	2075	75
		NIR						3564				
		SCO	47095	66913	38855	1044	553	6155			11972	6628
GT1	none	FRA										
		IRL			12000	448					359	
		SCO	636	435								
LL1		ESP	370933	459841	317428	284497	325325	28103				4415
		FRA										460307
		IRL				163130	445344	277750	277750	189072	172250	
		NIR	7200	18400	3000		9750			1397	7470	3471
		SCO			1574							
TR1	CPart13B	DEU	124695	148430	306947	371404	518888	378736	703396	723065	694992	518307
		SCO								4530		1103
	CPart13c	IRL										1734176
		SCO							113760	102762	443735	4566
	CPart13d	IRL							117484	108034	17295	12888
		SCO							217928	358116	519551	707987
	FDFIIA	SCO							253879	347386	206350	38636
	none	DEU							1897026	1855833	1116540	1383078
		ENG								126775	402802	424177
		ESP	19191	12530	35586	27897	23652	3060	4854	2427		
		FRA	319445	145914	85851	48469	8711	17020	24446	14062	12979	5327
		IOM										162834
		IRL	6010785	5807538	6038254	5193815	5058616	4486887	4482329	3469228	2149300	16870
		NIR										284
		SCO	496439	316477	308681	325597	530740	435661	179594	298286	126436	20852
TR2	CPart13B	SCO	338394	162967	87191	29352	33609	38029	45378	23860	3160	
	CPart13c	SCO	5722625	4502156	2635380	2099673	1986483	1990144				
	none	BEL							3733406	2494409	2462700	1905142
		ENG							792028	237022	174669	1517753
		FRA				1766	795			1176		
		IOM	106861	66311	57345	63616	58724	87267	15721	14802	21642	64875
		IRL	43098	12350			883	269645	274203			
		NIR	181	1172	181	894		649				
		NLD	1130195	977557	767211	712325	388727	205082	17989	9135	17461	18797
		SCO	281887	353511	350269	454128	757758	654124	524483	878592	948262	806188
TR3	none	DNK									5464	884
		IRL	5760703	5334038	4586665	4381098	4693561	4808599				
		NIR	156570	98707		11520						
		SCO	2198		342	160	317	11321	1323		5915	2503
Total reg gears			21812003	19331955	16182914	14418703	15126642	14321504	14295597	11594117	9787072	10057132
	none	DEU	729409	767344	720815	1066842	1057879	700908	490212	430923	1094346	739578
		DNK	66029	289874	172142	636193	132815	99889	0	0	119982	94838
		ENG	763289	597101	528405	1101891	1187425	746498	870027	632396	454937	251527
		FRA	434384	453248	215280	361858	354281	275460	275460	233392	235080	240408
		GBJ	0	0	0	0	0	0	321	0	1043	0
		IOM	8144	13229	2722	9133	11285	35882	15424	7850	17371	40103
		IRL	3254759	3603506	2137558	2210269	2153596	2188949	2084171	1874504	2094240	2439617
		LTU	0	0	0	0	0	0	29520	0	150400	0
		NIR	454206	708614	496663	477364	583955	420274	285040	388615	709247	660801
		NLD	2170705	6497392	5592136	4295071	4118663	3873076	2839787	1564318	1258498	1651394
		SCO	8904500	9410186	8208090	5548713	4990951	4673720	5194309	5046456	4939660	5001460
LL1	CPart11	FRA										205044
TR1	CPart11	FRA										319400
		IRL									213774	415736
		SCO								44284	20755	6192
TR2	CPart11	SCO								1055383	933604	960648
Total unreg gears			16785425	22340494	18073811	15707334	14590850	13014656	12084271	11278121	12242937	13026746
Grand Total			38597428	41672449	34256725	30126037	29717492	27336160	26379868	22872238	22030009	23083878

Table 5.4.1.2 West of Scotland. Relative change in nominal effort (kW*days at sea) reported by Member State compared to the data submitted in 2012; by derogations existing in Appendix 1 of Annex IIA of Coun. Reg. 39/2013.

COUNTRY	REG GEAR COD	VESSEL_LENGTH	2003	2004	2005	2006	2007	2008	2009	2010	2011
BEL	BT2	O15M	0.0%	0.0%	0.0%	0.0%	0.0%				
	TR2	O15M				0.0%	0.0%			0.0%	
DEU	GN1	O15M	0.0%	0.0%	0.0%			0.0%	0.0%	0.0%	0.0%
	PEL_TRAWL	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.2%
	POTS	O15M			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR1	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
DNK	OTTER	O15M									
	PEL_SEINE	O15M	50.0%								
	PEL_TRAWL	O15M	1.6%	9.4%	9.3%	14.4%	-2.1%	6.3%			0.0%
	TR3	O15M	-0.2%	8.4%		0.0%					
ENG	BT2	O10T15M	0.0%								
		O15M	0.0%	0.0%	0.0%						
	DREDGE	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	GN1	O15M	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	
	LL1	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
	OTTER	O10T15M				0.0%					
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
	PEL_TRAWL	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	POTS	O10T15M	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	-0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%
	TR1	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR2	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
FRA	BT1	O15M	0.0%	0.0%							
	BT2	O15M	0.0%	0.0%							
	DREDGE	O10T15M	0.0%	0.0%							
	GN1	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	GT1	O10T15M									
		O15M									
	LL1	O15M				0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	OTTER	O10T15M	0.0%								
		O15M									0.0%
	PEL_SEINE	O15M	0.0%								
	PEL_TRAWL	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR1	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR2	O10T15M	0.0%								
		O15M	0.0%	0.0%			0.0%	0.0%	0.0%		
GBJ	POTS	O15M							0.0%		0.0%
IOM	DREDGE	O10T15M				0.0%	0.0%	0.0%	-9.3%	-15.3%	-15.3%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR1	O15M									
	TR2	O10T15M						0.0%			
		O15M	0.0%	0.0%	0.0%	0.0%					
IRL	BEAM	O15M		0.0%							
	BT2	O15M		0.0%	0.0%	0.0%					
	DEM_SEINE	O10T15M									
		O15M									
	DREDGE	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%				0.0%
		O15M	0.0%	0.0%			0.0%	0.0%			
	GN1	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		
	GT1	O10T15M				0.0%					0.0%
		O15M			0.0%						
	LL1	O10T15M								0.0%	2.9%
		O15M	0.0%	0.0%	0.0%		0.0%				
	none	O10T15M						0.0%		0.0%	
	OTTER	NONE									
		O10T15M	0.0%	0.0%		0.0%	0.0%			0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%
	PEL_TRAWL	NONE									
		O10T15M	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	3.6%
	POTS	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	11.2%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.5%
	TR1	O10T15M	0.0%				0.0%	0.0%			
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			0.0%
	TR2	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.4%	-1.8%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR3	O10T15M				0.0%					0.0%
		O15M	0.0%		0.0%		0.0%	0.0%	0.0%		0.0%

Table 5.4.1.2 (cont) West of Scotland. Relative change in nominal effort (kW*days at sea) reported by Member State compared to the data submitted in 2012; by derogations existing in Appendix 1 of Annex IIA of Coun. Reg. 39/2013.

LTU	PEL_TRAWL	O40M							0.0%		0.0%
NIR	DREDGE	O10T15M	0.0%	0.0%	0.0%	0.0%	-16.7%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%
	GN1	O10T15M						0.0%			
	LL1	O10T15M			0.0%						
	OTTER	O15M	0.0%	0.0%		0.0%	0.0%		0.0%	0.0%	
	PEL_SEINE	O15M	0.0%	0.0%	0.0%	0.0%	0.0%			0.0%	0.0%
	PEL_TRAWL	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	POTS	O10T15M	0.0%	0.0%	0.0%	-0.2%	0.0%	0.0%	0.0%	1.2%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR1	O10T15M				0.0%					
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	-0.8%	0.0%	0.0%	0.0%
	TR2	O10T15M	11.8%	1.6%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.1%	-0.1%	0.3%	0.1%	0.6%	0.5%
	TR3	O15M		0.0%							
NLD	OTTER	O15M	0.0%								
	PEL_TRAWL	O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	TR2	O15M									0.0%
SCO	BT1	O15M	0.0%	0.0%	0.0%	0.0%	0.0%				
	BT2	O15M									
	DEM_SEINE	O15M	0.0%								
	DREDGE	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	-0.1%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	GN1	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
		O15M	0.0%	0.0%	0.0%			0.0%			0.0%
	GT1	O10T15M	0.0%	0.0%							
	LL1	O10T15M									
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	none	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
		O15M		0.0%	0.0%		0.0%	0.0%	0.0%	0.0%	0.0%
	OTTER	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	22.3%	0.0%	0.0%	0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%
	PEL_SEINE	O15M	0.0%							0.0%	
	PEL_TRAWL	O10T15M		0.0%							
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	POTS	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	-0.2%	0.0%	0.2%	0.2%
		O15M	0.0%	0.0%	-0.2%	0.0%	-0.3%	-0.2%	-0.1%	0.2%	0.1%
	TR1	O10T15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			0.0%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		0.0%	0.0%
	TR2	O10T15M	0.0%	-0.1%	0.0%	0.0%	0.0%	0.1%		0.1%	0.2%
		O15M	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%		0.0%	0.0%
	TR3	O10T15M		0.0%							
		O15M	0.0%	0.0%	0.0%		0.0%				

Table 5.4.1.3 West of Scotland. Trend in nominal effort (kW*days at sea) by derogation as defined by Coun. Reg. 1342/2008, 2003-2012.

REG GEAR	SPECON	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	rel chng 03	rel chng 04-06	rel chng 11
BT1	none	61814	166807	119958	81194	1803						-100%	-100%	
BT2	none	46106	93215	15444	10750	2356						-100%	-100%	
GN1	none	782170	646402	412405	156970	280344	629427	618620	334148	277740	235177	-70%	-42%	-15%
GT1	none	636	435	12000	448					359		-100%	-100%	-100%
LL1	none	502828	626671	628949	819031	1299307	684589	981146	913534	874712	986500	96%	43%	13%
TR1	CPart13B							113760	107292	443735	1739845			292%
	CPart13C							335412	466150	536846	720875			34%
	CPart13D							2150905	2203219	1322890	1421714			7%
	none	12906879	10947582	9190943	7724803	7641811	6970801	4736601	3807863	2291875	206167	-98%	-98%	-91%
TR2	CPart13B							3733406	2494409	2462700	1905142			-23%
	CPart13C							792028	237022	174669	1517753			769%
	none	7322925	6744939	5761671	5613827	5900448	6025366	832396	903705	992829	890744	-88%	-85%	-10%
TR3	none	188645	105904	41544	11680	573	11321	1323		5915	9038	-95%	-83%	53%
Total regulated gears		21812003	19331955	16182914	14418703	15126642	14321504	14295597	11467342	9384270	9632955	-56%	-42%	3%
Total unreg gear		16785425	22340494	18073811	15707334	14590850	13014656	12084271	11278121	12242937	13026746	-22%	-30%	6%
Total		38597428	41672449	34256725	30126037	29717492	27336160	26379868	22745463	21627207	22659701	-41%	-36%	5%

Table 5.4.1.4 West of Scotland. Trend in nominal effort (kW*days at sea) by unregulated gear, 2003-2012.

GEAR	SPECON	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	rel chng 03	rel chng 04-06	rel chng 11
BEAM	none		10136										-100%	
DEM_SEINI	none	644										-100%		
DREDGE	none	1956375	1698346	1510557	1161671	910993	1075527	1071111	1002819	912292	1373789	-30%	-6%	51%
none	none	52102	26858	42249	50920	63504	68847	99379	99562	98890	118429	127%	196%	20%
OTTER	none	188521	514624	654988	290706	41340	151972	171586	95489	345660	313347	66%	-36%	-9%
PEL_SEINE	none	251947	266254	157776	186486	113645			53255	128000		-100%	-100%	-100%
PEL_TRAW	none	11673697	17106281	12924636	11287883	10022299	8781704	7785023	5592818	6726463	6732635	-42%	-51%	0%
POTS	none	2662139	2717995	2783605	2729668	3439069	2936606	2957172	3334511	2863499	2581526	-3%	-6%	-10%
LL1	CPart11										205044			
TR1	CPart11								44284	234529	741328			216%
TR2	CPart11								1055383	933604	960648			3%
Grand Total		16785425	22340494	18073811	15707334	14590850	13014656	12084271	11278121	12242937	13026746	-22%	-30%	6%

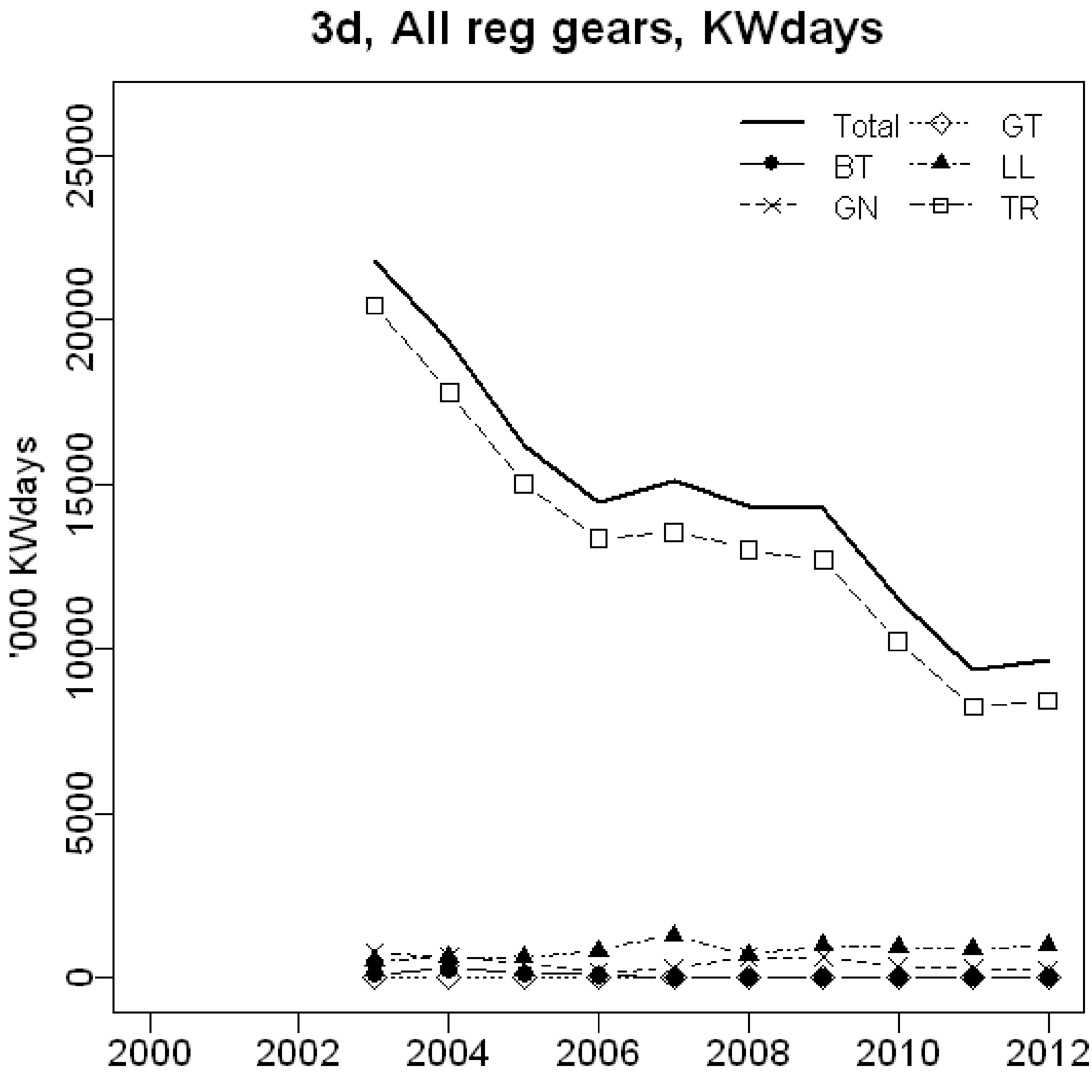


Figure 5.4.1.1 West of Scotland. Trend in nominal effort (kW*days at sea) by gear types as defined by Coun. Reg. 1342/2008, 2003-2012. Values exclude effort in categories exempted from effort control (CPart11).

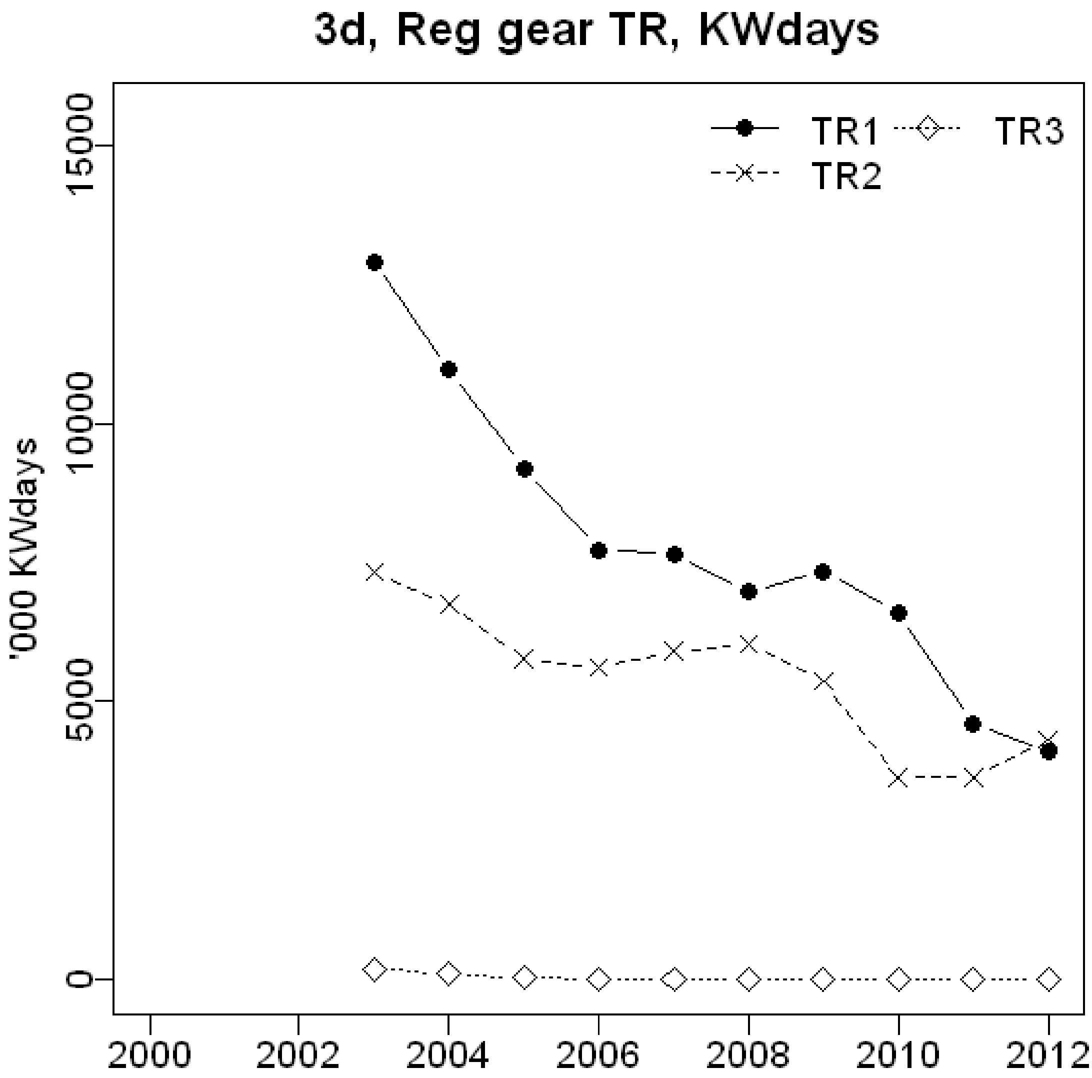


Figure 5.4.1.2 West of Scotland. Trend in nominal effort (kW*days at sea) by TR gear groups as defined by Coun. Reg. 1342/2008, 2003-2012. Values exclude effort in categories exempted from effort control (CPart11).

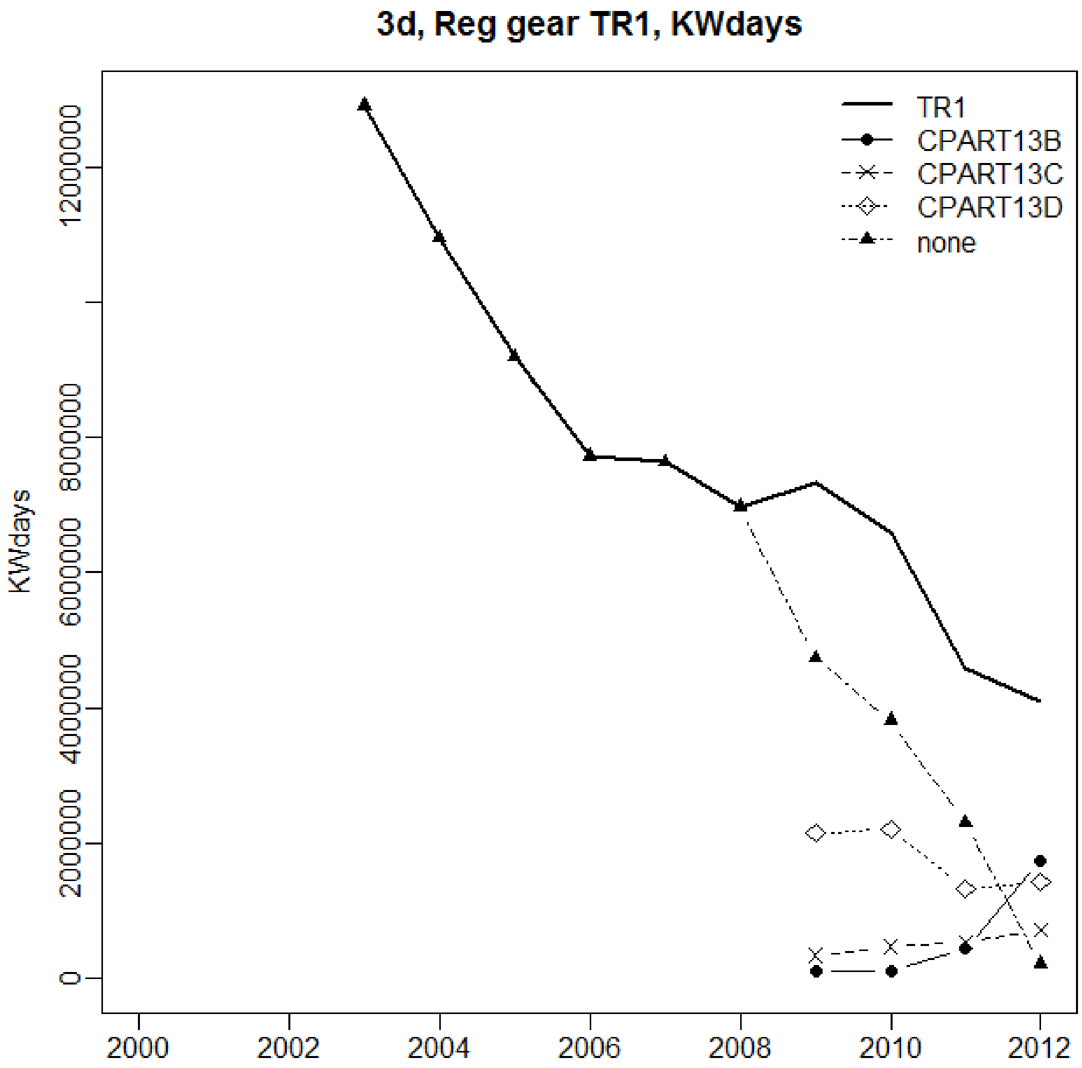


Figure 5.4.1.3 West of Scotland. Trend in nominal effort (kW*days at sea) by specon for regulated gear TR1. Line labelled TR1 represents the sum of the other lines. Categories exempted from effort control (CPart11) excluded.

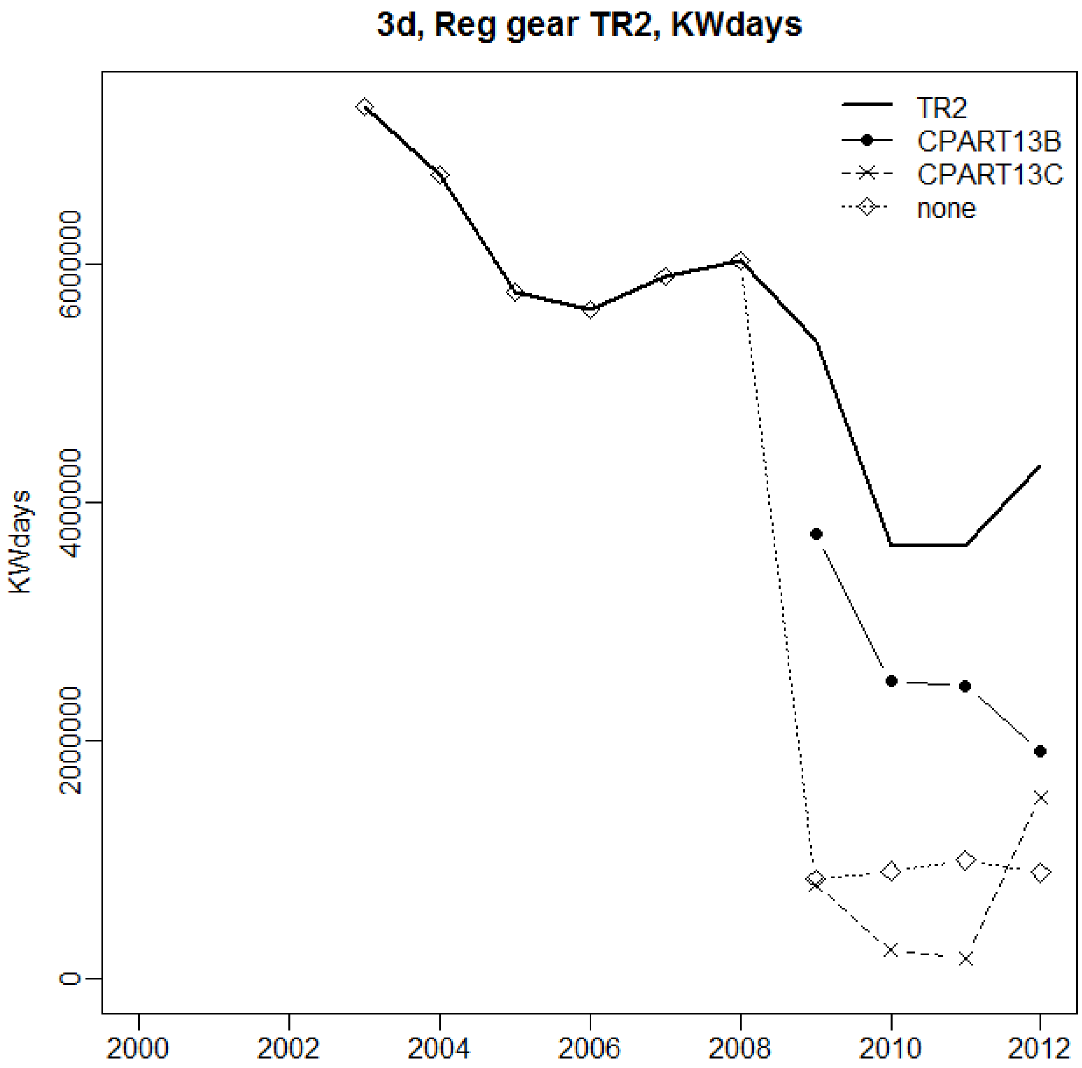


Figure 5.4.1.4 West of Scotland. Trend in nominal effort (kW*days at sea) by specon for regulated gear TR2. Line labelled TR2 represents the sum of the other lines. Categories exempted from effort control (CPart11) excluded.

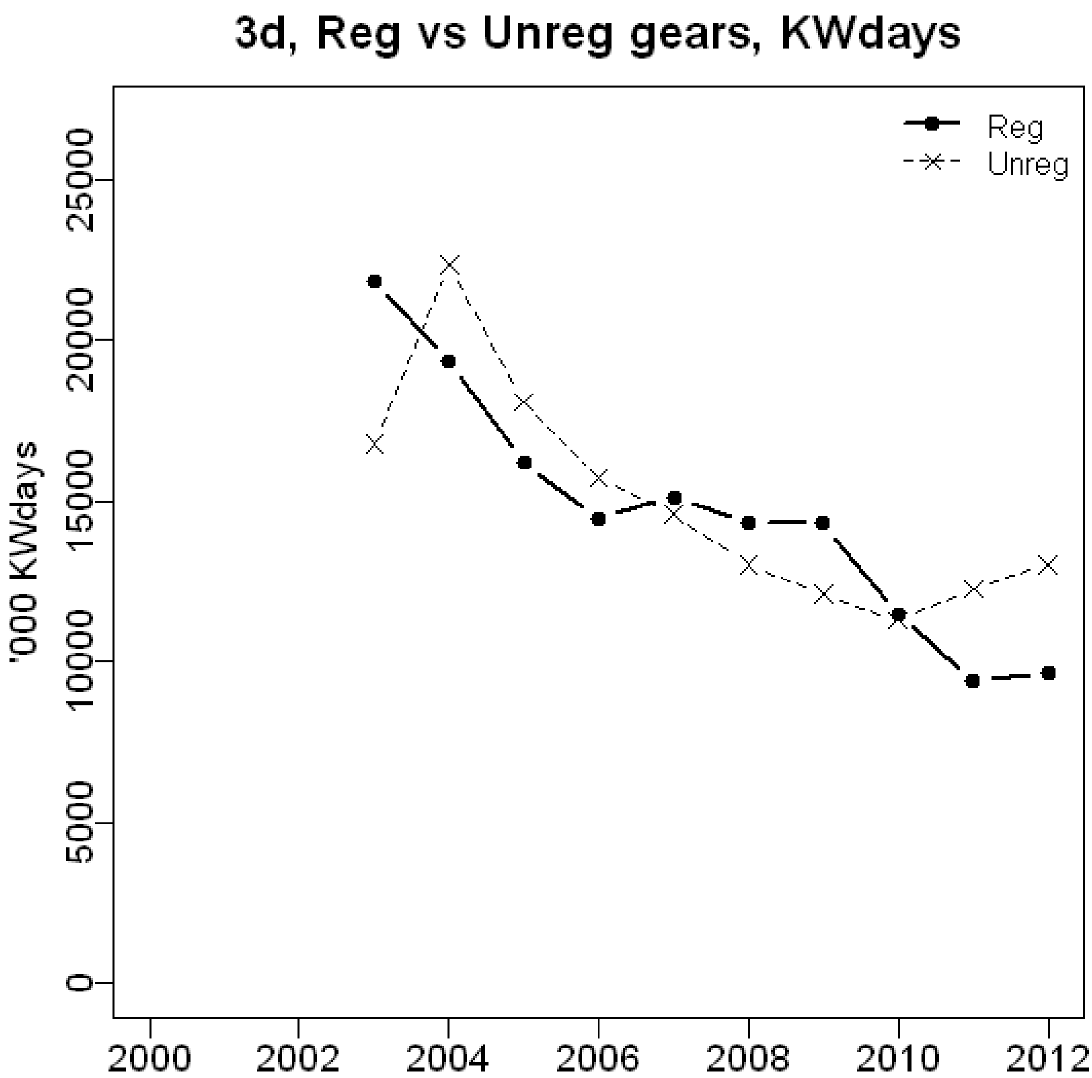


Figure 5.4.1.5 West of Scotland. Trend in nominal effort (kW*days at sea) by regulated gear groups (combined) as defined by Coun. Reg. 1342/2008 compared to unregulated gear groups (combined), 2003-2012. Unregulated effort includes gears with special conditions that exempt them from effort control (TR1 and TR2 with specon CPART11).

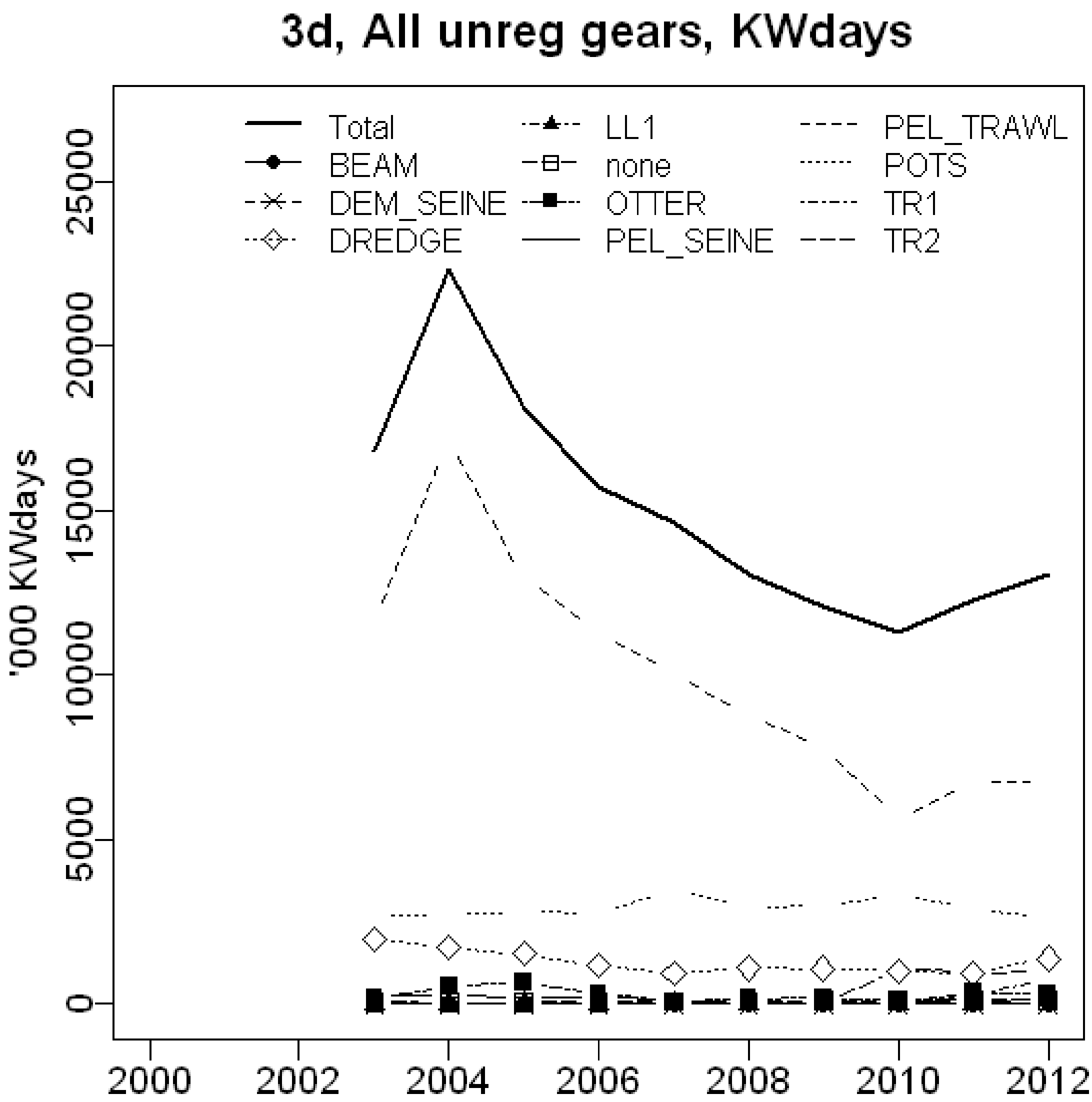


Figure 5.4.1.6 West of Scotland. Trend in nominal effort (kW*days at sea) by unregulated gear groups (combined), 2003-2012. Unregulated effort includes gears with special conditions that exempt them from effort control (TR1 and TR2 with specon CPART11).

5.4.2 ToR 1.b and c Catches (landings and discards) of cod and non-cod species in weight and numbers at age by fisheries

Table 5.4.2.1 lists the landings and discards for cod for gears defined according to Coun. Reg. (EC) 1342/2008 and table 5.4.2.2 shows the discard rate and associated quality index for the same gears.

Table 5.4.2.3 lists landings and discards for other demersal species considered of importance, anglerfish (ANF), haddock (HAD), hake, (HKE), Nephrops (NEP), plaice (PLE), saithe (POK), sole (SOL), and whiting (WHG) for gears defined according to Coun. Reg. (EC) 1342/2008. Table 5.4.2.4 shows the discard rate and associated quality index for these species and gears.

Table 5.4.2.5 lists landings and discards for pelagic species (caught in the largest quantities west of Scotland) for gears defined according to Coun. Reg. (EC) 1342/2008. Table 5.4.2.6 shows the discard rate and associated quality index for these species and gears.

Tables 5.4.2.7 and 5.4.2.8 show the landings and discards and quality indices respectively for cod as caught by unregulated gears. Tables 5.4.2.9 and 5.4.2.10 show the landings and discards and quality indices respectively for the other demersal species selected as caught by unregulated gears. Tables 5.4.2.11 and 5.4.2.12 show the landings and discards and quality indices respectively for the pelagic species selected as caught by unregulated gears.

The data given in Tables 5.4.2.1 and 5.4.2.3 form the basis of Figure 5.4.2.1 displaying the relative catch compositions by derogations for the years 2003-2012. Discard information on Nephrops for any gear and for all other species for non-trawl gears was not available for this report. Therefore the lack of the dark bars representing discards in these figures indicates a lack of observations for non-trawl gears and a lack of information for Nephrops rather than an absence of discards.

A description of the catch compositions of the derogations relevant to the area follows:-

TR1 -- The main species caught are haddock, saithe and anglerfish. The catches of hake have been steadily rising. The landings of both hake and anglerfish now well exceed those of cod; the landings of the latter reflect the steady reduction in the cod TAC followed by the introduction in 2012 of a zero TAC but 1.5% landings by-catch allowance. Catches of cod have remained much higher than landings because of increased discards.

TR2 – Landings are dominated by Nephrops. Considering landings across all gear categories this species contributes the greatest contribution to landings among the demersal species. By-catch of the finfish occur with historically high discard rates of haddock and whiting, however whiting catches are recorded as low in recent years.

TR3 – Landings for this gear category are negligible for this region.

GN1 – This category lands anglerfish, hake and saithe. The landings of hake and saithe increased rapidly to 2008 but the overall quantities are still small.

LL1 – The longline fishery lands hake almost exclusively. Landings of hake are up to 6 times that from the gillnet fishery. The large increase in hake landings by this gear category between 2011 and 2012 is because of the addition of Spanish data for 2012 (landings by nations other than Spain decreased by approx 500 tonnes). Spanish landings are unknown for earlier years.

Unregulated (POTS) – Of those gears not regulated under Coun. Reg. (EC) 1342/2008 the most significant landings of the species considered come from pots – in this case Nephrops (although the gear takes numerous other species).

The overall discard rate of cod (by weight) has increased in years subsequent to 2003 (Table 5.4.2.1). This was due initially to higher discard rates in the smaller meshed category (TR2) but in 2006 the recorded discard rate for the TR1 gear group leapt from 1% to 49% (reflecting legislation successfully curtailing illegal landings). The rate of discarding in the TR1 gears has been between 70 and a little over 90% in 2008-2012. Catches of cod by TR2 ‘none’ have been negligible since 2009 but the discard rates recorded for TR2 CPART13 and CPART11 are still very high (although low sampling coverage of TR2 vessels lead to high annual variation). It is believed the present high discard rates result from a combination of restrictive quotas, fishing opportunities for other species and year classes of cod (2005 and 2008 year classes) large enough to allow catches over and above the cod quota.

Data on age specific landings are not presented in this report but are available on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

It can be seen from the tables and figures presented that landings of plaice and sole are negligible across all gear categories and in west of Scotland it is only relevant to consider age specific data for cod for this region. Also, only trawl gears catch enough cod to merit a catch at age analysis.

Table 5.4.2.1 West of Scotland. Landings (t), discards (t) and relative discard rates for cod by derogation existing in Table 1 of Annex IIA of Coun. Reg. (EU) 39/2013 2003-2012.

SPECIES	REG_GEAR	SPECON	2003 L	2003 D	2003 R	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R
COD	GN1	none	5.959			0.875			6.29			8.557			13.501		
COD	LL1	none	8.222			4.872			5.172			13.698			8.182		
COD	TR1	CPart13B															
COD	TR1	CPart13c															
COD	TR1	CPart13d															
COD	TR1	none	987.684	14.009	1.4%	478.948	11.005	2.2%	435.963	5.911	1.3%	386.787	380.25	49.6%	357.698	763.99	68.1%
COD	TR2	CPart13B															
COD	TR2	CPart13C															
COD	TR2	none	245.145	39.697	13.9%	88.55	40.115	31.2%	46.279	34.211	42.5%	34.87	233.287	87.0%	65.068	153.714	70.3%
COD	TR3	none	0	0.013	100.0%				0	0.001	100.0%				0	0.001	100.0%

SPECIES	REG_GEAR	SPECON	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R
COD	GN1	none	9.658			6.038			2.99			3.472					
COD	LL1	none	0.1			0.1			0.04								
COD	TR1	CPart13B				3.861	24.355	86.3%	4.053	19.094	82.5%	10.781	156.444	93.6%	2.982		
COD	TR1	CPart13c				9.781	43.035	81.5%	14.475	58.737	80.2%	6.935	90.702	92.9%	11.872	87.619	88.1%
COD	TR1	CPart13d				99.019	541.95	84.6%	122.615	478.551	79.6%	106.478	1164.177	91.6%	115.833	864.194	88.2%
COD	TR1	none	331.429	821.864	71.3%	98.838	0.181	0.2%	67.196	406.952	85.8%	46.873	1.542	3.2%	1.215	4.737	79.6%
COD	TR2	CPart13B				5.4	34.064	86.3%	3.944			5.708			1.722		
COD	TR2	CPart13C				2.013	12.701	86.3%	0.685			1.658			5.973		
COD	TR2	none	47.303	19.402	29.1%	3.58	0.001	0.0%	1.324	0	0.0%	1.694	0.018	1.1%	1.886	5.464	74.3%
COD	TR3	none	0	0.119	100.0%							0	0.002	100.0%	0	0.136	100.0%

Table 5.4.2.2 West of Scotland. Relative discard rate and associated measure of reliability for cod by derogation existing in Table 1 of Annex IIA of Coun. Reg. (EU) 39/2013 2003-2012. A = sampling of > 66% of landings; B = sampling of 33 to 66% of landings; C = sampling of < 33% of landings.

SPECIES	REG_GEAR	SPECON	2003 R	2003 DQI	2004 R	2004 DQI	2005 R	2005 DQI	2006 R	2006 DQI	2007 R	2007 DQI
COD	GN1	none										
COD	LL1	none										
COD	TR1	CPart13B										
COD	TR1	CPart13c										
COD	TR1	CPart13d										
COD	TR1	none	1.4%	A	2.2%	A	1.3%	A	49.6%	A	68.1%	A
COD	TR2	CPart13B										
COD	TR2	CPart13C										
COD	TR2	none	13.9%	A	31.2%	A	42.5%	A	87.0%	B	70.3%	A
COD	TR3	none	100.0%	A			100.0%	A			100.0%	A

SPECIES	REG_GEAR	SPECON	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI
COD	GN1	none										
COD	LL1	none										
COD	TR1	CPart13B			86.3%	A	82.5%	A	93.6%	A		
COD	TR1	CPart13c			81.5%	A	80.2%	A	92.9%	A	88.1%	A
COD	TR1	CPart13d			84.6%	A	79.6%	A	91.6%	A	88.2%	A
COD	TR1	none	71.3%	A	0.2%	C	85.8%	A	3.2%	C	79.6%	C
COD	TR2	CPart13B			86.3%	A						
COD	TR2	CPart13C			86.3%	A						
COD	TR2	none	29.1%	A	0.0%	A	0.0%	C	1.1%	A	74.3%	A
COD	TR3	none	100.0%	A					100.0%	A	100.0%	A

Table 5.4.2.3 West of Scotland. Landings (t), discards (t) and relative discard rates by species (ANF, HAD, HKE, NEP, PLE, POK, SOL, WHG) and derogation existing in Table 1 of Annex IIA of Coun. Reg. (EU) 39/2013, 2003-2012.

SPECIES	REG_GEAR	SPECON	2003 L	2003 D	2003 R	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R
ANF	BT1	none	0.817			14.197	0	0.0%	3.275			0.585																				
ANF	BT2	NONE	0.529			0.902						0.1																				
ANF	GN1	none	131.722	0	0.0%	298.479	0	0.0%	357.654	0	0.0%	242.732	0	0.0%	210.291	0	0	455.044	0	0.0%	483.727			87.205			68.487			66.391		
ANF	GT1	NONE										0.64																				
ANF	LL1	none	0.026			0.002			0.015			0.163			0.081																	
ANF	TR1	CPart13B																			25.283			58.784			197.365			732.507		
ANF	TR1	CPart13c																			55.617	0	0.0%	81.294	1.585	1.9%	49.011	0.378	0.8%	52.048	2.181	4.0%
ANF	TR1	CPart13d																			938.926	2.138	0.2%	1193.871	12.508	1.0%	1009.97	4.037	0.4%	1147.909	13.21	1.1%
ANF	TR1	NONE	1753.242	965.234	35.5%	1888.809	610.002	24.4%	2439.556	60.5	2.4%	2199.355	0	0.0%	2868.162	363.305	0.112	3007.105	78.137	2.5%	1911.647	10.438	0.5%	473.538	3.621	0.8%	1017.488	3.94	0.4%	41.079	0.811	1.9%
ANF	TR2	CPart13B																			38.824			36.268			37.751			8.967		
ANF	TR2	CPart13C																			27.732			3.893			13.654			107.879		
ANF	TR2	NONE	426.249	478.565	52.9%	343.19	275.265	44.5%	329.26	25.003	7.1%	413.941			453.26	88.088	0.163	215.738	13.908	6.1%	19.109	0.021	0.1%	2.446	0.085	3.4%	10.931	0.023	0.2%	21.859	0.548	2.4%
ANF	TR3	none	0.02	0.069	77.5%	0.016			0	0.002	100.0%				0	0.01	1	1.33	0.099	6.9%	0	0.004	100.0%				0	0.141	100.0%	0	0.052	100.0%
HAD	BT1	none	1.38			6.82			0.65			1.199			0.16																	
HAD	BT2	NONE	0.077			0.178			0.096																							
HAD	GN1	none	2.256			0.45			3.22			5.754			9.808			16.144			16.674			7.76			8.686	0.184	2.1%	4.465		
HAD	LL1	none	0.737			0.795			4.521			5.241			4.83			0.441			0.441						0.125					
HAD	TR1	CPart13B																			161.408	114.584	41.5%	36.031	3.651	9.2%	99.873	15.908	13.7%	20.366	0.073	0.4%
HAD	TR1	CPart13c																			228.465	132.821	36.8%	221.912	21.995	9.0%	166.231	27.057	14.0%	460.15	11.945	2.5%
HAD	TR1	CPart13d																			2115.513	1403.357	39.9%	2331.96	214.196	8.4%	1095.747	158.445	12.6%	3142.358	33.141	1.0%
HAD	TR1	none	4524.221	3597.532	44.3%	2791.7	2454.728	46.8%	2963.095	1353.789	31.4%	5516.001	4895.72	47.0%	3418.362	2624.918	0.434	2528.281	660.278	20.7%	212.914	5.952	2.7%	255.499	2.665	1.0%	87.829	21.766	19.9%	17.112	4.797	21.9%
HAD	TR2	CPart13B																			26.628	18.902	41.5%	17.148	2203.058	99.2%	47.33	726.543	93.9%	52.756	36.974	41.2%
HAD	TR2	CPart13C																			16.386	11.631	41.5%	2.679	344.124	99.2%	22.703	348.506	93.9%	450.025	315.407	41.2%
HAD	TR2	none	826.554	2196.954	72.7%	503.386	2336.734	82.3%	239.499	1306.851	84.5%	207.438	963.804	82.3%	270.193	484.374	0.642	235.212	331.556	58.5%	14.245	0.167	1.2%	4.845	0.02	0.4%	7.403	1.529	17.1%	49.744	37.376	42.9%
HAD	TR3	none	0.016	0.517	97.0%	0.671	0.329	32.9%	0	0.029	100.0%				0	0.03	1	0.32	0.759	70.3%	0	0.026	100.0%				0	0.678	100.0%	0	0.002	100.0%
HKE	BT2	NONE				0.008						0.08																				
HKE	GN1	none	11.271			13.703			31.895			114.943			338.291			1122.745			1122.495			1016.85			1246.731	15.826	1.3%	887.28		
HKE	LL1	none	144.346			307.303			699.241			1126.813			1938.882			929.155			2049.961			2368.099			3367.341			4835.232		
HKE	TR1	CPart13B																			88.214			2.918			79.942			1244.087		
HKE	TR1	CPart13c																			53.56	0	0.0%	121.334	0	0.0%	17.914	0	0.0%	27.402	0	0.0%
HKE	TR1	CPart13d																			378.027	0	0.0%	547.696	0	0.0%	524.507	0	0.0%	397.304	0	0.0%
HKE	TR1	NONE	338.805	2274.726	87.0%	644.569	1252.642	66.0%	1129.933	1805.787	61.5%	919.851	0	0.0%	1093.859	957.716	46.7%	1664.616	936.615	36.0%	1206.858	0	0.0%	1857.047	0.016	0.0%	1183.115	144.995	10.9%	130.262	0	0.0%
HKE	TR2	CPart13B																			25.396			15.613			19.502			4.925		
HKE	TR2	CPart13C																			17.978			6.939			5.733			28.538		
HKE	TR2	none	118.698	546.022	82.1%	180.542	977.391	84.4%	149.414	372.704	71.4%	167.562			108.701	360.796	76.8%	100.297	205.289	67.2%	8.692	0	0.0%	5.331	0	0.0%	10.793	0	0.0%	9.043	4.275	32.1%
HKE	TR3	NONE	0	0.139	100.0%				0	0.019	100.0%				0	0.039	100.0%	1.12	1.817	61.9%												
NEP	BT1	none	1.873																													
NEP	GN1	NONE	0.18			1.03																										
NEP	LL1	none				0.28																					0.17					
NEP	TR1	CPart13B																			3.519			25.167			320.468			3.474		
NEP	TR1	CPart13c																			321.925			210.918			1.205			339.671		
NEP	TR1	CPart13d																			21.032			5.985			5.628			45.291		
NEP	TR1	none	406.948			196.227			367.57			520.689			514.214			470.371			49.676			20.81			7.83			0.503		
NEP	TR2	CPart13B																			7321.068			5265.617			5725.058			4435.026		
NEP	TR2	CPart13C																			1225.083			333.969			249.13			2791.981		
NEP	TR2	none	8064.796			7825.123			7731.932			10333.204			12897.904			11993.69			1185.837			1910.573			2459.655			2411.805		
NEP	TR3	NONE				0.7			0.413						1.15			1.12														

Table 5.4.2.3 (cont) West of Scotland. Landings (t), discards (t) and relative discard rates by species (ANF, HAD, HKE, NEP, PLE, POK, SOL, WHG) and derogation existing in Table 1 of Annex IIA of Coun. Reg. (EU) 39/2013, 2003-2012.

SPECIES	REG_GEAR	SPECON	2003 L	2003 D	2003 R	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R
PLE	BT1	none	42.113			10.421			9.386			0.396																				
PLE	BT2	none	0.717			2.844			0.28			0.31																				
PLE	GN1	NONE	0.4			0.09			0.07			0.03			0.01																	
PLE	TR1	CPart13B																			3.208			4.617			1.278			1.024		
PLE	TR1	CPart13c																			8.775	0.267	3.0%	12.671	0.203	1.6%	5.018	0.105	2.0%	13.419	0.469	3.4%
PLE	TR1	CPart13d																			25.1	6.147	19.7%	21.214	1.487	6.6%	19.716	18.321	48.2%	20.291	7.466	26.9%
PLE	TR1	none	198.402	1536.67	88.6%	107.103	1120.196	91.3%	36	140.809	79.6%	36.066			45.72	164.524	78.3%	32.87	17.061	34.2%	4.221	0.767	15.4%	12.068	0.012	0.1%	6.045	2.748	31.3%	1.025	0.367	26.4%
PLE	TR2	CPart13B																			0.615			3.98			4.928			0.367		
PLE	TR2	CPart13C																			1.154			0.428			1.223			7.229		
PLE	TR2	none	156.448	220.071	58.4%	68.174	524.928	88.5%	53.434	34.867	39.5%	33.527			31.578	41.896	57.0%	13.164	7.219	35.4%	0.257	0.117	31.3%	1.101	0.001	0.1%	1.309	0.045	3.3%	4.607	12.189	72.6%
PLE	TR3	none	0.007	0.093	93.0%				0	0.002	100.0%				0	0.005	100.0%	0.05	0.036	41.9%	0	0.008	100.0%				0	0.068	100.0%			
POK	BT1	none	0.039			6.302	0	0.0%				1.581			1.029																	
POK	GN1	none	22.146			0.124			2.726			67.063			279.438			370.098			370.148			289.62			251.218	16.894	6.3%	555.42		
POK	LL1	none	1.836			2.058			3.657			6.729			16.951			5.998			4.234			1.99			6.905			1.07		
POK	TR1	CPart13B																			44.665			5.323	0.959	15.3%	375.366	103.771	21.7%	1601.729		
POK	TR1	CPart13c																			131.709	0	0.0%	74.287	12.844	14.7%	190.163	50.333	20.9%	187.051	101.284	35.1%
POK	TR1	CPart13d																			2910.475	0	0.0%	2973.359	487.887	14.1%	3642.845	954.796	20.8%	4116.996	2337.308	36.2%
POK	TR1	none	4940.719	9965.057	66.9%	4476.88	908.44	16.9%	6222.28	6603.528	51.5%	9230.513	5070.175	35.5%	6076.851	1654.189	21.4%	5652.47	2188.912	27.9%	3264.619	0	0.0%	1832.503	0.004	0.0%	1581.501	2.486	0.2%	15.617	0	0.0%
POK	TR2	CPart13B																			1.316			0.336	0.181	35.0%	1.575	5.909	79.0%	1.759		
POK	TR2	CPart13C																			0.371			0.759	0.407	34.9%	0.093	0.349	79.0%	8.338		
POK	TR2	none	86.143	111.687	56.5%	39.202	50.387	56.2%	30.069	278.029	90.2%	11.255	281.529	96.2%	7.234	87.792	92.4%	19.176	161.265	89.4%	16.883	0	0.0%	0.142	0	0.0%	1.603	0	0.0%	0.362	0	0.0%
POK	TR3	NONE	0	0.037	100.0%				0	0.025	100.0%				0	0.016	100.0%	0	0.037	100.0%												
SOL	BT1	none	0.033																													
SOL	BT2	none	4.609			1.501			0.08			0.44																				
SOL	GN1	NONE	0.5			0.11																										
SOL	TR1	CPart13B																			0.131			0.005								
SOL	TR1	CPart13c																			0.89	0	0.0%	6.38	0	0.0%	2.36	0	0.0%	3.238	0	0.0%
SOL	TR1	CPart13d																			0.839	0	0.0%	6.58	0	0.0%	2.38	0	0.0%	2.165	0	0.0%
SOL	TR1	none	1.436	1.918	57.2%	2.827	1.005	26.2%	1.457			0.479			2.204	4.584	67.5%	2.129			0.631	0	0.0%	9.67	0	0.0%	4.24	0	0.0%	1.47	0	0.0%
SOL	TR2	CPart13B																			0.687			0.416			2.18			0.4		
SOL	TR2	CPart13C																			0.506			0.021			0.217			2.629		
SOL	TR2	none	29.166	2.948	9.2%	18.412	3.353	15.4%	15.843			12.255			20.244	5.181	20.4%	12.394			0.215	0	0.0%	0.988	0	0.0%	1.786	0	0.0%	1.123	0.052	4.4%
SOL	TR3	NONE	0	0.001	100.0%										0	0.001	100.0%	0.15														
WHG	BT1	none	0.147									0.102																				
WHG	BT2	NONE	0.003			0.006																										
WHG	GN1	none	0.092			0.55			0.09			0.109			0.161			1.919			1.919			0.08			0.04			0.02		
WHG	LL1	none	0.004						0.114																							
WHG	TR1	CPart13B																			23.928	54.373	69.4%	0.77	3.238	80.8%	5.388	3.143	36.8%	0.134		
WHG	TR1	CPart13c																			105.467	89.083	45.8%	56.492	166.652	74.7%	12.445	7.133	36.4%	16.817	4.34	20.5%
WHG	TR1	CPart13d																			290.415	605.727	67.6%	228.859	856.746	78.9%	59.093	32.633	35.6%	130.969	378.488	74.3%
WHG	TR1	none	689.032	507.14	42.4%	436.497	1523.614	77.7%	132.685	243.024	64.7%	184.955	65.444	26.1%	414.444	109.352	20.9%	354.568	37.006	9.5%	35.159	3.017	7.9%	56.765	1.808	3.1%	50.307	8.705	14.8%	1.78	3.358	65.4%
WHG	TR2	CPart13B																			16.775	38.117	69.4%	2.899	12.182	80.8%	7.737	150.923	95.1%	3.991	44.172	91.7%
WHG	TR2	CPart13C																			8.094	18.392	69.4%				4.585	89.436	95.1%	50.146	554.959	91.7%
WHG	TR2	none	660.573	2000.183	75.2%	368.281	1822.898	83.2%	204.187	695.333	77.3%	196.706	7109.894	97.3%	68.613	228.208	76.9%	84.994	194.226	69.6%	0.356	0.086	19.5%	2.259	0.027	1.2%	1.567	0.859	35.4%	7.131	31.079	81.3%
WHG	TR3	none	0.025	0.347	93.3%	0.397	0.132	25.0%	0	0.01	100.0%				0	0.01	100.0%	0	0.165	100.0%	0	0.013	100.0%				0	0.191	100.0%			

Table 5.4.2.4 West of Scotland. Relative discard rate and associated measure of reliability by species (ANF, HAD, HKE, NEP, PLE, POK, SOL, WHG) and derogation existing in Table 1 of Annex IIA of Coun. Reg. (EU) 39/2013 2003-2012. A = sampling of > 66% of landings; B = sampling of 33 to 66% of landings; C = sampling of < 33% of landings.

SPECIES	REG_GEAR	SPECON	2003 R	2003 DQI	2004 R	2004 DQI	2005 R	2005 DQI	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI
ANF	BT1	none			0.0%	C																
ANF	BT2	NONE																				
ANF	GN1	none	0.0%	C	0.0%	A	0.0%	A	0.0%	A	0.0%	A	0.0%	B								
ANF	GT1	NONE																				
ANF	LL1	none																				
ANF	TR1	CPart13B																				
ANF	TR1	CPart13c													0.0%	A	1.9%	A	0.8%	B	4.0%	C
ANF	TR1	CPart13d													0.2%	C	1.0%	C	0.4%	C	1.1%	C
ANF	TR1	NONE	35.5%	C	24.4%	C	2.4%	C	0.0%	C	11.2%	C	2.5%	C	0.5%	C	0.8%	A	0.4%	C	1.9%	C
ANF	TR2	CPart13B																				
ANF	TR2	CPart13C																				
ANF	TR2	NONE	52.9%	B	44.5%	B	7.1%	B			16.3%	B	6.1%	B	0.1%	A	3.4%	C	0.2%	A	2.4%	A
ANF	TR3	none	77.5%	C			100.0%	A			100.0%	A	6.9%	A	100.0%	A			100.0%	A	100.0%	A
HAD	BT1	none																				
HAD	BT2	NONE																				
HAD	GN1	none																	2.1%	C		
HAD	LL1	none																				
HAD	TR1	CPart13B													41.5%	A	9.2%	A	13.7%	A	0.4%	C
HAD	TR1	CPart13c													36.8%	A	9.0%	A	14.0%	A	2.5%	B
HAD	TR1	CPart13d													39.9%	A	8.4%	A	12.6%	A	1.0%	A
HAD	TR1	none	44.3%	A	46.8%	A	31.4%	A	47.0%	A	43.4%	A	20.7%	A	2.7%	B	1.0%	C	19.9%	A	21.9%	B
HAD	TR2	CPart13B													41.5%	A	99.2%	A	93.9%	A	41.2%	A
HAD	TR2	CPart13C													41.5%	A	99.2%	A	93.9%	A	41.2%	A
HAD	TR2	none	72.7%	A	82.3%	A	84.5%	A	82.3%	B	64.2%	A	58.5%	A	1.2%	B	0.4%	C	17.1%	A	42.9%	A
HAD	TR3	none	97.0%	C	32.9%	A	100.0%	A			100.0%	A	70.3%	A	100.0%	A			100.0%	A	100.0%	A
HKE	BT1	none																				
HKE	BT2	NONE																				
HKE	GN1	none																	1.3%	B		
HKE	LL1	none																				
HKE	TR1	CPart13B																				
HKE	TR1	CPart13c													0.0%	A	0.0%	C	0.0%	C	0.0%	C
HKE	TR1	CPart13d													0.0%	B	0.0%	C	0.0%	C	0.0%	C
HKE	TR1	NONE	87.0%	C	66.0%	C	61.5%	C	0.0%	C	46.7%	C	36.0%	C	0.0%	C	0.0%	A	10.9%	B	0.0%	C
HKE	TR2	CPart13B																				
HKE	TR2	CPart13C																				
HKE	TR2	none	82.1%	B	84.4%	B	71.4%	B			76.8%	B	67.2%	B	0.0%	B	0.0%	C	0.0%	A	32.1%	A
HKE	TR3	NONE	100.0%	A			100.0%	A			100.0%	A	61.9%	A								
NEP	BT1	none																				
NEP	GN1	NONE																				
NEP	LL1	none																				
NEP	TR1	CPart13B																				
NEP	TR1	CPart13c																				
NEP	TR1	CPart13d																				
NEP	TR1	none																				
NEP	TR2	CPart13B																				
NEP	TR2	CPart13C																				
NEP	TR2	none																				
NEP	TR3	NONE																				

Table 5.4.2.4 (cont) West of Scotland. Relative discard rate and associated measure of reliability by species (ANF, HAD, HKE, NEP, PLE, POK, SOL, WHG) and derogation existing in Table 1 of Annex IIA of Coun. Reg. (EU) 39/2013 2003-2012. A = sampling of > 66% of landings; B = sampling of 33 to 66% of landings; C = sampling of < 33% of landings.

SPECIES	REG_GEAR	SPECON	2003 R	2003 DQI	2004 R	2004 DQI	2005 R	2005 DQI	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI
PLE	BT1	none																				
PLE	BT2	none																				
PLE	GN1	NONE																				
PLE	TR1	CPart13B																				
PLE	TR1	CPart13c													3.0%	C	1.6%	B	2.0%	C	3.4%	C
PLE	TR1	CPart13d													19.7%	C	6.6%	C	48.2%	C	26.9%	C
PLE	TR1	none	88.6%	C	91.3%	C	79.6%	C			78.3%	C	34.2%	C	15.4%	A	0.1%	B	31.3%	A	26.4%	A
PLE	TR2	CPart13B																				
PLE	TR2	CPart13C																				
PLE	TR2	none	58.4%	A	88.5%	B	39.5%	A			57.0%	A	35.4%	B	31.3%	B	0.1%	C	3.3%	A	72.6%	C
PLE	TR3	none	93.0%	C			100.0%	A			100.0%	A	41.9%	A	100.0%	A			100.0%	A		
POK	BT1	none			0.0%	C																
POK	GN1	none																	6.3%	A		
POK	LL1	none																				
POK	TR1	CPart13B															15.3%	B	21.7%	A		
POK	TR1	CPart13c													0.0%	B	14.7%	A	20.9%	A	35.1%	A
POK	TR1	CPart13d													0.0%	C	14.1%	A	20.8%	A	36.2%	A
POK	TR1	none	66.9%	C	16.9%	C	51.5%	C	35.5%	C	21.4%	C	27.9%	B	0.0%	C	0.0%	B	0.2%	C	0.0%	C
POK	TR2	CPart13B															35.0%	A	79.0%	A		
POK	TR2	CPart13C															34.9%	A	79.0%	A		
POK	TR2	none	56.5%	A	56.2%	A	90.2%	A	96.2%	C	92.4%	A	89.4%	B	0.0%	C	0.0%	C	0.0%	A	0.0%	B
POK	TR3	NONE	100.0%	A			100.0%	A			100.0%	A	100.0%	A								
SOL	BT1	none																				
SOL	BT2	none																				
SOL	GN1	NONE																				
SOL	TR1	CPart13B																				
SOL	TR1	CPart13c													0.0%	A	0.0%	A	0.0%	A	0.0%	A
SOL	TR1	CPart13d													0.0%	A	0.0%	B	0.0%	A	0.0%	A
SOL	TR1	none	57.2%	C	26.2%	B					67.5%	A			0.0%	A	0.0%	B	0.0%	A	0.0%	A
SOL	TR2	CPart13B																				
SOL	TR2	CPart13C																				
SOL	TR2	none	9.2%	A	15.4%	A					20.4%	A			0.0%	C	0.0%	C	0.0%	A	4.4%	B
SOL	TR3	NONE	100.0%	A							100.0%	A										
WHG	BT1	none																				
WHG	BT2	NONE																				
WHG	GN1	none																				
WHG	LL1	none																				
WHG	TR1	CPart13B													69.4%	A	80.8%	A	36.8%	A		
WHG	TR1	CPart13c													45.8%	A	74.7%	A	36.4%	A	20.5%	A
WHG	TR1	CPart13d													67.6%	A	78.9%	A	35.6%	B	74.3%	A
WHG	TR1	none	42.4%	A	77.7%	A	64.7%	A	26.1%	A	20.9%	A	9.5%	A	7.9%	A	3.1%	B	14.8%	A	65.4%	A
WHG	TR2	CPart13B													69.4%	A	80.8%	A	95.1%	A	91.7%	A
WHG	TR2	CPart13C													69.4%	A			95.1%	A	91.7%	A
WHG	TR2	none	75.2%	A	83.2%	A	77.3%	A	97.3%	C	76.9%	A	69.6%	A	19.5%	C	1.2%	C	35.4%	A	81.3%	A
WHG	TR3	none	93.3%	C	25.0%	A	100.0%	A			100.0%	A	100.0%	A	100.0%	A			100.0%	A		

Table 5.4.2.5 West of Scotland. Landings (t), discards (t) and relative discard rates by pelagic species (HER, JAX, MAC, SPR, WHB) and derogation existing in Table 1 of Annex IIA of Coun. Reg. (EU) 39/2013, 2003-2012.

SPECIES	REG_GEAR	SPECON	2003 L	2003 D	2003 R	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R
HER	GN1	none																						16.42								
HER	LL1	none																						60						9		
HER	TR1	CPart13c																			62.78	0	0.0%				0.07	0	0.0%	0.312	0	0.0%
HER	TR1	CPart13d																			16.04	0	0.0%				0.27	0	0.0%			
HER	TR1	NONE	4.13	106.583	96.3%	0.206	48.172	99.6%	0	37.797	100.0%	19.5			0.86	7.244	89.4%	0.36	1.653	82.1%	3.19	0	0.0%	6	0	0.0%						
HER	TR2	CPart13B																			13.504									0.068		
HER	TR2	NONE	136.205	349.383	72.0%	505.023	263.676	34.3%	101.043	152.004	60.1%	92.442			39.498	11.767	23.0%	0.321	1.591	83.2%	0.027	0	0.0%	8.346	0	0.0%						
HER	TR3	none	0	0.195	100.0%				36.4	0.014	0.0%				0	0.002	100.0%	0	0.029	100.0%	14.71	0	0.0%				14.37	0	0.0%			
JAX	GT1	NONE							115.56																							
JAX	TR1	CPart13c																			3.14	0	0.0%							32.56	0	0.0%
JAX	TR1	CPart13d																			3.97	0	0.0%	2.5	0	0.0%	6.2	0	0.0%	45.024	0	0.0%
JAX	TR1	NONE	2.48	56.559	95.8%	0.618	25.678	97.6%	0.3	65.749	99.5%	2.433			0.13	53.413	99.8%	1.72	15.79	90.2%	2.24	0	0.0%									
JAX	TR2	NONE	4.75	250.955	98.1%	7.51	141.448	95.0%	0.07	251.602	100.0%	1.93			0.49	126.937	99.6%	1.41	15.215	91.5%	0.05	0	0.0%									
JAX	TR3	NONE	0	0.14	100.0%				0	0.025	100.0%				0	0.017	100.0%	0	0.275	100.0%												
MAC	GN1	NONE																0.51														
MAC	GT1	NONE							65.52																							
MAC	LL1	NONE																0.04						5.98			23.68			7.59		
MAC	TR1	CPart13c																			2.65	0	0.0%	0.25	0	0.0%	0.01	0	0.0%	2.835	0	0.0%
MAC	TR1	CPart13d																			3.55	0	0.0%	1.01	0	0.0%	0.39	0	0.0%	0.608	0	0.0%
MAC	TR1	none	4.043	68.102	94.4%	1.027	33.845	97.1%	2.837	42.39	93.7%	2.025			3.11	0.766	19.8%	8.133	7.154	46.8%	6.923	0	0.0%	1.35	0	0.0%	0.7	0	0.0%			
MAC	TR2	CPart13B																									0.705					
MAC	TR2	none	65.212	341.01	83.9%	539.332	166.022	23.5%	1.457	186.951	99.2%	6.626			4.819	2.143	30.8%	3.695	3.35	47.6%	0.304	0	0.0%	6.708	0	0.0%	0.004	0	0.0%	0.064	3.59	98.2%
MAC	TR3	NONE	0	0.108	100.0%				438.593	0.015	0.0%							0	0.052	100.0%							57.71	0	0.0%	28.84	0	0.0%
SPR	GN1	NONE	5																													
SPR	TR1	CPart13C																												95.007	0	0.0%
SPR	TR1	CPart13D																			0.018	0	0.0%									
SPR	TR1	NONE				0	0.015	100.0%	0	0.044	100.0%							0.1														
SPR	TR2	NONE	21.48			0	0.072	100.0%	0	0.174	100.0%				17									10.92	0	0.0%						
SPR	TR3	none	944.913			154.3						0.35			13												1.8	0	0.0%	13.243	0	0.0%
WHB	TR1	NONE	0	27.716	100.0%	0	33.863	100.0%	0	8.599	100.0%				0	2.563	100.0%	0	8.679	100.0%												
WHB	TR2	NONE	0	120.327	100.0%	0	165.969	100.0%	0	32.908	100.0%				0	4.13	100.0%	0	8.363	100.0%												
WHB	TR3	NONE	0	0.069	100.0%				1475.04	0.003	0.0%				0	0.001	100.0%	415.22	0.151	0.0%												

Table 5.4.2.6 West of Scotland. Relative discard rate and associated measure of reliability by species (HER, JAX, MAC, SPR, WHB) and derogation existing in Table 1 of Annex IIA of Coun. Reg. (EU) 39/2013 2003-2012. A = sampling of > 66% of landings; B = sampling of 33 to 66% of landings; C = sampling of < 33% of landings.

SPECIES	REG_GEAR	SPECON	2003 R	2003 DQI	2004 R	2004 DQI	2005 R	2005 DQI	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI
HER	GN1	none																				
HER	LL1	none																				
HER	TR1	CPart13c													0.0%	A			0.0%	A	0.0%	C
HER	TR1	CPart13d													0.0%	A			0.0%	A		
HER	TR1	NONE	96.3%	A	99.6%	A	100.0%	A			89.4%	A	82.1%	A	0.0%	A	0.0%	A				
HER	TR2	CPart13B																				
HER	TR2	NONE	72.0%	A	34.3%	A	60.1%	A			23.0%	A	83.2%	A	0.0%	C	0.0%	A				
HER	TR3	none	100.0%	A			0.0%	A			100.0%	A	100.0%	A	0.0%	A			0.0%	A		
JAX	GT1	NONE																				
JAX	TR1	CPart13c													0.0%	A					0.0%	A
JAX	TR1	CPart13d													0.0%	A	0.0%	C	0.0%	C	0.0%	A
JAX	TR1	NONE	95.8%	A	97.6%	C	99.5%	C			99.8%	A	90.2%	A	0.0%	A						
JAX	TR2	NONE	98.1%	A	95.0%	A	100.0%	A			99.6%	C	91.5%	A	0.0%	A						
JAX	TR3	NONE	100.0%	A			100.0%	A			100.0%	A	100.0%	A								
MAC	GN1	NONE																				
MAC	GT1	NONE																				
MAC	LL1	NONE																				
MAC	TR1	CPart13c													0.0%	A	0.0%	C	0.0%	C	0.0%	C
MAC	TR1	CPart13d													0.0%	A	0.0%	C	0.0%	B	0.0%	C
MAC	TR1	none	94.4%	A	97.1%	A	93.7%	B			19.8%	A	46.8%	A	0.0%	A	0.0%	C	0.0%	A		
MAC	TR2	CPart13B																				
MAC	TR2	none	83.9%	A	23.5%	A	99.2%	A			30.8%	B	47.6%	A	0.0%	A	0.0%	A	0.0%	A	98.2%	A
MAC	TR3	NONE	100.0%	A			0.0%	C					100.0%	A					0.0%	A	0.0%	A
SPR	GN1	NONE																				
SPR	TR1	CPart13C																			0.0%	C
SPR	TR1	CPart13D													0.0%	C						
SPR	TR1	NONE			100.0%	A	100.0%	A														
SPR	TR2	NONE			100.0%	A	100.0%	A									0.0%	A				
SPR	TR3	none																	0.0%	A	0.0%	C
WHG	BT1	none																				
WHG	BT2	NONE																				
WHG	GN1	none																				
WHG	LL1	none																				
WHG	TR1	CPart13B													69.4%	A	80.8%	A	36.8%	A		
WHG	TR1	CPart13c													45.8%	A	74.7%	A	36.4%	A	20.5%	A
WHG	TR1	CPart13d													67.6%	A	78.9%	A	35.6%	B	74.3%	A
WHG	TR1	none	42.4%	A	77.7%	A	64.7%	A	26.1%	A	20.9%	A	9.5%	A	7.9%	A	3.1%	B	14.8%	A	65.4%	A
WHG	TR2	CPart13B													69.4%	A	80.8%	A	95.1%	A	91.7%	A
WHG	TR2	CPart13C													69.4%	A			95.1%	A	91.7%	A
WHG	TR2	none	75.2%	A	83.2%	A	77.3%	A	97.3%	C	76.9%	A	69.6%	A	19.5%	C	1.2%	C	35.4%	A	81.3%	A
WHG	TR3	none	93.3%	C	25.0%	A	100.0%	A			100.0%	A	100.0%	A	100.0%	A			100.0%	A		

Table 5.4.2.7 West of Scotland. Landings (t), discards (t) and relative discard rates for cod by unregulated gears, 2003-2012.

SPECIES	REG_GEAR	SPECON	2003 L	2003 D	2003 R	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R
COD	DEM_SEINE	none	0.356	0.063	15.0%																											
COD	DREDGE	none	0.092			0.506																								0.073		
COD	none	none																						0.16						0.46		
COD	OTTER	none	0.794	0.068	7.9%	0.55	0.021	3.7%	0.072	0.003	4.0%	10.061			0.049			0.038	0.002	5.0%	0.053	0	0.0%				0	0.028	100.0%	0.124	0.101	44.9%
COD	PEL_SEINE	none	5.194																													
COD	PEL_TRAWL	none																						0.8			0.38			0.04		
COD	POTS	NONE	0.48			0.282						0.001						0.07			0.14			0.02								
COD	TR1	CPart11																									6.17	0.538	8.0%	16.495	8.291	33.5%
COD	TR2	CPart11																						0.134			0.043			0.008		

Table 5.4.2.8 West of Scotland. Relative discard rate and associated measure of reliability for cod by unregulated gears, 2003-2012. A = sampling of > 66% of landings; B = sampling of 33 to 66% of landings; C = sampling of < 33% of landings.

SPECIES	REG_GEAR	SPECON	2003 R	2003 DQI	2004 R	2004 DQI	2005 R	2005 DQI	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI
COD	DEM_SEINE	none	15.0%	A																		
COD	DREDGE	none																				
COD	none	none																				
COD	OTTER	none	7.9%	B	3.7%	C	4.0%	C					5.0%	C	0.0%	C			100.0%	A	44.9%	C
COD	PEL_SEINE	none																				
COD	PEL_TRAWL	none																				
COD	POTS	NONE																				
COD	TR1	CPart11																	8.0%	A	33.5%	A
COD	TR2	CPart11																				

Table 5.4.2.9 West of Scotland. Landings (t), discards (t) and relative discard rates by species (ANF, HAD, HKE, NEP, PLE, POK, SOL, WHG) by unregulated gears, 2003-2012.

SPECIES	REG_GEAR	SPECON	2003 L	2003 D	2003 R	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R
ANF	BEAM	NONE				0.1																										
ANF	DEM_SEINE	none	0.165																													
ANF	DREDGE	none	1.25			1.205			0.138			0.051															0.05			0.024		
ANF	none	NONE																0.2												61.3		
ANF	OTTER	none	4.036	0.164	3.9%	3.15	0.632	16.7%	0.096	0.01	9.4%	0.015			3.121	0.007	0.2%	0.691	0.002	0.3%	0.489	0.017	3.4%	0.246	0.323	56.8%	29.23	2.034	6.5%	171.886	0.037	0.000
ANF	PEL_SEINE	none	0.3																													
ANF	PEL_TRAWL	none																			0.21			0.16			3.98			0.04		
ANF	POTS	NONE	0.242			1.868			0.01			0.016						0.052						0.038						0.007		
ANF	TR1	CPart11																						0.183			59.183	5.405	8.4%	110.769	11.811	9.6%
ANF	TR2	CPart11																						0.008			0.267			0.27		
HAD	BEAM	NONE				0.09																										
HAD	DEM_SEINE	none	6.519	13.764	67.9%																											
HAD	DREDGE	none				0.046																								0.017	0.002	0.105
HAD	none	none																												2.35		
HAD	OTTER	none	4.278	2.118	33.1%	28.966	20.427	41.4%	0.049	0.172	77.8%	12.18			8.845	6.53	42.5%	0.569	0.083	12.7%	0.115	0.115	50.0%	0.697	0.228	24.6%	1.727	9.425	84.5%	14.091	0.002	0.000
HAD	PEL_SEINE	none	2.67																													
HAD	PEL_TRAWL	none	14.57									0.08															4.07					
HAD	POTS	NONE	17.509			8.677			0.11			0.001						0.083												0.079		
HAD	TR1	CPart11																									155.95	29.623	16.0%	784.649	67.496	0.079
HAD	TR2	CPart11																									0.868			1.869		
HKE	BEAM	NONE				0.04																										
HKE	DEM_SEINE	none	0.009																													
HKE	DREDGE	none				0.001			0.001																							
HKE	LL1	Cpart11																												644.123		
HKE	none	NONE													0.15															1.36		
HKE	OTTER	none	0.18	0.33	64.7%	2.141	1.817	45.9%	0.028	0.114	80.3%	0.093			0.213	0.026	10.9%	0	0.038	100.0%							54.964	0	0.0%	190.014	0	0.000
HKE	PEL_SEINE	none	17.089																													
HKE	PEL_TRAWL	none							0.23			2.35									282			81			0.3			46.61		
HKE	POTS	NONE	0.044			0.08						0.002																		0.114		
HKE	TR1	CPart11																									40.74	0	0.0%	243.33	0	0.000
HKE	TR2	CPart11																						0.057			0.134			0.09		
NEP	DREDGE	none	1.046			3.083			5.088			3.15																		1.54		
NEP	none	none	0.018			0.129			0.024																		0.011			1.13		
NEP	OTTER	none	6.755			10.874			7.433			22.133			12.978			1.815			8.514			6.918			6.962			18.582		
NEP	PEL_TRAWL	none																			0.09						0.18			0.04		
NEP	POTS	none	455.925			519.866			583.454			583.1			562.367			576.842			596.389			643.182			553.592			579.766		
NEP	TR1	CPart11																						83.946			55.816			26.601		
NEP	TR2	CPart11																						1679.765			1748.919			1753.401		

Table 5.4.2.9 (cont) West of Scotland. Landings (t), discards (t) and relative discard rates by species (ANF, HAD, HKE, NEP, PLE, POK, SOL, WHG) by unregulated gears, 2003-2012.

SPECIES	REG_GEAR	SPECON	2003 L	2003 D	2003 R	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R
PLE	BEAM	NONE				3.67																										
PLE	DEM_SEINE	none	0.3																													
PLE	DREDGE	none	0.073			0.428			0.012																							
PLE	OTTER	none	1.936	0.222	10.3%	3.103	1.778	36.4%	0	0.013	100.0%				0.014	0.004	22.2%	0.012	0.001	7.7%	0.025	0.039	60.9%	0	0.037	100.0%	0	0.657	100.0%	0.15	0	0.000
PLE	PEL_TRAWL	none																			0.16						0.64			0.12		
PLE	POTS	NONE	0.33			0.732			0.068			0.013																		0.015		
PLE	TR1	CPart11																									2.38	7.982	77.0%	8.43	5.953	41.4%
PLE	TR2	CPart11																												0.013		
POK	DREDGE	none																												8.354		
POK	LL1	Cpart11																												0.916		
POK	OTTER	none	0	0.088	100.0%	0.223	0.172	43.5%	0	0.151	100.0%				0.28	0.451	61.7%	0	0.001	100.0%	2.45	0	0.0%				88.447	0	0.0%	203.771	0	0.000
POK	PEL_SEINE	none	19.228																													
POK	PEL_TRAWL	none	0.5			0.4	0	0.0%	6.2			5.34	0	0.0%	4.31	0	0.0%							0.11			0.35					
POK	POTS	NONE				0.201												0.05									0.08					
POK	TR1	CPart11																									186.8	0	0.0%	367.709	0	0.000
SOL	BEAM	NONE				1.08																										
SOL	DEM_SEINE	none	0.02																													
SOL	DREDGE	none	0.475			0.327			0.057									0.016			0.017						0.049			0.197	0	0.000
SOL	none	NONE																1.05												0.03		
SOL	OTTER	none	0.633	0.003	0.5%	1.22	0.016	1.3%							0	0.001	100.0%															
SOL	PEL_TRAWL	none																			0.48						0.35			0.11		
SOL	POTS	NONE	0.01			0.09												0.02									0.006					
SOL	TR1	CPart11																						0.026			0.26	0	0.0%	2.06	0	0.000
SOL	TR2	CPart11																									0.01					
WHG	DREDGE	none				0.08																										
WHG	none	none																												0.06		
WHG	OTTER	NONE	3.713	0.824	18.2%	1.344	2.924	68.5%	0	0.061	100.0%	0.1			0.056	0.017	23.3%	0.038	0.045	54.2%	0.023	0.065	73.9%	0	0.326	100.0%	0	2.717	100.0%	0.002	0	0.000
WHG	PEL_TRAWL	none																									0.14			0.04		
WHG	POTS	NONE	0.51			1.172			0.02			0.016						0.03														
WHG	TR1	CPart11																									85.36	7.62	8.2%	88.992	55.244	0.383
WHG	TR2	CPart11																												0.02		

Table 5.4.2.10 West of Scotland. Relative discard rate and associated measure of reliability by species (ANF, HAD, HKE, NEP, PLE, POK, SOL, WHG) by unregulated gears, 2003-2012. A = sampling of > 66% of landings; B = sampling of 33 to 66% of landings; C = sampling of < 33% of landings.

SPECIES	REG_GEAR	SPECON	2003 R	2003 DQI	2004 R	2004 DQI	2005 R	2005 DQI	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI
ANF	BEAM	NONE																				
ANF	DEM_SEINE	none																				
ANF	DREDGE	none																				
ANF	none	NONE																				
ANF	OTTER	none	3.9%	C	16.7%	C	9.4%	C			0.2%	C	0.3%	C	3.4%	C	56.8%	C	6.5%	C	0.0%	C
ANF	PEL_SEINE	none																				
ANF	PEL_TRAWL	none																				
ANF	POTS	NONE																				
ANF	TR1	CPart11																	8.4%	A	9.6%	A
ANF	TR2	CPart11																				
HAD	BEAM	NONE																				
HAD	DEM_SEINE	none	67.9%	A																		
HAD	DREDGE	none																			10.5%	A
HAD	none	none																				
HAD	OTTER	none	33.1%	C	41.4%	A	77.8%	C			42.5%	C	12.7%	A	50.0%	C	24.6%	C	84.5%	C	0.0%	C
HAD	PEL_SEINE	none																				
HAD	PEL_TRAWL	none																				
HAD	POTS	NONE																				
HAD	TR1	CPart11																	16.0%	A	7.9%	A
HAD	TR2	CPart11																				
HKE	BEAM	NONE																				
HKE	DEM_SEINE	none																				
HKE	DREDGE	none																				
HKE	LL1	Cpart11																				
HKE	none	NONE																				
HKE	OTTER	none	64.7%	C	45.9%	C	80.3%	C			10.9%	C	100.0%	A					0.0%	C	0.0%	C
HKE	PEL_SEINE	none																				
HKE	PEL_TRAWL	none																				
HKE	POTS	NONE																				
HKE	TR1	CPart11																	0.0%	A	0.0%	A
HKE	TR2	CPart11																				
NEP	DREDGE	none																				
NEP	none	none																				
NEP	OTTER	none																				
NEP	PEL_TRAWL	none																				
NEP	POTS	none																				
NEP	TR1	CPart11																				
NEP	TR2	CPart11																				

Table 5.4.2.10 (cont) West of Scotland. Relative discard rate and associated measure of reliability by species (ANF, HAD, HKE, NEP, PLE, POK, SOL, WHG) by unregulated gears, 2003-2012. A = sampling of > 66% of landings; B = sampling of 33 to 66% of landings; C = sampling of < 33% of landings.

SPECIES	REG_GEAR	SPECON	2003 R	2003 DQI	2004 R	2004 DQI	2005 R	2005 DQI	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI
PLE	BEAM	NONE																				
PLE	DEM_SEINE	none																				
PLE	DREDGE	none																				
PLE	OTTER	none	10.3%	C	36.4%	C	100.0%	A			22.2%	C	7.7%	C	60.9%	C	100.0%	A	100.0%	A	0.0%	C
PLE	PEL_TRAWL	none																				
PLE	POTS	NONE																				
PLE	TR1	CPart11																	77.0%	A	41.4%	A
PLE	TR2	CPart11																				
POK	DREDGE	none																				
POK	LL1	Cpart11																				
POK	OTTER	none	100.0%	A	43.5%	A	100.0%	A			61.7%	C	100.0%	A	0.0%	C			0.0%	C	0.0%	C
POK	PEL_SEINE	none																				
POK	PEL_TRAWL	none			0.0%	A			0.0%	C	0.0%	C										
POK	POTS	NONE																				
POK	TR1	CPart11																	0.0%	A	0.0%	A
SOL	BEAM	NONE																				
SOL	DEM_SEINE	none																				
SOL	DREDGE	none																			0.0%	B
SOL	none	NONE																				
SOL	OTTER	none	0.5%	C	1.3%	C					100.0%	A										
SOL	PEL_TRAWL	none																				
SOL	POTS	NONE																				
SOL	TR1	CPart11																	0.0%	A	0.0%	A
SOL	TR2	CPart11																				
WHG	DREDGE	none																				
WHG	none	none																				
WHG	OTTER	NONE	18.2%	C	68.5%	C	100.0%	A			23.3%	A	54.2%	A	73.9%	C	100.0%	A	100.0%	A	0.0%	C
WHG	PEL_TRAWL	none																				
WHG	POTS	NONE																				
WHG	TR1	CPart11																	8.2%	A	38.3%	A
WHG	TR2	CPart11																				

Table 5.4.2.11 West of Scotland. Landings (t), discards (t) and relative discard rates by species (HER, JAX, MAC, SPR, WHB) by unregulated gears, 2003-2012.

SPECIES	REG_GEAR	SPECON	2003 L	2003 D	2003 R	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R
HER	none	none																						3.99								
HER	OTTER	NONE	268.1	0.47	0.2%	128.14	1.241	1.0%	1492.413	0.085	0.0%	37.128			236.8	0.002	0.0%	1205.292	0.001	0.0%	140.801	0	0.0%	977.399	0	0.0%	804.767	0	0.0%	0.1	0	0.0%
HER	PEL_SEINE	none				1540.367			1073.05			768.61			2045.558									5								
HER	PEL_TRAWL	none	35405.122			30062.644			33702.598			39061.703			33939.177			29571.644			29807.956			28357.664	68.095	0.2%	22962.466	190.783	0.8%	25313.738	66.983	0.3%
HER	POTS	NONE				0.11																										
HER	TR2	CPart11																						9.201						0.044		
JAX	none	none																												438.178		
JAX	OTTER	NONE	198.32	0.333	0.2%	333.25	3.759	1.1%	0	0.148	100.0%				0	0.012	100.0%	550.039	0.006	0.0%	17	0	0.0%	2.37	0	0.0%	1199.45	0	0.0%			
JAX	PEL_SEINE	none	344.3									58.536															198.131					
JAX	PEL_TRAWL	none	21932.136			17403.463			14180.536			11104.874			22580.819			24512.899			19008.155	0	0.0%	23542.495	904.277	3.7%	38601.45	247.224	0.6%	44594.453	109.734	0.2%
JAX	TR1	CPart11																									0.8	0	0.0%			
MAC	none	none													136									0.29								
MAC	OTTER	none	1927.122	1.598	0.1%	2579.893	24.119	0.9%	5411.303	1.525	0.0%	1338.675			157.7	0	0.0%	166.557	0.001	0.0%	3099.679	0	0.0%	535.64	0	0.0%	5518.074	0	0.0%	221.187	0	0.0%
MAC	PEL_SEINE	none	6909.2			5352.32			4874.653			4689.372			1888.152									1560.667			4941.078					
MAC	PEL_TRAWL	none	146874.818			120424.351			104302.275			92356.027			98349.309			86520.855			136329.37			105216.522	829.271	0.8%	148631.206	15226.952	9.3%	119517.777	6316.907	5.0%
MAC	POTS	none	77.62			7.68			0.67												0.01			0.92			1.85			0.25		
SPR	OTTER	NONE	6.23																		18	0	0.0%				30.97	0	0.0%	19.105	0	0.0%
SPR	PEL_SEINE	none							12.5																							
SPR	PEL_TRAWL	NONE	3397.085			1358.72			1788.25			350.12			316.07			222.39			156.15			858.15			1189.96	0	0.0%	1669.43		
SPR	POTS	none																												0.08		
WHB	OTTER	NONE	0	0.163	100.0%	10003.14	4.743	0.0%	11486.99	0.019	0.0%	9024.253			0	0.001	100.0%	0	0.003	100.0%	285.46	0	0.0%							548.72	0	0.0%
WHB	PEL_SEINE	none	43.242			9			22.43																		3.8					
WHB	PEL_TRAWL	none	24957.376	0	0.0%	109292.375	0	0.0%	93384.913	0	0.0%	122450.807	0	0.0%	46289.424	0	0.0%	29587.012	0	0.0%	34492.86			39573.945	264.527	0.7%	8174.955	2794.852	25.5%	25470.67	1045.995	3.9%

Table 5.4.2.12 West of Scotland. Relative discard rate and associated measure of reliability by species (HER, JAX, MAC, SPR, WHB) by unregulated gears, 2003-2012. A = sampling of > 66% of landings; B = sampling of 33 to 66% of landings; C = sampling of < 33% of landings.

SPECIES	REG_GEAR	SPECON	2003 R	2003 DQI	2004 R	2004 DQI	2005 R	2005 DQI	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI
HER	none	none																				
HER	OTTER	NONE	0.2%	A	1.0%	A	0.0%	C			0.0%	C	0.0%	C	0.0%	A	0.0%	C	0.0%	C	0.0%	C
HER	PEL_SEINE	none																				
HER	PEL_TRAWL	none															0.2%	C	0.8%	C	0.3%	C
HER	POTS	NONE																				
HER	TR2	CPart11																				
JAX	none	none																				
JAX	OTTER	NONE	0.2%	A	1.1%	A	100.0%	A			100.0%	A	0.0%	B	0.0%	C	0.0%	A	0.0%	A		
JAX	PEL_SEINE	none																				
JAX	PEL_TRAWL	none													0.0%	C	3.7%	C	0.6%	C	0.2%	C
JAX	TR1	CPart11																	0.0%	A		
MAC	none	none																				
MAC	OTTER	none	0.1%	C	0.9%	C	0.0%	C			0.0%	A	0.0%	A	0.0%	C	0.0%	B	0.0%	C	0.0%	C
MAC	PEL_SEINE	none																				
MAC	PEL_TRAWL	none															0.8%	C	9.3%	C	5.0%	C
MAC	POTS	none																				
SPR	OTTER	NONE													0.0%	C			0.0%	A	0.0%	C
SPR	PEL_SEINE	none																				
SPR	PEL_TRAWL	NONE																	0.0%	C		
SPR	POTS	none																				
WHB	OTTER	NONE	100.0%	A	0.0%	C	0.0%	C			100.0%	A	100.0%	A	0.0%	A					0.0%	C
WHB	PEL_SEINE	none																				
WHB	PEL_TRAWL	none	0.0%	C	0.0%	C	0.0%	C	0.0%	C	0.0%	C	0.0%	C			0.7%	B	25.5%	B	3.9%	B

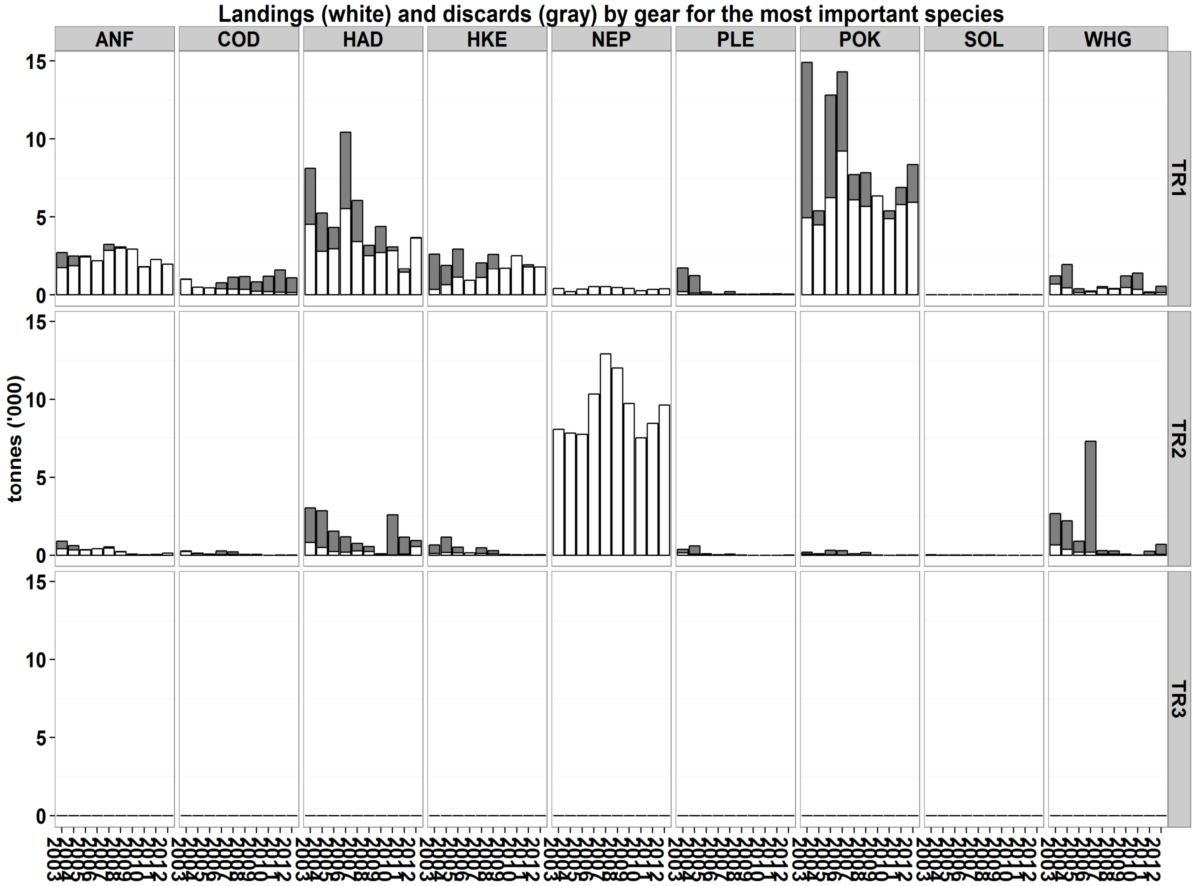


Figure 5.4.2.1 West of Scotland. Landings (t) and discards (t) by derogations in Coun. Reg. (EC) 1342/2008 and species, 2003-2012 (from left to right). White bars represent landings, grey bars discards. Note that discard data are only available for some species and gears. The lack of discard information for a given species/gear in this figure represents no information rather than zero discards.

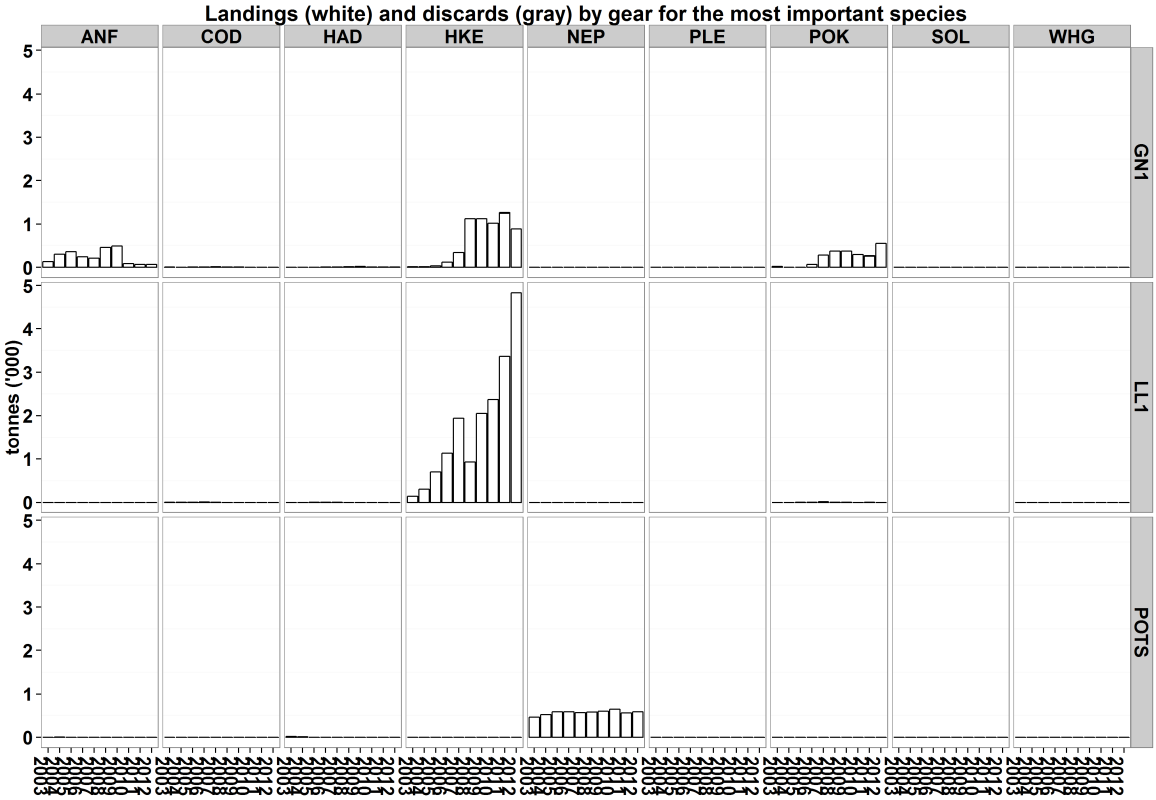


Figure 5.4.2.1 (cont) West of Scotland. Landings (t) and discards (t) by derogations in Coun. Reg. (EC) 1342/2008 and species, 2003-2012 (from left to right). White bars represent landings, grey bars discards. Note that discard data are only available for some species and gears. The lack of discard information for a given species/gear in this figure represents no information rather than zero discards.

5.4.3 ToR 1.d CPUE and LPUE of cod by fisheries and by Member States

Tables showing LPUE and CPUE by gear groups (regulated and unregulated), area and nation are not presented in this report but are available on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

Results aggregated across countries are presented below.

Table 5.4.3.1 shows cod catch per unit effort (CPUE), recorded in g/kWdays for all derogations within Coun. Reg (EC) 1342/2008 while table 5.4.3.2 shows landings per unit effort (LPUE) for the same derogations. Section 5.4.1 showed longlines to be the most significant gear category after trawl and seine gears in terms of kWdays effort west of Scotland but the tables show CPUE of cod for this gear type (LL1) to be low with no catch of cod recorded from 2008 onward. The tables clearly show TR1 gears have the highest CPUE and LPUE for cod and that TR1 with special condition CPart13D (fishing west of the ‘French Line’) having the highest CPUE among the TR1 categories.

Figures 5.4.3.1 and 5.4.3.2 show cod CPUE and LPUE respectively for the top four gear types under Coun. Reg (EC) 1342/2008, ranked in terms of average value over the most recent five years. It should be noted no discard information is available for gill nets (GN1) or the beam trawl categories (BT1 and BT2) such that results for these gear types are effectively LPUE in each table and/or figure. It is clear from Figure 5.4.3.1 that CPUE values have increased considerably for the TR1 gear type since 2005. ICES assessments have estimated the 2005 – and to a lesser extent the 2008 - year classes of cod to be large compared to the norm since 2000, and also a slow increase in SSB since 2006. The pattern of CPUE is consistent with the catchability of fish in the stronger year classes increasing as the fish grow in size (and possibly redistribute from nursery areas) and an increase in overall stock abundance. TACs for cod have declined over the same period and from Figure 5.4.3.2 it can be seen LPUE for the TR1 gears remained constant between 2004, 2008 and has fallen again to a new lower level for 2009-2012.

To illustrate the point further Figure 5.4.3.3 shows the ratio of catch to landings for cod for the gear type TR1. Up to 2005 very few discards of cod were recorded for the TR1 gear resulting in a catch/landings value close to 1. Since then this ratio has increased so that in 2012 catch is approximately 8 times landings. Figure 5.4.3.2 suggests the increase in CPUE to be due to the 2005 and 2008 year classes. This result is consistent with results from the ICES division VIa cod assessment. The uncertainty of discard observation data for the TR2 gear means results for the TR2 gear have not been included in Figure 5.4.3.3.

Table 5.4.3.1 West of Scotland. Cod CPUE (g/(kW*days)) by derogation in Coun. Reg. (EU) 1342/2008 and year, 2003-2012.

SPECIES	REG GEAR COD	SPECON	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012	CPUE 2010-2012
COD	BT1	none	32	36	8	0		0	0	0	0	0	0
COD	BT2	none	0					0	0	0	0	0	0
COD	GN1	none	8	2	15	57	50	14	10	9	11	0	7
COD	LL1	none	18	8	8	17	6	0	0	0	0	0	0
COD	TR1	CPart13B	0	0	0	0	0	0	246	214	379	2	85
COD	TR1	CPart13c	0	0	0	0	0	0	158	157	181	137	156
COD	TR1	CPart13d	0	0	0	0	0	0	298	273	960	689	576
COD	TR1	none	78	45	48	99	147	165	21	124	21	24	84
COD	TR2	CPart13B	0	0	0	0	0	0	11	2	2	1	2
COD	TR2	CPart13C	0	0	0	0	0	0	18	4	11	4	5
COD	TR2	none	39	19	14	48	37	11	4	1	2	2	2
COD	TR3	none	0		0		0	0		0	0	0	0

Table 5.4.3.2 West of Scotland. Cod LPUE (g/(kW*days)) by derogation in Coun. Reg. (EC) 1342/2008 and year, 2003-2012.

SPECIES	REG GEAR COD	SPECON	LPUE 2003	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2010-2012
COD	BT1	none	32	36	8	0		0	0	0	0	0	0
COD	BT2	none	0					0	0	0	0	0	0
COD	GN1	none	8	2	15	57	50	14	10	9	11	0	7
COD	LL1	none	18	8	8	17	6	0	0	0	0	0	0
COD	TR1	CPart13B	0	0	0	0	0	0	35	37	25	2	8
COD	TR1	CPart13c	0	0	0	0	0	0	30	30	11	17	19
COD	TR1	CPart13d	0	0	0	0	0	0	46	56	80	81	70
COD	TR1	none	77	44	47	50	47	48	21	17	21	5	18
COD	TR2	CPart13B	0	0	0	0	0	0	1	2	2	1	2
COD	TR2	CPart13C	0	0	0	0	0	0	3	4	11	4	5
COD	TR2	none	33	13	8	6	11	8	4	1	2	1	1
COD	TR3	none	0		0		0	0		0	0	0	0

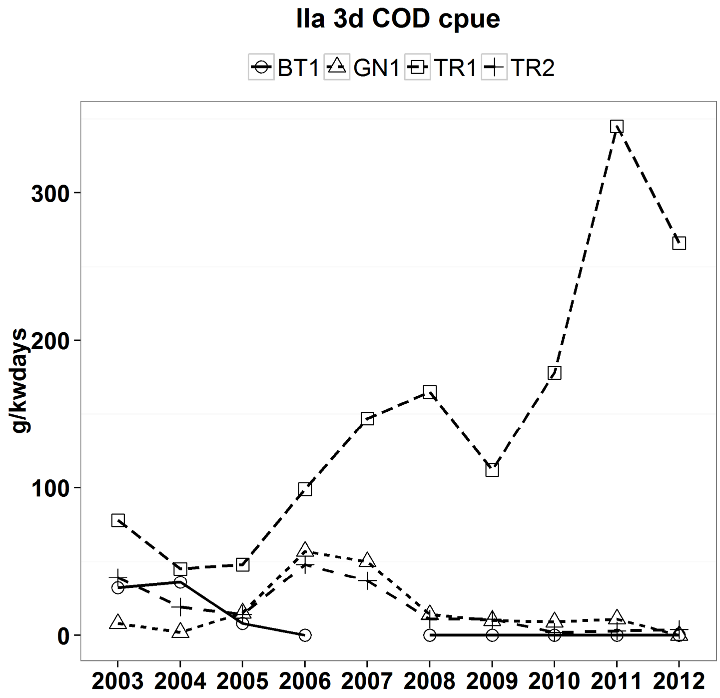


Figure 5.4.3.1 West of Scotland. Cod CPUE for the four gear categories with highest CPUE.

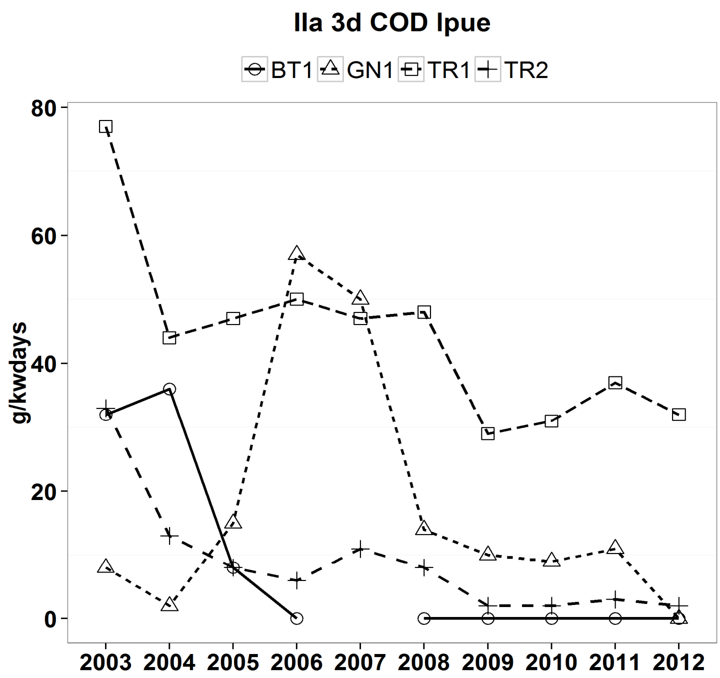


Figure 5.4.3.2 West of Scotland. Cod LPUE for the four gear categories with highest LPUE

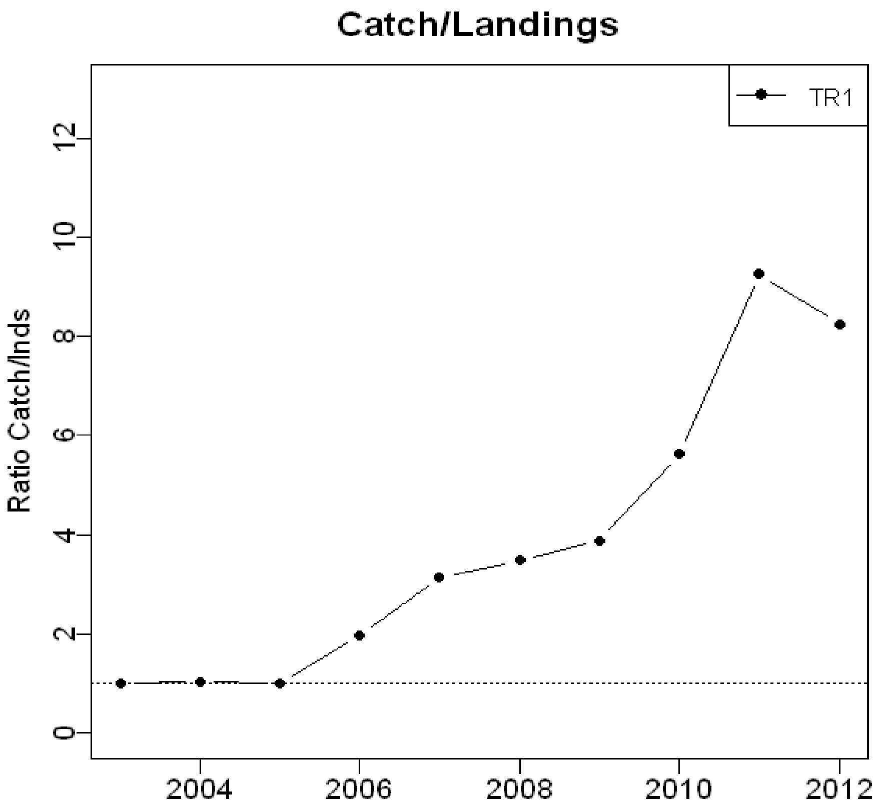


Figure 5.4.3.3 West of Scotland. Ratio of Cod catch to landings for the gear group TR1 under Coun. Reg. 1342/2008.

5.4.4 ToR 2 Rank regulated gear groups on the basis of catches expressed both in weight and in number of cod

Tables 5.4.4.1 and 5.4.4.2 show, respectively, cod catch and cod landings (tonnes) by gear types as specified in Coun. Reg. (EC) 1342/2008, ranked according to their 2012 values. From these Tables the most important category in terms of cod catch and landings is TR1 with a three year average of 94-99% of the VIa cod catch – and landings - total by weight. The second most important gear category is TR2, which from section 5.4.2 can be seen to be a gear category with Nephrops as the primary landed species. The ranking of these two gear types is consistent whether the 2012 values or a three year average is used but the contribution of TR2 gear to catches has noticeably declined starting in 2008 and to landings from 2009. The contribution to catch from all other gear types is less than 1%, but for landings gill nets contribute between 1 and 3%.

Ranking in terms of numbers of fish are available on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

EWG-13-06 notes that the estimation of ranking by numbers of fish uses only categories for which age information is available. Categories without any information about age compositions are disregarded.

Table 5.4.4.1 West of Scotland. Gear derogations (Coun. Reg. 1342/2008) ranked according to relative cod catch in tonnes, 2003-2012. Ranking is according to the year 2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	Avg 10-12
IIa	3d	COD	TR1	0.76899	0.77655	0.82772	0.72495	0.82318	0.9374	0.92768	0.99238	0.99248	0.99089	0.99
IIa	3d	COD	TR2	0.21873	0.20444	0.14981	0.25331	0.16067	0.05447	0.06554	0.00508	0.00564	0.00911	0.01
IIa	3d	COD	GN1	0.0046	0.00158	0.01124	0.00851	0.01027	0.00813	0.00678	0.00254	0.00188		0.00
IIa	3d	COD	LL1	0.00614	0.00792	0.00936	0.01323	0.00587	0	0	0			0.00
IIa	3d	COD	TR3	0		0		0	0			0	0	0.00
IIa	3d	COD	BT2	0										
IIa	3d	COD	BT1	0.00153	0.00951	0.00187	0							

Table 5.4.4.2 West of Scotland. Gear derogations (Coun. Reg. 1342/2008) ranked according to relative cod landings in tonnes, 2003-2012. Ranking is according to the year 2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	Avg 10-12
IIa	3d	COD	TR1	0.79103	0.82586	0.88259	0.86966	0.80449	0.85309	0.92544	0.95853	0.93443	0.92958	0.94
IIa	3d	COD	TR2	0.19616	0.15345	0.09312	0.07865	0.14607	0.12113	0.04825	0.02765	0.04918	0.07042	0.05
IIa	3d	COD	GN1	0.0048	0.00172	0.01215	0.02022	0.03146	0.02577	0.02632	0.01382	0.01639		0.02
IIa	3d	COD	LL1	0.00641	0.00862	0.01012	0.03146	0.01798	0	0	0			0.00
IIa	3d	COD	TR3	0		0		0	0			0	0	0.00
IIa	3d	COD	BT2	0										
IIa	3d	COD	BT1	0.0016	0.01034	0.00202	0							

5.4.5 ToR 3 Information on small boats (<10m)

Activity by vessels <10m in area 3d (west of Scotland) was recorded by France, IOM, UK(EWNI) and UK(Scotland). Ireland supplied landings data. Descriptions of the type and quality of data available for assessing effort and landings of vessels <10m can be found in section 4.

5.4.5.1 Fishing effort of small boats by Member State

Effort by nation and gear type is shown in Table 5.4.6.1.

Overall effort is 10% higher in 2012 compared to 2003 although it has been relatively stable since 2006. Greatest effort comes from Scottish vessels deploying pots. The effort employed in this category to a certain extent dictates the perception of overall effort changes in this region. The second largest effort total is for Scottish vessels employing TR2 gear. Effort in this category is roughly one eighth that in pots and has declined from a high in 2006. Although small in absolute terms compared to Scottish effort there have been large increases in Northern Irish effort in pots in recent years, although a 15% drop in effort was recorded 2011-2012. Northern Irish dredging effort has also increased significantly recently and is now comparable to Scottish dredging effort.

Table 5.4.6.1 West of Scotland. Effort (kW*days) of vessels under 10 metres by gear type and Member State, 2000-2012.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	rel chng 03	rel chng 04-06	rel chng 11
3d	DREDGE	none	ENG	536			2726				825	990	6920	1191.04%	153.85%	598.99%
3d	DREDGE	none	IOM	2728			774							-100.00%	-100.00%	#DIV/0!
3d	DREDGE	none	NIR	252		13886	14934	10218	10819	17595	19622	22454	42135	16620.24%	192.40%	87.65%
3d	DREDGE	none	SCO	84393	104545	66603	19995	31968	57077	34484	34256	41033	45207	-46.43%	-29.05%	10.17%
3d	GN1	none	SCO			56	468	1800	6493						-100.00%	
3d	GT1	none	SCO					368			610	342	225			-34.21%
3d	LL1	none	ENG									10				-100.00%
3d	LL1	none	FRA								1419					
3d	LL1	none	NIR							66						
3d	LL1	none	SCO	25			51	241	740	664	410	2205	1296	5084.00%	2441.18%	-41.22%
3d	none	none	SCO	110078	125306	120513	163399	124414	116648	164375	182992	210052	208226	89.16%	52.65%	-0.87%
3d	OTTER	none	ENG				783			75					-100.00%	
3d	OTTER	none	NIR								112					
3d	OTTER	none	SCO	9008	7717	18258	20563	5222	5669	2366	4390	5075	3833	-57.45%	-75.29%	-24.47%
3d	POTS	none	ENG	3380	194	7137	1682	8794	1500	11417	1219	7710	3014	-10.83%	0.32%	-60.91%
3d	POTS	none	NIR	7518	4191	2700	74328	92327	115948	90049	101479	117849	99252	1220.19%	266.61%	-15.78%
3d	POTS	none	SCO	2743791	2775120	3080793	3690442	3625560	3200012	3354454	3498490	3090422	2990277	8.98%	-6.03%	-3.24%
3d	TR1	none	SCO	1266	496	359	2789	2837	969	1991	5272	2685	3444	172.04%	183.53%	28.27%
3d	TR2	none	ENG	9260	3987	11052	6941	14620	12354	1343	217	5476	2279	-75.39%	-68.89%	-58.38%
3d	TR2	none	NIR	8934	5756	1379	8683	5427	6125	7857	15903	13696	19555	118.88%	270.87%	42.78%
3d	TR2	none	SCO	502576	484133	456538	532719	485139	479805	441125	398362	350432	396510	-21.10%	-19.27%	13.15%
3d	TR3	none	SCO	116										-100.00%		
Total				3483861	3511445	3779274	4541277	4408935	4014159	4127861	4265578	3870431	3822173	9.71%	-3.09%	-1.25%

5.4.5.2 Catches (landings and discards) of cod and associated species by small boats by Member State

Table 5.4.6.2.1 summarises landings by vessels under 10m west of Scotland. France, IOM, UK (EWNI) and UK (Scotland) recorded both effort and landings in area 3d West of Scotland.

Much of the Nephrops and crab catch comes from the creel fishery operating on the west coast while scallops are caught by dredges. Nephrops are also caught by trawls using TR2 mesh size. There are also significant landings of unidentified species (OTH) by Scottish vessels.

Table 5.4.6.2.1 Landings (t) by vessels under 10m west of Scotland by Member State and species (ANF, CRE, HAD, HKE, NEP, PLE, POK, SCE, SOL, WHG and OTH (other species not specified in the data call)

COUNTRY	SPECIES	2003 L	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L
ENG	ANF	0.061		0.001							
	COD			0.001							
	CRE	0.311		0.122		166.765	0.062	3.12	0.08	7.286	2.598
	HAD	0.174									
	NEP	17.247	4.102	14.67	9.622	29.618	36.04	15.138	0.654	23.794	12.463
	PLE			0.002							
	SCE	2.918			2.551				11.998	9.619	29.869
IOM	SCE	21.163			3.683						
IRL	ANF		0.22				0.16		0.09	0.57	
	COD	0.02	0.35							0.07	
	CRE	2218.29	3527.92	2458.95	2025.8	618	833.87	478.9	579	816	
	HAD		0.98				0.06				
	HKE		0.29				0.17				
	NEP						2.34			6.89	
	PLE	0.4	0.69				1.85		2.05	2.94	
	POK	6.25	0.75						2.2	0.02	
	SOL		0.27				1.87		1.18	1.16	
	WHG	0.36	1.12				0.06			0.88	
NIR	ANF	0.013	0.023		0.312	0.09	0.014		0.068	0.135	0.229
	COD			0.053	0.012	0.018	0.011		0.037	0.023	0.037
	CRE	0.042	1.892		53.521	152.251	179.572	227.102	197.12	253.157	143.653
	HAD	0.064	0.067		0.019	0.025	0.026		0.017	0.054	0.037
	HKE	0.015	0.008		0.124	0.011	0.001		0.048	0.012	0.03
	NEP	19.737	16.057	3.137	22.095	14.694	12.735	5.083	41.221	32.051	61.373
	PLE			0.048					0.013	0.07	0.003
	POK			0.053							
	SCE	0.281		32.15	36.275	27.75	25.597	45.88	39.997	55.201	134.607
	SOL				0.128	0.024	0.006		0.002	0.006	0.017
	WHG			1.08							
SCO	ANF	8.072	11.236	1.275	3.637	0.771	0.336	0.428	0.018		0.04
	COD	2.8	1.063	0.375	0.833	2.304	0.788	0.191	0.101		0.158
	CRE	786.51	822.03	1019.076	1767.521	2250.718	1554.613	1400.292	1419.607	1527.052	1633.443
	HAD	24.553	12.017	2.075	2.841	1.321	0.626	1.768		0.194	0.13
	HKE	0.591	0.737	0.388	0.471	0.05	0.478	0.371	0.076		0.225
	NEP	1793.43	1788.193	1745.79	2305.564	2329.795	2168.497	1978.945	2014.7	1780.669	1824.104
	OTH	1483.682	1787.191	1206.627	1508.346	1568.366	1367.388	1569.66	1495.905	1416.866	1515.366
	PLE	0.059	0.05	0.054	0.509	0.071	0.075		0.063		0.076
	POK		0.012	0.06							
	SCE	567.493	483.078	331.03	263.404	231.12	933.895	312.054	327.069	337.695	444.499
	SOL		0.001	0.032	0.002	0.024		0.072			0.004
	WHG	14.314	6.023	2.057	0.812	0.034	0.895	0.534			0.072
Grand Total		6968.85	8466.37	6819.106	8008.082	7393.82	7122.035	6039.538	6133.314	6272.414	5803.033

5.4.6 ToR 4 Spatio-temporal patterns in effective effort by fisheries

Spatial figures of effort for area 3d concentrate on those categories identified as significant in terms of recorded effort (see previous section 5.4.1) and in terms of catches of cod (section 5.4.2). From section 5.4.2 catches of plaice and sole are shown to be small for all gear categories in the west of Scotland area and these species were not considered when deciding on categories to present here. Figures use a common scale across years for a given category (e.g. TR1) but scales are unique to each category therefore the colours assigned to statistical rectangles for category TR1 can not be compared directly to those assigned for category TR2. Figures are based on absolute values. This is after data values across all years have been combined for that category. Zero values are removed first.

TR1 (Figure 5.4.8.1) – Effort is greatest in the north of the area with a distinct line of high effort in statistical rectangles straddling or close to the shelf edge. At the start of the time series a rectangle in the far south east of the area (mouth of the Clyde) had one of the highest recorded levels of effort. This area was the location for a specific cod fishery now subject to seasonal closures. The reduction in overall effort within this gear category is clear.

TR2 (Figure 5.4.8.2) – It can be seen that vessels using gear in the TR2 category primarily belong to coastal fisheries. These vessels target Nephrops on well defined fishing grounds with muddy substrate. Highest effort is consistently just north of the boundary between management areas 3d and 3c (mouth of the Clyde). Remaining important rectangles are adjacent to the Scottish mainland, in particular between the Scottish mainland and the Outer Hebrides (known as the north and south Minches). The time series shows a contraction of effort in towards these areas of greatest activity.

LL1 (Figure 5.4.8.3) – There is a concentration of effort along the continental shelf edge throughout the time series.

GN1 (Figure 5.4.8.4) – Overall effort recorded for this category is low but LPUE of cod is currently the highest behind the TR gears. Until 2005 effort generally took place offshore and was split between an area in the north west of ICES division VIa and an area to the west of Ireland. Subsequently effort shifted until in 2008 there appeared to be a new concentration of effort in the north of area VIa but now located on the continental shelf edge.

The following are unregulated gear types but given the importance of unregulated gear effort relative to regulated gear effort (see Figure 5.4.8.5) they are shown to provide background information on the three unregulated gear types with highest effort.

PEL_TRAWL: (Figure 5.4.8.5) – Primarily an offshore fishery, (targeting herring), between 2003 and 2005 greatest effort was expended in the far north east corner of area VIa. Highest effort is at the shelf edge but overall effort has deceased before stabilizing from 2010.

POTS (Figure 5.4.8.6) – Vessels using pots target Nephrops and edible crabs west of Scotland and effort is concentrated in coastal waters of Scotland from the southern border of area VIa north as far as the North Minch. There is no indication of a spatial shift in effort or of a change in overall effort.

DREDGE (Figure 5.4.8.7) – West of Scotland dredge fishing is used to catch scallops. Greatest effort seems to have shifted from the South Minch area to coastal areas further south (including the Clyde) and there is an increase in effort in the south east area in 2012.

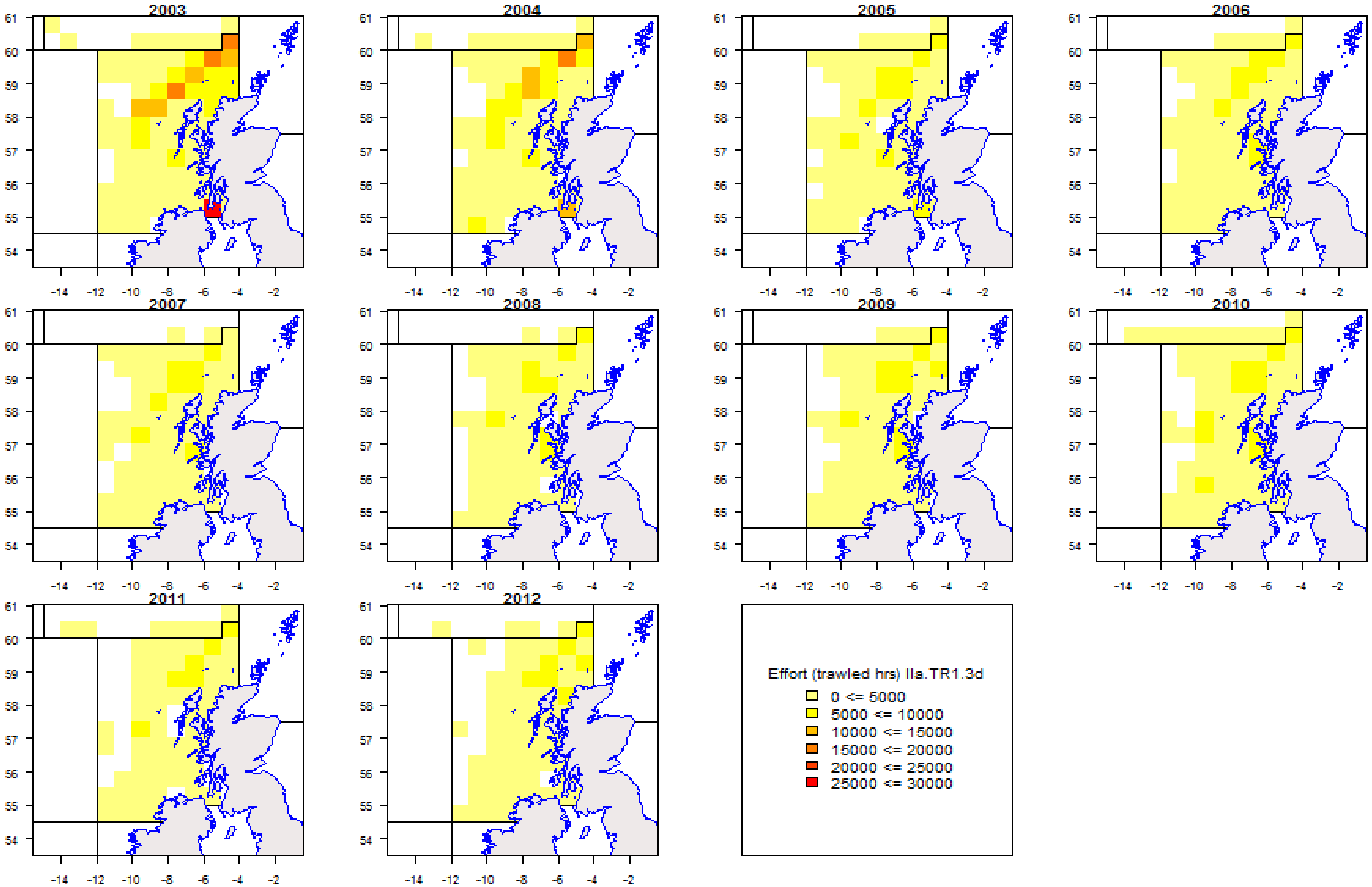


Figure 5.4.8.1 West of Scotland. Effort (trawled hours) by ICES statistical rectangle for TR1, 2003-2012 These figures include effort carried out under special condition CPart11.

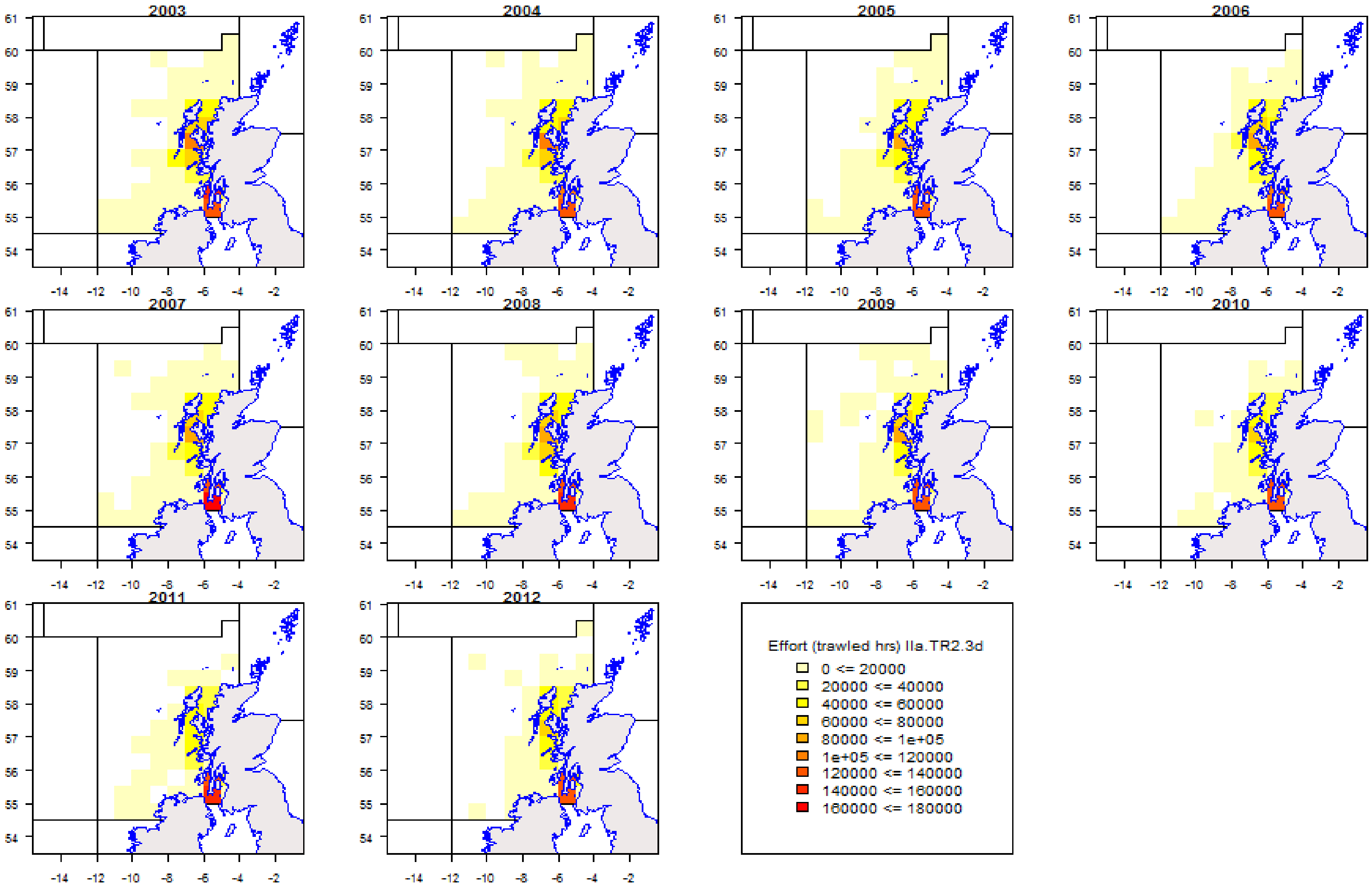


Figure 5.4.8.2 West of Scotland. Effort (trawled hours) by ICES statistical rectangle for TR2, 2003-2012 These figures include effort carried out under special condition CPart11.

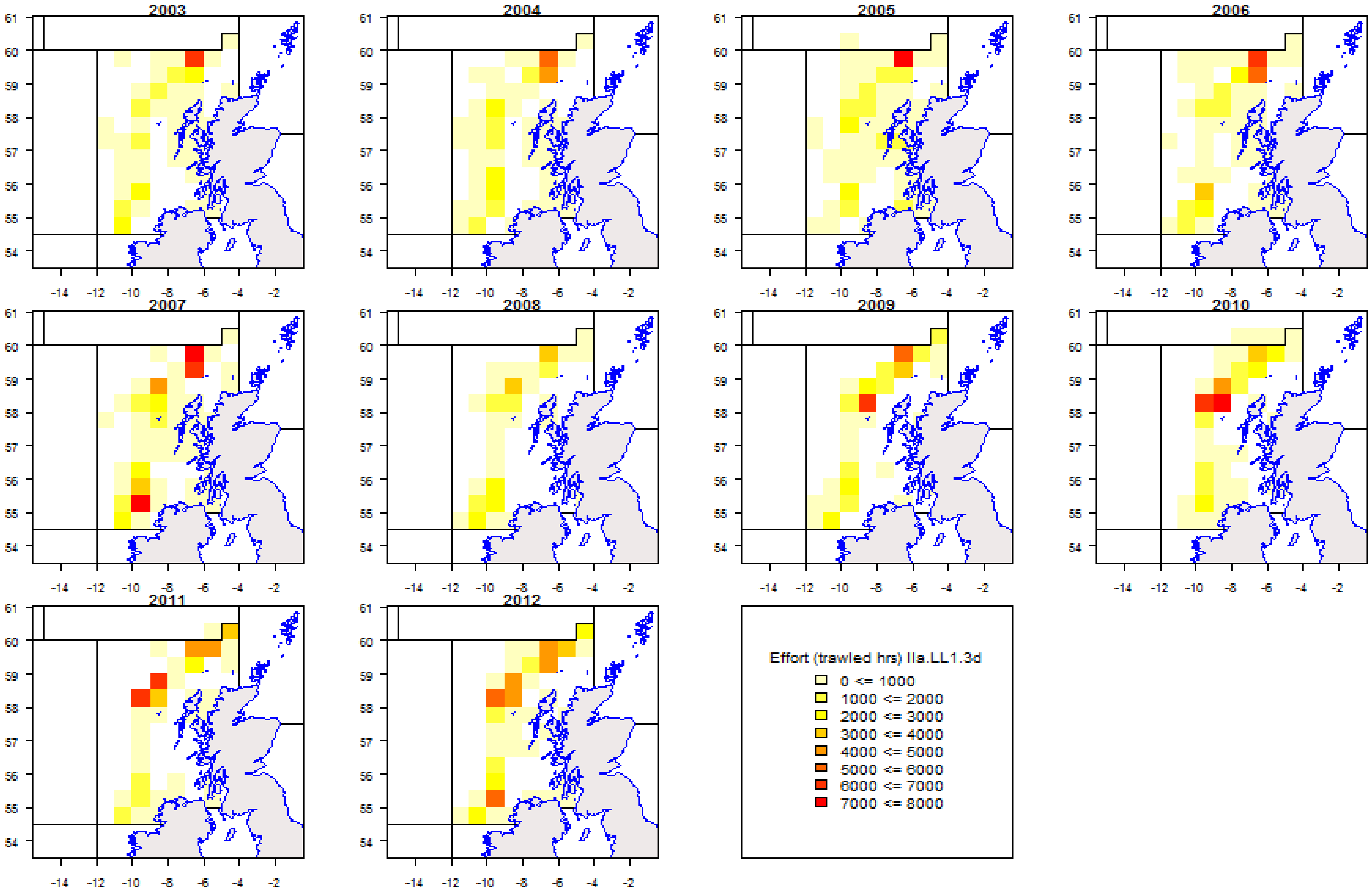


Figure 5.4.8.3 West of Scotland. Effort (trawled hours) by ICES statistical rectangle for LL1, 2003-2012.

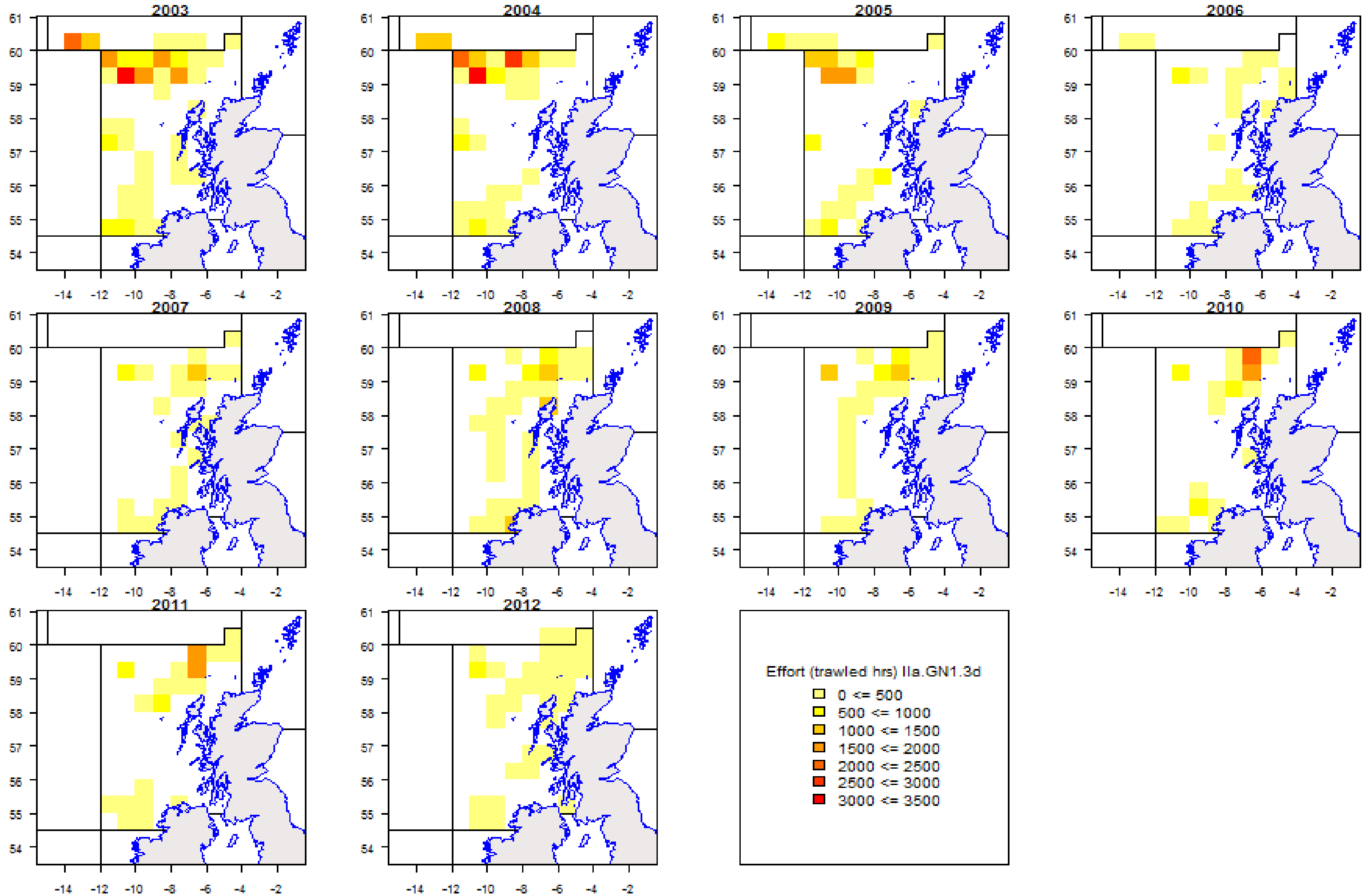


Figure 5.4.8.4 West of Scotland. Effort (hours) by ICES statistical rectangle for GN1, 2003-2012.

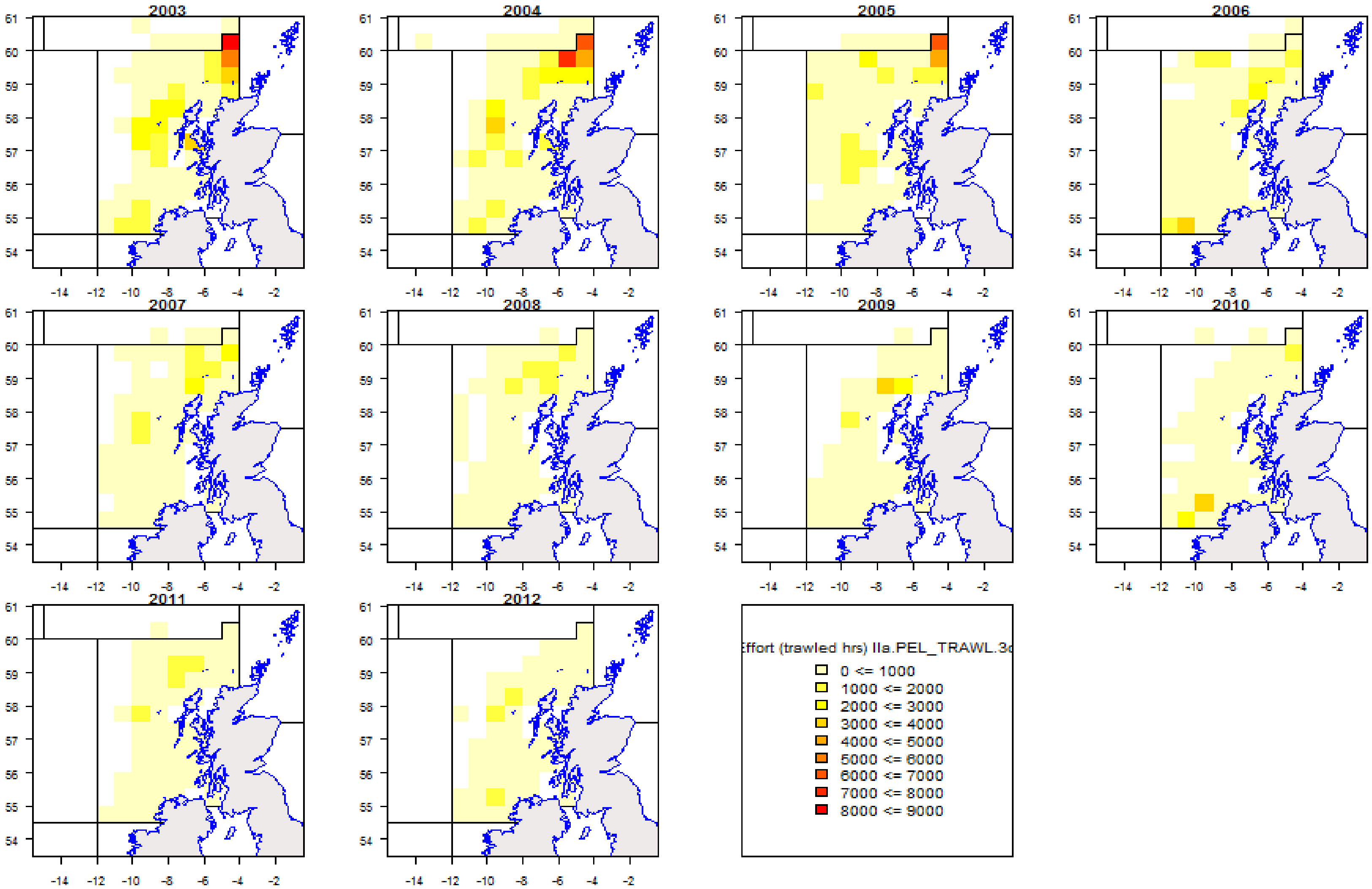


Figure 5.4.8.5 West of Scotland. Effort (hours) by ICES statistical rectangle for unregulated gear PELAGIC TRAWL, 2003-2012

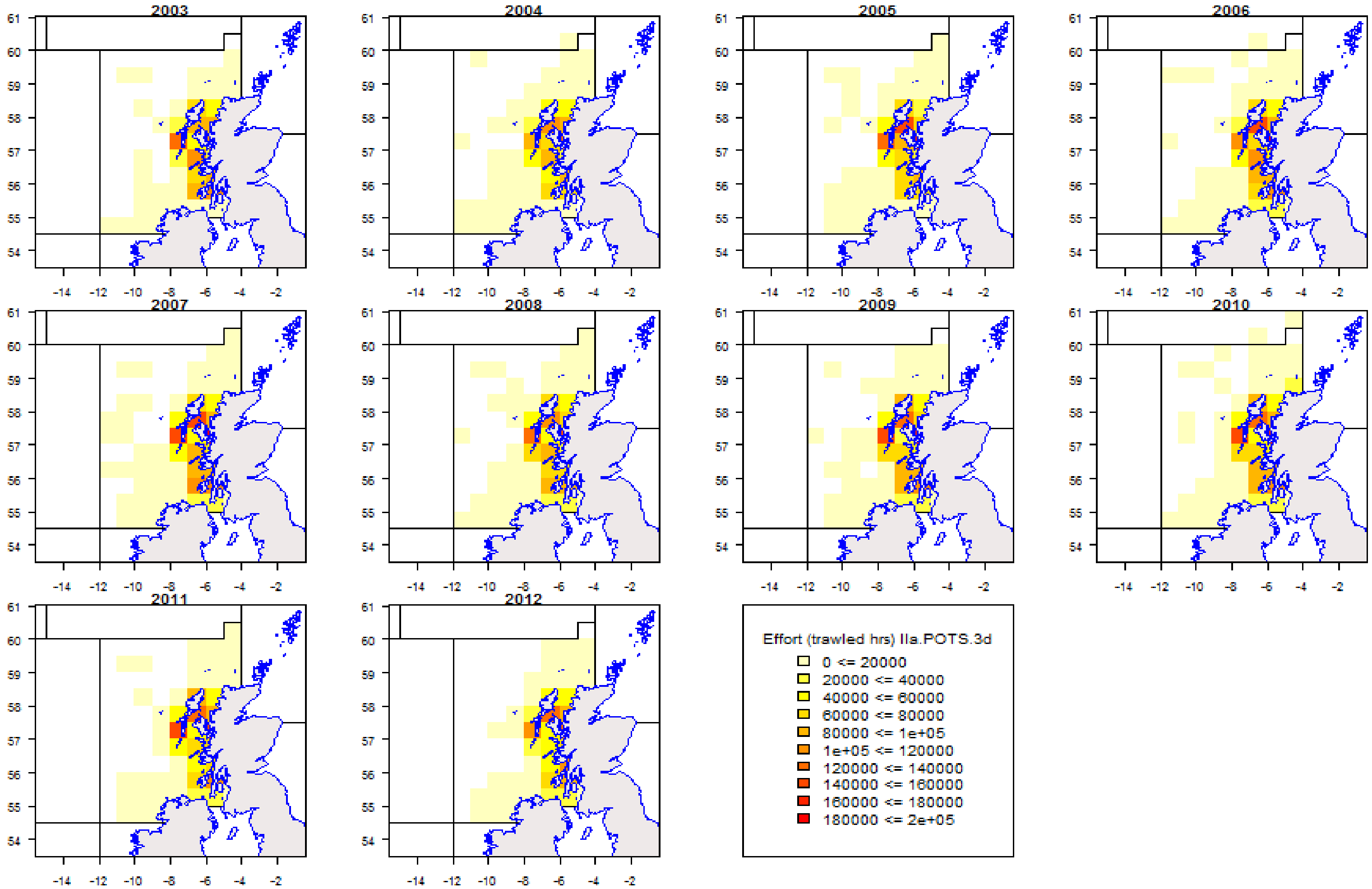


Figure 5.4.8.6 West of Scotland. Effort (hours) by ICES statistical rectangle for unregulated gear POTS, 2003-2012

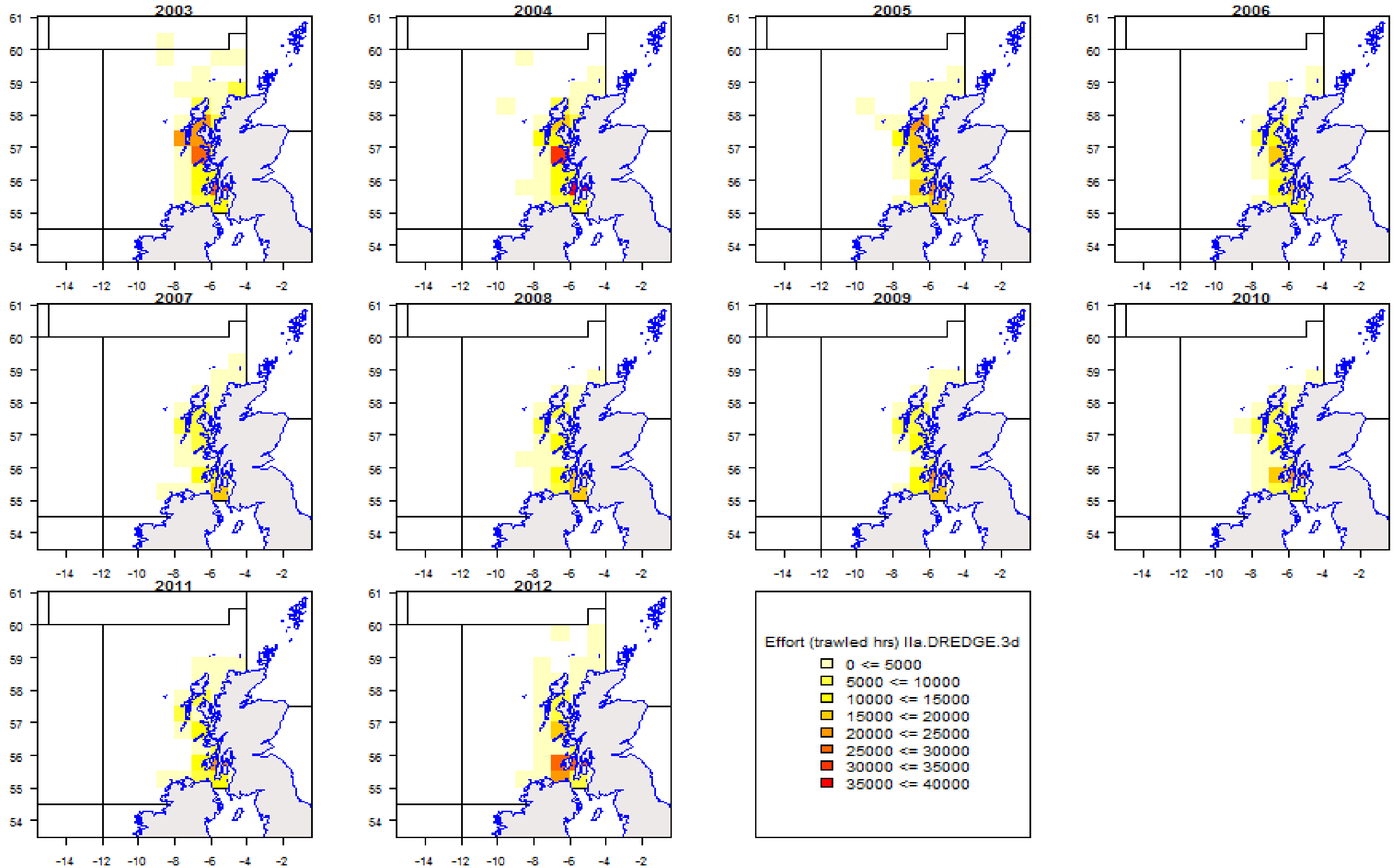


Figure 5.4.8.7 West of Scotland. Effort (hours) by ICES statistical rectangle for unregulated gear DREDGE, 2003-2012

5.4.7 ToR 5 Remarks on quality of catches and discard estimates

See tables in section 5.4.2 for values of the discard data quality index and section 4.5 for an explanation of the calculation of the index. A good proportion of the landings submitted to STECF also have discard data for the main gadoid stocks and the two important gears for gadoids west of Scotland. In contrast very little discard sampling is conducted in relation to pelagic fleets.

Discard data for Nephrops has not been supplied to STECF but discard data is supplied to ICES for the purpose of stock assessment. A technical issue exists in supplying to STECF in that Nephrops discards are estimated for sub-areas (Functional Units) and the best way to supply discards for the full management unit area needs to be considered.

Irish vessels contribute to the effort total in management area 3d. According to the international data supplied this constitutes approximately 7-13% of overall effort in the region depending on year (see Table 5.4.1.1).

5.4.8 ToR 6 Estimation of conversion factors to be applied for effort transfers between regulated gear groups

The table of international conversion factors (Table 5.4.8.1) is based on average CPUE (2010-2012). Discard data are scarce for many regulated gear groups but have been interpreted as well representative for TR1 and TR2.

Table 5.4.8.1 West of Scotland. Conversion factors for exchange of effort between gears based on average CPUE 2010-2012. Red cells indicate no discard data included and values are estimated based on LPUE; green cells indicate representative discard information available.

West of Scotland											
	donor gear	receiving gear						2010-2012			
		BT1	BT2	GN1	LL1	TR1	TR2	CPUE	LPUE		factor =
3d	BT1		1	0.143	1	0.004	0.5	1	1		if factor > 1 then
3d	BT2	1		0.143	1	0.004	0.5	1	1		factor = 1
3d	GN1	1	1		1	0.028	1	7	7		
3d	LL1	1	1	0.143		0.004	0.5	1	1		if CPUE=0 or LPUE = 0 then
3d	TR1	1	1	1	1		1	252	33		CPUE=1 or LPUE=1
3d	TR2	1	1	0.286	1	0.008		2	2		

5.4.9 ToR 7 Correlation between partial cod mortality and fishing effort by Member State and fisheries

The STECF EWG 13-13 presents partial fishing mortalities of cod by major fisheries and Member States using the estimated fishing mortality by ICES (2013) and the catches (Table 5.4.9.1), landings (Table 5.4.9.2) and discards volumes (Table 5.4.9.3) in relation to the catch totals supplied to STECF for the year available. The full list of all fisheries can be downloaded from the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

The anticipated trend in fishing mortality as derived from the cod plan is also presented in Tables 5.4.9.1-3. In the case of the west of Scotland the spawning stock biomass (SSB) was evaluated as well below the limit reference point (Blim) in 2008 and predicted to remain below that reference point by 2010 (the forecast year). Under such circumstances the plan calls for a 25% reduction in F. Without simulations including assumptions on recruitment it is not possible to make quantitative predictions of the response of the SSB to the assumed reductions if F. Therefore in the tables presented it is simply assumed that even with 25% reductions in F the SSB remains below Blim through 2012. The sustainable exploitation target is defined as F_{MSY}=0.19.

The trends in fishing effort in units of kWdays at sea of the relevant fisheries are also presented in Tables 5.4.9.1-3. The presented parameters r (absolute value of Pearson's coefficient of correlation), numbers of points considered as well as a p value to quantify the statistical significance ($\leq$0.05) allow conclusions about the quality of the correlation between the partial F and fisheries specific fishing effort. Those values are presented in the Tables 5.4.9.1-3 and resulting regressions are shown in Fig. 5.4.9.1 for major fisheries.

It can be concluded from the estimated F of the stock assessment (Table 5.4.9.1) that the stock is unsustainably exploited with an F more than 2 times higher than the target. Prior to 2006 the fisheries listed contributed a small fraction to the total estimated fishing mortality because of inclusion of unaccounted mortality in the stock assessment. Since then the proportion of total estimated fishing mortality has been much higher. The remainder is due to catch from unregulated gears and differences in the applied methods to estimate discards between ICES and STECF EWG 13-13. The contribution of unregulated gears in 2012 is small and is mainly from those exempt under CPart11.

The metier contributing most to partial F of cod is the Scottish TR1 gear operating under special condition CPart13D (fishing west of the French line). The partial F from this category has increased from 2011. The high partial Fs are mainly due to discarding (Table 5.4.9.3).

Table 5.4.9.1 Cod west of Scotland (catches). The left part of the table lists estimated F trajectories from the management plan and the ICES 2013 cod assessment, as well as partial Fs for catches of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs from total catches of all effort regulated gears to the overall F estimate of the stock.

Runnig previous year annual F reductions by 25 percent as SSB remains below Blim, Fmsy=0.19													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan									1.009	0.760	0.570	0.430	0.320
reduction F plan										-0.25	-0.25	-0.25	-0.26
F estimated				1.036	0.984	1.072	0.935	1.026	1.009	0.898	0.877	1.022	0.920
reduction F estimated										-0.11	-0.02	0.17	-0.10
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
DEU	TR1	CPart13B	catches								0.00002		0.00003
DEU	TR1	none	catches	0.00001		0.00004	0.00286	0.00587	0.00152	0.00004	0.00004		
ENG	BT2	none	catches	0.00000									
ENG	GN1	none	catches				0.00004						
ENG	LL1	none	catches	0.00148	0.00089	0.00212	0.00427	0.00346					
ENG	TR1	none	catches	0.00882	0.00830	0.00470	0.01368	0.00091	0.00876	0.00257	0.00126	0.00100	0.00037
ENG	TR2	none	catches	0.00055	0.00095	0.00101	0.00150	0.00152	0.00125	0.00019	0.00002	0.00006	0.00063
FRA	GN1	none	catches	0.00149	0.00009	0.00401	0.00585	0.00522	0.00291	0.00313	0.00146	0.00187	
FRA	LL1	none	catches				0.00389	0.00002	0.00006	0.00006			
FRA	TR1	CPart13B	catches										0.00218
FRA	TR1	none	catches	0.04275	0.03711	0.06502	0.12079	0.13355	0.17394	0.05058	0.10128	0.02510	0.00373
FRA	TR2	none	catches	0.00020	0.00006								
IOM	TR2	none	catches				0.00082						
IRL	GN1	none	catches	0.00006	0.00027			0.00206	0.00265	0.00061	0.00023	0.00032	
IRL	LL1	none	catches								0.00002		
IRL	TR1	CPart13c	catches							0.00183	0.00248	0.00031	0.00002
IRL	TR1	CPart13d	catches							0.00819	0.05001	0.01539	0.00095
IRL	TR1	none	catches	0.00885	0.00175	0.00716	0.01302	0.02242	0.02548	0.00295	0.01194	0.00444	0.00031
IRL	TR2	none	catches	0.02940	0.01376	0.01476	0.11523	0.01642	0.01461	0.00149	0.00007	0.00053	0.00067
IRL	TR3	none	catches	0.00000		0.00000		0.00000	0.00007			0.00000	0.00010
NIR	TR1	none	catches	0.01140	0.01398	0.01328	0.00852	0.01554	0.00837	0.00515	0.15220		
NIR	TR2	none	catches	0.00172	0.00382	0.00210	0.01289	0.01654	0.00396	0.00053	0.00066	0.00049	0.00414
SCO	BT1	none	catches	0.00040	0.00267	0.00039	0.00019						
SCO	LL1	none	catches	0.00066	0.00115	0.00118	0.00126	0.00093					
SCO	TR1	CPart13B	catches							0.01746	0.01300	0.10550	
SCO	TR1	CPart13C	catches							0.03086	0.03870	0.06128	0.07362
SCO	TR1	CPart13D	catches							0.38850	0.28817	0.78622	0.72441
SCO	TR1	none	catches	0.18831	0.14383	0.19125	0.36886	0.42710	0.44535				
SCO	TR2	CPart13B	catches							0.02442	0.00222	0.00360	0.00127
SCO	TR2	CPart13C	catches							0.00911	0.00039	0.00105	0.00442
SCO	TR2	none	catches	0.04211	0.03524	0.03340	0.05405	0.08359	0.01856				
Sum				0.33821	0.26387	0.34042	0.72772	0.73515	0.70749	0.54767	0.66417	1.00716	0.81685
check sum Fpar/F				0.33	0.27	0.32	0.78	0.72	0.7	0.61	0.76	0.99	0.89

Effort kW days running previous year baseline																
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012			
Effort plan									9465852	7099389	5324542	3993407	2995055			
										-0.25	-0.25	-0.25	-0.25			
Effort estimated				21418390	18982683	16048869	14393175	15122682	14274451	14266509	11430034	9344659	8974037			
										0.00	-0.20	-0.18	-0.04			
EFFORT														2003-2012		
kW days at sea				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n
DEU	TR1	CPart13B	catches								4530		1103			
DEU	TR1	none	catches	19191	12530	35586	27897	23652	3060	4854	2427			0.294	0.480	8
ENG	BT2	none	catches	1274	12067	1810										
ENG	GN1	none	catches	471808	309423	201100	23028	36174		13832	2540		765			
ENG	LL1	none	catches	370933	459841	317428	284497	325325	28103				4415	-0.856	0.014	7
ENG	TR1	none	catches	319445	145914	85851	48469	8711	17020	24446	14062	12979	5327	0.469	0.171	10
ENG	TR2	none	catches	106861	66311	57345	63616	58724	87267	15721	14802	21642	64875	0.587	0.074	10
FRA	GN1	none	catches	130216	169758	145478	129344	230271	572425	572425	294925	241877	206263	-0.038	0.917	10
FRA	LL1	none	catches				163130	445344	277750	277750	189072	172250		-0.740	0.093	6
FRA	TR1	CPart13B	catches										1734176			
FRA	TR1	none	catches	6010785	5807538	6038254	5193815	5058616	4486887	4482329	3469228	2149300	16870	0.382	0.276	10
FRA	TR2	none	catches	43098	12350			883	269645	274203						
IOM	TR2	none	catches	181	1172	181	894		649							
IRL	GN1	none	catches	19967	20763	192	3554	13346	9949	3275	551	2075	75	0.029	0.937	10
IRL	LL1	none	catches	7200	18400	3000		9750			1397	7470	3471			
IRL	TR1	CPart13c	catches							117484	108034	17295	12888	0.955	0.045	4
IRL	TR1	CPart13d	catches							253879	347386	206350	38636	0.818	0.182	4
IRL	TR1	none	catches	496439	316477	308681	325597	530740	435661	179594	298286	126436	20852	0.740	0.014	10
IRL	TR2	none	catches	1130195	977557	767211	712325	388727	205082	17989	9135	17461	18797	0.453	0.189	10
IRL	TR3	none	catches	2198		342	160	317	11321	1323		5915	2503			
NIR	TR1	none	catches	338394	162967	87191	29352	33609	38029	45378	23860	3160		-0.247	0.522	9
NIR	TR2	none	catches	281887	353511	350269	454128	757758	654124	524483	878592	948262	806188	0.005	0.989	10
SCO	BT1	none	catches	60295	151480	119958	81194	1803								
SCO	LL1	none	catches	124695	148430	306947	371404	518888	378736	703396	723065	694992	518307			
SCO	TR1	CPart13B	catches							113760	102762	443735	4566			
SCO	TR1	CPart13C	catches							217928	358116	519551	707987	0.986	0.014	4
SCO	TR1	CPart13D	catches							1897026	1855833	1116540	1383078	-0.960	0.040	4
SCO	TR1	none	catches	5722625	4502156	2635380	2099673	1986483	1990144					-0.781	0.067	6
SCO	TR2	CPart13B	catches							3733406	2494409	2462700	1905142	0.957	0.043	4
SCO	TR2	CPart13C	catches							792028	237022	174669	1517753	0.538	0.462	4
SCO	TR2	none	catches	5760703	5334038	4586665	4381098	4693561	4808599					-0.228	0.664	6
Sum				21418390	18982683	16048869	14393175	15122682	14274451	14266509	11430034	9344659	8974037	-0.852	0.002	10

Table 5.4.9.2 Cod west of Scotland (landings). The left part of the table lists estimated F trajectories from the management plan and the ICES 2013 cod assessment, as well as partial Fs for landings of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs from landings of all effort regulated gears to the overall F estimate of the stock.

Runnig previous year annual F reductions by 25 percent as SSB remains below Blim, Fmsy=0.19													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan									1.009	0.760	0.570	0.430	0.320
reduction F plan										-0.25	-0.25	-0.25	-0.26
F estimated				1.036	0.984	1.072	0.935	1.026	1.009	0.898	0.877	1.022	0.920
reduction F estimated										-0.11	-0.02	0.17	-0.10
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
DEU	TR1	CPart13B	landings								0.00000		0.00003
DEU	TR1	none	landings	0.00001		0.00004	0.00147	0.00120	0.00037	0.00004	0.00003		
ENG	BT2	none	landings	0.00000									
ENG	GN1	none	landings				0.00004						
ENG	LL1	none	landings	0.00148	0.00089	0.00212	0.00427	0.00346					
ENG	TR1	none	landings	0.00872	0.00806	0.00463	0.00586	0.00030	0.00215	0.00257	0.00084	0.00097	0.00037
ENG	TR2	none	landings	0.00051	0.00082	0.00069	0.00092	0.00036	0.00099	0.00019	0.00002	0.00006	0.00031
FRA	GN1	none	landings	0.00149	0.00009	0.00401	0.00585	0.00522	0.00291	0.00313	0.00146	0.00187	
FRA	LL1	none	landings				0.00389	0.00002	0.00006	0.00006			
FRA	TR1	CPart13B	landings										0.00218
FRA	TR1	none	landings	0.04207	0.03624	0.06406	0.06085	0.04506	0.04699	0.05056	0.02651	0.02429	0.00050
FRA	TR2	none	landings	0.00017	0.00002								
IOM	TR2	none	landings				0.00002						
IRL	GN1	none	landings	0.00006	0.00027			0.00206	0.00265	0.00061	0.00023	0.00032	
IRL	LL1	none	landings								0.00002		
IRL	TR1	CPart13c	landings							0.00183	0.00137	0.00030	0.00000
IRL	TR1	CPart13d	landings							0.00813	0.01636	0.01517	0.00026
IRL	TR1	none	landings	0.00752	0.00138	0.00631	0.00515	0.02130	0.02156	0.00286	0.00960	0.00432	0.00003
IRL	TR2	none	landings	0.02359	0.01196	0.01143	0.00738	0.01462	0.00976	0.00149	0.00007	0.00052	0.00047
IRL	TR3	none	landings	0.00000		0.00000		0.00000	0.00000			0.00000	0.00000
NIR	TR1	none	landings	0.01128	0.01361	0.01311	0.00454	0.00339	0.00272	0.00515	0.00081		
NIR	TR2	none	landings	0.00145	0.00234	0.00133	0.00243	0.00396	0.00191	0.00053	0.00066	0.00049	0.00062
SCO	BT1	none	landings	0.00040	0.00267	0.00039	0.00019						
SCO	LL1	none	landings	0.00066	0.00115	0.00118	0.00126	0.00093					
SCO	TR1	CPart13B	landings							0.00239	0.00228	0.00680	
SCO	TR1	CPart13C	landings							0.00422	0.00678	0.00407	0.00879
SCO	TR1	CPart13D	landings							0.05315	0.05262	0.05201	0.08547
SCO	TR1	none	landings	0.18692	0.14109	0.18954	0.18824	0.12180	0.11686				
SCO	TR2	CPart13B	landings							0.00334	0.00222	0.00360	0.00127
SCO	TR2	CPart13C	landings							0.00125	0.00039	0.00105	0.00442
SCO	TR2	none	landings	0.03795	0.02191	0.01602	0.01324	0.01619	0.01455				
Sum				0.32428	0.24250	0.31486	0.30560	0.23987	0.22348	0.14150	0.12227	0.11584	0.10472
check sum Fpar/F				0.31	0.25	0.29	0.33	0.23	0.22	0.16	0.14	0.11	0.11

	Effort kW days running previous year baseline															
		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012				
	Effort plan						9465852	7099389	5324542	3993407	2995055				
								-0.25	-0.25	-0.25	-0.25				
	Effort estimatec	21418390	18982683	16048869	14393175	15122682	14274451	14266509	11430034	9344659	8974037				
								0.00	-0.20	-0.18	-0.04				
	EFFORT											2003-2012			
	kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n	
DEU TR1 CPart13B									4530		1103				
DEU TR1 none		19191	12530	35586	27897	23652	3060	4854	2427			0.397	0.330	8	1.060
ENG BT2 none		1274	12067	1810											
ENG GN1 none		471808	309423	201100	23028	36174		13832	2540		765				
ENG LL1 none		370933	459841	317428	284497	325325	28103				4415	-0.856	0.014	7	-3.702
ENG TR1 none		319445	145914	85851	48469	8711	17020	24446	14062	12979	5327	0.855	0.002	10	4.663
ENG TR2 none		106861	66311	57345	63616	58724	87267	15721	14802	21642	64875	0.700	0.024	10	2.772
FRA GN1 none		130216	169758	145478	129344	230271	572425	572425	294925	241877	206263	-0.038	0.917	10	-0.108
FRA LL1 none					163130	445344	277750	277750	189072	172250		-0.740	0.093	6	-2.200
FRA TR1 CPart13B											1734176				
FRA TR1 none		6010785	5807538	6038254	5193815	5058616	4486887	4482329	3469228	2149300	16870	0.855	0.002	10	4.663
FRA TR2 none		43098	12350			883	269645	274203							
IOM TR2 none		181	1172	181	894		649								
IRL GN1 none		19967	20763	192	3554	13346	9949	3275	551	2075	75	0.029	0.937	10	0.082
IRL LL1 none		7200	18400	3000		9750			1397	7470	3471				
IRL TR1 CPart13c								117484	108034	17295	12888	0.982	0.018	4	7.353
IRL TR1 CPart13d								253879	347386	206350	38636	0.847	0.153	4	2.253
IRL TR1 none		496439	316477	308681	325597	530740	435661	179594	298286	126436	20852	0.733	0.016	10	3.048
IRL TR2 none		1130195	977557	767211	712325	388727	205082	17989	9135	17461	18797	0.843	0.002	10	4.433
IRL TR3 none		2198		342	160	317	11321	1323		5915	2503				
NIR TR1 none		338394	162967	87191	29352	33609	38029	45378	23860	3160		0.677	0.045	9	2.434
NIR TR2 none		281887	353511	350269	454128	757758	654124	524483	878592	948262	806188	-0.235	0.513	10	-0.684
SCO BT1 none		60295	151480	119958	81194	1803									
SCO LL1 none		124695	148430	306947	371404	518888	378736	703396	723065	694992	518307				
SCO TR1 CPart13B								113760	102762	443735	4566				
SCO TR1 CPart13C								217928	358116	519551	707987	0.649	0.351	4	1.206
SCO TR1 CPart13D								1897026	1855833	1116540	1383078	-0.293	0.707	4	-0.433
SCO TR1 none		5722625	4502156	2635380	2099673	1986483	1990144					0.340	0.510	6	0.723
SCO TR2 CPart13B								3733406	2494409	2462700	1905142	0.669	0.331	4	1.273
SCO TR2 CPart13C								792028	237022	174669	1517753	0.932	0.068	4	3.636
SCO TR2 none		5760703	5334038	4586665	4381098	4693561	4808599					0.927	0.008	6	4.943
Sum		21418390	18982683	16048869	14393175	15122682	14274451	14266509	11430034	9344659	8974037	0.807	0.005	10	3.865
check sum Fpar/F															

Table 5.4.9.3 Cod west of Scotland (discards). The left part of the table lists estimated F trajectories from the management plan and the ICES 2013 cod assessment, as well as partial Fs for discards of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs from discards of all effort regulated gears to the overall F estimate of the stock.

Runnig previous year annual F reductions by 25 percent as SSB remains below Blim, Fmsy=0.19															Effort kW days running previous year baseline														
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012				
F plan									1.009	0.760	0.570	0.430	0.320		Effort plan						9465852	7099389	5324542	3993407	2995055				
reduction F plan										-0.25	-0.25	-0.25	-0.26									-0.25	-0.25	-0.25	-0.25				
F estimated				1.036	0.984	1.072	0.935	1.026	1.009	0.898	0.877	1.022	0.920		Effort estimatec	21418390	18982683	16048869	14393175	15122682	14274451	14266509	11430034	9344659	8974037				
reduction F estimated										-0.11	-0.02	0.17	-0.10									0.00	-0.20	-0.18	-0.04				
															EFFORT											2003-2012			
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n	
DEU	TR1	CPart13B	discards								0.00001		0.00000										4530		1103				
DEU	TR1	none	discards	0.00000		0.00000	0.00139	0.00467	0.00115	0.00000	0.00001					19191	12530	35586	27897	23652	3060	4854	2427			0.237	0.572	8	0.598
ENG	BT2	none	discards	0.00000												1274	12067	1810											
ENG	GN1	none	discards				0.00000									471808	309423	201100	23028	36174		13832	2540		765				
ENG	LL1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000								370933	459841	317428	284497	325325	28103				4415				
ENG	TR1	none	discards	0.00010	0.00025	0.00007	0.00782	0.00061	0.00661	0.00000	0.00042	0.00003	0.00000			319445	145914	85851	48469	8711	17020	24446	14062	12979	5327	-0.191	0.597	10	-0.550
ENG	TR2	none	discards	0.00004	0.00013	0.00032	0.00058	0.00117	0.00026	0.00000	0.00000	0.00000	0.00033			106861	66311	57345	63616	58724	87267	15721	14802	21642	64875	0.233	0.517	10	0.678
FRA	GN1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000				130216	169758	145478	129344	230271	572425	572425	294925	241877	206263				
FRA	LL1	none	discards				0.00000	0.00000	0.00000	0.00000									163130	445344	277750	277750	189072	172250					
FRA	TR1	CPart13B	discards										0.00000												1734176				
FRA	TR1	none	discards	0.00069	0.00087	0.00096	0.05994	0.08848	0.12695	0.00002	0.07477	0.00081	0.00322			6010785	5807538	6038254	5193815	5058616	4486887	4482329	3469228	2149300	16870	0.098	0.787	10	0.279
FRA	TR2	none	discards	0.00003	0.00003											43098	12350			883	269645	274203							
IOM	TR2	none	discards				0.00080									181	1172	181	894		649								
IRL	GN1	none	discards	0.00000	0.00000			0.00000	0.00000	0.00000	0.00000	0.00000				19967	20763	192	3554	13346	9949	3275	551	2075	75				
IRL	LL1	none	discards								0.00000					7200	18400	3000		9750			1397	7470	3471				
IRL	TR1	CPart13c	discards							0.00000	0.00111	0.00001	0.00002									117484	108034	17295	12888	0.509	0.491	4	0.836
IRL	TR1	CPart13d	discards							0.00006	0.03365	0.00022	0.00069									253879	347386	206350	38636	0.689	0.311	4	1.344
IRL	TR1	none	discards	0.00133	0.00037	0.00086	0.00786	0.00111	0.00392	0.00009	0.00234	0.00013	0.00028			496439	316477	308681	325597	530740	435661	179594	298286	126436	20852	0.306	0.390	10	0.909
IRL	TR2	none	discards	0.00581	0.00180	0.00333	0.10785	0.00181	0.00485	0.00000	0.00000	0.00001	0.00020			1130195	977557	767211	712325	388727	205082	17989	9135	17461	18797	0.273	0.445	10	0.803
IRL	TR3	none	discards	0.00000		0.00000		0.00000	0.00007			0.00000	0.00010			2198		342	160	317	11321	1323		5915	2503				
NIR	TR1	none	discards	0.00013	0.00037	0.00017	0.00398	0.01216	0.00565	0.00000	0.15139					338394	162967	87191	29352	33609	38029	45378	23860	3160		-0.300	0.433	9	-0.832
NIR	TR2	none	discards	0.00027	0.00149	0.00076	0.01046	0.01258	0.00205	0.00000	0.00000	0.00000	0.00352			281887	353511	350269	454128	757758	654124	524483	878592	948262	806188	0.063	0.862	10	0.179
SCO	BT1	none	discards	0.00000	0.00000	0.00000	0.00000									60295	151480	119958	81194	1803									
SCO	LL1	none	discards	0.00000	0.00000	0.00000	0.00000	0.00000								124695	148430	306947	371404	518888	378736	703396	723065	694992	518307				
SCO	TR1	CPart13B	discards							0.01507	0.01073	0.09869										113760	102762	443735	4566				
SCO	TR1	CPart13C	discards							0.02663	0.03193	0.05721	0.06483									217928	358116	519551	707987	0.964	0.036	4	5.127
SCO	TR1	CPart13D	discards							0.33535	0.23555	0.73422	0.63894									1897026	1855833	1116540	1383078	-0.969	0.031	4	-5.547
SCO	TR1	none	discards	0.00139	0.00274	0.00171	0.18062	0.30530	0.32849							5722625	4502156	2635380	2099673	1986483	1990144					-0.749	0.087	6	-2.261
SCO	TR2	CPart13B	discards							0.02108	0.00000	0.00000	0.00000									3733406	2494409	2462700	1905142	0.937	0.063	4	3.793
SCO	TR2	CPart13C	discards							0.00786	0.00000	0.00000	0.00000									792028	237022	174669	1517753	0.119	0.881	4	0.169
SCO	TR2	none	discards	0.00416	0.01333	0.01738	0.04081	0.06741	0.00400							5760703	5334038	4586665	4381098	4693561	4808599					-0.550	0.258	6	-1.317
Sum				0.01395	0.02138	0.02556	0.42211	0.49530	0.48400	0.40616	0.54191	0.89133	0.71213			21418390	18982683	16048869	14393175	15122682	14274451	14266509	11430034	9344659	8974037	-0.912	0.000	10	-6.289
check sum Fpar/F				0.01	0.02	0.02	0.45	0.48	0.48	0.45	0.62	0.87	0.77																

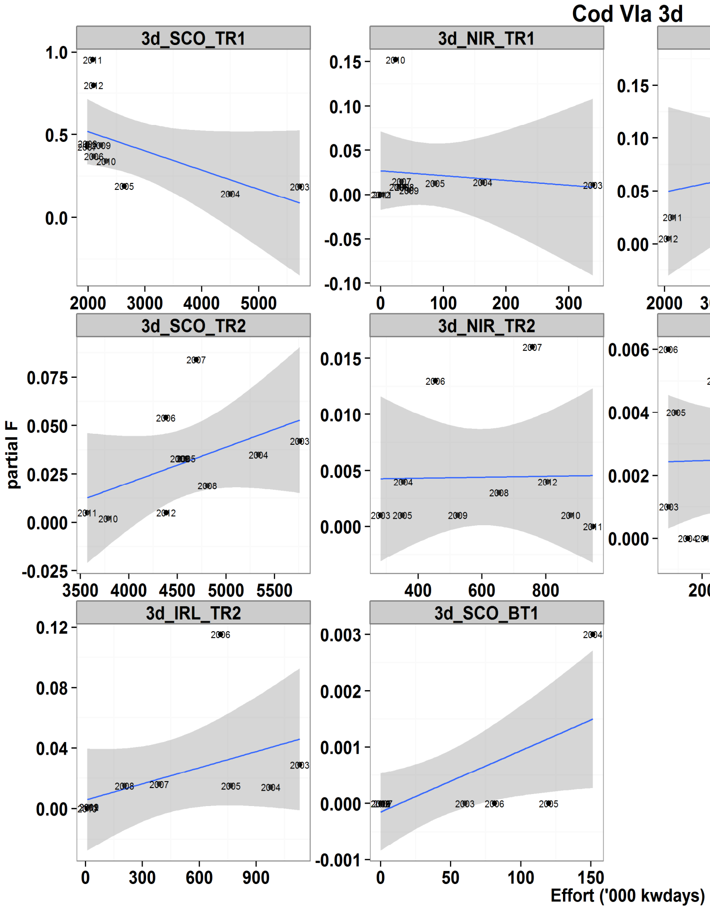


Figure. 5.4.9.1 West of Scotland cod. Regression of partial fishing mortality (based on harvest rate estimates) over effort (kWd) in area 3d for major fisheries, 2003-2012. Frames are listed in order of size of cod catches.

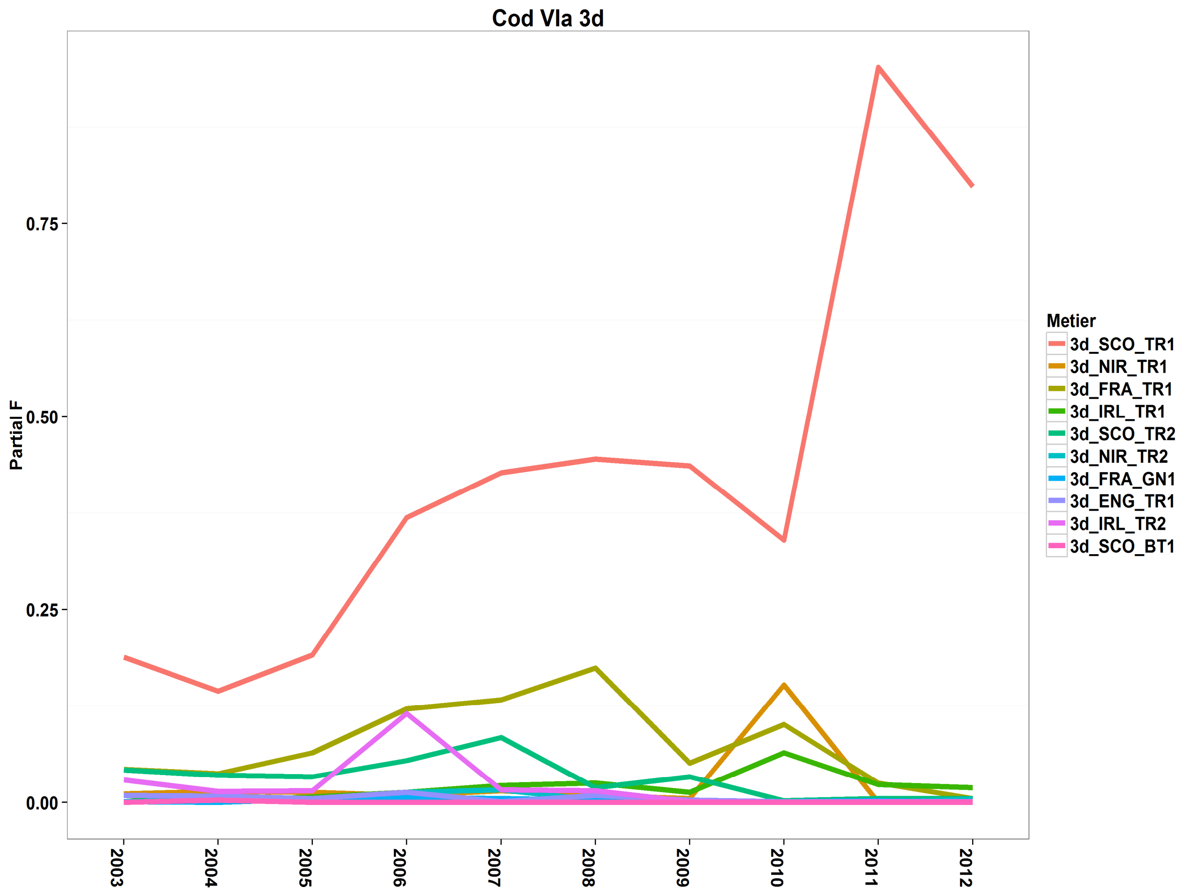


Fig. 5.4.9.2 West of Scotland cod. Time series of partial fishing mortality (based on harvest rate estimates) in area 3d of major fisheries, 2003-2012.

5.4.10 ToR 8 Comparative analyses between trends in fishing mortality and fishing effort by Member State and fisheries and the cod plan (R (EC) No 1342/2008) provisions, in particular with regard to Article 13

The detailed ToR for this task were;

"To quantitatively assess the annual trend in cod mortality that would have resulted from the fishing mortality adjustments in Article 7 and the trends in fishing effort that would have resulted from Article 12 of Council Reg. 1342/2008, for the period 2008 to 2012. STECF is then requested to quantitatively assess the partial cod fishing mortality and fishing effort trends of the regulated gears that were observed during 2008 to 2012. STECF is requested to comment on the questions if and to which extent the Member States application of Article 13, Paragraph 2, points a, b, c and d have supported the

reduction of cod fishing mortality as defined in Articles 7 and 9 and whether the increased fishing effort deployed by Member States was commensurate with the fishing mortality level to be achieved in 2012. The group is requested to quantify for each Member State and effort group (Annex I to Council Reg. 1342/2008) the partial target fishing mortality of cod, and partial fishing mortality of cod generated in excess of the cod plan, and, if a significant correlation between cod fishing mortality and fishing effort exists, the corresponding amounts of target fishing effort and of the excessive fishing effort in units of kW.days at sea."

In order to address this terms of reference, STECF EWG 13-13 has divided the question into three parts;

1. *To quantitatively assess the annual trend in cod mortality that would have resulted from the fishing mortality adjustments in Article 7 and the trends in fishing effort that would have resulted from Article 12 of Council Reg. 1342/2008, for the period 2008 to 2012. STECF is then requested to quantitatively assess the partial cod fishing mortality and fishing effort trends of the regulated gears that were observed during 2008 to 2012.*

This part of the ToR is considered covered by section 5.4.9 and the 'partial F' tables produced in 'App 07 partial F evaluation by fishery stocks'. As such, no further comment is made in this section.

2. *STECF is requested to comment on the questions if and to which extent the Member States application of Article 13, Paragraph 2, points a, b, c and d have supported the reduction of cod fishing mortality as defined in Articles 7 and 9 and whether the increased fishing effort deployed by Member States was commensurate with the fishing mortality level to be achieved in 2012.*

Figure 5.4.10.1 shows the trends in partial F and effort by Member State for regulated gears, standardised to their 2008 level. It should be noted that effort reductions have not been stipulated under the plan for all gears, and so effort levels should necessarily not have been expected to reduce to 0.32*2008 levels under implementation of the management plan. It can be seen that for Member States other than the UK partial F has reduced since 2008, though such reductions have not always been consistent (i.e. linearly proportional) with changes in effort by regulated gears. In the UK, a reduction in effort is recorded (but less than that to bring effort to 0.32 of effort in 2008) but partial F is recorded as increased in 2011 and 2012 compared to 2008. STECF EWG 13-13 notes that use of estimated trends in partial fishing mortality are dependent on consistent quota shares between member states and on the consistency of perception of the exploitation status derived from ICES assessments of the west of Scotland cod stock. A comparison of the assessed F trends between the 2012 and 2013 ICES assessments revealed a consistent perception of F trend.

Figure 5.4.10.2 shows the catchability trends in the major cod fisheries west of Scotland. In section 5.4.9 it was noted that Scottish TR1 gear is responsible for the majority of cod partial F and from Figure 5.4.10.3 it can be seen catchability has risen significantly in 2011 and 2012 for the TR1 gear group.

STECF EWG 13-13 notes that Article 13.2a has not been adopted by any Member State, and so there was no detailed discussion of this provision in this section.

Article 13b is for 'effort groups in which the fishing activity of one or more vessels results in a catch composition of less than 5% cod per fishing trips'. STECF has already stated that a catch composition special condition was not necessarily consistent with reductions in cod mortality as it does not control the overall amount of cod caught. STECF went on to further note that Article 13.2b:

"(i) may result in significant cod catches where large volume fisheries catch cod as a bycatch and this results in significant removals, particularly where the cod stock is depleted; (ii) it offers a perverse

incentive to catch more of other species in order to reduce the percentage catch of cod. If this derogation is to contribute to a reduction in exploitation of cod it is important that the total amount of cod caught by vessels under this does not contribute significantly to mortality. Therefore there is a need to have an overall cap on the catch of cod as a % of the TAC for cod taken by all vessels covered by this derogation. Such an approach would require monitoring of total catch, as with fully documented fisheries." _STECF 12-13)

STECF EWG 13-13 reiterates these comments. West of Scotland article 13.2b is estimated to have accounted for 10% of regulated gear partial F in 2011 but less than 1% in 2012.

STECF EWG 13-13 notes that Article 13c has only been adopted by IRL and the UK in area 3d. From Table 5.4.9.1 it can be seen catches from vessels operating under article 13c form a minor part of the cod catch. The Irish TR1 sector operating under articles 13.2.c has reduced partial cod F and effort drastically in 2011 and 2012 (s. Table 5.4.9.1).

Table 5.4.9.1 also shows that vessels operating under article 13d contribute the majority of cod fishing mortality over all gear types. The partial F for this one category is between 0.7 and 0.8. This is true for landings and discards with discards making a much greater contribution to fishing mortality in recent years. (see Tables 5.4.9.2 to 5.4.9.3). This is mainly a Scottish fishery as the Irish TR1 sector operating under articles 13.2.d has reduced partial cod F and effort drastically in 2012 (s. Table 5.4.9.1).

There are no indications that the Scottish TR1 fishery working under any of articles 13.2.b, c or d have contributed to a reduction in fishing mortality of cod west of Scotland. The contribution to fishing mortality of vessels operating under articles 13.2.b and 13.2.c (TR1 and TR2) is, however, low.

3. *The group is requested to quantify for each Member State and effort group (Annex I to Council Reg. 1342/2008) the partial target fishing mortality of cod, and partial fishing mortality of cod generated in excess of the cod plan, and, if a significant correlation between cod fishing mortality and fishing effort exists, the corresponding amounts of target fishing effort and of the excessive fishing effort in units of kW.days at sea*

STECF EWG 13-13 notes that the estimation of partial target fishing mortalities for cod by Member State and effort group requires the definition of proportions of overall F to be allocated to each effort group. STECF EWG 13-13 notes that these proportions have not remained stable in recent years as vessels are re-classified to a different special condition. As such, any assumption of target partial F for fleets based on recent years does not seem appropriate. Given a lack of knowledge on shares of partial F values among fisheries the estimation of partial target fishing mortalities is not considered possible.

In addition this analysis requires a significant – and positive – correlation between cod fishing mortality and fishing effort. There is a negative correlation between F and effort for the Scottish TR1 fleet (Figure. 5.4.9.1) which is already seen to take the great majority of cod catch in this area. It is therefore not considered possible to estimate excessive effort.

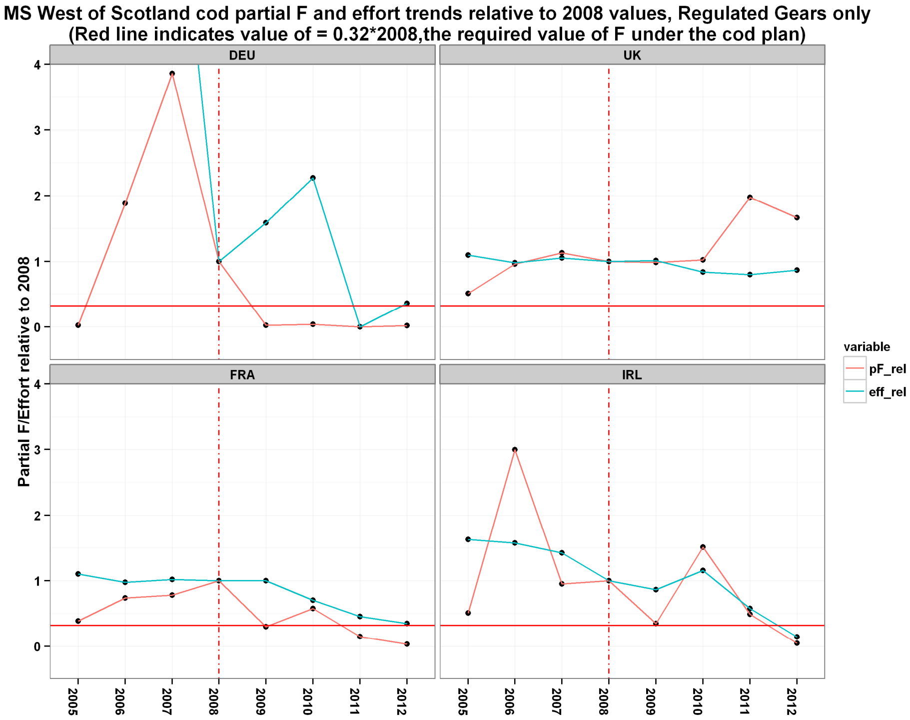


Figure. 5.4.10.1 – West of Scotland cod. Trends in partial fishing mortality as estimated by STECF EWG 13-13 and fishing effort for Member States regulated gears, standardised to 2008 levels. Red lines indicate trends in partial F and blue lines trends in kW days fishing effort by regulated gears. Dotted red vertical line indicates 2008, and solid red horizontal line indicates 0.32*2008 values.

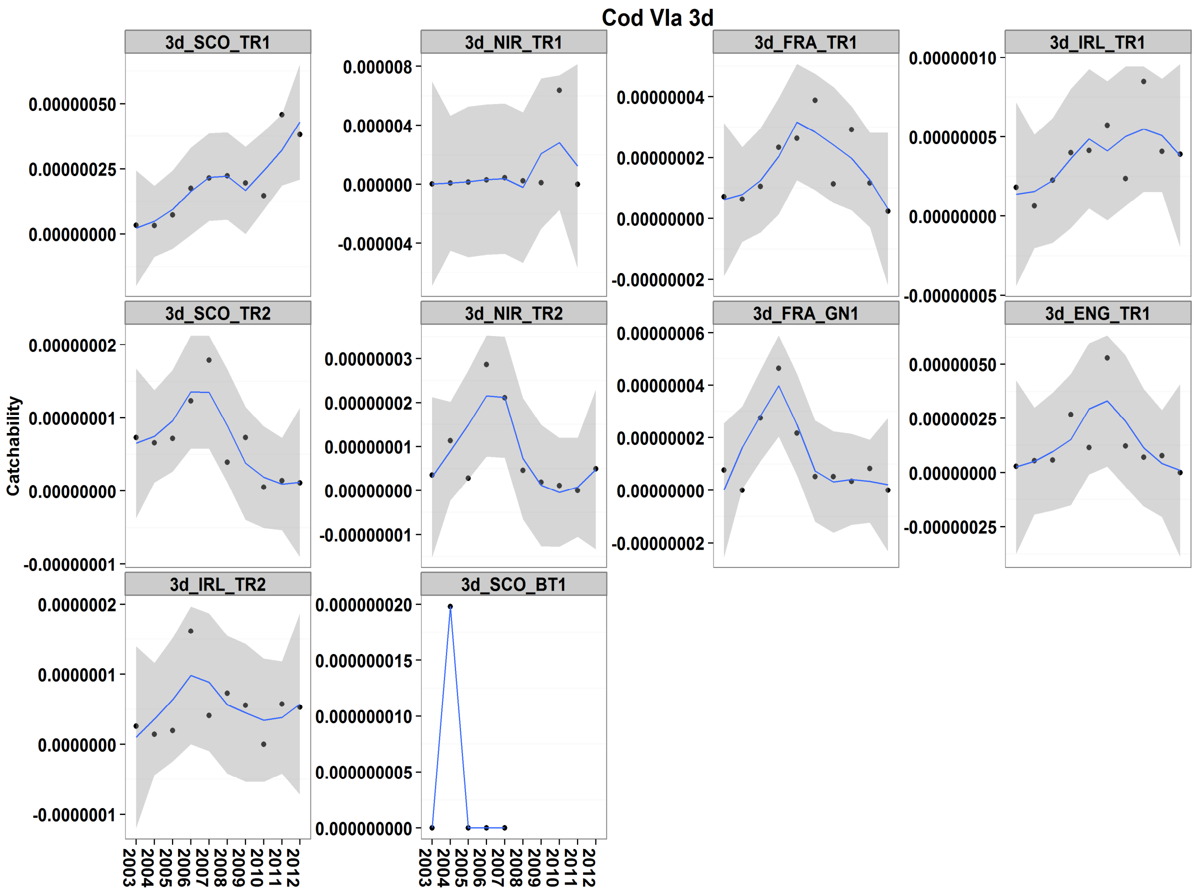


Fig. 5.4.10.2 West of Scotland cod. Trends in catchability (partial F/kw days fishing effort) for all regulated gears and the major fisheries in area 3d. Blue lines indicate a local regression smoother. Grey outlines indicate 95% confidence limits (± 2 standard errors).

5.4.11 ToR 9 Considerations in order to accomplish spatio-temoral pattern in standardized catchability indices for cod

It should also be noted that estimating catchabilities using landings information can only be meaningful if discarding is low. This is not the case for cod west of Scotland.

5.5 Irish Sea effort regime evaluation in the context of Annex IIA to Council Regulation (EC) No 57/2011)

5.5.1 ToR 1.a Fishing effort in kWdays, GTdays, kW and number of vessels by Member State and fisheries

Effort within the Irish Sea has been compiled for kW*days-at-sea, GT*days-at-sea, capacity in kWs and numbers of vessels. Within the report focus is on kW*Days at sea and brief discussion of the newly available capacity. Information on GT*days at sea and numbers of vessels is available via the website: Http://stecf.jrc.ec.europa.eu/web/stecf/ewg06

Data submissions covered a variety of data ranges, some nations going back to 2000, others to 2009 and some 2012 only. However, much of the data remains relativity consistent with last year, those with changes are detailed in Tables 5.5.1.1 many of the variations are the result of improvements within national databases.

Tables 5.5.1.2 and 5.5.1.3 detail nominal effort, in kW*days-at-sea, by nation and then aggregated by gear and special condition according to Annex I of Coun. Reg. 1342/2008 (new cod plan). These tables show a 37% decline in Irish Sea nominal effort since 2000, the majority of which occurred between 2003 and 2009, since 2009 effort has declined by 3%. In relation to effort by gear, discussions are primarily focused on data from 2003 onwards. This is due to the unavailability of Irish mesh size information prior to 2003 resulting in Irish effort occurring within the 'none' category which encompasses unidentified effort and effort by gears and mesh sizes not regulated under the cod plan. See below for further description of this category.

Irish Sea fisheries are predominantly demersal trawling and seining (TR group). Combined, TR effort mirrors the overall effort trend (Figure 5.5.1.1) representing 55-60% of total Irish Sea effort. This includes the small (2-5%) of effort excluded from effort regulation in the last three years. As part of regulated gears, the TR group accounted for over >70% from 2003 and >80% from 2008. Within the TR group, the TR2 category (70-99mm mesh sizes) dominates (Table 5.5.1.3 and Figure 5.5.1.2), and effort had been relatively stable between 2003 and 2008. An effort reduction occurred in 2009, coinciding with the introduction of the current cod plan, since then effort has remained at the reduced level. The majority of TR2 effort is now carried out under Article 13 of Coun. Reg. 1342/2008 (CPart13; Figure 5.5.1.3). CPart13 was submitted in 2013 broken down into its constitute parts (Figure 5.5.1.4), much of the effort began as category c (avoidance) but this looks to have switched to category b (<5% cod). In addition an amount is under category a (technical changes) relating to the use of the Swedish grid by the Nephrops fishery. A small amount of effort previously incorporated in CPart13 became exempt from the cod plan effort restrictions under Article 11 of the regulation (CPart11) since 2010, 2-5%. Effort within TR1 (≥100mm mesh sizes) is currently at a very low level. This group underwent a large decline in effort between 2003 and 2007, since then effort has continued to decline at a slower rate. The majority of TR1 was assigned to CPart13 categories in 2009-2011 (~80%), while in 2012 effort exited CPart13 into the no special condition category.

Beam trawling, solely BT2 in the Irish Sea, declined greatly between 2003 and 2008. The gear has continued at a low level over the last three years (accounting for 10% of Irish Sea effort), and is currently indicating a slight decrease (Table 5.5.1.3). Note, Belgium beam trawl effort within the Irish Sea contains assumed mesh sizes, as described in Section 4. Of the remaining regulated gears, gillnetting occurs at very low levels <0.5% (Figure 5.5.1.1) while GT1 and LL1 show negligible effort accounting for less than 0.5% of total effort.

Category ‘none none’ represents gear types and mesh sizes not regulated by Coun. Reg. 1342/2008 effort restrictions. This category includes effort assigned to special condition CPart11 which is exempt from effort restrictions through the use of cod avoidance measures (discussed above). A large proportion of the ‘none none’ group prior to 2003 was due to Irish effort reported without mesh size information. Once Irish mesh size information became available in 2003, the ‘none’ category decreased substantially. Effort within this category has increased over the last seven years and currently accounts for 37% of Irish Sea effort. these increases primarily result from dredge and pot activity (Figure 5.5.5.1), in addition to the appearance of CPart11 effort within this category. Low levels of effort also occur within the pelagic trawl category.

Capacity was submitted at the highest level of aggregation and summations across certain groups are misleading due to double counting of vessels active within the area over multiple metiers, years or quarters. The annual values presented here and available on the website are the maximum capacity of a quarter. Data was only available for all those active within the Irish Sea for 2012, therefore it is not possible to make comment on area trends. However, regulated gears (Table 5.5.1.5) and unregulated gear capacity (Table 5.5.1.6) can be observed for those nations submitting a time series.

Table 5.5.1.1. Irish Sea relative differences in nominal effort (kW*days at sea) to 2012 submissions by Member State by Annex I, Coun. Reg. 1342/2008. Only those differing combinations are displayed. Sorted by gear, derogation (SPECON), and country.

ANNEX	REG AREA	REG GEAR	SPECON	COUNTRY	VESSEL_LE	2003	2004	2005	2006	2007	2008	2009	2010	2011
IIa	3c	TR1	none	NIR	O10T15M	1.217	0.227	0	1.543					
IIa	3c	PEL_TRAW	NONE	IRL	O15M	0	0	0	0	0	0	1.66	0.07	0
IIa	3c	TR2	none	NIR	O10T15M	0.097	0.061	0.064	0.029	0.056	0.025			
IIa	3c	PEL_TRAW	NONE	IRL	O10T15M	0	0	0	0	0	0	0.212	0.015	0
IIa	3c	DREDGE	none	BEL	O15M						0		0	0.096
IIa	3c	DREDGE	none	SCO	O10T15M	0	0	0	0	0	0	0	0.072	0.011
IIa	3c	POTS	none	ENG	O10T15M	0	0	0	0	0	0	0.003	0.056	0.009
IIa	3c	DREDGE	none	IOM	O10T15M	0		0	0	0.055	0			
IIa	3c	BT2	none	BEL	O15M	0	0	0	0	0	0	0	0	0.046
IIa	3c	BEAM	none	ENG	O10T15M	0	0	0	0	0	0	0.042	0	0
IIa	3c	TR2	none	BEL	O15M		0	0	0	0	0	0	0	0.026
IIa	3c	LL1	NONE	IRL	O10T15M						0		0.015	0
IIa	3c	DREDGE	none	SCO	O15M	0	0	0	0	0	0	0	0.012	0.001
IIa	3c	BT2	NONE	IRL	O15M	0	0	0	0	0	0	0	0	0.004
IIa	3c	GN1	NONE	IRL	O10T15M	0	0	0	0	0	0	0.001	0.001	0.002
IIa	3c	POTS	NONE	IRL	O10T15M	0	0	0	0	0	0	0	0	0.002
IIa	3c	TR2	NONE	ENG	O15M	0	0	0	0	-0.005	0			
IIa	3c	POTS	none	ENG	O15M	0	0	0	-0.017	0	0	0	0.002	0.01
IIa	3c	POTS	none	GBJ	O15M	0	0	0	0	0	-0.008	0	0	0
IIa	3c	TR1	NONE	NIR	O15M	0	0	0	0	0.008	-0.023			
IIa	3c	TR2	none	NIR	O15M	0	0	0	-0.002	-0.002	-0.011			
IIa	3c	TR2	NONE	IRL	O10T15M	0	0	0	0	0	0	-0.013	-0.006	
IIa	3c	DREDGE	NONE	IRL	O10T15M				0	0	0	-0.009	-0.011	-0.021
IIa	3c	DREDGE	none	ENG	O15M	0	0	0	0	0	0	0	-0.042	0
IIa	3c	TR1	NONE	IRL	O15M	0	0	0	0	0	0	0	-0.062	0
IIa	3c	DREDGE	none	ENG	O10T15M	0	0	-0.004	0	-0.014	-0.025	-0.012	0.063	-0.094
IIa	3c	TR2	NONE	IRL	O15M	0	0	0	0	0	0	-0.097	0	
IIa	3c	OTTER	none	NIR	O15M	0		0	-0.304					
IIa	3c	BT2	none	ENG	O15M	0	0	0	0	0	0	0	-0.449	0
IIa	3c	POTS	none	NIR	O10T15M	0	0	0	0	0	0.001	-0.348	-0.076	-0.225
IIa	3c	TR2	none	ENG	O10T15M	0	0	0	-0.19	-0.224	-0.249			
IIa	3c	DREDGE	none	NIR	O15M	0	0	0	0	0	0	-0.082	-0.092	-0.602
IIa	3c	TR1	NONE	ENG	O10T15M	0	0	0	-0.513	-0.666	0			
IIa	3c	DREDGE	none	IOM	O15M	0	0	0	0	0	0	-0.819	-0.623	
IIa	3c	POTS	none	NIR	O15M		0		0	0	0	0	-0.569	-0.875
IIa	3c	DREDGE	none	NIR	O10T15M	0	0	0	0	-0.222	-0.012	-0.282	-0.414	-0.554

Table 5.5.1.2. Irish Sea trends in nominal effort (kW*days at sea) by gear groups of Annex I, Coun. Reg. 1342/2008 and Member State, 2000-2012. Sorted by gear, derogation (SPECON), and country. Data qualities are summarised in Section 4.

ANNEX	AREA	GEAR	SPECON	COUNTRY	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
IIa	3c	BT2	CPart13B	ENG								718		8619
IIa	3c	BT2	none	BEL	1884843	1482831	1694567	1153947	956953	554841	624989	649225	690853	616775
IIa	3c	BT2	none	ENG	172354	68579	161500	59199	31112	17349	5808	1810	41222	13240
IIa	3c	BT2	none	GBJ	40878	42260	3542							
IIa	3c	BT2	none	IRL	860849	414446	514653	481404	550975	374494	173927	218054	212313	179498
IIa	3c	BT2	none	NLD			5884							
IIa	3c	BT2	none	SCO					1074	1378				
IIa	3c	GN1	CPart13B	ENG										765
IIa	3c	GN1	CPart13B	NIR							2140			
IIa	3c	GN1	none	ENG	14872	12326	10011	8378	3930	4297	684	2260	3602	1097
IIa	3c	GN1	none	FRA			838							4414
IIa	3c	GN1	none	IRL	92103	63069	26672	29531	47941	40957	22219	22172	20333	9000
IIa	3c	GN1	none	NIR		222								
IIa	3c	GN1	none	NLD				161						
IIa	3c	GN1	none	SCO			895							
IIa	3c	GT1	none	ENG				475	656	1066	2788	984	1476	
IIa	3c	GT1	none	FRA										180
IIa	3c	GT1	none	IRL						1327	1237			
IIa	3c	LL1	none	ENG	44138	58414	93773	59656	12238	840	924		1543	5001
IIa	3c	LL1	none	ESP										372
IIa	3c	LL1	none	FRA										
IIa	3c	LL1	none	IRL		800				24199		620	146	3625
IIa	3c	LL1	none	SCO	3247									
IIa	3c	TR1	CPart11	IOM										687
IIa	3c	TR1	CPart13B	ENG				2541	2310		5544	5319		10416
IIa	3c	TR1	CPart13B	NIR							29532	47406	25968	28260
IIa	3c	TR1	CPart13B	SCO								390		536
IIa	3c	TR1	CPart13c	ENG							16316	19792	14364	7988
IIa	3c	TR1	CPart13c	NIR							364594	306824	147347	12091
IIa	3c	TR1	CPart13c	SCO								1273	407	13504
IIa	3c	TR1	none	ENG	399886	197351	94201	66364	14536	5932				
IIa	3c	TR1	none	FRA	264447	167253	180515	109174	67487	19701	19701	6668	6138	18034
IIa	3c	TR1	none	IOM	9070	362	172		649	895				
IIa	3c	TR1	none	IRL	381119	157955	87263	84550	141442	73625	60348	73585	56161	122215
IIa	3c	TR1	none	NIR	2055358	1162035	872476	785815	343025	498488				
IIa	3c	TR1	none	NLD						442				
IIa	3c	TR1	none	SCO	92514	32104	3889	3104						
IIa	3c	TR2	CPart11	IOM							21982	22808	153825	108428
IIa	3c	TR2	CPart11	IRL								107511	231706	206698
IIa	3c	TR2	CPart11	SCO								9055		
IIa	3c	TR2	CPart13a	IRL							98492	115391	392685	1003328
IIa	3c	TR2	CPart13a	NIR										240258
IIa	3c	TR2	CPart13B	ENG				12243	17787	15246	11319	116327	46765	87715
IIa	3c	TR2	CPart13B	NIR							235743	1450621	1820787	2225228
IIa	3c	TR2	CPart13B	SCO							23350	17981	42035	82657
IIa	3c	TR2	CPart13c	ENG							160679	65836	109946	66348
IIa	3c	TR2	CPart13c	NIR							2895541	1336192	863528	213809
IIa	3c	TR2	CPart13c	SCO							7569		1713	28113
IIa	3c	TR2	none	BEL		13541	43486	34052	76789	67534	29980	14283	29125	20947
IIa	3c	TR2	none	ENG	211774	347848	287791	235204	225834	204211				
IIa	3c	TR2	none	FRA	588		2352		810					395
IIa	3c	TR2	none	IOM	18628	10826	27205	5427	29763	14592				
IIa	3c	TR2	none	IRL	1242769	1386883	1475114	1452830	1583605	1300696	733216	673091	445123	12056
IIa	3c	TR2	none	NIR	3395323	3138292	3213416	2959511	3143032	3326397				
IIa	3c	TR2	none	SCO	44656	93770	34415	7435	16808	21995				
IIa	3c	TR3	none	DNK	992									
IIa	3c	TR3	none	ENG	134									
IIa	3c	TR3	none	IRL	900	90	3305	960		436			179	634
Total of regulated gears					11231442	8851257	8837935	7551961	7268756	6570938	5548622	5286196	5359290	5352931
IIa	3c	none	none	BEL	528					53686		41044	65538	16550
IIa	3c	none	none	ENG	648435	546205	596195	688014	589585	506163	442687	490590	459843	527265
IIa	3c	none	none	ESP										735
IIa	3c	none	none	FRA	1694				906	2844	2844	1180	4982	1296
IIa	3c	none	none	GBG						397	11116	1119		
IIa	3c	none	none	GBJ	74180	76378	17726	11996	35952	53500	78825	62274	52172	68016
IIa	3c	none	none	IOM	10154	6782	5194	10315	14170	47908	3908	10953	37165	37298
IIa	3c	none	none	IRL	611981	830250	417215	436077	445217	396694	437256	630794	670709	720078
IIa	3c	none	none	NIR	303426	256628	249139	273483	289130	352026	270031	307264	291270	303954
IIa	3c	none	none	NLD		14520	12797	525	4725	54075	17118	3960		663
IIa	3c	none	none	SCO	901594	725105	807056	603817	940554	1260522	1371630	1028690	1087235	949306
Total of unregulated gears					2551992	2455868	2105322	2024227	2320239	2727815	2635415	2577868	2668914	2625161
Overall total					13783434	11307125	10943257	9576188	9588995	9298753	8184037	7864064	8028204	7978092

Table 5.5.1.3 Trend in nominal effort (kW*days at sea) by effort group (Coun. Reg. 1342/2008), 2000-2012.

Annex	REG AREA	REG GEAR	SPECON	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Relative change to 2004	Relative change to 2009
IIa	3c	TR1	CPart13B				2541	2310		35076	53115	25968	39212		0.12
IIa	3c	TR1	CPart13c							380910	327889	162118	33583		-0.91
IIa	3c	TR1	none	3202394	1717060	1238516	1049007	567139	599083	80049	80253	62299	140249	-0.92	0.75
IIa	**3c**	**TR1 Total**		**3202394**	**1717060**	**1238516**	**1051548**	**569449**	**599083**	**496035**	**461257**	**250385**	**213044**	**-0.88**	**-0.57**
IIa	3c	TR2	CPart13a							98492	115391	392685	1243586		11.63
IIa	3c	TR2	CPart13B				12243	17787	15246	270412	1584929	1909587	2395600		7.86
IIa	3c	TR2	CPart13c							3063789	1402028	975187	308270		-0.90
IIa	3c	TR2	none	4913738	4991160	5083779	4694459	5076641	4935425	763196	687374	474248	33398	-0.99	-0.96
IIa	**3c**	**TR2 Total**		**4913738**	**4991160**	**5083779**	**4706702**	**5094428**	**4950671**	**4195889**	**3789722**	**3751707**	**3980854**	**-0.20**	**-0.05**
IIa	3c	TR3	none	2026	90	3305	960		436			179	634	**6.04**	
IIa	**3c**	**TR3 Total**		**2026**	**90**	**3305**	**960**		**436**			**179**	**634**	**6.04**	
IIa	3c	BT2	CPart13B								718		8619		
IIa	3c	BT2	none	2958924	2008116	2380146	1694550	1540114	948062	804724	869089	944388	809513	-0.60	0.01
IIa	**3c**	**BT2 Total**		**2958924**	**2008116**	**2380146**	**1694550**	**1540114**	**948062**	**804724**	**869807**	**944388**	**818132**	**-0.59**	**0.02**
IIa	3c	GN1	CPart13B							2140			765		-0.64
IIa	3c	GN1	none	106975	75617	38416	38070	51871	45254	22903	24432	23935	14511	-0.81	-0.37
IIa	**3c**	**GN1 Total**		**106975**	**75617**	**38416**	**38070**	**51871**	**45254**	**25043**	**24432**	**23935**	**15276**	**-0.80**	**-0.39**
IIa	3c	GT1	none				475	656	2393	4025	984	1476	180		-0.96
IIa	**3c**	**GT1 Total**					**475**	**656**	**2393**	**4025**	**984**	**1476**	**180**		**-0.96**
IIa	3c	LL1	none	47385	59214	93773	59656	12238	25039	924	620	1689	8998	-0.85	8.74
IIa	**3c**	**LL1 Total**		**47385**	**59214**	**93773**	**59656**	**12238**	**25039**	**924**	**620**	**1689**	**8998**	**-0.85**	**8.74**
IIa	3c	none	none	2551992	2455868	2105322	2024227	2320239	2727815	2635415	2577868	2668914	2625161	0.07	0.00
IIa	3c	TR1	CPART11										687		
IIa	3c	TR2	CPART11							21982	139374	385531	315126		**13.34**
IIa	**3c**	**None Total**		**2551992**	**2455868**	**2105322**	**2024227**	**2320239**	**2727815**	**2657397**	**2717242**	**3054445**	**2940974**	**0.20**	**0.11**
Grand Total				**13783434**	**11307125**	**10943257**	**9576188**	**9588995**	**9298753**	**8184037**	**7864064**	**8028204**	**7978092**	**-0.29**	**-0.03**

Table 5.5.1.4. Irish Sea trends in unregulated effort (kW*days at sea), according to Annex 1 of Con. Reg. 1342/2008, by major gear type, 2000-2012.

Annex	Area	REG GEAR	COUNTRY	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
IIa	3c	BEAM	ENG	7360	1966	25324	8221	8992	26350	9508	1788	988	186
IIa	3c	BEAM	IRL	23853	159015								
IIa	3c	BEAM	NIR				145		3639	370			
IIa	3c	BEAM	NLD										663
IIa	3c	DEM_SEIN	ENG				142						
IIa	3c	DEM_SEIN	IRL		759								
IIa	3c	DREDGE	BEL						53686		41044	65538	16550
IIa	3c	DREDGE	ENG	225232	197412	196065	313285	238677	265214	212467	261604	303072	382980
IIa	3c	DREDGE	FRA								251	4401	
IIa	3c	DREDGE	GBJ	2968									
IIa	3c	DREDGE	IOM	8573	5387	5194	9987	14170	17732	3908	10953		
IIa	3c	DREDGE	IRL	413698	342029	170130	151968	223441	176175	197039	281497	353159	346711
IIa	3c	DREDGE	NIR	135202	137511	111692	99662	106536	145080	100503	113048	77853	121370
IIa	3c	DREDGE	NLD				525	4725	54075	17118			
IIa	3c	DREDGE	SCO	894237	724139	777599	572146	905364	1226238	1276319	943377	1013183	872719
IIa	3c	none	FRA					906					
IIa	3c	none	IRL						96				
IIa	3c	none	SCO			2130							
IIa	3c	OTTER	BEL	528									
IIa	3c	OTTER	ENG	62	76	1416	112	820				188	95
IIa	3c	OTTER	FRA										736
IIa	3c	OTTER	IRL	24648	99895	4109	3940			455	2380	291	4007
IIa	3c	OTTER	NIR	696		179	2560				3120		9550
IIa	3c	OTTER	NLD										
IIa	3c	OTTER	SCO	5792	966		414				828		290
IIa	3c	PEL_SEINE	ESP										735
IIa	3c	PEL_SEINE	FRA	1694								285	560
IIa	3c	PEL_SEINE	IRL	560	5872								
IIa	3c	PEL_SEINE	NIR	45458	22042	61552	34310		1131				
IIa	3c	PEL_TRAW	ENG	12729		7200					13440		
IIa	3c	PEL_TRAW	FRA								792		
IIa	3c	PEL_TRAW	IRL	48375	146806	127361	59473	24970	13968	10980	74946	38999	81914
IIa	3c	PEL_TRAW	NIR	87890	65982	49486	93380	140424	104430	92084	108198	167634	117316
IIa	3c	PEL_TRAW	NLD		14520	12797					3960		
IIa	3c	PEL_TRAW	SCO			14700							
IIa	3c	POTS	ENG	403052	346751	366190	366254	341096	214599	220712	213758	155595	144004
IIa	3c	POTS	FRA						2844	2844	137	296	
IIa	3c	POTS	GBG						397	11116	1119		
IIa	3c	POTS	GBJ	71212	76378	17726	11996	35952	53500	78825	62274	52172	68016
IIa	3c	POTS	IOM	1581	1395		328		30176			37165	37298
IIa	3c	POTS	IRL	100847	75874	115615	220696	196806	206455	228782	271971	278260	287446
IIa	3c	POTS	NIR	34180	31093	26230	43426	42170	97746	77074	82898	45783	55718
IIa	3c	POTS	SCO	1565		12627	31257	35190	34284	95311	84485	74052	76297
IIa	3c	TR1	IOM										687
IIa	3c	TR2	IOM							21982	22808	153825	108428
IIa	3c	TR2	IRL								107511	231706	206698
IIa	3c	TR2	SCO								9055		
Grand Total				2551992	2455868	2105322	2024227	2320239	2727815	2657397	2717242	3054445	2940974

Table 5.5.1.5. Irish Sea trends in maximum capacity (kW) of regulated gears, according to Annex 1 of Con. Reg. 1342/2008, by major gear type, 2000-2012.

ANNEX	AREA	GEAR	SPECON	COUNTRY	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
IIa	3c	BT2	CPart13B	ENG								221		221
IIa	3c	BT2	none	BEL	10533	10901	10176	8008	7614	5403	5251	5590	4958	4432
IIa	3c	BT2	none	ENG	9400	3317	4452	2444	880	881	663	406	914	628
IIa	3c	BT2	none	GBJ	1216	1357	738							
IIa	3c	BT2	none	IRL							1578	1798	2240	1798
IIa	3c	BT2	none	NLD										
IIa	3c	BT2	none	SCO					537	106				
IIa	3c	GN1	CPart13B	ENG										741
IIa	3c	GN1	CPart13B	NIR							428			
IIa	3c	GN1	none	ENG	851	678	478	205	396	205	89	473	205	205
IIa	3c	GN1	none	FRA										1177
IIa	3c	GN1	none	IRL							1492	1620	1388	1402
IIa	3c	GN1	none	NIR		111								
IIa	3c	GN1	none	NLD										
IIa	3c	GN1	none	SCO			551							
IIa	3c	GT1	none	ENG				95	82	82	82	82	82	
IIa	3c	GT1	none	FRA										180
IIa	3c	GT1	none	IRL							96			
IIa	3c	LL1	none	ENG	498	1238	1634	1100	492	84	84		294	294
IIa	3c	LL1	none	ESP										186
IIa	3c	LL1	none	FRA										
IIa	3c	LL1	none	IRL								263	146	657
IIa	3c	LL1	none	SCO	492									
IIa	3c	TR1	CPart11	IOM										545
IIa	3c	TR1	CPart13B	ENG				231	231		231	231		541
IIa	3c	TR1	CPart13B	NIR							428	428	428	1249
IIa	3c	TR1	CPart13B	SCO								195		134
IIa	3c	TR1	CPart13c	ENG							509	509	447	648
IIa	3c	TR1	CPart13c	NIR							4484	2915	2567	783
IIa	3c	TR1	CPart13c	SCO								413	356	585
IIa	3c	TR1	none	ENG	4129	1997	1698	841	569	767				
IIa	3c	TR1	none	FRA										3700
IIa	3c	TR1	none	IOM	632	181	172		216	336				
IIa	3c	TR1	none	IRL							3110	4459	4566	3594
IIa	3c	TR1	none	NIR	16673	10864	9460	7669	5162	6183				
IIa	3c	TR1	none	NLD										
IIa	3c	TR1	none	SCO	1637	1829	373	537						
IIa	3c	TR2	CPart13a	IRL							1131	1131	4070	12147
IIa	3c	TR2	CPart13a	NIR										15777
IIa	3c	TR2	CPart13B	ENG				231	231	231	231	1178	956	1680
IIa	3c	TR2	CPart13B	NIR							1997	10847	14370	20771
IIa	3c	TR2	CPart13B	SCO							1104	1170	1783	1642
IIa	3c	TR2	CPart13c	ENG							2643	1286	1943	1335
IIa	3c	TR2	CPart13c	NIR							19207	14114	8036	6816
IIa	3c	TR2	CPart13c	SCO							652		566	1000
IIa	3c	TR2	none	BEL		336	553	1180	1149	1724	1138	1188	982	495
IIa	3c	TR2	none	ENG	3724	3290	3336	3395	2533	2794				
IIa	3c	TR2	none	FRA										395
IIa	3c	TR2	none	IOM	826	453	952	592	966	680				
IIa	3c	TR2	none	IRL							7953	8420	7333	2214
IIa	3c	TR2	none	NIR	21072	17375	19539	18722	17946	18373				
IIa	3c	TR2	none	SCO	1499	1797	1275	492	797	596				
IIa	3c	TR3	none	DNK	534									
IIa	3c	TR3	none	ENG	134									
IIa	3c	TR3	none	IRL									179	634
Regulated maximum capacity														88606

Table 5.5.1.6. Irish Sea trends in maximum effort (kW) of unregulated gears, according to Annex 1 of Con. Reg. 1342/2008, by major gear type, 2000-2012.

ANNEX	AREA	GEAR	SPECON	COUNTRY	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
IIa	3c	TR2	CPart11	IOM							846	884	2430	2512
IIa	3c	TR2	CPart11	IRL								1131	1131	1131
IIa	3c	TR2	CPart11	SCO								292		
IIa	3c	none	none	FRA										
IIa	3c	none	none	IRL										
IIa	3c	none	none	SCO			213							
IIa	3c	OTTER	none	BEL	207									
IIa	3c	OTTER	none	ENG	62	76	354	112	466				94	95
IIa	3c	OTTER	none	FRA										736
IIa	3c	OTTER	none	IRL							309	408	221	547
IIa	3c	OTTER	none	NIR	309		179	1280				240		1469
IIa	3c	OTTER	none	NLD										
IIa	3c	OTTER	none	SCO	585	276		207				276		193
IIa	3c	PEL_SEINE	none	ESP										368
IIa	3c	PEL_SEINE	none	FRA										280
IIa	3c	PEL_SEINE	none	IRL										
IIa	3c	PEL_SEINE	none	NIR	6494	6494	6494	6494		809				
IIa	3c	PEL_TRAWL	none	ENG	4320		4320					4320		
IIa	3c	PEL_TRAWL	none	FRA										
IIa	3c	PEL_TRAWL	none	IRL							1096	1090	2415	3560
IIa	3c	PEL_TRAWL	none	NIR	3558	2749	2749	2749	3128	3128	3128	3128	11128	11128
IIa	3c	PEL_TRAWL	none	NLD										
IIa	3c	PEL_TRAWL	none	SCO			2940							
IIa	3c	POTS	none	ENG	2996	2588	2510	2505	2432	1900	2096	2041	1520	2006
IIa	3c	POTS	none	FRA										
IIa	3c	POTS	none	GBG						170	298	298		
IIa	3c	POTS	none	GBJ	542	675	179	179	214	214	393	214	214	214
IIa	3c	POTS	none	IOM	93	93		328		328			198	198
IIa	3c	POTS	none	IRL							2924	2449	2247	2554
IIa	3c	POTS	none	NIR	575	553	245	638	954	1308	1066	1183	707	745
IIa	3c	POTS	none	SCO	239		207	207	207	1102	1102	643	436	570
IIa	3c	DEM_SEINE	none	ENG				142						
IIa	3c	DEM_SEINE	none	IRL										
IIa	3c	DREDGE	none	BEL						494		210	210	210
IIa	3c	DREDGE	none	ENG	2215	3041	2589	3622	3131	4022	3324	4815	5659	6448
IIa	3c	DREDGE	none	FRA										
IIa	3c	DREDGE	none	GBJ	212									
IIa	3c	DREDGE	none	IOM	714	181	577	739	1256	1356	193	193		
IIa	3c	DREDGE	none	IRL							3912	5899	4004	3872
IIa	3c	DREDGE	none	NIR	1899	1551	2123	1947	2040	2562	2325	2037	2076	3592
IIa	3c	DREDGE	none	NLD										
IIa	3c	DREDGE	none	SCO	11796	11479	11002	10875	13545	15893	15297	13424	11514	13577
IIa	3c	BEAM	none	ENG	354	134	210	142	218	313	267	172	76	186
IIa	3c	BEAM	none	IRL										
IIa	3c	BEAM	none	NIR				145		417	226			
IIa	3c	BEAM	none	NLD										
Unregulated maximum capacity														56191

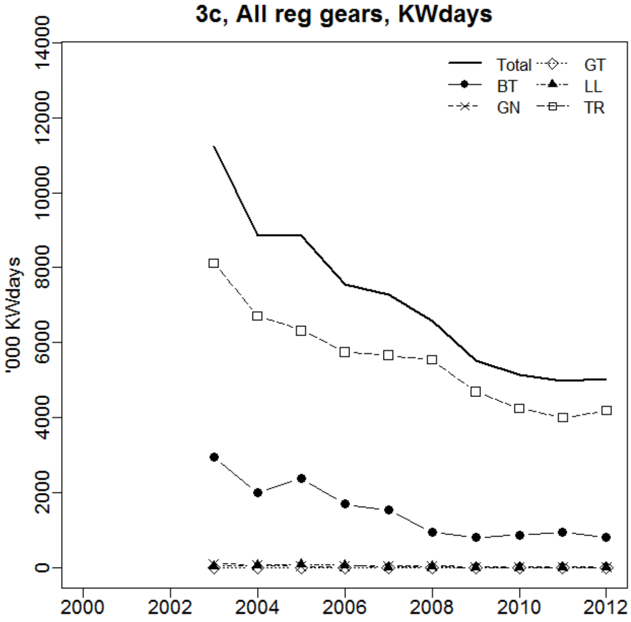


Figure 5.5.1.1. Irish Sea. Trend in regulated gear nominal effort (kW*days-at-sea) by Coun. Reg. 1342/2008, 2003-2012. N.B. CPart11 effort is excluded from this plot.

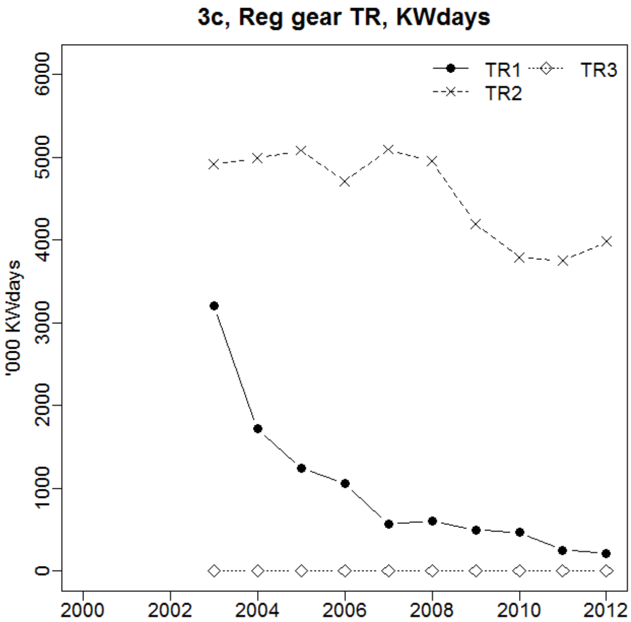


Figure 5.5.1.2. Irish Sea. Trend in regulated gear TR (demersal trawl and Danish seine) nominal effort (kW*days-at-sea) by Coun. Reg. 1342/2008, 2003-2012. N.B. CPart11 effort is excluded from this plot.

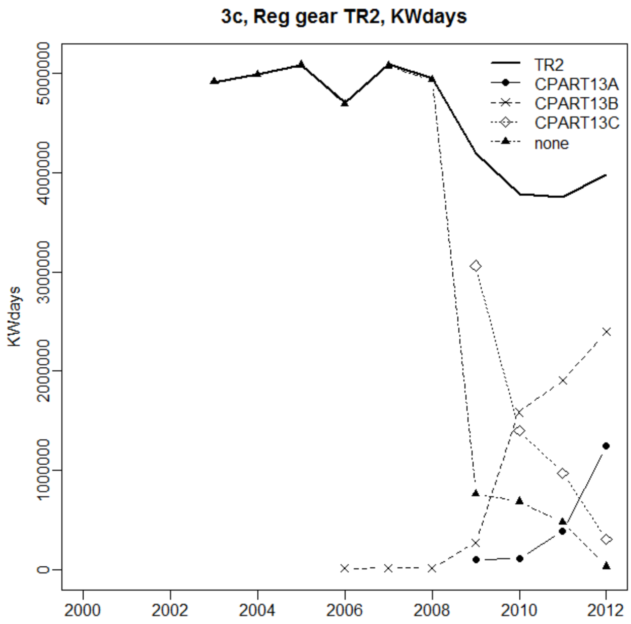


Figure 5.5.1.3. Irish Sea. Trend in special conditions of regulated TR (demersal trawl and Danish seine) gear nominal effort (kW*days-at-sea) by Coun. Reg. 1342/2008, 2003-2012.

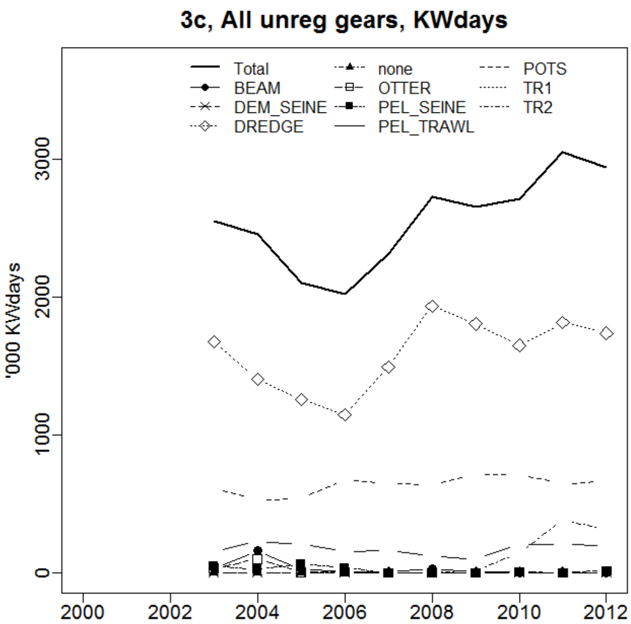


Figure 5.5.1.4. Irish Sea. Effort composition in kW*Days at sea for unregulated gears according to Coun. Reg. 1342/2008 (category none), 2000-2012. N.B. this plot contains TR2 CPart11 effort as TR2.

5.5.2 ToR 1.b and c Catches (landings and discards) of cod and non-cod species in weight and numbers at age by fisheries

Table 5.5.2.1 lists the landings and available discards for the main species by gear groups relating to Coun. Reg. 1342/2008. For the reason of space limitation of this report, the following sections represent the landings in weight for monkfish (ANF), cod (COD), haddock (HAD), Nephrops (NEP), plaice (PLE), rays (RAJ), sole (SOL), and whiting (WHG). Additional data queries for other species may be provided depending on data provisions of the national catches by the experts or national institutes. The data given in the table forms the basis of Figure 5.5.2.1 displaying the relative landings compositions by gear groups for the years 2003-2012.

Discard information available within the Irish Sea is incomplete. Discard data is not available for all species and/or years within each gear grouping. TR2 and BT2 have the most complete data particularly in more recent years, for species such as cod, haddock, plaice, rays, and whiting. Some discard data is also available for the CPart13 and CPart11 categories, however, the method of raising used at the national level to generate these discard values tend not to be specific to these categories and thus not a true representation of the category discards. Availability of discard information is sporadic in TR1. No gillnet or longline discard information for the Irish Sea was provided to the group.

In relation to overall landings by species, Nephrops dominate Irish Sea landings and have been above 9kt since 2007, peaking in 2008 with over 10kt. Total landings have reached this level again in the last two years following increases. Plaice and anglerfish landings demonstrate a period of decline prior to 2011 when landings increased, this trend continued in 2012 while plaice did not. Haddock and sole have fluctuated in the last five years (~850t and 300t respectively). In addition, whiting landings declined in 2012. Cod landings have continued to follow the declining trend which began in 2009 and now total over all vessels 325t (-56% since 2009, -65% since 2003).

Below the primary gear categories with landings from the Irish Sea are discussed. As a first note, inaccurate area reporting of cod from ICES rectangles immediately north of the Irish Sea–Celtic Sea boundary (ICES rectangles 33E2 and 33E3) is known to be an issue for Ireland, with ICES division VIIg cod catches being reported into the southern Irish Sea. This primarily relates to gillnet and otter trawl gear types. WGCSE has reallocated cod from VIIa to the Celtic Sea for a number of years, ranging between ~50t and >500t annually since 2004. This inaccurate reporting has not been corrected for within the data provided to the EWG.

Nephrops are the primary focus of the TR2 category (Figure 5.5.2.1, note the figure excludes CPartII whose target species is Nephrops). Other components of the TR2 category occur at comparatively low levels, including cod, haddock, whiting, plaice, and anglerfish. This category has consistently accounted for around a third (26%-40%) of cod landings from ≥10m vessels (less when considering <10m landings). Discarding of haddock, plaice and whiting occurs within this gear category and can be high in some years.

The species composition of TR1, the larger mesh size group, is very different to TR2, containing virtually no Nephrops. Landings primarily consist of cod and haddock, with lower quantities of hake. A variety of other species occur at low levels including, plaice and whiting (Figure 5.5.2.1). Cod landings by this category have been more variable than TR2, declining in recent years. Currently accounting for less than a third of cod landings in 2012 (25% including <10m landing). TR1 consistently accounts for the majority of both haddock and hake landings.

Beam trawls operating within the Irish Sea belong solely to the BT2 (80-119mm) category. Belgium (and the Netherlands) beam trawls are assumed to have used the minimum mesh size group 80-89mm (Sec. 4). No assumptions are made for the remaining nations. The species composition of this category is stable, dominated by sole, plaice, and rays. The proportion of the latter had increased over 2010 and 2011 yet declining in 2012. Plaice landings increased in 2011 and levelled out in 2012 whilst sole has been stable in most recent years (Figure 5.5.2.1). Low level landings of anglerfish, cod, and haddock (~5%, or less) are also landed. Beam trawling accounts for over 50% of plaice landings, as well as the majority of sole landings (~90%) from vessels ≥10m. Although plaice is a target of this gear category, in recent years discarding has increased from ~30% to nearing 50% (with reasonable submission of discard data), while <5% sole is thrown back (note, 2012 data quality was poor).

The primary target of Irish Sea gillnets is cod, which currently constitute ~50% of the low level landings (Figure 5.5.2.1). Although the main target of this gear category is cod, landings are low and in most years account for ≤15% of total Irish Sea cod landed. Landings from 2007 and 2008 were over double other years. Pollack are also landed in low levels along with a variety of other species.

Landings by unregulated gears within the Irish Sea (Table 5.5.2.2) are dominated by pelagic, dredge and pot species, specifically herring, scallops, and crab species. this group now also includes vessels operating under exclusion from the regulation (CPart11). Under this category there are high landings of Nephrops and little else (<4t of all other species), as would be expected. Unregulated gears show consistently low cod landings (<1.5t) since 2009.

Cod numbers by age are not described or presented within this section, however values for this within the Irish Sea are available from the website.

Table 5.5.2.1 Irish Sea. Landings (t), discards (t) and discard rate by species, gear and special condition according to Coun. Reg. 1342/2008, 2003-2012. For landings, discards and discard rates by Country refer to the website.

ANNEX	AREA	GEAR	SPECON	SPECIES	2003 L	2003 D	2003 R	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R
IIa	3c	BT2	CPart13B	ANF																						0.00						12.53		
IIa	3c	BT2	NONE	ANF	234.73			174.91			184.34			123.08			114.51	1.77	0.02	55.44	0.55	0.01	42.83	0.07	0.00	35.39	0.25	0.01	53.23	2.55	0.05	78.71	15.13	0.16
IIa	3c	GN1	CPart13B	ANF																			0.04											
IIa	3c	GN1	none	ANF	4.85			4.92			3.98			4.07			0.23			1.44			0.04			5.95	0.00	0.00	0.09	0.00	0.00	0.23		
IIa	3c	LL1	none	ANF				0.00			0.05			0.03																				
IIa	3c	TR1	CPart13B	ANF																			0.39			0.67			0.49			1.14	0.00	0.00
IIa	3c	TR1	CPart13c	ANF																			1.23			2.28			1.05			1.88	0.00	0.00
IIa	3c	TR1	none	ANF	123.59	108.59	0.47	122.24	0.74	0.01	52.46	0.26	0.01	36.13	0.02	0.00	22.26	0.02	0.00	9.90	8.62	0.47	6.27	0.00	0.00	6.56	0.05	0.01	6.13	0.03	0.00	14.95	0.29	0.02
IIa	3c	TR2	CPart13a	ANF																			2.42	0.00	0.00	0.16	0.00	0.00	29.09	0.22	0.01	37.17	2.91	0.07
IIa	3c	TR2	CPart13B	ANF																			4.61			25.55			46.88	0.16	0.00	112.57	6.08	0.05
IIa	3c	TR2	CPart13c	ANF																			88.90			39.03			45.15	0.18	0.00	12.80	0.32	0.03
IIa	3c	TR2	NONE	ANF	255.59	77.49	0.23	255.17	5.18	0.02	218.62	15.11	0.07	243.50	21.16	0.08	273.64	7.04	0.03	202.46	3.37	0.02	59.50	0.00	0.00	47.20	0.69	0.01	39.99	0.36	0.01	10.44	0.11	0.01
IIa	3c	TR3	NONE	ANF	0.00	0.02	1.00				0.00	0.00	1.00							0.10														
IIa	3c	BT2	NONE	COD	247.45			124.82			155.98	0.00	0.00	78.38			107.39	20.42	0.16	30.66	2.10	0.06	18.17	7.16	0.28	39.81	22.70	0.36	71.27	43.16	0.38	41.95	18.71	0.31
IIa	3c	GN1	none	COD	93.19			116.66			54.81			130.94			329.43			391.71			78.36			77.60	0.00	0.00	70.49	0.00	0.00	43.95		
IIa	3c	GT1	none	COD													0.61			0.57			1.25			1.61			1.46					
IIa	3c	LL1	none	COD	1.48			1.08			1.78			3.36			1.12			11.80									0.01			0.06		
IIa	3c	TR1	CPart13B	COD																			0.07			2.09			1.40			22.48	0.02	0.00
IIa	3c	TR1	CPart13c	COD																			298.25			199.86			93.96	0.01	0.00	20.29	0.01	0.00
IIa	3c	TR1	none	COD	568.41	0.00	0.00	445.35	13.56	0.03	374.03	1.41	0.00	415.85	0.01	0.00	339.24	0.02	0.00	467.53	0.01	0.00	73.59	1.36	0.02	41.72	1.20	0.03	66.09	0.37	0.01	37.87	2.57	0.06
IIa	3c	TR2	CPart13a	COD																			1.25	4.04	0.76	0.30	4.88	0.94	44.05	2.61	0.06	47.82	20.35	0.30
IIa	3c	TR2	CPart13B	COD																			3.45	20.17	0.85	17.72			18.12	0.39	0.02	47.00	354.56	0.88
IIa	3c	TR2	CPart13c	COD																			94.44			70.21			41.31	0.37	0.01	11.72	29.81	0.72
IIa	3c	TR2	NONE	COD	416.04	2.81	0.01	397.25	89.97	0.19	371.16	39.74	0.10	309.23	6.16	0.02	427.22	15.70	0.04	310.54	308.20	0.50	86.44	20.88	0.20	122.41	9.27	0.07	64.93	3.10	0.05	5.35	0.05	0.01
IIa	3c	TR3	NONE	COD							0.00	0.00	1.00																					
IIa	3c	BT2	NONE	HAD	37.03			25.23			34.47	5.67	0.14	27.91			32.40	14.50	0.31	9.34	2.91	0.24	7.94	3.93	0.33	9.01	6.61	0.42	15.80	31.70	0.67	12.21	121.77	0.91
IIa	3c	GN1	CPart13B	HAD																			16.16											
IIa	3c	GN1	none	HAD	11.86			9.08			3.30			6.96			11.24			3.66			0.50			5.70	0.00	0.00	7.28	0.01	0.00	3.11		
IIa	3c	LL1	none	HAD				0.08			0.06			0.11																				
IIa	3c	TR1	CPart13B	HAD																			210.14			240.73			167.74			141.49	2.95	0.02
IIa	3c	TR1	CPart13c	HAD																			143.74			241.38			106.93	1.36	0.01	24.08	0.26	0.01
IIa	3c	TR1	none	HAD	346.66	3466.04	0.91	366.29	825.26	0.69	305.56	68.55	0.18	449.01	1.35	0.00	588.13	3.69	0.01	471.52	264.02	0.36	220.83	104.72	0.32	200.37	6.28	0.03	358.79	15.59	0.04	457.64	34.12	0.07
IIa	3c	TR2	CPart13a	HAD																			1.71	26.84	0.94	0.61	10.68	0.95	8.94	91.66	0.91	88.11	266.95	0.75
IIa	3c	TR2	CPart13B	HAD																			8.04	5.28	0.40	41.75			32.28	38.34	0.54	60.08	93.95	0.61
IIa	3c	TR2	CPart13c	HAD																			100.00			72.27			45.64	40.05	0.47	3.00	4.70	0.61
IIa	3c	TR2	NONE	HAD	246.77	1535.83	0.86	261.86	1976.23	0.88	189.50	661.39	0.78	168.50	1284.21	0.88	441.32	467.84	0.52	387.34	675.37	0.64	145.08	1210.10	0.89	125.24	80.06	0.39	61.56	156.89	0.72	3.65	1.40	0.28
IIa	3c	TR3	NONE	HAD	0.00	0.32	1.00				0.00	0.03	1.00	0.04						0.42									0.00	0.01	1.00			
IIa	3c	BT2	NONE	NEP	6.84			0.54			0.38			2.45			0.88						0.03			0.05			0.18			0.29		
IIa	3c	GN1	NONE	NEP							9.08																							
IIa	3c	TR1	CPart13B	NEP																						0.18			0.02					
IIa	3c	TR1	CPart13c	NEP																			4.94			2.68			0.67			2.37		
IIa	3c	TR1	none	NEP	50.76			40.46			20.08			25.22			22.56			23.80	0.00	0.00	8.23			1.37			15.69			23.85		
IIa	3c	TR2	CPart13a	NEP																			391.51			320.98			1489.50			3616.32		
IIa	3c	TR2	CPart13B	NEP																			661.82			3596.94			4820.10			5780.87		
IIa	3c	TR2	CPart13c	NEP																			6593.52			3004.61			1976.44			485.77		
IIa	3c	TR2	NONE	NEP	7168.58			7238.13			6935.82			7756.40			9377.30			10853.85			1993.37			1794.06			1153.63			16.85		
IIa	3c	TR3	NONE	NEP							0.33			0.14																				

Table 5.5.2.1 Irish Sea. Continued.

ANNEX	AREA	GEAR	SPECON	SPECIES	2003 L	2003 D	2003 R	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R
IIa	3c	BT2	CPart13B	PLE																						0.11						5.54		
IIa	3c	BT2	NONE	PLE	838.91			549.20			688.73	0.00	0.00	412.72	0.00	0.00	262.83	109.44	0.29	181.57	99.28	0.35	211.93	111.51	0.35	174.61	114.25	0.40	384.94	261.32	0.40	264.31	240.14	0.48
IIa	3c	GN1	none	PLE	0.02			0.03			1.67			0.05			0.01			0.08			0.09			0.10	0.01	0.08	0.05	0.03	0.33	0.01		
IIa	3c	GT1	none	PLE													0.01			0.04			0.06			0.02			0.15					
IIa	3c	TR1	CPart13B	PLE																			6.72			9.58			5.34			6.73	0.09	0.01
IIa	3c	TR1	CPart13c	PLE																			1.44			1.28			0.95			4.23	0.00	0.00
IIa	3c	TR1	none	PLE	380.78	9.80	0.03	125.14	27.00	0.18	75.71	4.36	0.05	112.21	11.10	0.09	57.42	0.96	0.02	42.50	17.16	0.29	12.87	15.89	0.55	12.20	4.84	0.28	10.89	13.67	0.56	36.74	12.19	0.25
IIa	3c	TR2	CPart13a	PLE																			0.00	2.95	1.00	0.77	16.49	0.96	8.64	50.42	0.85	27.38	142.40	0.84
IIa	3c	TR2	CPart13B	PLE																			7.22			38.41			43.89	47.02	0.52	66.44	467.98	0.88
IIa	3c	TR2	CPart13c	PLE																			112.40			66.86			50.88	75.54	0.60	30.97	177.90	0.85
IIa	3c	TR2	NONE	PLE	254.98	509.81	0.67	369.17	705.71	0.66	408.84	1084.40	0.73	332.63	1210.37	0.78	378.22	189.26	0.33	260.69	620.16	0.70	44.52	145.72	0.77	37.91	126.00	0.77	70.28	86.57	0.55	11.83	2.51	0.18
IIa	3c	TR3	NONE	PLE	0.00	0.01	1.00				0.00	0.04	1.00	0.15						0.08									0.00	0.02	1.00	0.00	0.00	1.00
IIa	3c	BT2	NONE	RAJ	483.12			125.38			371.52			259.39			349.26			288.59	236.24	0.45	219.38	0.00	0.00	370.01	84.78	0.19	363.19	70.97	0.16	213.02	0.00	0.00
IIa	3c	GN1	NONE	RAJ	2.89			2.86			28.21			1.34			0.14			4.19			1.56			14.88	0.00	0.00	3.04	0.00	0.00	9.13		
IIa	3c	GT1	NONE	RAJ																2.27			1.32											
IIa	3c	LL1	NONE	RAJ				0.12																										
IIa	3c	TR1	NONE	RAJ	394.71	1.41	0.00	160.28	0.20	0.00	120.36	0.05	0.00	97.67	0.00	0.00	72.69	0.02	0.00	51.09	752.35	0.94	47.01	0.00	0.00	102.60	0.00	0.00	50.28	0.00	0.00	192.76	0.00	0.00
IIa	3c	TR2	CPart13a	RAJ																			0.29	0.00	0.00	2.01	0.00	0.00	15.62	0.00	0.00	47.45	0.00	0.00
IIa	3c	TR2	NONE	RAJ	143.75	1.42	0.01	339.54	5.66	0.02	347.97	16.03	0.04	296.72	0.66	0.00	306.86	7.22	0.02	156.47	1.58	0.01	97.80	0.00	0.00	130.05	0.00	0.00	144.23	0.00	0.00	5.80	0.00	0.00
IIa	3c	TR3	NONE	RAJ	0.00	0.00	1.00				0.00	0.00	1.00							0.09														
IIa	3c	BT2	CPart13B	SOL																						1.31						3.44		
IIa	3c	BT2	NONE	SOL	945.90			657.38			800.90	0.00	0.00	515.99	0.00	0.00	401.06	13.18	0.03	275.95	24.35	0.08	289.64	15.92	0.05	247.09	10.97	0.04	285.46	11.07	0.04	256.38	0.00	0.00
IIa	3c	GN1	CPart13B	SOL																			0.00											
IIa	3c	GN1	none	SOL	0.13			0.06			0.00			0.00			0.26			0.06			0.08			0.06	0.00	0.00	0.00					
IIa	3c	GT1	none	SOL													0.00						0.08						0.00			0.08		
IIa	3c	TR1	CPart13B	SOL																			0.07			0.08			0.08			0.03		
IIa	3c	TR1	CPart13c	SOL																			0.10			0.41			0.02	0.00	0.06	0.19	0.00	0.00
IIa	3c	TR1	none	SOL	16.92	0.00	0.00	6.68	0.00	0.00	6.39	0.03	0.01	2.58	0.01	0.01	3.01	0.00	0.00	1.26	0.00	0.00	1.72	0.00	0.00	1.14	0.02	0.02	1.05	0.00	0.00	3.39	0.00	0.00
IIa	3c	TR2	CPart13a	SOL																			0.02	0.00	0.00	0.00	0.15	1.00	3.78	0.00	0.00	4.02	0.00	0.00
IIa	3c	TR2	CPart13B	SOL																			0.72			4.13			7.23	0.71	0.09	8.24	0.33	0.04
IIa	3c	TR2	CPart13c	SOL																			12.57			3.83			5.30	1.21	0.19	1.82	0.04	0.02
IIa	3c	TR2	NONE	SOL	35.90	1.57	0.04	30.18	0.33	0.01	36.06	4.48	0.11	42.24	27.23	0.39	76.61	0.00	0.00	37.97	2.08	0.05	14.76	0.00	0.00	14.33	5.01	0.26	21.28	0.00	0.00	8.77	0.00	0.00
IIa	3c	BT2	CPart13B	WHG																												0.02		
IIa	3c	BT2	NONE	WHG	19.28			13.56			11.63	13.94	0.55	4.33	13.62	0.76	4.60	3.74	0.45	1.54	14.46	0.90	2.17	4.86	0.69	4.27	7.39	0.63	3.40	37.72	0.92	3.46	33.65	0.91
IIa	3c	GN1	none	WHG	10.94			5.91			1.27			0.37			1.40			0.56			0.08			0.36	0.00	0.00	0.80	0.05	0.06	0.91		
IIa	3c	LL1	none	WHG							0.04																							
IIa	3c	TR1	CPart13B	WHG																			0.52			3.96			1.02			1.46		
IIa	3c	TR1	CPart13c	WHG																			5.62			0.81			0.09	7.23	0.99	1.07	0.00	0.00
IIa	3c	TR1	none	WHG	219.55	2268.97	0.91	72.33	1021.10	0.93	39.75	26.84	0.40	18.77	2.38	0.11	90.21	5.00	0.05	47.03	14.13	0.23	51.56	4539.82	0.99	47.79	17.75	0.27	84.97	22.83	0.21	41.72	88.57	0.68
IIa	3c	TR2	CPart13a	WHG																			0.00	43.25	1.00	0.00	39.47	1.00	0.29	127.62	1.00	11.83	328.10	0.97
IIa	3c	TR2	CPart13B	WHG																			0.41	0.63	0.60	5.13			2.70	120.74	0.98	1.33	375.61	1.00
IIa	3c	TR2	CPart13c	WHG																			5.48			6.15			1.54	86.14	0.98	0.18	10.23	0.98
IIa	3c	TR2	NONE	WHG	184.66	1559.02	0.89	81.98	2050.91	0.96	103.52	355.71	0.78	61.38	1977.86	0.97	98.78	822.37	0.89	28.26	1498.13	0.98	26.22	1038.47	0.98	51.08	137.91	0.73	12.12	159.67	0.93	2.14	6.42	0.75
IIa	3c	TR3	NONE	WHG	0.00	0.28	1.00				0.00	0.03	1.00	0.06						0.18									0.00	0.07	1.00			

Table 5.5.2.2 Irish Sea. Discard rate and data quality index by species, gear and special condition according to Coun. Reg. 1342/2008, 2003-2012. A = acceptable, B = uncertain, C = poor.

ANNEX	AREA	GEAR	SPECON	SPECIES	2003 R	2003 DQI	2004 R	2004 DQI	2005 R	2005 DQI	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI
IIa	3c	BT2	NONE	ANF									0.02	B	0.01	A	0.00	A	0.01	A	0.05	A	0.16	A
IIa	3c	GN1	none	ANF															0.00	C	0.00	B		
IIa	3c	TR1	CPart13B	ANF																			0.00	C
IIa	3c	TR1	CPart13c	ANF																			0.00	B
IIa	3c	TR1	none	ANF	0.47	C	0.01	C	0.01	C	0.00	C	0.00	C	0.47	C	0.00	B	0.01	B	0.00	A	0.02	B
IIa	3c	TR2	CPart13a	ANF													0.00	A	0.00	A	0.01	A	0.07	A
IIa	3c	TR2	CPart13B	ANF																	0.00	A	0.05	A
IIa	3c	TR2	CPart13c	ANF																	0.00	A	0.03	A
IIa	3c	TR2	NONE	ANF	0.23	B	0.02	B	0.07	B	0.08	B	0.03	B	0.02	B	0.00	A	0.01	A	0.01	A	0.01	C
IIa	3c	TR3	NONE	ANF	1.00	A			1.00	A														
IIa	3c	BT2	NONE	COD					0.00	C			0.16	B	0.06	B	0.28	A	0.36	A	0.38	A	0.31	A
IIa	3c	GN1	none	COD															0.00	A	0.00	A		
IIa	3c	TR1	CPart13B	COD																			0.00	A
IIa	3c	TR1	CPart13c	COD																	0.00	C	0.00	A
IIa	3c	TR1	none	COD	0.00	C	0.03	C	0.00	C	0.00	C	0.00	C	0.00	C	0.02	A	0.03	A	0.01	A	0.06	B
IIa	3c	TR2	CPart13a	COD													0.76	A	0.94	A	0.06	A	0.30	A
IIa	3c	TR2	CPart13B	COD													0.85	C			0.02	A	0.88	A
IIa	3c	TR2	CPart13c	COD																	0.01	A	0.72	A
IIa	3c	TR2	NONE	COD	0.01	B	0.19	B	0.10	B	0.02	B	0.04	B	0.50	B	0.20	A	0.07	A	0.05	A	0.01	B
IIa	3c	TR3	NONE	COD					1.00	A														
IIa	3c	BT2	NONE	HAD					0.14	C			0.31	B	0.24	A	0.33	A	0.42	A	0.67	A	0.91	A
IIa	3c	GN1	none	HAD															0.00	A	0.00	A		
IIa	3c	TR1	CPart13B	HAD																			0.02	C
IIa	3c	TR1	CPart13c	HAD																	0.01	C	0.01	C
IIa	3c	TR1	none	HAD	0.91	C	0.69	C	0.18	C	0.00	C	0.01	C	0.36	C	0.32	B	0.03	A	0.04	B	0.07	C
IIa	3c	TR2	CPart13a	HAD													0.94	A	0.95	A	0.91	A	0.75	B
IIa	3c	TR2	CPart13B	HAD													0.40	C			0.54	A	0.61	A
IIa	3c	TR2	CPart13c	HAD																	0.47	A	0.61	A
IIa	3c	TR2	NONE	HAD	0.86	B	0.88	B	0.78	B	0.88	B	0.52	B	0.64	B	0.89	A	0.39	A	0.72	A	0.28	B
IIa	3c	TR3	NONE	HAD	1.00	A			1.00	A											1.00	A		
IIa	3c	TR1	none	NEP											0.00	C								
IIa	3c	BT2	NONE	PLE					0.00	C	0.00	C	0.29	B	0.35	A	0.35	A	0.40	A	0.40	A	0.48	A
IIa	3c	GN1	none	PLE															0.08	A	0.33	C		
IIa	3c	TR1	CPart13B	PLE																			0.01	C
IIa	3c	TR1	CPart13c	PLE																			0.00	C
IIa	3c	TR1	none	PLE	0.03	B	0.18	C	0.05	C	0.09	C	0.02	C	0.29	C	0.55	A	0.28	B	0.56	A	0.25	A
IIa	3c	TR2	CPart13a	PLE													1.00	A	0.96	A	0.85	A	0.84	A
IIa	3c	TR2	CPart13B	PLE																	0.52	B	0.88	B
IIa	3c	TR2	CPart13c	PLE																	0.60	B	0.85	C
IIa	3c	TR2	NONE	PLE	0.67	B	0.66	B	0.73	C	0.78	B	0.33	A	0.70	B	0.77	A	0.77	B	0.55	B	0.18	C
IIa	3c	TR3	NONE	PLE	1.00	A			1.00	A											1.00	A	1.00	A

Table 5.5.2.2 Irish Sea. Continued.

ANNEX	AREA	GEAR	SPECON	SPECIES	2003 R	2003 DQI	2004 R	2004 DQI	2005 R	2005 DQI	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI
IIa	3c	BT2	NONE	RAJ											0.45	A	0.00	B	0.19	A	0.16	A	0.00	B
IIa	3c	GN1	NONE	RAJ															0.00	C	0.00	C		
IIa	3c	TR1	NONE	RAJ	0.00	A	0.00	A	0.00	B	0.00	C	0.00	B	0.94	C	0.00	A	0.00	B	0.00	A	0.00	A
IIa	3c	TR2	CPart13a	RAJ													0.00	A	0.00	A	0.00	A	0.00	A
IIa	3c	TR2	NONE	RAJ	0.01	A	0.02	A	0.04	A	0.00	A	0.02	A	0.01	A	0.00	A	0.00	A	0.00	A	0.00	A
IIa	3c	TR3	NONE	RAJ	1.00	A			1.00	A														
IIa	3c	BT2	NONE	SOL					0.00	C	0.00	C	0.03	A	0.08	A	0.05	A	0.04	A	0.04	A	0.00	C
IIa	3c	GN1	none	SOL															0.00	A				
IIa	3c	TR1	CPart13c	SOL																	0.06	C	0.00	A
IIa	3c	TR1	none	SOL	0.00	C	0.00	C	0.01	C	0.01	C	0.00	C	0.00	C	0.00	A	0.02	B	0.00	A	0.00	A
IIa	3c	TR2	CPart13a	SOL													0.00	A	1.00	A	0.00	A	0.00	A
IIa	3c	TR2	CPart13B	SOL																	0.09	A	0.04	A
IIa	3c	TR2	CPart13c	SOL																	0.19	A	0.02	B
IIa	3c	TR2	NONE	SOL	0.04	B	0.01	B	0.11	C	0.39	C	0.00	C	0.05	C	0.00	A	0.26	B	0.00	B	0.00	C
IIa	3c	BT2	NONE	WHG					0.55	C	0.76	C	0.45	B	0.90	A	0.69	A	0.63	A	0.92	A	0.91	A
IIa	3c	GN1	none	WHG															0.00	A	0.06	B		
IIa	3c	TR1	CPart13c	WHG																	0.99	C	0.00	C
IIa	3c	TR1	none	WHG	0.91	C	0.93	C	0.40	C	0.11	C	0.05	B	0.23	A	0.99	B	0.27	C	0.21	B	0.68	C
IIa	3c	TR2	CPart13a	WHG													1.00	A	1.00	A	1.00	A	0.97	A
IIa	3c	TR2	CPart13B	WHG													0.60	C			0.98	A	1.00	A
IIa	3c	TR2	CPart13c	WHG																	0.98	A	0.98	A
IIa	3c	TR2	NONE	WHG	0.89	B	0.96	B	0.78	A	0.97	B	0.89	A	0.98	A	0.98	A	0.73	A	0.93	A	0.75	B
IIa	3c	TR3	NONE	WHG	1.00	A			1.00	A											1.00	A		

Table 5.5.2.3 Irish Sea. Landings (t), discards (t) and discard rate of unregulated gear (category none) associated with Coun. Reg. 1342/2008 by species and gear, 2003-2012, including special condition CPart11. For landings, discards and discard rates by Country refer to the website.

ANNEX	AREA	GEAR	SPECON	SPECIES	2003 L	2003 D	2003 R	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R
IIa	3c	BEAM	NONE	ANF	3.48			12.10												0.00														
IIa	3c	DREDGE	NONE	ANF	7.29			3.00			2.26			1.34			2.66			0.16						0.14			0.00	14.22	1.00	0.08	6.56	0.99
IIa	3c	none	none	ANF													8.70																	
IIa	3c	OTTER	none	ANF	1.21	0.29	0.19	6.38			0.02			0.11									0.05	0.00	0.00	0.01								
IIa	3c	PEL_SEINE	NONE	ANF	0.52			0.48																										
IIa	3c	PEL_TRAWL	NONE	ANF				8.51						0.04			0.11						0.17			0.13			0.10			0.58		
IIa	3c	POTS	NONE	ANF	0.51			2.08	0.21	0.09							0.01			0.03			0.03			0.13								
IIa	3c	TR1	CPart11	ANF																												0.00		
IIa	3c	TR2	CPart11	ANF																			0.01			0.05	0.13	0.70	0.05	0.22	0.80	0.23	0.69	0.75
IIa	3c	BEAM	NONE	COD	0.81			7.96												0.01														
IIa	3c	DREDGE	NONE	COD	0.55			1.34			0.13			0.05									0.02									0.00		
IIa	3c	OTTER	none	COD	5.03			9.13						0.18									0.04	0.00	0.05				0.01	0.00	0.11			
IIa	3c	PEL_SEINE	NONE	COD	0.14			1.14																										
IIa	3c	PEL_TRAWL	NONE	COD	2.32			1.82									0.09						1.07			1.46			0.06			0.67		
IIa	3c	POTS	none	COD	0.81			3.53	0.49	0.12	0.26			0.28			0.13			0.03			0.12			0.03						0.02		
IIa	3c	TR2	CPart11	COD																						0.04	0.23	0.85	0.03	1.65	0.98	0.06	2.95	0.98

Table 5.5.2.3 Irish Sea. Continued.

ANNEX	AREA	GEAR	SPECON	SPECIES	2003 L	2003 D	2003 R	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R
IIa	3c	BEAM	NONE	HAD	1.34			5.06																										
IIa	3c	DEM_SEINE	NONE	HAD				2.20																										
IIa	3c	DREDGE	none	HAD	0.17			0.19						0.09															0.00	13.37	1.00			
IIa	3c	none	none	HAD													0.09																	
IIa	3c	OTTER	NONE	HAD	5.33	1.86	0.26	14.91						0.01									0.09	0.01	0.06				0.00	0.05	1.00	0.00	0.00	1.00
IIa	3c	PEL_SEINE	NONE	HAD				1.78																										
IIa	3c	PEL_TRAWL	NONE	HAD	0.39			2.34									0.19						2.06			0.83						8.63		
IIa	3c	POTS	NONE	HAD	0.17			6.26	0.97	0.13							0.01			0.00			0.09						0.02					
IIa	3c	TR1	CPart11	HAD																												0.04		
IIa	3c	TR2	CPart11	HAD																						0.04	9.98	1.00	0.04	57.03	1.00	0.23	29.60	0.99
IIa	3c	BEAM	none	NEP																0.20			1.57											
IIa	3c	DREDGE	none	NEP				0.55						0.01									0.41											
IIa	3c	OTTER	none	NEP	55.54			210.96			0.02			4.79			0.13						0.02			2.37			0.02					
IIa	3c	PEL_SEINE	NONE	NEP				26.22												2.71														
IIa	3c	PEL_TRAWL	none	NEP				7.11						0.95			3.33						13.82			0.15			7.06			0.67		
IIa	3c	POTS	none	NEP	6.03			42.43			1.34			0.47			0.40			0.38			0.12						1.45			0.92		
IIa	3c	TR2	CPart11	NEP																			3.01			492.87			944.05			721.72		
IIa	3c	BEAM	NONE	PLE	8.45			30.06																										
IIa	3c	DEM_SEINE	NONE	PLE				0.10																										
IIa	3c	DREDGE	NONE	PLE	1.10			4.13			3.20			0.75			0.21			0.01			0.00			0.14			0.12	22.72	1.00	0.00	3.77	1.00
IIa	3c	none	NONE	PLE																0.03														
IIa	3c	OTTER	NONE	PLE	5.24	0.03	0.01	4.79			0.60			0.42			0.48						0.09	0.01	0.05				0.18	0.03	0.14	0.00	0.01	1.00
IIa	3c	PEL_SEINE	NONE	PLE				0.26																										
IIa	3c	PEL_TRAWL	none	PLE				5.86									0.09						0.35									4.49		
IIa	3c	POTS	none	PLE	1.10			1.44	3.93	0.73	0.04									0.25			0.08						0.00			0.00		
IIa	3c	TR1	CPart11	PLE																												0.01		
IIa	3c	TR2	CPart11	PLE																			0.16			0.08	6.42	0.99	0.51	31.48	0.98	0.31	29.59	0.99
IIa	3c	BEAM	NONE	RAJ	52.19			146.90																										
IIa	3c	DREDGE	NONE	RAJ	0.45			9.43			6.95			1.20																				
IIa	3c	none	NONE	RAJ																0.40														
IIa	3c	OTTER	NONE	RAJ	7.13	0.03	0.00	17.75																										
IIa	3c	PEL_SEINE	NONE	RAJ	0.56																													
IIa	3c	PEL_TRAWL	NONE	RAJ	1.47			20.77									0.15						0.12			0.50			0.19			2.85		
IIa	3c	POTS	NONE	RAJ	29.57			1.83	0.06	0.03				0.16						4.97			1.66			2.36								
IIa	3c	TR2	CPart11	RAJ																						0.09						0.20	0.00	0.00
IIa	3c	BEAM	NONE	SOL	3.63			7.95																										
IIa	3c	DREDGE	NONE	SOL	3.87			1.92			4.14			2.09			3.69			0.49			0.28			0.08			0.01			0.07		
IIa	3c	none	NONE	SOL																0.01														
IIa	3c	OTTER	NONE	SOL	0.59			0.24			0.04			0.00			0.02									0.01			0.00					
IIa	3c	PEL_TRAWL	NONE	SOL				0.09									0.03						0.03											
IIa	3c	POTS	none	SOL	0.15												0.00			0.00			0.10			0.02								
IIa	3c	TR2	CPart11	SOL																			0.05			0.00			0.00			0.07	0.00	0.00
IIa	3c	BEAM	NONE	WHG	0.11			0.08															0.02											
IIa	3c	DREDGE	none	WHG	0.04			0.00																								0.00	0.34	1.00
IIa	3c	OTTER	NONE	WHG	2.46	1.60	0.39	11.22															0.00	0.18	1.00				0.00	0.11	1.00			
IIa	3c	PEL_SEINE	NONE	WHG				0.25																										
IIa	3c	PEL_TRAWL	NONE	WHG	5.44			3.76															0.18			0.20						2.42		
IIa	3c	POTS	NONE	WHG	0.23			1.24	23.76	0.95				0.05									0.03											
IIa	3c	TR2	CPart11	WHG																						0.00	9.08	1.00	0.02	74.27	1.00	0.01	50.34	1.00

Table 5.5.2.4 Irish Sea. Landings (t), discards (t) and discard rate of regulated and unregulated gear (category none) associated with Coun. Reg. 1342/2008 for pelagic species and by gear and special condition, 2003-2012. For landings, discards and discard rates by Country refer to the website.

ANNEX	AREA	GEAR	SPECON	SPECIES	2003 L	2003 D	2003 R	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R
IIa	3c	BT2	none	MAC	0.00															0.00	0.24	1.00												
IIa	3c	BT2	NONE	WHB	0.04																													
IIa	3c	DREDGE	NONE	HER				0.03			6.50						27.50																	
IIa	3c	DREDGE	NONE	MAC				0.06																										
IIa	3c	GN1	NONE	HER	62.69			171.74			6.48																							
IIa	3c	GN1	NONE	MAC	0.03									1.40									0.04											
IIa	3c	GN1	NONE	SPR	308.50																													
IIa	3c	LL1	none	MAC							0.00			0.30			0.27			0.26						1.15			0.74			0.09		
IIa	3c	OTTER	NONE	HER	12.00			128.89			172.79			143.33			0.01						5.20	0.00	0.00	4.00			13.94	0.00	0.00	65.79	0.00	0.00
IIa	3c	OTTER	NONE	MAC	0.04			0.14																										
IIa	3c	OTTER	NONE	SPR	86.15			6.53			39.80			6.00												174.09						496.62	0.00	0.00
IIa	3c	PEL_SEINE	none	HER	436.00			700.00			1834.05			798.17																				
IIa	3c	PEL_SEINE	none	JAX										21.46																				
IIa	3c	PEL_SEINE	none	MAC	35.90																								0.26					
IIa	3c	PEL_SEINE	none	SPR	0.14			21.40			29.14																							
IIa	3c	PEL_TRAWL	none	HER	3685.94			6351.20			7276.25			5783.31			5534.24			5203.83			4722.63			5279.02			5543.55	0.00	0.00	6865.01	0.00	0.00
IIa	3c	PEL_TRAWL	NONE	JAX	37.00			12.00			59.80						50.54						4.80			151.00								
IIa	3c	PEL_TRAWL	NONE	MAC				2.72			173.50						0.20						19.47											
IIa	3c	PEL_TRAWL	NONE	SPR	1203.00			370.00			827.06			659.23						55.06						149.69			1082.34			4385.52		
IIa	3c	POTS	NONE	HER				0.00	13.33	1.00																								
IIa	3c	POTS	none	JAX																			0.38											
IIa	3c	POTS	none	MAC	0.08						0.03						0.61			0.12						0.39						0.14		
IIa	3c	POTS	NONE	SPR	117.28			17.60	0.43	0.02																								
IIa	3c	TR1	NONE	HER	0.11	0.02	0.14	0.25	0.90	0.78	0.00	0.03	1.00	0.00	0.05	1.00	0.12	0.02	0.17	0.08	0.33	0.81				0.03	0.00	0.00						
IIa	3c	TR1	NONE	JAX	2.51	0.00	0.00				0.00	0.00	1.00	0.00	0.01	1.00																		
IIa	3c	TR1	none	MAC	0.25			0.73	0.04	0.05	0.10	0.01	0.10	0.20	0.06	0.23	1.31	0.02	0.01	0.00	0.01	1.00	0.49	0.00	0.00				0.13	0.00	0.00			
IIa	3c	TR1	NONE	SPR	0.14			0.00	0.12	1.00	0.00	0.01	1.00	0.00	0.10	1.00	0.00	0.01	1.00	0.00	0.13	1.00				11.05						29.10	0.00	0.00
IIa	3c	TR1	NONE	WHB	0.00	0.01	1.00	0.00	0.13	1.00	0.00	0.00	1.00																					
IIa	3c	TR2	CPart13A	HER																												0.29	17.26	0.98
IIa	3c	TR2	CPart13A	JAX																												0.04		
IIa	3c	TR2	CPart13B	HER																						0.41			0.06	13.69	1.00	0.05	3.41	0.99
IIa	3c	TR2	CPart13B	MAC																			0.03			0.25			0.05	0.05	0.53	0.19	2.19	0.92
IIa	3c	TR2	CPart13c	HER																			0.95			0.08								
IIa	3c	TR2	CPart13c	MAC																			0.43			0.09			0.00	0.00	0.00	0.00	0.02	0.83
IIa	3c	TR2	none	HER	11.16	113.11	0.91	186.63	34.40	0.16	11.26	11.41	0.50	51.96	19.21	0.27	0.87	12.20	0.93	0.96	550.96	1.00				3.32			0.24	0.00	0.00			
IIa	3c	TR2	NONE	JAX	0.00	3.05	1.00				0.00	0.62	1.00	0.00	2.05	1.00																		
IIa	3c	TR2	none	MAC	0.19			1.77	7.99	0.82	0.83	4.19	0.84	0.39	44.44	0.99	1.47	35.19	0.96	1.73	36.83	0.96				0.82	0.00	0.00	0.05	0.00	0.00			
IIa	3c	TR2	NONE	SPR	298.01	0.32	0.00	55.27	10.13	0.16	55.95	1.71	0.03	11.50	39.54	0.78	0.00	5.62	1.00	0.00	122.88	1.00				1.25								
IIa	3c	TR2	NONE	WHB	0.00	6.06	1.00	0.00	0.55	1.00	0.00	0.56	1.00																					
IIa	3c	TR3	NONE	HER							116.23	0.00	0.00	35.72															7.82	0.00	0.00	25.95	0.00	0.00
IIa	3c	TR3	NONE	SPR	46.17			4.95			0.35																					19.90	0.00	0.00

Table 5.5.2.5 Irish Sea. Discard rate and data quality index for pelagic species by regulated and unregulated gear and special condition according to Coun. Reg. 1342/2008, 2003-2012. A = acceptable, B = uncertain, C = poor.

ANNEX	AREA	GEAR	SPECON	SPECIES	2003 R	2003 DQI	2004 R	2004 DQI	2005 R	2005 DQI	2006 R	2006 DQI	2007 R	2007 DQI	2008 R	2008 DQI	2009 R	2009 DQI	2010 R	2010 DQI	2011 R	2011 DQI	2012 R	2012 DQI
IIa	3c	TR1	NONE	HER	0.14	C	0.78	A	1.00	A	1.00	A	0.17	A	0.81	C			0.00	A				
IIa	3c	TR2	none	HER	0.91	C	0.16	A	0.50	A	0.27	A	0.93	C	1.00	C					0.00	B		
IIa	3c	OTTER	NONE	HER													0.00	A			0.00	A	0.00	A
IIa	3c	TR3	NONE	HER					0.00	C											0.00	A	0.00	A
IIa	3c	PEL_TRAWL	none	HER																	0.00	A	0.00	A
IIa	3c	TR2	CPart13B	HER																	1.00	A	0.99	A
IIa	3c	POTS	NONE	HER			1.00	A																
IIa	3c	TR2	CPart13A	HER																			0.98	A
IIa	3c	TR1	NONE	JAX	0.00	C			1.00	A	1.00	A												
IIa	3c	TR2	NONE	JAX	1.00	A			1.00	A	1.00	A												
IIa	3c	TR1	none	MAC			0.05	A	0.10	C	0.23	C	0.01	C	1.00	A	0.00	A			0.00	C		
IIa	3c	TR2	none	MAC			0.82	B	0.84	A	0.99	B	0.96	C	0.96	C			0.00	A	0.00	A		
IIa	3c	TR2	CPart13B	MAC																	0.53	A	0.92	A
IIa	3c	TR2	CPart13c	MAC																	0.00	A	0.83	A
IIa	3c	BT2	none	MAC											1.00	A								
IIa	3c	TR1	NONE	SPR			1.00	A	1.00	A	1.00	A	1.00	A	1.00	A							0.00	A
IIa	3c	TR2	NONE	SPR	0.00	A	0.16	A	0.03	A	0.78	A	1.00	A	1.00	A								
IIa	3c	OTTER	NONE	SPR																			0.00	A
IIa	3c	POTS	NONE	SPR			0.02	C																
IIa	3c	TR3	NONE	SPR																			0.00	A
IIa	3c	TR1	NONE	WHB	1.00	A	1.00	A	1.00	A														
IIa	3c	TR2	NONE	WHB	1.00	A	1.00	A	1.00	A														

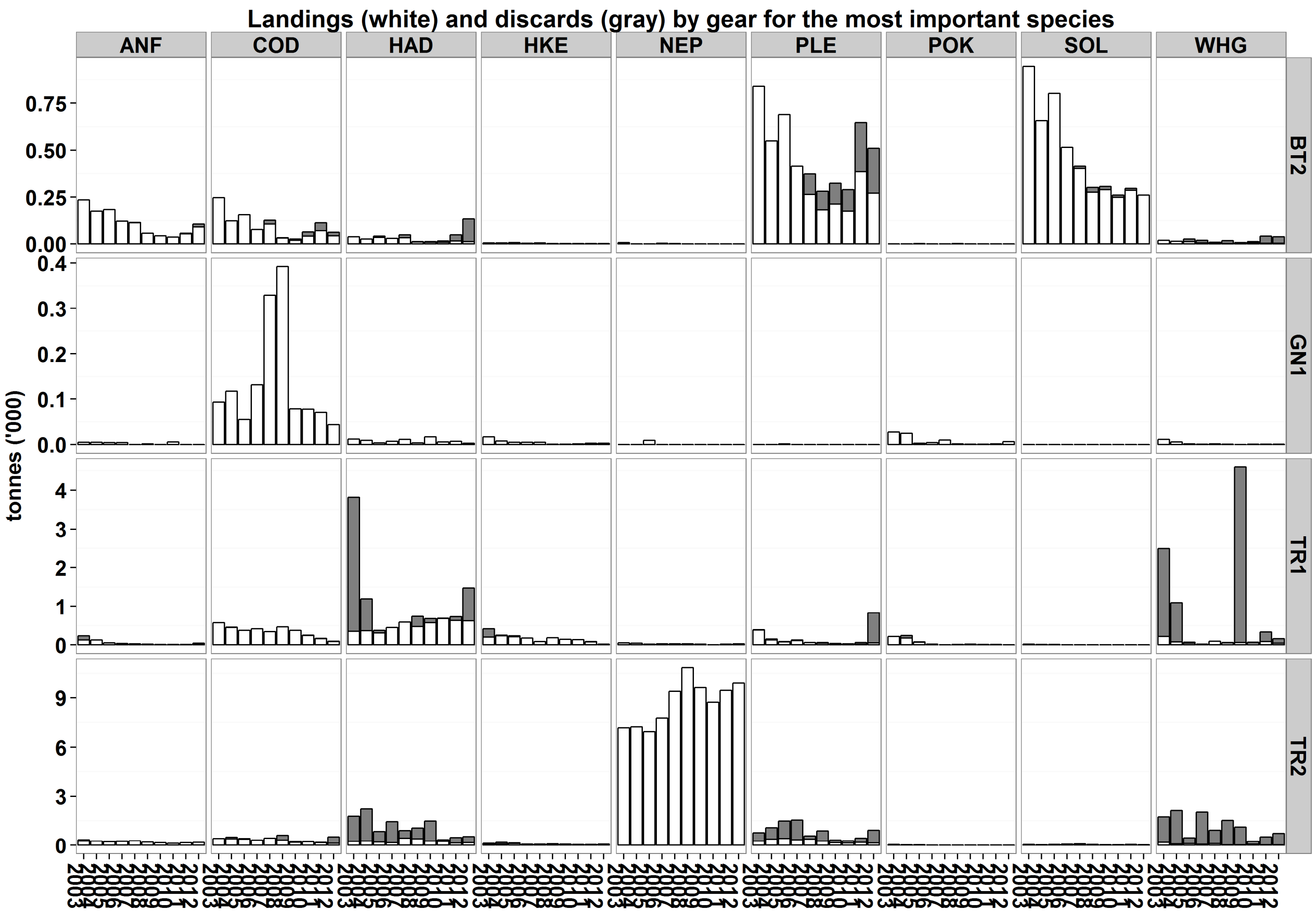


Figure 5.5.2.1 Irish Sea. Landings (t) by gear according to Coun. Reg. 1342/2008 and species, 2003-2012. N.B. CPart11 catch is excluded from this plot.

5.5.3 ToR 1.d CPUE and LPUE of cod by fisheries and by Member States

Only a LPUE (landings per unit effort) time series is presented for cod (Table 5.5.3.1) as discard data is not consistently available for all years or all categories, resulting in distorted CPUE trends. Catch per unit effort may be available for some years/gears on request. The units used are grams per kW days-at-sea (g/kW*days). Gear groups with little effort, and static gears where the use of kW*days-at-sea as an appropriate indication of effort is debatable, may have unrepresentative values and are not discussed.

Cod LPUE values are highest within the GN1 category, which peaked in 2007-2008 (Table 5.5.3.1 and Figure 5.5.3.1). Ireland is the primary nation influencing this trend. However, this category may have unrepresentative values given the effort uncertainty, which may also be the explanation for the large LL1 LPUE in 2008. Furthermore, in some years area misreporting by Irish cod gillnetters has been an issue in the Irish Sea, likely to result in false inflation of the LPUE for this gear grouping.

Gillnetting is a small fleet within the Irish Sea. The most significant cod landings and effort occur within demersal trawl and seine categories TR1 and TR2. Over the period TR1 LPUE increased over the earlier years to 2009. LPUE levels have since varied, being lower in 2012 for all of the sub categories. Note that the LPUEs are higher in the CPart13b and CPart13c categories than the no special condition. The TR2 LPUE are lower than the TR1 group. LPUE has been increasing for the no special condition category although now little to nominal effort is directed to this group. The majority of effort is under CPart13a, CPart13b, CPart13c, the LPUEs for each of these are far lower than the none category. CPart11 show zero LPUE of cod.

Tables showing LPUE and CPUE by gear groups (regulated and unregulated), area and nation are not presented in this report but are available on the JRC website:

http://stecf.jrc.ec.europa.eu/web/stecf/ewg1306

Table 5.5.3.1 Irish Sea. Cod LPUE (g/(kW*days)) by gear group according to Coun. Reg. 1342/2008 and year, 2003-2012. CPUE including discard estimates are limited and can be found at

http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313.

ANNEX	SPECIES	REG AREA	REG GEAR	SPECON	LPUE 2003	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2010-2012
IIa	COD	3c	TR1	CPart13B								38	39	561	211
IIa	COD	3c	TR1	CPart13c							785	610	580	596	600
IIa	COD	3c	TR1	none	177	259	302	396	600	781	912	511	1059	271	513
IIa	COD	3c	TR2	CPart13a							10	0	112	39	53
IIa	COD	3c	TR2	CPart13B							15	11	9	19	14
IIa	COD	3c	TR2	CPart13c							31	50	42	39	46
IIa	COD	3c	TR2	none	85	80	73	65	84	63	114	177	137	150	161
IIa	COD	3c	BT2	none	83	62	66	46	70	33	24	46	75	52	58
IIa	COD	3c	GN1	none	869	1547	1432	3441	6362	8640	3406	3193	2966	3032	3069
IIa	COD	3c	GT1	none					1524	418	248	2033	678		1136
IIa	COD	3c	LL1	none	21	17	21	50	82	479					
IIa	COD	3c	TR2	CPart11								0	0	0	0

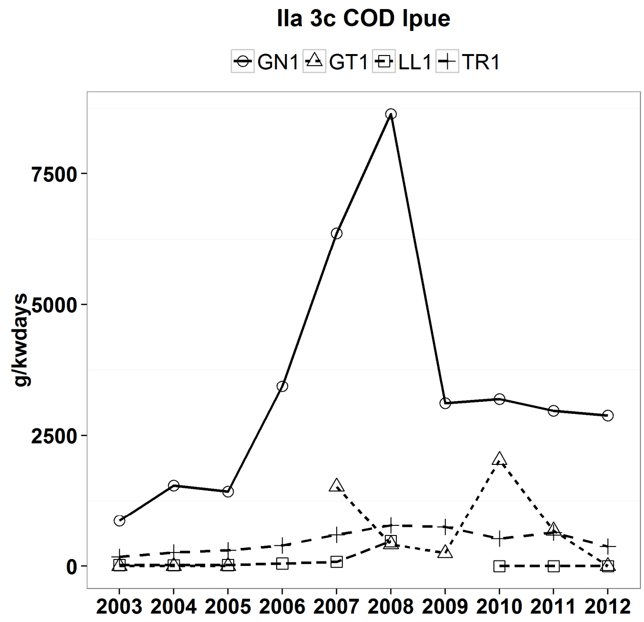


Figure 5.5.3.1. Irish Sea. Trends in cod LPUE (g/kW*days) by the average top four gear groups associated with Coun. Reg. 1342/2008, 2003-2012.

5.5.4 ToR 2 Rank regulated gear groups on the basis of catches expressed both in weight and in number of cod

Ranked landings (Table 5.5.4.1) in weight for cod have been used. Catch rankings have not been presented as discard data are not consistently available for all years or all categories introducing bias into the ranking. Information on ranked catches may be available on request.

Over the majority of the period, TR1 land the greatest proportion of cod (~40%), however this changed in 2011 when the continuing declining trend first fell below the proportions of TR2. This placed TR2 as the top ranked gear from 2012 which has shown only a small variation in proportions since 2010. The BT2 contribution increased in 2011 to 15% continuing in 2012. This proportion is slightly higher than those of gillnetting (~15%).

In the average ranking (2010-2012), the previous order of TR1, TR2, GN1 and BT2 remains unchanged.

Table 5.5.4.1 Irish Sea. Ranked derogations according to relative cod landings in weight (t), 2003-2012. Ranking is according to the year 2012. N.B. CPart11 effort is excluded from this table.

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	Average 2010-2012
IIa	3c	COD	TR2	0.31	0.37	0.39	0.33	0.35	0.26	0.28	0.37	0.36	0.40	0.38
IIa	3c	COD	TR1	0.43	0.41	0.39	0.44	0.28	0.39	0.57	0.42	0.34	0.29	0.35
IIa	3c	COD	GN1	0.07	0.11	0.06	0.14	0.27	0.32	0.12	0.14	0.15	0.16	0.15
IIa	3c	COD	BT2	0.186	0.115	0.163	0.083	0.089	0.026	0.027	0.070	0.151	0.151	0.12
IIa	3c	COD	LL1	0.001	0.001	0.002	0.003	0.001	0.010			0.000	0.000	0.00
IIa	3c	COD	GT1					0.001	0.001	0.002	0.003	0.002		0.00
IIa	3c	COD	TR3			0.000								

5.5.5 ToR 3 Information on small boats (<10m)

It should be noted that under 10m vessels are not required to report effort levels in the same way as larger vessels. As such not all nations operating within the Irish Sea have been able to provide this information. Presented is information from England (including Northern Ireland), France (last 3yrs) and Scotland. The methodology for production of this data may vary between nations. For details, refer to the national data descriptions in Section 4.

5.5.5.1 Fishing effort of small boats by Member State

The majority of effort by the under 10m vessels reported here is directed at pots and traps (Table 5.5.5.1.1). The effort levels increased greatly in 2006 due to the introduction of buyers and sellers notes into the UK who have used these to estimate effort. Under 10 effort dropped during 2009 and 2010, increasing again thereafter. Dredge effort has been increasing in recent years now occurring at similar levels as TR2 gear. The later utilised within the Irish Sea at fluctuating levels well below pots.

Table 5.5.5.1.1. Irish Sea trends in nominal effort (kW*days at sea) of under 10m vessels by gear groups of Annex I, Coun. Reg. 1342/2008 and unregulated gears, 2000-2012. National data qualities are summarised in Section 4.

ANNEX	AREA	GEAR	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
IIa	3c	BEAM	414	11750	327	2580	8779	6010	3164	7246	4228	2702
IIa	3c	BT2	1718	2354	9386	10855	2888	1884	627	623	178	89
IIa	3c	DEM_SEINE							662		75	
IIa	3c	DREDGE	18631	18654	11709	44601	60910	160354	109787	116792	161012	205495
IIa	3c	GN1	12429	13342	10545	10940	34100	45173	35398	27087	28213	25948
IIa	3c	GT1				78	22	424	9	330	4301	134
IIa	3c	LL1		0	3107	10348	6469	3656	5028	4811	22857	25531
IIa	3c	none					425	425			726	280
IIa	3c	OTTER	119			311	295	75		637		
IIa	3c	PEL_SEINE						142				
IIa	3c	POTS	237544	293990	295377	1068497	1124087	1023622	720517	695537	864323	867746
IIa	3c	TR1	14080	2043	2747	1624	3313	6692	4523	2885	6423	8090
IIa	3c	TR2	167205	220378	240805	208490	234149	276620	284710	164095	214743	236466
Grand Total			452140	562511	574003	1358324	1475437	1525077	1164425	1020043	1307079	1372481

5.5.5.2 Catches (landings and discards) of cod and associated species by small boats by Member State

Table 5.5.5.2.1 provides landing, discard and discard rate data for vessels under 10m, including data from England (inc Northern Ireland), France, Ireland, and Scotland, for the main species landed. Irish under 10 meter vessel landings are not recorded by gear type, therefore fall into the “none” category. Under 10m vessels in the Irish Sea land edible crab (CRE) in the greatest quantity, previously over 1,000t per year having increased to over 2,000t in the last two years. This was substantially lower in 2009. Scallops, sprat, spider crab, Nephrops and herring dominate the remainder of landings reported to the group. Comparatively small, and variable quantities of cod are landed, ~30t in 2010 and 2011, ~46t in 2012. Where gear type is available, landings primarily originate from "none" (all Irish landings in this category), pots, and dredges. Irish under 10m vessels are likely to employ a similar gear distribution.

The under 10m vessels contribute only a small proportion to the total Irish Sea cod landings. Regulated gears typically account for >90% with the exception of 2012 where this fell to 85%. In recent years, <1% of landings come from unregulated ≥10m vessels.

Table 5.5.5.2.1. Irish Sea. Landings (t), discards (t) and discard rate for the top 10 species landed in 2012 by gear according to Coun. Reg. 1342/2008 categories for under 10m vessels, 2003-2012. For landings, discards and discard rates by Country refer to the website. N.B. this table contains a select list of species.

ANNEX	AREA	REG_GEAR	SPECIES	2003 L	2003 D	2003 R	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R
IIa	3c	BEAM	PLE							0.69	0.00	0.00	0.26	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.42	0.00	0.00	0.03	0.00	0.00	0.01	0.00	0.00
IIa	3c	BEAM	MAC										0.11	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00				0.00	0.00	0.00				0.00	0.00	0.00
IIa	3c	BEAM	SCE																												0.00	0.00	0.00
IIa	3c	BEAM	SPR	0.32	0.00	0.00																											
IIa	3c	BEAM	CRE																			0.26	0.00	0.00									
IIa	3c	BEAM	COD							0.01	0.00	0.00	0.02	0.00	0.00	0.01	0.00	0.00							0.01	0.00	0.00	0.01	0.00	0.00			
IIa	3c	BEAM	HER																						0.00	0.00					0.00	0.00	
IIa	3c	BEAM	NEP																									0.33	0.00	0.00			
IIa	3c	BT2	PLE	0.03	0.00	0.00	0.10	0.00	0.00	14.23	0.00	0.00	16.17	0.00	0.00	2.74	0.00	0.00	2.09	0.00	0.00										0.00	0.00	0.00
IIa	3c	BT2	SCE				0.02	0.00	0.00																								
IIa	3c	BT2	COD	0.01	0.00	0.00	0.01	0.00	0.00	0.28	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00												
IIa	3c	DREDGE	SCE	49.64	0.00	0.00	26.88	0.00	0.00	21.45	0.00	0.00	58.97	0.00	0.00	114.88	0.00	0.00	586.21	0.00	0.00	581.34	0.00	0.00	641.44	0.00	0.00	1144.38	0.00	0.00	1275.67	0.00	0.00
IIa	3c	DREDGE	COD																						0.02	0.00	0.00				2.90	0.00	0.00
IIa	3c	DREDGE	NEP										0.07	0.00	0.00										0.54	0.00	0.00				2.23	0.00	0.00
IIa	3c	DREDGE	PLE																0.00	0.00	0.00	0.01	0.00	0.00	0.43	0.00	0.00	0.00	0.00		1.06	0.00	0.00
IIa	3c	DREDGE	SCR										4.60	0.00	0.00	0.44	0.00	0.00	0.87	0.00	0.00	0.24	0.00	0.00							0.42	0.00	0.00
IIa	3c	DREDGE	CRE																0.26	0.00	0.00				0.03	0.00	0.00	0.53	0.00	0.00	0.23	0.00	0.00
IIa	3c	DREDGE	MAC																0.01	0.00	0.00	0.03	0.00	0.00									
IIa	3c	GN1	HER							103.42	0.00	0.00	19.79	0.00	0.00	32.60	0.00	0.00	151.72	0.00	0.00	170.61	0.00	0.00	129.20	0.00	0.00	149.05	0.00	0.00	39.45	0.00	0.00
IIa	3c	GN1	SCR										2.45	0.00	0.00	6.08	0.00	0.00	38.04	0.00	0.00	13.69	0.00	0.00	7.28	0.00	0.00	25.06	0.00	0.00	10.90	0.00	0.00
IIa	3c	GN1	PLE	0.31	0.00	0.00	2.21	0.00	0.00	2.91	0.00	0.00	1.50	0.00	0.00	6.00	0.00	0.00	1.56	0.00	0.00	2.38	0.00	0.00	4.12	0.00	0.00	2.19	0.00	0.00	4.14	0.00	0.00
IIa	3c	GN1	COD	0.00	0.00	0.00	0.02	0.00	0.00	2.24	0.00	0.00	2.33	0.00	0.00	1.53	0.00	0.00	0.90	0.00	0.00	0.26	0.00	0.00	0.36	0.00	0.00	0.80	0.00	0.00	1.51	0.00	0.00
IIa	3c	GN1	MAC										0.00	0.00		0.36	0.00	0.00	0.41	0.00	0.00	0.60	0.00	0.00	0.43	0.00	0.00	0.84	0.00	0.00	0.57	0.00	0.00
IIa	3c	GN1	CRE				0.00	0.00	0.00	0.01	0.00	0.00	0.29	0.00	0.00	13.41	0.00	0.00	8.59	0.00	0.00	5.41	0.00	0.00	0.82	0.00	0.00	1.62	0.00	0.00	0.49	0.00	0.00
IIa	3c	GN1	SCE																			0.52	0.00	0.00							0.07	0.00	0.00
IIa	3c	GN1	NEP													0.05	0.00	0.00				0.10	0.00	0.00									
IIa	3c	GT1	CRE																1.34	0.00	0.00												
IIa	3c	LL1	MAC										5.36	0.00	0.00	4.74	0.00	0.00	3.11	0.00	0.00	6.66	0.00	0.00	10.12	0.00	0.00	13.01	0.00	0.00	14.44	0.00	0.00
IIa	3c	LL1	HER																									0.63	0.00	0.00	0.88	0.00	0.00
IIa	3c	LL1	COD																0.01	0.00	0.00	0.02	0.00	0.00	0.06	0.00	0.00	1.02	0.00	0.00	0.31	0.00	0.00
IIa	3c	LL1	CRE																			0.13	0.00	0.00				0.03	0.00	0.00	0.03	0.00	0.00
IIa	3c	LL1	PLE																0.05	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.00				0.01	0.00	0.00
IIa	3c	LL1	SCR																			0.04	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00			
IIa	3c	none	CRE	875.22	0.00	0.00	1028.61	0.00	0.00	1106.73	0.00	0.00	70.04	0.00	0.00	292.57	0.00	0.00	261.88	0.00	0.00	251.47	0.00	0.00	683.65	0.00	0.00	1116.77	0.00	0.00	1030.29	0.00	0.00
IIa	3c	none	SPR	1702.00	0.00	0.00													30.52	0.00	0.00							160.54	0.00	0.00	687.00	0.00	0.00
IIa	3c	none	SCR	50.72	0.00	0.00	54.58	0.00	0.00	19.94	0.00	0.00										118.79	0.00	0.00	179.28	0.00	0.00	84.74	0.00	0.00	573.32	0.00	0.00
IIa	3c	none	HER				1.70	0.00	0.00							5.00	0.00	0.00	87.09	0.00	0.00	132.80	0.00	0.00	105.00	0.00	0.00	135.74	0.00	0.00	362.96	0.00	0.00
IIa	3c	none	NEP				18.18	0.00	0.00							1.30	0.00	0.00				1.31	0.00	0.00	2.19	0.00	0.00	16.16	0.00	0.00	195.42	0.00	0.00
IIa	3c	none	SCE	0.16	0.00	0.00	0.12	0.00	0.00										36.34	0.00	0.00	3.44	0.00	0.00	1.74	0.00	0.00	58.42	0.00	0.00	78.45	0.00	0.00
IIa	3c	none	MAC	80.00	0.00	0.00	81.29	0.00	0.00				74.00	0.00	0.00							61.55	0.00	0.00	47.91	0.00	0.00	18.88	0.00	0.00	44.04	0.00	0.00
IIa	3c	none	COD	92.00	0.00	0.00	62.35	0.00	0.00							3.54	0.00	0.00	0.66	0.00	0.00	74.73	0.00	0.00	27.61	0.00	0.00	28.14	0.00	0.00	39.84	0.00	0.00
IIa	3c	none	RAJ	50.90	0.00	0.00	35.16	0.00	0.00							2.27	0.00	0.00	27.58	0.00	0.00	13.47	0.00	0.00	18.98	0.00	0.00	13.49	0.00	0.00	29.87	0.00	0.00
IIa	3c	none	PLE	8.10	0.00	0.00	10.68	0.00	0.00							0.25	0.00	0.00	0.08	0.00	0.00	0.19	0.00	0.00	0.27	0.00	0.00	0.36	0.00	0.00	3.20	0.00	0.00

Table 5.5.5.2.1. Irish Sea. Continued.

ANNEX	REG_A	REG_GEAR	SPECIES	2003 L	2003 D	2003 R	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R
IIa	3c	OTTER	NEP										0.15	0.00	0.00																		
IIa	3c	OTTER	SPR										0.03	0.00	0.00																		
IIa	3c	OTTER	PLE	0.25	0.00	0.00							0.07	0.00	0.00	0.20	0.00	0.00															
IIa	3c	PEL_SEINE	NEP																0.28	0.00	0.00												
IIa	3c	POTS	CRE	348.05	0.00	0.00	174.14	0.00	0.00	165.90	0.00	0.00	987.53	0.00	0.00	1232.58	0.00	0.00	805.90	0.00	0.00	619.45	0.00	0.00	874.42	0.00	0.00	1047.38	0.00	0.00	1027.77	0.00	0.00
IIa	3c	POTS	SCR	113.62	0.00	0.00							60.55	0.00	0.00	83.59	0.00	0.00	81.81	0.00	0.00	78.43	0.00	0.00	77.04	0.00	0.00	68.15	0.00	0.00	68.24	0.00	0.00
IIa	3c	POTS	NEP	0.83	0.00	0.00	0.83	0.00	0.00	3.60	0.00	0.00	12.94	0.00	0.00	13.53	0.00	0.00	14.67	0.00	0.00	9.49	0.00	0.00	16.29	0.00	0.00	8.62	0.00	0.00	16.04	0.00	0.00
IIa	3c	POTS	MAC										2.84	0.00	0.00	10.66	0.00	0.00	5.30	0.00	0.00	5.99	0.00	0.00	11.65	0.00	0.00	19.50	0.00	0.00	5.73	0.00	0.00
IIa	3c	POTS	SCE													2.05	0.00	0.00	3.20	0.00	0.00	0.29	0.00	0.00	0.18	0.00	0.00				0.58	0.00	0.00
IIa	3c	POTS	COD										0.02	0.00	0.00										0.12	0.00	0.00	0.08	0.00	0.00	0.05	0.00	0.00
IIa	3c	POTS	HER																			0.08	0.00	0.00				0.15	0.00	0.00			
IIa	3c	POTS	SPR																			0.01	0.00	0.00									
IIa	3c	POTS	PLE							0.02	0.00	0.00				0.03	0.00	0.00				0.14	0.00	0.00	0.00	0.00		0.54	0.00	0.00			
IIa	3c	TR1	PLE	8.87	0.00	0.00	5.10	0.00	0.00	1.74	0.00	0.00	0.61	0.00	0.00	2.90	0.00	0.00	5.63	0.00	0.00	3.00	0.00	0.00	4.38	0.00	0.00	0.87	0.00	0.00	6.51	0.00	0.00
IIa	3c	TR1	COD	0.62	0.00	0.00				0.10	0.00	0.00	0.01	0.00	0.00	0.06	0.00	0.00	0.42	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.00	0.05	0.00	0.00	0.51	0.00	0.00
IIa	3c	TR1	SCR													0.02	0.00	0.00															
IIa	3c	TR1	NEP	0.02	0.00	0.00													0.01	0.00	0.00	0.19	0.00	0.00									
IIa	3c	TR2	NEP	119.89	0.00	0.00	222.01	0.00	0.00	248.51	0.00	0.00	414.60	0.00	0.00	289.60	0.00	0.00	399.47	0.00	0.00	422.67	0.00	0.00	316.65	0.00	0.00	384.43	0.00	0.00	419.15	0.00	0.00
IIa	3c	TR2	PLE	40.94	0.00	0.00	34.75	0.00	0.00	69.93	0.00	0.00	57.21	0.00	0.00	93.14	0.00	0.00	64.35	0.00	0.00	54.81	0.00	0.00	25.98	0.00	0.00	12.36	472.36	0.98	21.98	603.92	0.97
IIa	3c	TR2	COD	3.42	0.00	0.00	5.09	0.00	0.00	3.52	0.00	0.00	6.37	0.00	0.00	6.18	0.00	0.00	4.04	0.00	0.00	4.68	0.00	0.00	0.78	0.00	0.00	0.59	0.03	0.05	1.53	18.39	0.93
IIa	3c	TR2	SCE										0.00	0.00	0.00	0.22	0.00	0.00	0.15	0.00	0.00	4.42	0.00	0.00	1.73	0.00	0.00	0.67	0.00	0.00	1.02	0.00	0.00
IIa	3c	TR2	CRE	1.92	0.00	0.00	0.02	0.00	0.00	0.28	0.00	0.00	0.48	0.00	0.00	0.08	0.00	0.00	0.28	0.00	0.00	0.11	0.00	0.00	0.07	0.00	0.00	0.09	0.00	0.00	0.52	0.00	0.00
IIa	3c	TR2	MAC										0.51	1.13	0.69	0.26	0.00	0.00	0.23	0.03	0.12	0.22	0.00	0.00				0.07	0.00	0.00	0.18	0.08	0.32
IIa	3c	TR2	HER													0.00	0.00	0.00				0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.09	0.00	0.00
IIa	3c	TR2	SPR																1.58	0.00	0.00												
IIa	3c	TR2	SCR										0.15	0.00	0.00	0.05	0.00	0.00	0.03	0.00	0.00							0.00	0.00	0.00			

5.5.6 ToR 4 Spatio-temporal patterns in effective effort by fisheries

Spatial figures of effort for the Irish Sea concentrate on those categories identified as significant in recorded effort, and/or cod catches. Figures use a common scale across years for a given gear group, but scales are unique to each category such that the colours assigned to statistical rectangles for gear group TR1 can not be compared directly to those assigned for TR2 say.

TR1: At the beginning of the presented time series, TR1 effort was focused across the Northern boarder and western Irish Sea. Subsequently effort has declined to an overall low level. In 2011 this was limited to the northern and western areas, expanding across the whole area again in 2012 (Figure 5.5.6.1).

TR2: Clear TR2 effort focal points occur within the Irish Sea, coinciding with areas of mud based substrate, with most effort occurring in the Western Irish Sea across two rectangles. In addition, there is an additional secondary focus in the Eastern Irish Sea. Over the period there has been a reduction in effort, with indications of this in the contraction of both focus areas (Figure 5.5.6.2).

BT2: This gear has shown a marked contraction in fishing areas and effort reduction within the Irish Sea (Figure 5.5.6.3). Two of the three focus areas which were present in 2003 still occur in 2011. The southern most focus had reduced to background effort levels a number of years ago reappeared again in 2012.

GN1: The measure of spatial effort submitted in the data call is not considered appropriate for application to static gears. However, the figure for gillnet effort is provided here as an indication of spatial distribution as this gear category can contain relatively high cod catches. Gillnet effort distribution has been changeable over the period, although current focus is in the eastern Irish Sea above Wales (Figure 5.5.6.4). This focus increased in 2012.

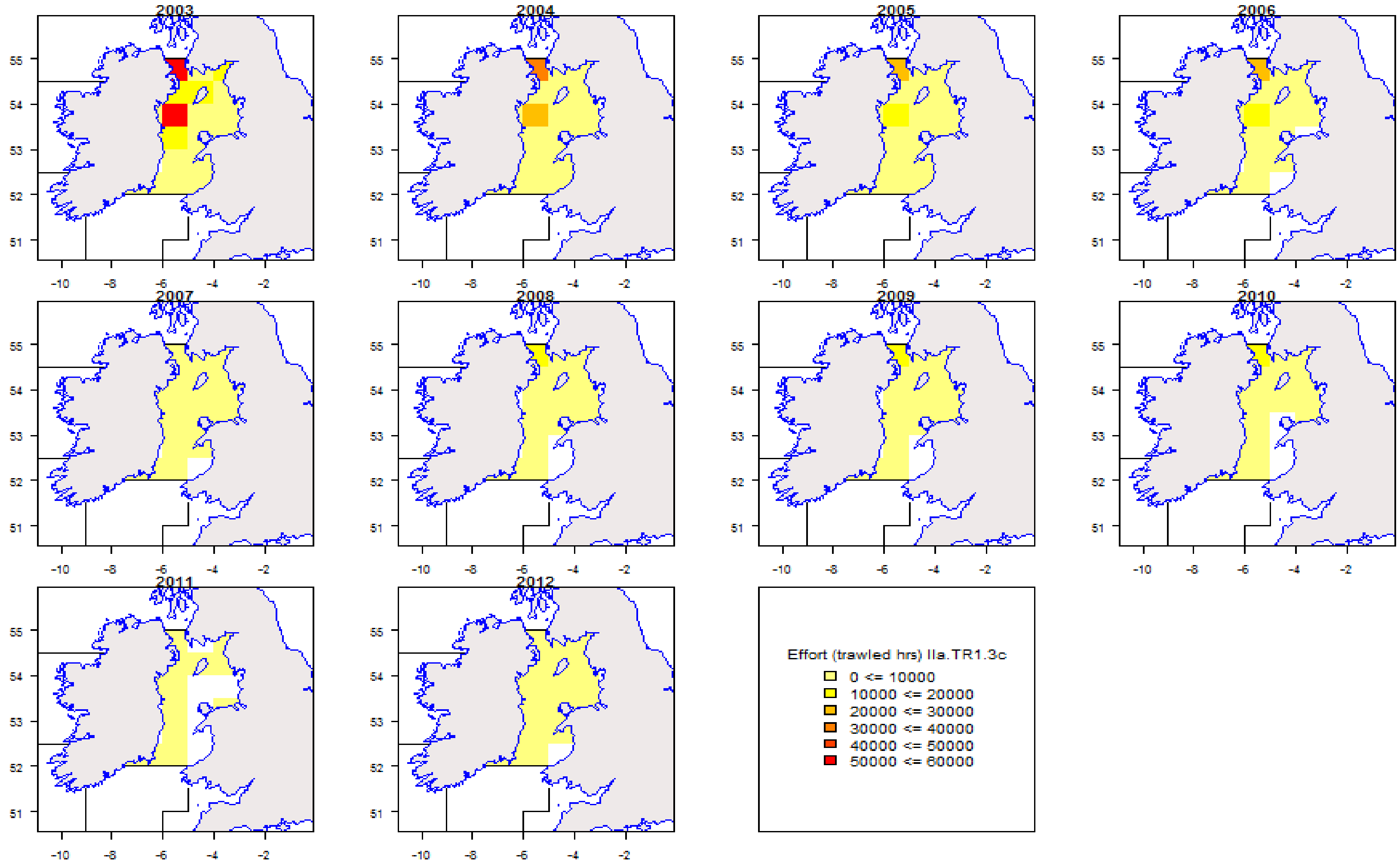


Figure 5.5.6.1. Irish Sea. Spatial distribution of effort (trawled hours) by ICES statistical rectangle for TR1, 2003-2012. N.B. These figures include effort carried out under special condition CPart11.

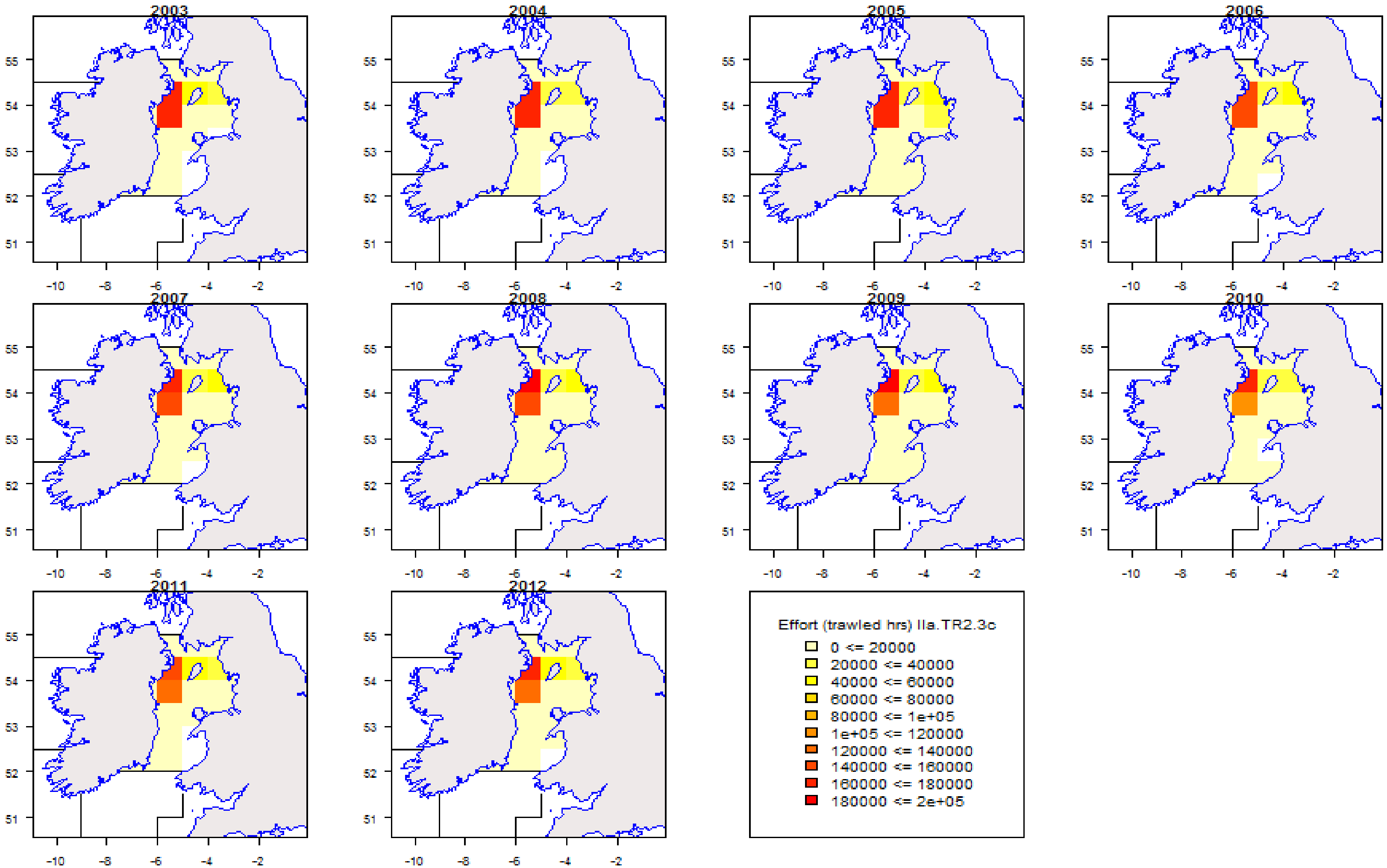


Figure 5.5.6.2. Irish Sea. Spatial distribution of effort (trawled hours) by ICES statistical rectangle for TR2, 2003-2012. N.B. These figures include effort carried out under special condition CPart11.

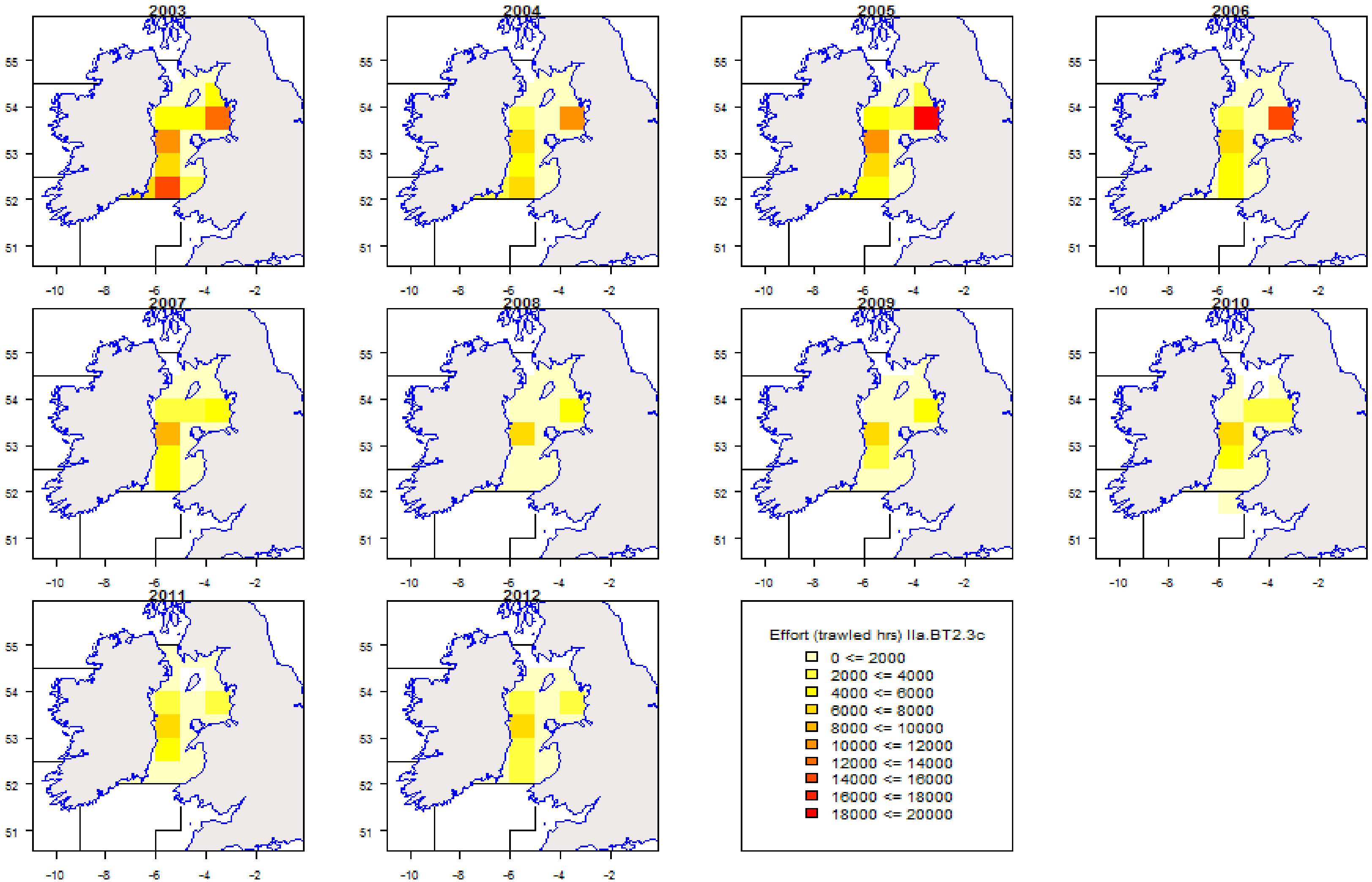


Figure 5.5.6.3. Irish Sea. Spatial distribution of effort (trawled hours) by ICES statistical rectangle for BT2, 2003-2012.

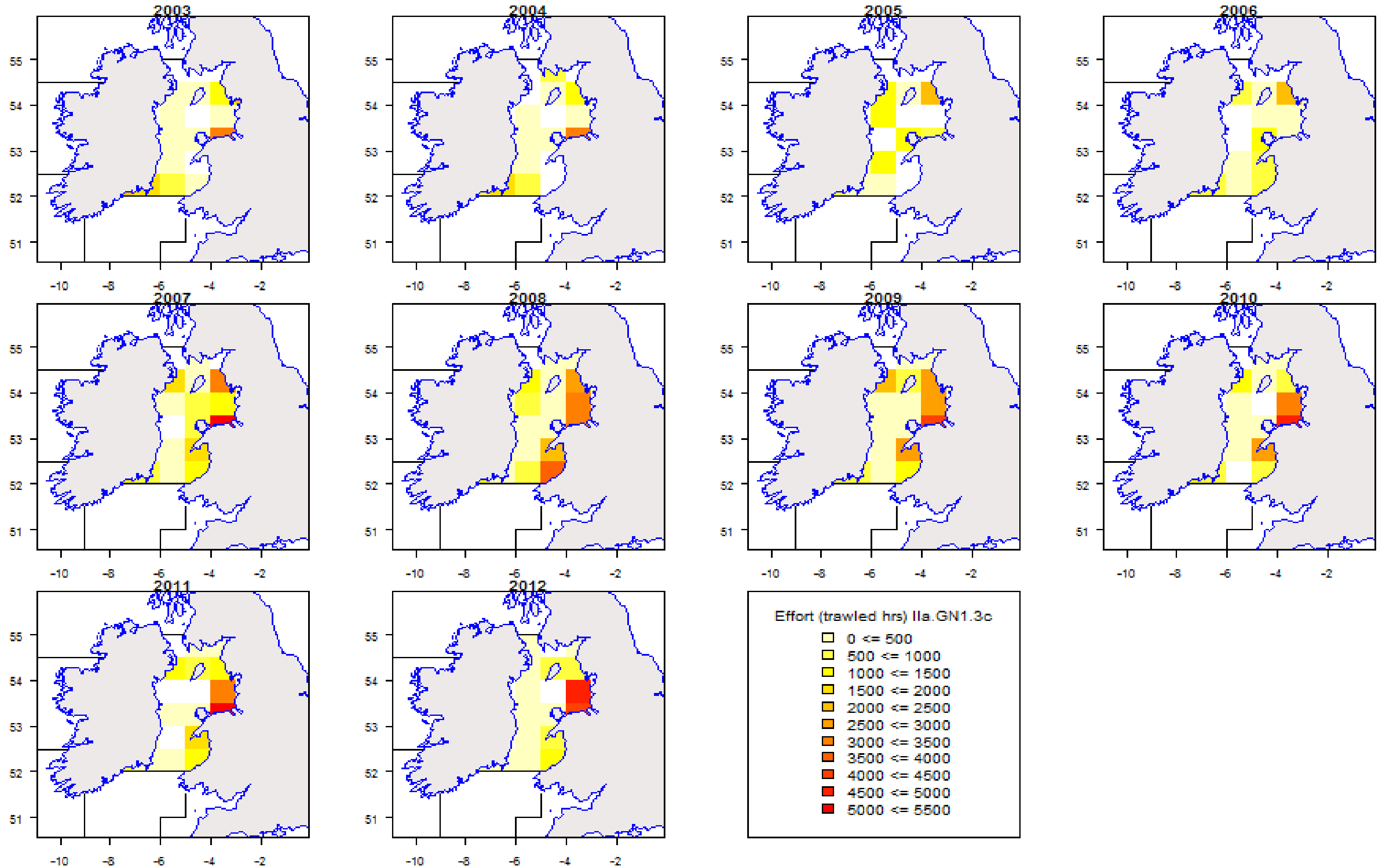


Figure 5.5.6.4. Irish Sea. Spatial distribution of effort (trawled hours) by ICES statistical rectangle for GN1, 2003-2012.

5.5.7 ToR 5 Remarks on quality of catches and discard estimates

Discard information is scarce for a number of gear categories. Where discard data is available it is considered to be highly variable and inaccurate.

No unexpected evolutions in effort or catch trends by Member state or fishery were observed in the addition of 2012 data.

5.5.8 ToR 6 Estimation of conversion factors to be applied for effort transfers between regulated gear groups

The table of international conversion factors (Table 5.5.8.1) is based on average CPUE (2010-2012). LPUEs are used for GN1 and GT1 fisheries as time series of discard data were not available, while LL1 fisheries are negligible. A one to one ratio can be seen for BT2 to TR2, but the reverse exchange is lower.

Table 5.5.8.1 Irish Sea. Conversion factors for exchange of effort between gears based on average CPUE 2010-2012. Red cells indicate no discard data available; yellow cells indicate discard information available.

Irish Sea											
	donor gear	receiving gear									
		BT2	GN1	GT1	LL1	TR1	TR2	CPUE	LPUE		factor =
3c	BT2		0.03	0.079	1	0.17	1	90	58		if factor > 1 then
3c	GN1	1		1	1	1	1	3033	3033		factor = 1
3c	GT1	1	0.375		1	1	1	1136	1136		
3c	LL1	0.011	0	0.001		0.002	0.013	1	1		if CPUE=0 or LPUE = 0 then
3c	TR1	1	0.174	0.465	1		1	528	523		CPUE=1 or LPUE=1
3c	TR2	0.878	0.026	0.07	1	0.15		79	42		

5.5.9 ToR 7 Estimation of partial fishing mortalities of cod by area, Member State and fisheries and correlation between partial cod mortality and fishing effort by area, Member State and fisheries

The STECF EWG 13-13 presents partial fishing mortalities of cod by major fisheries and Member States in relation to the estimated fishing mortality by ICES (2013) and landings (Table 5.5.9.1) in relation to the estimated total catch for the year available. The full list of all fisheries can be downloaded from the EWG's web page: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1306. The anticipated trend in fishing mortality as derived from the cod plan is also presented in the following Tables 5.5.9.1. The sustainable exploitation target is defined as F_{MSY}=0.4. The trends in fishing effort in units of kW days at sea of the relevant fisheries are also presented in Tables 5.5.9.1. The presented parameters r (value of Pearson's coefficient of correlation), numbers of points considered, as well as a p value to quantify the statistical significance ($\leq$0.05) allow conclusions about the quality of the correlation between the partial F and fisheries specific fishing effort. Those values are presented in the Tables 5.5.9.1 and resulting regressions are shown the Fig. 5.5.9.1 for major fisheries.

It can be concluded from the estimated F (Table 5.5.9.1) that the stock is unsustainably exploited with an F 3 times the Fmsy without considering discarding. The fisheries listed within the table contribute around 90% to the total estimated fishing mortality in 2008, which is based on landings only. The landings contribution then drops to only 14% in 2012, the remainder being due to ICES estimates of unallocated mortality.

STECF EWG 13-13 notes that the correlations between the summed partial Fs for landings of the regulated fisheries and their estimated fishing efforts are non-significant. The partial landings Fs of most Member State fisheries using regulated gears are not significantly correlated with their specific effort estimates.

Table 5.5.9.1 Cod Irish Sea (landings). The left part of the table lists estimated F trajectories from the management plan and the ICES 2013 cod assessment, as well as partial Fs for landings of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. Cod plan article 13 assignments apply since 2009 or 2010, as interpreted from the background documents of national declarations. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs from landings of all effort regulated gears to the overall F estimate of the stock.

Runnig previous year annual F reductions by 25 percent as SSB remains below Blim, Fmsy=0.4														Effort kW days running previous year baseline														
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012				
F plan									1.260	0.950	0.710	0.530	0.400	Effort plan						6569118	4926839	3695129	2771347	2078510				
reduction F plan										-0.25	-0.25	-0.25	-0.25								-0.25	-0.25	-0.25	-0.25				
F estimated				1.290	1.270	1.250	1.280	1.270	1.260	1.250	1.230	1.210	1.210	Effort estimated	11230316	8851257	8830318	7551800	7267682	6569118	5524500	5145714	4942399	5003078				
reduction F estimated										-0.01	-0.02	-0.02	0.00								-0.16	-0.07	-0.04	0.01				
														EFFORT											2003-2012			
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n	
BEL	BT2	none	landings	0.066	0.055	0.087	0.051	0.056	0.020	0.017	0.015	0.025	0.013		1884843	1482831	1694567	1153947	956953	554841	624989	649225	660228	597621	0.912	0.000	10	6.289
BEL	TR2	none	landings		0.001	0.001	0.004	0.012	0.011	0.009	0.007	0.002	0.001			13541	43486	34052	76789	67534	29980	14283	28390	20947	0.683	0.043	9	2.474
ENG	BT2	none	landings	0.002	0.000	0.005	0.001	0.001	0.000	0.000		0.000			172354	68579	161500	59199	31112	17349	5808	1810	41222	13240	0.803	0.005	10	3.811
ENG	GN1	none	landings	0.002	0.004	0.003	0.003	0.001	0.000	0.000	0.001	0.004	0.001		14872	12326	10011	8378	3930	4297	684	2260	3602	1097	0.578	0.080	10	2.003
ENG	GT1	none	landings					0.001	0.001	0.001	0.002	0.001						475	656	1066	2788	984	1476		-0.275	0.598	6	-0.572
ENG	LL1	none	landings	0.001	0.001	0.001	0.003	0.001				0.000	0.000		44138	58414	93773	59656	12238	840	924		1543	5001	0.546	0.128	9	1.724
ENG	TR1	CPart13B	landings							0.000	0.000		0.001					2541	2310		5544	5319		10416	0.999	0.000	5	38.701
ENG	TR1	CPart13c	landings							0.005	0.010	0.004	0.001								16316	19792	14364	7988	0.946	0.054	4	4.127
ENG	TR1	none	landings	0.027	0.039	0.018	0.012	0.003	0.001						399886	197351	94201	66364	14536	5932					0.742	0.091	6	2.214
ENG	TR2	CPart13B	landings								0.001	0.000	0.001					12243	17787	15246	11319	116327	46765	87715	0.912	0.004	7	4.972
ENG	TR2	CPart13c	landings							0.002	0.000	0.000	0.000								160679	65836	109946	66348	0.888	0.112	4	2.731
ENG	TR2	none	landings	0.004	0.010	0.013	0.003	0.005	0.006						211774	347848	287791	235204	225834	204211					0.738	0.094	6	2.187
FRA	TR1	none	landings	0.052	0.020	0.023	0.016	0.018	0.004	0.004	0.000	0.003	0.001		264447	167253	180515	109174	67487	19701	19701	6668	6138	18034	0.947	0.000	10	8.338
FRA	TR2	none	landings	0.000		0.001									588		2352		810					395				
GBJ	BT2	none	landings	0.003	0.003	0.000									40878	42260	3542											
IOM	TR1	none	landings	0.000											9070	362	172		649	895								
IOM	TR2	none	landings		0.000	0.000	0.000	0.000	0.000						18628	10826	27205	5427	29763	14592								
IRL	BT2	none	landings	0.018	0.008	0.027	0.019	0.052	0.016	0.008	0.027	0.028	0.013		860849	414446	514653	481404	550975	374494	173927	218054	212313	179498	0.239	0.506	10	0.696
IRL	GN1	none	landings	0.031	0.059	0.039	0.117	0.333	0.452	0.106	0.081	0.048	0.026		92103	63069	26672	29531	47941	40957	22219	22172	20333	9000	0.080	0.826	10	0.227
IRL	GT1	none	landings						0.000	0.000										1327	1237							
IRL	LL1	none	landings					0.000	0.014							800				24199		620	146	3625				
IRL	TR1	none	landings	0.048	0.013	0.006	0.004	0.087	0.132	0.096	0.044	0.046	0.023		381119	157955	87263	84550	141442	73625	60348	73585	56161	122215	-0.111	0.760	10	-0.316
IRL	TR2	CPart13a	landings							0.002	0.000	0.033	0.029								98492	115391	392685	1003328	0.747	0.253	4	1.589
IRL	TR2	none	landings	0.080	0.076	0.094	0.112	0.241	0.128	0.108	0.121	0.046	0.002		1242769	1386883	1475114	1452830	1583605	1300696	733216	673091	445123	12056	0.663	0.037	10	2.505
IRL	TR3	none	landings			0.000						0.000	0.000		900	90	3305	960		436			179	634				
NIR	GN1	none	landings		0.000											222												
NIR	TR1	CPart13B	landings							0.000	0.002	0.001	0.013								29532	47406	25968	28260	-0.204	0.796	4	-0.295
NIR	TR1	CPart13c	landings							0.400	0.200	0.066	0.011								364594	306824	147347	12091	0.923	0.077	4	3.392
NIR	TR1	none	landings	0.073	0.166	0.236	0.350	0.236	0.404						2055358	1162035	872476	785815	343025	498488					-0.788	0.063	6	-2.560
NIR	TR2	CPart13A	landings										0.001											240258				
NIR	TR2	CPart13B	landings							0.004	0.017	0.012	0.028								235743	1450621	1820787	2225228	0.863	0.137	4	2.416
NIR	TR2	CPart13c	landings							0.127	0.073	0.030	0.007								2895541	1336192	863528	213809	0.984	0.016	4	7.811
NIR	TR2	none	landings	0.065	0.124	0.170	0.165	0.175	0.213						3395323	3138292	3213416	2959511	3143032	3326397					-0.298	0.566	6	-0.624
SCO	LL1	none	landings	0.000											3247													
SCO	TR1	CPart13C	landings										0.000									1273	407	13504				
SCO	TR1	none	landings	0.005	0.001	0.000	0.000								92514	32104	3889	3104							0.992	0.008	4	11.113
SCO	TR2	CPart13B	landings							0.001	0.000	0.001	0.001								23350	17981	42035	82657	0.535	0.465	4	0.896
SCO	TR2	CPart13C	landings										0.000								7569		1713	28113				
SCO	TR2	none	landings	0.001	0.003	0.002	0.000	0.001	0.000						44656	93770	34415	7435	16808	21995					0.862	0.027	6	3.401
Sum				0.478	0.583	0.726	0.860	1.223	1.402	0.890	0.601	0.350	0.173		11230316	8851257	8830318	7551800	7267682	6569118	5524500	5145714	4942399	5003078	0.066	0.856	10	0.187
check sum Fpar/F				0.37	0.46	0.58	0.67	0.96	1.11	0.71	0.49	0.29	0.14															

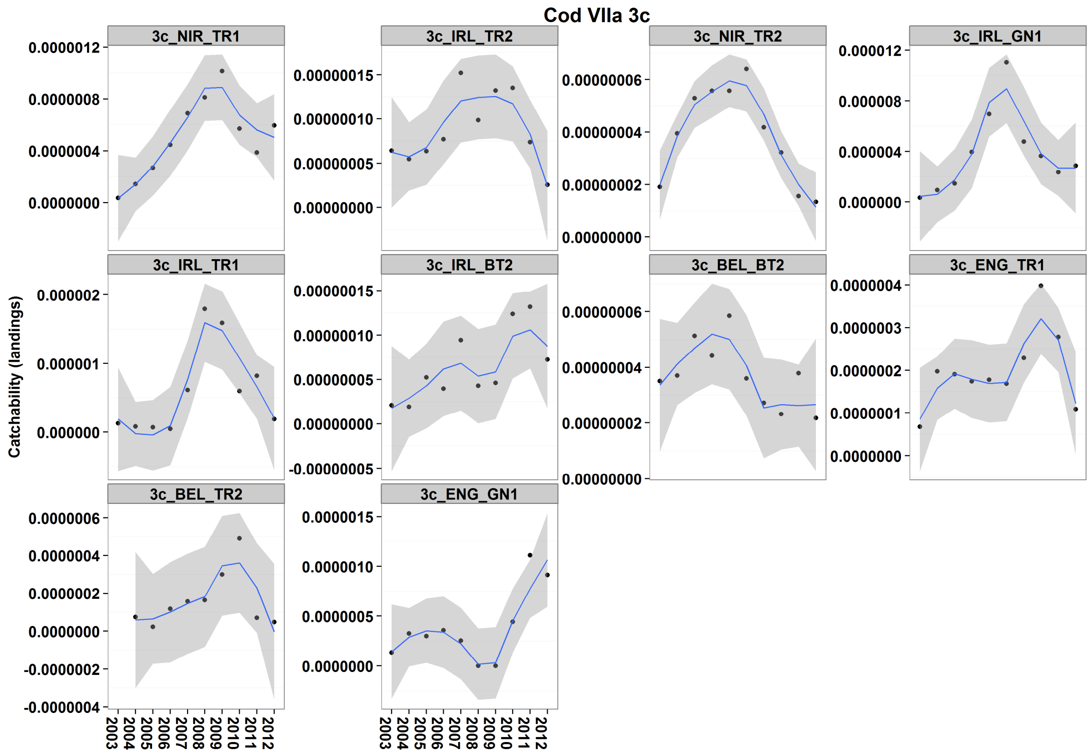


Fig. 5.5.9.1 Irish Sea cod. Partial fishing mortality (based on harvest rate estimates, landings only) over effort (kWd) in area 3c of major fisheries, 2003-2012. R = Pearson's coefficient of correlation, p value from two tailed to quantify the statistical significance (≤0.05). Note that the panel called combined fleets includes all regulated and unregulated fisheries and that the trends of the fisheries are not separated by special conditions.

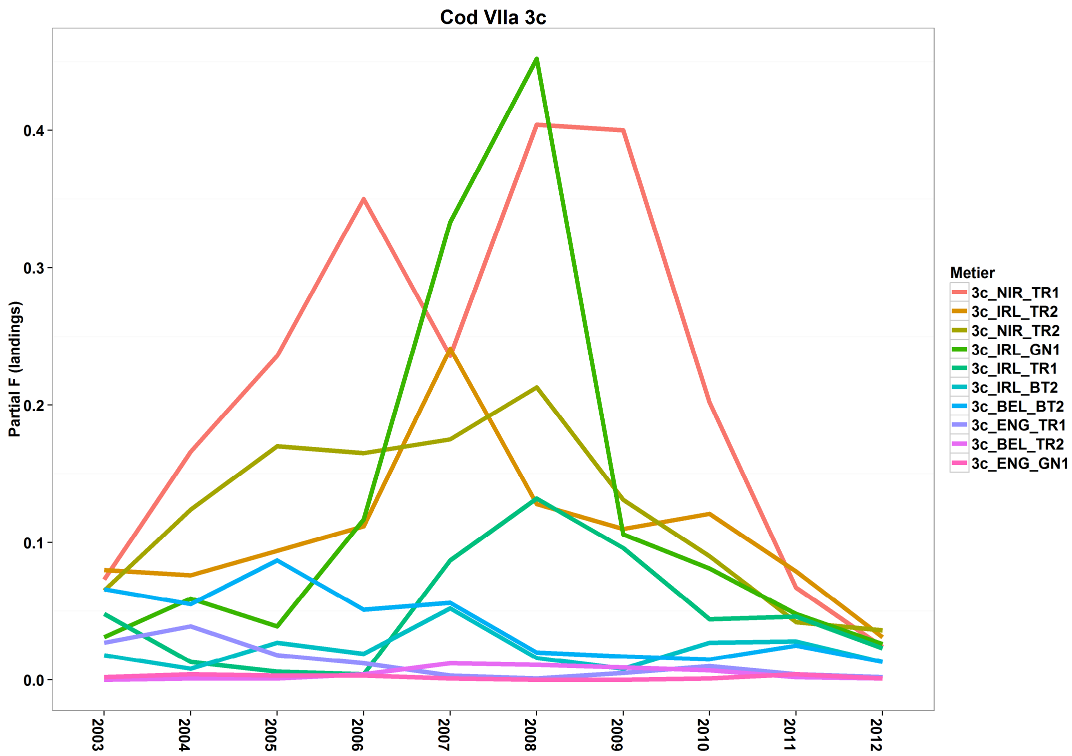


Fig. 5.5.9.2 Irish Sea cod. Partial F landings of major fisheries, 2003-2012.

5.5.10 ToR 8 Comparative analyses between trends in fishing mortality and fishing effort by Member State and fisheries and the cod plan (R (EC) No 1342/2008) provisions, in particular with regard to Article 13

STECF EWG 13-13 is unable to conduct the requested analyses due to data deficiencies, in particular the lack of discard data.

5.6 Celtic Sea effort regime evaluation for fisheries which would be affected by the extension of the cod management plan

5.6.1 ToR 1.a Fishing effort in kWdays, GTdays and number of vessels by area, Member state and fisheries

While there is no effort regulation in the Celtic Sea at present, the analyses below consider the same gear and mesh categories as used in the cod plan management plan (Council Regulation No. 1342/2008). Table 5.6.1 lists the trends in effort by gear and mesh categories by country in kW*days. Information on GT*days at sea and the number of vessels active in Celtic sea are not presented in this report but are available on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

The following sections are subdivided into the whole Celtic Sea, the ICES sub-divisions 7bcefghjk (Cel1) and the subset of ICES subdivision 7gh (Cel2).

STECF EWG 13-13 notes that Spanish data has not been provided for periods before 2012; as such the time series of effort and catch is incomplete. The inclusion of Spanish data for 2012 mainly affects fisheries with Long-lines (LL1), otter trawl and seines (TR1, TR2) and to a lesser extent Gillnets (GN1), and predominately in the wider Celtic Sea (7bcefghjk (Cel1), with only small amounts of effort in the sub-set divisions 7fg (Cel2).

5.6.1.1 ICES sub-divisions 7bcefghjk (Cel1)

Table 5.6.1.1.1 show fishing effort (kw days at sea) by Country, Gear type and Special condition (as defined for the cod management plan) for ICES sub-divisions 7bcefghjk. In recent years fishing effort by the main gears/countries has been relatively stable, though in 2012 there was an increase in BT2 effort by Belgian fisheries, related to increased sole and anglerfish landings (Table 5.6.2.1.1).

Table 5.6.1.1.1 Trend in effort (kW*days at sea), according to cod plan gear definition and Member State, 2003-2012. Note, data for Celtic Sea 7bcefghjk (Cel1)

ANNEX	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	VESSEL_LENGTH	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel1	7bcefghjk	BT1	none	BEL	O15M						1766				
Cel1	7bcefghjk	BT1	none	ENG	o15m		52079								
Cel1	7bcefghjk	BT1	none	FRA	o10t15m										159
Cel1	7bcefghjk	BT1	NONE	IRL	O15M	14428									
Cel1	7bcefghjk	BT2	none	BEL	O15M	2914644	4568918	3996701	3246205	3351614	2285026	1932211	2392748	2698681	3206396
Cel1	7bcefghjk	BT2	none	ENG	o10t15m	168607	72927	57373	53413	68457	70383	39504	57209	50614	70693
Cel1	7bcefghjk	BT2	none	ENG	o15m	5871505	5623896	5626763	5225546	4943815	4253780	3822565	3678346	3831714	3657607
Cel1	7bcefghjk	BT2	none	FRA	O10T15M	7217	27252	19355	99790	130720	55970	48196	109999	117351	68844
Cel1	7bcefghjk	BT2	none	FRA	O15M	37869	290521	244545	206042	189856	90473	90473	196958	87754	62709
Cel1	7bcefghjk	BT2	none	GBJ	o15m	284450	365302	202229							
Cel1	7bcefghjk	BT2	NONE	IRL	O10T15M					187					
Cel1	7bcefghjk	BT2	NONE	IRL	O15M	3748872	2331454	2969538	2079409	1767309	1020052	916246	948287	879763	1085019
Cel1	7bcefghjk	BT2	none	NLD	O15M	22000							1467		2572
Cel1	7bcefghjk	BT2	none	SCO	o15m					3666		1396			
Cel1	7bcefghjk	GN1	none	BEL	O15M						2700				
Cel1	7bcefghjk	GN1	none	DEU	O15M	371138	452381	396914	32794	171880	229650	93910	114413	91953	105780
Cel1	7bcefghjk	GN1	none	ENG	o10t15m	368630	408264	321651	303347	273695	241386	272475	263607	257877	262748
Cel1	7bcefghjk	GN1	none	ENG	o15m	1703645	1801520	1361727	664922	710075	482738	367021	458224	360084	408130
Cel1	7bcefghjk	GN1	none	ESP	o15m										25441
Cel1	7bcefghjk	GN1	none	FRA	O10T15M	740936	1015940	904288	951675	917344	704412	704349	442616	453543	453261
Cel1	7bcefghjk	GN1	none	FRA	O15M	1042726	1069302	1240069	996131	1258557	1535687	1535360	1791358	1589363	1834150
Cel1	7bcefghjk	GN1	none	GBJ	o15m								716		
Cel1	7bcefghjk	GN1	NONE	IRL	O10T15M	66329	74856	63650	82996	92300	115527	146889	122657	88310	107552
Cel1	7bcefghjk	GN1	NONE	IRL	O15M	995797	812092	615141	448209	469433	417322	403203	400345	362955	387933
Cel1	7bcefghjk	GN1	none	NIR	o10t15m							2106	1701	1296	1539
Cel1	7bcefghjk	GN1	none	SCO	o15m	467260	643185	498672	192066	193116	355719	437451	387259	463248	439892
Cel1	7bcefghjk	GT1	none	ENG	o10t15m	373	243	11051	7204	13030	17085	14082	2188	14617	11907
Cel1	7bcefghjk	GT1	none	ENG	o15m	17903	40645	16189	63807	16867	20745	3249	13969	72025	105327
Cel1	7bcefghjk	GT1	none	FRA	O10T15M	463009	613504	763828	906651	1057950	662533	662382	493742	505116	476564
Cel1	7bcefghjk	GT1	none	FRA	O15M	299226	358319	438016	465337	471663	381102	381102	498932	494870	460213
Cel1	7bcefghjk	GT1	NONE	IRL	O10T15M	802			6673	18759	21940	29379	30733	27980	27574
Cel1	7bcefghjk	GT1	NONE	IRL	O15M		172	16260	13550	6624	22125	7800	35672	23000	49028
Cel1	7bcefghjk	GT1	none	SCO	o15m	50501	13362								
Cel1	7bcefghjk	LL1	none	DNK	o15m										
Cel1	7bcefghjk	LL1	none	ENG	o10t15m	82631	64003	57687	69608	81526	63299	44113	52964	51934	36152
Cel1	7bcefghjk	LL1	none	ENG	o15m	318021	276751	265897	405536	575325	138810	4194	6800	3781	
Cel1	7bcefghjk	LL1	none	ESP	o10t15m										574
Cel1	7bcefghjk	LL1	none	ESP	o15m										2554892
Cel1	7bcefghjk	LL1	none	FRA	O10T15M	111426	153667	198527	350334	313997	139114	139114	170925	133564	112422
Cel1	7bcefghjk	LL1	none	FRA	O15M	123656	184636	206807	360284	410608	336703	336703	382978	363457	643074
Cel1	7bcefghjk	LL1	NONE	IRL	O10T15M			4074	1265	9962	16325	26309	21174	14444	20026
Cel1	7bcefghjk	LL1	NONE	IRL	O15M	91311	3600	68722		46022	7281	2856	13030	3193	44764
Cel1	7bcefghjk	LL1	none	PRT	o15m	3302									
Cel1	7bcefghjk	LL1	none	SCO	o10t15m			221							
Cel1	7bcefghjk	LL1	none	SCO	o15m	136014	6160	50975	249936	257928	811319	194403	261208	147510	415740

Celtic Sea 7bcefghjk (Cel1) continued

ANNEX	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	VESSEL_LENGTH	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel1	7bcefghjk	TR1	none	ENG	o10t15m	51486	24379	12250	18271	30261	68970	105539	173102	439093	315786
Cel1	7bcefghjk	TR1	none	ENG	o15m	2383920	2237575	1791918	2209095	2274588	1600379	1263283	1368151	1641154	1077547
Cel1	7bcefghjk	TR1	none	ESP	o15m										2211273
Cel1	7bcefghjk	TR1	none	FRA	O10T15M	18668	21245	24258	28074	19271	2627	2627	6974	9027	2514
Cel1	7bcefghjk	TR1	none	FRA	O15M	7715939	7767596	7342415	7853011	7400986	6311661	6287869	9424263	10044412	9927729
Cel1	7bcefghjk	TR1	none	GBG	o10t15m					328	402				
Cel1	7bcefghjk	TR1	none	GBJ	o15m										660
Cel1	7bcefghjk	TR1	NONE	IRL	O10T15M	402		4595	32698	12161	18276	26323	67478	120505	141117
Cel1	7bcefghjk	TR1	NONE	IRL	O15M	5847510	5080624	4806489	3850598	4019448	3850262	4152808	4428522	4290102	3966463
Cel1	7bcefghjk	TR1	none	NIR	o15m	7641		716	5176		1141	1805	16616	24770	42944
Cel1	7bcefghjk	TR1	none	NLD	O15M								6044	221	4442
Cel1	7bcefghjk	TR1	none	SCO	o10t15m	600						36953	58669	6556	762
Cel1	7bcefghjk	TR1	none	SCO	o15m	802171	879428	1084677	779453	681392	835556	869444	939069	742392	764935
Cel1	7bcefghjk	TR2	none	BEL	O15M		119327	188914	424630	464699	467476	468989	422826	322422	468384
Cel1	7bcefghjk	TR2	none	ENG	o10t15m	1399554	1465978	1433817	1480541	1518102	1487671	1508410	1417313	1072092	1117170
Cel1	7bcefghjk	TR2	none	ENG	o15m	778265	793106	748269	545935	546165	188851	219920	270932	277086	199744
Cel1	7bcefghjk	TR2	none	ESP	o15m										1499154
Cel1	7bcefghjk	TR2	none	FRA	O10T15M	990647	1170583	934323	1811990	2322695	1359817	1332591	1377589	1450200	1377944
Cel1	7bcefghjk	TR2	none	FRA	O15M	9525729	9749701	10606401	9086047	8463099	5978693	5961053	5517774	4618154	4640702
Cel1	7bcefghjk	TR2	none	GBG	o10t15m			730	6042	11065	5203	3090	7854	2298	11868
Cel1	7bcefghjk	TR2	none	GBG	o15m				336						
Cel1	7bcefghjk	TR2	none	GBJ	o15m	3557		6745	19360	30580	25740	31020	37620	41195	12760
Cel1	7bcefghjk	TR2	NONE	IRL	O10T15M	306926	257022	350469	334422	459059	451136	535137	532232	412184	496804
Cel1	7bcefghjk	TR2	NONE	IRL	O15M	5209697	5224000	6198534	5446878	5597666	4158601	2949734	3573429	3347927	3532703
Cel1	7bcefghjk	TR2	none	NIR	o10t15m							1832	1832		
Cel1	7bcefghjk	TR2	none	NIR	o15m		53672	72432	42938	20658	128847	151565	144625	6852	31350
Cel1	7bcefghjk	TR2	none	NLD	O15M	36589	64393	108566	162551	113851	90839	216240	252472	259559	150099
Cel1	7bcefghjk	TR2	none	SCO	o10t15m	37584	76992	66156	5364	17582	162	9536	17322	20264	
Cel1	7bcefghjk	TR2	none	SCO	o15m	451909	367031	352869	382627	350470	506435	487733	439290	529514	322248
Cel1	7bcefghjk	TR3	none	DNK	o15m		15575								
Cel1	7bcefghjk	TR3	none	ENG	o10t15m	1157	559	220	1505	4986	7072	10318	2204	4242	13828
Cel1	7bcefghjk	TR3	none	ENG	o15m	5112	432	2984		660	880				
Cel1	7bcefghjk	TR3	none	ESP	o15m										1440
Cel1	7bcefghjk	TR3	none	FRA	O10T15M	5832	5840	14923	17955	2179	7931	7931	22410	21286	14772
Cel1	7bcefghjk	TR3	none	FRA	O15M		1146		3516	2304	1596	1596	32619	33180	7492
Cel1	7bcefghjk	TR3	NONE	IRL	O10T15M					403	906	4910	1355	97	2126
Cel1	7bcefghjk	TR3	NONE	IRL	O15M	8499	8964	340	10012	3573	11035	12724	8249	21567	18025
Cel1	7bcefghjk	TR3	none	NLD	O15M										
Cel1	7bcefghjk	TR3	none	SCO	o10t15m		1192	4917				894			
Cel1	7bcefghjk	TR3	none	SCO	o15m						5499				26807

Celtic Sea 7bcefghjk (Cel1) continued

ANNEX	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	VESSEL_LENGTH	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel1	7bcefghjk	BEAM	none	BEL	O15M							38953	70493	68474	51436
Cel1	7bcefghjk	BEAM	none	ENG	o10t15m	537	232	654						641	820
Cel1	7bcefghjk	BEAM	none	ENG	o15m	2215	1388	16341	12221	6031	884	2750	6993	5419	767
Cel1	7bcefghjk	BEAM	none	FRA	O10T15M			52646					1461	441	221
Cel1	7bcefghjk	BEAM	none	FRA	O15M	2420	5940		1776						
Cel1	7bcefghjk	BEAM	none	GBJ	o15m		1476								
Cel1	7bcefghjk	BEAM	NONE	IRL	NONE										
Cel1	7bcefghjk	BEAM	NONE	IRL	O15M	251944	700722	5372							
Cel1	7bcefghjk	BEAM	none	NLD	O15M										
Cel1	7bcefghjk	DEM_SEINE	none	FRA	o15m								19311		
Cel1	7bcefghjk	DEM_SEINE	NONE	IRL	O10T15M										
Cel1	7bcefghjk	DEM_SEINE	NONE	IRL	O15M	50721	92689	18279			20910				
Cel1	7bcefghjk	DREDGE	none	BEL	O15M						23028	72828	68186	35748	91356
Cel1	7bcefghjk	DREDGE	none	ENG	o10t15m	309060	382001	553035	554194	492392	317471	450701	478773	572404	590166
Cel1	7bcefghjk	DREDGE	none	ENG	o15m	614408	764430	891393	921527	921550	595747	700967	869100	1091645	1226928
Cel1	7bcefghjk	DREDGE	none	FRA	O10T15M	2320953	2954269	2755241	3279571	3330398	2518083	2478802	1680444	1676208	1594941
Cel1	7bcefghjk	DREDGE	none	FRA	O15M	631654	904367	644169	719978	852839	788184	788405	664555	540029	488812
Cel1	7bcefghjk	DREDGE	none	GBJ	o15m	54327							440	440	
Cel1	7bcefghjk	DREDGE	none	IOM	o10t15m						1689				
Cel1	7bcefghjk	DREDGE	none	IOM	o15m				23622	1488					
Cel1	7bcefghjk	DREDGE	NONE	IRL	O10T15M	19763	16170	2686	5237	6625	19361	16193	23843	31788	16879
Cel1	7bcefghjk	DREDGE	NONE	IRL	O15M	653522	775093	414693	55741	135371	117801	162441	167179	157570	168829
Cel1	7bcefghjk	DREDGE	none	NLD	O15M	153790	136772	198540	129990	174403	92329	196579	77210		
Cel1	7bcefghjk	DREDGE	none	SCO	o10t15m			20295					8316		
Cel1	7bcefghjk	DREDGE	none	SCO	o15m	585814	606523	820152	716849	509439	532987	545777	495326	162180	439796
Cel1	7bcefghjk	none	none	DNK	o15m										
Cel1	7bcefghjk	none	none	ESP	o15m										39856
Cel1	7bcefghjk	none	none	FRA	O10T15M	10756	33746	76396	41748	6979	16784	16784		45498	
Cel1	7bcefghjk	none	none	FRA	O15M	21008		327	858	5495	5849	5849		8828	
Cel1	7bcefghjk	none	NONE	IRL	O10T15M					383	275		52		64
Cel1	7bcefghjk	none	NONE	IRL	O15M										841252
Cel1	7bcefghjk	OTTER	none	BEL	O15M	21681									
Cel1	7bcefghjk	OTTER	none	DNK	o15m	110213	197431	77968	121909	77502	54619	161809			
Cel1	7bcefghjk	OTTER	none	ENG	o10t15m	12522	2308	39153	5023	39319	2922	24642	18573	26944	22177
Cel1	7bcefghjk	OTTER	none	ENG	o15m	40939	110395	224730	82807	35121	61169	41458	243826	78176	484890
Cel1	7bcefghjk	OTTER	none	ESP	o15m										35073
Cel1	7bcefghjk	OTTER	none	FRA	O10T15M	200558	245014	357035	187430	132530	72340	71584	66696	78561	44834
Cel1	7bcefghjk	OTTER	none	FRA	O15M	93623	120842	176987	64322	122042	28194	28194	136817	75075	58562
Cel1	7bcefghjk	OTTER	none	GBJ	o15m										220
Cel1	7bcefghjk	OTTER	NONE	IRL	NONE										
Cel1	7bcefghjk	OTTER	NONE	IRL	O10T15M	41678	103219	4119	2100		240	145		828	425
Cel1	7bcefghjk	OTTER	NONE	IRL	O15M	192437	1014106	158922	14130	8602	24074	3425	14674	51316	9147
Cel1	7bcefghjk	OTTER	none	NLD	O15M	219121									
Cel1	7bcefghjk	OTTER	none	SCO	o10t15m	1341		1490				4470			
Cel1	7bcefghjk	OTTER	none	SCO	o15m	58819	106141	333853	25058	22830	64600	97476	453991	101950	202535
Cel1	7bcefghjk	PEL_SEINE	none	ENG	o10t15m									402	
Cel1	7bcefghjk	PEL_SEINE	none	ENG	o15m								6750		
Cel1	7bcefghjk	PEL_SEINE	none	ESP	o15m										7714
Cel1	7bcefghjk	PEL_SEINE	none	FRA	O10T15M	89864	87549	60693	69936	38525	50446	50446	58203	61033	85960
Cel1	7bcefghjk	PEL_SEINE	none	FRA	O15M	128953	106304	126726	228685	169325	124836	124521	259720	281078	411804
Cel1	7bcefghjk	PEL_SEINE	NONE	IRL	O10T15M	5670									
Cel1	7bcefghjk	PEL_SEINE	NONE	IRL	O15M	11896	37748	8338				85			
Cel1	7bcefghjk	PEL_SEINE	none	NIR	o15m	116892	123386	123386							
Cel1	7bcefghjk	PEL_SEINE	none	NLD	O15M										
Cel1	7bcefghjk	PEL_SEINE	none	SCO	o15m	50043							36147	7695	
Cel1	7bcefghjk	PEL_TRAWL	none	DEU	O15M	1163391	1236846	936424	856734	962635	1191573	1095622	1863980	1718554	1637554
Cel1	7bcefghjk	PEL_TRAWL	none	DNK	o15m	180216	285933	529574	461159	937210	350859	692215	2183860	615653	1188791
Cel1	7bcefghjk	PEL_TRAWL	none	ENG	o10t15m	7950	19022	13409	21430	55665	83542	76419	81105	65577	53907
Cel1	7bcefghjk	PEL_TRAWL	none	ENG	o15m	1107284	909490	593944	1024722	1032729	1239855	1212908	1459339	1168163	983157
Cel1	7bcefghjk	PEL_TRAWL	none	FRA	O10T15M	21534	21456	12171	9745	73230	18571	18571	53128	35608	35744
Cel1	7bcefghjk	PEL_TRAWL	none	FRA	O15M	1637313	1539255	1496366	1487064	1660738	861162	857922	1827724	1426415	1715054
Cel1	7bcefghjk	PEL_TRAWL	none	GBG	o10t15m					201		191			
Cel1	7bcefghjk	PEL_TRAWL	none	GBJ	o15m									385	
Cel1	7bcefghjk	PEL_TRAWL	NONE	IRL	NONE										
Cel1	7bcefghjk	PEL_TRAWL	NONE	IRL	O10T15M		2370			1627	813	8803	2164	7323	28702
Cel1	7bcefghjk	PEL_TRAWL	NONE	IRL	O15M	1505626	1576831	1459330	1311817	1987134	2271355	3567806	4268273	2312966	3738592
Cel1	7bcefghjk	PEL_TRAWL	none	LTU	O40M							246000		601600	60800
Cel1	7bcefghjk	PEL_TRAWL	none	NIR	o15m	45291	45931	52854	25667	51430	14170	34520	15640	14905	123142
Cel1	7bcefghjk	PEL_TRAWL	none	NLD	O15M	5079963	5212064	4726876	4683381	4252343	5963606	4646318	5976389	4137665	3749935
Cel1	7bcefghjk	PEL_TRAWL	none	SCO	o10t15m	2086	5066	1341	596			894			
Cel1	7bcefghjk	PEL_TRAWL	none	SCO	o15m	450188	1092027	1092313	310332	927221	1033393	803582	1099186	105981	195698
Cel1	7bcefghjk	POTS	none	DEU	O15M	79821	22932	67473	37763	49735	33957	45423	41460	63464	23675
Cel1	7bcefghjk	POTS	none	ENG	o10t15m	828542	854630	944496	758847	781807	797875	829660	876436	892495	780062
Cel1	7bcefghjk	POTS	none	ENG	o15m	406946	420885	363252	361554	395238	488690	522285	505893	483962	377727
Cel1	7bcefghjk	POTS	none	FRA	O10T15M	1048241	1768450	1751646	2194275	1912615	417846	417846	1034732	1251441	1358973
Cel1	7bcefghjk	POTS	none	FRA	O15M	206908	310610	331470	383133	367272	147387	147387	372225	385966	414227
Cel1	7bcefghjk	POTS	none	GBG	o10t15m						112		6632		3805
Cel1	7bcefghjk	POTS	none	GBG	o15m		75868	56398	39402	67026	39092	54645	53544	55728	46024
Cel1	7bcefghjk	POTS	none	GBJ	o15m	984	3772		19963		34730	11426			
Cel1	7bcefghjk	POTS	none	IOM	o15m							9840		25256	82000
Cel1	7bcefghjk	POTS	NONE	IRL	NONE										
Cel1	7bcefghjk	POTS	NONE	IRL	O10T15M	40304	110768	147064	159380	353648	293311	291359	353204	297733	290227
Cel1	7bcefghjk	POTS	NONE	IRL	O15M	16269	10262	37509	31626	17494	9423	26437	33333	18642	8604
Cel1	7bcefghjk	POTS	none	NIR	o10t15m								7833		
Cel1	7bcefghjk	POTS	none	SCO	o10t15m									3870	
Cel1	7bcefghjk	POTS	none	SCO	o15m						15155				

Effort contributions by vessels operating in the entire Celtic Sea 7bcefghjk (Cel1) from different nations are shown in Figure 5.6.1.1.1. Values for 2012 only are shown, in order to include Spanish data in the analysis. In terms of kW*days, France contributed 36 %, Ireland 20%, England and Wales 16%, Spain 9%, the Netherlands 5%, Belgium 5%, Scotland 4%, Germany 2% and Denmark 2% (2012).

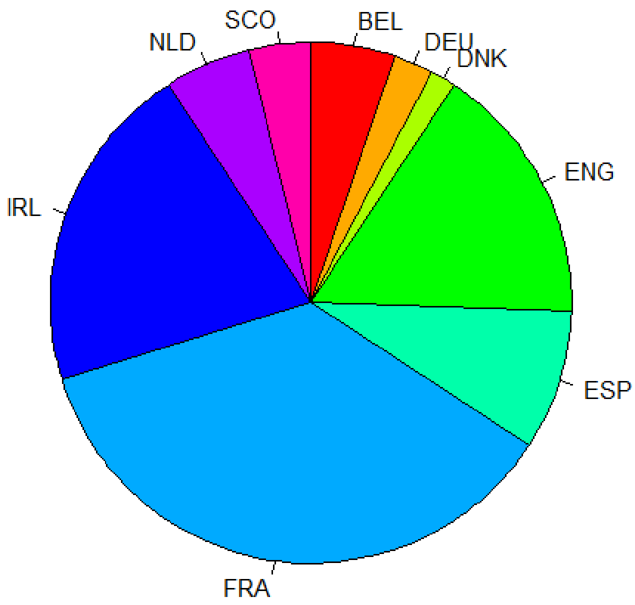


Figure 5.6.1.1.1. Contribution of each country (countries fishing less fishing less than 1% of the total catches were excluded from the figure) to the total effort (kW days at sea) in the Celtic Sea (7bcefghjk) in 2012 (Cel1).

Figure 5.6.1.1.2 shows the proportion contribution of defined gear groups to the total effort in 2012. It shows that the two main gear categories as regulated under the cod plan are TR1 and TR2. TR1 contributes 25% to the reported fishing effort in 2012, TR2 19% and BT2 11%.

The gear classed as “non-regulated” are dominated by pelagic trawls (18%) and in to a lesser extend dredges (6%) and pots (5%).

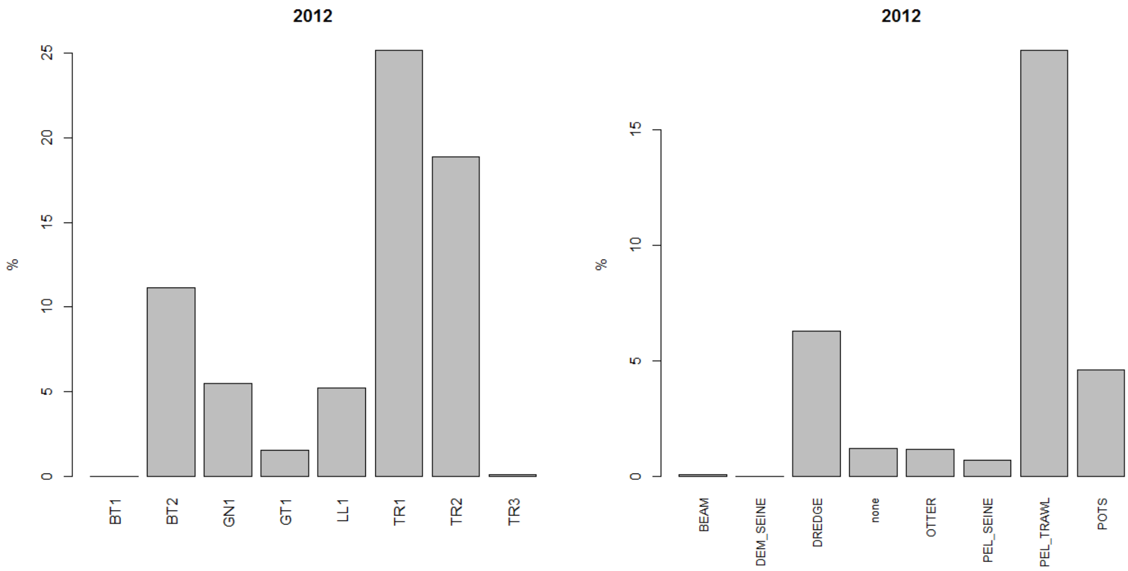


Figure 5.6.1.1.2. Contribution of each gear category to the total effort (kWdays) in the Celtic Sea (ICES Divisions VIIbc,e-k) in 2012.

The fishing effort in kW days at sea of “unregulated” gears accounts for about 32% of the total effort in the Celtic Sea. Figure 5.6.1.1.3 shows fishing effort by gear type for gear defined as unregulated under the cod management plan (left) and defined as regulated (right).

For “unregulated” gears most of the effort is Dutch, French, Danish and Irish pelagic trawl fisheries, with a recent (since 2009) increase of Danish and Irish pelagic boats fishing for boarfish in the Celtic Sea. There was a decrease in fishing effort by unregulated gears in 2011, with a slight increase again in 2012.

For “regulated” gears, over the period 2003-2012 there was a decline in overall effort, including the dominant otter trawl and seine gears. In recent years fishing effort has been relatively stable, with the increase in 2012 due to the inclusion of Spanish data for this year only, with total effort by countries excluding Spain stable overall.

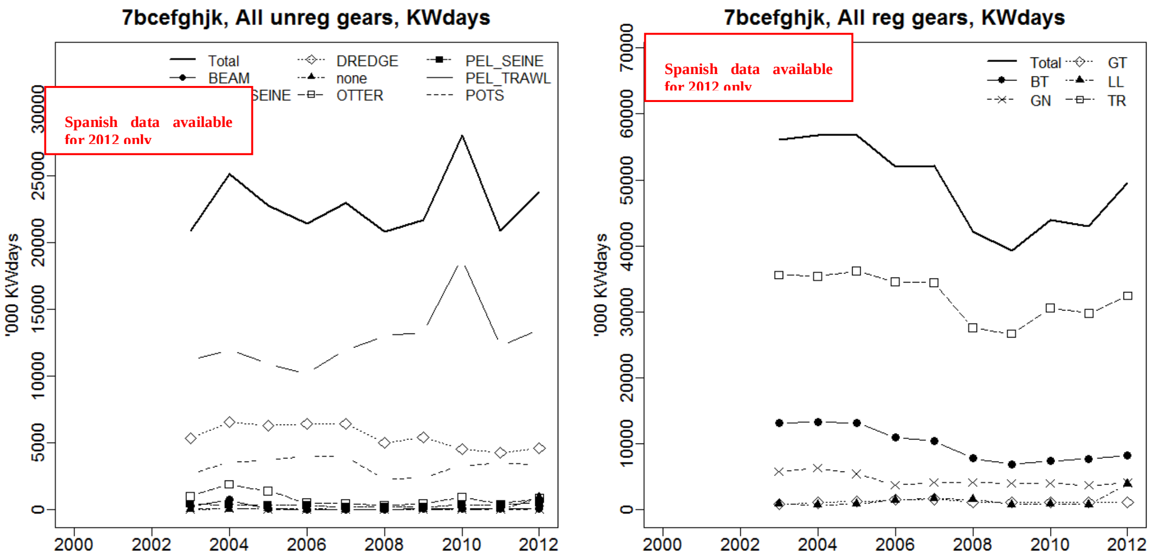


Fig. 5.6.1.1.3. Trend in nominal effort (kW days at sea) for unregulated gears in the Celtic Sea, 2003-2012 (left) and gears as defined as regulated by the cod management plan (right).

Figures 5.6.1.1.4-5 show the recent trends in nominal effort for the various gear categories and mesh size in the Celtic Sea.

Figure 5.6.1.1.5 (left) shows trends in effort by otter trawl and seine gears. The long term trend (since 2003) has seen a decline in effort by these gears. Since 2009 there has been an increase in the use of the larger mesh (TR1) and a decrease in the smaller mesh (TR2). For Beam trawl gears (Figure 5.6.1.1.5, right), only the smaller mesh BT2 has any significant effort and there has been a 38% decrease in effort by this gear over 2003-2012. In recent years (since 2009) effort by the gear has been increasing, with an increase in of 11% in 2012 compared to 2011. This increase of BT2 effort in the Celtic Sea is mostly due to a displacement of Belgium Beamers from the North Sea and Eastern Channel to the Celtic Sea to target Sole.

The overall increase of the effort in 2012 is mostly due to the inclusion of Spanish data only for this year.

Figure 5.6.1.1.5 shows trends in effort by Gillnet (GN1), Trammel Net (GT1) and Longline (LL1) fisheries. The increase in longline effort in 2012 is related to the inclusion of Spanish data only for this year.

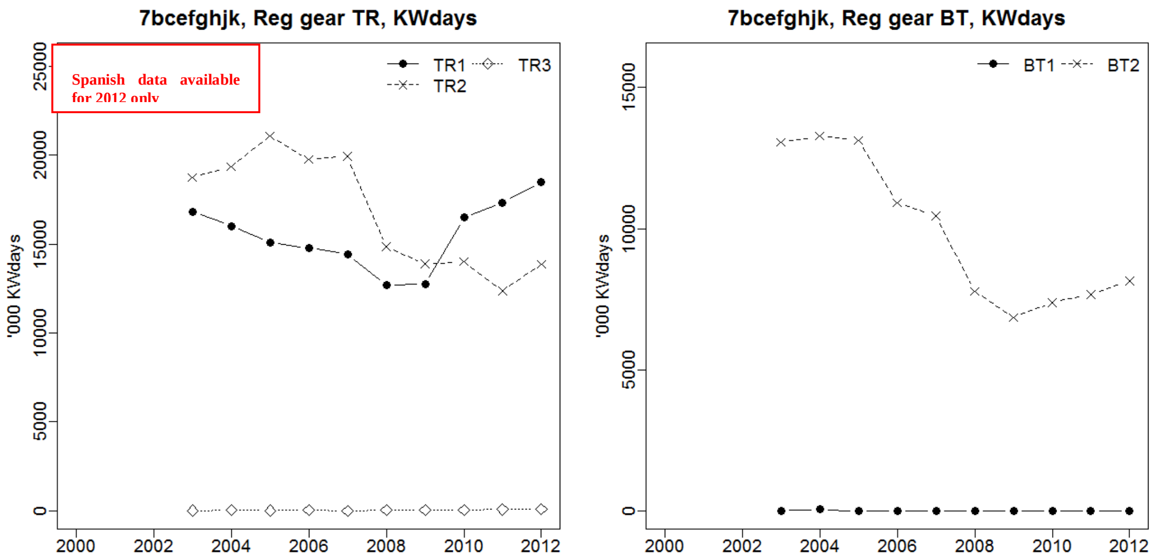


Fig. 5.6.1.1.4. Trend in nominal effort for demersal trawl (Regulated Gear TR1, TR2 and TR3; left) and beam trawl by mesh size range (Regulated Gear BT1, BT2; right) in the Celtic Sea (ICES Divisions VIIbc,e-k), 2003-2012.

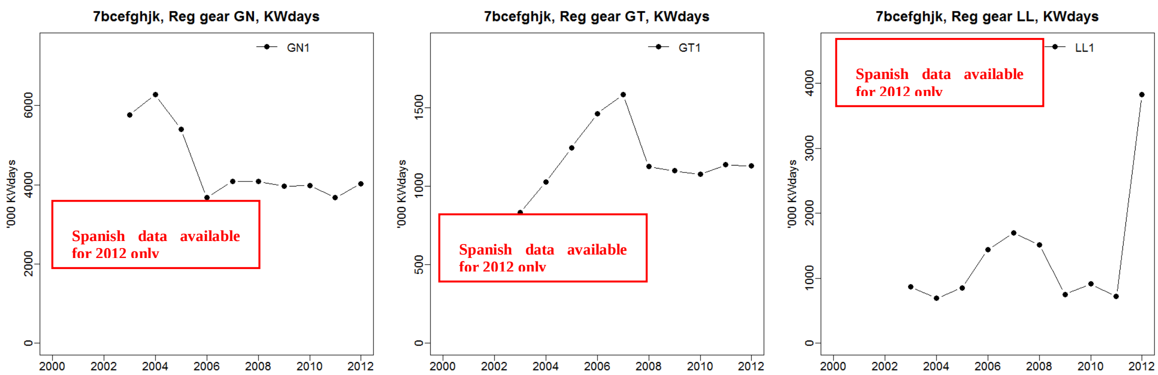


Fig. 5.6.1.1.5. Trend in nominal effort for Regulated Gear GT, GN1, LL1) in the Celtic Sea (ICES Divisions VIIbc,e-k), 2003-2012.

1.1.1.2 ICES sub-divisions 7fg (Cel2)

Table 5.6.1.2.1 shows trends in effort in ICES sub-divisons 7fg by gear type and Member State. Trends broadly reflect those from the wider Celtic Sea area (Section 1.1.1.1 above), with increases in BT2 effort by Belgian, Irish and also English fisheries in 2012.

Table 5.6.1.2.1 Trend in effort (kW*days at sea), according to cod plan gear definition and Member State, 2000-2012. Note, data are for Celtic Sea subdivisions 7fg (Cel2).

ANNEX	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	VESSEL_LENGTH	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel2	7fg	BT1	none	ENG	o15m		8787								
Cel2	7fg	BT1	NONE	IRL	O15M	10273									
Cel2	7fg	BT2	none	BEL	O15M	2419519	3744619	3121706	2534199	2448583	1651116	1570823	1987520	2163164	2636349
Cel2	7fg	BT2	none	ENG	o10t15m	60008	42075	9779		676	7691	7891	11403	13165	16911
Cel2	7fg	BT2	none	ENG	o15m	990442	970762	775553	645496	569682	403865	408146	392279	265057	472194
Cel2	7fg	BT2	none	FRA	O10T15M			2200					1665	4131	176
Cel2	7fg	BT2	none	FRA	O15M				15965				486		
Cel2	7fg	BT2	none	GBJ	o15m	151639	145409	46378							
Cel2	7fg	BT2	NONE	IRL	O10T15M					187					
Cel2	7fg	BT2	NONE	IRL	O15M	2877794	1784027	2398012	1779651	1544366	960802	840028	910631	863511	1075069
Cel2	7fg	BT2	none	NLD	o15m										1105
Cel2	7fg	GN1	none	BEL	O15M						1800				
Cel2	7fg	GN1	none	ENG	o10t15m	116140	166518	116219	127376	112183	85832	88748	101641	126513	127610
Cel2	7fg	GN1	none	ENG	o15m	310997	347111	323813	278118	265198	223518	171258	184084	194244	189204
Cel2	7fg	GN1	NONE	FRA	O10T15M									200	
Cel2	7fg	GN1	none	FRA	O15M	29862	37833	18804		5908	441	441	4199	6096	5836
Cel2	7fg	GN1	none	GBJ	o15m								716		
Cel2	7fg	GN1	NONE	IRL	O10T15M	36518	54249	44009	54520	48775	62188	86151	68034	54882	63696
Cel2	7fg	GN1	NONE	IRL	O15M	290182	366145	271954	130182	184209	239806	159271	168595	138422	164940
Cel2	7fg	GN1	none	SCO	o15m	689	721	1337						2025	
Cel2	7fg	GT1	none	ENG	o10t15m	373	243	4630	5447	5497	4186	9217	1538	8979	10356
Cel2	7fg	GT1	none	ENG	o15m	1197	23676	4647	21344	12802	12273	2052	5572	33508	72324
Cel2	7fg	GT1	none	FRA	O10T15M		1458		7683				11645	8947	2892
Cel2	7fg	GT1	none	FRA	O15M	8456	801	14256	20068	21032	19104	19104	7506	37761	11705
Cel2	7fg	GT1	NONE	IRL	O10T15M	802				4675	4720	7091	8434	10120	15515
Cel2	7fg	GT1	NONE	IRL	O15M					4968	7649	1104	13840	6348	18768
Cel2	7fg	LL1	none	ENG	o10t15m	15155	3743	1093	703	2622	498	4673	3785	3719	610
Cel2	7fg	LL1	none	ENG	o15m	12907	29331	43411	32066	11479	5879	215	828	909	
Cel2	7fg	LL1	none	ESP	o15m										4592
Cel2	7fg	LL1	none	FRA	o10t15m										173
Cel2	7fg	LL1	none	FRA	O15M			4745		552	883	883			
Cel2	7fg	LL1	NONE	IRL	O10T15M					3583	4986	4137	2208	2935	1627
Cel2	7fg	LL1	NONE	IRL	O15M			2167					2240		
Cel2	7fg	LL1	none	SCO	o10t15m			221							
Cel2	7fg	LL1	none	SCO	o15m										

Celtic Sea 7fg (Cel2) Continued

ANNEX	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	VESSEL_LENGTH	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel2	7fg	TR1	none	ENG	o10t15m	23520	4919	3621	7115	3761	4872	7425	15376	9544	7846
Cel2	7fg	TR1	none	ENG	o15m	88239	117608	76471	79283	70737	96274	107589	147472	129164	212176
Cel2	7fg	TR1	none	ESP	o15m										127970
Cel2	7fg	TR1	none	FRA	o10t15m								330	1908	
Cel2	7fg	TR1	none	FRA	O15M	3460445	3326622	3113639	2740592	2475013	2303217	2295080	3282997	2630843	2956038
Cel2	7fg	TR1	NONE	IRL	O10T15M	402		1455	29926	11211	16349	13413	19267	36899	64237
Cel2	7fg	TR1	NONE	IRL	O15M	685730	832656	855906	1022284	1382543	1632837	1965350	1855287	2203318	2167809
Cel2	7fg	TR1	none	NIR	o15m	7641		716	5176		1141	1805	16028	23389	42944
Cel2	7fg	TR1	none	SCO	o10t15m							745	894		
Cel2	7fg	TR1	none	SCO	o15m	9622	7701		9616	4479	12835	12332	86805	44476	83618
Cel2	7fg	TR2	none	BEL	O15M		110564	168754	400049	443057	434936	449108	376867	276627	356164
Cel2	7fg	TR2	none	ENG	o10t15m	181115	154707	165360	257877	176637	225580	184298	201033	175504	172994
Cel2	7fg	TR2	none	ENG	o15m	96138	80260	86357	50874	55815	33883	40429	79839	29505	23851
Cel2	7fg	TR2	none	ESP	o15m										1030
Cel2	7fg	TR2	none	FRA	O10T15M						3250	3250	1302	489	732
Cel2	7fg	TR2	none	FRA	O15M	711296	593609	731407	287766	355358	227706	227706	72113	38972	34270
Cel2	7fg	TR2	NONE	IRL	O10T15M	141564	132522	157952	196727	230785	221421	197978	194811	159901	192167
Cel2	7fg	TR2	NONE	IRL	O15M	2312069	2227910	3152039	2603114	2625295	2081110	1655034	1838178	1272473	1580537
Cel2	7fg	TR2	none	NIR	o10t15m							1832	1832		
Cel2	7fg	TR2	none	NIR	o15m		52370	72432	42938	20658	124635	151079	144049	6852	31350
Cel2	7fg	TR2	none	SCO	o10t15m						162				
Cel2	7fg	TR2	none	SCO	o15m	4770	12285	4095	2828		2531	29426	3626	17933	9776
Cel2	7fg	TR3	none	ENG	o10t15m		373							1890	
Cel2	7fg	TR3	none	ENG	o15m			1119							
Cel2	7fg	TR3	none	FRA	o10t15m								212	1163	636
Cel2	7fg	TR3	none	FRA	O15M									1458	
Cel2	7fg	TR3	NONE	IRL	O10T15M						324				
Cel2	7fg	TR3	NONE	IRL	O15M				720			1500		1498	
Cel2	7fg	TR3	none	NLD	O15M										

Celtic Sea 7fg (Cel2) Continued

ANNEX	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	VESSEL_LENGTH	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel2	7fg	BEAM	none	BEL	O15M							6709	9597	16023	8536
Cel2	7fg	BEAM	none	ENG	o10t15m			214							
Cel2	7fg	BEAM	none	ENG	o15m	1967	330	3604	369		884				
Cel2	7fg	BEAM	NONE	IRL	NONE										
Cel2	7fg	BEAM	NONE	IRL	O15M	238874	625594	5372							
Cel2	7fg	DEM_SEINE	NONE	IRL	O15M	15758	76406	7498							
Cel2	7fg	DREDGE	none	BEL	O15M						10708	4429	5958	11254	10592
Cel2	7fg	DREDGE	none	ENG	o10t15m	8101	1934	1740	592	2426	8788	3453	34465	51708	29627
Cel2	7fg	DREDGE	none	ENG	o15m	1520	10671	16336	5658	1458	6034	884	1460	5704	38184
Cel2	7fg	DREDGE	none	FRA	o10t15m								1291	2083	1460
Cel2	7fg	DREDGE	none	FRA	O15M	4416		750					1112	1621	294
Cel2	7fg	DREDGE	none	IOM	o10t15m						911				
Cel2	7fg	DREDGE	none	IOM	o15m				3720	372					
Cel2	7fg	DREDGE	NONE	IRL	O10T15M						6200	179	1543		
Cel2	7fg	DREDGE	NONE	IRL	O15M	355425	161117	162396	37161	111079	109674	157541	166199	156686	167257
Cel2	7fg	DREDGE	none	NLD	O15M	19854			43017	3728	4725	1628			
Cel2	7fg	DREDGE	none	SCO	o10t15m								6930		
Cel2	7fg	DREDGE	none	SCO	o15m		2000	16246	39971	13036	21843	56181	90166	7184	906
Cel2	7fg	none	NONE	IRL	O10T15M					233	179				
Cel2	7fg	none	NONE	IRL	O15M										169640
Cel2	7fg	OTTER	none	BEL	O15M	21681									
Cel2	7fg	OTTER	none	ENG	o10t15m	10791	642	36523	4432	36302	1860	21806	15590	26191	20890
Cel2	7fg	OTTER	none	ENG	o15m	463		1850	1572	17152		6007	12232	4255	2220
Cel2	7fg	OTTER	none	ESP	o15m										4244
Cel2	7fg	OTTER	none	FRA	o10t15m								338		
Cel2	7fg	OTTER	none	FRA	O15M		14904						14272	1966	3680
Cel2	7fg	OTTER	NONE	IRL	NONE										
Cel2	7fg	OTTER	NONE	IRL	O10T15M	20639	9912	894	2100		240	145			
Cel2	7fg	OTTER	NONE	IRL	O15M	24150	267713		615	619	1472	1500	8989	8214	2238
Cel2	7fg	OTTER	none	SCO	o10t15m							4470			
Cel2	7fg	OTTER	none	SCO	o15m							798	4796		
Cel2	7fg	PEL_SEINE	none	ENG	o10t15m									179	
Cel2	7fg	PEL_SEINE	none	ENG	o15m								5062		
Cel2	7fg	PEL_SEINE	none	FRA	O15M	3087									84429
Cel2	7fg	PEL_SEINE	NONE	IRL	O10T15M	5670									
Cel2	7fg	PEL_SEINE	NONE	IRL	O15M	11896	37539	8338							
Cel2	7fg	PEL_SEINE	none	NLD	O15M										
Cel2	7fg	PEL_SEINE	none	SCO	o15m									2430	
Cel2	7fg	PEL_TRAWL	none	DEU	O15M							5299	8589		
Cel2	7fg	PEL_TRAWL	none	FRA	o10t15m								294		
Cel2	7fg	PEL_TRAWL	none	FRA	O15M	10238	4097	4585	7331	1851			3310	4196	27786
Cel2	7fg	PEL_TRAWL	NONE	IRL	O10T15M		2370			187	653	4301	336	5211	22795
Cel2	7fg	PEL_TRAWL	NONE	IRL	O15M	262815	293567	119426	161226	152567	131130	195972	263987	458621	330812
Cel2	7fg	PEL_TRAWL	none	NLD	O15M	153230	115456	7210	4853	47101			3960		3960
Cel2	7fg	PEL_TRAWL	none	SCO	o15m										
Cel2	7fg	POTS	none	ENG	o10t15m	405230	406212	458422	319320	366223	404291	426106	451778	399558	418635
Cel2	7fg	POTS	none	ENG	o15m	42177	98951	94391	82850	115136	160299	171922	212593	218830	113590
Cel2	7fg	POTS	none	FRA	o10t15m								558	1398	453
Cel2	7fg	POTS	none	FRA	O15M	25296	21435	30680	53838	38996	23492	23492	50447	62606	50721
Cel2	7fg	POTS	none	GBG	o15m					20910	16433	20888			
Cel2	7fg	POTS	none	GBJ	o15m	984	3772				34730	11426			
Cel2	7fg	POTS	none	IOM	o15m							9840		25256	63632
Cel2	7fg	POTS	NONE	IRL	O10T15M	143	733	9459	15246	28421	30421	28253	38506	39766	29017
Cel2	7fg	POTS	NONE	IRL	O15M		1044	1568				15774	30114	18642	8604
Cel2	7fg	POTS	none	NIR	o10t15m								7833		
Cel2	7fg	POTS	none	SCO	o10t15m									3870	

Figure 5.6.1.2.1 shows the contribution by different countries to overall effort in the smaller area, ICES sub-divisions VIIfg. Vessels from Belgium, France, Ireland and UK (E-W) operate in the Divisions VIIfg. In terms of kW*days, Ireland contributes to 42%, France 22%, Belgium 21%, England and Wales 13% and Spain 1% (2012).

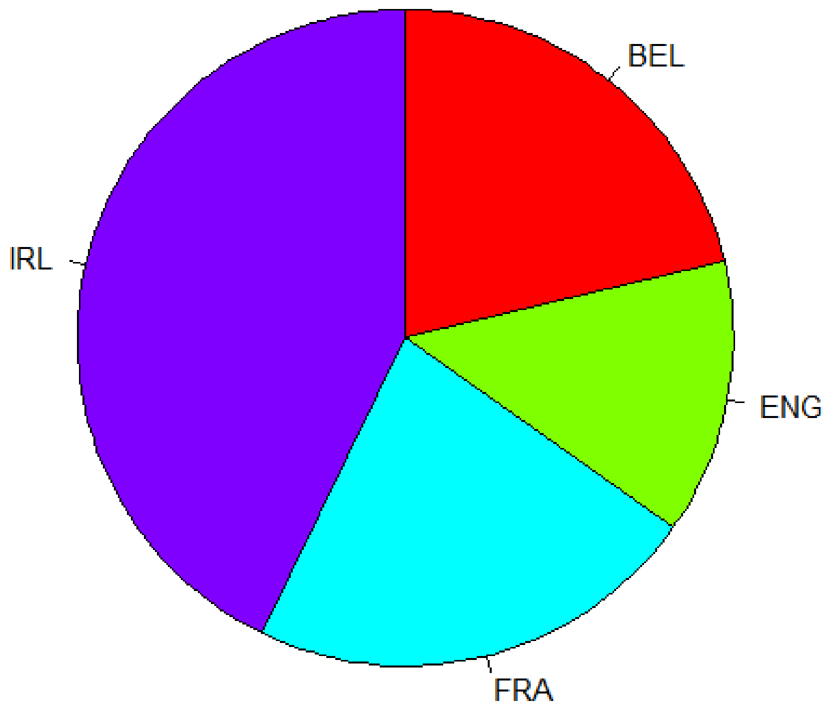


Figure 5.6.1.2.1. Contribution of each country (Countries fishing less fishing less than 1% of the total catches were excluded from the figure) to the total effort in the Divisions VIIfg (2012).

Figure 5.6.1.2.2 shows the proportion contribution of different gears to the total overall effort in 2012. The fisheries in this area are dominated by the TR1 (39%), BT2 (29%) and and TR2 (16%) fisheries. The majority of effort (89%) is undertaken by gears defined as “regulated” by the cod management plan.

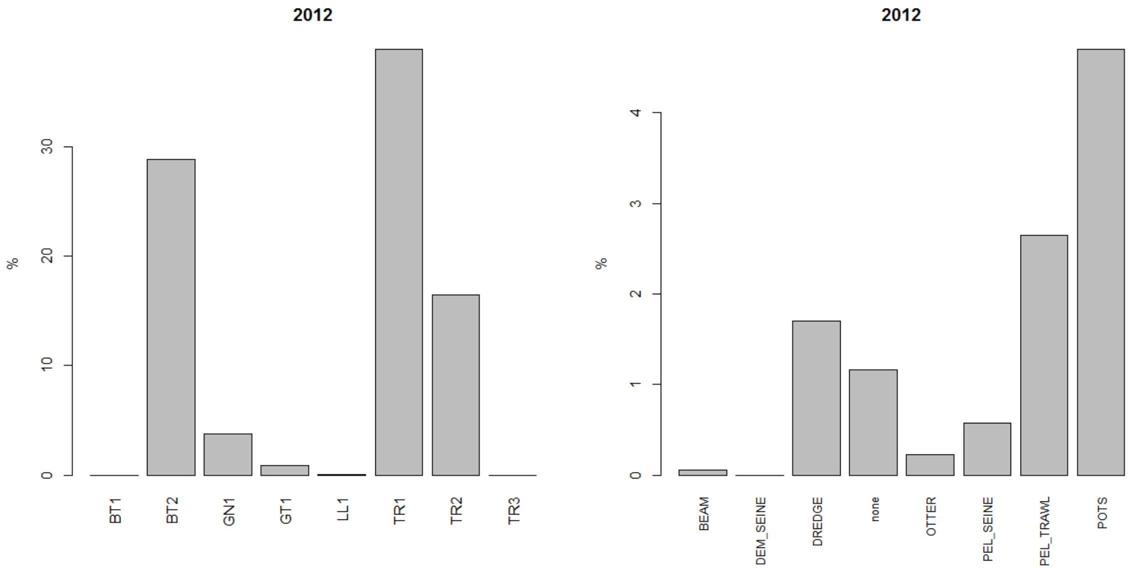


Figure 5.6.1.2.2. Contribution of each gear category to the total effort (kW*days) in the ICES Divisions VIIfg. Mean over 2003-2012.

Figure 5.5.1.2.3 shows trends in effort by gears grouped into the classification of regulated (left) and unregulated (right) under the cod management plan. The total effort in area VIIfg has decreased since 2003. This decrease is mostly due to reductions in effort by beam trawl gears (BT), with otter trawl and seine gears relatively stable over the 2003-2012 period. In 2010, most gear categories increased their effort, with a decline in 2011 before effort increasing again in 2012 to levels higher than seen in the last 4 years. Effort in unregulated gears has been increasing steadily since 2006.

Figure 5.6.1.2.4 (left) shows effort by otter trawl and seine gear by mesh size. Since 2007 there has been a shift in effort from the smaller mesh size in the demersal fishery (70-99 mm; TR2) to the larger mesh size in the demersal fishery (≥100 mm; TR1), with effort being relatively stable overall by the TR gear. Figure 5.6.1.2.4 (right) shows effort by the beam trawl gear by mesh size. There has been a large decline in effort in the smaller mesh beam trawl gear (80-120 mm; BT2, the only beam trawl mesh category used in the area) since 2003, but in 2012 there was a significant increase in effort on 2011 (39%). There has been a decline in gillnet and longline effort in the area since 2003, but an increase in trammel net effort (Figure 5.6.1.2.5).

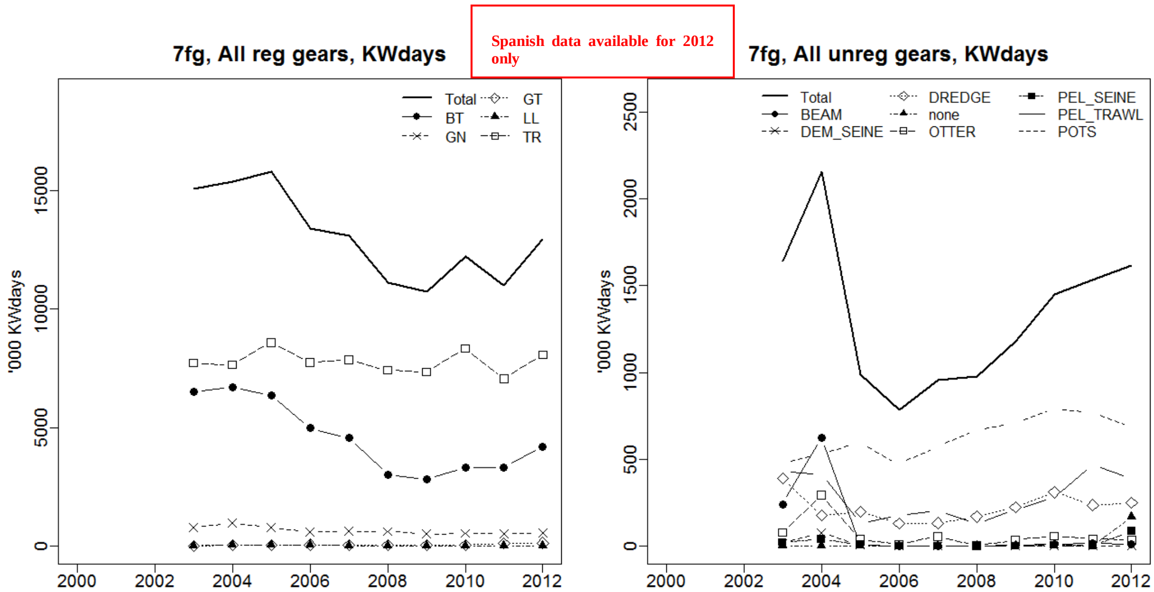


Fig. 5.6.1.2.3. Trend in nominal effort by gear types in the Celtic Sea (ICES Divisions VIIfg), 2003-2012.

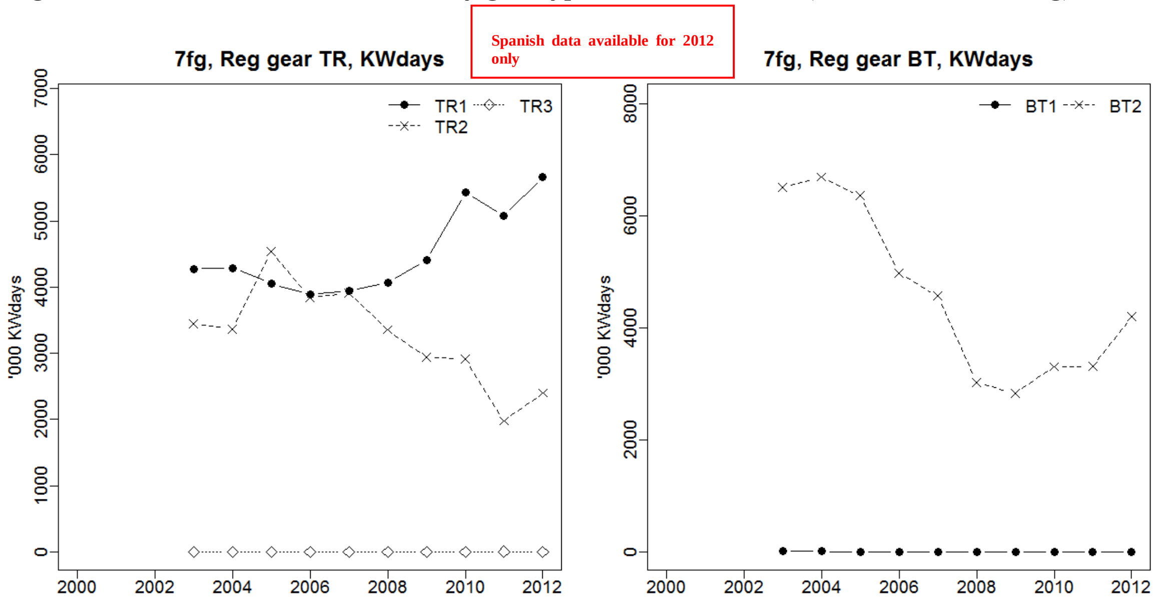


Fig. 5.6.1.2.4. Trend in nominal effort for demersal trawl (TR1, TR2 and TR3; left) and beam trawl by mesh size range (BT1, BT2; right) in the Celtic Sea (ICES Divisions VIIfg), 2003-2012.

Spanish data available for 2012 only

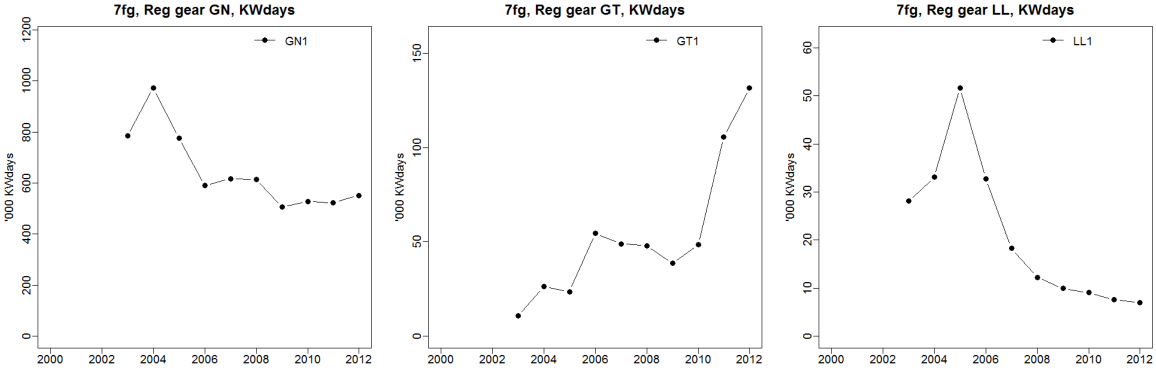


Fig. 5.6.1.2.5. Trend in nominal effort for static gears (Regulated Gear GT, GN1, LL1) in the Celtic Sea (ICES Divisions VIIfg), 2003-2012.

5.6.2 ToR 1.b Catches (landings and discards) of cod in weight and numbers at age by area, Member State and fisheries

5.6.2.1 ICES sub-divisions 7bcefghjk (Cel1)

STECF EWG 13-13 presents the requested cod in weight by fisheries. Age specific data are available on the internet page of the STECF EWG 13-13: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313.

STECF EWG 13-13 notes that discard information is scarce and presents only landing values; though figures have been provided on catch where some discard information is available (Figures 5.6.3.1.1 – 2), this should be interpreted with care due to some key fisheries not having discard information. Table 5.6.2.1.2 presents discard rates alongside a discard coverage index for what information is available for gears catching cod in the wider Celtic Sea. As can be seen, in most cases the discard coverage index is either C (<33% of landings having discard information) or B (≥ 33% < 66%); only the relatively low cod catching gears BT2 and TR3 have > 66% of landings with discard samples (category A). It should be noted that the discard coverage index is only an indication of where a minimum one sample has been provided; therefore it should not necessarily be interpreted an indication of discard information quality, just that some information was available for fisheries using the gear.

Table 5.6.2.1.3-4 presents the discards values and percentages issued from gears with discards information, raising procedures and the percentages of landings with no discards associated for 2011 and 2012.

Figures 5.6.3.1.1-2 show that landings and estimated discards of cod (where available) for the main gear in the Celtic Sea catching cod (TR1) have increased significantly since 2010, with 2012 landings double the landings in 2011. This reflects the particularly strong 2010 year class (the largest since 1987) entering the fishery (ICES, 2013).

Table 5.6.2.1.1 lists the cod landings by Member States and gears, 2003-2012. Cod landings by most countries and gears have increased in 2011 and 2012, reflecting the strong year class and increased quota available.

Table 5.6.2.1.1 Cod landings by Member States and gears, 2003-2012.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel1	7bcefghjk	BEL	BEAM	COD		0.111	0.217		0.093		0.1	0.068	0.453	0.46
Cel1	7bcefghjk	BEL	BT1	COD						0.335				
Cel1	7bcefghjk	BEL	BT2	COD	124.07	147.502	179.323	91.836	92.296	55.547	34.832	37.585	86.957	226.596
Cel1	7bcefghjk	BEL	OTTER	COD	8.003									
Cel1	7bcefghjk	BEL	TR2	COD		2.725	4.699	9.77	14.57	8.967	14.188	14.014	35.434	61.463
Cel1	7bcefghjk	ENG	BEAM	COD	0.046		0.44	0.172		0.011	0.01	0.016	0.143	0.096
Cel1	7bcefghjk	ENG	BT1	COD		1.21								
Cel1	7bcefghjk	ENG	BT2	COD	103.027	85.24	99.455	91.818	111.669	71.749	67.307	65.636	98.895	165.86
Cel1	7bcefghjk	ENG	DREDGE	COD	0.035	0.062	0.067	0.091	0.099	0.04	0.096	0.224	0.269	0.086
Cel1	7bcefghjk	ENG	GN1	COD	86.212	88.136	96.699	126.721	123.851	71.273	82.488	54.897	72.29	134.108
Cel1	7bcefghjk	ENG	GT1	COD		0.003	1.146	1.545	2.293	1.53	0.691	0.699	2.311	9.63
Cel1	7bcefghjk	ENG	LL1	COD	6.021	0.042	2.677	2.978	0.72	0.062	0.04	0.117	0.418	0.093
Cel1	7bcefghjk	ENG	OTTER	COD	0.009	0.257	0.15	0.004	0.46	0.321	0.03	0.16	0.085	0.049
Cel1	7bcefghjk	ENG	PEL_SEINE	COD								0.126		
Cel1	7bcefghjk	ENG	PEL_TRAWL	COD	0.104	0.024			0.069	0.007	0.03	0.092	0.073	0.16
Cel1	7bcefghjk	ENG	POTS	COD	0.412	0.018	0.011	0.093	0.107	0.178	0.13	0.242	0.37	0.326
Cel1	7bcefghjk	ENG	TR1	COD	40.809	26.984	21.295	32.43	21.876	27.349	16.741	24.084	43.596	84.586
Cel1	7bcefghjk	ENG	TR2	COD	64.596	40.502	48.635	53.06	79.702	60.178	39.054	53.59	41.573	46.644
Cel1	7bcefghjk	ENG	TR3	COD	0.005		0.233			0.011	0.036			
Cel1	7bcefghjk	FRA	BEAM	COD			0.002							
Cel1	7bcefghjk	FRA	BT2	COD	0.002	0.885	0.028	2.974	0.102	0.021	0.021	0.544	0.312	0.029
Cel1	7bcefghjk	FRA	DREDGE	COD	0.288	0.034	0.037	0.06	1.075	1.752	1.752	5.327	0.329	0.125
Cel1	7bcefghjk	FRA	GN1	COD	11.279	8.45	4.912	5.478	3.997	5.107	5.107	5.971	32.643	34.258
Cel1	7bcefghjk	FRA	GT1	COD	13.603	9.215	11.227	5.866	8.448	10.63	10.63	21.304	35.753	52.842
Cel1	7bcefghjk	FRA	LL1	COD	8.756	4.655	0.633	16.829	2.01	1.818	1.818	2.658	8.261	5.087
Cel1	7bcefghjk	FRA	none	COD	0.006				0.012				1.604	
Cel1	7bcefghjk	FRA	OTTER	COD	0.7	2.072	0.375	0.031	0.532	0.077	0.077	5.931	6.812	0.771
Cel1	7bcefghjk	FRA	PEL_SEINE	COD										75.339
Cel1	7bcefghjk	FRA	PEL_TRAWL	COD	0.838	0.008	0.1	0.3	0.088	0.003	0.003	4.93	2.764	21.212
Cel1	7bcefghjk	FRA	POTS	COD		0.002						0.401	1	0.225
Cel1	7bcefghjk	FRA	TR1	COD	2396.257	1118.188	622.914	673.277	790.633	665.85	664.402	1030.795	2467.635	3702.196
Cel1	7bcefghjk	FRA	TR2	COD	742.602	288.158	353.335	379.731	459.729	359.223	358.789	324.733	383.646	359.221
Cel1	7bcefghjk	FRA	TR3	COD				0.004				3.353	4.687	
Cel1	7bcefghjk	GBG	TR2	COD				0.035	0.017	0.013		0.023	0.002	0.091
Cel1	7bcefghjk	GBJ	BEAM	COD		0.046								
Cel1	7bcefghjk	GBJ	BT2	COD	6.487	10.573	4.43							
Cel1	7bcefghjk	GBJ	TR2	COD	0.004			0.011	0.104	0.08	0.028	0.092	0.17	0.025
Cel1	7bcefghjk	IRL	BEAM	COD	4.7	26.25	0.52							
Cel1	7bcefghjk	IRL	BT2	COD	68.41	82.18	167.12	165	118	93.6	82.49	100.22	86.54	137.02
Cel1	7bcefghjk	IRL	DEM_SEINE	COD	0.6	5.04	1.35							
Cel1	7bcefghjk	IRL	DREDGE	COD	0.91	1.2		0.14						
Cel1	7bcefghjk	IRL	GN1	COD	42.59	79.48	99.04	84.39	93.68	102.28	93.3	92.05	105.06	177.29
Cel1	7bcefghjk	IRL	GT1	COD	0.09			0.04	0.08	0.08	0.17	1.88	0.67	1.64
Cel1	7bcefghjk	IRL	LL1	COD			0.3	0.13	0.04	0.79	0.09			0.33
Cel1	7bcefghjk	IRL	none	COD										35.06
Cel1	7bcefghjk	IRL	OTTER	COD	6.65	36.82	0.05	0.13				0.03		
Cel1	7bcefghjk	IRL	PEL_SEINE	COD	4.52	4.96	0.53							
Cel1	7bcefghjk	IRL	PEL_TRAWL	COD	0.58	4.66	0.85	0.64	0.43		0.89	0.4	8	0.81
Cel1	7bcefghjk	IRL	POTS	COD	0.05	0.66	0.17	0.13	0.1		2.71	0.2	1.45	0.31
Cel1	7bcefghjk	IRL	TR1	COD	96.05	119.13	164.68	206.38	180.88	209.45	277.96	392.98	419.16	659.51
Cel1	7bcefghjk	IRL	TR2	COD	247.36	235.45	369.74	405.41	300.71	278.08	237.14	314.12	237.55	388.1
Cel1	7bcefghjk	IRL	TR3	COD	0.04	0.17		0.12					0.32	0.11
Cel1	7bcefghjk	NIR	TR1	COD	2.162			0.17			0.027	0.45	14.406	19.035
Cel1	7bcefghjk	NIR	TR2	COD		3.025	4.449	4.877	1.899	17.084	17.489	13.349	1.094	6.526
Cel1	7bcefghjk	NLD	TR1	COD									1	
Cel1	7bcefghjk	NLD	TR2	COD							4	3	7	5
Cel1	7bcefghjk	SCO	BT2	COD					1.17					
Cel1	7bcefghjk	SCO	DREDGE	COD	0.057		0.002	0.008	0.001	0.026	0.017	0.009		
Cel1	7bcefghjk	SCO	GN1	COD			1.201	0.293			0.005			
Cel1	7bcefghjk	SCO	TR1	COD	8.038	10.901		3.481	1.647	6.03	4.715	8.972	28.811	44.917
Cel1	7bcefghjk	SCO	TR2	COD	1.368	2.456		1.903	1.329	2.591	2.043	1.39	8.175	2.564

Table 5.6.2.1.2. Discard rate and associated coverage index for Cod in Cel1 (7bcefghjk) by Gear and Special condition as defined under the cod management plan. A, ≥ 66% of landings have associated discard sampling, B, ≥ 33% < 66% of landings have associated discard sampling, C < 33% of landings have associated discard sampling. 2003-2012. Gear/Special condition combinations without discard data omitted.

ANNEX	REG_AREA	REG_GEAR	SPECON	SPECIES	2003 R	2004 R	2005 R	2006 R	2007 R	2008 R	2009 R	2010 R	2011 R	2012 R	2003 DQI	2004 DQI	2005 DQI	2006 DQI	2007 DQI	2008 DQI	2009 DQI	2010 DQI	2011 DQI	2012 DQI
Cel1	7bcefghjk	BEAM	NONE	COD																				
Cel1	7bcefghjk	BT1	NONE	COD																				
Cel1	7bcefghjk	BT2	NONE	COD	0	0,019	0	0	0,146	0,206	0,113	0,35	0,711	0,095	C	C	C	C	A	A	B	C	A	A
Cel1	7bcefghjk	DEM_SEINE	NONE	COD																				
Cel1	7bcefghjk	DREDGE	none	COD								0,072	0	0								C	C	C
Cel1	7bcefghjk	GN1	none	COD	0	0	0	0	0,001	0	0,078	0,111	0,241	0,248	C	C	C	C	C	C	B	B	B	B
Cel1	7bcefghjk	GT1	none	COD	0	0	0	0	0	0		0,798	0,381	0,7	C	C	C	C	C	C		C	B	C
Cel1	7bcefghjk	LL1	none	COD	0	0	0		0	0					C	C	C		B	C				
Cel1	7bcefghjk	none	none	COD																				
Cel1	7bcefghjk	OTTER	NONE	COD		0,036	0,13	0,946	0,007	0,034	0,415	0,77	0,202	0,246		C	C	C	C	C	C	C	C	C
Cel1	7bcefghjk	PEL_SEINE	none	COD																				
Cel1	7bcefghjk	PEL_TRAWL	none	COD		0,2		0								C		C						
Cel1	7bcefghjk	POTS	none	COD																				
Cel1	7bcefghjk	TR1	none	COD	0,005	0,007	0,177	0,055	0,098	0,028	0,512	0,199	0,219	0,386	A	A	A	A	A	A	C	A	A	C
Cel1	7bcefghjk	TR2	NONE	COD	0,101	0,071	0,422	0,249	0,45	0,084	0,323	0,416	0,642	0,413	C	B	B	B	B	B	B	B	B	B
Cel1	7bcefghjk	TR3	none	COD	0,022	0,012				0,686	0	0	0	0	C	A				C	C	C	C	A

5.6.2.2 ICES sub-divisions 7fg (Cel2)

STECF EWG 13-13 presents the requested cod in weight by fisheries. Age specific data are available on the internet page of the STECF EWG 13-13: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313.

STECF EWG 13-13 notes that discard information is scarce and presents only landing values; though figures have been provided on catch where some discard information is available (Figures 5.6.3.2.1 –2), this should be interpreted with care due to some key fisheries not having discard information.

Table 5.6.2.2.2 presents discard rates alongside a discard coverage index for what information is available for gears catching cod in the Celtic Sea sub-divisions VIIfg (Cel2). Where no information is available, the gear has been excluded from the table. Discard coverage for landings from the sub-divisions 7fg is better than for the wider Celtic Sea, with the discard coverage index A (> 66% of landings with discard samples) for the main cod catching gears (TR1, TR2, GN1) for the last, excepting for TR1 in 2012 where discards are considered to have increased significantly but with the cautionary note that discard sampling is only available for a small proportion of the landings (category C, <33% of landings having discard information). It should be noted that the discard coverage index is only an indication of where a minimum one sample has been provided; therefore it should not necessarily be interpreted an indication of discard information quality, just that some information was available for fisheries using the gear.

Figure 5.6.3.2.1-2 show landings and estimated discards of cod (where available) for the main gear in the Celtic Sea subareas VIIfg catching cod. Landings by the main TR1 gear increased in 2012. This reflects the particularly strong 2010 year class (the largest since 1987) entering the fishery (ICES, 2013).

Table 5.6.2.2.1 lists the cod landings by Member States and gears from 7fg, 2003-2012. It can be seen that landings by most countries and gears has increase in 2012. The largest fishery (French TR1) has doubled its landings of cod in 2012 compared to 2011.

Figure 5.6.2.2.1 provides information on cod landings from the sub-area 7fg (Cel2) as a proportion of the total landings from the wider 7bcefghjk (Cel2). Landings of cod have generally been >60% over 2003-2012, with the one exception of 2011 when they dropped to 47%, before increasing again in 2012.

Table 5.6.2.2.1 Cod landings (t) by Member States and gears, 2003-2012.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel2	7fg	BEL	BEAM	COD		0.111	0.217		0.093		0.1	0.068	0.453	0.46
Cel2	7fg	BEL	BT2	COD	120.328	141.632	171.674	86.044	86.225	50.632	27.826	32.115	80.394	219.346
Cel2	7fg	BEL	OTTER	COD	8.003									
Cel2	7fg	BEL	TR2	COD		2.725	4.547	9.617	14.449	8.948	13.088	13.386	29.809	54.259
Cel2	7fg	ENG	BEAM	COD	0.027		0.425			0.011				
Cel2	7fg	ENG	BT1	COD		0.221								
Cel2	7fg	ENG	BT2	COD	44.105	35.084	32.418	27.547	33.199	15.183	8.977	12.172	16.12	50.059
Cel2	7fg	ENG	DREDGE	COD									0.002	
Cel2	7fg	ENG	GN1	COD	42.768	57.018	70.565	98.964	89.124	51.483	49.533	29.824	33.646	62.637
Cel2	7fg	ENG	GT1	COD			0.231	1.213	1.97	0.934	0.652	0.324	0.596	7.219
Cel2	7fg	ENG	LL1	COD	1.033		2.496	1.867	0.133		0.008	0.009	0.188	0.003
Cel2	7fg	ENG	OTTER	COD			0.128		0.249	0.012	0.001	0.009	0.076	0.046
Cel2	7fg	ENG	POTS	COD	0.013							0.003		0.212
Cel2	7fg	ENG	TR1	COD	8.364	14.676	5.224	5.43	3.627	2.437	2.538	2.933	2.738	23.457
Cel2	7fg	ENG	TR2	COD	12.766	8.335	13.039	17.756	15.288	10.074	4.773	9.764	9.46	12.27
Cel2	7fg	ENG	TR3	COD			0.103							
Cel2	7fg	FRA	BT2	COD				2.079				0.02	0.025	
Cel2	7fg	FRA	GN1	COD	1.722	1.775	0.116		0.228	0.058	0.058	0.28	0.95	2.258
Cel2	7fg	FRA	GT1	COD	0.539	0.023	0.533	0.43	0.687	0.612	0.612	0.6	2.73	0.87
Cel2	7fg	FRA	LL1	COD			0.025							
Cel2	7fg	FRA	OTTER	COD		1.68						1.75	1.41	0.05
Cel2	7fg	FRA	PEL_SEINE	COD										55.742
Cel2	7fg	FRA	PEL_TRAWL	COD				0.112					1.275	15.327
Cel2	7fg	FRA	TR1	COD	2023.918	945.649	519.461	522.138	605.946	443.537	442.621	669.67	1102.708	2254.802
Cel2	7fg	FRA	TR2	COD	196.071	89.287	84.618	46.927	59.485	20.052	20.052	19.77	8.259	18.256
Cel2	7fg	FRA	TR3	COD									0.763	
Cel2	7fg	GBJ	BT2	COD	4.137	6.072	1.256							
Cel2	7fg	IRL	BEAM	COD	4.51	23.74	0.52							
Cel2	7fg	IRL	BT2	COD	54.03	65.9	141.89	153.16	105.15	88.35	77.77	96.93	84.43	136.79
Cel2	7fg	IRL	DEM_SEINE	COD	0.37	4.96	1.22							
Cel2	7fg	IRL	DREDGE	COD	0.55	1.03		0.14						
Cel2	7fg	IRL	GN1	COD	31.92	71.59	92.27	71.34	85.45	92.43	83.2	77.44	82.82	142.69
Cel2	7fg	IRL	GT1	COD	0.09				0.04	0.04		1.42	0.47	1.32
Cel2	7fg	IRL	LL1	COD										0.29
Cel2	7fg	IRL	none	COD										23.45
Cel2	7fg	IRL	OTTER	COD	4.86	30.59		0.02						
Cel2	7fg	IRL	PEL_SEINE	COD	4.52	4.81	0.53							
Cel2	7fg	IRL	PEL_TRAWL	COD	0.58	4.47		0.56	0.27		0.89		7.97	0.71
Cel2	7fg	IRL	POTS	COD		0.66	0.03				0.02	0.16	1.45	
Cel2	7fg	IRL	TR1	COD	43.18	62.68	101.39	150.08	143.5	174.31	227.31	298	306.67	529.39
Cel2	7fg	IRL	TR2	COD	170.42	187.24	331.29	382.84	272.33	251.17	223.89	294.53	211.68	365.26
Cel2	7fg	IRL	TR3	COD				0.12						
Cel2	7fg	NIR	TR1	COD	2.162			0.17			0.027	0.45	13.763	19.035
Cel2	7fg	NIR	TR2	COD		3.025	4.449	4.877	1.899	17.084	17.386	13.16	1.094	6.526
Cel2	7fg	SCO	DREDGE	COD				0.001						
Cel2	7fg	SCO	GN1	COD			1.201							
Cel2	7fg	SCO	TR1	COD	1.525	0.475		0.148		0.035	0.104	4.006	3.875	12.68
Cel2	7fg	SCO	TR2	COD	1.362	2.358		0.034		0.077	1.033	0.318	1.456	0.964

Table 5.6.2.2.2. Discard rate and associated coverage index for Cod in Cel2 (7fg) by Gear and Special condition as defined under the cod management plan. A, ≥ 66% of landings have associated discard sampling, B, ≥ 33% < 66% of landings have associated discard sampling, C < 33% of landings have associated discard sampling. 2003-2012. Gear/Special condition combinations without discard data omitted.

ANNEX	REG_AREA	REG_GEAR	SPECON	SPECIES	2003 R	2004 R	2005 R	2006 R	2007 R	2008 R	2009 R	2010 R	2011 R	2012 R	2003 DQI	2004 DQI	2005 DQI	2006 DQI	2007 DQI	2008 DQI	2009 DQI	2010 DQI	2011 DQI	2012 DQI
Cel2	7fg	BEAM	NONE	COD																				
Cel2	7fg	BT1	none	COD																				
Cel2	7fg	BT2	NONE	COD	0	0,026		0	0,176	0,227	0,156	0,359	0,394	0,116	C	C		C	A	A	A	C	A	A
Cel2	7fg	DEM_SEINE	NONE	COD																				
Cel2	7fg	DREDGE	none	COD								1	0									A	C	
Cel2	7fg	GN1	none	COD	0	0	0		0,001	0	0,055	0,131	0,2	0,284	C	C	C		C	C	A	A	A	A
Cel2	7fg	GT1	none	COD	0			0	0	0		0,777	0,528	0,742	B			C	C	C		C	C	C
Cel2	7fg	LL1	none	COD																				
Cel2	7fg	none	none	COD																				
Cel2	7fg	OTTER	NONE	COD		0,033	0,357	0,969	0,027	0,538	0,987	0,146	0,541	0,736		C	C	A	C	C	C	C	C	C
Cel2	7fg	PEL_SEINE	none	COD																				
Cel2	7fg	PEL_TRAWL	none	COD		0,207										C								
Cel2	7fg	POTS	none	COD																				
Cel2	7fg	TR1	none	COD	0,006	0,007	0,181	0,061	0,08	0,031	0,516	0,252	0,278	0,441	A	A	A	A	A	A	C	A	A	C
Cel2	7fg	TR2	NONE	COD	0,139	0,085	0,457	0,276	0,576	0,093	0,247	0,442	0,596	0,353	B	A	A	A	A	A	A	A	A	A
Cel2	7fg	TR3	none	COD						1			0							A			C	

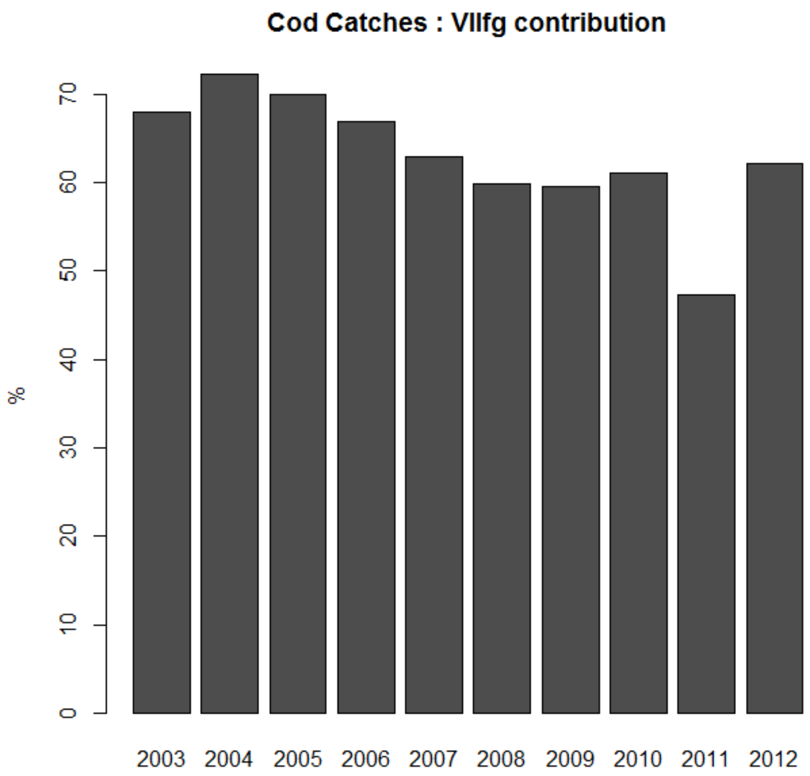


Figure 5.6.2.2.1 Cod: Contribution of the landings from ICES Divisions VIIfg to the total landings from the Celtic Sea (ICES Divisions VIIbc,e-k) over 2003-2012

5.6.3 ToR 1.c Catches (landings and discards) of non-cod species in weight and numbers at age by area, Member State and fisheries

5.6.3.1 ICES sub-divisions 7bcefghjk (Cel1)

STECF EWG 13-13 presents the requested cod in weight by fisheries. Age specific data are available on the internet page of the STECF EWG 13-13: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313.

STECF EWG 13-13 notes that discard information is scarce and presents only landing values; though figures have been provided on catch where some discard information is available (Figures 5.6.3.1.1 – 2), this should be interpreted with care due to some key fisheries not having discard information.

Table 5.6.3.1.8 presents discard rates alongside a discard coverage index for what information is available for gears catching anglerfish, haddock, hake, *Nephrops*, plaice, sole and whiting in the wider Celtic Sea. As can be seen, in most cases the discard coverage index is either C (<33% of landings having discard information) or B (≥ 33% < 66%), reflecting the poor discard coverage in the data. It should be noted that the discard coverage index is only an indication of where a minimum one sample has been provided; therefore it should not necessarily be interpreted an indication of discard information quality, just that some information was available for fisheries using the gear.

Figure 5.6.3.1.1-2 shows landings and discards estimates (where available) of anglerfish, haddock, hake, Nephrops, plaice, sole, and whiting by the main gears from the wider Celtic Sea 7bcefghjk (Cel1), 2003-2012. Landings of anglerfish have increased significantly in 2011 and 2012, while landings of haddock and whiting have also increased by the main gear (TR1). Discards estimates should be interpreted with care, especially for Haddock in 2012, where the discard coverage was classified in categoty C (<33% of landings covered by discard information)) (Table 5.6.3.1.9)

Table 5.6.3.1.1-7 lists the anglerfish, haddock, hake, Nephrops, plaice, sole, and whiting landings by Member States and gears, 2003-2012. Landings of anglerfish and haddock by the main French fishery (TR1) have increased significantly in 2012; while Irish TR1 whiting landings have also been increasing (landings in 2012 greater than double the landings in 2009). Large increases in Hake landings by longlines (LL1) in 2012 are due to the inclusion of Spanish data for this year only.

Table 5.6.3.1.9 shows the discard rate and discard coverage index for pelagic species which contribute to >1% of the landings of the main pelagic gears (PEL_TRAWL and PEL_SEINE). This includes, albacore tuna, boarfish, herring, horse mackerel, mackerel, sardine, sprat, and blue whiting. Discard information for *Nephrops* has also been presented. Where no discard information was available for a gear/species it was omitted from the table. As can be seen, discard information from the fisheries is scarce and where available considered to be of low coverage of the landings (in most cases classified as C, <33% of landings covered by discard information). It should be noted that the discard coverage index is only an indication of where a minimum one sample has been provided; therefore it should not necessarily be interpreted an indication of discard information quality, just that some information was available for fisheries using the gear.

Figures 5.6.3.2.1 – 3 show the landings composition of the main gears (TR1, TR2, BT2, GN1, PEL_TRAWL) 2003-2012 from the wider Celtic Sea (Cel1; 7bcefghjk). The main species caught in this area per gear category was defined as species representing more than 2% of the total landings on average, 2003-2012.

For TR1 gear, landings composition has remained relatively stable over the time series, with landings predominately being made up from anglerfish, cod, haddock, hake, megrim, *Nephrops*, whiting and witch flounder. There have been increasing haddock, cod and megrim landings in recent years.

For TR2 gear, landings composition is more mixed, being predominately made up of Anglerfish, cuttlefish, gurnard, haddock, megrim, *Nephrops*, queen scallops and whiting. Since 2009 there have been no reported landings of cuttlefish from the fishery, with a larger proportion of the landings being made up of *Nephrops*, megrim and haddock.

For BT2 gear, landings composition has been stable over the time series, consisting predominately of anglerfish, megrim, plaice and sole. For GN1 Hake has become a more prominent (and the predominant) component of landings since 2009 with Pollack, anglerfish and spider crab also being important.

The Pelagic trawl fishery mainly consisted of landings of horse mackerel, mackerel and blue whiting up until 2009, when landings of boarfish have also become an important component of the fishery.

Table 5.6.3.1.1 Anglerfish landings (t) by Member States and gears, 2003-2012.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel1	7bcefghjk	BEL	BEAM	ANF	1.86	69.384	0.714	0.339	1.725		0.549	1.134	3.225	12.7
Cel1	7bcefghjk	BEL	BT2	ANF	730.977	969.75	763.155	755.394	849.828	434.538	373.08	516	785.666	1129.676
Cel1	7bcefghjk	BEL	DREDGE	ANF						0.237	3.171	2.704	1.731	5.473
Cel1	7bcefghjk	BEL	GN1	ANF						0.441				
Cel1	7bcefghjk	BEL	OTTER	ANF	0.888									
Cel1	7bcefghjk	BEL	TR2	ANF		17.925	27.411	57.462	59.676	76.845	69.156	54.045	51.6	109.719
Cel1	7bcefghjk	DEU	GN1	ANF	150.032	196.75	142.172	35.373	226.44	248.113	168.485	251.471	184.78	266.11
Cel1	7bcefghjk	DEU	POTS	ANF	0.172									
Cel1	7bcefghjk	ENG	BEAM	ANF	0.28	0.125	4.118	4.607	1.629		1.632	3.058	2.295	1.414
Cel1	7bcefghjk	ENG	BT1	ANF		10.79								
Cel1	7bcefghjk	ENG	BT2	ANF	1306.206	1556.588	1583.802	1619.029	1986.091	1621.344	1616.624	2070.067	2335.656	2058.505
Cel1	7bcefghjk	ENG	DREDGE	ANF	29.874	30.681	33.171	60.544	55.966	28.764	47.249	70.403	92.91	84.041
Cel1	7bcefghjk	ENG	GN1	ANF	299.437	408.932	593.127	306.081	535.198	293.233	215.9	397.277	198.958	309.16
Cel1	7bcefghjk	ENG	GT1	ANF	0.288	8.685	30.48	78.825	12.409	20.819	20.166	15.011	73.592	95.703
Cel1	7bcefghjk	ENG	LL1	ANF	8.464	1.142	1.23	0.352	2.478	0.061	0.017	0.057	0.031	0.097
Cel1	7bcefghjk	ENG	OTTER	ANF	0.461	0.29	0.322	0.074	0.436	0.157	0.546	0.917	0.333	0.269
Cel1	7bcefghjk	ENG	PEL_TRAWL	ANF							0.068	0.019	0.003	
Cel1	7bcefghjk	ENG	POTS	ANF	2.955	0.347	0.042	0.115	0.662	0.551	0.106	0.156	0.136	0.047
Cel1	7bcefghjk	ENG	TR1	ANF	588.24	512.023	433.874	654.319	827.501	740.172	746.039	975.924	1351.103	1084.581
Cel1	7bcefghjk	ENG	TR2	ANF	363.065	277.261	345.145	286.182	434.38	295.299	314.563	364.749	282.109	260.739
Cel1	7bcefghjk	ENG	TR3	ANF	0.009		0.252				0.006			
Cel1	7bcefghjk	ESP	GN1	ANF										0.792
Cel1	7bcefghjk	ESP	LL1	ANF										0.05
Cel1	7bcefghjk	ESP	none	ANF										0.43
Cel1	7bcefghjk	ESP	OTTER	ANF										3.377
Cel1	7bcefghjk	ESP	TR1	ANF										777.065
Cel1	7bcefghjk	ESP	TR2	ANF										463.409
Cel1	7bcefghjk	FRA	BEAM	ANF			0.099	0.001						
Cel1	7bcefghjk	FRA	BT2	ANF	0.56	0.731	3.724	9.612	3.185	0.096	0.096	0.037	0.01	
Cel1	7bcefghjk	FRA	DREDGE	ANF	7.947	13.77	7.571	5.813	9.913	5.428	5.409	0.24	1.267	0.831
Cel1	7bcefghjk	FRA	GN1	ANF	1203.62	1590.054	1640.339	893.434	1146.897	1961.755	1961.755	268.534	644.778	773.235
Cel1	7bcefghjk	FRA	GT1	ANF	795.043	1273.253	1417.91	1014.027	1226.742	1218.735	1218.735	157.11	607.403	779.464
Cel1	7bcefghjk	FRA	LL1	ANF	0.129	0.036	0.381	0.206	0.227	0.022	0.022		0.16	
Cel1	7bcefghjk	FRA	none	ANF	0.075	0.506	0.916	0.101	0.003	0.049	0.049		2.043	
Cel1	7bcefghjk	FRA	OTTER	ANF	15.353	10.9	20.738	1.342	2.223	0.382	0.382	4.22	18.031	8.613
Cel1	7bcefghjk	FRA	PEL_SEINE	ANF									1.5	68.207
Cel1	7bcefghjk	FRA	PEL_TRAWL	ANF	0.065	0.136	0.815	8.615	2.314	0.304	0.304		1.564	13.425
Cel1	7bcefghjk	FRA	POTS	ANF	2.49	0.773	2.022	0.473	3.105	0.2	0.2	1.76	0.37	10.857
Cel1	7bcefghjk	FRA	TR1	ANF	3482.92	3436.553	2633.101	3797.081	3924.894	2866.48	2851.53	1243.376	4975.547	6129.58
Cel1	7bcefghjk	FRA	TR2	ANF	3382.162	3443.435	3415.986	2697.8	2909.464	2097.271	2094.891	485.4	1167.472	2000.2
Cel1	7bcefghjk	FRA	TR3	ANF	0.198	0.02		0.066		0.04	0.04		10.126	0.04
Cel1	7bcefghjk	GBG	TR2	ANF						0.024	0.003	0.009		0.609
Cel1	7bcefghjk	GBJ	BEAM	ANF		0.007								
Cel1	7bcefghjk	GBJ	BT2	ANF	84.567	94.121	53.737							
Cel1	7bcefghjk	GBJ	DREDGE	ANF	0.167									
Cel1	7bcefghjk	GBJ	TR1	ANF										0.014
Cel1	7bcefghjk	GBJ	TR2	ANF				0.192	0.018	0.079	0.043	0.116	0.058	0.003
Cel1	7bcefghjk	IOM	DREDGE	ANF				2.937	0.132					
Cel1	7bcefghjk	IRL	BEAM	ANF	11.16	67.88	0.46							
Cel1	7bcefghjk	IRL	BT1	ANF	0.75									
Cel1	7bcefghjk	IRL	BT2	ANF	214.79	209.34	471.02	557.63	392.86	390.21	476.51	485.2	468.79	495.98
Cel1	7bcefghjk	IRL	DEM_SEINE	ANF	4.72	8.81	3.07							
Cel1	7bcefghjk	IRL	DREDGE	ANF	35.26	6.06	4.2	0.44	0.13		0.05			
Cel1	7bcefghjk	IRL	GN1	ANF	62.28	65.94	64.74	54.74	26.65	20.09	37.37	32.6	47.72	42.6
Cel1	7bcefghjk	IRL	GT1	ANF	0.1	0.01		1.22	6.22	13.24	10.29	24.28	17.94	17.08
Cel1	7bcefghjk	IRL	LL1	ANF	0.55		5.19		0.1	0.01	0.01		0.05	
Cel1	7bcefghjk	IRL	none	ANF			0.14							230.68
Cel1	7bcefghjk	IRL	OTTER	ANF	15.89	146.7	12.7	2.32	0.03		0.08		4.75	1.33
Cel1	7bcefghjk	IRL	PEL_SEINE	ANF	2.97	4.87	0.7							
Cel1	7bcefghjk	IRL	PEL_TRAWL	ANF	0.62	9.29	13.95	2.23	4.36	6.71	11.49	14.19	9.26	1.55
Cel1	7bcefghjk	IRL	POTS	ANF	0.19	1.75		3.16	1.02	1.07	0.61	0.56	1.41	2.59
Cel1	7bcefghjk	IRL	TR1	ANF	461	479.96	777.64	981.95	1075.38	1014.89	1488.06	2086.39	1657.9	1365.03
Cel1	7bcefghjk	IRL	TR2	ANF	757.84	798.7	973.93	1132.61	1271.53	919.46	721.61	828.54	836.45	944.09
Cel1	7bcefghjk	IRL	TR3	ANF	1.66			7.41		0.27	0.07	3.19	9.74	0.02
Cel1	7bcefghjk	NIR	TR1	ANF	0.058							1.032	1.982	4.633
Cel1	7bcefghjk	NIR	TR2	ANF		3.916	4.492	2.465	3.228	8.924	18.816	12.486	0.819	6.026
Cel1	7bcefghjk	NLD	DREDGE	ANF							11	4		
Cel1	7bcefghjk	NLD	TR2	ANF								1	2	
Cel1	7bcefghjk	SCO	BT2	ANF							0.63			
Cel1	7bcefghjk	SCO	DREDGE	ANF	29.75	20.857	36.002	43.54	25.69	21.029	29.228	41.388	10.642	15.569
Cel1	7bcefghjk	SCO	GN1	ANF	199.931	120.252	383.753	293.457	325.924	574.798	672.811	662.074	772.61	721.2
Cel1	7bcefghjk	SCO	GT1	ANF	7.683	1.683								
Cel1	7bcefghjk	SCO	LL1	ANF				0.271		0.057				
Cel1	7bcefghjk	SCO	OTTER	ANF			3.381				0.056			5.226
Cel1	7bcefghjk	SCO	TR1	ANF	159.757	279.26	276.211	192.228	219.324	338.893	429.245	545.671	591.34	576.503
Cel1	7bcefghjk	SCO	TR2	ANF	28.233	49.438	58.689	91.341	41.792	142.506	108.3	161.726	150.973	128.483

Table 5.6.3.1.2 Haddock landings (t) by Member States and gears, 2003-2012.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel1	7bcefghjk	BEL	BEAM	HAD	0.121		0.157	0.057	0.16		0.174	0.797	1.548	1
Cel1	7bcefghjk	BEL	BT2	HAD	109.248	129.085	158.561	90.194	98.424	89.725	97.257	123.445	164.368	165.578
Cel1	7bcefghjk	BEL	OTTER	HAD	4.041									
Cel1	7bcefghjk	BEL	TR2	HAD		1.693	7.203	8.111	17.643	18.138	34.248	42.307	44.734	64.625
Cel1	7bcefghjk	ENG	BEAM	HAD	0.019		0.794	0.071	0.009		0.01	0.052	0.398	0.076
Cel1	7bcefghjk	ENG	BT1	HAD		1.075								
Cel1	7bcefghjk	ENG	BT2	HAD	108.07	138.148	116.923	63.397	79.81	72.579	106.401	105.045	183.216	259.506
Cel1	7bcefghjk	ENG	DREDGE	HAD		0.001	0.002	0.008	0.001	0.003	0.01	0.003	0.05	0.162
Cel1	7bcefghjk	ENG	GN1	HAD	48.843	66.345	69.853	56.025	41.35	37.494	40.594	34.668	52.424	39.447
Cel1	7bcefghjk	ENG	GT1	HAD		0.009	0.226	0.41	1.152	0.449	0.082	0.051	0.597	0.347
Cel1	7bcefghjk	ENG	LL1	HAD	3.884	5.985	10.702	12.513	6.833	0.32		0.002	0.021	
Cel1	7bcefghjk	ENG	OTTER	HAD	0.012		0.046		0.243	0.001	0.229	0.183	0.824	0.019
Cel1	7bcefghjk	ENG	PEL_SEINE	HAD								2.585		
Cel1	7bcefghjk	ENG	PEL_TRAWL	HAD								0.005		
Cel1	7bcefghjk	ENG	POTS	HAD	0.001		1.017			0.213		0.001	0.036	0.019
Cel1	7bcefghjk	ENG	TR1	HAD	74.582	43.489	25.527	32.278	105.448	265.408	274.012	345.022	770.397	698.198
Cel1	7bcefghjk	ENG	TR2	HAD	115.33	36.129	47.86	71.174	103.399	116.477	99.045	182.716	191.619	159.907
Cel1	7bcefghjk	ENG	TR3	HAD			0.302							
Cel1	7bcefghjk	ESP	GN1	HAD										0.44
Cel1	7bcefghjk	ESP	none	HAD										0.396
Cel1	7bcefghjk	ESP	TR1	HAD										11.974
Cel1	7bcefghjk	ESP	TR2	HAD										21.494
Cel1	7bcefghjk	FRA	BT2	HAD				3.246						
Cel1	7bcefghjk	FRA	DREDGE	HAD			0.002		0.252	0.016	0.016		0.772	
Cel1	7bcefghjk	FRA	GN1	HAD	25.784	5.125	12.029	4.478	6.979	3.205	3.205	7.513	6.176	9.12
Cel1	7bcefghjk	FRA	GT1	HAD	0.064	0.01	0.045	0.025	0.81	0.037	0.037	2.06	1.168	1.57
Cel1	7bcefghjk	FRA	LL1	HAD	3.65	2.684	2.142	1.32	1.027	0.244	0.244	2.4	3.624	2.509
Cel1	7bcefghjk	FRA	none	HAD									3.16	
Cel1	7bcefghjk	FRA	OTTER	HAD	0.098	3.258	1.009	0.001	0.161			14.337	9.359	5.649
Cel1	7bcefghjk	FRA	PEL_SEINE	HAD									0.38	191.154
Cel1	7bcefghjk	FRA	PEL_TRAWL	HAD				0.224	0.016			0.08	1.445	38.482
Cel1	7bcefghjk	FRA	POTS	HAD								0.18		0.001
Cel1	7bcefghjk	FRA	TR1	HAD	2926.505	3721.868	2148.483	1530.511	2110.358	2594.263	2583.607	4504.59	6463.159	8595.124
Cel1	7bcefghjk	FRA	TR2	HAD	584.152	519.198	384.499	317.941	472.782	501.991	501.861	705.385	900.832	856.921
Cel1	7bcefghjk	FRA	TR3	HAD								6.15	9.69	
Cel1	7bcefghjk	GBG	TR2	HAD										0.362
Cel1	7bcefghjk	GBJ	BEAM	HAD		0.003								
Cel1	7bcefghjk	GBJ	BT2	HAD	5.066	4.612	1.104							
Cel1	7bcefghjk	IRL	BEAM	HAD	15.62	47.37	0.65							
Cel1	7bcefghjk	IRL	BT1	HAD	0.47									
Cel1	7bcefghjk	IRL	BT2	HAD	144.02	137.13	208.32	188.26	166.47	139.88	168.91	170.3	152.63	268.19
Cel1	7bcefghjk	IRL	DEM_SEINE	HAD	14.26	33.03	4.81							
Cel1	7bcefghjk	IRL	DREDGE	HAD	0.67	4.11	0.12	0.09						
Cel1	7bcefghjk	IRL	GN1	HAD	67.57	62.65	60.2	41.99	66.59	49.41	58.4	63.48	118.12	118.67
Cel1	7bcefghjk	IRL	GT1	HAD				0.01	0.06	0.01	1.07	0.27	0.38	0.45
Cel1	7bcefghjk	IRL	LL1	HAD		0.09	2.3				0.08	0.46	0.16	
Cel1	7bcefghjk	IRL	none	HAD						0.05				103.08
Cel1	7bcefghjk	IRL	OTTER	HAD	19.56	106.66	4.98	1.33	0.12		0.66	0.08	0.8	5.61
Cel1	7bcefghjk	IRL	PEL_SEINE	HAD	4.07	42.18	7.1							
Cel1	7bcefghjk	IRL	PEL_TRAWL	HAD	2.08	5.46	2.04	2.47	4.51	0.31	3.85	4.84	37.34	12.1
Cel1	7bcefghjk	IRL	POTS	HAD	0.54	1.75	0.28	0.45	0.43	0.04	0.36	0.85	3.28	1.69
Cel1	7bcefghjk	IRL	TR1	HAD	357.21	322.45	539.58	641.07	754.96	838.93	1584.33	1407.41	2181.07	2598.53
Cel1	7bcefghjk	IRL	TR2	HAD	1035.56	951.54	1208.66	977.63	938.46	763.65	1151.17	944.13	815.2	1002.13
Cel1	7bcefghjk	IRL	TR3	HAD	2.76	0.77	0.72	2.8	3.06	1.63	3.54	2.81	1.2	2.99
Cel1	7bcefghjk	NIR	TR1	HAD	4.049					11.578	0.021	41.112	92.499	262.711
Cel1	7bcefghjk	NIR	TR2	HAD		2.972	3.969	3.562	0.188	0.655	7.363	7.267	0.625	4.907
Cel1	7bcefghjk	NLD	TR1	HAD										1
Cel1	7bcefghjk	NLD	TR2	HAD							1		35	62
Cel1	7bcefghjk	SCO	BT2	HAD							2.974			
Cel1	7bcefghjk	SCO	DREDGE	HAD			0.004				0.002			0.006
Cel1	7bcefghjk	SCO	GN1	HAD		0.133								
Cel1	7bcefghjk	SCO	LL1	HAD						1.048				
Cel1	7bcefghjk	SCO	TR1	HAD	5.157	2.436	1.013	4.977	0.808	4.187	144.706	64.439	192.36	297.298
Cel1	7bcefghjk	SCO	TR2	HAD	0.802	2.393	0.883	4.344		1.185	7.72	1.621	61.076	21.443

Table 5.6.3.1.3 Hake landings (t) by Member States and gears, 2003-2012.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel1	7bcefghjk	BEL	BEAM	HKE	0.019	0.6			0.073				0.022	0.1
Cel1	7bcefghjk	BEL	BT2	HKE	9.605	13.505	10.559	15.036	9.742	5.166	5.412	8.783	9.788	6.788
Cel1	7bcefghjk	BEL	OTTER	HKE	1.166									
Cel1	7bcefghjk	BEL	TR2	HKE		0.356	0.464	2.129	1.467	2.213	1.764	3.152	0.469	1.461
Cel1	7bcefghjk	DEU	GN1	HKE								0.284		
Cel1	7bcefghjk	ENG	BEAM	HKE	0.001		0.038	0.014	0.001		0.017	0.018	0.02	0.001
Cel1	7bcefghjk	ENG	BT1	HKE		0.12								
Cel1	7bcefghjk	ENG	BT2	HKE	24.353	25.448	18.962	15.869	11.515	16.342	25.857	22.548	18.123	14.278
Cel1	7bcefghjk	ENG	DREDGE	HKE	0.001	0.004	0.031	0.01	0.001	0.005	0.005	0.006	0.011	0.004
Cel1	7bcefghjk	ENG	GN1	HKE	725.543	555.687	551.782	379.932	223.533	230.43	275.813	208.712	290.183	501.672
Cel1	7bcefghjk	ENG	GT1	HKE			0.108	3.819	2.594	2.354	0.146	0.163	0.361	7.985
Cel1	7bcefghjk	ENG	LL1	HKE	37.198	23.032	4.585	36.032	500.48	150.276	0.002			
Cel1	7bcefghjk	ENG	OTTER	HKE	0.01	0.006	0.216		0.011		0.037	9.795	0.004	11.019
Cel1	7bcefghjk	ENG	PEL_SEINE	HKE								0.012		
Cel1	7bcefghjk	ENG	PEL_TRAWL	HKE							1.029	16.294	131.798	173.043
Cel1	7bcefghjk	ENG	POTS	HKE	0.09				0.003	0.001				
Cel1	7bcefghjk	ENG	TR1	HKE	500.16	519.096	454.899	526.293	560.797	316.313	381.005	330.983	556.164	190.972
Cel1	7bcefghjk	ENG	TR2	HKE	61.182	38.249	50.393	28.712	43.707	27.772	35.152	17.229	9.824	11.53
Cel1	7bcefghjk	ENG	TR3	HKE			0.038							
Cel1	7bcefghjk	ESP	GN1	HKE										124.928
Cel1	7bcefghjk	ESP	LL1	HKE										4862.908
Cel1	7bcefghjk	ESP	none	HKE										145.438
Cel1	7bcefghjk	ESP	OTTER	HKE										10.89
Cel1	7bcefghjk	ESP	TR1	HKE										891.745
Cel1	7bcefghjk	ESP	TR2	HKE										93.11
Cel1	7bcefghjk	FRA	BT2	HKE				0.19						
Cel1	7bcefghjk	FRA	DREDGE	HKE	0.004	0.001			0.153	0.023	0.023	2.906	1.127	0.2
Cel1	7bcefghjk	FRA	GN1	HKE	911.123	1195.885	1122.62	959.959	785.821	480.665	480.665	3027.439	5237.304	6288.155
Cel1	7bcefghjk	FRA	GT1	HKE	5.093	2.732	5.352	3.1	2.974	2.076	2.076	2.511	2.967	6.08
Cel1	7bcefghjk	FRA	LL1	HKE	0.499	0.813	24.829	213.576	352.977	278.113	278.113	584.36	605.747	1630.206
Cel1	7bcefghjk	FRA	none	HKE					0.292				22.921	
Cel1	7bcefghjk	FRA	OTTER	HKE	0.516	0.993	2.994	0.034	0.04			8.86	3.628	1.823
Cel1	7bcefghjk	FRA	PEL_SEINE	HKE	3.047					0.044	0.044			10.465
Cel1	7bcefghjk	FRA	PEL_TRAWL	HKE	0.402	0.02	0.297	0.699	0.199	0.001	0.001	1.23	9.009	10.233
Cel1	7bcefghjk	FRA	POTS	HKE				0.028				1.16	0.655	0.013
Cel1	7bcefghjk	FRA	TR1	HKE	370.203	463.253	496.439	345.446	311.802	255.655	252.708	873.332	1046.781	1399.317
Cel1	7bcefghjk	FRA	TR2	HKE	265.004	224.656	295.021	157.625	132.079	126.708	126.577	215.048	184.026	252.647
Cel1	7bcefghjk	FRA	TR3	HKE								0.317	4.164	
Cel1	7bcefghjk	GBJ	BT2	HKE	0.915	1.014	0.492							
Cel1	7bcefghjk	GBJ	TR2	HKE	0.004								0.164	
Cel1	7bcefghjk	IRL	BEAM	HKE	7.63	14.02								
Cel1	7bcefghjk	IRL	BT1	HKE	0.11									
Cel1	7bcefghjk	IRL	BT2	HKE	76.65	41.71	47.19	47.03	49.23	25.24	22.78	39.52	33.73	39.92
Cel1	7bcefghjk	IRL	DEM_SEINE	HKE	5.46	13.25	0.78							
Cel1	7bcefghjk	IRL	DREDGE	HKE	0.24	0.66								
Cel1	7bcefghjk	IRL	GN1	HKE	206.53	205.59	219.56	236.2	373.29	437.14	683.31	543.74	560.53	440.03
Cel1	7bcefghjk	IRL	GT1	HKE					0.02	0.01	0.06	7.03	0.98	40.17
Cel1	7bcefghjk	IRL	LL1	HKE	0.02		1.38				1.05			
Cel1	7bcefghjk	IRL	none	HKE			1.78							61.52
Cel1	7bcefghjk	IRL	OTTER	HKE	6.3	33.96	1.19						0.9	0.87
Cel1	7bcefghjk	IRL	PEL_SEINE	HKE	1.92	4.91	0.48							
Cel1	7bcefghjk	IRL	PEL_TRAWL	HKE	2.84	3.34	1.05	0.27	0.78	0.21	1.57	3.75	17.22	1.8
Cel1	7bcefghjk	IRL	POTS	HKE	0.6	0.34	0.08		0.27	0.01	0.03	0.14	1.72	0.2
Cel1	7bcefghjk	IRL	TR1	HKE	382.81	328.31	410.94	450.56	535.5	496.8	390.01	716.77	810.3	837.76
Cel1	7bcefghjk	IRL	TR2	HKE	232.76	269.19	220.65	232.02	229.46	194.18	137.94	211.63	194.77	180.76
Cel1	7bcefghjk	IRL	TR3	HKE	0.02	0.27		0.45			0.01	0.41	2.39	
Cel1	7bcefghjk	NIR	TR1	HKE	0.761			0.008			0.056	5.317	12.011	15.418
Cel1	7bcefghjk	NIR	TR2	HKE		1.795	1.335	0.379	0.153	0.559	0.66	1.797	0.01	0.377
Cel1	7bcefghjk	NLD	PEL_TRAWL	HKE							13	101	377	65
Cel1	7bcefghjk	NLD	TR2	HKE								1		
Cel1	7bcefghjk	SCO	BT2	HKE							0.033			
Cel1	7bcefghjk	SCO	DREDGE	HKE			0.007	0.002			0.002			
Cel1	7bcefghjk	SCO	GN1	HKE	148.13	152.658	14.769	2.48	0.191	1.262	251.547	88.214	0.119	0.802
Cel1	7bcefghjk	SCO	LL1	HKE	7.814	0.798	37.672	277.273	226.547	959.735	252.785	247.562	114.32	1029.592
Cel1	7bcefghjk	SCO	OTTER	HKE			3.462				0.003			
Cel1	7bcefghjk	SCO	TR1	HKE	257.577	246.739	421.695	300.524	226.267	211.933	223.322	195.18	111.486	141.546
Cel1	7bcefghjk	SCO	TR2	HKE	16.806	22.903	26.139	40.046	16.726	40.955	33.881	36.235	20.442	29.212

Table 5.6.3.1.4 Nephrops landings (t) by Member States and gears, 2003-2012.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel1	7bcefghjk	BEL	BEAM	NEP	0.01	0.05						0.055		0.272
Cel1	7bcefghjk	BEL	BT2	NEP	0.12	0.572	1.076	0.721	1.46	0.388	2.645	4.285	4.349	5.002
Cel1	7bcefghjk	BEL	TR2	NEP		11.836	5.418	6.491	4.791	8.688	12.278	10.934	3.084	0.849
Cel1	7bcefghjk	ENG	BEAM	NEP			0.016							
Cel1	7bcefghjk	ENG	BT2	NEP	4.661	3.908	4.866	2.735	0.29	0.599	2.893	1.085	2.002	1.039
Cel1	7bcefghjk	ENG	GN1	NEP					0.003			0.014		
Cel1	7bcefghjk	ENG	GT1	NEP								0.002		
Cel1	7bcefghjk	ENG	POTS	NEP			0.081	0.069				0.002		
Cel1	7bcefghjk	ENG	TR1	NEP	102.376	111.307	181.931	171.328	131.329	42.978	28.986	20.962	28.899	7.506
Cel1	7bcefghjk	ENG	TR2	NEP	10.161	5.049	3.1	39.212	13.198	9.772	13.979	44.437	0.024	0.308
Cel1	7bcefghjk	ESP	OTTER	NEP										0.438
Cel1	7bcefghjk	ESP	TR1	NEP										94.467
Cel1	7bcefghjk	ESP	TR2	NEP										35.983
Cel1	7bcefghjk	FRA	GN1	NEP		0.435	0.481	0.008	0.493	0.022	0.022	0.387	0.368	0.063
Cel1	7bcefghjk	FRA	GT1	NEP	0.005		0.185	0.305	0.443	0.18	0.18	2.099	0.47	0.333
Cel1	7bcefghjk	FRA	none	NEP		0.003							0.031	
Cel1	7bcefghjk	FRA	OTTER	NEP			1.183					2.93	0.315	0.06
Cel1	7bcefghjk	FRA	PEL_TRAWL	NEP			2.081	0.95						0.23
Cel1	7bcefghjk	FRA	POTS	NEP								0.09	0.131	0.352
Cel1	7bcefghjk	FRA	TR1	NEP	705.854	592.193	659.89	427.422	282.523	295.75	295.75	826.8	489.962	369.423
Cel1	7bcefghjk	FRA	TR2	NEP	147.881	41.307	76.376	26.136	20.807	20.817	20.792	13.77	23.821	5.116
Cel1	7bcefghjk	FRA	TR3	NEP								0.19	0.145	
Cel1	7bcefghjk	IRL	BEAM	NEP	2.4	49.03	6.42							
Cel1	7bcefghjk	IRL	BT1	NEP	0.2									
Cel1	7bcefghjk	IRL	BT2	NEP	73.47	90.9	98.56	89.19	85.73	34.23	27.81	17.25	17.5	4.17
Cel1	7bcefghjk	IRL	DREDGE	NEP		4.13								
Cel1	7bcefghjk	IRL	GN1	NEP	0.7	16.18	14.52	5.05		4	2.31	0.09	0.05	3.12
Cel1	7bcefghjk	IRL	GT1	NEP	0.74								1.69	0.02
Cel1	7bcefghjk	IRL	LL1	NEP	0.87							0.22		
Cel1	7bcefghjk	IRL	none	NEP			5.08			0.03				381.87
Cel1	7bcefghjk	IRL	OTTER	NEP	57.4	259.82	12.39	12.73	1.44	0.1	0.32			0.68
Cel1	7bcefghjk	IRL	PEL_SEINE	NEP	7.59	2.6	0.08							
Cel1	7bcefghjk	IRL	PEL_TRAWL	NEP	3.88	49.48	35.52	1.61	8.77	2.1	18.89	2.99	43.29	36.05
Cel1	7bcefghjk	IRL	POTS	NEP	3.62	10.35	3.8		3.02	4.45	6.94	10.1	8.36	6.12
Cel1	7bcefghjk	IRL	TR1	NEP	438.31	536.04	761.08	727.6	990.33	1319.37	1542.63	1063.14	1130.28	1162.72
Cel1	7bcefghjk	IRL	TR2	NEP	3215.08	2625.31	3800.2	3173.73	5027.62	4542.47	3086.95	3989.68	2977.88	4465.49
Cel1	7bcefghjk	IRL	TR3	NEP	9.26			2.06				1.15		
Cel1	7bcefghjk	NIR	TR1	NEP			0.608							0.363
Cel1	7bcefghjk	NIR	TR2	NEP		34.58	65.012	58.484	46.887	345.345	328.437	328.044	7.587	32.976
Cel1	7bcefghjk	SCO	GN1	NEP			0.014							
Cel1	7bcefghjk	SCO	OTTER	NEP										26.352
Cel1	7bcefghjk	SCO	TR1	NEP	37.584	34.521	84.973	60.292	37.197	81.402	45.584	91.014	45.48	63.833
Cel1	7bcefghjk	SCO	TR2	NEP	17.738	23.593	121.514	135.467	168.553	102.687	181.398	82.982	131.772	104.406

Table 5.6.3.1.5 Plaice landings (t) by Member States and gears, 2003-2012.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel1	7bcefghjk	BEL	BEAM	PLE	0.149	5.966	1.653	0.322	0.727		1.606	0.405	1.068	0.522
Cel1	7bcefghjk	BEL	BT1	PLE						22.773				
Cel1	7bcefghjk	BEL	BT2	PLE	264.672	303.689	209.683	189.647	227.791	172.734	190.624	175.545	292.816	289.916
Cel1	7bcefghjk	BEL	DREDGE	PLE							0.177			
Cel1	7bcefghjk	BEL	OTTER	PLE	5.456									
Cel1	7bcefghjk	BEL	TR2	PLE		6.188	35.054	54.046	54.71	79.742	79.736	62.428	58.25	47.275
Cel1	7bcefghjk	ENG	BEAM	PLE	0.79	1.177	1.867	1.321	1.667	0.201	0.032	0.457	0.687	0.457
Cel1	7bcefghjk	ENG	BT1	PLE		0.341								
Cel1	7bcefghjk	ENG	BT2	PLE	875.248	757.32	753.854	730.124	524.084	509.727	579.731	608.543	629.781	688.762
Cel1	7bcefghjk	ENG	DREDGE	PLE	3.078	5.706	9.803	6.059	2.392	1.581	2.165	3.509	6.822	4.3
Cel1	7bcefghjk	ENG	GN1	PLE	0.971	2.526	1.446	1.548	1.271	1.052	4.059	3.996	3.904	4.539
Cel1	7bcefghjk	ENG	GT1	PLE		0.005	0.081	0.078	0.12	0.165	0.015	0.103	0.14	0.218
Cel1	7bcefghjk	ENG	LL1	PLE	0.043	0.039	0.001	0.008	0.071	0.089	0.024	0.064	0.105	0.019
Cel1	7bcefghjk	ENG	OTTER	PLE	0.387	0.094	0.612	0.248	0.533	0.168	0.426	0.797	0.21	0.439
Cel1	7bcefghjk	ENG	PEL_SEINE	PLE								0.053		
Cel1	7bcefghjk	ENG	PEL_TRAWL	PLE	0.025		0.021		0.01	0.003	0.019	0.004	0.004	
Cel1	7bcefghjk	ENG	POTS	PLE	0.033	0.001	0.001	0.082	0.037	0.064	0.006	0.05	0.01	0.018
Cel1	7bcefghjk	ENG	TR1	PLE	13.057	10.469	5.013	2.544	3.301	6.439	14.271	21.692	65.906	52.223
Cel1	7bcefghjk	ENG	TR2	PLE	148.741	136.433	131.577	185.253	123.196	132.603	129.014	201.765	207.982	183.776
Cel1	7bcefghjk	ENG	TR3	PLE	0.034		0.255				0.021	0.027		
Cel1	7bcefghjk	FRA	BEAM	PLE	0.138	0.17	2.043	0.022				0.34	0.045	0.02
Cel1	7bcefghjk	FRA	BT1	PLE										0.1
Cel1	7bcefghjk	FRA	BT2	PLE	1.733	34.04	14.075	6.08	5.19	5.244	5.134	26.295	25.507	10.416
Cel1	7bcefghjk	FRA	DREDGE	PLE	4.178	3.374	4.026	3.407	5.103	5.284	5.278	1.21	2.05	2.165
Cel1	7bcefghjk	FRA	GN1	PLE	3.044	5.665	6.343	2.089	0.828	1.131	1.131	0.546	1.585	1.928
Cel1	7bcefghjk	FRA	GT1	PLE	9.335	16.117	22.067	12.325	7.549	3.202	3.202	7.164	8.903	6.451
Cel1	7bcefghjk	FRA	LL1	PLE	0.045	0.001	0.014	0.066	0.004	0.006	0.006	0.003	0.021	0.014
Cel1	7bcefghjk	FRA	none	PLE	0.313	0.614	0.385		0.02	0.007	0.007		0.033	
Cel1	7bcefghjk	FRA	OTTER	PLE	4.56	4.569	12.95	3.446	2.279	0.617	0.595	3.107	1.924	1.849
Cel1	7bcefghjk	FRA	PEL_SEINE	PLE	0.008				0.022					4.604
Cel1	7bcefghjk	FRA	PEL_TRAWL	PLE	0.022	0.012	0.081	0.109	0.069	0.046	0.046	0.753	1.831	1.601
Cel1	7bcefghjk	FRA	POTS	PLE	0.002		0.01		0.114			0.14	0.342	0.131
Cel1	7bcefghjk	FRA	TR1	PLE	141.514	112.51	76.909	74.62	63.791	88.882	88.428	125.246	119.065	132.162
Cel1	7bcefghjk	FRA	TR2	PLE	139.901	120.605	127.629	132.557	138.818	131.548	131.12	105.958	129.73	109.714
Cel1	7bcefghjk	FRA	TR3	PLE	0.038	0.032		0.098	0.002			0.56	1.483	0.272
Cel1	7bcefghjk	GBG	TR2	PLE						0.008	0.001	0.079	0.077	3.652
Cel1	7bcefghjk	GBJ	BEAM	PLE		0.2								
Cel1	7bcefghjk	GBJ	BT2	PLE	27.602	43.216	9.946							
Cel1	7bcefghjk	GBJ	TR2	PLE	0.011		0.019	0.575	0.468	0.123	0.12	0.226	0.44	0.145
Cel1	7bcefghjk	IRL	BEAM	PLE	0.69	1.79								
Cel1	7bcefghjk	IRL	BT2	PLE	17.51	10.47	13.1	19.39	26.79	15.54	9.95	7.77	7.5	11.95
Cel1	7bcefghjk	IRL	DEM_SEINE	PLE	0.85	0.57	0.02							
Cel1	7bcefghjk	IRL	DREDGE	PLE	0.39	0.5	0.46	0.04	0.03					
Cel1	7bcefghjk	IRL	GN1	PLE	0.28	0.72	0.27	0.35	0.57	0.9	1.81	1.93	2.1	1.65
Cel1	7bcefghjk	IRL	GT1	PLE	0.02				0.12		0.05	0.16	0.32	0.07
Cel1	7bcefghjk	IRL	none	PLE						0.02				3.05
Cel1	7bcefghjk	IRL	OTTER	PLE	4.12	10.63	0.58		0.01			0.07		0.42
Cel1	7bcefghjk	IRL	PEL_SEINE	PLE	0.1	1.26								
Cel1	7bcefghjk	IRL	PEL_TRAWL	PLE		0.25	0.04	0.06			0.93	0.59	1.77	0.23
Cel1	7bcefghjk	IRL	POTS	PLE	0.05	0.08		0.15	0.25	2.98	12.52	1.77	0.68	5.09
Cel1	7bcefghjk	IRL	TR1	PLE	36.38	21.64	21.4	16.04	29.26	42.92	57.22	64.23	83.98	105.04
Cel1	7bcefghjk	IRL	TR2	PLE	169.28	125.29	123.4	96.36	95.05	92.79	90.04	76.55	58.02	61.1
Cel1	7bcefghjk	IRL	TR3	PLE	0.26	0.21	0.08	1.25	1.6	0.53	4.49	0.68	0.13	1.13
Cel1	7bcefghjk	NIR	TR1	PLE	0.164								0.001	0.354
Cel1	7bcefghjk	NIR	TR2	PLE		0.586	0.217	0.496		0.213	0.953	0.716	0.034	0.023
Cel1	7bcefghjk	NLD	BT2	PLE								2		
Cel1	7bcefghjk	NLD	TR2	PLE							2	1	3	3
Cel1	7bcefghjk	SCO	BT2	PLE					0.096		0.045			
Cel1	7bcefghjk	SCO	DREDGE	PLE	0.013	0.044	0.121	0.21	0.036	1.037	0.866	0.267	0.014	0.061
Cel1	7bcefghjk	SCO	OTTER	PLE							0.085			0.048
Cel1	7bcefghjk	SCO	TR1	PLE	0.676				0.433		3.119	0.555	6.073	7.384
Cel1	7bcefghjk	SCO	TR2	PLE		0.529		0.278	0.128	0.027	0.938	1.023	1.989	2.742

Table 5.6.3.1.6 Sole landings (t) by Member States and gears, 2003-2012.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel1	7bcefghjk	BEL	BEAM	SOL	11.75	1.334	2.138	5.351	21.223	2.563	5.186	12.156	4.709	6.293
Cel1	7bcefghjk	BEL	BT2	SOL	845.563	856.256	733.225	590.316	570.521	443.383	458.939	561.876	718.126	825.918
Cel1	7bcefghjk	BEL	DREDGE	SOL						0.086	0.96	0.797	0.342	1.232
Cel1	7bcefghjk	BEL	OTTER	SOL	0.649									
Cel1	7bcefghjk	BEL	TR2	SOL		15.101	21.575	44.565	46.384	50.121	78.46	80.27	81.749	60.791
Cel1	7bcefghjk	ENG	BEAM	SOL	2.139	0.104	2.245	1.044	0.323	0.396	0.516	0.287	0.468	0.245
Cel1	7bcefghjk	ENG	BT1	SOL		0.604								
Cel1	7bcefghjk	ENG	BT2	SOL	516.33	415.716	696.347	732.869	729.899	635.432	528.728	501.242	543.706	594.729
Cel1	7bcefghjk	ENG	DREDGE	SOL	6.57	6.831	16.786	16.918	15.752	10.213	9.498	19.111	22.927	21.055
Cel1	7bcefghjk	ENG	GN1	SOL	1.749	2.097	2.291	1.908	6.033	6.998	10.557	4.338	5.811	8.475
Cel1	7bcefghjk	ENG	GT1	SOL		0.014	0.058	0.022	0.047	0.05	0.002	0.004		0.003
Cel1	7bcefghjk	ENG	LL1	SOL	0.005	0.005	0.004		0.006	0.03	0.003	0.004	0.001	0.002
Cel1	7bcefghjk	ENG	OTTER	SOL	0.073	0.007	0.179	0.028	0.091	0.032	0.138	0.056	0.073	0.362
Cel1	7bcefghjk	ENG	PEL_SEINE	SOL								0.003		
Cel1	7bcefghjk	ENG	PEL_TRAWL	SOL				0.001		0.003				
Cel1	7bcefghjk	ENG	POTS	SOL	0.022	0.004	0.001	0.043	0.157	0.099	0.017		0.012	0.165
Cel1	7bcefghjk	ENG	TR1	SOL	4.184	3.008	3.097	0.94	1.248	4.01	5.573	8.778	9.643	9.827
Cel1	7bcefghjk	ENG	TR2	SOL	22.184	22.818	33.967	45.305	39.947	34.615	25.297	24.598	24.76	30.878
Cel1	7bcefghjk	ENG	TR3	SOL			0.096			0.001	0.011			
Cel1	7bcefghjk	FRA	BEAM	SOL	0.36	0.74	11.249	0.29				0.67	0.245	0.07
Cel1	7bcefghjk	FRA	BT1	SOL										0.023
Cel1	7bcefghjk	FRA	BT2	SOL	6.017	43.071	32.089	30.695	32.739	33.296	31.846	63.28	62.192	38.23
Cel1	7bcefghjk	FRA	DREDGE	SOL	11.798	9.48	10.45	6.765	12.108	19.444	19.331	3.147	6.084	7.148
Cel1	7bcefghjk	FRA	GN1	SOL	10.938	21.021	15.151	4.435	6.146	8.258	8.258	6.079	8.333	7.538
Cel1	7bcefghjk	FRA	GT1	SOL	39.403	43.097	77.496	40.786	47.242	33.445	33.445	24.284	55.436	49.658
Cel1	7bcefghjk	FRA	LL1	SOL	0.008	0.006	0.017	0.148	0.022	0.005	0.005	0.029	0.177	0.021
Cel1	7bcefghjk	FRA	none	SOL	1.841	2.234	3.999	3.793	0.046	0.057	0.057		0.055	
Cel1	7bcefghjk	FRA	OTTER	SOL	16.075	12.092	39.663	14.883	12.406	3.558	3.558	6.262	5.261	4.134
Cel1	7bcefghjk	FRA	PEL_SEINE	SOL										0.924
Cel1	7bcefghjk	FRA	PEL_TRAWL	SOL	0.119	0.377	0.249	0.295	0.081	0.206	0.206	0.928	1.834	1.284
Cel1	7bcefghjk	FRA	POTS	SOL	0.244	0.442	2.7	0.206	1.078	0.002	0.002	10.45	4.697	3.008
Cel1	7bcefghjk	FRA	TR1	SOL	104.063	72.748	62.076	62.621	57.529	56.207	56.195	62.455	79.139	81.782
Cel1	7bcefghjk	FRA	TR2	SOL	238.117	171.595	211.161	216.443	222.952	179.952	178.252	152.449	175.436	133.248
Cel1	7bcefghjk	FRA	TR3	SOL	0.322	0.17		0.23	0.056	0.041	0.041	1	1.35	0.76
Cel1	7bcefghjk	GBG	TR2	SOL						0.013	0.001	0.128	0.062	0.401
Cel1	7bcefghjk	GBJ	BEAM	SOL		0.088								
Cel1	7bcefghjk	GBJ	BT2	SOL	68.489	57.523	43.182							
Cel1	7bcefghjk	GBJ	TR1	SOL										0.018
Cel1	7bcefghjk	GBJ	TR2	SOL	0.056			0.453	0.3	0.235	0.173	0.235		
Cel1	7bcefghjk	IOM	DREDGE	SOL					0.012					
Cel1	7bcefghjk	IRL	BEAM	SOL	1.5	6.42	0.04							
Cel1	7bcefghjk	IRL	BT1	SOL	0.04									
Cel1	7bcefghjk	IRL	BT2	SOL	38.39	40.13	45.49	38.83	21.37	16.42	12.84	11.25	7.38	11.01
Cel1	7bcefghjk	IRL	DEM_SEINE	SOL			0.11							
Cel1	7bcefghjk	IRL	DREDGE	SOL	1.32	0.92	1.12	0.05	0.08					
Cel1	7bcefghjk	IRL	GN1	SOL	0.82	0.67	0.09	1.46	0.3	0.37	1.14	1.04	0.36	0.52
Cel1	7bcefghjk	IRL	GT1	SOL				0.03	0.08			0.04	0.38	
Cel1	7bcefghjk	IRL	LL1	SOL	0.04									
Cel1	7bcefghjk	IRL	none	SOL						0.06				7.38
Cel1	7bcefghjk	IRL	OTTER	SOL	3.13	16.36	1.74	0.07	0.04		0.04			0.81
Cel1	7bcefghjk	IRL	PEL_SEINE	SOL		0.79								
Cel1	7bcefghjk	IRL	PEL_TRAWL	SOL		0.62	0.06	0.29	0.12		1.55	0.19	0.63	0.07
Cel1	7bcefghjk	IRL	POTS	SOL		0.05		0.08	0.02	0.01		0.24		0.02
Cel1	7bcefghjk	IRL	TR1	SOL	18.86	16.51	21.34	10.45	14.35	21.31	16.83	31.62	37.58	45.45
Cel1	7bcefghjk	IRL	TR2	SOL	112.5	109.47	99.68	82.3	106.74	93.52	97.13	85.38	68.7	84.43
Cel1	7bcefghjk	IRL	TR3	SOL	0.35	0.08		0.08	0.01	0.03	1.42	0.41	0.21	0.58
Cel1	7bcefghjk	NIR	TR1	SOL									0.004	0.028
Cel1	7bcefghjk	NIR	TR2	SOL		0.593	0.616	0.285	0.151	1.11	2.021	1.681	0.058	0.283
Cel1	7bcefghjk	NLD	BT2	SOL								1		
Cel1	7bcefghjk	SCO	DREDGE	SOL	0.665	1.12	2.856	4.467	3.835	9.051	2.014	0.972	0.429	0.528
Cel1	7bcefghjk	SCO	OTTER	SOL							0.001			
Cel1	7bcefghjk	SCO	TR1	SOL		0.05					1.196	0.53	2.087	2.896
Cel1	7bcefghjk	SCO	TR2	SOL	0.162	0.151					0.074		0.103	0.207

Table 5.6.3.1.7 (t) Whiting landings by Member States and gears, 2003-2012.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel1	7bcefghjk	BEL	BEAM	WHG	0.122	0.602	0.129	0.393	0.244	NA	0.073	NA	0.035	0.46
Cel1	7bcefghjk	BEL	BT2	WHG	115.541	139.545	180.594	57.864	71.047	75.203	42.184	66.059	68.715	97.093
Cel1	7bcefghjk	BEL	OTTER	WHG	8.389	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cel1	7bcefghjk	BEL	TR2	WHG	NA	35.829	36.866	69.696	54.817	44.728	45.048	34.376	30.505	70.741
Cel1	7bcefghjk	ENG	BEAM	WHG	0.074	0.004	0.085	0.13	0.207	NA	0.022	0.072	0.164	0.046
Cel1	7bcefghjk	ENG	BT1	WHG	NA	0.019	NA	NA	NA	NA	NA	NA	NA	NA
Cel1	7bcefghjk	ENG	BT2	WHG	95.887	72.66	66.993	49.449	52.117	58.583	46.798	40.275	41.46	47.172
Cel1	7bcefghjk	ENG	DREDGE	WHG	0.019	0.018	0.004	0.023	0.032	NA	0.014	0.132	0.055	0.012
Cel1	7bcefghjk	ENG	GN1	WHG	22.724	18.99	25.149	23.321	15.319	8.072	5.707	6.18	20.374	17.359
Cel1	7bcefghjk	ENG	GT1	WHG	0.001	0.126	0.162	0.325	0.29	0.101	0.073	0.02	0.209	0.744
Cel1	7bcefghjk	ENG	LL1	WHG	1.689	3.131	1.276	1.999	0.823	0.254	0.007	1.513	1.529	1.353
Cel1	7bcefghjk	ENG	OTTER	WHG	0.103	0.734	0.117	0.159	1.345	0.164	1.372	0.865	0.172	0.902
Cel1	7bcefghjk	ENG	PEL_SEINE	WHG	NA	NA	NA	NA	NA	NA	NA	0.681	NA	NA
Cel1	7bcefghjk	ENG	PEL_TRAWL	WHG	6.552	3.805	1.985	3.432	4.157	9.706	3.96	12.237	13.65	51.618
Cel1	7bcefghjk	ENG	POTS	WHG	0.051	0.106	0.003	0.014	0.015	0.007	0.002	NA	0.004	0.456
Cel1	7bcefghjk	ENG	TR1	WHG	74.368	40.664	52.076	23.33	26.198	42.817	81.452	106.115	176.718	147.655
Cel1	7bcefghjk	ENG	TR2	WHG	450.785	337.564	268.205	210.906	337.838	344.46	467.26	393.697	248.846	257.244
Cel1	7bcefghjk	ENG	TR3	WHG	0.351	0.03	0.226	NA	0.054	0.001	1.512	0.749	NA	10.098
Cel1	7bcefghjk	ESP	TR1	WHG	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.642
Cel1	7bcefghjk	ESP	TR2	WHG	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.163
Cel1	7bcefghjk	FRA	BT2	WHG	NA	0.015	NA	0.665	0.019	0.003	0.003	0.001	0.025	NA
Cel1	7bcefghjk	FRA	DREDGE	WHG	1.834	3.209	2.13	1.914	7.12	3.09	3.087	0.64	2.636	1.31
Cel1	7bcefghjk	FRA	GN1	WHG	15.598	5.112	7.595	3.383	2.688	4.468	4.468	8.586	0.396	5.453
Cel1	7bcefghjk	FRA	GT1	WHG	1.459	0.062	1.088	0.625	3.869	0.287	0.287	2.39	5.541	4.241
Cel1	7bcefghjk	FRA	LL1	WHG	0.52	2.192	3.526	8.959	6.452	1.164	1.164	1.541	6.356	3.322
Cel1	7bcefghjk	FRA	none	WHG	0.007	0.02	0.015	NA	NA	0.053	0.053	NA	0.509	NA
Cel1	7bcefghjk	FRA	OTTER	WHG	3.063	20.238	14.246	2.58	2.281	0.525	0.525	8.093	5.972	0.239
Cel1	7bcefghjk	FRA	PEL_SEINE	WHG	NA	NA	NA	NA	NA	NA	NA	NA	NA	31.79
Cel1	7bcefghjk	FRA	PEL_TRAWL	WHG	7.841	2.523	0.141	1.701	1.011	1.624	1.624	2.615	12.424	11.79
Cel1	7bcefghjk	FRA	POTS	WHG	NA	NA	NA	0.001	NA	1.371	1.371	12.87	28.08	11.94
Cel1	7bcefghjk	FRA	TR1	WHG	3493.677	3078.445	4025.512	3032.151	2007.227	1327.353	1320.829	1731.81	2243.935	1949.018
Cel1	7bcefghjk	FRA	TR2	WHG	1391.58	1137.358	1528.415	1006.229	1037.402	1076.409	1075.558	936.476	989.306	888.95
Cel1	7bcefghjk	FRA	TR3	WHG	NA	0.001	NA	0.004	NA	NA	NA	1.64	7.664	NA
Cel1	7bcefghjk	GBG	PEL_TRAWL	WHG	NA	NA	NA	NA	NA	NA	0.003	NA	NA	NA
Cel1	7bcefghjk	GBG	TR2	WHG	NA	NA	NA	NA	NA	0.004	0.008	0.007	0.005	2.741
Cel1	7bcefghjk	GBJ	BEAM	WHG	NA	0.005	NA	NA	NA	NA	NA	NA	NA	NA
Cel1	7bcefghjk	GBJ	BT2	WHG	2.341	4.506	1.685	NA	NA	NA	NA	NA	NA	NA
Cel1	7bcefghjk	GBJ	TR2	WHG	0.006	NA	NA	0.144	0.305	0.067	0.046	0.177	0.131	0.051
Cel1	7bcefghjk	IRL	BEAM	WHG	7.15	8.24	NA	NA	NA	NA	NA	NA	NA	NA
Cel1	7bcefghjk	IRL	BT1	WHG	0.21	NA	NA	NA	NA	NA	NA	NA	NA	NA
Cel1	7bcefghjk	IRL	BT2	WHG	62.21	35.12	30.08	22.26	24.24	4.01	2.87	4.5	15.12	12.01
Cel1	7bcefghjk	IRL	DEM_SEINE	WHG	40.5	54.4	9.56	NA	NA	NA	NA	NA	NA	NA
Cel1	7bcefghjk	IRL	DREDGE	WHG	0.56	2.16	0.47	0.09	0.12	NA	NA	NA	NA	NA
Cel1	7bcefghjk	IRL	GN1	WHG	96.9	107.67	60.45	16.07	19.22	23.55	20.43	22.28	35.19	82.16
Cel1	7bcefghjk	IRL	GT1	WHG	NA	NA	NA	NA	0.06	NA	0.02	0.08	0.19	0.3
Cel1	7bcefghjk	IRL	LL1	WHG	NA	NA	0.25	NA	NA	NA	NA	NA	0.16	NA
Cel1	7bcefghjk	IRL	none	WHG	NA	NA	4.77	NA	NA	NA	NA	NA	NA	111.97
Cel1	7bcefghjk	IRL	OTTER	WHG	26.23	414.99	2.34	0.3	NA	NA	0.44	0.64	NA	1.81
Cel1	7bcefghjk	IRL	PEL_SEINE	WHG	53.27	79.09	8.68	NA	NA	NA	NA	NA	NA	NA
Cel1	7bcefghjk	IRL	PEL_TRAWL	WHG	75.45	43.05	0.04	13.25	0.35	NA	2.74	6.2	44.71	22.68
Cel1	7bcefghjk	IRL	POTS	WHG	1.1	2.04	0.31	NA	0.3	NA	0.28	0.03	1.15	0.56
Cel1	7bcefghjk	IRL	TR1	WHG	1179.75	885.29	1013.57	1121.76	1188.42	1166.76	1705.47	2447.16	3132.73	4353.17
Cel1	7bcefghjk	IRL	TR2	WHG	2747.42	2641.98	4617.16	3333.13	3657.24	1208.32	1062.33	1833.34	1514.07	1248.49
Cel1	7bcefghjk	IRL	TR3	WHG	0.24	0.39	0.28	0.6	0.19	0.05	0.6	0.64	0.26	0.43
Cel1	7bcefghjk	NIR	TR1	WHG	6.478	NA	NA	13.3	NA	0.2	NA	29.179	24.51	27.705
Cel1	7bcefghjk	NIR	TR2	WHG	NA	15.628	10.263	8.599	0.685	10.019	12.803	16.655	1.13	3.405
Cel1	7bcefghjk	NLD	PEL_TRAWL	WHG	NA	NA	NA	NA	NA	NA	NA	795	NA	3
Cel1	7bcefghjk	NLD	TR1	WHG	NA	NA	NA	NA	NA	NA	NA	3	NA	2
Cel1	7bcefghjk	NLD	TR2	WHG	NA	NA	NA	NA	NA	NA	24	73	152	131
Cel1	7bcefghjk	SCO	BT2	WHG	NA	NA	NA	NA	1.22	NA	0.244	NA	NA	NA
Cel1	7bcefghjk	SCO	DREDGE	WHG	NA	NA	0.001	NA	NA	NA	0.002	NA	NA	NA
Cel1	7bcefghjk	SCO	GN1	WHG	NA	0.079	NA	NA	NA	NA	NA	NA	NA	NA
Cel1	7bcefghjk	SCO	LL1	WHG	NA	NA	NA	NA	NA	0.597	NA	NA	NA	NA
Cel1	7bcefghjk	SCO	OTTER	WHG	0.083	NA	NA	NA	NA	NA	0.028	NA	NA	0.042
Cel1	7bcefghjk	SCO	PEL_TRAWL	WHG	0.06	5.857	NA	NA	NA	NA	NA	NA	0.165	NA
Cel1	7bcefghjk	SCO	TR1	WHG	2.272	4.55	NA	0.237	0.096	4.457	45.533	21.355	28.504	53.737
Cel1	7bcefghjk	SCO	TR2	WHG	2.372	9.884	0.051	5.771	3.177	2.178	16.057	13.06	58.701	10.072
Cel1	7bcefghjk	SCO	TR3	WHG	NA	0.04	NA	NA	NA	NA	NA	NA	NA	NA

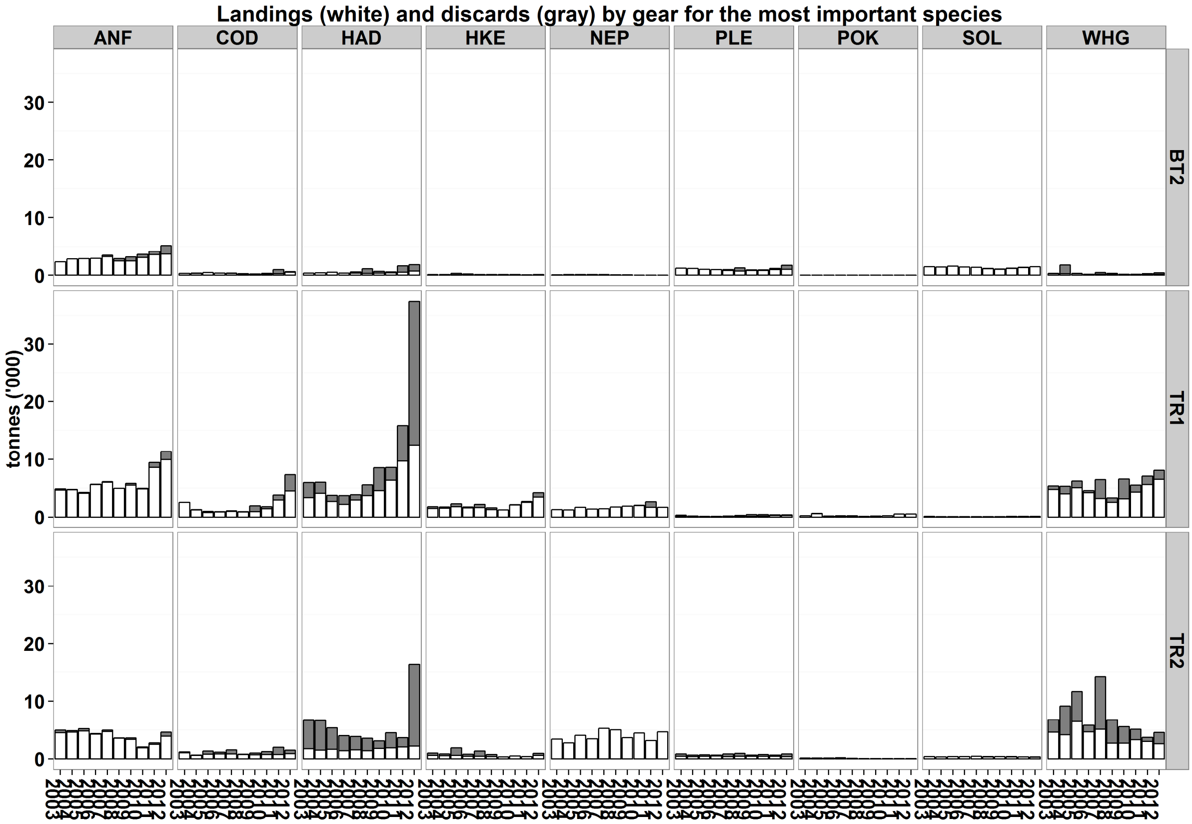


Figure 5.6.3.1.1 Landings and discards of the main species by active gears (BT2, TR1, TR2) in the wider Celtic Sea (Cel1; 7bcefghjk). 2003-2012.

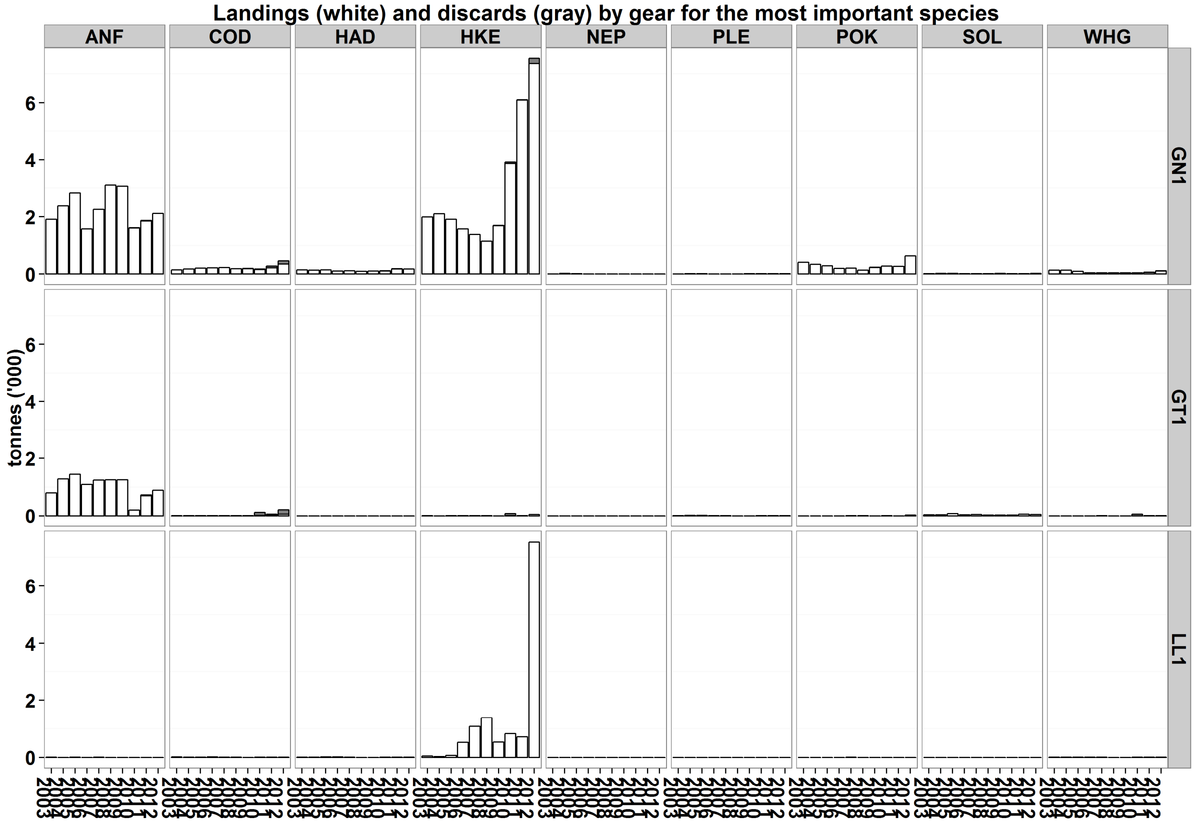


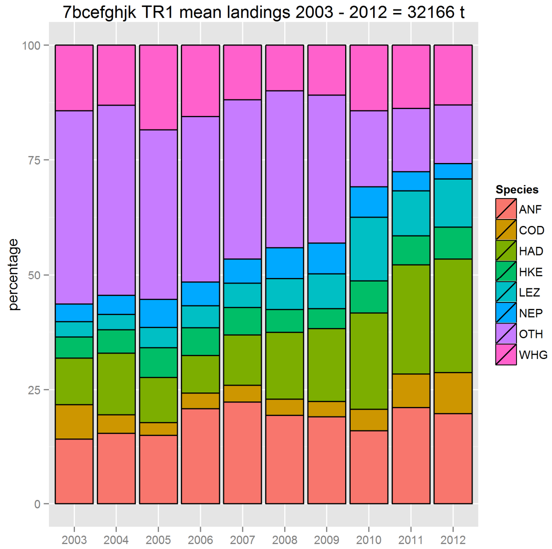
Figure 5.6.3.2.2. Landings and discards of the main species by passive gears (GN1, GT1, LL1) in the wider Celtic Sea (Cel1; 7bcefghjk). 2003-2012.

Table 5.6.3.1.8. Discard rate and associated coverage index for Anglerfish, Haddock, Hake, *Nephrops*, Plaice, Sole and whiting in Cel1 (7bcefghjk) by Gear and Special condition as defined under the cod management plan. A, ≥ 66% of landings have associated discard sampling, B, ≥ 33% < 66% of landings have associated discard sampling, C < 33% of landings have associated discard sampling. 2003-2012. Gear/Special condition combinations without discard data omitted.

ANNEX	REG_AREA	REG_GEAR	SPECON	SPECIES	2003 R	2004 R	2005 R	2006 R	2007 R	2008 R	2009 R	2010 R	2011 R	2012 R	2003 DQI	2004 DQI	2005 DQI	2006 DQI	2007 DQI	2008 DQI	2009 DQI	2010 DQI	2011 DQI	2012 DQI
Cel1	7bcefghjk	BEAM	NONE	ANF																				
Cel1	7bcefghjk	BEAM	NONE	HAD								0,484										A		
Cel1	7bcefghjk	BEAM	NONE	HKE																				
Cel1	7bcefghjk	BEAM	NONE	NEP																				
Cel1	7bcefghjk	BEAM	NONE	PLE																				
Cel1	7bcefghjk	BEAM	NONE	SOL										0										C
Cel1	7bcefghjk	BEAM	NONE	WHG																				
Cel1	7bcefghjk	BT1	none	ANF																				
Cel1	7bcefghjk	BT1	none	HAD																				
Cel1	7bcefghjk	BT1	none	HKE																				
Cel1	7bcefghjk	BT1	NONE	NEP																				
Cel1	7bcefghjk	BT1	NONE	PLE																				
Cel1	7bcefghjk	BT1	none	SOL																				
Cel1	7bcefghjk	BT1	none	WHG																				
Cel1	7bcefghjk	BT2	NONE	ANF					0,072	0,145	0,222	0,156	0,132	0,278					B	C	C	C	C	B
Cel1	7bcefghjk	BT2	NONE	HAD	0	0,022	0	0	0,364	0,723	0,416	0,312	0,688	0,619	C	C	C	C	A	A	B	B	A	A
Cel1	7bcefghjk	BT2	NONE	HKE	0	0,042	0,737	0,573	0,351	0,462	0,318	0,201	0,205	0,273	C	C	C	C	A	A	B	C	B	A
Cel1	7bcefghjk	BT2	NONE	NEP																				
Cel1	7bcefghjk	BT2	NONE	PLE	0	0,011	0	0	0,192	0,452	0,157	0,085	0,16	0,41	A	B	B	A	A	A	B	A	A	A
Cel1	7bcefghjk	BT2	NONE	SOL	0	0,003	0	0	0,015	0,009	0,031	0,05	0,016	0,001	C	C	C	B	A	A	A	A	A	B
Cel1	7bcefghjk	BT2	NONE	WHG	0,1	0,858	0,004	0	0,674	0,55	0,379	0,373	0,456	0,632	C	C	C	C	A	A	A	A	A	A
Cel1	7bcefghjk	DEM_SEINE	NONE	ANF																				
Cel1	7bcefghjk	DEM_SEINE	NONE	HAD																				
Cel1	7bcefghjk	DEM_SEINE	NONE	HKE																				
Cel1	7bcefghjk	DEM_SEINE	NONE	PLE																				
Cel1	7bcefghjk	DEM_SEINE	NONE	SOL																				
Cel1	7bcefghjk	DEM_SEINE	NONE	WHG																				
Cel1	7bcefghjk	DREDGE	NONE	ANF								0,093	0,081	0,263								C	C	C
Cel1	7bcefghjk	DREDGE	none	HAD								0	0	0								C	C	C
Cel1	7bcefghjk	DREDGE	none	HKE								0	0	0								C	C	C
Cel1	7bcefghjk	DREDGE	NONE	NEP																				
Cel1	7bcefghjk	DREDGE	NONE	PLE								0,097	0,046	0,225								C	C	C
Cel1	7bcefghjk	DREDGE	NONE	SOL								0	0	0								C	C	C
Cel1	7bcefghjk	DREDGE	none	WHG								0	0	0								C	C	C
Cel1	7bcefghjk	GN1	NONE	ANF	0	0	0	0	0	0	0,001	0,006	0,015	0	C	C	C	C	C	C	C	C	C	C
Cel1	7bcefghjk	GN1	none	HAD	0	0	0	0	0	0	0,003	0,011	0,006	0,012	C	C	C	C	C	C	B	B	B	B
Cel1	7bcefghjk	GN1	none	HKE	0	0	0	0	0	0	0,007	0,012	0,002	0,025	C	C	C	C	C	C	C	C	C	C
Cel1	7bcefghjk	GN1	none	NEP																				
Cel1	7bcefghjk	GN1	none	PLE		0	0			0	0,001	0	0,045	0		C	C			C	C	C	C	C
Cel1	7bcefghjk	GN1	none	SOL			0			0	0,006	0	0	0			C			C	C	C	C	C
Cel1	7bcefghjk	GN1	none	WHG	0	0	0	0	0,1	0	0,152	0,069	0,15	0,047	C	C	C	C	C	C	C	C	C	C
Cel1	7bcefghjk	GT1	none	ANF	0	0	0	0	0	0		0,012	0,038	0	C	C	C	C	C	C		C	A	C
Cel1	7bcefghjk	GT1	none	HAD		0			0			0		0		B			C			C		C
Cel1	7bcefghjk	GT1	none	HKE				0	0			0,878	0,497	0,002				C	C			C	C	C
Cel1	7bcefghjk	GT1	none	NEP																				
Cel1	7bcefghjk	GT1	none	PLE		0						0,007	0,134	0		C						C	C	C
Cel1	7bcefghjk	GT1	none	SOL				0				0		0				C				C		C
Cel1	7bcefghjk	GT1	none	WHG		0			0,069			0,961	0	0,015		C			C			C	C	C
Cel1	7bcefghjk	LL1	none	ANF																				
Cel1	7bcefghjk	LL1	none	HAD	0	0	0		0	0					B	C	C		C	C				
Cel1	7bcefghjk	LL1	none	HKE		0	0	0	0	0						C	B	C	C	C				
Cel1	7bcefghjk	LL1	none	NEP																				
Cel1	7bcefghjk	LL1	none	PLE																				
Cel1	7bcefghjk	LL1	none	SOL																				
Cel1	7bcefghjk	LL1	none	WHG																				
Cel1	7bcefghjk	none	none	ANF																				
Cel1	7bcefghjk	none	none	HAD																				
Cel1	7bcefghjk	none	none	HKE																				
Cel1	7bcefghjk	none	none	NEP																				
Cel1	7bcefghjk	none	none	PLE																				
Cel1	7bcefghjk	none	none	SOL																				
Cel1	7bcefghjk	none	none	WHG																				
Cel1	7bcefghjk	OTTER	NONE	ANF	0,694	0,259	0,284	0,04	0,042	0,058	0,091	0,007	0,486	0,01	C	C	C	B	C	C	C	C	C	C
Cel1	7bcefghjk	OTTER	NONE	HAD	0,129	0,899	0,411	0,848	0,213	0,999	0,677	0,887	0,216	0,048	C	C	B	A	C	C	A	C	C	B
Cel1	7bcefghjk	OTTER	NONE	HKE	0,639	0,013	0,736	0,976	0,378	1	0	0	0	0,029	C	C	C	C	C	A	C	C	C	C
Cel1	7bcefghjk	OTTER	none	NEP																				
Cel1	7bcefghjk	OTTER	NONE	PLE	0,055	0,596	0,189	0,101	0,357	0,133	0,061	0,717	0,019	0,491	C	C	C	C	C	C	C	C	C	C
Cel1	7bcefghjk	OTTER	NONE	SOL	0	0,001	0,003	0,071	0,008		0	0	0	0	C	C	C	C	C		C	C	C	C
Cel1	7bcefghjk	OTTER	NONE	WHG	0,033	0,006	0,236	0,708	0,14	0,477	0,654	0,97	0,264	0,084	C	C	C	C	C	C	C	C	C	B
Cel1	7bcefghjk	PEL_SEINE	none	ANF																				
Cel1	7bcefghjk	PEL_SEINE	none	HAD																				
Cel1	7bcefghjk	PEL_SEINE	none	HKE																				
Cel1	7bcefghjk	PEL_SEINE	NONE	NEP																				
Cel1	7bcefghjk	PEL_SEINE	none	PLE																				
Cel1	7bcefghjk	PEL_SEINE	none	SOL																				
Cel1	7bcefghjk	PEL_SEINE	none	WHG																				
Cel1	7bcefghjk	PEL_TRAWL	none	ANF		0,495										C								
Cel1	7bcefghjk	PEL_TRAWL	none	HAD		0,953										C								
Cel1	7bcefghjk	PEL_TRAWL	none	HKE	0	0,06		0							C	B		C						
Cel1	7bcefghjk	PEL_TRAWL	none	NEP																				
Cel1	7bcefghjk	PEL_TRAWL	none	PLE		0,529										B								
Cel1	7bcefghjk	PEL_TRAWL	none	SOL																				
Cel1	7bcefghjk	PEL_TRAWL	none	WHG	0	0,781							0,114		C	C							C	
Cel1	7bcefghjk	POTS	none	ANF																				
Cel1	7bcefghjk	POTS	none	HAD																				
Cel1	7bcefghjk	POTS	none	HKE																				
Cel1	7bcefghjk	POTS	none	NEP																				
Cel1	7bcefghjk	POTS	none	PLE																				
Cel1	7bcefghjk	POTS	none	SOL																				
Cel1	7bcefghjk	POTS	none	WHG																				
Cel1	7bcefghjk	TR1	none	ANF	0,035	0,017	0,036	0,004	0,012	0,007	0,054	0,026	0,093	0,123	A	A	A	A	A	A	C	B	B	C
Cel1	7bcefghjk	TR1	none	HAD	0,435	0,322	0,277	0,408	0,228	0,334	0,464	0,259	0,386	0,667	A	A	A	A	A	A	B	A	A	C
Cel1	7bcefghjk	TR1	none	HKE	0,159	0,119	0,233	0,074	0,253	0,189	0	0,021	0,056	0,171	B	C	B	C	C	B	C	B	B	C
Cel1	7bcefghjk	TR1	none	NEP	0	0	0	0	0	0		0,032	0,357		B	B	C	C	C	C		B	C	
Cel1	7bcefghjk	TR1	none	PLE	0,449	0,307	0,384	0,414	0,548	0,557	0,614	0,522	0,303	0,287	A	A	A	A	A	A	C	B	B	B
Cel1	7bcefghjk	TR1	none	SOL	0,005	0,004	0,007	0,002	0,049	0,009	0,006	0,309	0,001	0,016	A	A	A	A	A	A	C	B	C	B
Cel1	7bcefghjk	TR1	none	WHG	0,116	0,246	0,184	0,087	0,503	0,237	0,522	0,216	0,208	0,193	A	A	A	A	A	A	B	A	A	B
Cel1	7bcefghjk	TR2	NONE	ANF	0,086	0,059	0,074	0,02	0,048	0,023	0,077	0,072	0,099	0,154	B	B	B	B	B	B	C	B	C	C
Cel1	7bcefghjk	TR2	NONE	HAD	0,74	0,771	0,693	0,653	0,604	0,608	0,417	0,584	0,437	0,866	A	A	A	B	B	A	A	B	B	B
Cel1	7bcefghjk	TR2	NONE	HKE	0,408	0,322	0,686	0,424	0,68	0,484	0,003	0	0	0,39	B	B	B	B	B	B	B	B	B	C
Cel1	7bcefghjk	TR2	NONE	NEP		0	0	0	0	0						C	C	C	C	C				
Cel1	7bcefghjk	TR2	NONE	PLE	0,457	0,385	0,399	0,254	0,513	0,541	0,336	0,409	0,26	0,498	B	B	B	B	B	B	B	B	B	B
Cel1	7bcefghjk	TR2	NONE	SOL	0,024	0,007	0,008	0,008	0,058	0,016	0,001	0,151	0,002	0,008	B	B	B	C	B	B	C	C	C	B
Cel1	7bcefghjk	TR2	NONE	WHG	0,323	0,542	0,445	0,201	0,642	0,6	0,512	0,356	0,194	0,428	A	A	A	B	A	B	B	B	B	B
Cel1	7bcefghjk	TR3	none	ANF	0,234	0,884	0,034	0,02	1	0,158	0,557	0,029	0,065	0,277	A	C	C	A	A	A	B	A	B	C
Cel1	7bcefghjk	TR3	none	HAD	0,671	0,584	0,086	0,886	0,101	0,622	0,588	0,511	0,338	0,255	A	A	A	A	A	A	A	C	C	A
Cel1	7bcefghjk	TR3	none	HKE	0,972	0,348	0,793	0,327	1	1	0	0	0		A	A	C	B	A	A	A	B	B	
Cel1	7bcefghjk	TR3	none	NEP																				
Cel1	7bcefghjk	TR3	none	PLE	0,661	0,29	0,051	0,079	0,096	0,478	0,192	0,232	0,134	0,214	A	A	C	B	A	A	A	B	C	A
Cel1	7bcefghjk	TR3	none	SOL	0,045	0,008		0,003	0,015	0,027	0	0	0	0	B	C		C	C	B	A	C	C	B
Cel1	7bcefghjk	TR3	none	WHG	0,835	0,47	0,072	0,751	0,235	0,962	0,666	0,196	0,153	0,459	B	A	B	C	A	A	C	C	C	C

Table 5.6.3.1.9. Discard rate and associated coverage index for Pelagic Species making up more than 1% of total pelagic landings by pelagic gears (trawl and seine), and *Nephrops* in Cel1 (7bcefghjk) by Gear and Special condition as defined under the cod management plan. A, ≥ 66% of landings have associated discard sampling, B, ≥ 33% < 66% of landings have associated discard sampling, C < 33% of landings have associated discard sampling. 2003-2012. Gear/Special condition combinations without discard data omitted.

ANNEX	REG_AREA	REG_GEAR	SPECON	SPECIES	2003 R	2004 R	2005 R	2006 R	2007 R	2008 R	2009 R	2010 R	2011 R	2012 R	2003 DQI	2004 DQI	2005 DQI	2006 DQI	2007 DQI	2008 DQI	2009 DQI	2010 DQI	2011 DQI	2012 DQI
Cel1	7bcefghjk	GN1	none	ALB																				
Cel1	7bcefghjk	GT1	none	ALB																				
Cel1	7bcefghjk	LL1	none	ALB																				
Cel1	7bcefghjk	none	none	ALB																				
Cel1	7bcefghjk	OTTER	NONE	ALB																				
Cel1	7bcefghjk	PEL_SEINE	none	ALB																				
Cel1	7bcefghjk	PEL_TRAWL	none	ALB	0	0	0		0	0		0,002	0,019		B	B	A		C	C		C	C	
Cel1	7bcefghjk	TR1	none	ALB	0										C									
Cel1	7bcefghjk	TR2	none	ALB																				
Cel1	7bcefghjk	BEAM	none	HER																				
Cel1	7bcefghjk	BT2	none	HER					1				0						A				C	
Cel1	7bcefghjk	DEM_SEINE	NONE	HER																				
Cel1	7bcefghjk	DREDGE	none	HER									0	0									C	C
Cel1	7bcefghjk	GN1	none	HER							0	0	0	0							C	A	C	C
Cel1	7bcefghjk	GT1	none	HER										0										C
Cel1	7bcefghjk	LL1	none	HER																				
Cel1	7bcefghjk	none	none	HER																				
Cel1	7bcefghjk	OTTER	none	HER	0	0	0	0	0,001	0	0	0	0	0	B	A	A	C	A	A	A	A	A	C
Cel1	7bcefghjk	PEL_TRAWL	none	HER	0	0	0,004	0						0,038	C	B	C	C						C
Cel1	7bcefghjk	POTS	none	HER																				
Cel1	7bcefghjk	TR1	none	HER	0,785	0,289	0,987	0,78	0,992	0,969	0	0	0	0	C	A	A	C	C	B	A	A	A	C
Cel1	7bcefghjk	TR2	none	HER	0,761	0,486	0,92	0,017	0,973	0,495	0,254	0,024	0	0,14	B	A	A	C	A	A	C	B	A	B
Cel1	7bcefghjk	TR3	none	HER	1	1	1	1		1	0		0		A	A	A	A		A	A		A	
Cel1	7bcefghjk	BT2	none	HOM																				
Cel1	7bcefghjk	DREDGE	none	HOM																				
Cel1	7bcefghjk	GN1	none	HOM																				
Cel1	7bcefghjk	GT1	none	HOM																				
Cel1	7bcefghjk	LL1	none	HOM																				
Cel1	7bcefghjk	none	none	HOM																				
Cel1	7bcefghjk	OTTER	none	HOM			0										C							
Cel1	7bcefghjk	PEL_SEINE	none	HOM																				
Cel1	7bcefghjk	PEL_TRAWL	none	HOM	0	0	0	0	0	0					A	B	B	A	A	B				
Cel1	7bcefghjk	POTS	none	HOM																				
Cel1	7bcefghjk	TR1	none	HOM	0	0	0	0	0	0					C	B	C	B	C	B				
Cel1	7bcefghjk	TR2	none	HOM	0	0	0	0	0						C	C	C	C	C					
Cel1	7bcefghjk	TR3	none	HOM																				
Cel1	7bcefghjk	BT2	none	JAX																				
Cel1	7bcefghjk	DREDGE	none	JAX								0	0									C	C	
Cel1	7bcefghjk	GN1	none	JAX							0	0	0	0							C	C	C	C
Cel1	7bcefghjk	GT1	none	JAX																				
Cel1	7bcefghjk	LL1	none	JAX																				
Cel1	7bcefghjk	none	none	JAX																				
Cel1	7bcefghjk	OTTER	none	JAX	0	0,081	0,005	0	0	0	0	0	0	0	C	C	C	C	C	A	C	C	C	C
Cel1	7bcefghjk	PEL_SEINE	none	JAX																				
Cel1	7bcefghjk	PEL_TRAWL	none	JAX		0					0	0,001	0,003	0,005		C					C	C	C	B
Cel1	7bcefghjk	POTS	none	JAX																				
Cel1	7bcefghjk	TR1	none	JAX	0,973	0,998	0,812	0,97	0,999	0,995	0	0	0	0	A	C	A	C	A	A	A	A	A	C
Cel1	7bcefghjk	TR2	none	JAX	0,712	0,992	0,68	0,988	0,959	0,992	0	0	0	0	C	C	C	C	C	C	C	C	C	C
Cel1	7bcefghjk	TR3	none	JAX	1	0	1	1	1	1	0	0	0	0	A	C	A	A	A	A	A	A	A	C
Cel1	7bcefghjk	BEAM	none	MAC																				
Cel1	7bcefghjk	BT2	none	MAC					0,977	0,958	0		0	0					C	C	C		C	C
Cel1	7bcefghjk	DEM_SEINE	none	MAC																				
Cel1	7bcefghjk	DREDGE	none	MAC								0	0	0								C	C	C
Cel1	7bcefghjk	GN1	none	MAC							0,698	0	0	0,005							C	C	C	C
Cel1	7bcefghjk	GT1	none	MAC								0		0								C		C
Cel1	7bcefghjk	LL1	none	MAC																				
Cel1	7bcefghjk	none	none	MAC																				
Cel1	7bcefghjk	OTTER	none	MAC	0	0	0	0,001	0	0,019	0	0,027	0	0,379	B	C	A	C	A	C	C	C	A	C
Cel1	7bcefghjk	PEL_SEINE	none	MAC																				
Cel1	7bcefghjk	PEL_TRAWL	none	MAC	0,013	0,089	0,062	0	0,012	0		0,023	0,161	0,138	C	C	C	C	C	C		C	C	C
Cel1	7bcefghjk	POTS	none	MAC																				
Cel1	7bcefghjk	TR1	none	MAC	0,397	0,128	0,32	0,842	0,97	0,988	0	0	0	0	C	A	A	C	B	A	A	B	C	C
Cel1	7bcefghjk	TR2	none	MAC	0,555	0,267	0,628	0,237	0,606	0,978	0,044	0,332	0,154	0,102	C	B	B	B	A	B	A	C	C	C
Cel1	7bcefghjk	TR3	none	MAC	0,125	0,001	1	0	1	0,925	0	0	0	0	C	A	A	C	A	C	A	A	C	A
Cel1	7bcefghjk	BEAM	NONE	NEP																				
Cel1	7bcefghjk	BT1	NONE	NEP																				
Cel1	7bcefghjk	BT2	NONE	NEP																				
Cel1	7bcefghjk	DREDGE	NONE	NEP																				
Cel1	7bcefghjk	GN1	none	NEP																				
Cel1	7bcefghjk	GT1	none	NEP																				
Cel1	7bcefghjk	LL1	none	NEP																				
Cel1	7bcefghjk	none	none	NEP																				
Cel1	7bcefghjk	OTTER	none	NEP																				
Cel1	7bcefghjk	PEL_SEINE	NONE	NEP																				
Cel1	7bcefghjk	PEL_TRAWL	none	NEP																				
Cel1	7bcefghjk	POTS	none	NEP																				
Cel1	7bcefghjk	TR1	none	NEP	0	0	0	0	0	0		0,032	0,357		B	B	C	C	C	C		B	C	
Cel1	7bcefghjk	TR2	NONE	NEP		0	0	0	0	0						C	C	C	C	C				
Cel1	7bcefghjk	TR3	none	NEP																				
Cel1	7bcefghjk	DREDGE	none	PIL																				
Cel1	7bcefghjk	GN1	none	PIL																				
Cel1	7bcefghjk	GT1	none	PIL																				
Cel1	7bcefghjk	none	none	PIL																				
Cel1	7bcefghjk	OTTER	none	PIL							0										C			
Cel1	7bcefghjk	PEL_SEINE	none	PIL																				
Cel1	7bcefghjk	PEL_TRAWL	none	PIL																				
Cel1	7bcefghjk	TR1	none	PIL	0						0			0	B						C			A
Cel1	7bcefghjk	TR2	none	PIL		0					0		0			C					C		A	
Cel1	7bcefghjk	TR3	none	PIL							0										C			
Cel1	7bcefghjk	BEAM	none	SPR																				
Cel1	7bcefghjk	BT2	NONE	SPR					1										A					
Cel1	7bcefghjk	DEM_SEINE	none	SPR																				
Cel1	7bcefghjk	DREDGE	none	SPR									0										C	
Cel1	7bcefghjk	GN1	none	SPR							0	0	0	0							C	C	C	C
Cel1	7bcefghjk	LL1	none	SPR																				
Cel1	7bcefghjk	none	none	SPR																				
Cel1	7bcefghjk	OTTER	none	SPR	0	0,003	1	0			0			0	C	C	A	C			C			C
Cel1	7bcefghjk	PEL_SEINE	none	SPR																				
Cel1	7bcefghjk	PEL_TRAWL	none	SPR		0										B								
Cel1	7bcefghjk	POTS	none	SPR																				
Cel1	7bcefghjk	TR1	none	SPR	0,01	1	1		1	1	0		0	0	C	A	A		A	A	A		C	C
Cel1	7bcefghjk	TR2	none	SPR	0,075	0,079	0,997	0,006	0,005	0,367	0	0	0	0	C	A	C	C	C	C	C	C	C	C
Cel1	7bcefghjk	TR3	none	SPR	0,005	1	1	1			0		0	0	C	A	A	A			C		C	C
Cel1	7bcefghjk	BEAM	NONE	WHB																				
Cel1	7bcefghjk	BT2	NONE	WHB					1										A					
Cel1	7bcefghjk	DEM_SEINE	NONE	WHB																				
Cel1	7bcefghjk	GN1	none	WHB																				
Cel1	7bcefghjk	GT1	none	WHB																				
Cel1	7bcefghjk	none	none	WHB																				
Cel1	7bcefghjk	OTTER	none	WHB	0,009	0	0	0,002	0	0		0		0	C	A	C	C	C	C		C		C
Cel1	7bcefghjk	PEL_SEINE	none	WHB																				
Cel1	7bcefghjk	PEL_TRAWL	none	WHB	0	0	0	0,007	0	0	0	0,077		0,002	C	C	C	C	C	C	C	C		B
Cel1	7bcefghjk	POTS	none	WHB																				
Cel1	7bcefghjk	TR1	none	WHB	0,987	1	1	1	1	1		0			A	A	A	A	A	A		C		
Cel1	7bcefghjk	TR2	none	WHB	0,998	1	1	1	1	1	0	0			B	A	A	C	A	C	C	C		
Cel1	7bcefghjk	TR3	NONE	WHB	1	1	1	1	1	0					A	A	A	A	A	C				



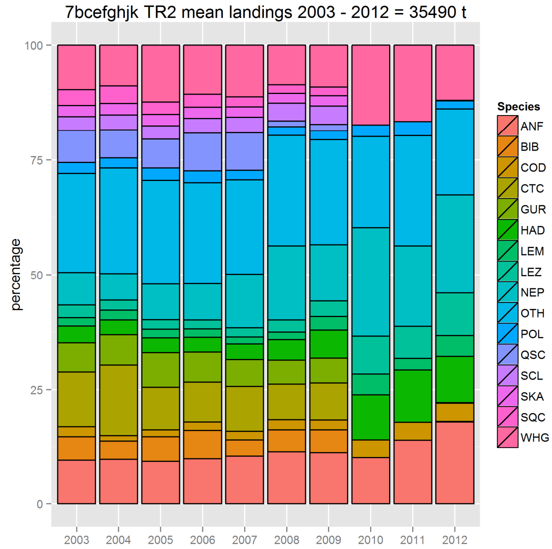
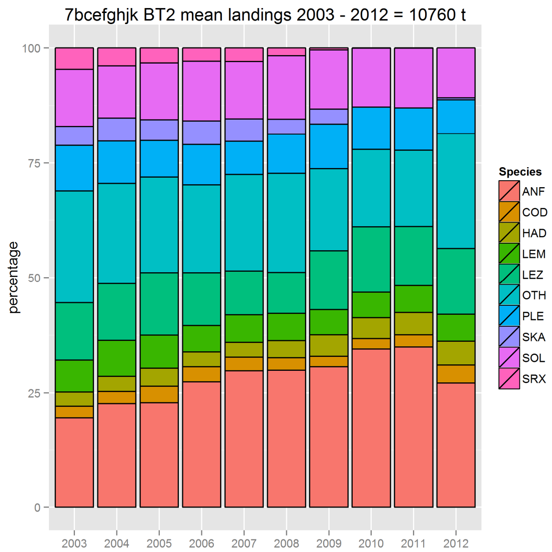


Figure 5.6.3.2.1. Relative percentage (in volume, not taking into account the discards) of each species in the total catches for TR1 (left), and TR2 (right) in Cel1 (7bcefghjk). 2003-2012. Note that landings are only those reported in accordance with the data call, not total landings by the fisheries.



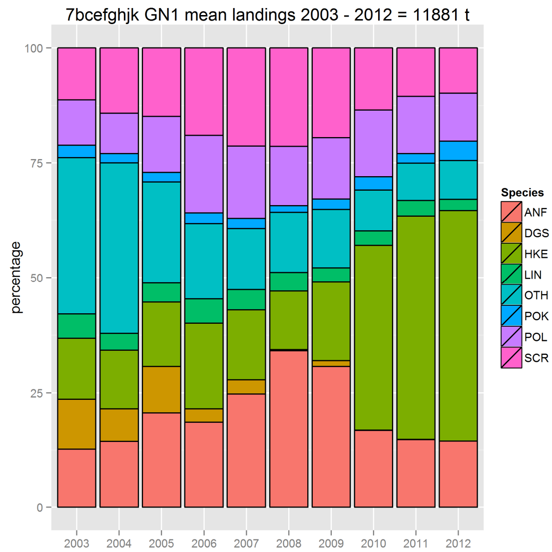


Figure 5.6.3.2.2. Relative percentage (in volume, not taking into account the discards) of each species in the total catches for BT2 (left), and GN1 (right) in Cel1 (7bcefghjk). 2003-2012. Note that landings are only those reported in accordance with the data call, not total landings by the fisheries.

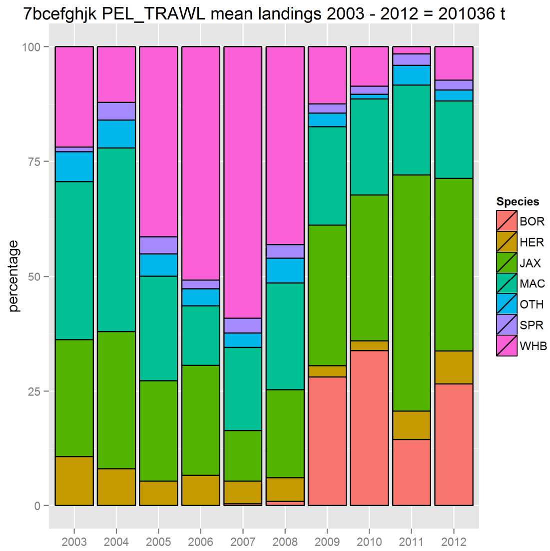


Figure 5.6.3.2.3. Relative percentage (in volume, not taking into account the discards) of each species in the total catches for PEL_TRAWL in Cel1 (7bcefghjk). 2003-2012. Note that landings are only those reported in accordance with the data call, not total landings by the fisheries.

5.6.3.2 ICES sub-divisions 7fg (Cel2)

STECF EWG 13-13 presents the requested cod in weight by fisheries. Age specific data are available on the internet page of the STECF EWG 13-13: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313.

STECF EWG 13-13 notes that discard information is scarce and presents only landing values; though figures have been provided on catch where some discard information is available (Figures 5.6.3.2.1 – 2), this should be interpreted with care due to some key fisheries not having discard information.

Table 5.6.3.2.8 presents discard rates alongside a discard coverage index for what information is available for gears catching anglerfish, haddock, hake, *Nephrops*, plaice, sole and whiting in the sub-area7fg of the Celtic Sea. As can be seen, in most cases the discard coverage index is either C (<33% of landings having discard information) or B (≥ 33% < 66%), reflecting the poor discard coverage in the data. The exceptions being for haddock and whiting in TR2 fisheries, where the coverage index is A, indicating that ≥66% of landings have discard samples. It should be noted that the discard coverage index is only an indication of where a minimum one sample has been provided; therefore it should not necessarily be interpreted an indication of discard information quality, just that some information was available for fisheries using the gear.

Figure 5.6.3.2.1-2 shows landings and discards estimates (where available) of anglerfish, haddock, hake, Nephrops, plaice, sole, and whiting by the main gears from the sub-area of the Celtic Sea 7fg (Cel2), 2003-2012. The main gear for landings of these species is TR1, with landings of haddock, whiting, cod and anglerfish increasing in recent years. Landings of anglerfish in the BT2 fishery have also been increasing since 2008. GN1 landings of Hake, cod and pollack also increased in 2012.

Table 5.6.3.2.1-7 lists the anglerfish, haddock, hake, *Nephrops*, plaice, sole, and whiting landings by Member States and gears, 2003-2012. Landings of anglerfish by Belgian and English BT2 and French TR1 fisheries have increased in recent years. French and Irish haddock landings in the TR1 fishery, as well as Irish TR1 whiting landings have increased. As have landings of sole from the Belgian BT2 vessels.

Table 5.6.3.2.9 shows the discard rate and discard coverage index for pelagic species which contribute to >1% of the landings of the main pelagic gears (PEL_TRAWL and PEL_SEINE). This includes herring, sprat and boarfish only. Discard information for *Nephrops* has also been presented. Where no discard information was available for a gear/species it was omitted from the table. As can be seen, discard information from the fisheries is very scarce, and where available considered to be of low coverage of the landings (in most cases classified as C, <33% of landings covered by discard information). The only exception is TR1 and TR2 catches of herring, where its indicated that there is good coverage (A; ≥66% of landings) with no discards observed in the past four years. It should be noted that the discard coverage index is only an indication of where a minimum one sample has been provided; therefore it should not necessarily be interpreted an indication of discard information quality, just that some information was available for fisheries using the gear.

Figures 5.6.3.2.1-3 show the landings composition of the main gears (TR1, TR2, BT2, GN1, PEL_TRAWL) 2003-2012 from the sub-area of the Celtic Sea (Cel2; 7fg). The main species caught in this area per gear category was defined as species representing more than 2% of the total landings on average, 2003-2012.

For TR1 gear in sub-division 7fg, landings predominately consist of whiting, haddock, Nephrops, cod and anglerfish. Trends are quite stable and mainly driven by Whiting and Haddock.

For TR2 gear, landings are predominately *Nephrops* , whiting, haddock, cod and anglerfish. Trends are quite stable and mainly driven by whiting and Nephrops.

For BT2 gear, landings composition has consists of mainly anglerfish, megrim, sole, rays, lemon sole, cod and haddock. Trends have been stable over the time series driven by anglerfish, megrim and sole.

For GN1, the main species caught in sub-division 7fg are pollock, hake, ling, cod, saithe, anglerfish, haddock, and, up until the landings ban introduced in 2010, dogfish. Trends are quite stable and mainly driven by hake, pollack and saithe.

For Pelagic trawls, landings are dominated by herring with some landings of sprat and boarfish since 2009.

Table 5.6.3.2.1 Anglerfish (t) landings by Member States and gears, 2003-2012.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel2	7fg	BEL	BEAM	ANF	1.605	9.951	0.696	0.222	1.725		0.549	1.128	3.225	3.919
Cel2	7fg	BEL	BT2	ANF	672.771	760.119	574.269	532.029	605.109	328.602	303.546	419.843	649.535	989.3
Cel2	7fg	BEL	DREDGE	ANF						0.018				0.07
Cel2	7fg	BEL	GN1	ANF						0.441				
Cel2	7fg	BEL	OTTER	ANF	0.888									
Cel2	7fg	BEL	TR2	ANF		17.925	27.222	56.967	59.418	76.737	69.156	53.37	50.343	108.612
Cel2	7fg	ENG	BEAM	ANF	0.223		1.532							
Cel2	7fg	ENG	BT1	ANF		1.034								
Cel2	7fg	ENG	BT2	ANF	293.644	358.271	219.346	179.904	196.717	106.667	105.256	155.43	128.677	375.662
Cel2	7fg	ENG	DREDGE	ANF	0.064	0.03	0.287	0.256	0.086	0.308	0.032	4.33	5.729	6.495
Cel2	7fg	ENG	GN1	ANF	72.693	100.238	80.858	50.936	42.145	44.127	61.574	61.483	83.614	58.436
Cel2	7fg	ENG	GT1	ANF	0.207	7.081	12.442	12.723	5.232	10.413	15.865	5.797	19.545	44.864
Cel2	7fg	ENG	LL1	ANF	0.08	0.092	0.163	0.021	0.001	0.001				
Cel2	7fg	ENG	OTTER	ANF	0.284	0.015	0.251	0.069	0.287	0.001	0.088	0.112	0.067	0.129
Cel2	7fg	ENG	POTS	ANF	0.255		0.042		0.026			0.003		
Cel2	7fg	ENG	TR1	ANF	15.422	19.57	16.698	23.109	23.381	32.044	38.382	88.524	83.989	125.938
Cel2	7fg	ENG	TR2	ANF	9.826	10.768	6.016	4.785	6.364	4.866	4.027	9.331	3.834	7.761
Cel2	7fg	ENG	TR3	ANF			0.099							
Cel2	7fg	ESP	TR1	ANF										11.05
Cel2	7fg	FRA	BT2	ANF				2.368						
Cel2	7fg	FRA	GN1	ANF	12.69	24.46	4.643		0.05	0.058	0.058		0.581	0.12
Cel2	7fg	FRA	GT1	ANF	5.613	0.024	6.586	17.078	9.805	9.754	9.754	0.39	11.345	5.844
Cel2	7fg	FRA	OTTER	ANF		2.33							0.451	0.093
Cel2	7fg	FRA	PEL_SEINE	ANF										40.673
Cel2	7fg	FRA	PEL_TRAWL	ANF				1.024					0.535	9.418
Cel2	7fg	FRA	TR1	ANF	892.102	719.718	458.888	545.192	552.836	457.792	455.712	285.43	1034.251	1416.03
Cel2	7fg	FRA	TR2	ANF	131.111	135.585	101.5	53.842	58.562	43.514	43.514	1.95	1.494	6.977
Cel2	7fg	FRA	TR3	ANF									0.389	
Cel2	7fg	GBJ	BT2	ANF	40.053	29.858	4.163							
Cel2	7fg	IOM	DREDGE	ANF				0.54						
Cel2	7fg	IRL	BEAM	ANF	10.34	61.72	0.46							
Cel2	7fg	IRL	BT1	ANF	0.67									
Cel2	7fg	IRL	BT2	ANF	156.59	162.31	366.35	479.95	346.7	367.84	433.79	461.68	457.58	493.26
Cel2	7fg	IRL	DEM_SEINE	ANF	2.94	7.61	0.58							
Cel2	7fg	IRL	DREDGE	ANF	19.86	2.25	0.73	0.44						
Cel2	7fg	IRL	GN1	ANF	23.98	38.25	49.56	32.22	19.29	15.88	32.96	28.07	32.63	27.85
Cel2	7fg	IRL	GT1	ANF	0.1				3.15	6.32	4.41	8.46	9.61	13.59
Cel2	7fg	IRL	LL1	ANF						0.01	0.01			
Cel2	7fg	IRL	none	ANF										39.03
Cel2	7fg	IRL	OTTER	ANF	4.18	23.79	0.31	1.21						0.44
Cel2	7fg	IRL	PEL_SEINE	ANF	2.97	4.82	0.7							
Cel2	7fg	IRL	PEL_TRAWL	ANF	0.62	6.21		0.2	0.34		1.12		2.9	1.48
Cel2	7fg	IRL	POTS	ANF		0.36		3.14	0.23	0.81	0.36	0.07	1.37	2.26
Cel2	7fg	IRL	TR1	ANF	55.46	78.45	102.19	165.64	233.42	329.31	421.23	461.67	520.45	545.88
Cel2	7fg	IRL	TR2	ANF	261.42	284.53	374.01	383.14	520.75	449.45	350.37	329.72	330.78	420.75
Cel2	7fg	IRL	TR3	ANF				0.22		0.26				
Cel2	7fg	NIR	TR1	ANF	0.058							1.032	1.866	4.633
Cel2	7fg	NIR	TR2	ANF		3.916	4.492	2.465	3.228	8.663	18.816	12.248	0.819	6.026
Cel2	7fg	SCO	DREDGE	ANF				2.291	0.363	0.636	3.039	3.276	0.552	
Cel2	7fg	SCO	GN1	ANF		0.031								
Cel2	7fg	SCO	OTTER	ANF							0.056			
Cel2	7fg	SCO	TR1	ANF	1.686	1.924		3.382	1.529	5.85	8.168	30.594	7.448	31.545
Cel2	7fg	SCO	TR2	ANF	0.521	0.056		0.853		1.622	2.48	0.646	8.191	1.676

Table 5.6.3.2.2 Haddock (t) landings by Member States and gears, 2003-2012.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel2	7fg	BEL	BEAM	HAD	0.121		0.157	0.057	0.16		0.174	0.797	1.548	1
Cel2	7fg	BEL	BT2	HAD	106.116	127.727	154.824	89.212	97.567	88.419	94.372	119.352	150.395	158.201
Cel2	7fg	BEL	OTTER	HAD	4.041									
Cel2	7fg	BEL	TR2	HAD		1.693	7.005	7.991	17.585	18.138	33.972	42.22	42.375	57.652
Cel2	7fg	ENG	BEAM	HAD	0.001		0.793							
Cel2	7fg	ENG	BT1	HAD		0.275								
Cel2	7fg	ENG	BT2	HAD	38.613	70.302	48.348	25.01	25.905	17.033	25.711	27.64	11.955	27.761
Cel2	7fg	ENG	GN1	HAD	40.882	56.002	55.492	45.736	31.731	34.396	34.917	30.861	49.007	35.165
Cel2	7fg	ENG	GT1	HAD		0.001	0.055	0.367	1.075	0.438	0.081	0.012	0.519	0.257
Cel2	7fg	ENG	LL1	HAD	0.057	0.747	0.914	0.557	0.002					
Cel2	7fg	ENG	OTTER	HAD	0.012				0.023	0.001	0.001	0.027		0.001
Cel2	7fg	ENG	PEL_SEINE	HAD								0.303		
Cel2	7fg	ENG	POTS	HAD			1.017							0.019
Cel2	7fg	ENG	TR1	HAD	12.56	21.568	2.277	3.561	13.138	36.233	20.654	12.22	7.486	31.152
Cel2	7fg	ENG	TR2	HAD	13.521	9.227	7.567	10.59	12.864	11.427	5.348	10.769	7.198	9.858
Cel2	7fg	ENG	TR3	HAD			0.242							
Cel2	7fg	ESP	TR1	HAD										0.105
Cel2	7fg	FRA	BT2	HAD				2.096						
Cel2	7fg	FRA	GN1	HAD	0.092	0.039	0.115			0.068	0.068	0.02	0.005	
Cel2	7fg	FRA	GT1	HAD	0.055		0.004	0.02	0.03	0.013	0.013		0.008	
Cel2	7fg	FRA	LL1	HAD			0.002							
Cel2	7fg	FRA	OTTER	HAD		2.745						6.6	2.905	0.083
Cel2	7fg	FRA	PEL_SEINE	HAD										124.626
Cel2	7fg	FRA	PEL_TRAWL	HAD				0.097					1.305	23.862
Cel2	7fg	FRA	TR1	HAD	1841.537	2845.116	1607.444	1038.685	1462.404	1672.187	1665.277	3006.01	1800.054	3515.479
Cel2	7fg	FRA	TR2	HAD	129.133	230.535	140.252	69.07	128.009	102.29	102.29	43.03	10.922	12.464
Cel2	7fg	FRA	TR3	HAD									0.684	
Cel2	7fg	GBJ	BT2	HAD	4.27	3.989	0.373							
Cel2	7fg	IRL	BEAM	HAD	14.93	44.45	0.65							
Cel2	7fg	IRL	BT1	HAD	0.26									
Cel2	7fg	IRL	BT2	HAD	116.49	121.88	192.59	181.71	161.72	135.48	161.36	167.76	150.77	267.02
Cel2	7fg	IRL	DEM_SEINE	HAD	3.55	29.5	2.28							
Cel2	7fg	IRL	DREDGE	HAD	0.67	2.26		0.09						
Cel2	7fg	IRL	GN1	HAD	27.1	40.09	35.42	10.86	41.77	33.61	33.24	38.69	69.34	65.99
Cel2	7fg	IRL	GT1	HAD								0.14		0.4
Cel2	7fg	IRL	none	HAD										56.79
Cel2	7fg	IRL	OTTER	HAD	5.27	26.26	0.19	0.77			0.04			4.18
Cel2	7fg	IRL	PEL_SEINE	HAD	4.07	41.28	7.1							
Cel2	7fg	IRL	PEL_TRAWL	HAD	1.27	4.61		1.48	0.18		3.4		22.39	10.63
Cel2	7fg	IRL	POTS	HAD		1.49		0.13		0.03		0.09	3.28	
Cel2	7fg	IRL	TR1	HAD	128.84	118.84	254.12	257.45	429.02	488.71	1002.84	825	1557.97	1957.18
Cel2	7fg	IRL	TR2	HAD	423.34	474.78	752.65	635.96	524.79	407.2	669.32	575.32	501.71	627.57
Cel2	7fg	IRL	TR3	HAD				0.2						
Cel2	7fg	NIR	TR1	HAD	4.049					11.578	0.021	41.055	91.879	262.711
Cel2	7fg	NIR	TR2	HAD		2.972	3.969	3.562	0.188	0.655	7.107	7.204	0.625	4.907
Cel2	7fg	SCO	TR1	HAD	0.342	1.038		0.24		0.099	1.626	18.87	17.537	69.223
Cel2	7fg	SCO	TR2	HAD	0.758	2.361		0.324		0.116	0.825	0.052	25.74	0.327

Table 5.6.3.2.3 Hake (t) landings by Member States and gears, 2003-2012.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel2	7fg	BEL	BEAM	HKE		0.411			0.073				0.022	
Cel2	7fg	BEL	BT2	HKE	9.147	12.813	9.437	14.341	9.217	4.924	5.065	8.147	9.603	6.54
Cel2	7fg	BEL	OTTER	HKE	1.166									
Cel2	7fg	BEL	TR2	HKE		0.356	0.464	1.894	1.389	2.213	1.764	3.152	0.451	1.246
Cel2	7fg	ENG	BEAM	HKE	0.001		0.034	0.002						
Cel2	7fg	ENG	BT1	HKE		0.009								
Cel2	7fg	ENG	BT2	HKE	7.804	8.559	5.01	3.302	3.198	2.071	3.944	4.763	3.018	5.729
Cel2	7fg	ENG	DREDGE	HKE									0.002	
Cel2	7fg	ENG	GN1	HKE	243.42	217.981	231.203	134.527	152.629	176.771	181.937	119.563	271.516	444.228
Cel2	7fg	ENG	GT1	HKE			0.039	2.967	2.532	2.306	0.136	0.106	0.266	7.781
Cel2	7fg	ENG	LL1	HKE	0.007	5.439	3.073	1.422						
Cel2	7fg	ENG	OTTER	HKE	0.002		0.207		0.007		0.01			0.003
Cel2	7fg	ENG	PEL_SEINE	HKE								0.009		
Cel2	7fg	ENG	TR1	HKE	3.51	3.15	5.073	7.308	6.927	13.181	23.392	22.769	17.748	52.685
Cel2	7fg	ENG	TR2	HKE	1.946	1.201	1.328	1.387	0.93	0.653	0.657	0.832	0.299	3.131
Cel2	7fg	ENG	TR3	HKE			0.01							
Cel2	7fg	ESP	TR1	HKE										3.412
Cel2	7fg	FRA	BT2	HKE				0.149						
Cel2	7fg	FRA	GN1	HKE	0.64	0.078	38.951		0.168	0.005	0.005	3.41	9	23.69
Cel2	7fg	FRA	GT1	HKE	0.004	0.001	0.052	0.062	0.053			0.04	0.483	0.017
Cel2	7fg	FRA	OTTER	HKE		0.813						1.26	0.348	
Cel2	7fg	FRA	PEL_SEINE	HKE										6.28
Cel2	7fg	FRA	PEL_TRAWL	HKE				0.027	0.038				0.58	4.479
Cel2	7fg	FRA	TR1	HKE	123.875	103.093	85.706	76.63	86.224	70.667	70.406	299.395	393.168	441.438
Cel2	7fg	FRA	TR2	HKE	22.273	22.459	28.955	7.592	9.002	7.126	7.126	2.757	0.773	1.3
Cel2	7fg	FRA	TR3	HKE									0.087	
Cel2	7fg	GBJ	BT2	HKE	0.543	0.515	0.103							
Cel2	7fg	IRL	BEAM	HKE	7.25	13.02								
Cel2	7fg	IRL	BT1	HKE	0.07									
Cel2	7fg	IRL	BT2	HKE	59.04	33.15	42.33	43.28	46.59	23.19	19.81	37.53	32.5	39.08
Cel2	7fg	IRL	DEM_SEINE	HKE	1.56	11.76	0.24							
Cel2	7fg	IRL	DREDGE	HKE	0.18	0.66								
Cel2	7fg	IRL	GN1	HKE	64.83	130.08	132.03	56.67	111	233.6	290.03	186.08	233.29	209.95
Cel2	7fg	IRL	GT1	HKE					0.02			0.85	0.3	13.01
Cel2	7fg	IRL	none	HKE										18.11
Cel2	7fg	IRL	OTTER	HKE	0.59	8.76								0.87
Cel2	7fg	IRL	PEL_SEINE	HKE	1.92	4.86	0.48							
Cel2	7fg	IRL	PEL_TRAWL	HKE	0.43	2.33		0.15	0.07		0.08		14.47	1.8
Cel2	7fg	IRL	POTS	HKE		0.34				0.01			1.64	
Cel2	7fg	IRL	TR1	HKE	50.45	64.76	68.24	107.57	143.23	164.84	180.82	283.14	424.47	449.82
Cel2	7fg	IRL	TR2	HKE	114.15	113.07	98.93	115.97	106.15	97.08	72.98	108.17	55.01	75.96
Cel2	7fg	IRL	TR3	HKE				0.12						
Cel2	7fg	NIR	TR1	HKE	0.761			0.008			0.056	5.317	10.694	15.418
Cel2	7fg	NIR	TR2	HKE		1.795	1.335	0.379	0.153	0.559	0.655	1.797	0.01	0.377
Cel2	7fg	SCO	GN1	HKE	0.456	0.01								
Cel2	7fg	SCO	OTTER	HKE							0.003			
Cel2	7fg	SCO	TR1	HKE	0.277	0.783		0.971	0.481	2.786	2.207	9.104	1.656	1.071
Cel2	7fg	SCO	TR2	HKE	0.114			0.146		0.603	0.021		0.004	0.009

Table 5.6.3.2.4 Nephrops (t) landings by Member States and gears, 2003-2012.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel2	7fg	BEL	BEAM	NEP	0.01							0.055		0.272
Cel2	7fg	BEL	BT2	NEP	0.12	0.572	1.076	0.721	1.46	0.388	2.645	4.285	4.331	5.002
Cel2	7fg	BEL	TR2	NEP		11.836	5.418	6.491	4.791	8.688	12.278	10.934	3.084	0.849
Cel2	7fg	ENG	BEAM	NEP			0.016							
Cel2	7fg	ENG	BT2	NEP	3.041	2.958	3.148	1.753	0.243	0.598	2.862	0.769	1.168	0.601
Cel2	7fg	ENG	GN1	NEP					0.003					
Cel2	7fg	ENG	POTS	NEP			0.081	0.069				0.002		
Cel2	7fg	ENG	TR1	NEP	4.963	1.331	2.076	1.135	0.585	2.966	7.647	4.63	4.636	4.055
Cel2	7fg	ENG	TR2	NEP	9.91	0.801	0.003		1.595		8.872	41.921		0.059
Cel2	7fg	ESP	TR1	NEP										0.732
Cel2	7fg	FRA	GN1	NEP			0.481							
Cel2	7fg	FRA	OTTER	NEP								1.89		
Cel2	7fg	FRA	PEL_TRAWL	NEP				0.95						0.23
Cel2	7fg	FRA	TR1	NEP	683.549	479.493	479.289	307.541	209.096	284.143	284.143	586.91	309.971	255.394
Cel2	7fg	FRA	TR2	NEP	146.341	27.295	45.84	14.184	11.765	12.525	12.525		0.06	
Cel2	7fg	FRA	TR3	NEP									0.085	
Cel2	7fg	IRL	BEAM	NEP	2.14	38.92	6.42							
Cel2	7fg	IRL	BT1	NEP	0.2									
Cel2	7fg	IRL	BT2	NEP	63.6	75.46	83.9	83.29	83.2	32.38	26.89	16.64	17.5	4.17
Cel2	7fg	IRL	DREDGE	NEP		0.9								
Cel2	7fg	IRL	GN1	NEP	0.23	12.51	9.53	3.89		3.97	2.31		0.05	3.12
Cel2	7fg	IRL	GT1	NEP	0.74									0.02
Cel2	7fg	IRL	none	NEP										191.55
Cel2	7fg	IRL	OTTER	NEP	35	209.55	0.12	3.04		0.1	0.1			0.61
Cel2	7fg	IRL	PEL_SEINE	NEP	7.59	2.6	0.08							
Cel2	7fg	IRL	PEL_TRAWL	NEP	3.88	47.46		1.16	0.98		15.15		9.17	30.08
Cel2	7fg	IRL	POTS	NEP		3.54			0.71	0.54			0.1	
Cel2	7fg	IRL	TR1	NEP	143.62	214.45	371.18	436.36	675.74	1080.17	1242.14	827.94	861.3	798.59
Cel2	7fg	IRL	TR2	NEP	1905.31	1675.39	2415.86	1805.46	3110.87	2916.77	2026.65	2350.59	1499.03	2445.44
Cel2	7fg	IRL	TR3	NEP				0.3						
Cel2	7fg	NIR	TR1	NEP			0.608							0.363
Cel2	7fg	NIR	TR2	NEP		34.58	65.012	58.484	46.887	338.122	328.437	328.044	7.587	32.976
Cel2	7fg	SCO	TR1	NEP	0.082	0.11				0.136	0.066	60.74	14.304	38.66
Cel2	7fg	SCO	TR2	NEP						0.665	47.068	7.206	23.634	

Table 5.6.3.2.5 Plaice (t) landings by Member States and gears, 2003-2012.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel2	7fg	BEL	BEAM	PLE	0.149	0.763	1.066	0.322	0.727		1.606	0.405	1.068	0.504
Cel2	7fg	BEL	BT2	PLE	206.623	197.953	150.713	129.684	138.073	105.029	137.42	125.442	154.468	164.498
Cel2	7fg	BEL	OTTER	PLE	5.456									
Cel2	7fg	BEL	TR2	PLE		4.363	14.957	40.588	54.17	79.031	79.566	61.549	51.533	37.201
Cel2	7fg	ENG	BEAM	PLE	0.061	0.059	0.016			0.201				
Cel2	7fg	ENG	BT1	PLE		0.021								
Cel2	7fg	ENG	BT2	PLE	65.888	39.437	27.117	27.423	24.032	23.644	28.013	25.234	22.474	24.078
Cel2	7fg	ENG	DREDGE	PLE	0.002	0.004			0.001			0.033	0.006	0.008
Cel2	7fg	ENG	GN1	PLE	0.227	0.522	0.762	0.887	0.356	0.137	0.199	0.675	0.555	0.366
Cel2	7fg	ENG	GT1	PLE		0.001	0.03	0.063	0.011	0.012	0.014	0.056	0.119	0.135
Cel2	7fg	ENG	LL1	PLE	0.009						0.001			
Cel2	7fg	ENG	OTTER	PLE	0.289	0.007	0.491	0.166	0.361	0.083	0.177	0.131	0.106	0.175
Cel2	7fg	ENG	PEL_SEINE	PLE								0.042		
Cel2	7fg	ENG	POTS	PLE			0.001							
Cel2	7fg	ENG	TR1	PLE	3.105	2.568	0.337	0.216	0.985	0.823	1.784	1.253	1.945	1.712
Cel2	7fg	ENG	TR2	PLE	28.957	20.504	11.459	23.544	14.542	17.458	12.81	13.582	8.866	7.997
Cel2	7fg	ENG	TR3	PLE			0.017							
Cel2	7fg	FRA	BT2	PLE			3.43	0.09				0.235	1.795	0.03
Cel2	7fg	FRA	DREDGE	PLE	0.009		0.004					0.065	0.065	0.058
Cel2	7fg	FRA	GN1	PLE	0.017	0.008	0.013			0.003	0.003			
Cel2	7fg	FRA	GT1	PLE	0.007	0.153	0.004	0.012				0.39	1.515	0.399
Cel2	7fg	FRA	OTTER	PLE		0.105						2.12	0.034	
Cel2	7fg	FRA	PEL_SEINE	PLE										2.999
Cel2	7fg	FRA	PEL_TRAWL	PLE	0.003			0.059				0.05	0.09	0.315
Cel2	7fg	FRA	POTS	PLE									0.061	
Cel2	7fg	FRA	TR1	PLE	117.392	91.342	64.276	51.687	51.98	72.277	71.838	91.84	60.793	71.46
Cel2	7fg	FRA	TR2	PLE	18.84	14.018	13.791	5.051	8.354	6.97	6.97	3.07	1.389	0.811
Cel2	7fg	FRA	TR3	PLE									0.036	
Cel2	7fg	GBJ	BT2	PLE	9.709	11.014	1.739							
Cel2	7fg	IRL	BEAM	PLE	0.26	1.4								
Cel2	7fg	IRL	BT2	PLE	9.22	5.49	10.74	15.54	23.15	14.31	7.88	7.15	6.84	11.37
Cel2	7fg	IRL	DEM_SEINE	PLE	0.53	0.53								
Cel2	7fg	IRL	DREDGE	PLE	0.08			0.04						
Cel2	7fg	IRL	GN1	PLE	0.21	0.39	0.13	0.1	0.32	0.01	0.46			
Cel2	7fg	IRL	GT1	PLE	0.02							0.03		
Cel2	7fg	IRL	none	PLE										0.48
Cel2	7fg	IRL	OTTER	PLE	0.97	1	0.02							
Cel2	7fg	IRL	PEL_SEINE	PLE	0.1	1.22								
Cel2	7fg	IRL	PEL_TRAWL	PLE		0.25					0.07		0.5	0.07
Cel2	7fg	IRL	POTS	PLE		0.08				0.02		0.04		
Cel2	7fg	IRL	TR1	PLE	14.88	7.52	7.71	5.75	13.7	23.86	28.48	32.7	38.8	40.95
Cel2	7fg	IRL	TR2	PLE	24.22	28	26.43	26.67	21.87	24.1	24.81	23.2	21.1	20.54
Cel2	7fg	IRL	TR3	PLE										
Cel2	7fg	NIR	TR1	PLE	0.164								0.001	0.354
Cel2	7fg	NIR	TR2	PLE		0.501	0.217	0.496		0.213	0.951	0.716	0.034	0.023
Cel2	7fg	SCO	DREDGE	PLE								0.001	0.001	
Cel2	7fg	SCO	OTTER	PLE							0.085			
Cel2	7fg	SCO	TR1	PLE	0.081						0.038	0.325	0.436	0.231
Cel2	7fg	SCO	TR2	PLE		0.214					0.057		0.093	0.013

Table 5.6.3.2.6 Sole (t) landings by Member States and gears, 2003-2012.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel2	7fg	BEL	BEAM	SOL	0.178	1.289	2.138	0.737	4.979		2.23	4.201	3.811	1.028
Cel2	7fg	BEL	BT2	SOL	686.854	693.827	624.618	527.845	522.599	412.171	438.424	534.504	688.257	781.151
Cel2	7fg	BEL	OTTER	SOL	0.649									
Cel2	7fg	BEL	TR2	SOL		15.101	15.278	43.165	46.052	49.729	75.219	80.117	80.706	55.769
Cel2	7fg	ENG	BEAM	SOL	1.59	0.048	0.21			0.396				
Cel2	7fg	ENG	BT1	SOL		0.384								
Cel2	7fg	ENG	BT2	SOL	264.394	212.959	175.979	181.496	211.838	185.231	170.755	154.502	141.529	143.016
Cel2	7fg	ENG	DREDGE	SOL	0.028	0.01	0.209	0.062	0.021	0.007	0.007	0.359	0.285	0.076
Cel2	7fg	ENG	GN1	SOL	0.867	0.922	0.894	0.6	0.715	0.25	0.199	0.212	0.272	0.089
Cel2	7fg	ENG	GT1	SOL		0.011	0.04	0.001	0.007	0.014		0.001		
Cel2	7fg	ENG	LL1	SOL	0.003									
Cel2	7fg	ENG	OTTER	SOL	0.068		0.163	0.022	0.061	0.013	0.006	0.024	0.051	0.356
Cel2	7fg	ENG	PEL_SEINE	SOL								0.002		
Cel2	7fg	ENG	POTS	SOL										0.157
Cel2	7fg	ENG	TR1	SOL	1.639	1.159	0.343	0.07	0.131	0.917	0.923	1.217	0.272	0.471
Cel2	7fg	ENG	TR2	SOL	8.726	8.85	10.151	18.125	9.038	10.327	8.911	12.286	16.39	17.138
Cel2	7fg	ENG	TR3	SOL			0.021							
Cel2	7fg	FRA	BT2	SOL			2.615	0.021				0.37	1.54	0.04
Cel2	7fg	FRA	DREDGE	SOL	0.002		0.004					0.16	0.1	0.08
Cel2	7fg	FRA	GN1	SOL		0.287	0.018							
Cel2	7fg	FRA	GT1	SOL		1.846	0.4					1.713	6.198	1.486
Cel2	7fg	FRA	OTTER	SOL		0.123						0.134	0.018	
Cel2	7fg	FRA	PEL_SEINE	SOL										0.575
Cel2	7fg	FRA	PEL_TRAWL	SOL				0.064				0.03		0.057
Cel2	7fg	FRA	POTS	SOL									0.095	
Cel2	7fg	FRA	TR1	SOL	73.682	38.95	37.966	30.528	36.219	29.986	29.979	25.67	29.864	30.632
Cel2	7fg	FRA	TR2	SOL	19.383	10.278	16.998	4.451	14.416	3.982	3.982	0.73	0.619	0.221
Cel2	7fg	FRA	TR3	SOL									0.007	
Cel2	7fg	GBJ	BT2	SOL	50.138	47.992	20.7							
Cel2	7fg	IOM	DREDGE	SOL					0.001					
Cel2	7fg	IRL	BEAM	SOL	0.98	1.75	0.04							
Cel2	7fg	IRL	BT1	SOL	0.02									
Cel2	7fg	IRL	BT2	SOL	8.96	10.12	15.52	21.69	12.7	12.13	12.02	8.48	6.94	10.77
Cel2	7fg	IRL	DREDGE	SOL		0.37		0.05						
Cel2	7fg	IRL	GN1	SOL	0.69	0.11	0.09	0.86	0.09	0.15	0.23	0.14	0.02	0.03
Cel2	7fg	IRL	none	SOL										0.72
Cel2	7fg	IRL	OTTER	SOL	0.3	0.47	0.02	0.02						
Cel2	7fg	IRL	PEL_SEINE	SOL		0.79								
Cel2	7fg	IRL	PEL_TRAWL	SOL		0.54							0.04	0.03
Cel2	7fg	IRL	TR1	SOL	1.42	2.63	1.26	2.08	2.7	2.96	3.44	3.94	7.25	4.91
Cel2	7fg	IRL	TR2	SOL	9.63	16.3	17.13	13.41	16.64	12.99	10.32	14.42	15.26	13.72
Cel2	7fg	NIR	TR1	SOL									0.004	0.028
Cel2	7fg	NIR	TR2	SOL		0.59	0.616	0.285	0.151	1.086	2.019	1.681	0.058	0.283
Cel2	7fg	SCO	DREDGE	SOL				0.048		0.062		0.038	0.009	
Cel2	7fg	SCO	OTTER	SOL							0.001			
Cel2	7fg	SCO	TR1	SOL							0.094	0.003	0.177	0.318
Cel2	7fg	SCO	TR2	SOL	0.162	0.074					0.063		0.099	0.08

Table 5.6.3.2.7 Whiting (t) landings by Member States and gears, 2003-2012.

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECIES	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
CeI2	7fg	BEL	BEAM	WHG	0.122	0.595	0.129	0.393	0.244		0.073		0.035	0.381
CeI2	7fg	BEL	BT2	WHG	112.018	136.629	177.846	53.947	67.412	73.184	38.744	64.398	63.663	90.97
CeI2	7fg	BEL	OTTER	WHG	8.389									
CeI2	7fg	BEL	TR2	WHG		35.829	36.471	69.641	54.535	43.167	45.048	29.604	24.358	50.062
CeI2	7fg	ENG	BEAM	WHG	0.059		0.014							
CeI2	7fg	ENG	BT1	WHG		0.001								
CeI2	7fg	ENG	BT2	WHG	21.739	13.129	12.393	7.205	9.845	10.942	9.58	8.951	8.379	6.519
CeI2	7fg	ENG	DREDGE	WHG		0.003								
CeI2	7fg	ENG	GN1	WHG	14.478	13.127	17.049	11.215	9.524	4.53	3.409	4.037	8.953	7.619
CeI2	7fg	ENG	GT1	WHG		0.097	0.065	0.08	0.225	0.043	0.061	0.017	0.101	0.135
CeI2	7fg	ENG	LL1	WHG	0.223	0.066	0.227	0.015	0.002	0.003				
CeI2	7fg	ENG	OTTER	WHG	0.003		0.013		0.033		0.014	0.013		0.001
CeI2	7fg	ENG	PEL_SEINE	WHG								0.612		
CeI2	7fg	ENG	POTS	WHG		0.106			0.009					0.003
CeI2	7fg	ENG	TR1	WHG	15.847	10.371	3.064	2.025	3.232	4.874	6.761	5.973	7.506	8.415
CeI2	7fg	ENG	TR2	WHG	27.997	36.884	27.887	11.535	5.21	4.297	2.714	11.757	2.887	2.076
CeI2	7fg	ENG	TR3	WHG			0.074							
CeI2	7fg	FRA	BT2	WHG				0.063					0.025	
CeI2	7fg	FRA	GN1	WHG	0.009	0.154	4.701		0.022	0.025	0.025			0.416
CeI2	7fg	FRA	GT1	WHG	0.009		0.014		0.012			0.05	0.066	0.015
CeI2	7fg	FRA	OTTER	WHG		10.289						2.5	0.137	0.032
CeI2	7fg	FRA	PEL_SEINE	WHG										16.472
CeI2	7fg	FRA	PEL_TRAWL	WHG	7.727	0.18		1.285					0.135	1.039
CeI2	7fg	FRA	TR1	WHG	2766.229	2636.194	3577.314	2763.385	1789.324	1098.857	1092.821	1212.74	1141.604	977.469
CeI2	7fg	FRA	TR2	WHG	269.742	258.958	460.258	121.41	121.316	84.829	84.829	19.01	10.603	9.006
CeI2	7fg	FRA	TR3	WHG									0.733	
CeI2	7fg	GBJ	BT2	WHG	1.497	1.475	1.134							
CeI2	7fg	IRL	BEAM	WHG	6.76	8.24								
CeI2	7fg	IRL	BT1	WHG	0.17									
CeI2	7fg	IRL	BT2	WHG	49.43	29.69	27.71	21.5	24.21	3.81	2.73	4.21	14.82	12.01
CeI2	7fg	IRL	DEM_SEINE	WHG	6.02	47.02	7.5							
CeI2	7fg	IRL	DREDGE	WHG	0.32	0.72		0.09						
CeI2	7fg	IRL	GN1	WHG	37.87	90.72	16.92	1.99	6.58	8.55	6.69	11.49	14.3	48.93
CeI2	7fg	IRL	GT1	WHG								0.06	0.03	0.15
CeI2	7fg	IRL	none	WHG										93.65
CeI2	7fg	IRL	OTTER	WHG	13.18	363.95								1.81
CeI2	7fg	IRL	PEL_SEINE	WHG	53.27	78.91	8.68							
CeI2	7fg	IRL	PEL_TRAWL	WHG	75.05	42.19		13	0.13		2.69		37.02	19.42
CeI2	7fg	IRL	POTS	WHG		2.04							1.15	
CeI2	7fg	IRL	TR1	WHG	793.4	611.34	641.43	758.07	853.92	814.01	1218.42	1672.12	2496.85	3206.05
CeI2	7fg	IRL	TR2	WHG	1875.43	2153.58	4286.66	3141.33	3403.74	1019.6	828.02	1537.7	1294.8	904.88
CeI2	7fg	IRL	TR3	WHG				0.6						
CeI2	7fg	NIR	TR1	WHG	6.478			13.3		0.2		29.075	24.244	27.705
CeI2	7fg	NIR	TR2	WHG		15.573	10.263	8.599	0.685	10.019	12.803	16.655	1.13	3.405
CeI2	7fg	SCO	OTTER	WHG							0.028			
CeI2	7fg	SCO	TR1	WHG	1.5	3.576					4.511	1.895	4.278	7.223
CeI2	7fg	SCO	TR2	WHG	1.257	6.836					2.54		5.878	0.096

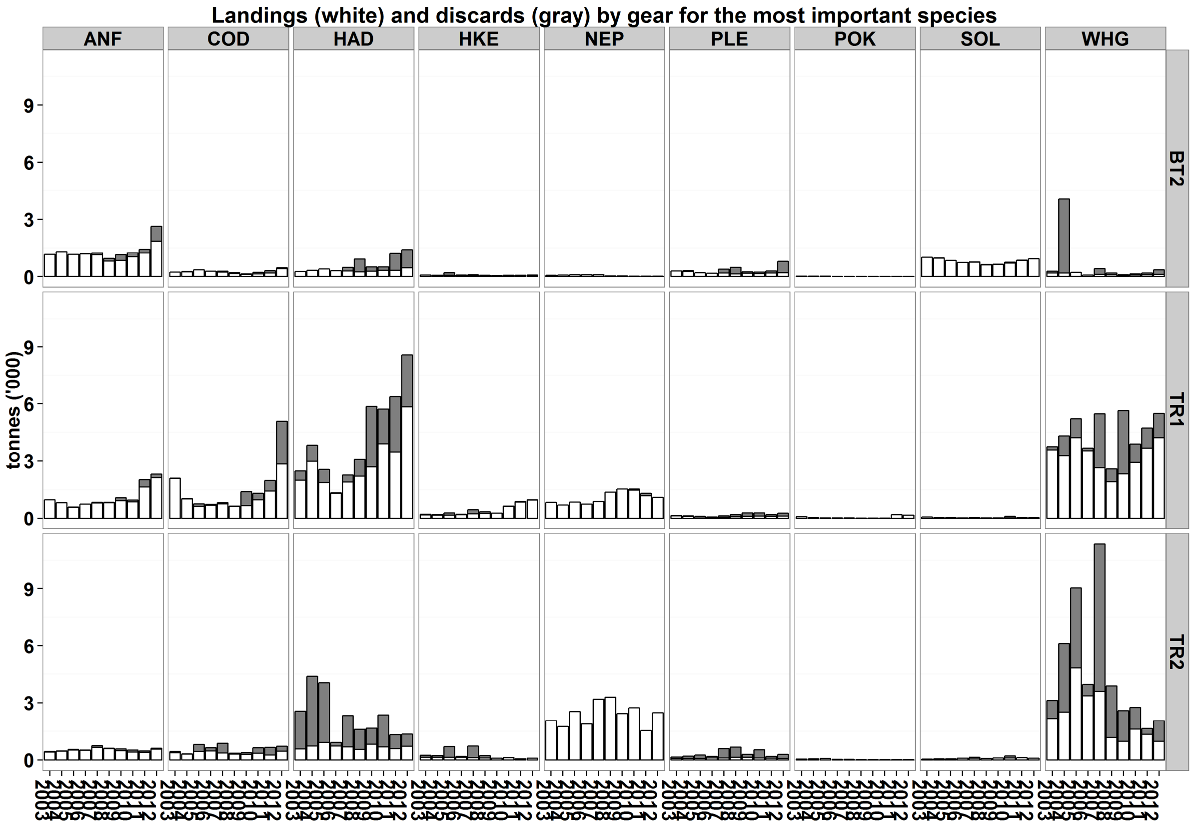


Figure 5.6.3.2.1. Landings and discards of the main species by active gears (BT2, TR1, TR2) in the sub-section of the Celtic Sea (Cel2 7fg). 2003-2012.

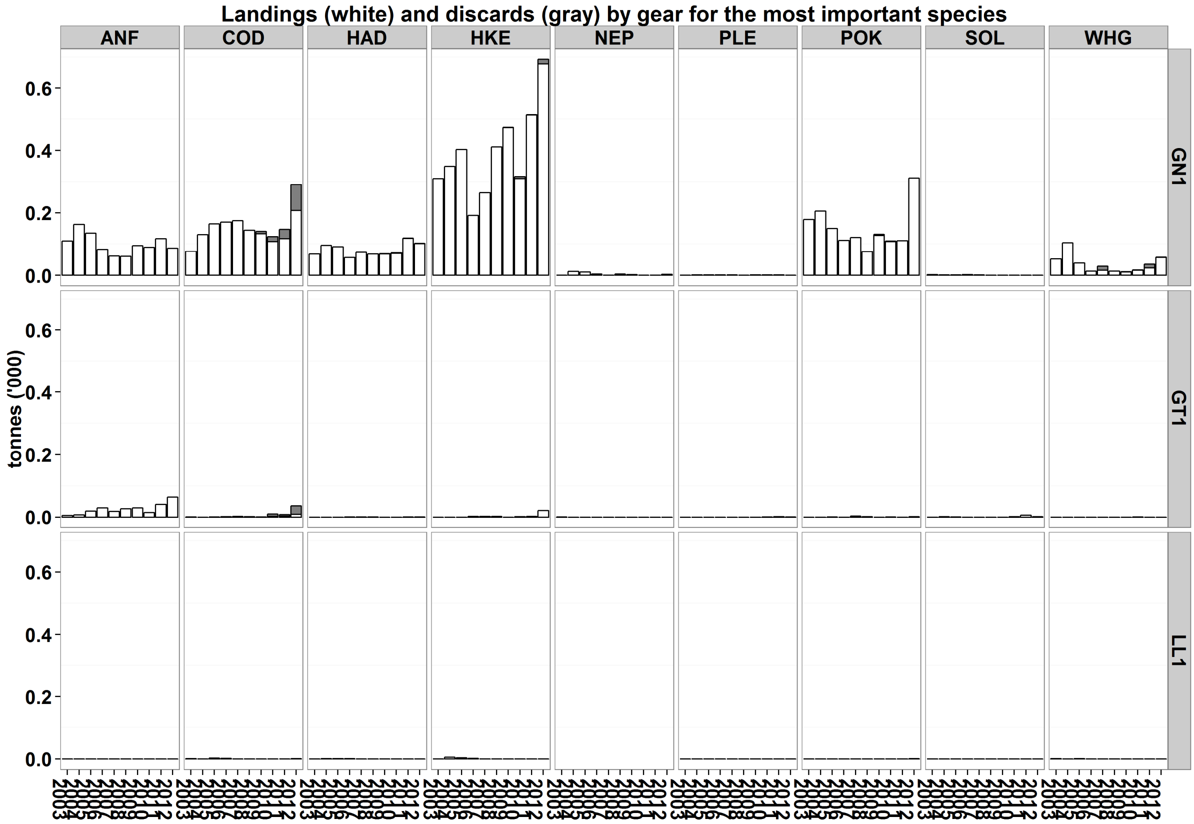


Figure 5.6.3.2.2. Landings and discards of the main species by passive gears (GN1, GT1, LL1) in the wider Celtic Sea (Cel1; 7bcefghjk). 2003-2012.

Table 5.6.3.2.8. Discard rate and associated coverage index for Cod in Cel2 (7fg) by Gear and Special condition as defined under the cod management plan. A, ≥ 66% of landings have associated discard sampling, B, ≥ 33% < 66% of landings have associated discard sampling, C < 33% of landings have associated discard sampling. 2003-2012. Gear/Special condition combinations without discard data omitted.

ANNEX	REG_AREA	REG_GEAR	SPECON	SPECIES	2003 R	2004 R	2005 R	2006 R	2007 R	2008 R	2009 R	2010 R	2011 R	2012 R	2003 DQI	2004 DQI	2005 DQI	2006 DQI	2007 DQI	2008 DQI	2009 DQI	2010 DQI	2011 DQI	2012 DQI
Cel2	7fg	BEAM	NONE	ANF																				
Cel2	7fg	BT1	none	ANF																				
Cel2	7fg	BT2	NONE	ANF					0,068	0,15	0,258	0,169	0,139	0,293					A	A	B	C	A	A
Cel2	7fg	DEM_SEINE	NONE	ANF																				
Cel2	7fg	DREDGE	NONE	ANF								0,616	0,6	0,852								C	C	C
Cel2	7fg	GN1	NONE	ANF	0	0	0			0	0,003	0,001	0	0	C	C	C			C	B	C	C	C
Cel2	7fg	GT1	none	ANF	0			0	0	0		0		0	B			C	C	C		B		C
Cel2	7fg	LL1	none	ANF																				
Cel2	7fg	none	none	ANF																				
Cel2	7fg	OTTER	NONE	ANF	0,01	0	0,019	0,03	0,02	0,909	0	0,248	0,363	0,035	C	C	C	A	C	C	C	C	C	C
Cel2	7fg	PEL_SEINE	none	ANF																				
Cel2	7fg	PEL_TRAWL	none	ANF		0,095										B								
Cel2	7fg	POTS	none	ANF																				
Cel2	7fg	TR1	none	ANF	0,004	0,006	0,011	0,003	0,035	0,013	0,141	0,1	0,183	0,078	A	A	A	A	A	A	B	A	A	C
Cel2	7fg	TR2	NONE	ANF	0,079	0,041	0,063	0,021	0,133	0,038	0,155	0,208	0,161	0,083	A	A	A	A	A	A	A	A	A	A
Cel2	7fg	TR3	none	ANF						0,058	1		0							A	A		C	
Cel2	7fg	BEAM	NONE	HAD								0,5										A		
Cel2	7fg	BT1	none	HAD																				
Cel2	7fg	BT2	NONE	HAD	0	0	0	0	0,397	0,736	0,438	0,367	0,738	0,678	C	C	C	C	A	A	B	C	A	A
Cel2	7fg	DEM_SEINE	NONE	HAD																				
Cel2	7fg	DREDGE	NONE	HAD																				
Cel2	7fg	GN1	none	HAD	0	0				0	0,003	0,029	0,008	0,012	C	C				C	B	A	B	B
Cel2	7fg	GT1	none	HAD								0		0								C		B
Cel2	7fg	LL1	none	HAD																				
Cel2	7fg	none	none	HAD																				
Cel2	7fg	OTTER	NONE	HAD	0,006	0,792	0,855	0,386	0,779	0,997	0,957	0,334	0,497	0,072	C	C	C	A	C	C	A	C	C	A
Cel2	7fg	PEL_SEINE	none	HAD																				
Cel2	7fg	PEL_TRAWL	none	HAD		0,954										C								
Cel2	7fg	POTS	none	HAD																				
Cel2	7fg	TR1	none	HAD	0,198	0,22	0,27	0,026	0,161	0,279	0,541	0,317	0,454	0,32	A	A	A	A	A	A	B	A	A	C
Cel2	7fg	TR2	NONE	HAD	0,778	0,835	0,774	0,194	0,706	0,662	0,505	0,712	0,552	0,47	A	A	A	B	B	A	A	A	A	A
Cel2	7fg	TR3	none	HAD						1	1		0							A	A		C	
Cel2	7fg	BEAM	NONE	HKE																				
Cel2	7fg	BT1	none	HKE																				
Cel2	7fg	BT2	NONE	HKE	0	0	0,723	0,174	0,381	0,521	0,336	0,258	0,324	0,291	C	C	C	C	A	A	B	C	B	A
Cel2	7fg	DEM_SEINE	NONE	HKE																				
Cel2	7fg	DREDGE	none	HKE									0										C	
Cel2	7fg	GN1	none	HKE	0	0	0		0	0	0,003	0,021	0,002	0,021	C	C	C		C	C	A	B	B	B
Cel2	7fg	GT1	none	HKE				0	0			0,257	0,578	0,001				C	C			A	C	B
Cel2	7fg	LL1	none	HKE																				
Cel2	7fg	none	none	HKE																				
Cel2	7fg	OTTER	NONE	HKE	0,001	0,001	0,804	1	0,816	1	0	0	0	0	C	C	A	A	C	A	C	C	C	C
Cel2	7fg	PEL_SEINE	none	HKE																				
Cel2	7fg	PEL_TRAWL	none	HKE		0,084										B								
Cel2	7fg	POTS	NONE	HKE																				
Cel2	7fg	TR1	none	HKE	0,144	0,13	0,444	0,071	0,485	0,293	0	0,036	0,038	0,015	A	A	A	B	B	A	B	A	A	B
Cel2	7fg	TR2	NONE	HKE	0,427	0,374	0,812	0,264	0,839	0,525	0	0	0	0,018	A	A	A	B	B	A	A	A	A	A
Cel2	7fg	TR3	none	HKE						1			0							A			C	
Cel2	7fg	BEAM	NONE	NEP																				
Cel2	7fg	BT1	NONE	NEP																				
Cel2	7fg	BT2	NONE	NEP																				
Cel2	7fg	DREDGE	NONE	NEP																				
Cel2	7fg	GN1	none	NEP																				
Cel2	7fg	GT1	NONE	NEP																				
Cel2	7fg	none	none	NEP																				
Cel2	7fg	OTTER	none	NEP																				
Cel2	7fg	PEL_SEINE	NONE	NEP																				
Cel2	7fg	PEL_TRAWL	none	NEP																				
Cel2	7fg	POTS	none	NEP																				
Cel2	7fg	TR1	none	NEP	0	0	0	0	0	0		0,031	0,091		A	A	B	B	C	C		B	C	
Cel2	7fg	TR2	NONE	NEP		0		0		0						C		C		C				
Cel2	7fg	TR3	none	NEP																				
Cel2	7fg	BEAM	NONE	PLE																				
Cel2	7fg	BT1	none	PLE																				
Cel2	7fg	BT2	NONE	PLE	0	0,175	0	0	0,519	0,698	0,288	0,286	0,363	0,748	C	C	C	C	A	A	A	A	A	A
Cel2	7fg	DEM_SEINE	NONE	PLE																				
Cel2	7fg	DREDGE	none	PLE								0,843	0,856	0,966								C	C	C
Cel2	7fg	GN1	none	PLE						0	0,013	0	0,391	0						C	C	C	C	C
Cel2	7fg	GT1	none	PLE								0,012	0	0								C	C	C
Cel2	7fg	LL1	none	PLE																				
Cel2	7fg	none	none	PLE																				
Cel2	7fg	OTTER	NONE	PLE	0,001	0,274	0,057	0,563	0,019	0,153	0,011	0,542	0,231	0,504	C	C	A	B	C	C	C	C	C	C
Cel2	7fg	PEL_SEINE	none	PLE																				
Cel2	7fg	PEL_TRAWL	none	PLE		0,471										A								
Cel2	7fg	POTS	none	PLE																				
Cel2	7fg	TR1	none	PLE	0,113	0,25	0,27	0,216	0,486	0,493	0,641	0,557	0,461	0,572	A	A	A	A	A	A	C	A	A	C
Cel2	7fg	TR2	NONE	PLE	0,52	0,663	0,731	0,48	0,83	0,809	0,558	0,806	0,52	0,772	A	A	B	B	B	C	C	C	B	B
Cel2	7fg	TR3	none	PLE						1	1		0,122							A	A		C	
Cel2	7fg	BEAM	NONE	SOL																				
Cel2	7fg	BT1	none	SOL																				
Cel2	7fg	BT2	NONE	SOL	0	0,01	0	0	0,027	0,021	0,037	0,068	0,022	0,002	C	C	C	C	A	A	A	A	A	C
Cel2	7fg	DREDGE	none	SOL								0	0	0								C	C	C
Cel2	7fg	GN1	none	SOL							0,007	0	0	0							B	B	B	C
Cel2	7fg	GT1	none	SOL								0		0								C		C
Cel2	7fg	LL1	none	SOL																				
Cel2	7fg	none	none	SOL																				
Cel2	7fg	OTTER	NONE	SOL			0		0,016		0	0	0	0			C		C		C	C	C	C
Cel2	7fg	PEL_SEINE	none	SOL																				
Cel2	7fg	PEL_TRAWL	none	SOL																				
Cel2	7fg	POTS	none	SOL																				
Cel2	7fg	TR1	none	SOL	0	0	0,002	0	0,073	0,001	0,042	0,721	0,002	0,122	A	A	A	A	A	A	C	B	B	C
Cel2	7fg	TR2	NONE	SOL	0	0	0,033	0	0,325	0,003	0,003	0,488	0,003	0,019	C	C	B	C	C	C	C	C	C	C
Cel2	7fg	TR3	none	SOL									0										C	
Cel2	7fg	BEAM	NONE	WHG																				
Cel2	7fg	BT1	none	WHG																				
Cel2	7fg	BT2	NONE	WHG	0,333	0,955		0	0,751	0,531	0,425	0,425	0,524	0,692	C	C		C	A	A	A	A	A	A
Cel2	7fg	DEM_SEINE	NONE	WHG																				
Cel2	7fg	DREDGE	none	WHG																				
Cel2	7fg	GN1	none	WHG		0			0,447	0	0,096	0,083	0,345	0,004		C			C	C	A	B	C	B
Cel2	7fg	GT1	none	WHG					0,122			0,729	0	0,013					C			C	B	B
Cel2	7fg	LL1	none	WHG																				
Cel2	7fg	none	none	WHG																				
Cel2	7fg	OTTER	NONE	WHG	0,002	0,001	0,991	1	0,946	1	0,986	0,606	0,94	0,105	C	C	C	A	C	A	C	C	C	A
Cel2	7fg	PEL_SEINE	none	WHG																				
Cel2	7fg	PEL_TRAWL	none	WHG	0	0,685									C	C								
Cel2	7fg	POTS	none	WHG																				
Cel2	7fg	TR1	none	WHG	0,046	0,245	0,191	0,038	0,516	0,258	0,588	0,25	0,223	0,23	A	A	A	A	A	A	B	A	A	B
Cel2	7fg	TR2	NONE	WHG	0,3	0,59	0,466	0,152	0,684	0,7	0,622	0,413	0,183	0,528	A	A	A	A	A	A	A	A	A	A
Cel2	7fg	TR3	none	WHG						1	1		0							A	A		C	

Table 5.6.3.2.9. Discard rate and associated coverage index for Pelagic Species making up more than 1% of total pelagic landings by pelagic gears (trawl and seine), and *Nephrops* in Cel2 (7fg) by Gear and Special condition as defined under the cod management plan. A, ≥ 66% of landings have associated discard sampling, B, ≥ 33% < 66% of landings have associated discard sampling, C < 33% of landings have associated discard sampling. 2003-2012. Gear/Special condition combinations without discard data omitted.

ANNEX	REG_AREA	REG_GEAR	SPECON	SPECIES	2003 R	2004 R	2005 R	2006 R	2007 R	2008 R	2009 R	2010 R	2011 R	2012 R	2003 DQI	2004 DQI	2005 DQI	2006 DQI	2007 DQI	2008 DQI	2009 DQI	2010 DQI	2011 DQI	2012 DQI
Cel2	7fg	BT2	none	HER					1				0						A				C	
Cel2	7fg	GN1	none	HER							0		0	0							C		C	C
Cel2	7fg	GT1	none	HER										0										C
Cel2	7fg	OTTER	none	HER	0	0	0		0,001	0	0	0	0		A	C	A		A	A	A	A	A	
Cel2	7fg	PEL_TRAWL	none	HER		0										A								
Cel2	7fg	TR1	none	HER	0,937	0,875	0,987		1	0,98	0	0	0	0	A	A	A		C	A	A	A	A	A
Cel2	7fg	TR2	none	HER	0,919	0,962	1		0,888	0,225	0	0	0	0	A	A	C		A	A	A	A	A	A
Cel2	7fg	TR3	NONE	HER						1	0		0							A	A		A	
Cel2	7fg	BT1	NONE	NEP																				
Cel2	7fg	BT2	NONE	NEP																				
Cel2	7fg	GN1	none	NEP																				
Cel2	7fg	GT1	NONE	NEP																				
Cel2	7fg	OTTER	none	NEP																				
Cel2	7fg	PEL_SEINE	NONE	NEP																				
Cel2	7fg	PEL_TRAWL	none	NEP																				
Cel2	7fg	TR1	none	NEP	0	0	0	0	0	0		0,031	0,091		A	A	B	B	C	C		B	C	
Cel2	7fg	TR2	NONE	NEP		0		0		0						C		C		C				
Cel2	7fg	TR3	none	NEP																				
Cel2	7fg	BT2	NONE	SPR					1										A					
Cel2	7fg	GN1	none	SPR								0		0								C		C
Cel2	7fg	OTTER	NONE	SPR																				
Cel2	7fg	PEL_TRAWL	none	SPR		0										A								
Cel2	7fg	TR1	NONE	SPR		1			1	1						A			A	A				
Cel2	7fg	TR2	NONE	SPR		0,863			1	1				0		A			A	A				A

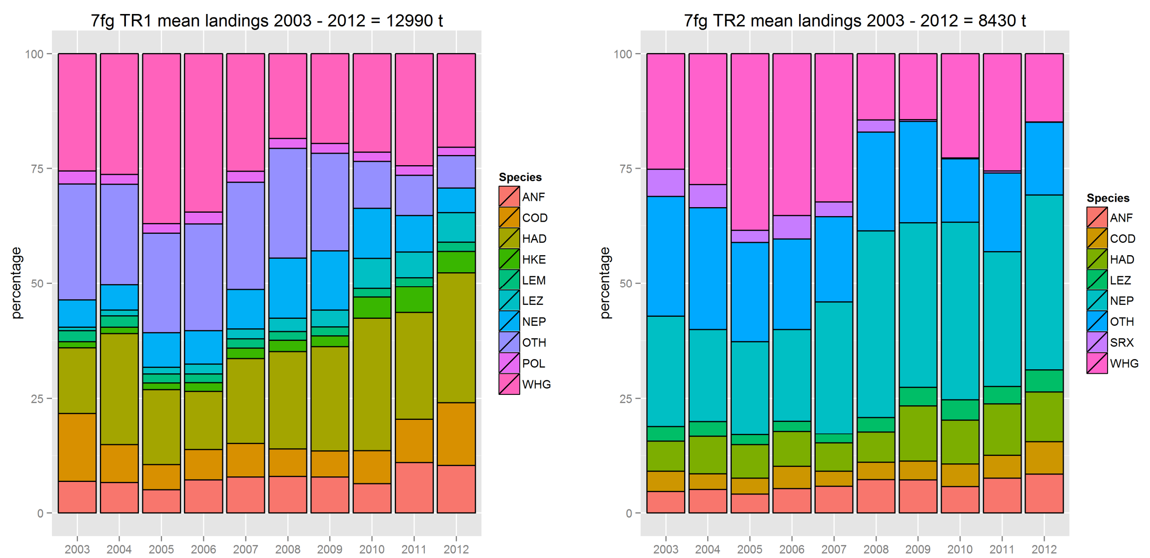
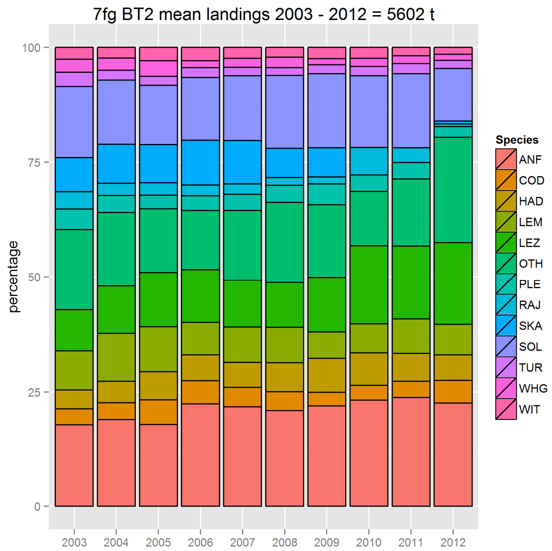


Figure 5.6.3.2.1. Relative percentage (in volume, not taking into account the discards) of each species in the total catches for TR1 (left), and TR2 (right). 2003-2012. Note that landings are only those reported in accordance with the data call, not total landings by the fisheries.



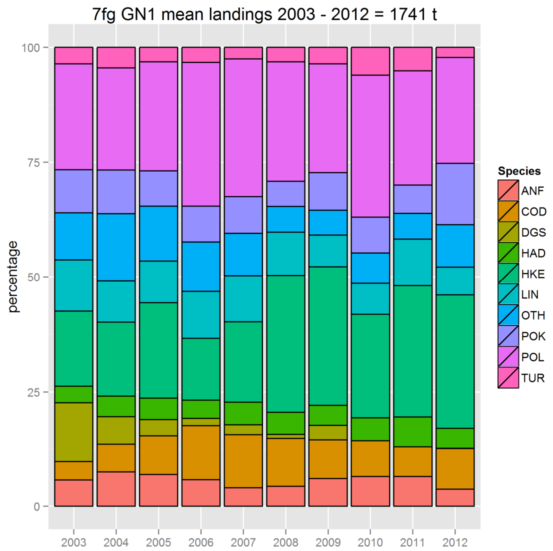


Figure 5.6.3.2.2 Relative percentage (in volume, not taking into account the discards) of each species in the total catches for BT2 (left) and GN1 (right). 2003-2012. Note that landings are only those reported in accordance with the data call, not total landings by the fisheries.

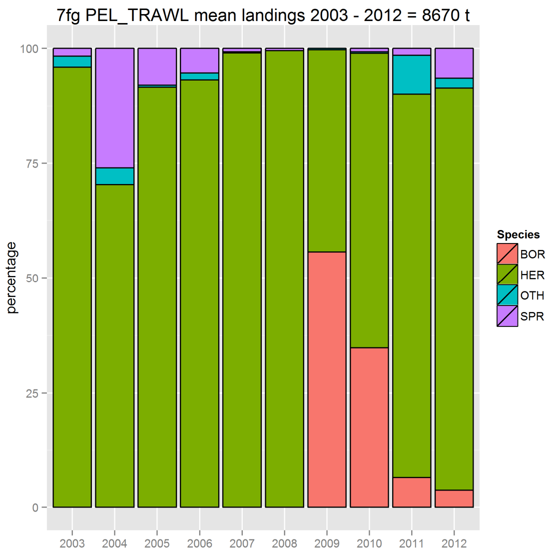


Figure 5.6.3.2.3 relative percentage (in volume, not taking into account the discards) of each species in the total catches for Pelagic Trawl, 2003-2012. Note that landings are only those reported in accordance with the data call, not total landings by the fisheries.

5.6.4 ToR 1.d CPUE and LPUE of cod by area, fisheries and Member States

Tables 5.6.4.1.1 and 5.6.4.1.2 showing LPUE and CPUE by gear groups (regulated and unregulated); area and nation are not presented in this report but are available on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1306

5.6.4.1 ICES sub-divisions 7bcefghjk (Cel1)

STECF EWG 13-13 notes that discard information is scarce. Figure 5.6.4.1.1 displays the trends in cod CPUE and LPUE, 2003-2012 for the four gears with highest CPUE or LPUE over the past 5 years. The increasing LPUE and CPUE trends in recent years are consistent with the ICES 2013 stock assessment which shows a large increase in stock size following a strong 2010 year class.

Tables 5.6.4.1.1 – 2 shows CPUE and LPUE figures by all gear types. Information by nation is not presented in this report but are available on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313.

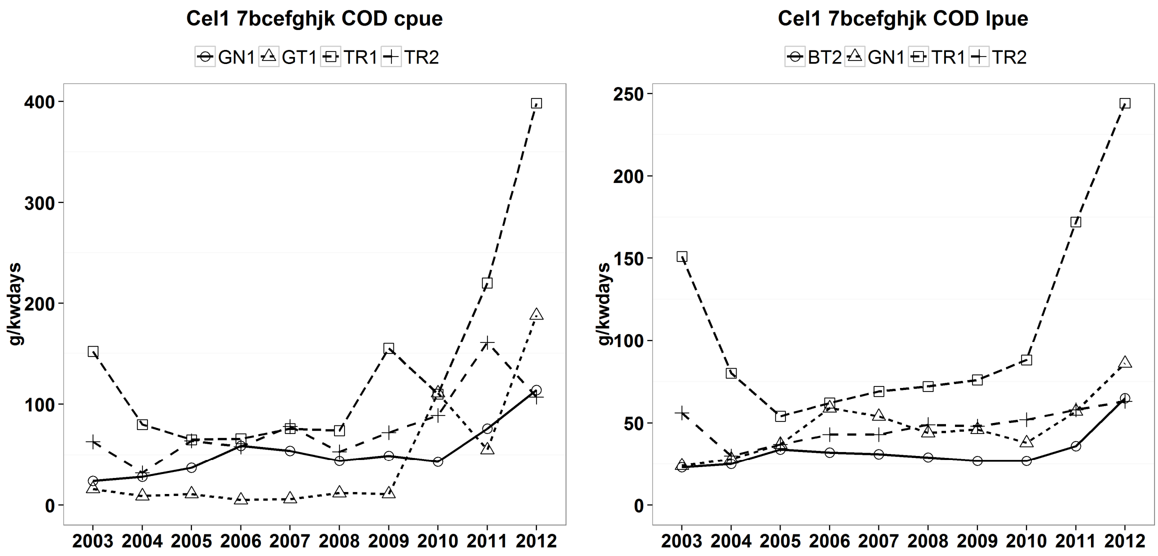


Figure 5.6.4.1.1 CPUE and LPUE for cod and for Celtic Sea and for gear category and years 2003-2012.

Table 5.6.4.1.1 Cod CPUE (g/(kW*days)) by gear/mesh-size category and year, 2003-2012. Celtic Sea

ANNEX	SPECIES	REG AREA COD	REG GEAR COD	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012	CPUE 2010-2012
Cel1	COD	7bcefghjk	BEAM	19	37	13	0	0	0	0	0	0	0	0
Cel1	COD	7bcefghjk	BT1		19	0	0	0	0	0	0	0	0	0
Cel1	COD	7bcefghjk	BT2	23	25	34	32	36	36	30	43	123	72	79
Cel1	COD	7bcefghjk	DEM_SEINE	20	54	55	0	0		0	0	0	0	0
Cel1	COD	7bcefghjk	DREDGE	0	0	0	0	0	0	0	1	0	0	0
Cel1	COD	7bcefghjk	GN1	24	28	37	59	54	44	49	43	76	114	78
Cel1	COD	7bcefghjk	GT1	16	9	11	5	6	12	11	111	55	188	118
Cel1	COD	7bcefghjk	LL1	17	6	4	14	2	2	3	3	11	1	3
Cel1	COD	7bcefghjk	none	0				0			0	18	40	38
Cel1	COD	7bcefghjk	OTTER	15	21	0	6	2	0	0	28	22	1	16
Cel1	COD	7bcefghjk	PEL_SEINE	10	14	3					0	0	148	62
Cel1	COD	7bcefghjk	PEL_TRAWL	0	1	0	0	0	0	0	0	1	2	1
Cel1	COD	7bcefghjk	POTS	0	0	0	0	0	0	1	0	1	0	0
Cel1	COD	7bcefghjk	TR1	152	80	65	66	76	74	155	110	220	398	248
Cel1	COD	7bcefghjk	TR2	63	32	64	58	78	53	72	89	161	107	117
Cel1	COD	7bcefghjk	TR3	0	0	0	0		0	0	45	62	0	35

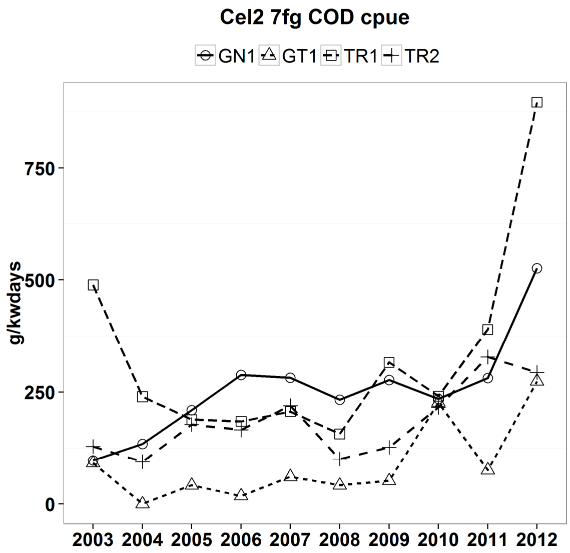
Table 5.6.4.1.2 Cod LPUE (g/(kW*days)) by gear/mesh-size category and year, 2003-2012. Celtic Sea

ANNEX	SPECIES	REG AREA COD	REG GEAR COD	LPUE 2003	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2010-2012
Cel1	COD	7bcefghjk	BEAM	19	37	13	0	0	0	0	0	0	0	0
Cel1	COD	7bcefghjk	BT1		19	0	0	0	0	0	0	0	0	0
Cel1	COD	7bcefghjk	BT2	23	25	34	32	31	29	27	27	36	65	43
Cel1	COD	7bcefghjk	DEM_SEINE	20	54	55	0	0		0	0	0	0	0
Cel1	COD	7bcefghjk	DREDGE	0	0	0	0	0	0	0	1	0	0	0
Cel1	COD	7bcefghjk	GN1	24	28	37	59	54	44	46	38	57	86	61
Cel1	COD	7bcefghjk	GT1	16	9	11	5	6	12	11	23	33	57	38
Cel1	COD	7bcefghjk	LL1	17	6	4	14	2	2	3	3	11	1	3
Cel1	COD	7bcefghjk	none	0				0			0	18	40	38
Cel1	COD	7bcefghjk	OTTER	15	21	0	0	2	0	0	6	17	1	6
Cel1	COD	7bcefghjk	PEL_SEINE	10	14	3					0	0	148	62
Cel1	COD	7bcefghjk	PEL_TRAWL	0	0	0	0	0	0	0	0	1	2	1
Cel1	COD	7bcefghjk	POTS	0	0	0	0	0	0	1	0	1	0	0
Cel1	COD	7bcefghjk	TR1	151	80	54	62	69	72	76	88	172	244	171
Cel1	COD	7bcefghjk	TR2	56	30	37	43	43	49	48	52	58	63	57
Cel1	COD	7bcefghjk	TR3	0	0	0	0		0	0	45	62	0	35

5.6.4.2 ICES sub-divisions 7fg (Cel2)

STECF EWG 13-06 notes that discard information is scarce. Figure 5.6.4.2.1 displays the trends in cod CPUE and LPUE, 2003-2012 for the four gears with highest CPUE or LPUE over the past 5 years. The increasing LPUE and CPUE trends in recent years are consistent with the ICES 2013 stock assessment which shows a large increase in stock size following a strong 2010 year class.

Tables 5.6.4.2.1 and 5.6.4.2.2 show LPUE and CPUE by gear types. Information by nation is not presented in this report but are available on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313



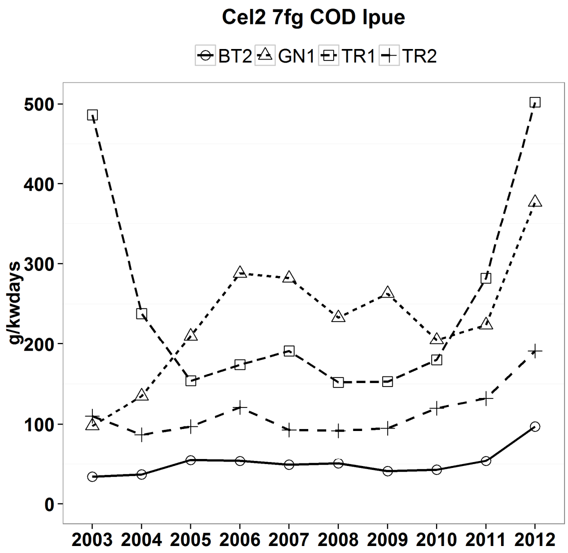


Figure 5.6.4.2.1 CPUE and LPUE for cod and for Divisions VIIfg and for gear category and years 2003-2012.

Table 5.6.4.2.1 Cod CPUE (g/(kW*days)) by gear/mesh-size category and year, 2003-2012. Divisions VIIfg

ANNEX	SPECIES	REG AREA COD	REG GEAR COD	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012	CPUE 2010-2012
Cel2	COD	7fg	BEAM	21	38	109		0	0	0	0	0	0	0
Cel2	COD	7fg	BT1		0	0	0	0	0	0	0	0	0	0
Cel2	COD	7fg	BT2	34	38	55	54	60	66	48	67	90	109	91
Cel2	COD	7fg	DEM_SEINE	0	65	133	0	0	0	0	0	0	0	0
Cel2	COD	7fg	DREDGE	3	6		0				0	0	0	0
Cel2	COD	7fg	GN1	98	135	210	288	282	233	277	235	281	526	350
Cel2	COD	7fg	GT1	92	0	42	18	61	42	52	227	76	274	192
Cel2	COD	7fg	LL1	36		39	61	0		0	0	0	0	0
Cel2	COD	7fg	none	0	0	0	0			0	0	0	136	136
Cel2	COD	7fg	OTTER	167	116	0	115	0	0	0	36	74	0	38
Cel2	COD	7fg	PEL_SEINE	194	133	120	0	0	0	0	0	0	663	608
Cel2	COD	7fg	PEL_TRAWL	2	14		6	0		5	0	19	42	22
Cel2	COD	7fg	POTS	0	2	0				0	0	1	0	0
Cel2	COD	7fg	TR1	489	240	189	185	207	157	316	241	390	897	518
Cel2	COD	7fg	TR2	129	95	178	166	220	101	127	216	328	294	272
Cel2	COD	7fg	TR3	0		0	0	0	0		0	166	0	146

Table 5.6.4.2.2 Cod LPUE (g/(kW*days)) by gear/mesh-size category and year, 2003-2012. Divisions VIIfg

ANNEX	SPECIES	REG AREA COD	REG GEAR COD	LPUE 2003	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2010-2012
Cel2	COD	7fg	BEAM	21	38	109		0	0	0	0	0	0	0
Cel2	COD	7fg	BT1		0	0	0	0	0	0	0	0	0	0
Cel2	COD	7fg	BT2	34	37	55	54	49	51	41	43	54	97	67
Cel2	COD	7fg	DEM_SEINE	0	65	133	0	0	0	0	0	0	0	0
Cel2	COD	7fg	DREDGE	3	6		0				0	0	0	0
Cel2	COD	7fg	GN1	98	135	210	288	282	233	263	205	224	377	270
Cel2	COD	7fg	GT1	92	0	42	18	61	42	52	41	28	68	49
Cel2	COD	7fg	LL1	36		39	61	0		0	0	0	0	0
Cel2	COD	7fg	none	0	0	0	0			0	0	0	136	136
Cel2	COD	7fg	OTTER	167	113	0	0	0	0	0	36	25	0	23
Cel2	COD	7fg	PEL_SEINE	194	133	120	0	0	0	0	0	0	663	608
Cel2	COD	7fg	PEL_TRAWL	2	12		6	0		5	0	19	42	22
Cel2	COD	7fg	POTS	0	2	0				0	0	1	0	0
Cel2	COD	7fg	TR1	486	238	154	174	191	152	153	180	282	502	325
Cel2	COD	7fg	TR2	110	87	97	121	93	92	95	120	132	191	147
Cel2	COD	7fg	TR3	0		0	0	0	0		0	166	0	146

5.6.5 ToR 2 Main species by gear group and remarks on quality of catches and discard estimates

Discard data are only available for some species and gears, so the lack of discard information for a given species/gear in the graphs may mean no information rather than zero discards. Furthermore, due to the limited availability and reliability of discard information for some species and from some countries contributing landings information to the dataset, care is required in the use of these data to draw firm conclusions about catch composition.

Discard rates alongside a discard coverage index has been presented in the relevant sections above, where information is available. In most cases the discard coverage index is either C (<33% of landings having discard information) or B (≥ 33% < 66%), reflecting the poor discard coverage in the data. It should be noted that the discard coverage index is only an indication of where a minimum one sample has been provided; therefore it should not necessarily be interpreted an indication of discard information quality, just that some information was available for fisheries using the gear.

5.6.5.1 ICES sub-divisions 7bcefghjk (Cel1)

Table 5.6.5.1.1 lists the relative landings contributions by major demersal species by the major gears, ranked in ascending order in 2012, 2003-2012. TR1 gear is the main gear landing anglerfish and cod; TR2 is the main gear catching *Nephrops*; BT2 is the main gear landing plaice and sole, while GN1 is the main gear landings hake.

Table 5.6.5.1.1 Relative landings contributions by major demersal species as caught by the major gears, ranked in ascending order in 2012, 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel
Cel1	7bcefghjk	ANF	TR3	0,00014	0	0	0,00045	0	0	0	0,00026	0,00116	0
Cel1	7bcefghjk	ANF	LL1	0,00063	0,00006	0,00043	0,00006	0,00017	0	0	0	0	0
Cel1	7bcefghjk	ANF	GT1	0,05619	0,08122	0,08993	0,07049	0,07111	0,08191	0,07999	0,01684	0,04058	0,04343
Cel1	7bcefghjk	ANF	GN1	0,13401	0,15068	0,17539	0,10199	0,12914	0,20252	0,19572	0,13846	0,10733	0,10288
Cel1	7bcefghjk	ANF	BT2	0,16354	0,17909	0,17856	0,18955	0,1846	0,1599	0,158	0,26379	0,20839	0,17937
Cel1	7bcefghjk	ANF	TR2	0,31707	0,29042	0,29973	0,27498	0,26959	0,23142	0,21308	0,16389	0,1446	0,19052
Cel1	7bcefghjk	ANF	TR1	0,32834	0,29782	0,25595	0,36248	0,34538	0,32425	0,35321	0,41677	0,49794	0,48381
Cel1	7bcefghjk	ANF	BT1	0,00007	0,0007								
Cel1	7bcefghjk	COD	TR3	0	0	0	0		0	0	0,00117	0,00118	0
Cel1	7bcefghjk	COD	LL1	0,00369	0,00212	0,00177	0,00845	0,00124	0,00146	0,00099	0,00117	0,00213	0,00095
Cel1	7bcefghjk	COD	GT1	0,00344	0,00381	0,00531	0,00296	0,00456	0,00585	0,00546	0,00935	0,00923	0,01012
Cel1	7bcefghjk	COD	GN1	0,0344	0,07445	0,08946	0,09168	0,09204	0,08732	0,08978	0,05958	0,04969	0,05469
Cel1	7bcefghjk	COD	BT2	0,0742	0,1379	0,19929	0,14871	0,13391	0,1078	0,09177	0,07944	0,0646	0,08378
Cel1	7bcefghjk	COD	TR2	0,25946	0,24196	0,34588	0,36122	0,35572	0,35415	0,33383	0,28193	0,16919	0,13753
Cel1	7bcefghjk	COD	TR1	0,62482	0,53934	0,35828	0,38699	0,41252	0,44341	0,47817	0,56737	0,70398	0,71293
Cel1	7bcefghjk	COD	BT1		0,00042				0				
Cel1	7bcefghjk	HKE	GT1	0,00118	0,00069	0,00113	0,00164	0,00131	0,00094	0,00052	0,00135	0,00041	0,00284
Cel1	7bcefghjk	HKE	BT2	0,0264	0,01892	0,01735	0,01825	0,01523	0,01103	0,01398	0,00961	0,00631	0,0032
Cel1	7bcefghjk	HKE	TR2	0,13579	0,12852	0,13387	0,10784	0,09223	0,092	0,087	0,06576	0,04172	0,02988
Cel1	7bcefghjk	HKE	TR1	0,35644	0,35925	0,40207	0,37965	0,35545	0,30063	0,32289	0,28714	0,25814	0,18262
Cel1	7bcefghjk	HKE	GN1	0,46935	0,48685	0,43025	0,36936	0,30085	0,26966	0,43786	0,52341	0,61945	0,38634
Cel1	7bcefghjk	HKE	LL1	0,01084	0,00577	0,01533	0,12327	0,23494	0,32575	0,13775	0,11258	0,07326	0,39512
Cel1	7bcefghjk	HKE	BT1	0	0								
Cel1	7bcefghjk	HKE	TR3	0	0	0	0	0	0	0	0,00014	0,00071	
Cel1	7bcefghjk	NEP	GT1	0,00021		0	0	0	0	0	0,00031	0,00041	0
Cel1	7bcefghjk	NEP	GN1	0,00021	0,00412	0,00255	0,00101	0	0,00059	0,00036	0	0	0,00047
Cel1	7bcefghjk	NEP	BT2	0,01637	0,02301	0,01786	0,01888	0,01278	0,00514	0,0059	0,00354	0,00493	0,00157
Cel1	7bcefghjk	NEP	TR1	0,26946	0,30862	0,28707	0,28151	0,2116	0,25554	0,3421	0,30809	0,34841	0,26715
Cel1	7bcefghjk	NEP	TR2	0,71165	0,66424	0,69252	0,69819	0,77562	0,73873	0,65165	0,6879	0,64625	0,73081
Cel1	7bcefghjk	NEP	BT1	0									
Cel1	7bcefghjk	NEP	LL1	0,00021							0		
Cel1	7bcefghjk	NEP	TR3	0,00189			0,00041				0,00015	0	
Cel1	7bcefghjk	PLE	BT1		0				0,01758				0
Cel1	7bcefghjk	PLE	LL1	0	0	0	0	0	0	0	0	0	0
Cel1	7bcefghjk	PLE	TR3	0	0	0	0,00066	0,00153	0,00076	0,00358	0,00067	0,00117	0,00058
Cel1	7bcefghjk	PLE	GT1	0,00486	0,00936	0,01418	0,00787	0,00613	0,00229	0,00215	0,00468	0,00526	0,00406
Cel1	7bcefghjk	PLE	GN1	0,00216	0,00527	0,00515	0,00262	0,0023	0,00229	0,00501	0,00401	0,00468	0,00464
Cel1	7bcefghjk	PLE	TR1	0,10378	0,08484	0,06637	0,06098	0,07427	0,1055	0,11668	0,14171	0,16082	0,17217
Cel1	7bcefghjk	PLE	TR2	0,24757	0,2282	0,26933	0,3082	0,31547	0,3341	0,31067	0,3008	0,26901	0,23826
Cel1	7bcefghjk	PLE	BT2	0,64162	0,67232	0,64497	0,61967	0,60031	0,53746	0,56192	0,54813	0,55906	0,58029
Cel1	7bcefghjk	SOL	BT1	0	0,00053								0
Cel1	7bcefghjk	SOL	LL1	0	0	0	0	0	0	0	0	0	0
Cel1	7bcefghjk	SOL	TR3	0,00049	0	0	0	0	0	0,00065	0,00062	0,00106	0,0005
Cel1	7bcefghjk	SOL	GN1	0,0069	0,01268	0,00857	0,0042	0,00631	0,00988	0,01293	0,00678	0,00797	0,00855
Cel1	7bcefghjk	SOL	GT1	0,01922	0,02272	0,03714	0,02152	0,0247	0,02037	0,02133	0,01479	0,02974	0,02515
Cel1	7bcefghjk	SOL	TR1	0,06259	0,0486	0,04143	0,03885	0,03836	0,05062	0,05171	0,06346	0,06798	0,07042
Cel1	7bcefghjk	SOL	TR2	0,18383	0,16904	0,17476	0,2042	0,2186	0,22222	0,24628	0,21257	0,1864	0,15594
Cel1	7bcefghjk	SOL	BT2	0,72696	0,74643	0,7381	0,73123	0,71203	0,69691	0,6671	0,70179	0,70685	0,73944

5.6.5.2 ICES sub-divisions 7fg (Cel2)

Table 5.6.5.2.1 lists the relative landings contributions by major demersal species by the major gears, ranked in ascending order in 2012, 2003-2012. TR1 is the main gear landing anglerfish, cod and hake; TR2 is the main gear landing *Nephrops*, while BT2 is the main gear landing plaice and sole.

Table 5.6.5.2.1 Relative landings contributions by major demersal species as caught by the major gears, ranked in ascending order in 2012, 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	2003 Rel	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel
Cel2	7fg	ANF	GT1	0,00227	0,00254	0,00789	0,01178	0,0067	0,0113	0,01261	0,00621	0,01164	0,01363
Cel2	7fg	ANF	GN1	0,04118	0,05917	0,05604	0,0326	0,0227	0,02652	0,03993	0,03725	0,03405	0,01832
Cel2	7fg	ANF	TR2	0,15225	0,16443	0,21295	0,19717	0,24116	0,25435	0,20513	0,16846	0,11496	0,11757
Cel2	7fg	ANF	BT2	0,43937	0,47586	0,48319	0,46897	0,42761	0,34913	0,35435	0,42922	0,35972	0,39574
Cel2	7fg	ANF	TR1	0,36456	0,29764	0,23993	0,28947	0,30182	0,3587	0,38798	0,35886	0,47963	0,45474
Cel2	7fg	ANF	BT1	0,00038	0,00036								
Cel2	7fg	ANF	LL1	0	0	0	0	0	0	0			
Cel2	7fg	ANF	TR3			0	0		0	0		0	
Cel2	7fg	COD	LL1	0,00036		0,0019	0,00126	0		0	0	0	0
Cel2	7fg	COD	GT1	0,00036	0	0,00063	0,00126	0,00197	0,00163	0,00083	0,00127	0,00201	0,0023
Cel2	7fg	COD	GN1	0,02753	0,0767	0,10386	0,10739	0,11521	0,11736	0,11065	0,06848	0,05865	0,05306
Cel2	7fg	COD	BT2	0,08077	0,1469	0,21976	0,16993	0,14812	0,12551	0,09567	0,08941	0,09073	0,10357
Cel2	7fg	COD	TR2	0,13799	0,17286	0,27739	0,29185	0,23897	0,2502	0,23295	0,22257	0,13133	0,11684
Cel2	7fg	COD	TR1	0,75299	0,60354	0,39645	0,4283	0,49572	0,5053	0,5599	0,61826	0,71679	0,72423
Cel2	7fg	COD	BT1		0								
Cel2	7fg	COD	TR3			0	0		0			0,0005	
Cel2	7fg	HKE	GT1	0	0	0	0,00522	0,00441	0,0025	0	0,00091	0,00068	0,01169
Cel2	7fg	HKE	BT2	0,10953	0,0765	0,0758	0,10609	0,08664	0,03745	0,03368	0,04558	0,03072	0,0284
Cel2	7fg	HKE	TR2	0,1963	0,19332	0,1742	0,22087	0,17327	0,13483	0,0964	0,10665	0,03891	0,04566
Cel2	7fg	HKE	GN1	0,43954	0,48401	0,53457	0,33217	0,38767	0,51186	0,5482	0,28168	0,35085	0,37751
Cel2	7fg	HKE	TR1	0,25462	0,23922	0,21144	0,33391	0,34802	0,31336	0,32172	0,56518	0,57884	0,53675
Cel2	7fg	HKE	BT1	0	0								
Cel2	7fg	HKE	LL1	0	0,00695	0,00399	0,00174						
Cel2	7fg	HKE	TR3			0	0		0			0	
Cel2	7fg	NEP	GT1	0,00034									0
Cel2	7fg	NEP	GN1	0	0,00512	0,00287	0,00147	0	0,00085	0,0005		0	0,00084
Cel2	7fg	NEP	BT2	0,02262	0,03114	0,02527	0,03162	0,0205	0,00705	0,00799	0,00519	0,00838	0,00279
Cel2	7fg	NEP	TR1	0,28089	0,27395	0,2449	0,2739	0,21346	0,29203	0,38312	0,34897	0,43336	0,30585
Cel2	7fg	NEP	TR2	0,69615	0,68979	0,72696	0,69301	0,76604	0,70006	0,60839	0,64584	0,55827	0,69053
Cel2	7fg	NEP	BT1	0									
Cel2	7fg	NEP	TR3				0					0	
Cel2	7fg	PLE	GN1	0	0,00236	0,00299	0,00305	0,00284	0	0,00249	0,00258	0,00267	0
Cel2	7fg	PLE	GT1	0	0	0	0	0	0	0	0	0,00535	0,00261
Cel2	7fg	PLE	TR2	0,14429	0,16038	0,2006	0,29268	0,28125	0,34783	0,31172	0,26357	0,22193	0,17493
Cel2	7fg	PLE	TR1	0,27255	0,23821	0,21557	0,17683	0,19034	0,26359	0,25436	0,32558	0,27273	0,30026
Cel2	7fg	PLE	BT2	0,58317	0,59906	0,58084	0,52744	0,52557	0,38859	0,43142	0,40827	0,49733	0,52219
Cel2	7fg	PLE	BT1		0								
Cel2	7fg	PLE	LL1	0						0			
Cel2	7fg	PLE	TR3			0			0	0		0	
Cel2	7fg	SOL	GN1	0,00177	0,00094	0,00106	0,00118	0,00115	0	0	0	0	0
Cel2	7fg	SOL	GT1		0,00188	0	0	0	0		0,00238	0,00603	0,00094
Cel2	7fg	SOL	TR1	0,06832	0,04049	0,04255	0,0391	0,04467	0,04709	0,04497	0,0369	0,03819	0,03399
Cel2	7fg	SOL	TR2	0,03372	0,04802	0,06383	0,0936	0,09851	0,10803	0,1336	0,12976	0,11357	0,08215
Cel2	7fg	SOL	BT2	0,89618	0,90866	0,89255	0,86611	0,85567	0,84488	0,82143	0,83095	0,84221	0,88291
Cel2	7fg	SOL	BT1	0	0								
Cel2	7fg	SOL	TR3			0						0	
Cel2	7fg	SOL	LL1	0									

5.6.6 ToR 3 Information on small boats (<10m by area)

Information for French and UK under 10m fisheries was available; Irish information was not available. Information for other countries is given by gear type, however this information is known to be incomplete.

5.6.6.1 Fishing effort of small boats by area, Member State and fisheries

Table 5.6.6.1.1 Nominal effort (kWdays at sea) by Member State for both areas, the entire Celtic Sea (Cel 1) and the sub-divisions 7fg only (Cel2). Effort by the main countries where data is presented (UK and France) has been relatively stable in the past two years; French effort appears to have increased significantly since 2009 though this is due to incomplete data prior to this period rather than an observed increase in effort by the fisheries.

ANNEX	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	VESSEL_LENGTH	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel1	7bcefghjk	BEAM	none	ENG	u10m				0	0		207	112	471		221	221	
Cel1	7bcefghjk	BT2	none	ENG	u10m						12562	13305	15748	11579	3677			
Cel1	7bcefghjk	DREDGE	none	ENG	u10m				24089	48934	33463	161077	187150	185413	158641	125421	152417	125370
Cel1	7bcefghjk	GN1	none	ENG	u10m				41752	69050	74894	563412	730928	783075	667972	624143	716419	804574
Cel1	7bcefghjk	GT1	none	ENG	u10m				0	0	160	709	3026	3162	1699	1523	974	583
Cel1	7bcefghjk	LL1	none	ENG	u10m				16298	38722	40782	120378	267883	292465	388625	464270	476390	497331
Cel1	7bcefghjk	OTTER	none	ENG	u10m				177	622	1858	1939	3166	2913	4295		523	1463
Cel1	7bcefghjk	PEL_SEINE	none	ENG	u10m								1300		354	1769	1723	
Cel1	7bcefghjk	PEL_TRAWL	none	ENG	u10m								1106	8244	144		222	253
Cel1	7bcefghjk	POTS	none	ENG	u10m				121943	92568	94533	1624452	1804630	1796809	1088507	1170435	1118346	1144306
Cel1	7bcefghjk	TR1	none	ENG	u10m				524		2034	2246	4562	9425	10605	18178	34476	29832
Cel1	7bcefghjk	TR2	none	ENG	u10m				89089	81776	85163	413462	658783	638121	495758	470138	314999	388622
Cel1	7bcefghjk	TR3	none	ENG	u10m									201	152			
Cel1	7bcefghjk	BT2	none	FRA	U10M					7998						2565	594	316
Cel1	7bcefghjk	DREDGE	none	FRA	U10M	383622	395064	2677194	782207	1020244	658413	661222	455336	279707	277385	468049	531299	498655
Cel1	7bcefghjk	GN1	none	FRA	U10M	117885	133855	1075160	355002	470349	383942	399424	310109	150085	150085	407988	289702	355761
Cel1	7bcefghjk	GT1	none	FRA	U10M	77054	53571	775863	263410	233202	202572	216971	255766	96495	96385	204060	235068	233191
Cel1	7bcefghjk	LL1	none	FRA	U10M	125046	197513	1042972	279411	334891	286741	358796	264220	133317	133317	671963	691829	643782
Cel1	7bcefghjk	none	none	FRA	U10M	19031	18910	65818	21485	19490	20585	11710	21071	9972	9972		100435	
Cel1	7bcefghjk	OTTER	none	FRA	U10M	11157	9958	77289	74804	79589	69392	40911	35208	4735	4735	25069	19283	14440
Cel1	7bcefghjk	PEL_SEINE	none	FRA	U10M			264		364		540	295			60	729	
Cel1	7bcefghjk	PEL_TRAWL	none	FRA	U10M			433	1260		2918		900	540	540	2996	3337	2222
Cel1	7bcefghjk	POTS	none	FRA	U10M	428931	806655	6215896	1418687	2126775	1719730	1825507	1621260	1107466	1105491	1126890	1769013	1660944
Cel1	7bcefghjk	TR1	none	FRA	U10M		4725	4305	12837	4918	3990	6615	2520			8116	100	931
Cel1	7bcefghjk	TR2	none	FRA	U10M	27193	17674	307593	126390	170118	71616	91906	47909	26772	21741	62223	91493	99771
Cel1	7bcefghjk	TR3	none	FRA	U10M		6029	46908	12602	13640	13703	8440	1414	721	721	10200	16392	23818
Cel1	7bcefghjk	DREDGE	none	GBG	u10m									560	560			
Cel1	7bcefghjk	GN1	none	GBG	u10m									672	784	2829	4480	4831
Cel1	7bcefghjk	LL1	none	GBG	u10m									325	896		602	478
Cel1	7bcefghjk	POTS	none	GBG	u10m									448	237			
Cel1	7bcefghjk	TR2	none	GBG	u10m											672	90	
Cel1	7bcefghjk	TR2	none	GBJ	u10m					0								112
Cel1	7bcefghjk	GN1	none	IOM	u10m									158				
Cel1	7bcefghjk	DREDGE	none	NIR	u10m									119		573		
Cel1	7bcefghjk	POTS	none	NIR	u10m										2530			
Cel1	7bcefghjk	TR2	none	NIR	u10m							1050		2388	4382	1038	80	
Cel1	7bcefghjk	TR1	none	NLD	U10M			59										
Cel1	7bcefghjk	TR2	none	NLD	u10m													30
Cel1	7bcefghjk	DREDGE	none	SCO	u10m										22			1968
Cel1	7bcefghjk	GN1	none	SCO	u10m							194	1732	339		85	60	2618
Cel1	7bcefghjk	LL1	none	SCO	u10m			90				169	254			127	169	4
Cel1	7bcefghjk	none	none	SCO	u10m										170			75
Cel1	7bcefghjk	OTTER	none	SCO	u10m		60											
Cel1	7bcefghjk	POTS	none	SCO	u10m						187	1040	454	180	37		791	1834
Cel1	7bcefghjk	TR2	none	SCO	u10m						1824			300	116	35	112	307

Table 5.6.6.1.1 continued.

ANNEX	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	VESSEL_LENGTH	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Cel2	7fg	BEAM	none	ENG	u10m					0								
Cel2	7fg	BT2	none	ENG	u10m							1009	350	5668	2091			
Cel2	7fg	DREDGE	none	ENG	u10m				0	4250	500	5417	5962	9761	7581	4139	7247	3750
Cel2	7fg	GN1	none	ENG	u10m				1058	25449	15139	93621	183300	217701	178566	188959	186763	202886
Cel2	7fg	GT1	none	ENG	u10m					0	0		845			65	223	317
Cel2	7fg	LL1	none	ENG	u10m				434	24059	21580	10158	84820	84181	127260	134122	152160	143220
Cel2	7fg	OTTER	none	ENG	u10m				95	622	1764	913	1728	57	1885		126	
Cel2	7fg	PEL_SEINE	none	ENG	u10m								1300		354		132	
Cel2	7fg	PEL_TRAWL	none	ENG	u10m										40			
Cel2	7fg	POTS	none	ENG	u10m				12	3867	5083	706650	826383	793296	361204	395633	395011	407189
Cel2	7fg	TR1	none	ENG	u10m				524		1677	2131	4546	2464	6591	4783	12583	11272
Cel2	7fg	TR2	none	ENG	u10m				4030	13397	15912	53406	115790	109414	57108	55202	34583	33061
Cel2	7fg	BT2	none	FRA	u10m													206
Cel2	7fg	DREDGE	none	FRA	u10m											574		
Cel2	7fg	GT1	none	FRA	u10m											3059		
Cel2	7fg	PEL_TRAWL	none	FRA	u10m											596		
Cel2	7fg	POTS	none	FRA	u10m											328		
Cel2	7fg	TR1	none	FRA	u10m											220		
Cel2	7fg	TR2	none	FRA	u10m											592	2395	
Cel2	7fg	TR3	none	FRA	u10m											82		510
Cel2	7fg	DREDGE	none	NIR	u10m									119		573		
Cel2	7fg	TR2	none	NIR	u10m							1050		2388	3389	1038	80	
Cel2	7fg	TR1	none	NLD	U10M			59										
Cel2	7fg	DREDGE	none	SCO	u10m													116
Cel2	7fg	GN1	none	SCO	u10m								224					1575
Cel2	7fg	LL1	none	SCO	u10m			90										
Cel2	7fg	none	none	SCO	u10m													75
Cel2	7fg	POTS	none	SCO	u10m								410	180	37		126	1371
Cel2	7fg	TR2	none	SCO	u10m											35		75

5.6.6.2 Catches (landings and discards) of small boats by area, Member State and fisheries

Table 5.6.6.2.1 lists the cod landings by Member State for both areas, the entire Celtic Sea (Cel 1) and the sub-divisions 7fg only (Cel2). Landings of cod reflect trends by the larger vessels, with landings increasing in recent years following the strong 2010 year class and the increase in stock size (ICES, 2013).

Table 5.6.6.2.Cod landings (t) by Member State for both areas, the entire Celtic Sea (Cel 1) and the sub-divisions 7fg only (Cel2).

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECON	SPECIES	2003 L	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L
Cel1	7bcefghjk	ENG	BEAM	none	COD		0,021								
Cel1	7bcefghjk	ENG	BT2	none	COD			0,034	0,176	0,11	0,113	0,006			
Cel1	7bcefghjk	ENG	DREDGE	none	COD	0,004			0,002	0,022	0,001	0,01		0,455	0,023
Cel1	7bcefghjk	ENG	GN1	none	COD	21,298	16,391	10,818	30,372	36,954	19,918	29,282	50,557	87,458	137,248
Cel1	7bcefghjk	ENG	GT1	none	COD	0,003	0,06	0,065		0,022	0,203	0,345	0,659	0,288	0,234
Cel1	7bcefghjk	ENG	LL1	none	COD	0,035	0,077	0,133	0,807	0,82	1,939	6,487	10,935	22,966	17,115
Cel1	7bcefghjk	ENG	none	none	COD		0,005		0,007		0,018				
Cel1	7bcefghjk	ENG	OTTER	none	COD	8,378	5,748	3,683	2,444	0,689	0,012	0,02		0,001	
Cel1	7bcefghjk	ENG	PEL_TRAWL	none	COD										0,012
Cel1	7bcefghjk	ENG	POTS	none	COD	5,516	0,002	0,007	0,026	0,019	0,14	0,526	0,485	1,968	2,456
Cel1	7bcefghjk	ENG	TR1	none	COD	0,14		2,097	0,241	0,125	0,239	0,283	1,795	2,995	4,559
Cel1	7bcefghjk	ENG	TR2	none	COD	5,22	4,902	15,534	23,587	28,079	16,16	12,76	20,643	15,688	21,446
Cel1	7bcefghjk	FRA	BT2	none	COD		0,125						0,02		
Cel1	7bcefghjk	FRA	DREDGE	none	COD	0,017							0,018	0,1	0,048
Cel1	7bcefghjk	FRA	GN1	none	COD	1,077	1,706	0,417	0,846	0,532	0,444	0,444	10,018	17,673	5,778
Cel1	7bcefghjk	FRA	GT1	none	COD	2,465	0,096	0,929	0,551	2,354	0,895	0,895	5,288	10,117	20,194
Cel1	7bcefghjk	FRA	LL1	none	COD	0,145	0,066	0,04	0,046	0,033	0,022	0,022	1,37	14,367	5,843
Cel1	7bcefghjk	FRA	none	none	COD									0,032	
Cel1	7bcefghjk	FRA	OTTER	none	COD	0,02	0,091	0,016	0,002	0,001			0,07	0,1	
Cel1	7bcefghjk	FRA	PEL_SEINE	none	COD									0,008	
Cel1	7bcefghjk	FRA	POTS	none	COD	0,009							0,069	0,537	0,074
Cel1	7bcefghjk	FRA	TR1	none	COD	0,086	0,139		0,051	0,026			0,033		
Cel1	7bcefghjk	FRA	TR2	none	COD	0,259	0,089	0,348	0,02	0,041	0,015		0,182	0,657	0,073
Cel1	7bcefghjk	FRA	TR3	none	COD								0,007	0,038	0,032
Cel1	7bcefghjk	GBG	GN1	none	COD								0,003		0,178
Cel1	7bcefghjk	GBG	LL1	none	COD										0,394
Cel1	7bcefghjk	GBG	TR2	none	COD						0,174		0,002		
Cel1	7bcefghjk	IRL	none	NONE	COD	195,73	17,38	19,19	10,98		1,2	0,42	28,24	34,17	89,27
Cel1	7bcefghjk	NIR	TR2	none	COD				0,105		0,415	0,203	0,239	0,022	
Cel1	7bcefghjk	SCO	DREDGE	none	COD										0,005
Cel1	7bcefghjk	SCO	GN1	none	COD									0,007	0,01
Cel1	7bcefghjk	SCO	LL1	none	COD								0,004		
Cel1	7bcefghjk	SCO	TR2	none	COD			0,044			0,001				0,015

ANNEX	REG_AREA	COUNTRY	REG_GEAR	SPECON	SPECIES	2003 L	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L
Cel2	7fg	ENG	BEAM	none	COD		0,015								
Cel2	7fg	ENG	BT2	none	COD				0,016	0,029	0,086	0,006			
Cel2	7fg	ENG	DREDGE	none	COD					0,001					
Cel2	7fg	ENG	GN1	none	COD	0,454	1,012	0,963	5,974	5,064	2,129	2,716	8,279	18,294	26,458
Cel2	7fg	ENG	GT1	none	COD					0,005				0,05	0,013
Cel2	7fg	ENG	LL1	none	COD	0,001	0,009	0,068	0,496	0,251	0,035	0,047	2,585	9,322	7,436
Cel2	7fg	ENG	OTTER	none	COD	3,239	0,485	0,429	1,35	0,671		0,002		0,001	
Cel2	7fg	ENG	POTS	none	COD	0,053			0,006			0,037	0,166	0,701	1,157
Cel2	7fg	ENG	TR1	none	COD	0,089		2,097	0,241	0,125	0,025	0,09	0,4	1,134	1,633
Cel2	7fg	ENG	TR2	none	COD	0,126	1,317	13,026	10,7	7,276	2,282	1,528	2,981	2,298	2,95
Cel2	7fg	FRA	GT1	none	COD								0,1		
Cel2	7fg	FRA	POTS	none	COD								0,01		
Cel2	7fg	IRL	none	NONE	COD	59,88	17,03	18,6	9,45		0,66		26,88	33,7	70,31
Cel2	7fg	NIR	TR2	none	COD				0,105		0,415	0,203	0,239	0,022	
Cel2	7fg	SCO	GN1	none	COD										0,01
Cel2	7fg	SCO	TR2	none	COD										0,015

5.6.7 ToR 4 Data quality and any unexpected evolutions of the trends in catches and effort by area, Member State and fisheries

The inclusion of Spanish data in 2012 is welcome and provides a more complete picture of landings as reported by Member States. A lack of discard information, including for some major fisheries, mean that interpreting trends in catch and CPUE is challenging; submission of discard information by all countries would enable of more complete evaluation of the Celtic Sea fisheries.

5.6.8 ToR 5 Correlation between partial cod mortality and fisheries

The STECF EWG 13-13 notes that the Celtic Sea cod stock (7e-k) is not part of the cod management plan. For reasons of consistency, the STECF EWG presents partial exploitation rates by fisheries and Member States as defined in the cod plan in relation to the estimated total exploitation rate by ICES (2013) and the landings and discards volumes in relation to the estimated total catch for the year available. The full list of all fisheries can be downloaded from the EWG's web page http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313.

Correlations between fishing effort in units of kW days at sea of the major fisheries (top 10, where contributing to >1% of total landings) and partial fishing mortalities are presented in Figures 5.6.8.1 for Cel1 and 5.6.8.4 for Cel2. Trends in partial fishing mortality by these fisheries over time are presented in Figures 5.6.8.2 (Cel1) and 5.6.8.5 (Cel2), and catchability coefficients for these figures are also presented over time in Figures 5.6.8.3 and 5.6.8.6. The following Tables 5.6.8.1-2 present trends in effort and partial F for landings only as discards are not included in the assessment. The presented parameters r (absolute value of Pearson's coefficient of correlation), numbers of points considered as well as a p value to quantify the statistical significance (≤ 0.05) allow conclusions about the quality of the correlation between the partial F and fisheries specific fishing effort.

SSB has increased from below Blim to well above MSY Btrigger since 2010. Recruitment has been highly variable over time with occasional very high recruitment (1987, 2010). Fishing mortality increased from around 0.5 in 1971 to 0.8 in 1981 and varied without trend around this level until 2005, when it sharply declined to around F_{MSY} in 2011 and 2012. French and Irish trawlers represent more than 80 percent of the estimated harvest rates.

STECF EWG 13-13 notes that the correlation between fishing effort and partial fishing mortality of the summed catches and partial Fs for the major fisheries and that for the main country/gear landing cod (French TR1) in the wider Celtic Sea (Cel1; 7bcefghjk) is not significant. However, there is a significant relationship for other major fisheries including for landings for French, Irish, English, Northern Irish and Dutch (catch only) TR2 fisheries and Belgian BT2 (all $p<0.05$).

When considering the sub-area Cel2 (7fg), the relationship between F and effort is also significant for all summed catches of regulated gears and for the major French TR1 fishery for landings ($p<0.05$). The relationship between landing partial F and effort remains significant for the main TR2 fisheries (France, Ireland, except England) and the Belgian BT2 fishery in the sub-area 7fg.

The increase in partial F for 2012 for the main French TR1 fishery in 2012 (Figures 5.8.6.2 & 5.8.6.5) and increase in catchability (Figure 5.6.8.1 & 5.6.8.6) may indicate a switch to targeting cod following increased fishing opportunities and increased stock size.

The good correlation between fishing effort and partial fishing mortality for some fisheries indicates that effective fishing management by fishing effort units in KW days at sea may be possible, in these cases, as an auxillary measure to landings constraints and technical measures. The relationship between F and effort appears less direct where the fishery has the ability to adapt targeting behaviour to changes in fishing opportunities (e.g. the French TR1 fishery).

Table 5.6.8.1 Cod in the entire Celtic Sea (7bcefghjk). The left part of the table lists estimated F trajectories from the management plan and the ICES 2013 cod assessment, as well as partial Fs for landings of fisheries using gears defined as those regulated under the cod management plan. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

FMSY= 0.4														Effort kW days running previous year baseline													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012			
F plan														Effort plan													
reduction F plan																											
F estimated				0.915	0.922	0.958	0.800	0.806	0.724	0.727	0.484	0.374	0.424	Effort estimated	55516239	56222641	56322770	51759025	51760380	41025066	39029602	43541555	42707589	42694243			
reduction F estimated										0.00	-0.33	-0.23	0.13								-0.05	0.12	-0.02	0.00			
														EFFORT											2003-2012		
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n
BEL	BT1	none	catches						0.00006											1766							
BEL	BT2	none	catches	0.01768	0.03777	0.05610	0.01946	0.02200	0.01089	0.00969	0.00923	0.00873	0.01365		2914644	4568918	3996701	3246205	3351614	2285026	1932211	2392748	2698681	3206396	0.823	0.003	10
BEL	TR2	none	catches		0.00073	0.00256	0.00277	0.00377	0.00182	0.00432	0.00356	0.00669	0.00745			119327	188914	424630	464699	467476	468989	422826	322422	468384	0.433	0.244	9
ENG	BT1	none	catches		0.00030											52079											
ENG	BT2	none	catches	0.01468	0.02182	0.03112	0.01945	0.02039	0.01616	0.01631	0.01466	0.03175	0.00977		6040112	5696823	5684136	5278959	5012272	4324163	3862069	3735555	3882328	3728300	0.265	0.460	10
ENG	GN1	none	catches	0.01229	0.02213	0.03025	0.02685	0.02069	0.01303	0.02097	0.01080	0.00523	0.01242		2072275	2209784	1683378	968269	983770	724124	639496	721831	617961	670878	0.378	0.281	10
ENG	GT1	none	catches		0.00000	0.00036	0.00033	0.00038	0.00028	0.00015	0.00044	0.00024	0.00230		18276	40888	27240	71011	29897	37830	17331	16157	86642	117234	0.701	0.024	10
ENG	LL1	none	catches	0.00086	0.00001	0.00084	0.00063	0.00012	0.00001	0.00001	0.00002	0.00002	0.00001		400652	340754	323584	475144	656851	202109	48307	59764	55715	36152	0.487	0.153	10
ENG	TR1	none	catches	0.00587	0.00682	0.00815	0.00744	0.00402	0.00514	0.00858	0.00442	0.00297	0.00653		2435406	2261954	1804168	2227366	2304849	1669349	1368822	1541253	2080247	1393333	-0.259	0.470	10
ENG	TR2	none	catches	0.01002	0.01092	0.02585	0.01349	0.01723	0.01139	0.01108	0.01400	0.00312	0.00345		2177819	2259084	2182086	2026476	2064267	1676522	1728330	1688245	1349178	1316914	0.681	0.030	10
ENG	TR3	none	catches	0.00000		0.00007			0.00000	0.00001					6269	991	3204	1505	5646	7952	10318	2204	4242	13828			
FRA	BT2	none	catches	0.00000	0.00022	0.00001	0.00063	0.00002	0.00000	0.00001	0.00012	0.00003	0.00000		45086	317773	263900	305832	320576	146443	138669	306957	205105	131553	0.508	0.134	10
FRA	GN1	none	catches	0.00161	0.00212	0.00154	0.00116	0.00067	0.00093	0.00126	0.00090	0.00265	0.00228		1783662	2085242	2144357	1947806	2175901	2240099	2239709	2233974	2042906	2287411	-0.181	0.616	10
FRA	GT1	none	catches	0.00194	0.00231	0.00351	0.00124	0.00141	0.00194	0.00235	0.01688	0.00294	0.00919		762235	971823	1201844	1371988	1529613	1043635	1043484	992674	999986	936777	-0.286	0.423	10
FRA	LL1	none	catches	0.00125	0.00117	0.00020	0.00357	0.00034	0.00033	0.00040	0.00040	0.00043	0.00028		235082	338303	405334	710618	724605	475817	475817	553903	497021	755496	0.138	0.704	10
FRA	TR1	none	catches	0.34172	0.28088	0.19804	0.14350	0.13395	0.12236	0.32068	0.16887	0.14724	0.34541		7734607	7788841	7366673	7881085	7420257	6314288	6290496	9431237	10053439	9930243	0.035	0.924	10
FRA	TR2	none	catches	0.11682	0.07640	0.17805	0.10285	0.14532	0.07212	0.12819	0.08110	0.06599	0.04064		10516376	10920284	11540724	10898037	10785794	7338510	7293644	6895363	6068354	6018646	0.682	0.030	10
FRA	TR3	none	catches				0.00000				0.00050	0.00024			5832	6986	14923	21471	4483	9527	9527	55029	54466	22264	0.862	0.001	10
GBG	TR2	none	catches				0.00001	0.00000	0.00000		0.00000	0.00000	0.00001				730	6378	11065	5203	3090	7854	2298	11868			
GBJ	BT2	none	catches	0.00092	0.00270	0.00139									284450	365302	202229								0.707	0.500	3
GBJ	TR2	none	catches	0.00000			0.00000	0.00004	0.00002	0.00001	0.00003	0.00001	0.00000		3557		6745	19360	30580	25740	31020	37620	41195	12760			
IRL	BT2	none	catches	0.00975	0.02103	0.05229	0.03496	0.02052	0.02379	0.01996	0.02302	0.00803	0.00883		3748872	2331454	2969538	2079409	1767496	1020052	916246	948287	879763	1085019	0.303	0.395	10
IRL	GN1	none	catches	0.00607	0.01996	0.03099	0.01788	0.01563	0.01869	0.02109	0.01409	0.00636	0.01064		1062126	886948	678791	531205	561733	532849	550092	523002	451265	495485	-0.055	0.880	10
IRL	GT1	none	catches	0.00001			0.00001	0.00001	0.00001	0.00004	0.00044	0.00005	0.00028		802	172	16260	20223	25383	44065	37179	66405	50980	76602			
IRL	LL1	none	catches			0.00009	0.00003	0.00001	0.00014	0.00002			0.00002		91311	3600	72796	1265	55984	23606	29165	34204	17637	64790			
IRL	TR1	none	catches	0.01541	0.03191	0.10137	0.05357	0.04575	0.04219	0.09922	0.09754	0.04307	0.04725		5847912	5080624	4811084	3883296	4031609	3868538	4179131	4496000	4410607	4107580	-0.283	0.428	10
IRL	TR2	none	catches	0.04034	0.06522	0.21404	0.11995	0.09311	0.05573	0.06536	0.08112	0.02493	0.02908		5516623	5481022	6549003	5781300	6056725	4609737	3484871	4105661	3760111	4029507	0.694	0.026	10
IRL	TR3	none	catches	0.00001	0.00004		0.00003		0.00000		0.00000	0.00002	0.00001		8499	8964	340	10012	3976	11941	17634	9604	21664	20151			
NIR	TR1	none	catches	0.00031			0.00004			0.00001	0.00008	0.00099	0.00174		7641		716	5176		1141	1805	16616	24770	42944	0.945	0.000	8
NIR	TR2	none	catches		0.00082	0.00231	0.00148	0.00062	0.00328	0.00604	0.00498	0.00013	0.00043			53672	72432	42938	20658	128847	153397	146457	6852	31350	0.963	0.000	9
NLD	TR1	none	catches									0.00008										6044	221	4442			
NLD	TR2	none	catches							0.00121	0.00085	0.00060	0.00028		36589	64393	108566	162551	113851	90839	216240	252472	259559	150099	0.481	0.159	10
SCO	BT2	none	catches					0.00023											3666		1396						
SCO	GN1	none	catches			0.00038	0.00006			0.00000					467260	643185	498672	192066	193116	355719	437451	387259	463248	439892			
SCO	TR1	none	catches	0.00116	0.00276		0.00080	0.00031	0.00113	0.00761	0.00191	0.00187	0.00396		802771	879428	1084677	779453	681392	835556	906397	997738	748948	765697	0.407	0.243	10
SCO	TR2	none	catches	0.00021	0.00066		0.00051	0.00032	0.00051	0.00330	0.00035	0.00122	0.00025		489493	444023	419025	387991	368052	506597	497269	456612	549778	322248	0.424	0.222	10
Sum				0.59893	0.60870	0.93951	0.57270	0.54686	0.40195	0.74788	0.55031	0.36563	0.55616		55516239	56222641	56322770	51759025	51760380	41025066	39029602	43541555	42707589	42694243	0.431	0.214	10
check sum Fpar/F				0.65	0.66	0.98	0.72	0.68	0.56	1.03	1.14	0.98	1.31														

Table 5.6.8.2 Cod in the Celtic Sea (7fg). The left part of the table lists estimated F trajectories from the management plan and the ICES 2013 cod assessment, as well as partial Fs for landings of fisheries using gears defined as those regulated under the cod management plan. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

FMSY= 0.4													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan													
reduction F plan													
F estimated				0.915	0.922	0.958	0.800	0.806	0.724	0.727	0.484	0.374	0.424
reduction F estimated										0.00	-0.33	-0.23	0.13
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BEL	BT2	none	catches	0.01715	0.03668	0.05371	0.01823	0.02055	0.00979	0.00803	0.00769	0.00839	0.01321
BEL	TR2	none	catches		0.00075	0.00266	0.00285	0.00647	0.00200	0.00419	0.00344	0.00772	0.00757
ENG	BT1	none	catches		0.00006								
ENG	BT2	none	catches	0.00629	0.00899	0.01014	0.00584	0.00690	0.00402	0.00230	0.00298	0.00133	0.00329
ENG	GN1	none	catches	0.00610	0.01432	0.02208	0.02097	0.01491	0.00941	0.01233	0.00689	0.00263	0.00799
ENG	GT1	none	catches			0.00007	0.00026	0.00033	0.00017	0.00014	0.00044	0.00006	0.00173
ENG	LL1	none	catches	0.00015		0.00078	0.00040	0.00002		0.00000	0.00000	0.00001	0.00000
ENG	TR1	none	catches	0.00121	0.00371	0.00201	0.00126	0.00066	0.00046	0.00119	0.00066	0.00020	0.00197
ENG	TR2	none	catches	0.00197	0.00230	0.00768	0.00461	0.01868	0.00198	0.00139	0.00308	0.00056	0.00131
ENG	TR3	none	catches			0.00003							
FRA	BT2	none	catches				0.00044				0.00001	0.00000	
FRA	GN1	none	catches	0.00025	0.00045	0.00004		0.00004	0.00001	0.00001	0.00004	0.00011	0.00012
FRA	GT1	none	catches	0.00008	0.00001	0.00017	0.00009	0.00011	0.00011	0.00014	0.00092	0.00029	0.00005
FRA	LL1	none	catches			0.00001							
FRA	TR1	none	catches	0.28846	0.23745	0.16252	0.11062	0.10112	0.08107	0.22050	0.11069	0.06359	0.23503
FRA	TR2	none	catches	0.03198	0.02332	0.04292	0.01228	0.03369	0.00412	0.00629	0.00454	0.00117	0.00182
FRA	TR3	none	catches									0.00004	
GBJ	BT2	none	catches	0.00059	0.00158	0.00039							
IRL	BT2	none	catches	0.00770	0.01690	0.04439	0.03245	0.01805	0.02263	0.01965	0.02236	0.00565	0.00882
IRL	GN1	none	catches	0.00455	0.01798	0.02887	0.01511	0.01426	0.01689	0.01868	0.01161	0.00483	0.00787
IRL	GT1	none	catches	0.00001				0.00001	0.00001		0.00021	0.00006	0.00022
IRL	LL1	none	catches										0.00002
IRL	TR1	none	catches	0.00782	0.01747	0.07467	0.04107	0.03483	0.03545	0.08524	0.08295	0.03695	0.03989
IRL	TR2	none	catches	0.02883	0.05258	0.19670	0.11389	0.08217	0.05049	0.06239	0.07813	0.02323	0.02780
IRL	TR3	none	catches				0.00003		0.00000				
NIR	TR1	none	catches	0.00031			0.00004			0.00001	0.00008	0.00106	0.00200
NIR	TR2	none	catches		0.00084	0.00246	0.00153	0.00210	0.00333	0.00630	0.00496	0.00014	0.00043
SCO	GN1	none	catches			0.00038							
SCO	TR1	none	catches	0.00022	0.00012		0.00003		0.00001	0.00017	0.00107	0.00026	0.00123
SCO	TR2	none	catches	0.00022	0.00064		0.00001		0.00002	0.00167	0.00006	0.00058	0.00007
Sum				0.40389	0.43615	0.65268	0.38201	0.35490	0.24197	0.45062	0.34281	0.15886	0.36244
check sum Fpar/F				0.44	0.47	0.68	0.48	0.44	0.33	0.62	0.71	0.42	0.85

		Effort kW days running previous year baseline													
			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012			
		Effort plan													
		Effort estimated	15045231	15381614	15796036	13389703	13102326	11118500	10726612	12226451	11008442	12823100			
									-0.04	0.14	-0.10	0.16			
		EFFORT											2003-2012		
		kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n
BEL	BT2		2419519	3744619	3121706	2534199	2448583	1651116	1570823	1987520	2163164	2636349	0.800	0.005	10
BEL	TR2			110564	168754	400049	443057	434936	449108	376867	276627	356164	0.322	0.398	9
ENG	BT1			8787											
ENG	BT2		1050450	1012837	785332	645496	570358	411556	416037	403682	278222	489105	0.803	0.005	10
ENG	GN1		427137	513629	440032	405494	377381	309350	260006	285725	320757	316814	0.489	0.151	10
ENG	GT1		1570	23919	9277	26791	18299	16459	11269	7110	42487	82680	0.827	0.003	10
ENG	LL1		28062	33074	44504	32769	14101	6377	4888	4613	4628	610	0.916	0.000	10
ENG	TR1		111759	122527	80092	86398	74498	101146	115014	162848	138708	220022	0.108	0.767	10
ENG	TR2		277253	234967	251717	308751	232452	259463	224727	280872	205009	196845	0.047	0.897	10
ENG	TR3			373	1119						1890				
FRA	BT2				2200	15965				2151	4131	176			
FRA	GN1		29862	37833	18804		5908	441	441	4199	6296	5836			
FRA	GT1		8456	2259	14256	27751	21032	19104	19104	19151	46708	14597	0.235	0.513	10
FRA	LL1				4745		552	883	883			173			
FRA	TR1		3460445	3326622	3113639	2740592	2475013	2303217	2295080	3283327	2632751	2956038	0.526	0.118	10
FRA	TR2		711296	593609	731407	287766	355358	230956	230956	73415	39461	35002	0.894	0.000	10
FRA	TR3									212	2621	636			
GBJ	BT2		151639	145409	46378								0.588	0.600	3
IRL	BT2		2877794	1784027	2398012	1779651	1544553	960802	840028	910631	863511	1075069	0.249	0.488	10
IRL	GN1		326700	420394	315963	184702	232984	301994	245422	236629	193304	228636	0.347	0.326	10
IRL	GT1		802				9643	12369	8195	22274	16468	34283			
IRL	LL1				2167		3583	4986	4137	4448	2935	1627			
IRL	TR1		686132	832656	857361	1052210	1393754	1649186	1978763	1874554	2240217	2232046	0.384	0.273	10
IRL	TR2		2453633	2360432	3309991	2799841	2856080	2302531	1853012	2032989	1432374	1772704	0.797	0.006	10
IRL	TR3					720		324	1500		1498				
NIR	TR1		7641		716	5176		1141	1805	16028	23389	42944	0.950	0.000	8
NIR	TR2			52370	72432	42938	20658	124635	152911	145881	6852	31350	0.921	0.000	9
SCO	GN1		689	721	1337						2025				
SCO	TR1		9622	7701		9616	4479	12835	13077	87699	44476	83618	0.952	0.000	9
SCO	TR2		4770	12285	4095	2828		2693	29426	3626	17933	9776	0.948	0.000	9
Sum			15045231	15381614	15796036	13389703	13102326	11118500	10726612	12226451	11008442	12823100	0.694	0.026	10
check sum Fpar/F															

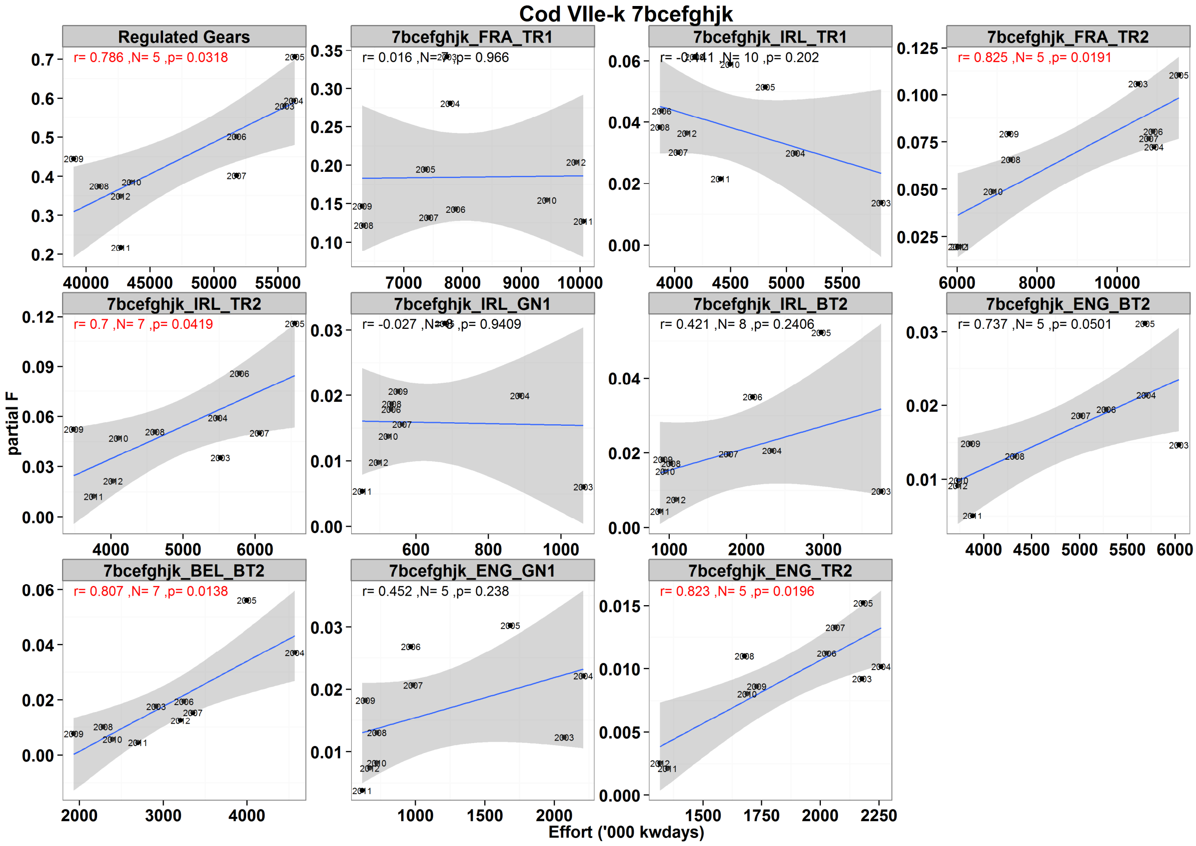


Fig. 5.6.8.1. Cod partial fishing mortality (based on partitioning the F from ICES assessment (ICES, 2013)) over effort (‘000 kWd) in the entire Celtic Sea 7bcefghjk (Cel 1) of major fisheries, 2003-2012. The years represent data points, the line a linear fit through the points and the grey the confidence bounds on the linear fit (+-2SE, 95%).

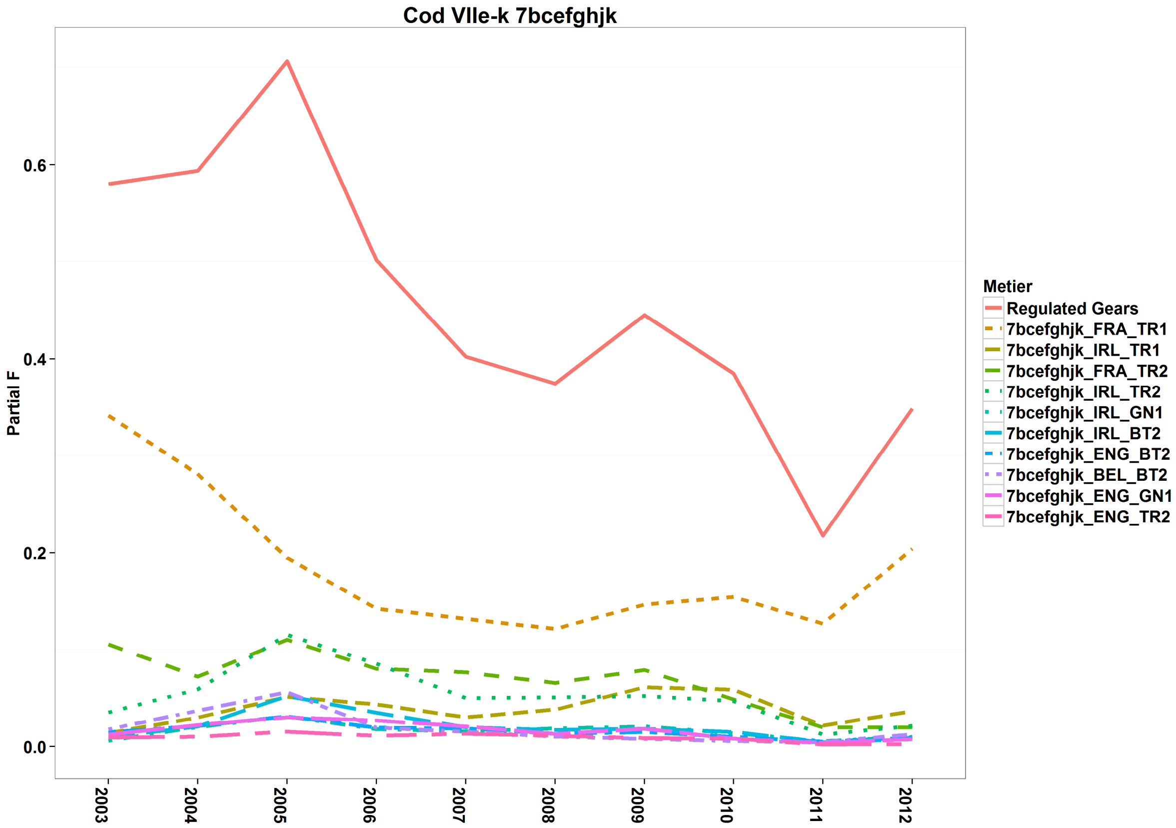


Fig. 5.6.8.2. Time series of cod partial fishing mortalities by the major fisheries in the entire Celtic Sea 7bcefghjk (Cel 1). 2003-2012.

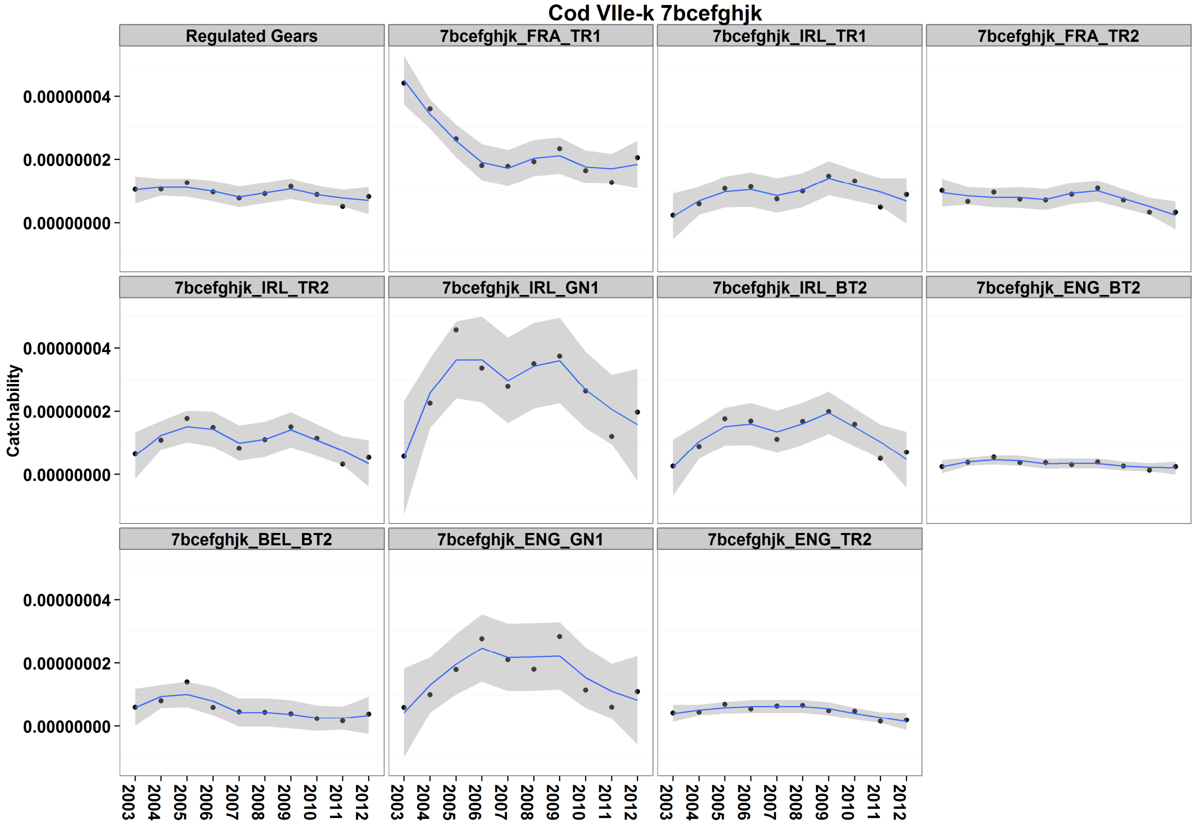


Fig. 5.6.8.3. Time series of cod catchability coefficients (partial F/ KW days effort) for the major fisheries in the entire Celtic Sea 7bcefghjk (Cel 1). 2003-2012. Circles represent data points, the line a smoother fitting through the data points to identify trends, the grey represents confidence bounds round the smoother (+-2SE, 95%).

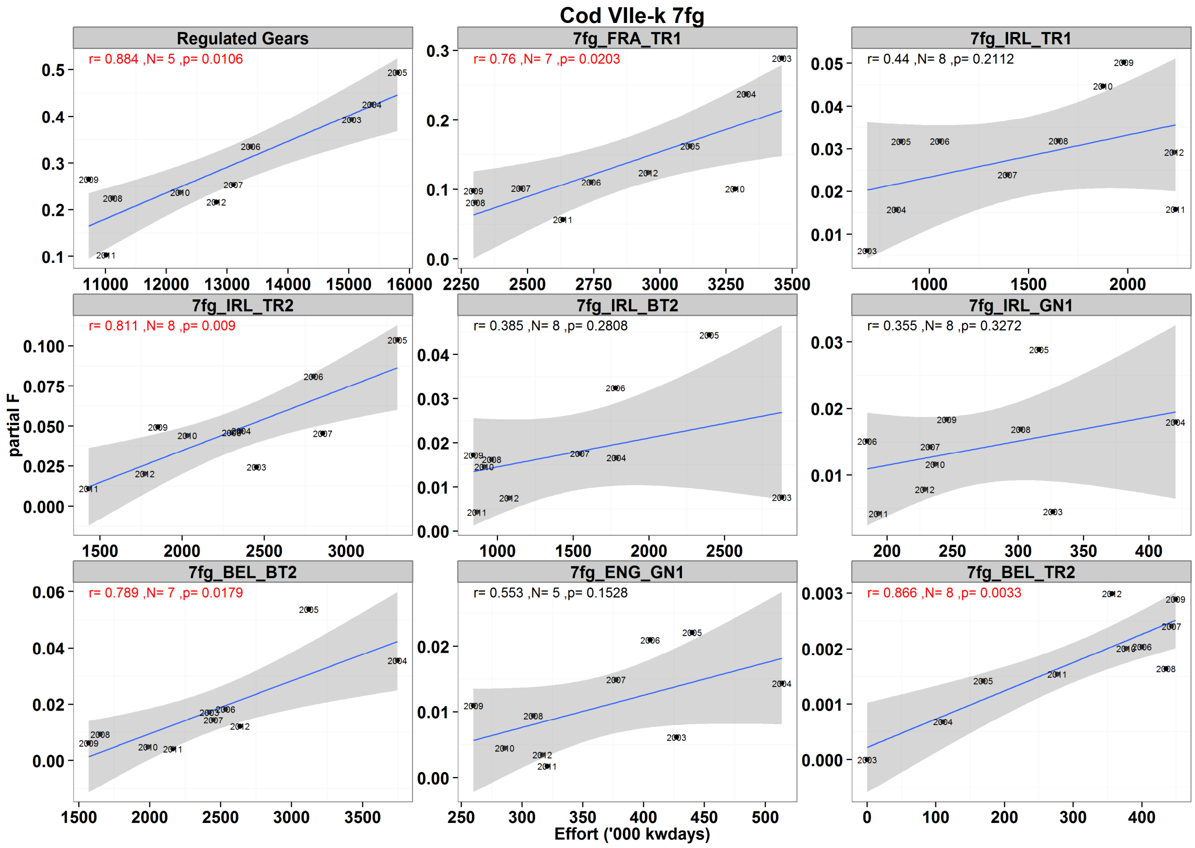


Fig. 5.6.8.4. Cod partial fishing mortality (based on partitioning the F from ICES assessment (ICES, 2013)) over effort ('000 kWd) in the smaller Celtic Sea 7fg (Cel 2) of major fisheries, 2003-2012. The years represent data points, the line a linear fit through the points and the grey the confidence bounds on the linear fit (+-2SE, 95%).

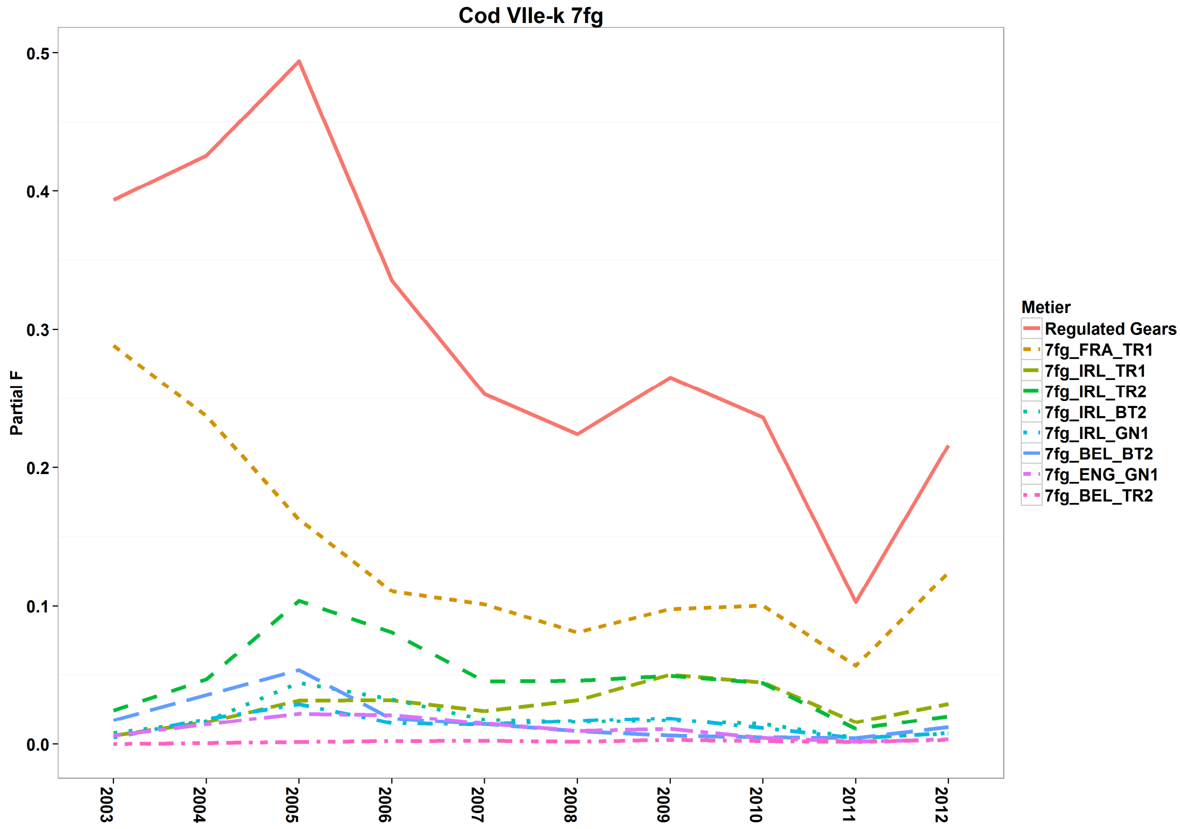


Fig. 5.6.8.5 Time series of cod partial fishing mortalities by the major fisheries in the in the smaller Celtic Sea 7fg (Cel 2). 2003-2012.

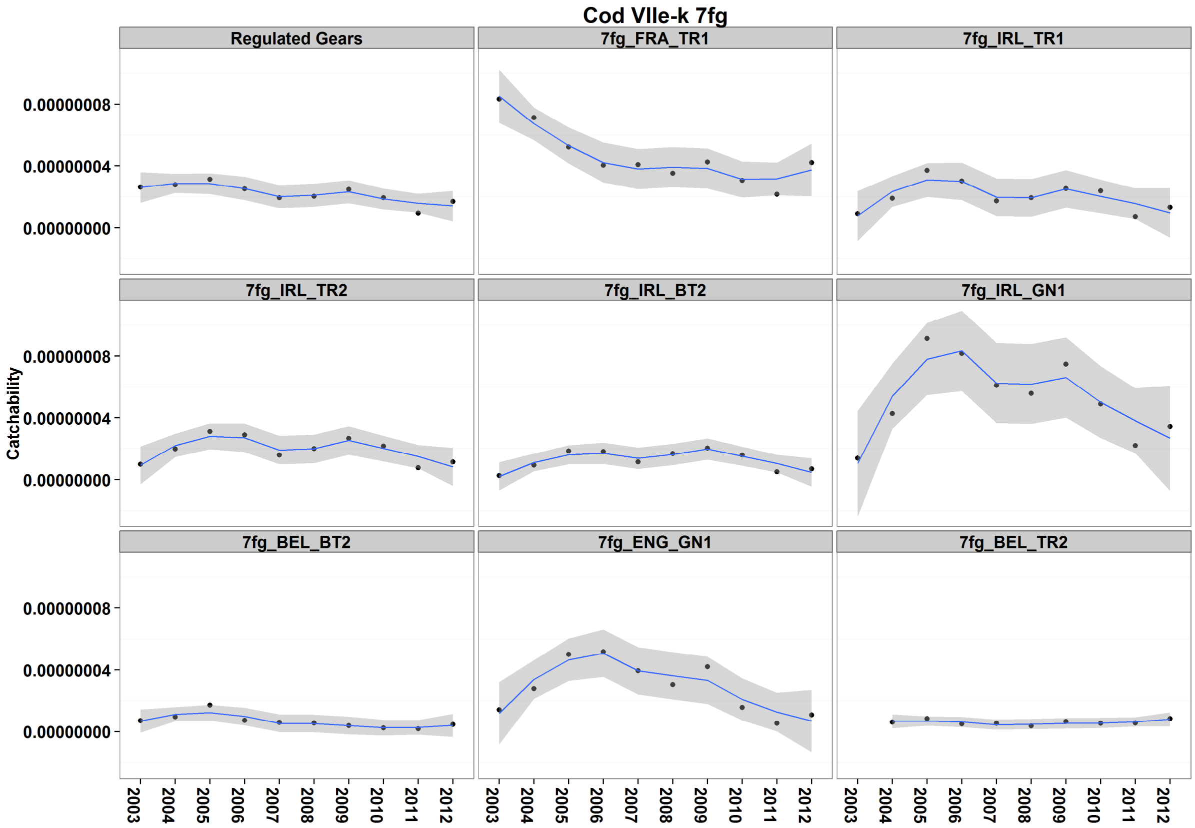


Fig. 5.6.8.6. Time series of cod catchability coefficients (partial F/ KW days effort) for the major fisheries in the smaller Celtic Sea 7fg (Cel 2). 2003-2012. Circles represent data points, the line a smoother fitting through the data points to identify trends, the grey represents confidence bounds round the smoother (+-2SE, 95%).

5.6.9 Spatio-temporal patterns in effective effort by fisheries

The following maps display the spatio-temporal patterns in effective fishing effort (fished hours) by major gear groups for the two potential management areas Cel 1 (7bcefghjk) and Cel 2 (7fg), respectively.

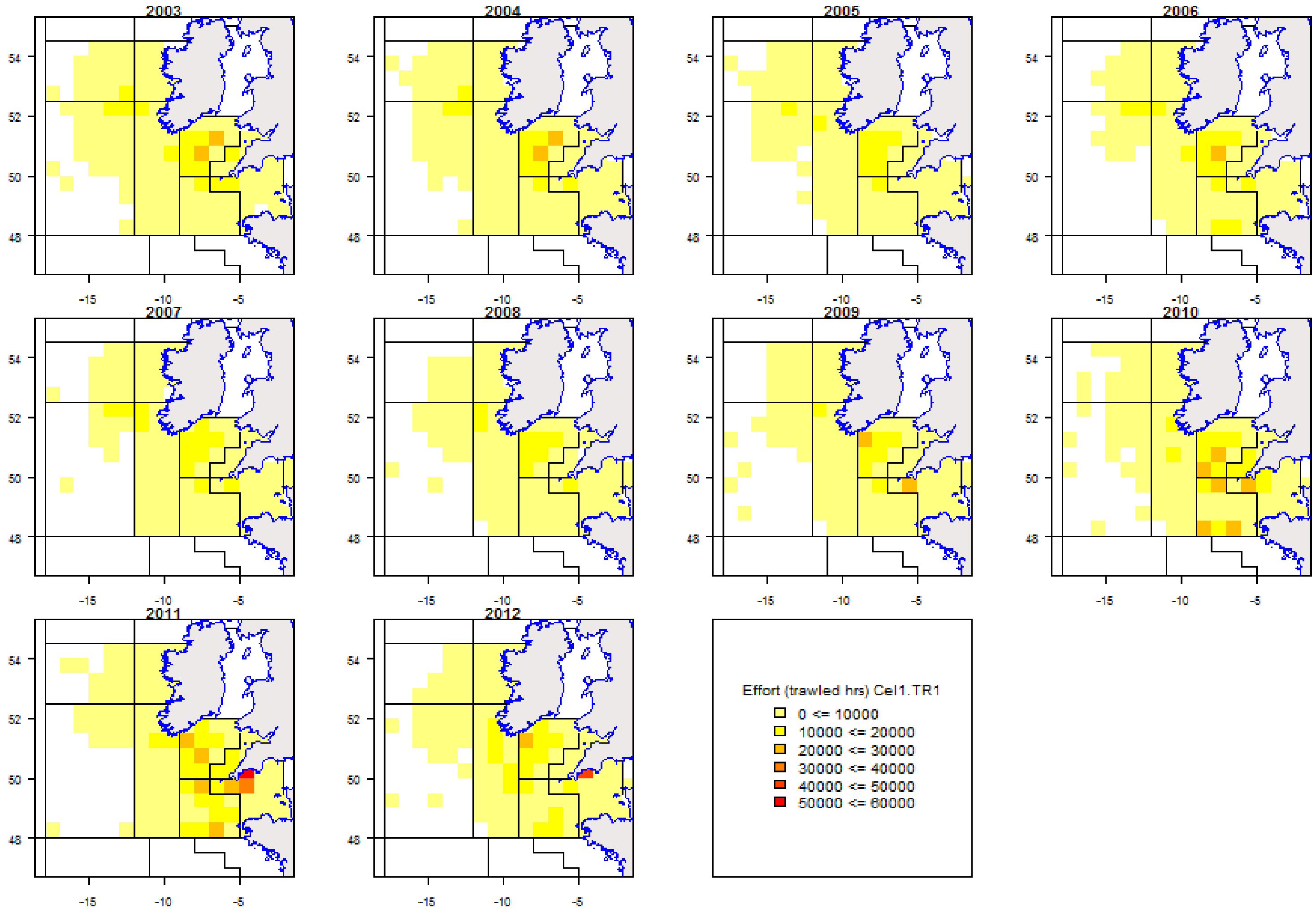


Figure 5.6.9.1.1 Cel1: Effective effort distribution of TR1 gears 2003-2012.

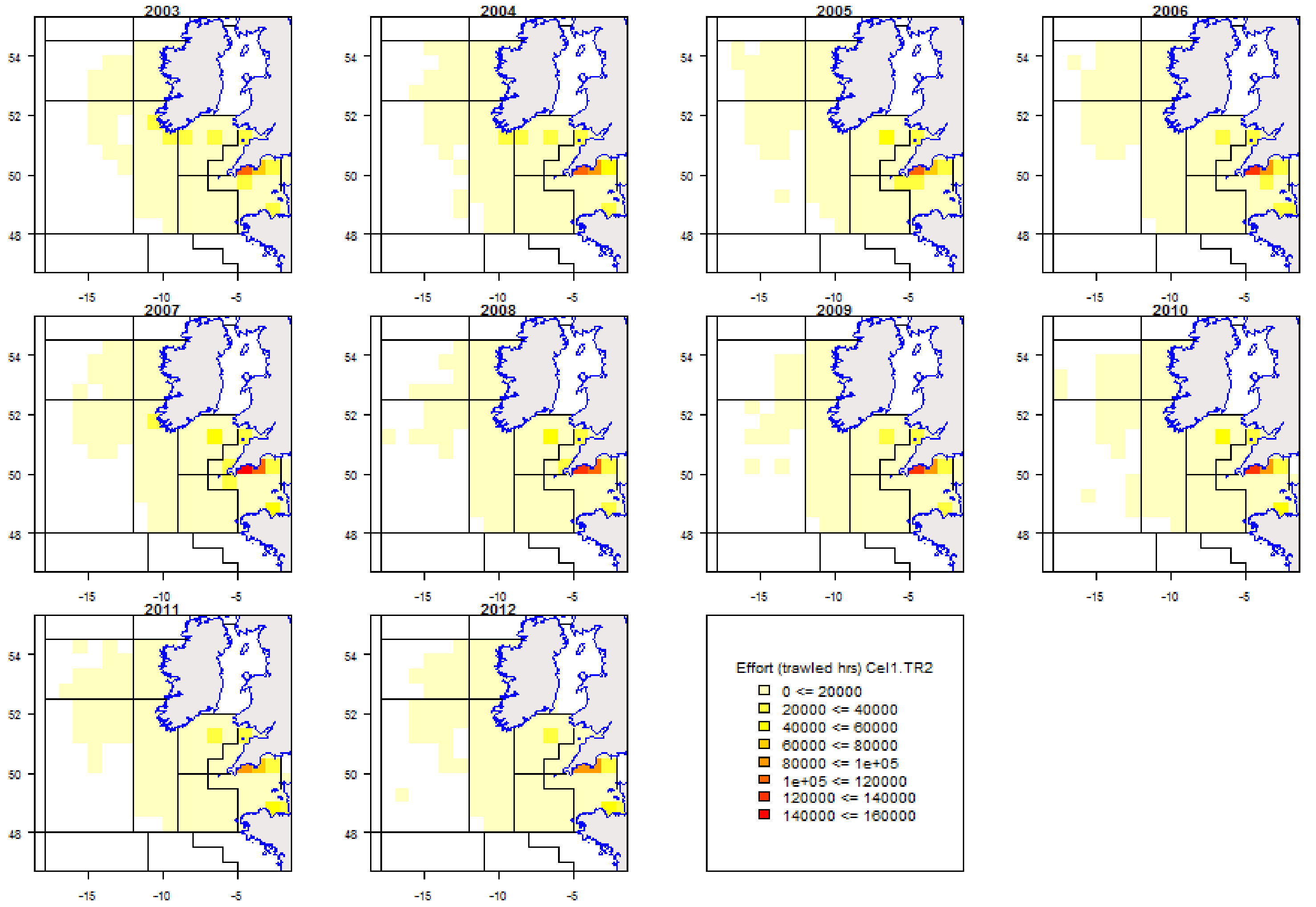


Figure 5.6.9.1.2 Cel1: Effective effort distribution of TR2 gears 2003-2012.

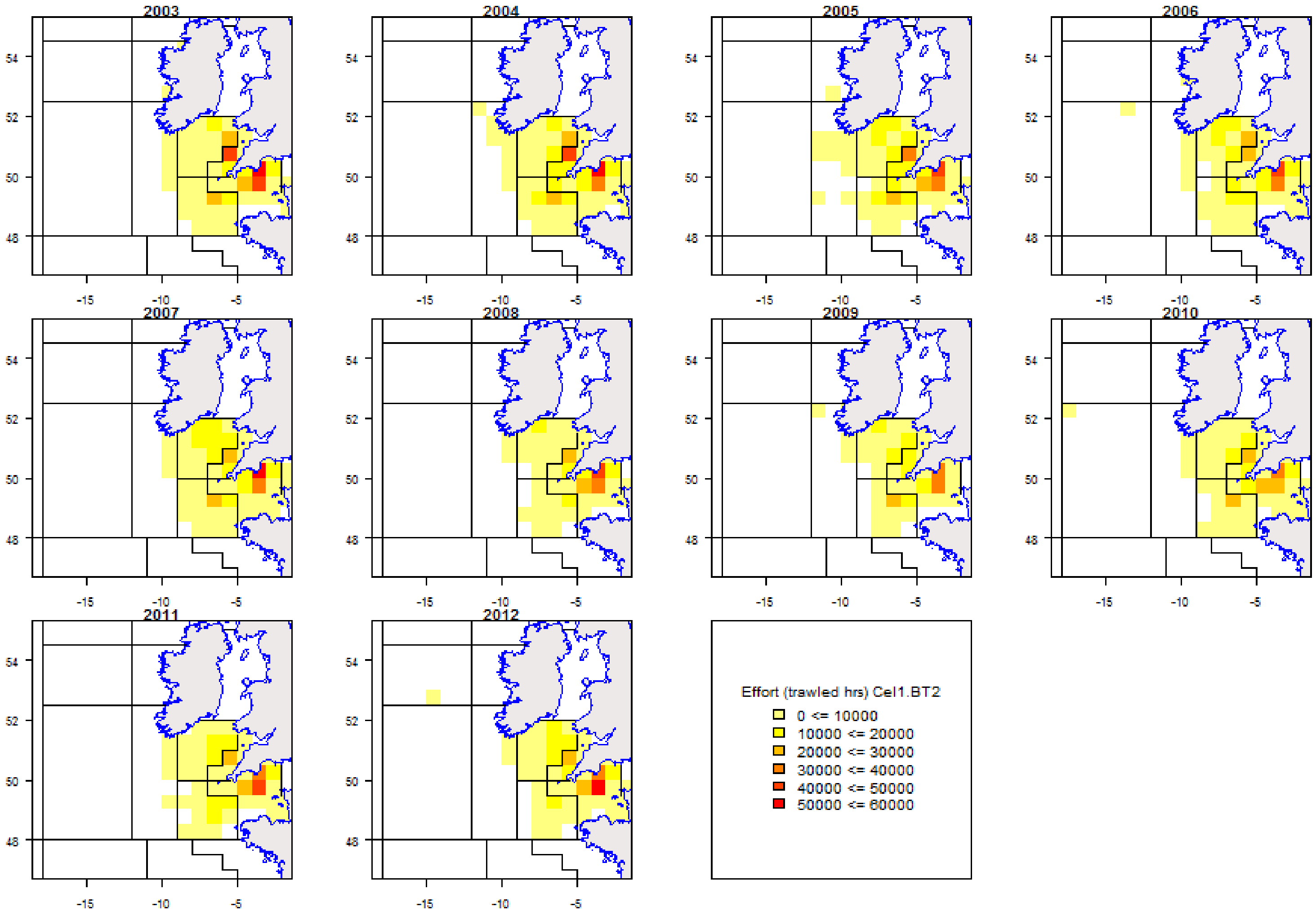


Figure 5.6.9.1.3 Cel1: Effective effort distribution of BT2 gears 2003-2012.

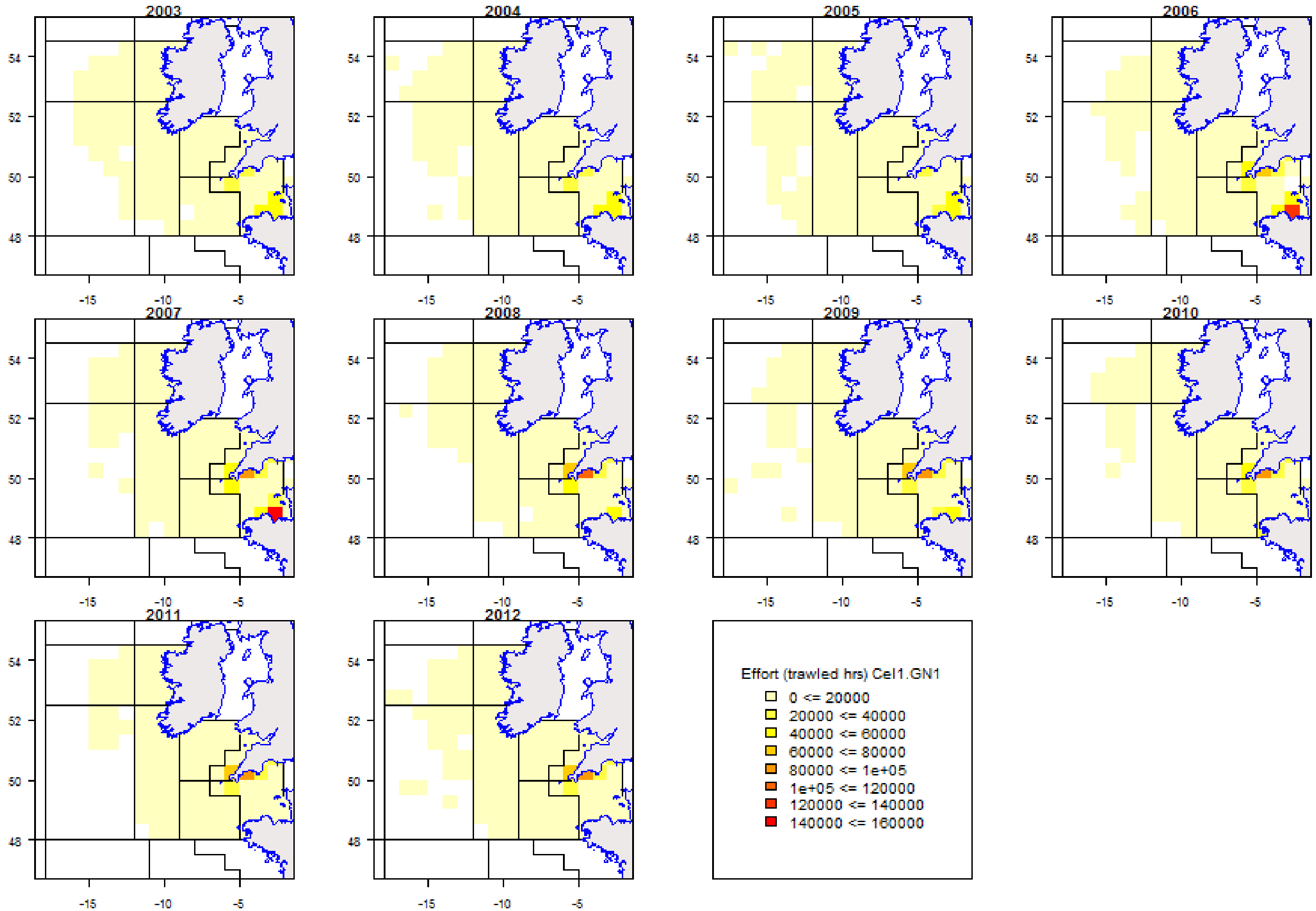


Figure 5.6.9.1.4 Cel1: Effective effort distribution of GN1 gears 2003-2012.

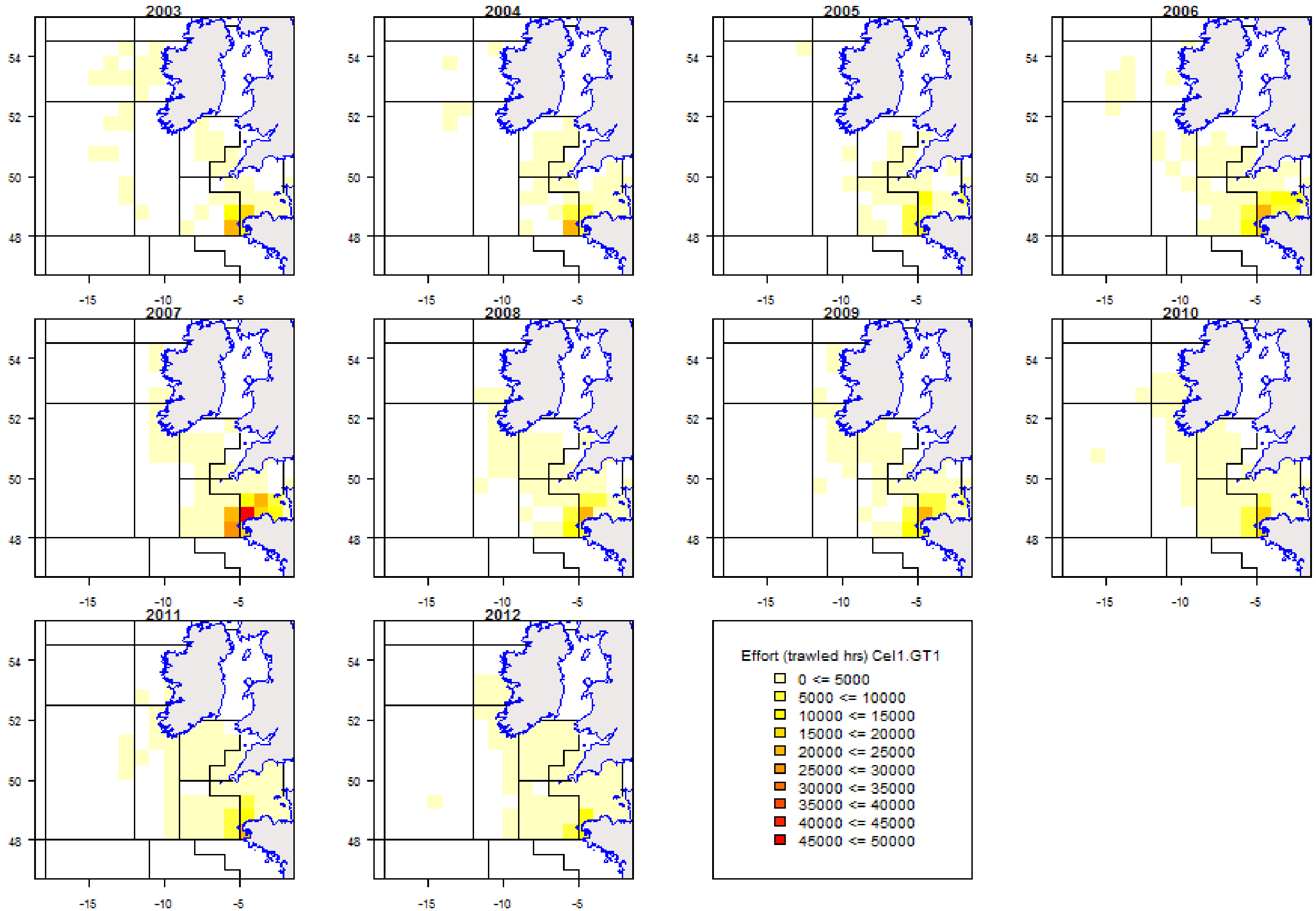


Figure 5.6.9.1.5 Cel1: Effective effort distribution of GT1 gears 2003-2012.

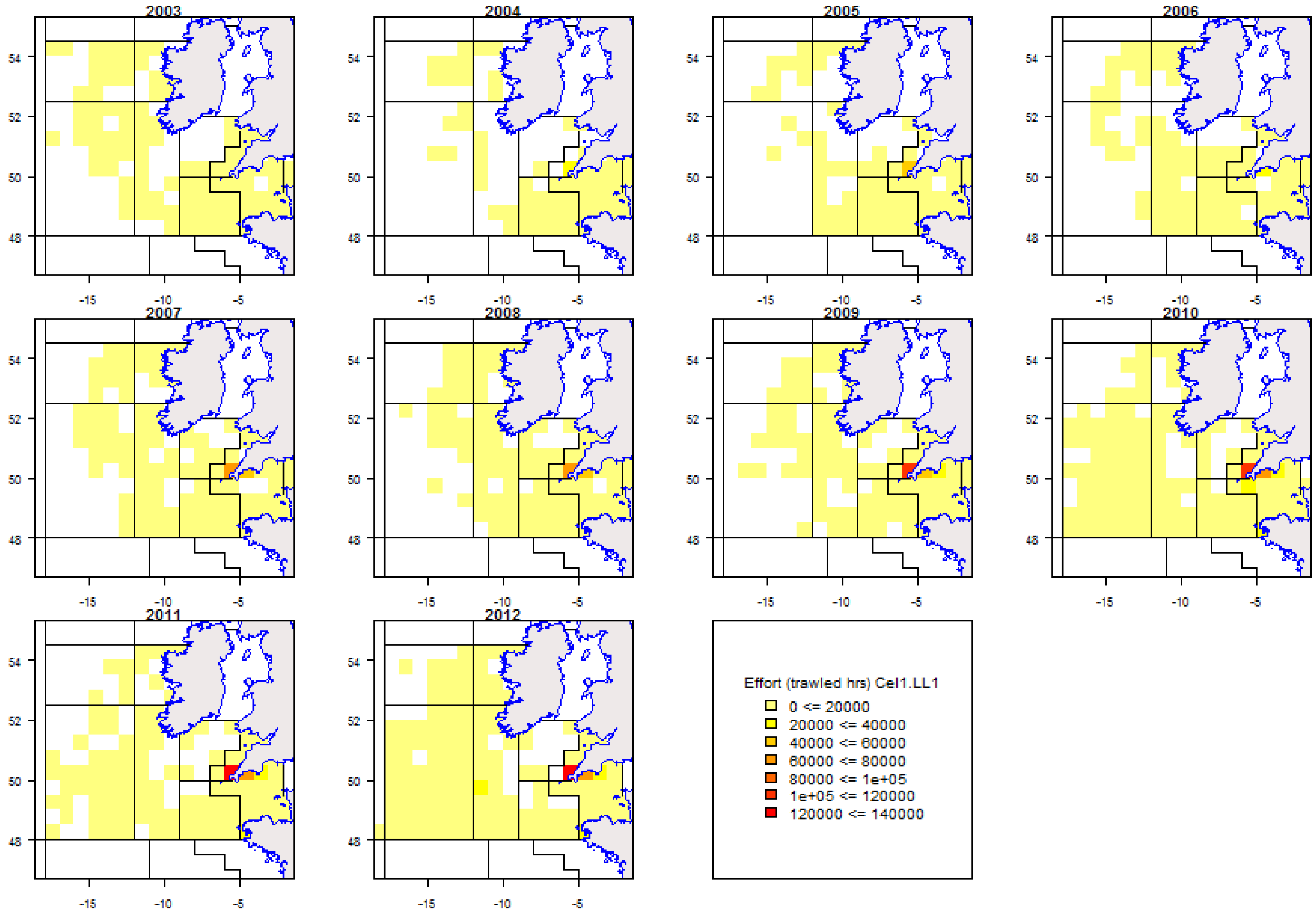


Figure 5.6.9.1.6 Cel1: Effective effort distribution of LL1 gears 2003-2012.

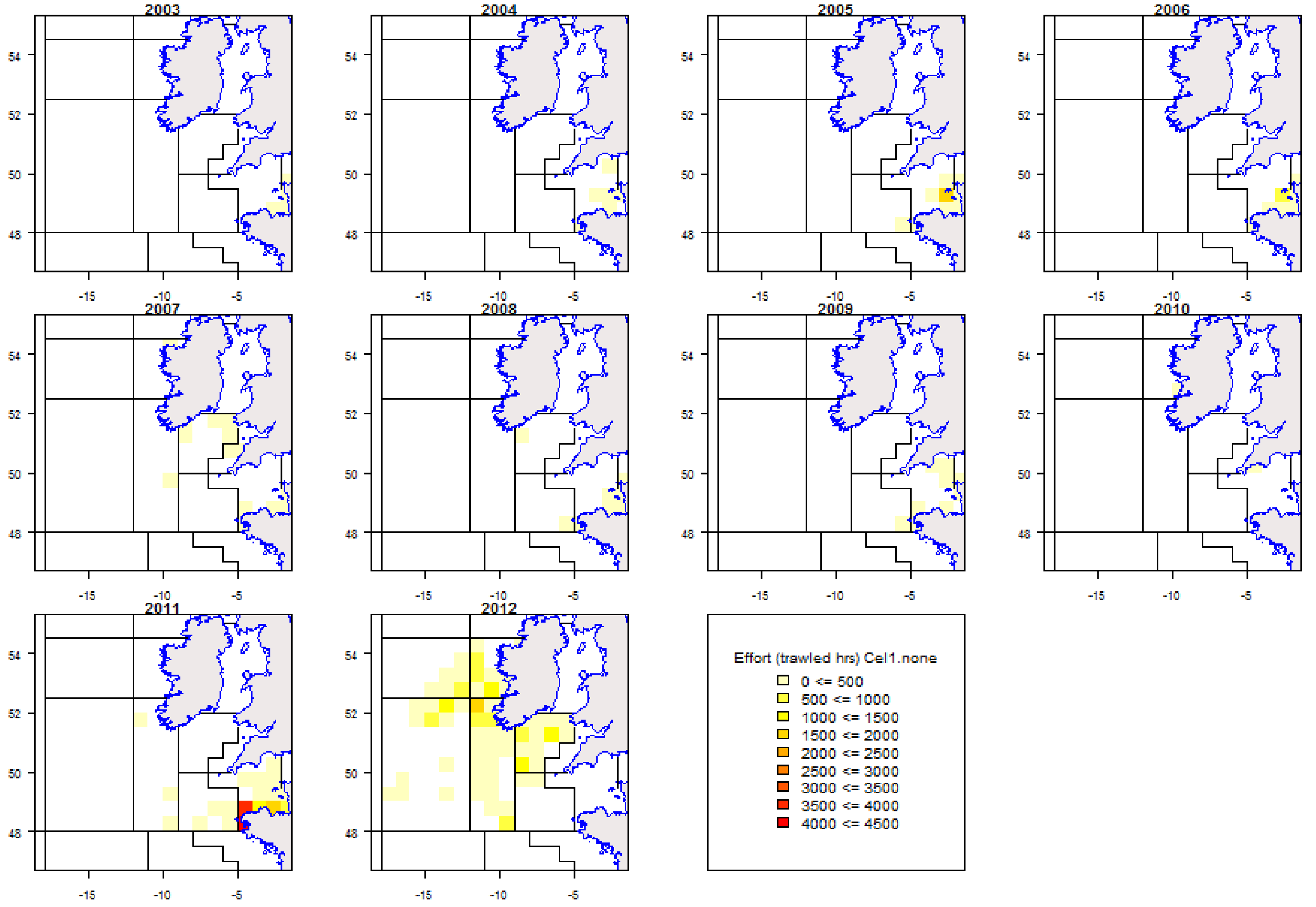


Figure 5.6.9.1.7 Cel1: Effective effort distribution of none gears 2003-2012.

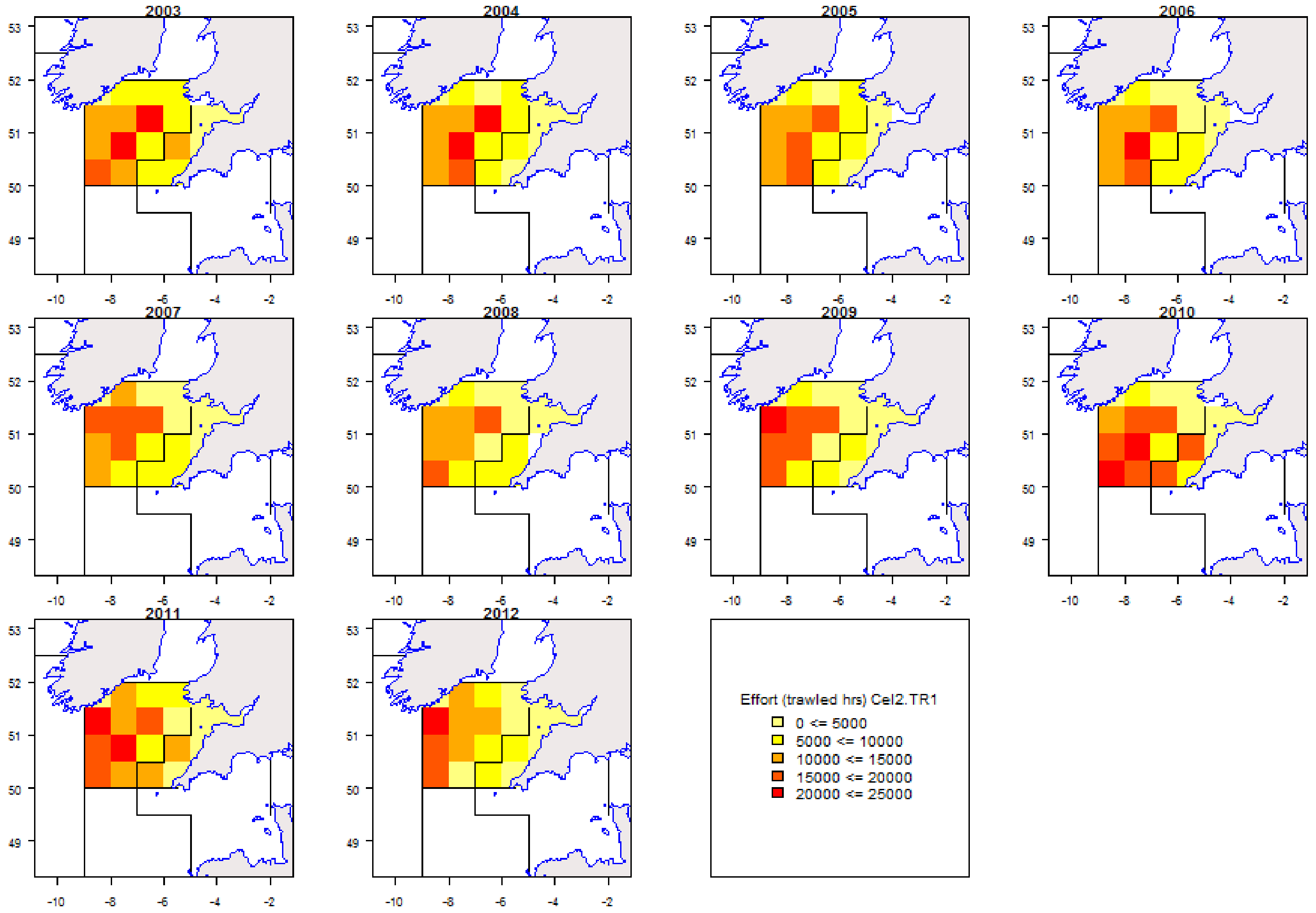


Figure 5.6.9.2.1 Cel2: Effective effort distribution of TR1 gears 2003-2012.

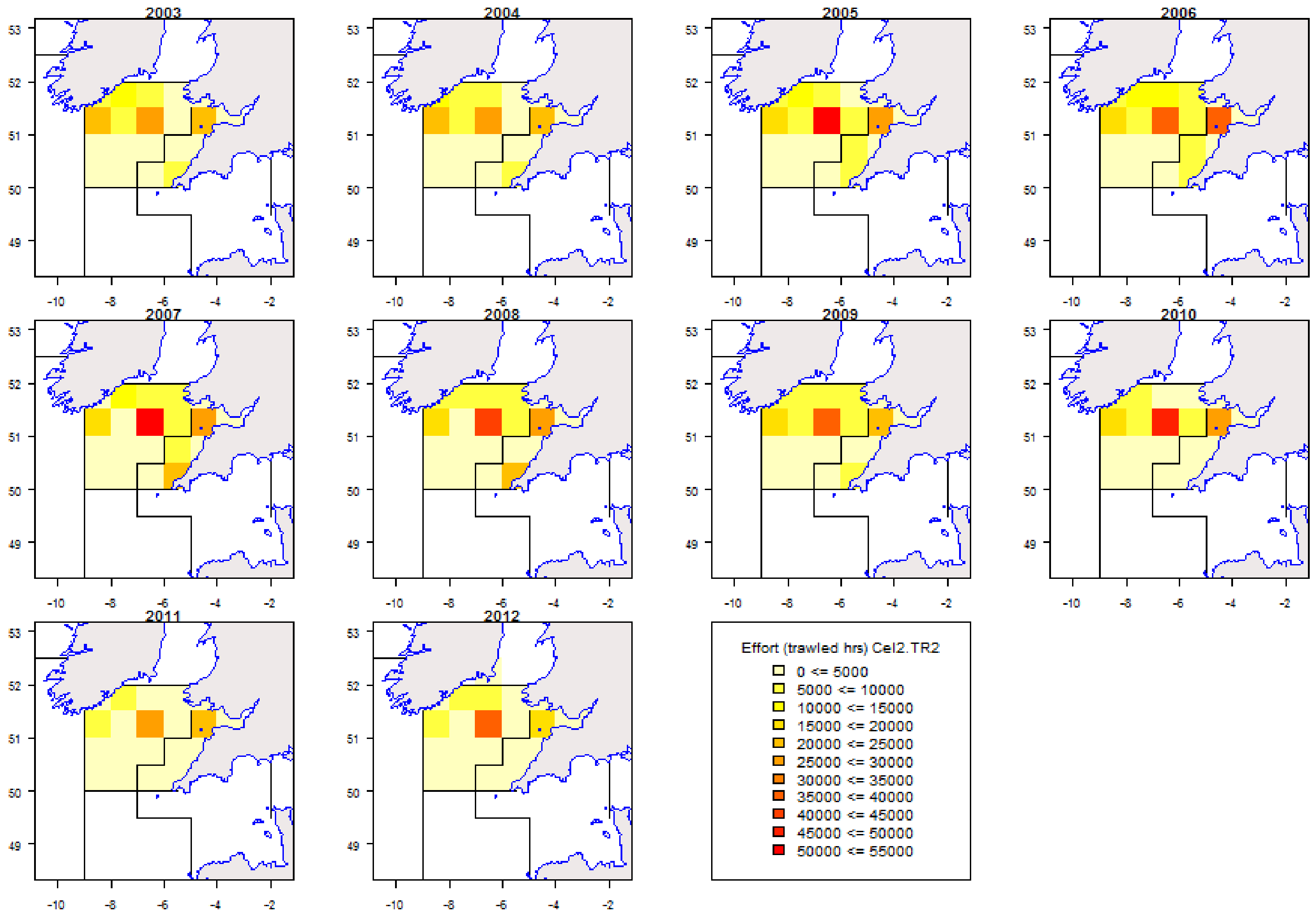


Figure 5.6.9.2.2 Cel2: Effective effort distribution of TR2 gears 2003-2012.

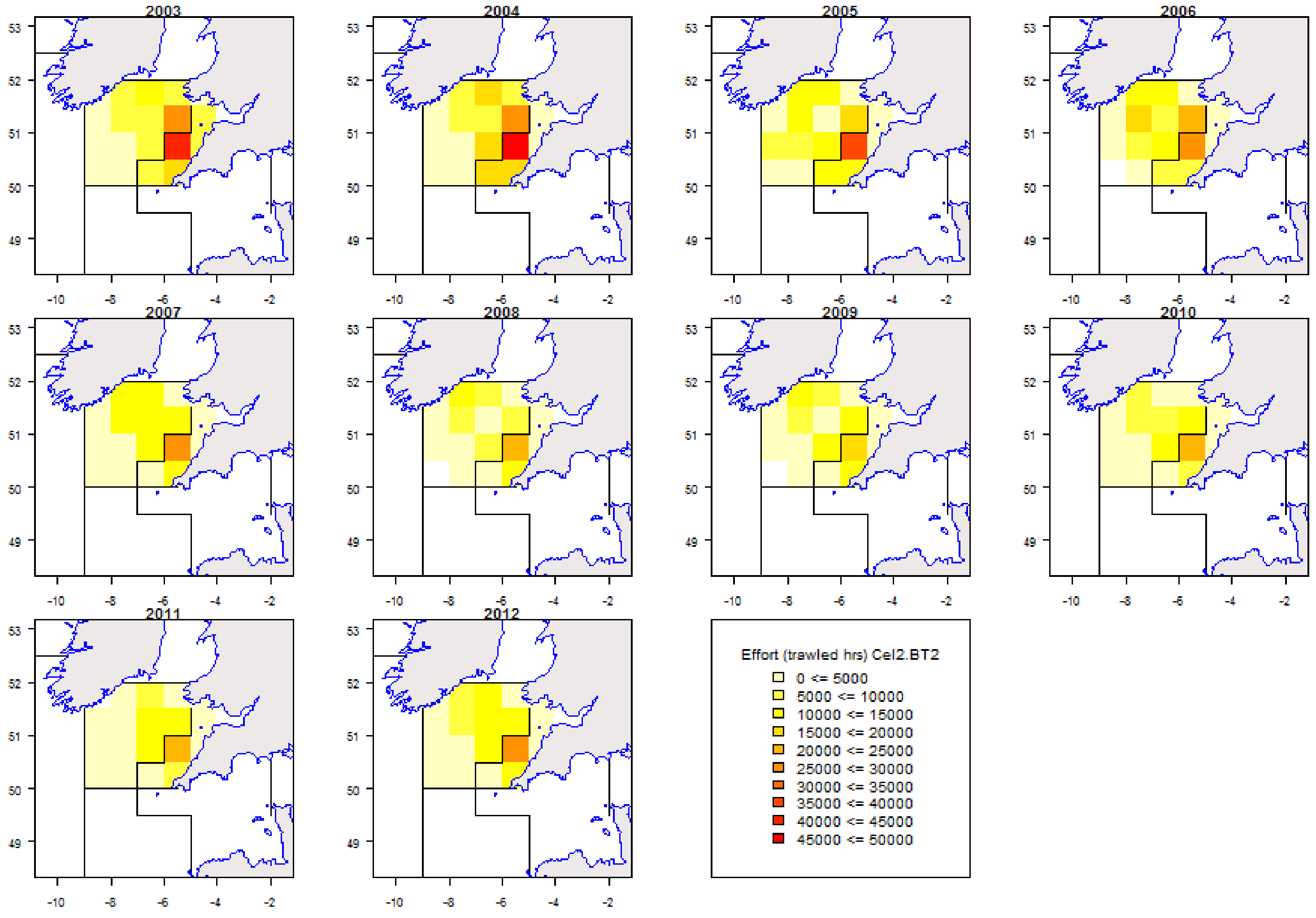


Figure 5.6.9.2.3 Cel2: Effective effort distribution of BT2 gears 2003-2012.

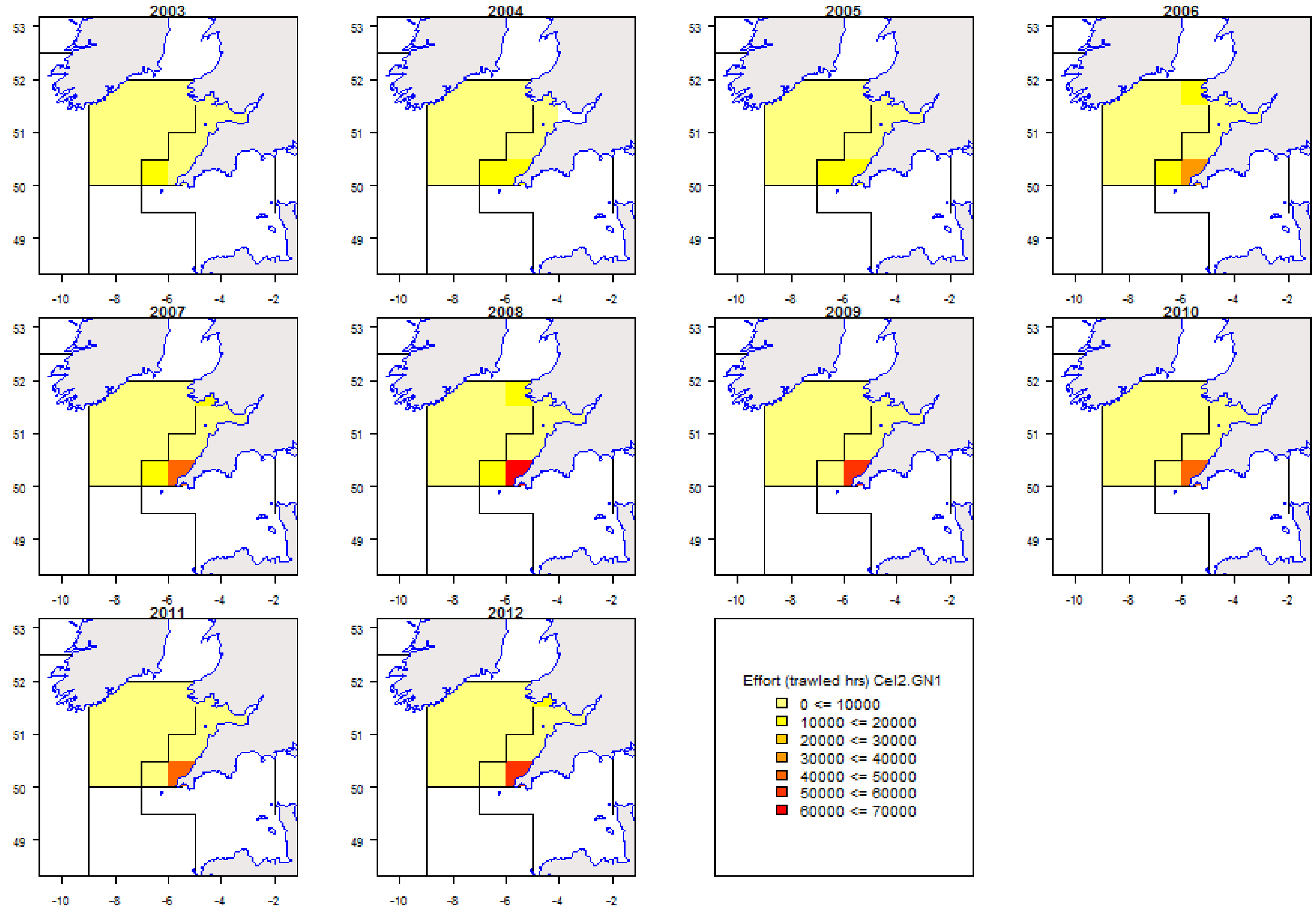


Figure 5.6.9.2.4 Cel2: Effective effort distribution of GN1 gears 2003-2012.

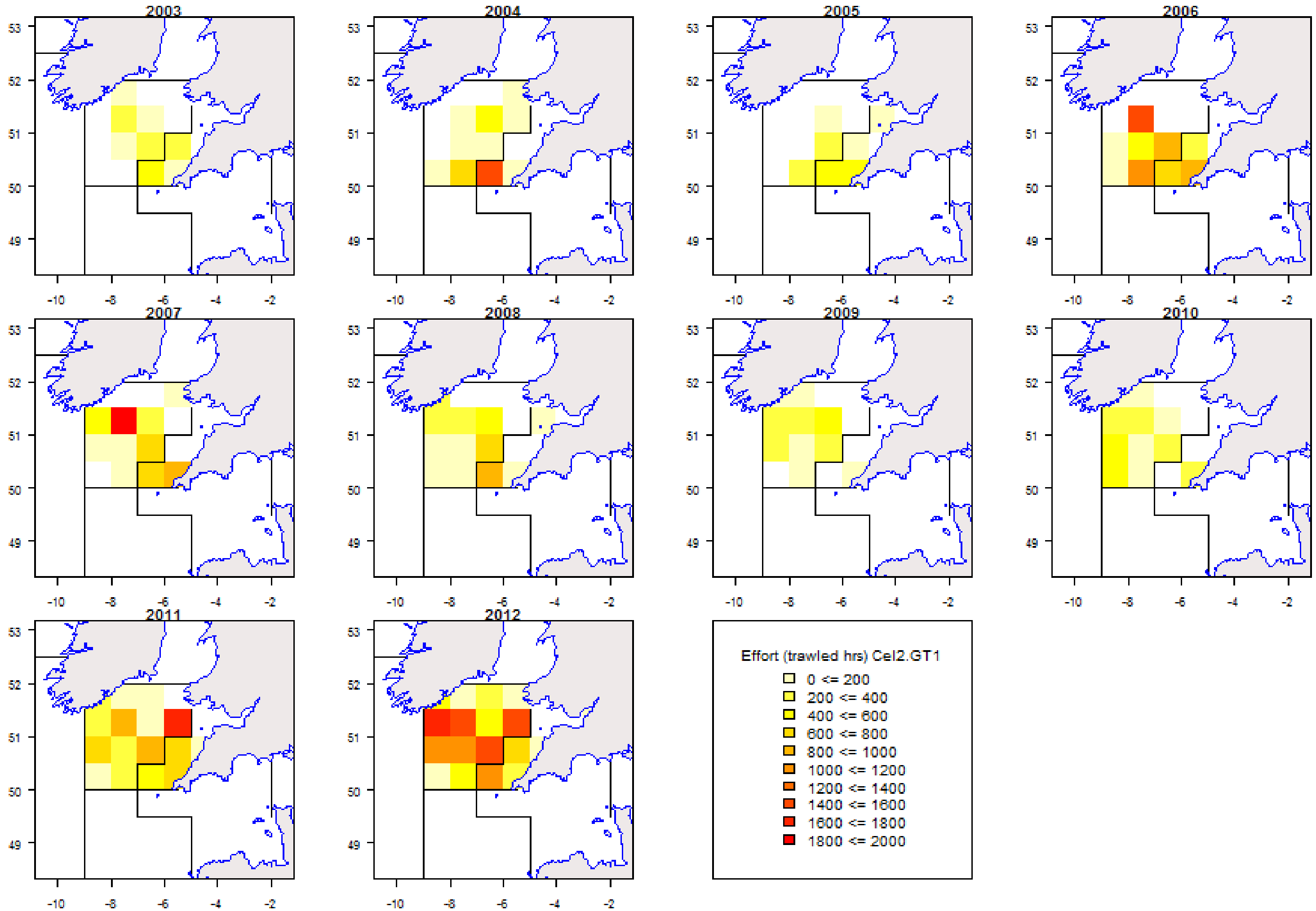


Figure 5.6.9.2.5 Cel2: Effective effort distribution of GT1 gears 2003-2012.

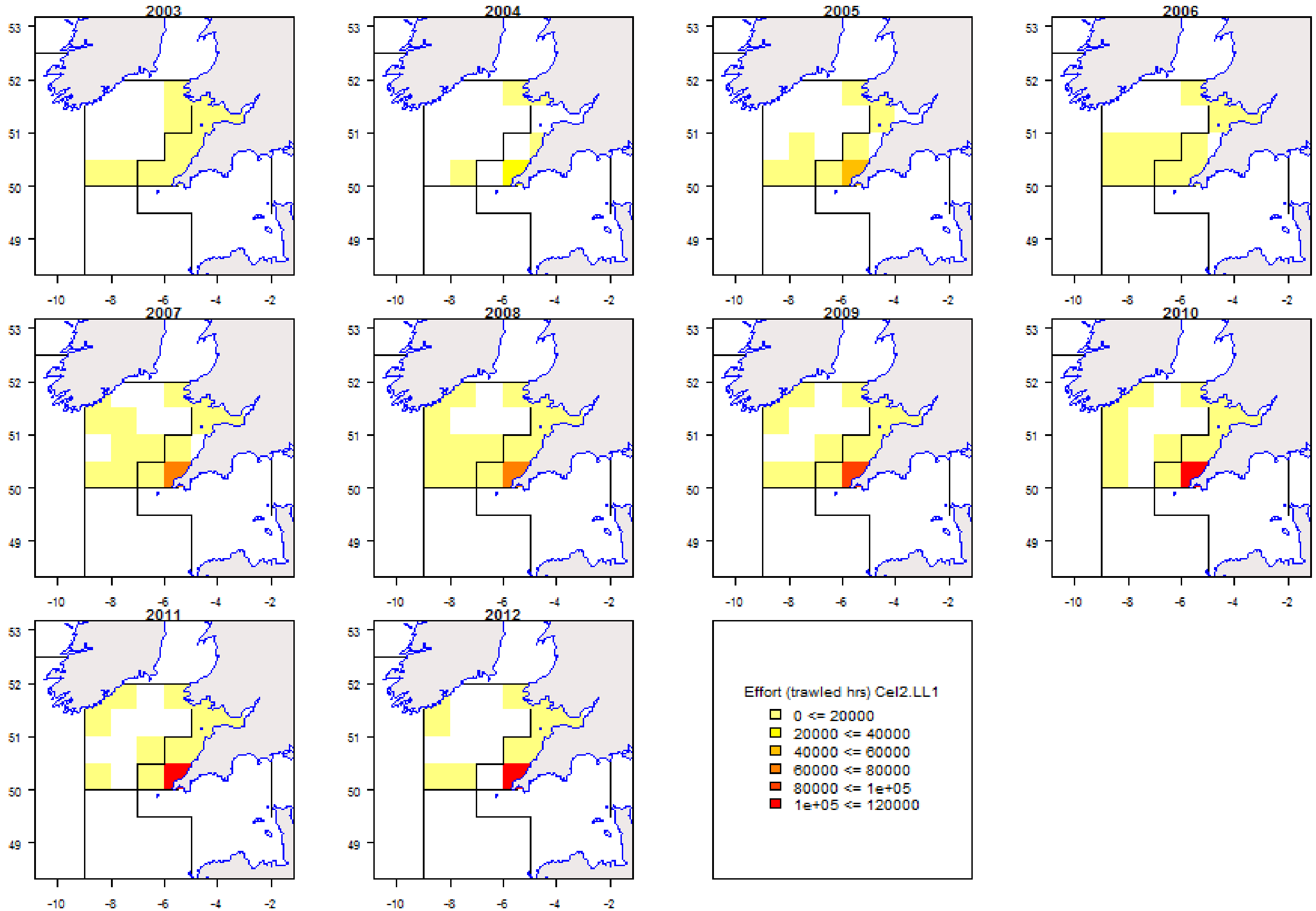


Figure 5.6.9.2.6 Cel2: Effective effort distribution of LL1 gears 2003-2012.

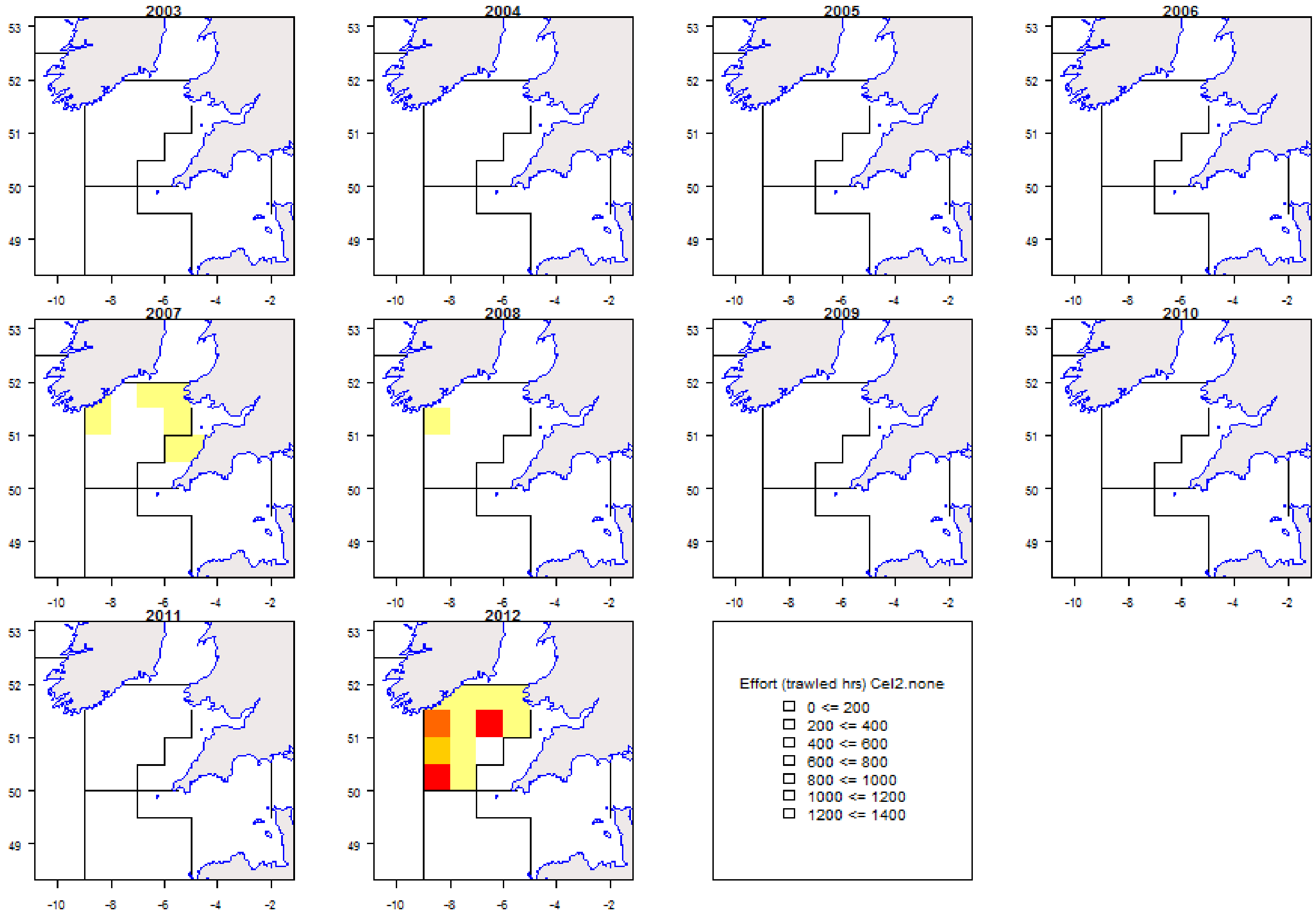


Figure 5.6.9.2.7 Cel2: Effective effort distribution of none gears 2003-2012.

5.7 Southern hake and *Nephrops* effort regime evaluation in the context of Annex IIB to Council Regulation (EU) No 43/2012

STECF-EWG 13-13 considers that Annex IIB of CR 43/2012 represents a fleet specific effort management regime which supports the Southern hake and *Nephrops* recovery plan (CR 2166/2005).

Annex IIB excludes the Gulf of Cádiz although this area is included in the recovery plan (CR 2166/2005) and is part of the area of Southern stock of hake (8c and 9a) and Iberian *Nephrops* populations. The cause of this exclusion is that when the recovery plan was established in 2005 the Spanish administration had already established a fishing plan for the trawl fleet of the Gulf of Cádiz that was followed by consecutives similar plans since then. The last Fishing Plan (ARM/58/2010) was applied since September 2010 to September 2012 and established a 45 days close season in autumn.

CR 43/2012 defines "Gulf of Cádiz" as the area east of longitude 7º 23' W, therefore "excluding Gulf of Cádiz" means in practice to exclude from area 9a the rectangles 01E3, 02E3, 03E3 and 01E4 and partially the rectangles 01E2 and 02E2.

STECF-EWG 13-13 notes that the classification of the trawl mesh size ≥32 mm in point 1 of Annex IIB mixes two clearly defined Portuguese fleets and fisheries. One fishery targets demersal fish species with mesh size 65-69mm and greater (OTB_DEF_>=55_0_0), and the other targets crustaceans with mesh size 55-59mm and greater (OTB_CRU_>=55_0_0), operating in different fishing grounds and depth ranges. The demersal trawl fleet targets a large variety of species, namely horse mackerel (*Trachurus trachurus*), blue whiting (*Micromesistius poutassou*), blue jack mackerel (*Trachurus picturatus*), pouting (*Trisopterus luscus*) and hake (*Merluccius merluccius*). The crustacean trawl fleet operates along the SW and S coasts of Portugal and and the main target species are deepwater rose shrimp (*Parapenaeus longirostris*), Norway lobster (*Nephrops norvegicus*), other shrimp species and blue whiting. The bottom otter trawl fleet is not allowed to fish inside the 6-mile coastal area, and a closed season is established for the Portuguese crustacean trawl in January each year.

The static gears (gillnets, trammel nets, longline and pots) are mainly used by the so-called Portuguese polyvalent fleet, which are licensed for more than one type of gear. Only gillnets and longlines are regulated within the Annex IIB.

Table 5.7.1 Portuguese Annex IIB regulated gears and trammel nets.

Effort control regime (Annex IIB)	**DCF métier (Acronym)**	**Description**
Bottom trawls, Danish seines and similar trawls of mesh size ≥ 32 mm	OTB_DEF_>=55_0_0	Otter bottom trawl targeting demersal fish using mesh size ≥ 65 mm
	OTB_CRU_>=55_0_0	Otter bottom trawl targeting crustacean species using mesh size ≥ 55 mm
Gill-nets of mesh size ≥ 60 mm	GNS_DEF_60-79_0_0	Set gillnet targeting demersal fish using mesh size of 60-79 mm
	GNS_DEF_80-99_0_0	Set gillnet targeting demersal fish using mesh size of 80-99 mm
	GNS_DEF_>=100_0_0	Set gillnet targeting demersal fish using mesh size ≥ 100 mm
Bottom longlines	LLS_DEF_0_0_0	Set longline targeting demersal fish
Trammel nets (non-regulated)	GTR_DEF_80-99_0_0	Set trammel net targeting demersal fish using mesh size of 80-99 mm
	GTR_DEF_>=100_0_0	Set trammel net targeting demersal fish using mesh size ≥ 100 mm

STECF-EWG 13-06 notes that under gears regulated by the Annex IIB there is also a mixture of different Spanish DCF metiers (Table 5.7.2).

The Spanish bottom trawl operating in the Northern and Western coastal waters (ICES Divisions VIIIc and IXa) is prosecuted by vessels with 28 m of average length. The minimum trawl depth is 100 m, the maximum activity period is 18 hours per day and they must stop fishing for a 48-hour continuous period per week. This fleet is composed of otter trawlers and pair trawlers.

The most important Spanish métiers in 8c and 9a are described below:

“Baca” gear (OTB_DEF_>=55_0_0), characterized by a vertical opening of 1.2-1.5 m and a wingspread of 22-25 m, is allowed to use a cod end mesh size of 70 mm to catch demersal species, standing out hake (*Merluccis merluccius*), megrims (*Lepidorhombus boscii* and *L. whiffiagonis*) and anglerfish (*Lophius piscatorius and L. budegassa*).

“Jurelera” (OTB_MPD_>=55_0_0) permits a higher vertical opening (5-5.5 m) and is allowed to use a smaller mesh size (55 mm), so it is used to target pelagic fish as horse mackerel (*Trachurus trachurus*) and mackerel (*Scomber scombrus*). As ‘baca’ and ‘jurelera’ gears can be used in the same trip, the identification of the trip métier must be done by multivariate analysis (Punzón et al., 2010) of the landings profile.

The pair bottom trawl fleet (PTB_MPD_>=55_0_0) uses a gear that can reach a vertical opening of 25 m and a wingspread of 65 m. This fleet is allowed to use a minimum mesh size of 55 mm when it is directed to blue whiting (*Micromesistius poutassou*), the main species in landings, but needs to be extended to 70 mm when the hake proportion exceeds 15% in landings (Castro et al., 2010). However, both cod ends are included into the same DCF mesh range due to the difficulty of split both kind of trips for sampling purposes.

Table 5.7.2 Spanish Annex IIB regulated gears and trammel nets.

Effort control regime (Annex IIB)	**Area**	**DCF Metier acronym**	**Description**
Trawls, Danish seines or similar gears of mesh size ≥ 32 mm	8c & 9a	OTB_DEF_>=55_0_0	(‘Baca’) Otter bottom trawl targeting demersal species (hake, megrim, anglerfish ...) using a cod end mesh size of 70 mm
	8c & 9a North	OTB_MPD_>=55_0_0	(‘Jurelera’) Otter trawl targeting pelagic and demersal species (horse mackerel, mackerel)
		PTB_MPD_>=55_0_0	Pair bottom trawl targeting pelagic and demersal species (blue whiting, hake, mackerel) using a
		SDN_MCF_>=55_0_0	Danish seine targeting cuttlefish
	9a South	OTB_MCD_>=55_0_0	Otter bottom trawl targeting crustaceans and demersal species (rose shrimp, hake, cuttlefish)
Gill-nets of mesh size ≥ 60 mm	8c & 9a North	GNS_DEF_60-79_0_0	(‘Beta’) Set gillnet targeting demersal species (horse mackerel, pouting, hake, ...) using a mesh size of 60 mm
		GNS_DEF_80-99_0_0	(‘Volanta’) Set gillnet targeting hake using a mesh size of 90 mm
		GNS_DEF_>=100_0_0	(‘Rasco’) Set gillnet targeting anglerfish using mesh size of 280 mm
Bottom longlines	8c & 9a	LLS_DEF_0_0_0	Bottom longline targeting demersal species (conger, pomfret, hake, ...)
	9a S	LLS_DWS_0_0_0	Bottom longline targeting silver scabbardfish
Trammel nets (non regulated)	8c & 9a N	GTR_DEF_60-79_0_0	Set trammel net targeting demersal species (cuttlefish, spider crab, rays, ...) using mesh size over 60 mm
	9a S	GTR_DEF_40-59_0_0	Set trammel nets targeting demersal species (cuttlefish, wedge sole, meagre, prawns, ...) using 40-60 mm mesh size

Otter bottom trawl in 9a South (OTB_MCD_>55_0_0) fishes in both Portuguese and Spanish waters and is directed to crustaceans and demersal species as rose shrimp (*Parapeanaeus longirostris*), hake and cuttlefish (*Sepia officinalis*).

The Northern Spanish gillnet fleet uses three types of nets: “beta”, “volanta” and “rasco” nets (Castro et al., 2011).

- “Beta” gear (GNS_DEF_60-79_0_0) uses mesh sizes of 60 mm to target a variety of demersal species as horse mackerel, pouting (*Trisopterus luscus*), hake and mullets (*Mullus spp.*).
- “Volanta” gear (GNS_DEF_80-99_0_0) is a gillnet composed by nets with 10 m high and 50 m length, which is regulated under a mesh size of 90 mm to specifically catch hake.
- “Rasco” gillnet is composed by nets with 3.5 m high and 50 m length, and uses a 280 mm mesh size to target anglerfish (GNS_DEF_>=100_0_0).

The main Spanish set longline fleet (LLS_DEF_0_0_0) uses a line with less than 4000 hooks and is used to catch demersal fish as conger (*C. conger*), pomfret and hake, among others.

The Northern Spanish trammel net fleet (GTR_DEF_60-79_0_0) uses a gear made with three walls of netting, the two outer walls being of a larger mesh size (400-500 mm) than the loosely hung inner netting panel (60-90 mm), and targets a variety of demersal species as cuttlefish, spider crabs or rays.

Annex IIB of CR 43/2012 sets the maximum number of days the fishing vessels are allowed to be present in the area carrying the specified regulated gears (Table 5.7.3). The regulated gear types are named as “3a” (bottom trawler mesh size ≥32 mm), “3b” (gillnet ≥60 mm) and “3c” (bottom longline), using the 2006-2007 regulations numbering. Special conditions are applied to vessels that landed less than 5 tons of hake and less than 2.5 tons of Norway lobster in the year 2009 or 2010 (CR 43/2012). These special conditions, previously referred as IIB72ab according to their numbering (Annex IIB, point 7.2, *a* and *b*) in CR(s) 40/2008 and 43/2009, were updated to IIB52ab in CR(s) 53/2010 and 57/2011 and to IIB61 in CR43/2012.

In 2010, additional days were allocated to Spanish and Portuguese vessels on the basis of permanent cessation of vessels from each country. This different allocation is reflected in the 2011 allowed days at sea.

Table 5.7.3. Historic trends in allowed days at sea by vessel specified in the Council Regulations since 2005.

Annex	AREA	REG GEAR	SPECON (**)	Country	2005	2006	2007	2008	2009	2010	2011	2012
IIB	8c9a	3a, 3b & 3c (*)	none	ESP	264	240	216	194	175	158	158	150
				FRA							142	149
				PRT							172	155
			IIB61	ESP	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited	Unlimited
				FRA								
				PRT								

(*) according to 2006 and 2007 regulations
(**) SPECON IIB61 corresponds to IIB72ab of the regulations prior to 2010

The days of a trip shall not be counted for effort regulation if hake catch (landing + discard) is less than 4% of the trip catch (CR 43/2012).

STECF-EWG 13-06 considers that the use of fishing days (or kW*days) to manage effort of static gears such as gillnets and longlines is a very poor approximation of the effective effort and thus may put at risk the management goals.

In the case of Spanish data some inconsistencies between “gear” and “fishery” (= metier) information could be found in the database. That is because “gear” information comes directly from the logbooks (official information) and “fishery” information comes from multivariate analysis carried out to identify the metier of each trip (scientific estimations).

5.7.1 ToR 1.a Fishing effort in kWdays, GTdays and number of vessels by Member state and fisheries

2012 kW*days, GT*days and number of vessels in 8c and 9a were provided by Spain, Portugal, France and Scotland by area, gear, special condition and vessel length. EWG effort data time series start in 2000. Ireland, England and the Netherlands provided sporadic information in previous years. Spain did not provide 2010 and 2011 data.

According to Annex IIB of CR 43/2012, in the context of the recovery plan for Southern hake and *Nephrops* stocks, fishing vessels with overall length above 10 meters that have trawl nets with mesh sizes >32 mm, gillnets > 60 mm or bottom longlines might be present within the area for a maximum of 150 days during 2012 if they have Spanish flag, 149 days if they have French flag and 155 days if they have Portuguese flag (Table I of the Annex II B, Table 5.7.3).

If, during 2009 or 2010 these vessels landed less than 5 tonnes of hake and less than 2.5 tonnes of *Nephrops*, special conditions were applied and they were not covered by the effort limitation (Table 5.7.3), but were obliged not to exceed those amounts in 2012. The special conditions reference years were 2001-2003 average for 2005–2009 regulations, 2007 or 2008 for 2010 regulation, 2008 or 2009 for 2011 regulation and 2009 or 2010 for 2012 regulation.

Spanish and Portuguese regulated trawls landed in 2012 87% of 8c9a hake (Fig. 5.7.2.4), 53% of anglerfish (Fig. 5.7.3.4) and 98% of *Nephrops* landings (Table 5.7.2.1).

Trawl effort data provided by Spain (2002-2009, 2012) to the STECF EWG database come from logbooks and show a decreasing trend since 2004. These data can be compared with the effort data presented by Spain for the same area to the 2013 ICES WGHMM. The data provided to the ICES WG were effort estimates derived from several sources of data. These data also presented a decreasing trend, but show a more marked effort drop in the last years (ICES, 2013; Figure 5.7.1.1, left).

Effort estimates provided by Portugal (2000-2012) to the EWG database present a decreasing trend between 2007 and 2010 and stability since then. Portuguese data come mostly from logbooks and, for those that do not have logbooks (< 10 m), from sales records. We can compare these data with the effort data presented by Portugal for the same area to the 2013 ICES WGHMM. The data provided to the ICES WG come from a standardized effort series based on logbook data (ICES, 2013). These data presented also a decreasing trend until 2010, but no data were available for 2011 and 2012 (Figure 5.7.1.1, right).

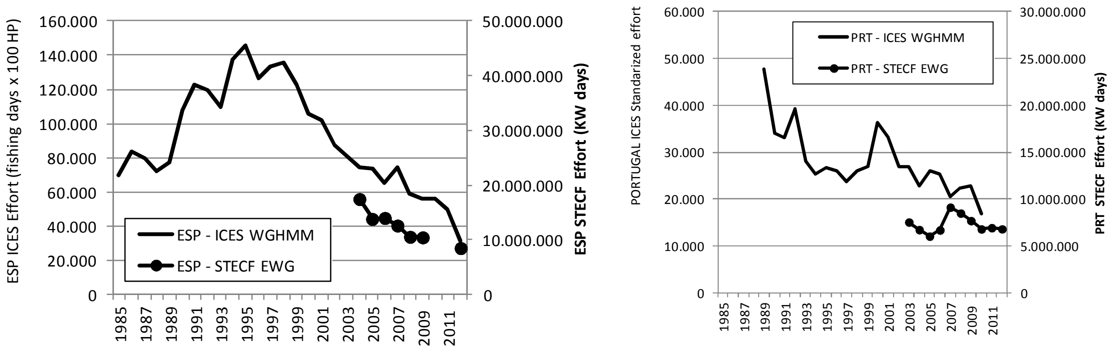


Figure 5.7.1.1. Comparison of <u>trawl</u> effort presented to ICES WGHMM and to STECF EWG data base (this report) (left: Spain, right: Portugal).

Figure 5.7.1.2 shows the decreasing trend in the 8c and 9a trawl fleets from the 2013 ICES WGHMM that corroborates the decreasing trends found in the EWG trawl effort data.

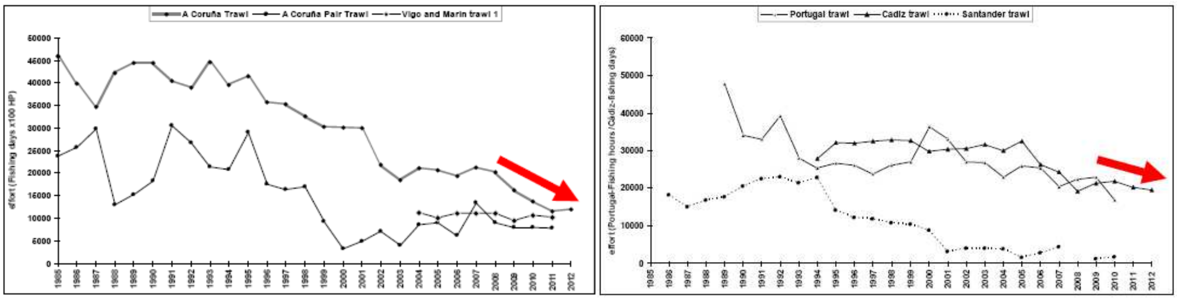


Fig. 5.7.1.2. 8c and 9a trawl fleets effort from the 2013 ICES WGHMM (1985-2012).

The 2000-2012 effort data in terms of kW*days by Member State are given in Table 5.7.1.1.

Table 5.7.1.1. Trend in nominal effort (kW*days at sea) by Member State and existing derogations given in Table 1 of Annex IIB (CR 43/2012), 2000-2012. Derogations are sorted by gear, special condition (SPECON) and country. Data quality is summarised in section 4. Note that the gear type “3t” denotes the non-regulated effort for trammel gear with all mesh sizes. **No Spanish data in 2010 and 2011.**

ANNEX	REG AREA C(	REG GEAR C(	SPECON	COUNTRY	2000	2001	2002	2003	2004	2005	2006
IIb	8c-9a	3a	IIB72AB	ESP			2109760	1820929	3051855	2677605	2420208
IIb	8c-9a	3a	IIB72AB	PRT			7621	2459587	1657564	1609414	560066
IIb	8c-9a	3a	none	ENG						1277	
IIb	8c-9a	3a	none	ESP			9822108	15456694	14344840	11072135	11473544
IIb	8c-9a	3a	none	FRA	63277	123663	484849	120552	110098	198178	345256
IIb	8c-9a	3a	none	IRL				4208			1612
IIb	8c-9a	3a	none	PRT	3808432	1807966	1741444	5077895	5074403	4425695	6137863
IIb	8c-9a	3b	IIB72AB	ESP			671679	662947	865145	1033742	916120
IIb	8c-9a	3b	IIB72AB	PRT			5884	35022	2695	51269	116027
IIb	8c-9a	3b	none	ENG							26652
IIb	8c-9a	3b	none	ESP			438463	450978	684167	787527	916038
IIb	8c-9a	3b	none	FRA	4723	4750	24598	5762	28023	97700	69478
IIb	8c-9a	3b	none	PRT	151503	90812	162118	88643	32276	144697	231204
IIb	8c-9a	3b	none	SCO							3234
IIb	8c-9a	3c	IIB72AB	ESP			591039	621801	692039	686974	755191
IIb	8c-9a	3c	IIB72AB	PRT	45446	10923	20594	328631	280951	572386	869687
IIb	8c-9a	3c	none	ENG				8853			4928
IIb	8c-9a	3c	none	ESP			310392	344686	383472	545271	830548
IIb	8c-9a	3c	none	FRA	1738		3312	3318	3972	2094	588
IIb	8c-9a	3c	none	IRL							1684
IIb	8c-9a	3c	none	PRT		544		56188	33808	39774	95715
IIb	8c-9a	3t	none	ESP			461705	438995	736892	955031	742397
IIb	8c-9a	3t	none	FRA	4108		23894	3977	525		1878
IIb	8c-9a	3t	none	PRT	74911	79822	89495	74729	40252	253707	525524
IIb	8c-9a	none	none	ENG							3136
IIb	8c-9a	none	none	esp	0	0	18346437	24809378	16299264	15443521	13662008
IIb	8c-9a	none	none	fra	85431	159563	1216983	224468	97130	125835	318711
IIb	8c-9a	none	none	IRL		1585	4281	11686			6020
IIb	8c-9a	none	none	prt	0	0	0	11726	5402	78981	159803

ANNEX	REG AREA C(	REG GEAR C(	SPECON	COUNTRY	2007	2008	2009	2010	2011	2012
IIb	8c-9a	3a	IIB72AB	ESP	2458721	2478225	2403446			
IIb	8c-9a	3a	IIB72AB	FRA						39910
IIb	8c-9a	3a	IIB72AB	PRT	186292	195742	314695	310341	890648	1318635
IIb	8c-9a	3a	none	ESP	9902350	7975346	7959428			8113213
IIb	8c-9a	3a	none	FRA	274429	315954	315954	47904	71646	37581
IIb	8c-9a	3a	none	IRL				82		
IIb	8c-9a	3a	none	PRT	8941196	8299896	7380318	6493382	6046801	5492574
IIb	8c-9a	3b	IIB72AB	ESP	1056900	1330193	1668152			
IIb	8c-9a	3b	IIB72AB	FRA						36742
IIb	8c-9a	3b	IIB72AB	PRT	152925	176030	276056	248338	179928	177891
IIb	8c-9a	3b	none	ENG	1984					
IIb	8c-9a	3b	none	ESP	1010060	1195943	1480125			1474835
IIb	8c-9a	3b	none	FRA	128595	296765	296765	114202	61604	46046
IIb	8c-9a	3b	none	PRT	816228	886822	763806	680987	285066	205987
IIb	8c-9a	3c	IIB72AB	ESP	846255	897264	1099242			
IIb	8c-9a	3c	IIB72AB	FRA						22172
IIb	8c-9a	3c	IIB72AB	PRT	841563	750091	864313	844144	897019	239579
IIb	8c-9a	3c	none	ESP	522362	521613	728602			2521419
IIb	8c-9a	3c	none	FRA	700	40052	40052	83794	46310	33643
IIb	8c-9a	3c	none	IRL	2472					
IIb	8c-9a	3c	none	PRT	149000	139305	111767	91062	91411	115392
IIb	8c-9a	3c	none	SCO				2323	3437	2294
IIb	8c-9a	3t	none	ESP	716707	917963	932788			870809
IIb	8c-9a	3t	none	FRA		2823	2823	5048	3686	6551
IIb	8c-9a	3t	none	PRT	1252867	1026614	1264013	1437577	1430235	1401028
IIb	8c-9a	none	none	DEU	15685	23373	6174	7272	4040	
IIb	8c-9a	none	none	esp	14825151	13411326	15960434	0	0	4053436
IIb	8c-9a	none	none	fra	317890	44551	44551	47003	38166	84317
IIb	8c-9a	none	none	PRT	304567	440799	393947	370203	409189	286024

Information on trends in GTdays is available on the website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

In addition to the 2006 and 2007 regulation defined gear types “3a” (bottom trawler mesh size ≥32 mm), “3b” (gillnet ≥60 mm), “3c” (bottom longline) and the undefined (“none”), the tables include trammel nets under the coding “3t”, as they were found to contribute significantly to the static effort deployed (9% of the kWdays and 7% of the landings in 2012).

In May-June 2013 Spain only provided 2012 data, not changing previous data. Portugal provided the whole series, correcting to tons what was submitted in 2012, in kilograms. No differences were found between the resubmitted data in 2012 and the data submitted in 2011.

Figure 5.7.1.3 shows effort trends for Spain and Portugal, the main players in the area (99% of the kWdays in 2012), for the period 2003 – 2012. No Spanish data were available for 2010 and 2011.

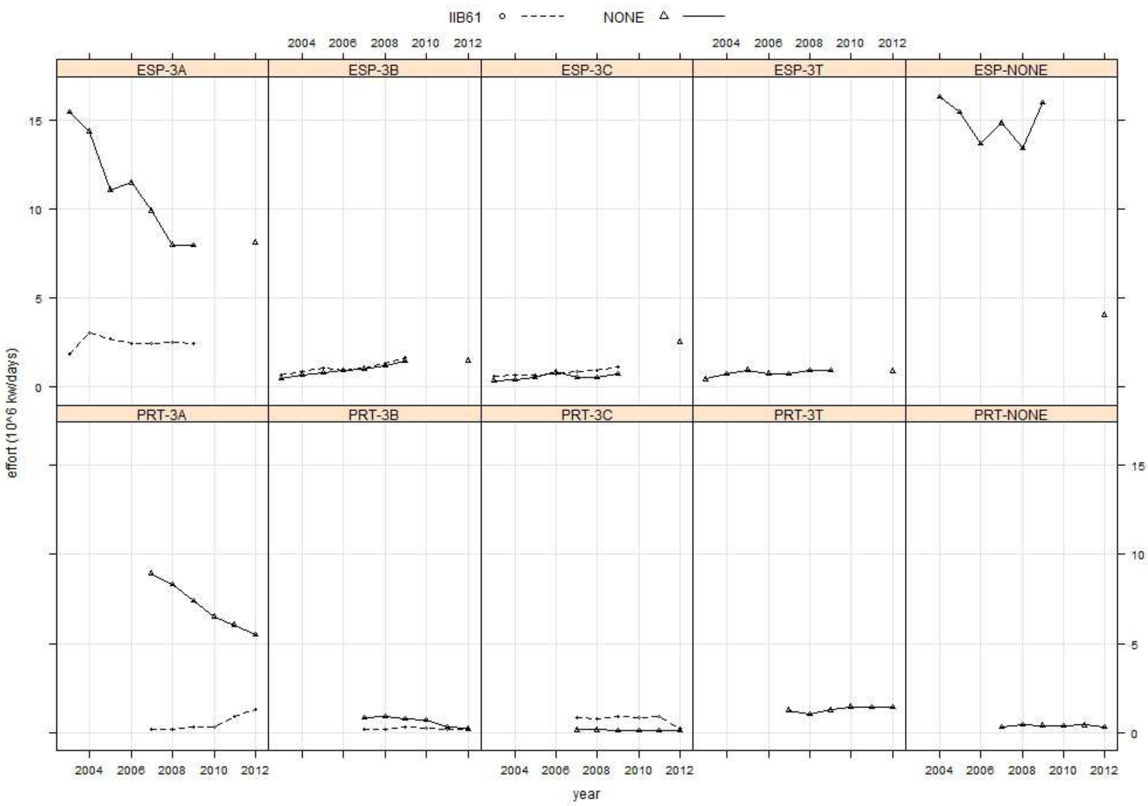


Fig. 5.7.1.3. Effort (kW*days) trends by gear type and Member State (2003-2012). There are not Spanish data from 2010 and 2011. Above: Spain, below: Portugal.

The data submitted by the Member States for the years 2000-2002, initial period of the time series, do not seem realistic as several gears present very low effort data and/or gaps, therefore there were omitted in the Figure 5.7.1.3. Both Spanish and Portuguese information comes from logbooks and for the Portuguese vessel with length under 10 m, from sales notes. Logbooks from Portuguese vessels before

2007 were not completely recorded in the national database and were also omitted in the graph in order to not give a wrong perception of the effort trend in this period. Spanish data from 2010 and 2011 were not available. See section 4 for more details in data quality provided by Member States. In 2012 there is no Spanish effort under special conditions because no vessel had applied for that in 2012.

Spanish and Portuguese regulated trawlers and Spanish unregulated gears (esp-3a, prt-3a and esp-none, respectively) were the gears deploying more effort in the area in 2012 (31%, 26% and 15% respectively).

The effort of trawlers (3a) under effort restrictions (continuous line) is decreasing since 2003 in the case of Spain and since 2007 in the case of Portugal.

The effort of trawlers (3a) without effort restrictions, i.e. with special conditions (IIB61, dashed line) has been stable between 2004 and 2009 in the case of Spain and in the period 2007-2010 in the Portuguese case, with a slight increase since 2010. As referred above, no Spanish vessel applied for special conditions in 2012.

Spanish unregulated gears (esp-none) effort (Figs. 5.7.1.3 and 5.7.1.4) has been stable in the period 2004-2009. The 2012 esp-none effort is one third of the 2004-2009 level. The effort of the Spanish regulated gillnet (esp-3b, 6%) slightly increased between 2003 and 2009 and was kept at the same level in 2012, while Portuguese regulated gillnet (por-3b, 1%) decreased in recent years. The effort of the Spanish regulated longline (esp-3c, 9%) increased in the last year, while the effort of Portuguese longline (por-3c, 1%) decreased for the vessel with special conditions and was stable for the others. Trammel effort is stable along the period for both Spanish and Portuguese fleets (esp-3t, 3%, and prt-3t, 5%).

Considering the high value of the Spanish unregulated effort (ESP-NONE in Figure 5.7.1.3), a more in-depth analysis was carried out on this group effort composition in 2012 (Figure 5.7.1.4). The “none” effort (24%) in the Figure 5.7.1.4 corresponds to tuna and mackerel gears (troll and hand lines), while otter and gillnet effort (10% and 4%) are from unregulated or non-identified mesh sizes.

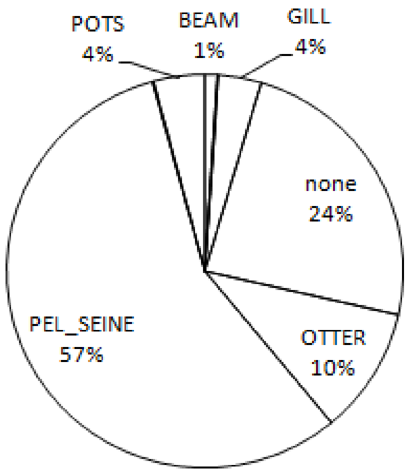


Figure 5.7.1.4.- Spanish non regulated gears (ESP-NONE) effort (KW*day) by gear in 2012. “none” gears (24%) are composed by tuna and mackerel gears (troll and hand lines).

Table 5.7.1.2. Trend in nominal effort (kW*days at sea) by derogations given in Table 1 of Annex IIB (CR 43/2012), 2000-2012. Derogations are sorted by gear and special condition (SPECON) (all countries together). Data qualities are summarised in section 4.3. Note that the gear type "3t" denotes the non-regulated (effort) trammel gear with all mesh sizes. **No Spanish data in 2010 and 2011.**

ANNEX	AREA	REG GEAR	SPECON	2000	2001	2002	2003	2004	2005	2006
IIb	8c-9a	3a	IIB72ab	0	0	2,117,381	4,280,516	4,709,419	4,287,019	2,980,274
IIb	8c-9a	3b	IIB72ab	0	0	677,563	697,969	867,840	1,085,011	1,032,147
IIb	8c-9a	3c	IIB72ab	45,446	10,923	611,633	950,432	972,990	1,259,360	1,624,878
IIb	8c-9a	3a	none	3,871,709	1,931,629	12,048,401	20,659,349	19,529,341	15,697,285	17,958,275
IIb	8c-9a	3b	none	156,226	95,562	625,179	545,383	744,466	1,029,924	1,246,606
IIb	8c-9a	3c	none	1,738	544	313,704	413,045	421,252	587,139	933,463
IIb	8c-9a	3t	none	79,019	79,822	575,094	517,701	777,669	1,208,738	1,269,799
IIb	8c-9a	none	none	85,431	161,148	19,567,701	25,057,258	16,401,796	15,648,337	14,149,678

ANNEX	AREA	REG GEAR	SPECON	2007	2008	2009	2010	2011	2012
IIb	8c-9a	3a	IIB72ab	2,645,013	2,673,967	2,718,141	310,341	890,648	1,358,545
IIb	8c-9a	3b	IIB72ab	1,209,825	1,506,223	1,944,208	248,338	179,928	214,633
IIb	8c-9a	3c	IIB72ab	1,687,818	1,647,355	1,963,555	844,144	897,019	261,751
IIb	8c-9a	3a	none	19,117,975	16,591,196	15,655,700	6,541,368	6,118,447	13,643,368
IIb	8c-9a	3b	none	1,956,867	2,379,530	2,540,696	795,189	346,670	1,726,868
IIb	8c-9a	3c	none	674,534	700,970	880,421	177,179	141,158	2,672,748
IIb	8c-9a	3t	none	1,969,574	1,947,400	2,199,624	1,442,625	1,433,921	2,278,388
IIb	8c-9a	none	none	15,463,293	13,920,049	16,405,106	424,478	451,395	4,423,777

Table 5.7.1.2 lists the trend in effort by derogation since 2000 in terms of kW*days at sea. GT*days at sea and number of vessels are available on the web. 3a, 3b, special condition 3c and none gears effort have decreased, while non special condition 3c gears effort has markedly increased and 3t effort is stable.

Regulated trawl deploys most effort in the area (56%), being most of it (91%) under effort control in 2012. Passive gears (3b, 3c and 3t) accounted for approximately 27% of all effort in 2012. However, such results have a limited meaning regarding the fishing pressure exerted by these fleets, once the unit kW*day does not take into account the number of hooks deployed and area covered by the nets and hence it is a poor indicator of the fishing activity. In 2012, about 25% of the effort was assigned to other gears than the regulated ones ("3t" and "none" gears), of which trammel nets ("3t") contribute 9% to the overall effort deployed. Most of this effort is deployed by gears that do not target hake, *Nephrops* or anglerfish.

Figure 5.7.1.5 shows the effort trends by gear type in the period 2003-20012, the dashed line identifying the period before the enforcement of effort control measures. Years 2010 and 2011 were not included because there were not Spanish data. The effort has decreased since 2003 in regulated trawlers (3a) and since 2009 in regulated gillnet (3b) and non regulated gears (none). The effort of longline (3c) and trammel (3t) has been stable in the last years.

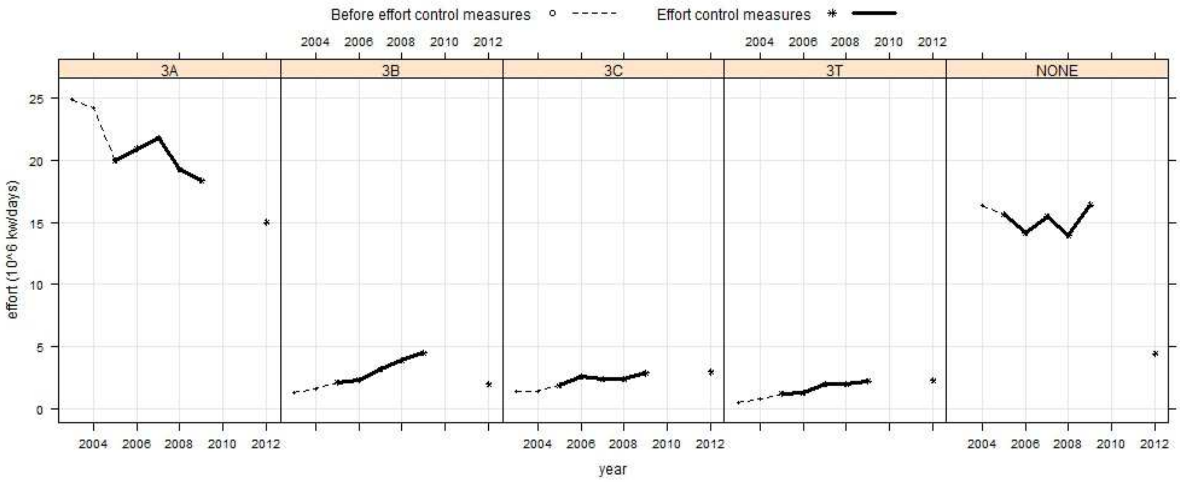


Fig. 5.7.1.5. Effort trends by gear type (Spain and Portugal together). Years 2010 and 2011 points removed from the graph since there were not Spanish data. Period before effort control measures in dashed line.

5.7.1.1 Spatial distribution of effective fishing effort by rectangle statistical rectangle

Portugal, Spain, France and Scotland submitted effort by ICES rectangle. Figures 5.7.1.1.1, 5.7.1.1.2 and 5.7.1.1.3 show the distribution of Spanish and Portuguese effort for regulated gears, with effort control ("none") and without effort restriction ("IIB61") for the period 2003-2012. For the years 2010 and 2011, only the effort from Portuguese fleets is plotted because no Spanish data were available for those years. In 2012, no Spanish vessel applied for the effort special condition (IIB61). 2003-2009 Spanish longline effort was misallocated in the figure to specon "none".

As referred in the introduction of section 5.7, STECF-EWG considers that the use of fishing days (or kW*days) to manage effort of static gears such as gillnets and longlines is a very poor approximation of the effective effort. Although the figures present the effective effort in the same units, the effort deployed by the different gear groups is not comparable.

No changes in the effort distribution pattern have been identified since the implementation of the fishing effort regulation.

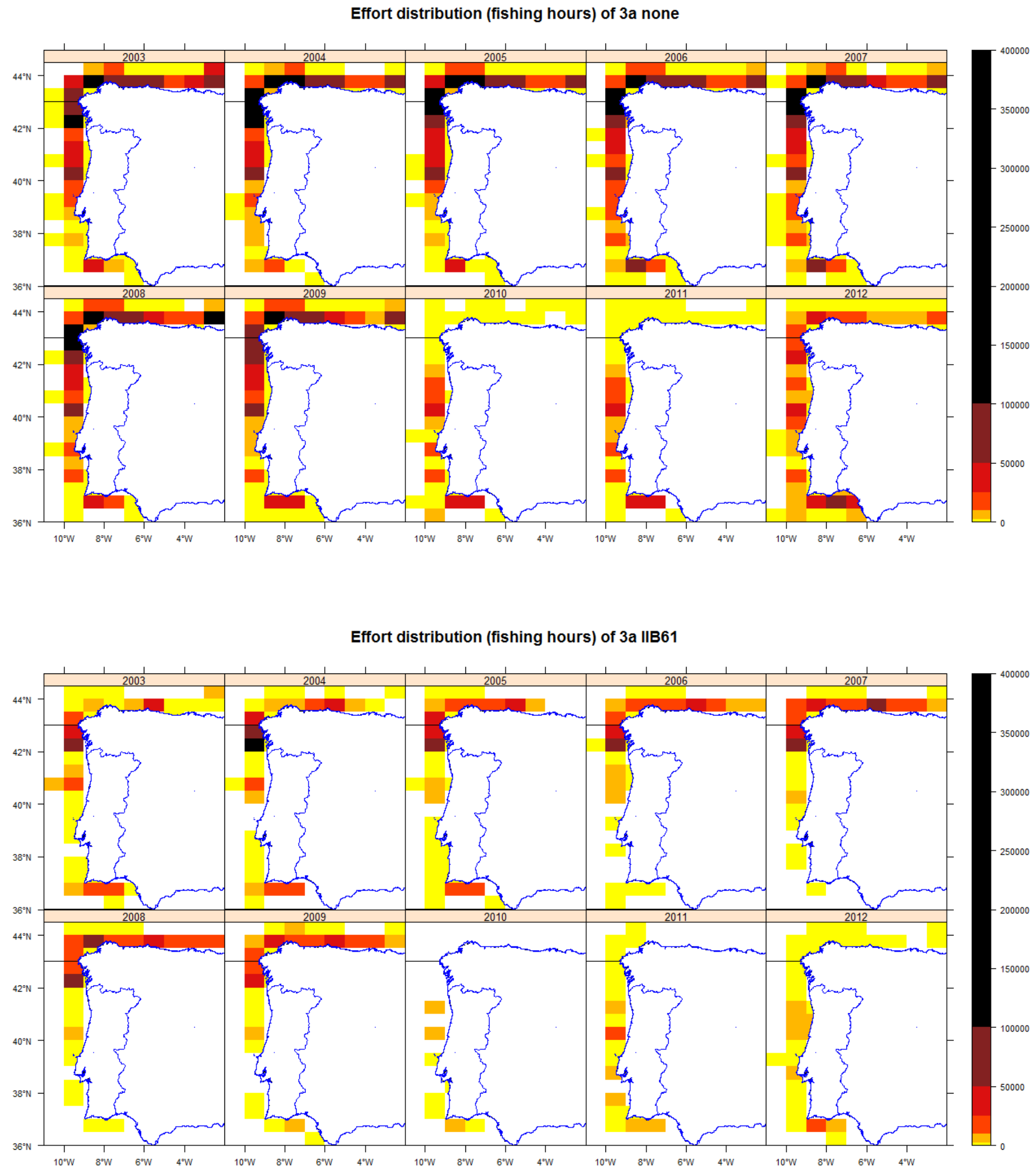


Figure 5.7.1.1.1. Effort spatial distribution for regulated trawl (gear 3a) without (upper panel) and with special conditions (lower panel) for the period 2003-2012. **No Spanish data for the years 2010 and 2011.** In 2012 no Spanish vessel applied for the effort special condition (IIB61).

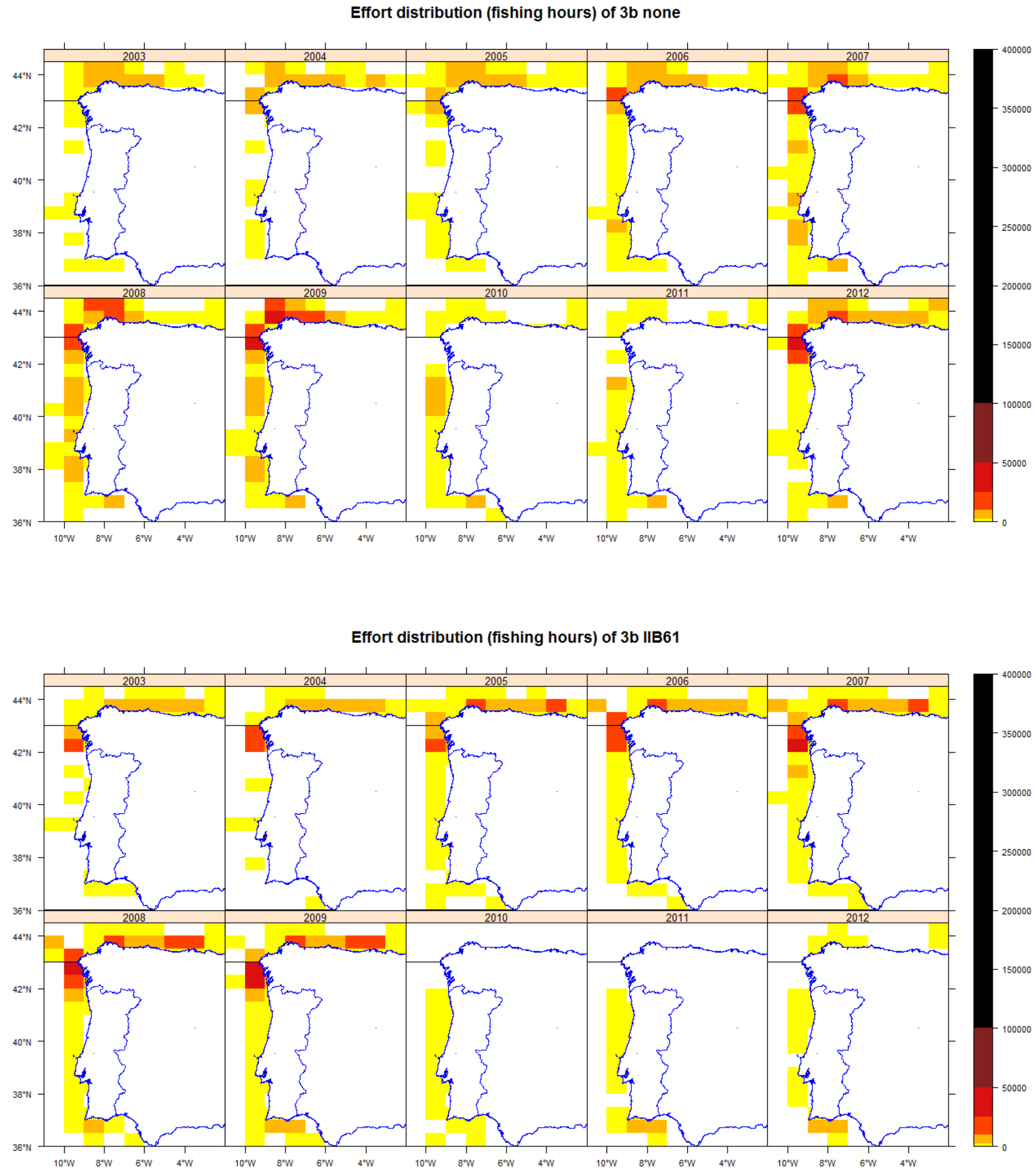
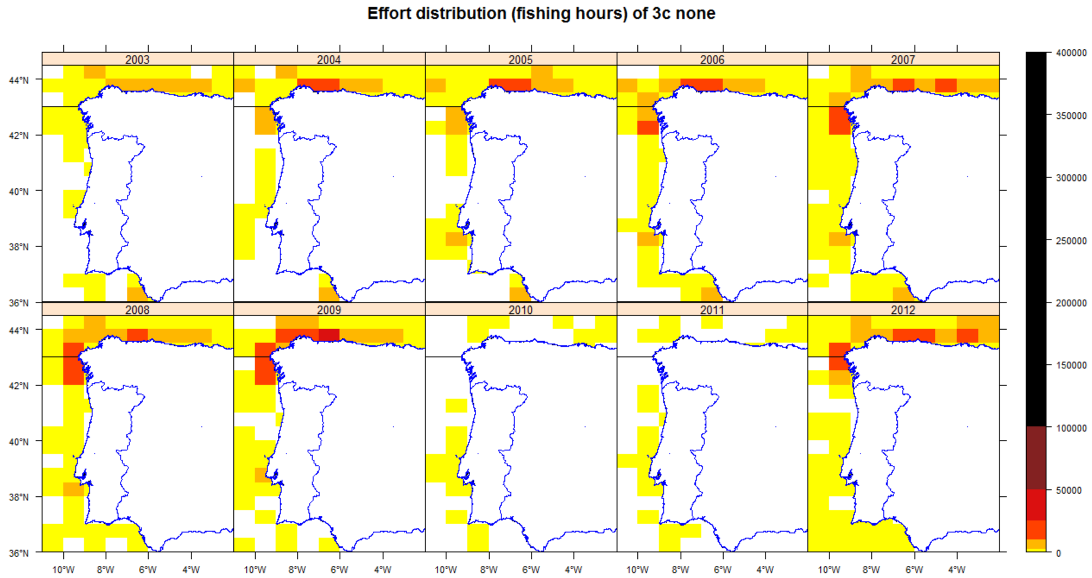


Figure 5.7.1.1.2. Effort spatial distribution for regulated gillnets (gear 3b) without (upper panel) and with special conditions (lower panel) for the period 2003-2012. **No Spanish data for the years 2010 and 2011.** In 2012 no Spanish vessel applied for the effort special condition (IIB61).



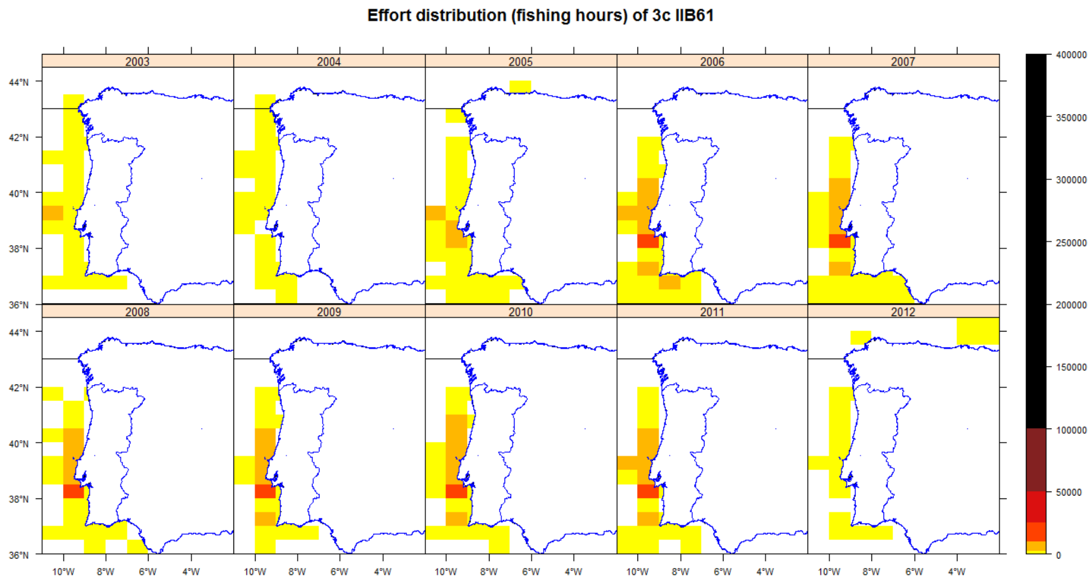


Figure 5.7.1.1.3. Effort spatial distribution for longlines (gear 3c) without (upper panel) and with special conditions (lower panel) for the period 2003-2012. **No Spanish data for the years 2010 and 2011.** In 2012 no Spanish vessel applied for the effort special condition (IIB61). By mistake, in the period 2003-2009, all Spanish effort under category “3c IIB61” was submitted as “3c none”.

5.7.2 *ToR 1.b Catches (landings and discards) of hake and Norway lobster in weight and numbers at age by Member State and fisheries*

Catch time series in the EWG database included 2003-2012 data. 2012 catch data were presented by Spain, Portugal, France and Ireland.

In 2013 Spain provided a new set of discard data from 2003 to 2009 and 2012 for all the species of the EWG requirement. This new set of data was homogeneously raised by landings in the same way for all the metiers and years. There were neither Spanish landings nor discards data for 2010 and 2011.

In 2013 also Portugal provided discards data for otter trawl for the period 2004-2011.

Netherlands, England and Scotland have provided sporadic landings data along the time series in previous years.

Member States (MS) did not provide hake information by age because there are relevant doubts about this species ageing (ICES, 2009, 2010a). For *Nephrops* there is no standardized ageing methodology. Length composition of the catches presented to ICES assessment working groups are available for the DCF metiers, but could not be uploaded to the database because the database accepts only age compositions.

Hake landings provided to the EWG database (this report) (2003-2012) come mainly from logbooks and show a decrease of 64% between 2009 and 2012. These data were compared with the landings data presented for the same area to the 2013 ICES WGHMM in order to check if this high drop is real. ICES WG landings are estimates made from different sources of data and show a decrease between 2009 and 2012 of 24% (Figure 5.7.2.1, left). The landings of the EWG and the ICES WG were more or less the same until 2009 but in 2012 EWG landings are half of those included in the ICES WGMM report. This is because logbooks in 2012 reflect much lower landings than sales notes.

Hake discard data provided to the EWG data base (2003-2012) show a high discard weight variability in the period pivoting around 3 000 tonnes per year. 2003 discard data were not taken into account since values were abnormally low. This was due to incomplete metier identification in the Spanish landings in 2003 that prevent a complete Spanish discard raising that year.

Discard values provided to the EWG are similar to those presented by the Member States to ICES WGHMM, following similar trends, except for 2009. The 2009 discard value in EWG is 66% higher than in WGHMM (4882 t opposite 2935 t). That is because WGHMM in 2010 used several years average value instead the proper 2009 discard estimation, because in that moment 2009 discard estimation seemed very high. Discard sampling information in the following years confirmed that the 2009 estimation was correct and not and outlier or a sampling artefact. The high discard in 2009 was due to the high quantity of individuals below the minimum landing size (MLS = 27 mm) in this fishing ground.

The discards of hake in 2012 are 68% lower than the value in 2009 (Figure 5.7.2.1, right), similar to the decrease in landings (64%). Hake discard quality index for trawl was A (high representativeness) in 2004-2012.

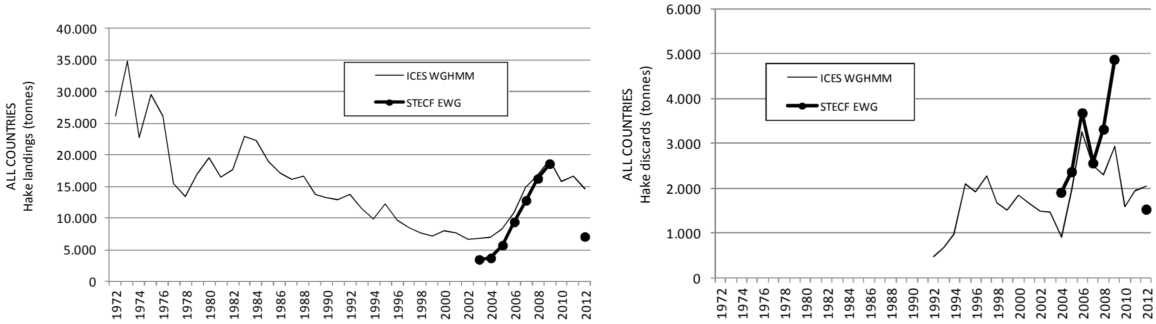


Figure 5.7.2.1. Comparison of the 8c & 9a hake landings and discards (tonnes) presented to ICES WGHMM and STECF EWG database (this report) for all countries and gears (1972-2012). There were no Spanish data from 2010 and 2011 in EWG. Notice the different scale of both graphs.

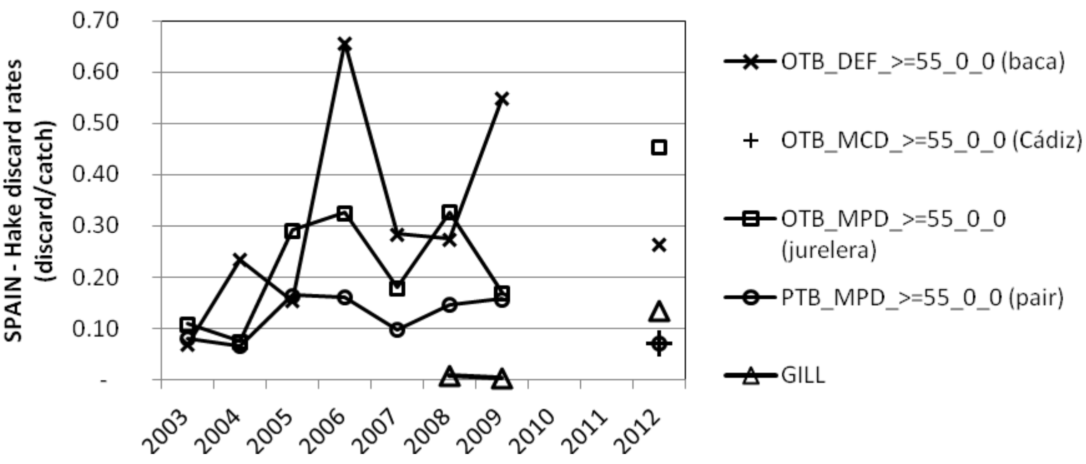


Figure 5.7.2.2. Spanish hake discard rates (discard/catch) for 2003-2009 and 2012.

Figure 5.7.2.2 shows that the Spanish metier that have reached the highest rates of hake discards has been the OTB_DEF_>=55 (baca). In 2012 jurelera has the highest rate, followed by baca, gillnet, pair and Cádiz trawl.

Nephrops landings provided to the EWG database (this report) (2003-2012) come from logbooks and show an increase of 9% between 2009 and 2012. We can compare these data with the landings data presented for the same area to the 2013 ICES WGHMM. ICES WG landings are estimates made from different sources of data and show an increase between 2009 and 2012 of 17% (Figure 5.7.2.3). The landings of the EWG were much less than those from the ICES WG until 2007, since then both seem to be more or less at the same level.

In general, there are no *Nephrops* discards either in Spanish or in Portuguese fisheries because of its very high commercial value. Discard rate is zero in all years (2003-2009 and 2012) except in 2004 (4% of catch was discarded, 12 t) and 2005 (9%, 31 t).We cannot compare these values with those in the ICES WGHMM because this group considers negligible *Nephrops* discards in the area.

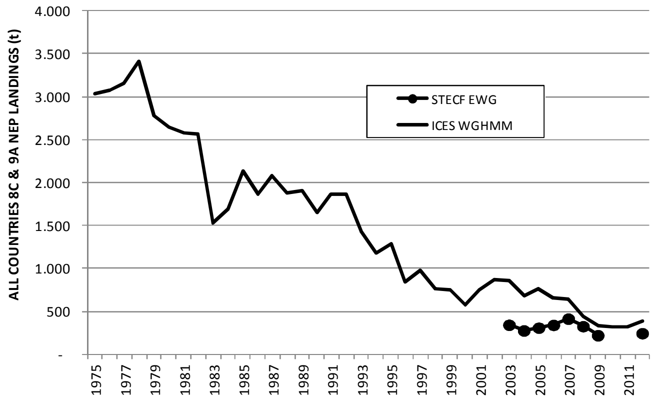


Figure 5.7.2.3. Comparison of the 8c & 9a *Nephrops* landings (tonnes) presented to ICES WGHMM and STECF EWG data base (this report) for all countries and gears (1975-2012). There were no Spanish data from 2010 and 2011 in EWG.

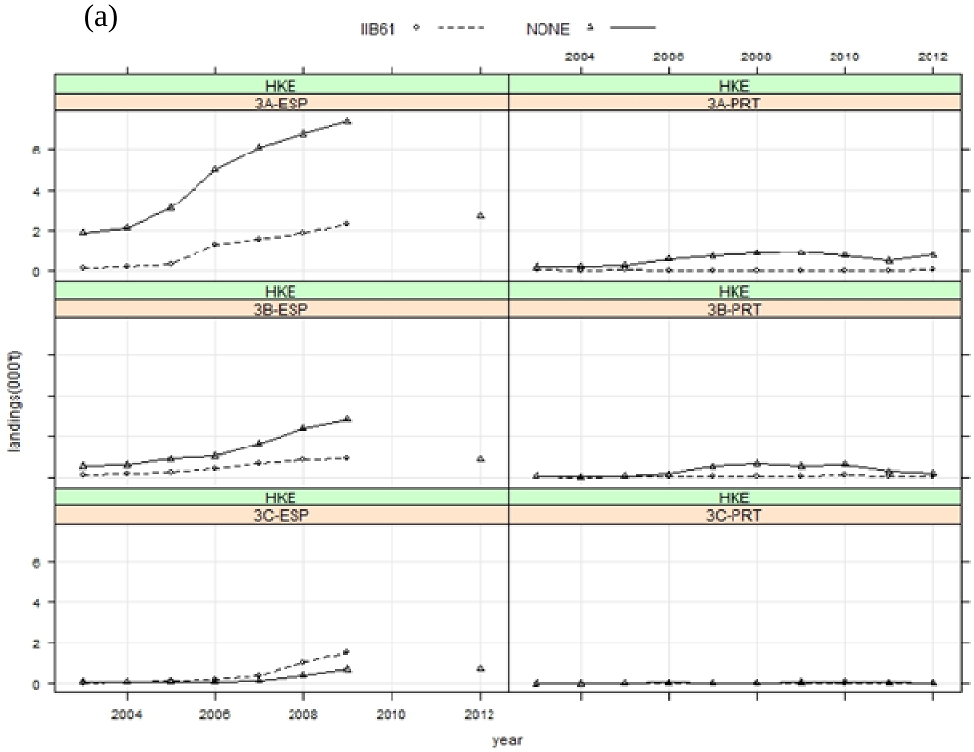
The contributions of the different group of gears to the overall landings can be taken from Table 5.7.2.1. Spanish and Portuguese regulated trawls landed in 2012 the 98% of *Nephrops* landings (Table 5.7.2.1).

The following tables and figures represent the landings and discards by group of gears in weight for hake (HKE) and *Nephrops* (NEP).

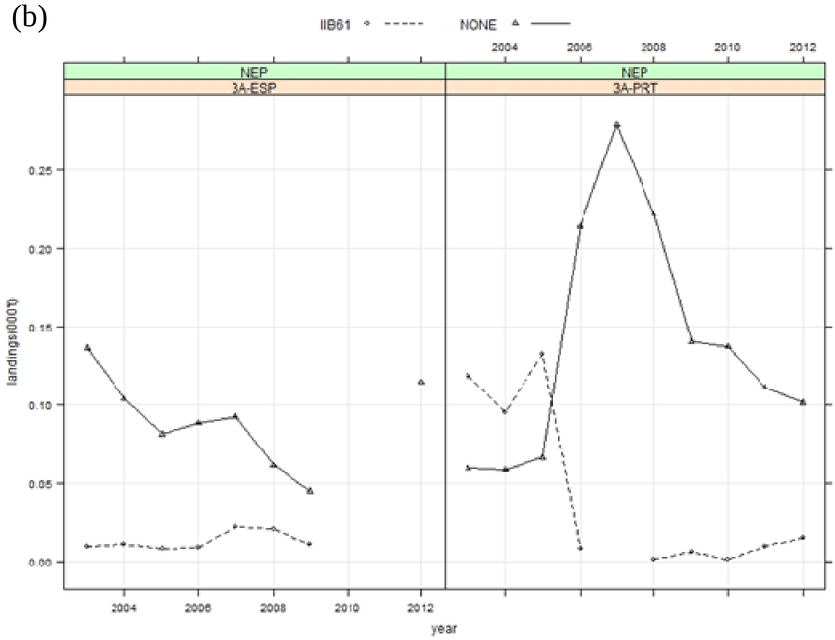
Table 5.7.2.1. Hake and *Nephrops* landings and discards (t) by species and derogation, 2003-2012. Regulation gears codes according to the CR No 41/2007: “3a” – bottom trawls of mesh size ≥ 32 mm, “3b” – gillnets of mesh size ≥ 60 mm, “3c” – bottom long-lines. Gear type “3t” denotes the non-regulated (effort) trammel gear with all mesh sizes, gear type “none” contains other gears and the gears not allocated. “--“ means “not available”, “0” means “0 tonnes”. **No Spanish data for 2010 and 2011.**

					2003		2004		2005		2006		2007		2008		2009		2010		2011		2012	
annex	area	reg gear	specon	species	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
IIb	8c-9a	3a	none	HKE	2,069	153	2,310	1,818	3,370	1,934	5,584	3,219	6,841	2,320	7,686	2,841	8,313	4,224	762	595	494	747	3,453	1,292
IIb	8c-9a	3a	IIB61	HKE	165	12	185	100	398	442	1,300	449	1,534	239	1,873	433	2,294	607	7	5	17	26	70	58
IIb	8c-9a	3b	none	HKE	545	--	623	--	1,040	--	1,232	--	2,322	--	3,406	17	3,698	14	844	--	381	--	1,099	110
IIb	8c-9a	3b	IIB61	HKE	84	--	139	--	222	--	427	--	704	--	872	4	934	4	82	--	37	--	164	--
IIb	8c-9a	3c	none	HKE	114	--	83	--	139	--	155	--	210	--	538	--	864	--	181	--	110	--	776	20
IIb	8c-9a	3c	IIB61	HKE	22	--	63	--	134	--	243	--	413	--	1,008	--	1,566	--	32	--	37	--	66	--
IIb	8c-9a	3t	none	HKE	11	--	20	--	77	--	94	--	266	--	234	--	358	--	227	--	347	--	504	55
IIb	8c-9a	none	none	HKE	406	1	229	2	286	4	311	21	452	14	587	32	525	33	4	--	22	--	505	8
IIb	8c-9a	3a	none	NEP	209	0	168	6	155	13	320	1	386	0	294	--	195	1	140	--	115	--	222	0
IIb	8c-9a	3a	IIB61	NEP	127	0	106	6	140	18	17	0	21	0	21	--	17	0	1	--	9	--	16	--
IIb	8c-9a	3b	none	NEP	0	--	0	--	1	--	1	--	--	--	--	--	0	--	0	--	--	--	0	--
IIb	8c-9a	3b	IIB61	NEP	0	--	--	--	0	--	0	--	1	--	0	--	0	--	--	--	--	--	--	--
IIb	8c-9a	3c	none	NEP	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--	--	--
IIb	8c-9a	3c	IIB61	NEP	0	--	--	--	--	--	--	--	--	--	0	--	--	--	--	--	--	--	--	--
IIb	8c-9a	3t	none	NEP	0	--	1	--	1	--	1	--	0	--	--	--	1	--	--	--	--	--	0	--
IIb	8c-9a	none	none	NEP	9	0	5	0	15	0	6	0	10	0	15	--	11	0	8	--	16	--	6	--

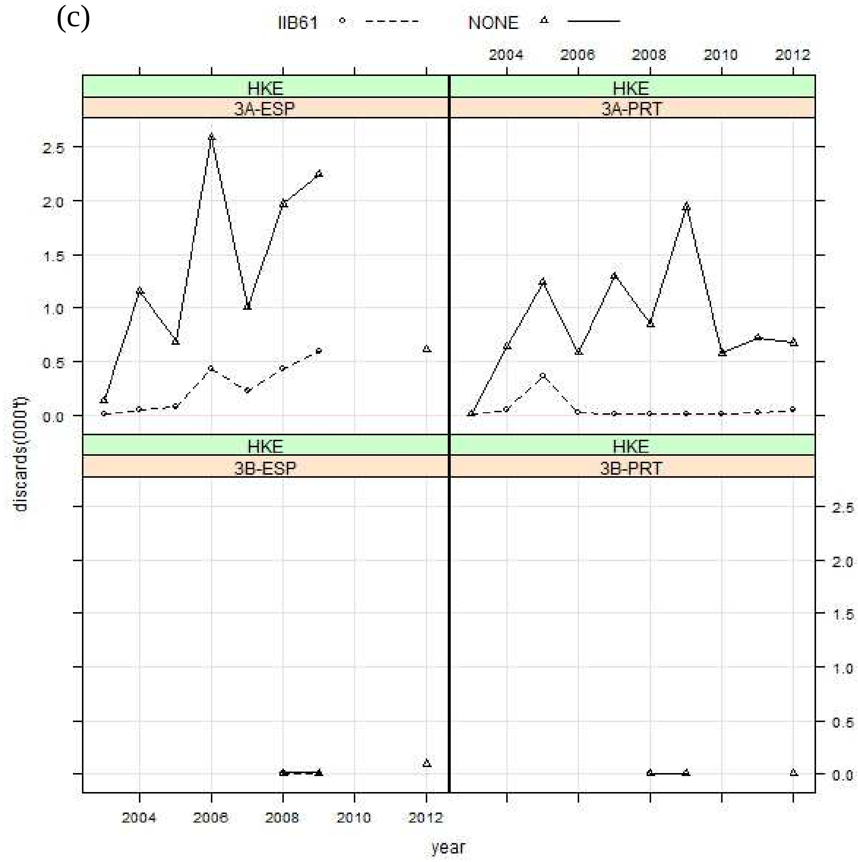
(a)


IIB61
NONE
HKE
3A-ESP
HKE
3A-PRT
HKE
3B-ESP
HKE
3B-PRT
HKE
3C-ESP
HKE
3C-PRT
landings(000t)
year

(b)


IIB61
NONE
NEP
3A-ESP
NEP
3A-PRT
landings(000t)
year

(c)



(d)

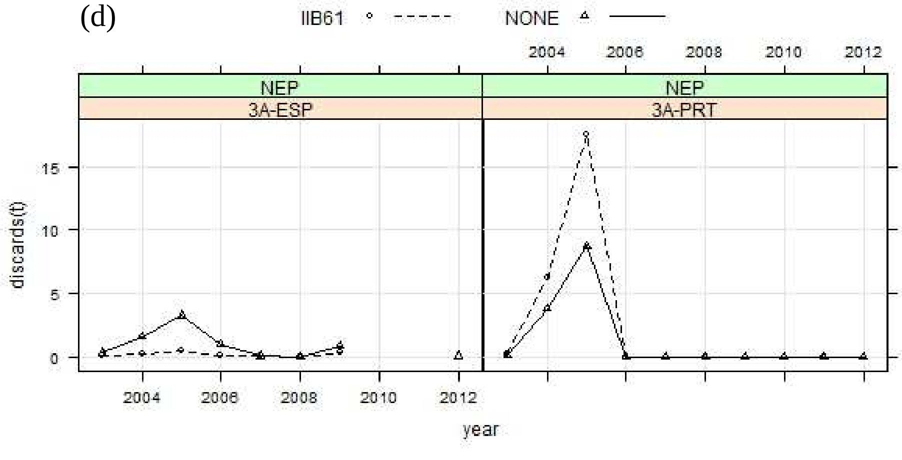


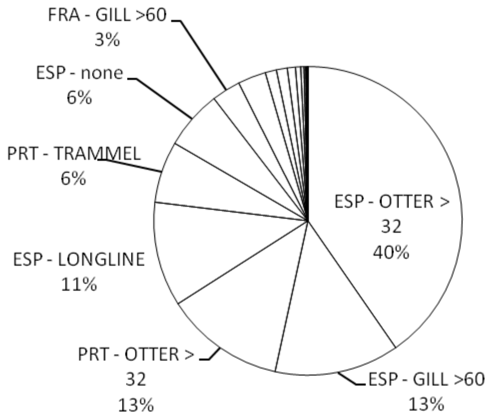
Fig. 5.7.2.4. Trends in landings (a and b) and discards (c and d) of hake and *Nephrops* by Member State, regulated gear and specon. In 2012 there were no Spanish specon landings because no vessel applied for those special conditions.

There is a decrease in the Spanish hake landings from 2009 to 2012 for trawl, gillnet and bottom longline (Fig. 5.7.2.4) that does not seem very realistic (see previous comments about Fig. 5.7.2.1). Portuguese landings of hake are more or less stable in recent years except for a slight decrease in gillnet.

There is an increase in the Spanish landings of *Nephrops* from 2009 to 2012 and a decrease in the Portuguese landings since 2007.

Fleets without fishing effort limitation (IIB61) discard less quantity than the fleets with limitation (none) in almost all the cases.

LANDINGS



DISCARDS

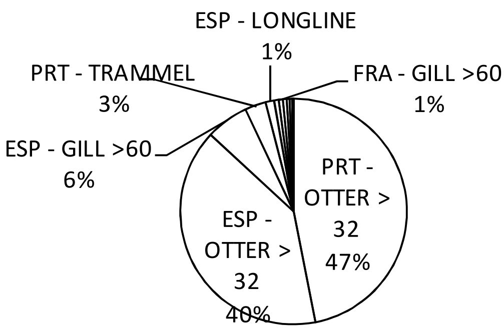


Figure 5.7.2.5. Hake landings (up) and discards (down) by fleet in 8c & 9a in 2012 (ESP: Spain, PRT: Portugal, FRA: France).

The Spanish regulated trawlers (3a) land 40% of hake, followed by Spanish regulated gillnetters (3b, 13%) and Portuguese regulated trawlers (3a, 12%, Fig. 5.7.2.5).

The Portuguese regulated trawlers (3a) land only the 12% of 8c and 9a hake, nevertheless discard 47%. This is coherent with the ICES WGHMM information and it is due to high recruitment (individuals under

27 mm are discarded), the TAC limitation and a 30% by catch landing limitation by trip in the crustacean trawl fleet.

The next fleets in hake discards rank are the Spanish regulated trawlers (3a, 40% of 8c and 9a hake discard) and Spanish regulated gillnets (3b, 6%). All the Spanish regulated gears were in 2012 under the normal effort regime, since no vessel had requested to operate under special conditions.

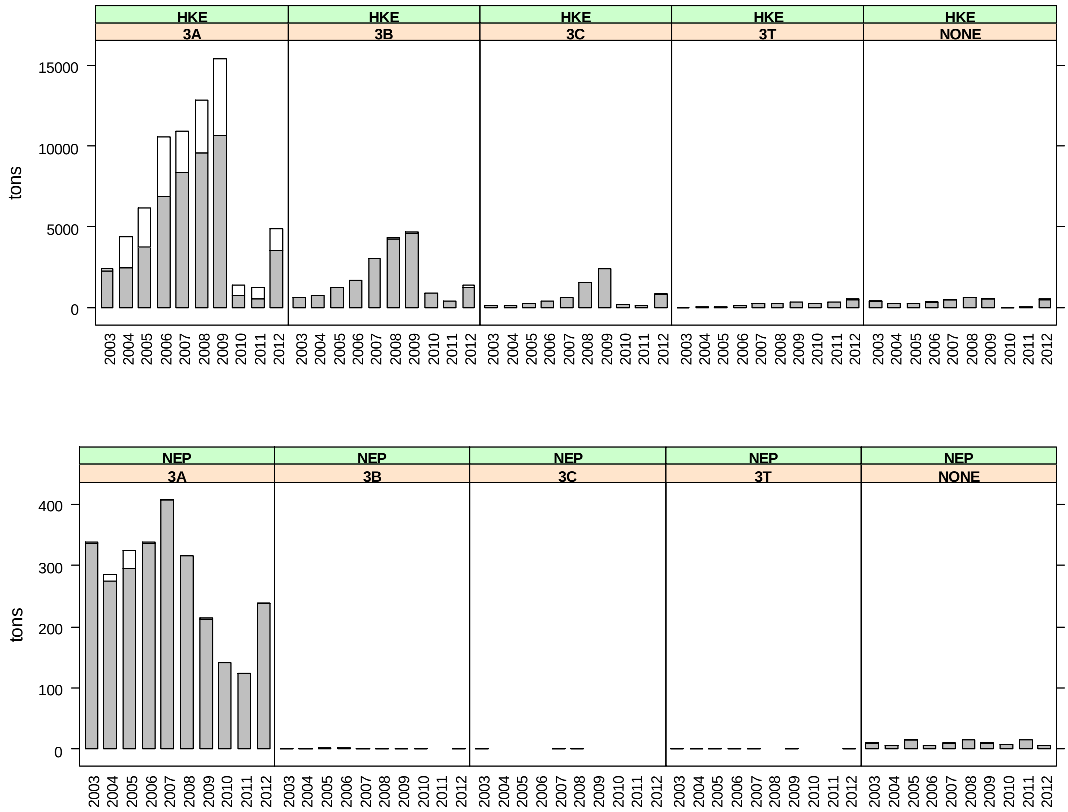


Figure 5.7.2.6 Hake and Norway lobster catches by gear for the years 2003-2012 (discards presented in white colour), Spanish and Portuguese data together. **Spanish data for 2010-2011 not available**.

The data given in the Table 5.7.2.1 form the basis of the Figure 5.7.2.6 displaying the relative catch compositions by species and gear for the years 2003-2012. The very low catches in 2010 and 2011 are related to the lack of information from Spanish fleets. Most of hake catch comes from regulated trawlers (3a, Figure 5.7.2.6). Gillnets and longlines also catch large amounts of hake. In what concerns Norway lobster, the catches come almost exclusively from trawl.

5.7.3 ToR 1.c Catches (landings and discards) of species other than hake and Norway lobster, in particular anglerfish, in weight and numbers at age by Member State and fisheries

In 2013, other species landings and discards from 2012 were provided by Spain, Portugal and France. Spain also provided discard data for all the species of the data call for 2003-2011. Portugal also provided sporadic discard data of some species for the period 2004-2011. Landings and discards time series in the EWG database included 2003-2012 data. France, Ireland, Holland, England and Scotland provided sporadic landing information in previous years. Spain did not provide data for the years 2010 and 2011. At present, the procedure used to raise discards from haul to fleet level in the Portuguese trawl fisheries is adapted from Fernandes et al. (2010) (Jardim and Fernandes, in prep.). Using this procedure, species with low frequency of occurrence or abundance in discards (i.e., a large number of zeros in the data set) cannot be reliably estimated at fleet level (Jardim et al., 2011). The frequency of occurrence and abundance of most species in the discards of the Portuguese bottom trawl fleet was below 30%. Consequently, annual trawl discard volumes and length frequencies at fleet level were only estimated for some métiers, species and years. Where Portuguese discards were not reported, Spanish discard rates have been applied to Portuguese landings, providing new “Portuguese” discard data.

Numbers at age were submitted by Spain in 2010 for anchovy, blue whiting and mackerel for the period 2003-2009 and 2012.

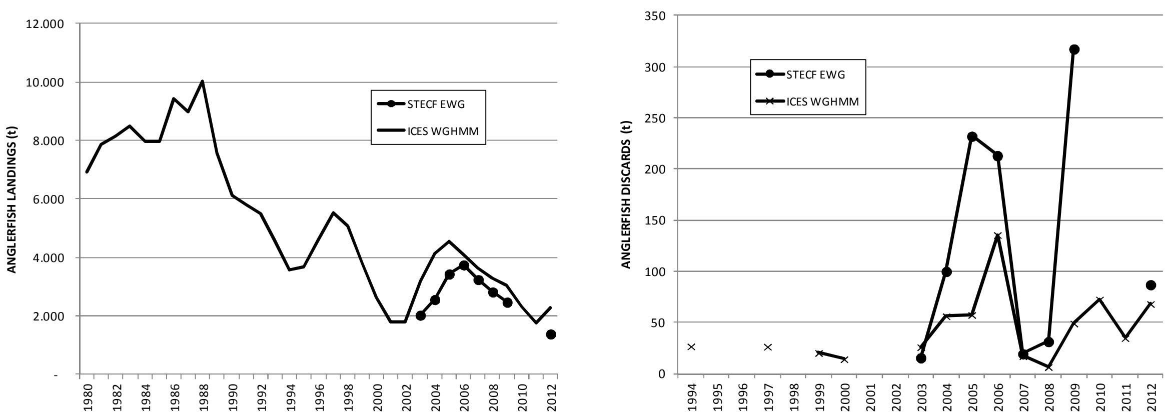


Figure 5.7.3.1. Comparison of the 8c & 9a anglerfish landings (tonnes) presented to ICES WGHMM and STECF EWG data base (this report) for all countries and gears (1980-2012). There were no Spanish data from 2010 and 2011 in EWG.

Anglerfish landings data provided to the EWG come from logbooks and show a decrease trend since 2006. Anglerfish landings provided to the WGHMM come from different sources of data and show a similar trend (Figure 5.7.3.1).

Anglerfish discards correspond basically to Spain; the trends in the EWG and WGHMM are similar except for 2009, when EWG data is much higher. This is because WGHMM will not include the gillnet discards data (278 t in 2009) until the series is longer (Spanish gillnet discards sampling started in 2008).

EWG discards data are higher also in 2005 and 2006 due to Spanish pair trawler discards, which are not included in WGHMM, and to the different raising procedure (EWG by landing and quarter, WGHMM by effort and year).

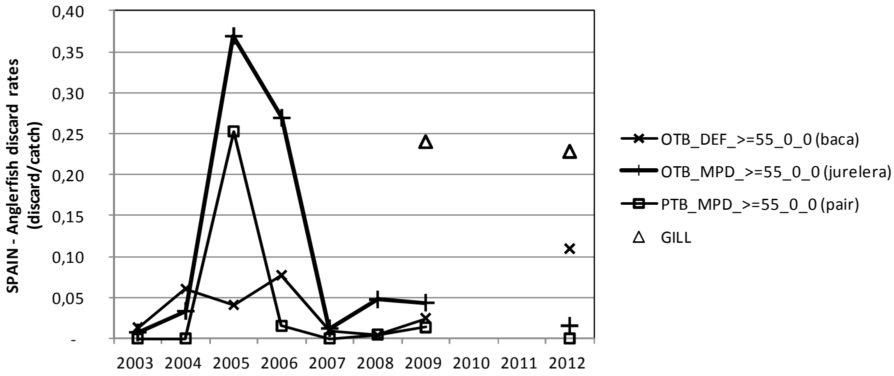


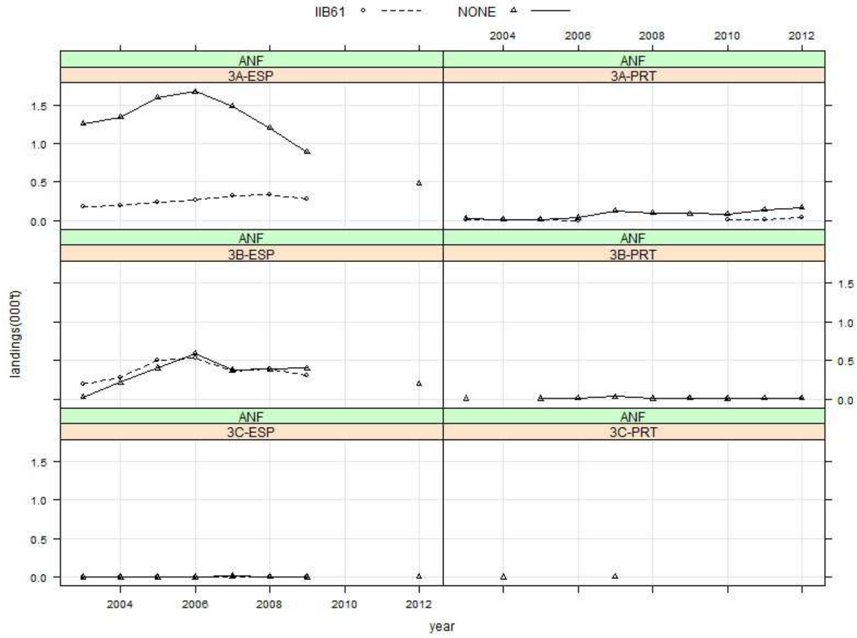
Figure 5.7.3.2. Spanish anglerfish discard rates (discard/catch) for 2003-2009 and 2012.

Figure 5.7.3.2 shows that the Spanish metier that have reached the highest rates of hake discards has been the OTB_MPD_>=55 (jurelera) in 2005 (over 35% of the catch was discarded). In 2012 gillnet has the highest rate, followed by baca, jurelera and pair trawl.

Table 5.7.3.1. Landings and discards (t) by species and derogation, 2003-2012. Regulated gear codes according to the CR No 41/2007: "3a" – bottom trawls of mesh size ≥ 32 mm, "3b" – gillnets of mesh size ≥ 60 mm, "3c" – bottom long-lines. Gear type "3t" denotes the non-regulated (effort) trammel gear with all mesh sizes, gear type "none" contains other gears and the gears not allocated. "**--**" means "not available", "0" means "0 tonnes". **No Spanish data for 2010 and 2011**.

					2003		2004		2005		2006		2007		2008		2009		2010		2011		2012	
annex	area	reg gear	specon	species	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
IIb	8c-9a	3a	none	ANF	1,330	14	1,415	85	1,665	206	1,731	194	1,624	16	1,309	25	992	24	85	--	167	--	650	62
IIb	8c-9a	3a	IIB61	ANF	189	2	198	14	249	24	274	17	317	3	332	6	280	7	5	--	10	--	50	--
IIb	8c-9a	3b	none	ANF	26	--	234	--	449	--	599	--	409	--	394	--	411	139	4	--	11	--	208	24
IIb	8c-9a	3b	IIB61	ANF	196	--	280	--	506	--	527	--	365	--	392	--	303	91	6	--	3	--	3	--
IIb	8c-9a	3c	none	ANF	0	--	1	--	0	--	1	--	15	--	4	--	1	--	--	--	0	--	2	--
IIb	8c-9a	3c	IIB61	ANF	0	--	0	--	1	--	1	--	1	--	2	--	1	--	--	--	--	--	--	--
IIb	8c-9a	3t	none	ANF	73	--	182	--	213	--	184	--	241	--	180	--	234	--	85	--	112	--	293	--
IIb	8c-9a	none	none	ANF	219	0	258	1	360	2	434	2	279	0	216	0	255	56	4	--	1	--	94	1
IIb	8c-9a	3a	none	JAX	13,035	88,256	17,111	23,096	16,129	30,900	17,803	135,476	19,476	1,871	17,121	18,197	6,132	396	4,569	--	3,711	--	8,384	769
IIb	8c-9a	3a	IIB61	JAX	2,652	14,901	4,878	6,611	3,637	6,622	3,937	33,293	3,910	468	3,159	3,477	170	9	55	--	110	--	768	--
IIb	8c-9a	3b	none	JAX	35	--	50	--	64	--	63	--	222	--	425	371	388	151	140	--	116	--	399	--
IIb	8c-9a	3b	IIB61	JAX	39	--	87	--	76	--	103	--	156	--	208	180	168	36	18	--	14	--	20	--
IIb	8c-9a	3c	none	JAX	2	--	3	--	2	--	1	--	11	--	5	--	12	--	2	--	4	--	81	--
IIb	8c-9a	3c	IIB61	JAX	6	--	4	--	7	--	15	--	6	--	4	--	8	--	11	--	2	--	9	--
IIb	8c-9a	3t	none	JAX	7	--	9	--	30	--	48	--	206	--	133	--	247	--	107	--	186	--	314	--
IIb	8c-9a	none	none	JAX	14,437	768	15,228	230	13,481	362	12,783	736	12,573	10	19,389	273	17,684	19	30	--	62	--	12,566	8
IIb	8c-9a	3a	none	MAC	7,818	6,435	11,250	2,087	16,761	5,793	17,005	7,589	11,988	53,540	14,903	2,578	18,158	14,707	450	--	463	--	2,987	7,130
IIb	8c-9a	3a	IIB61	MAC	2,607	2,383	4,562	1,153	5,314	1,661	5,525	2,707	4,329	15,723	3,384	113	5,730	5,241	2	--	10	--	218	--
IIb	8c-9a	3b	none	MAC	47	--	74	--	59	--	37	--	35	--	82	18	53	2	2	--	4	--	55	--
IIb	8c-9a	3b	IIB61	MAC	7	--	38	--	155	--	53	--	37	--	77	25	55	2	1	--	2	--	0	--
IIb	8c-9a	3c	none	MAC	1	--	6	--	28	--	3	--	53	--	38	--	80	--	--	--	1	--	7,494	--
IIb	8c-9a	3c	IIB61	MAC	13	--	71	--	145	--	77	--	87	--	66	--	179	--	--	--	--	--	--	--
IIb	8c-9a	3t	none	MAC	22	--	30	--	30	--	19	--	42	--	59	--	68	--	18	--	14	--	51	--
IIb	8c-9a	none	none	MAC	6,643	15	12,987	31	20,793	96	25,833	168	40,726	909	37,101	47	64,517	391	281	--	30	--	8,326	8
IIb	8c-9a	3a	none	RAJ	17	20	30	30	26	7	48	85	86	61	127	43	291	248	236	--	233	--	237	--
IIb	8c-9a	3a	IIB61	RAJ	0	0	1	1	4	1	5	11	21	20	19	11	15	13	9	--	16	--	37	--
IIb	8c-9a	3b	none	RAJ	1	--	5	--	9	--	2	--	10	--	3	0	7	2	6	--	3	--	1	0
IIb	8c-9a	3b	IIB61	RAJ	16	--	9	--	10	--	7	--	16	--	8	0	11	2	4	--	2	--	1	--
IIb	8c-9a	3c	none	RAJ	1	--	3	--	1	--	2	--	5	--	4	--	4	--	2	--	2	--	4	--
IIb	8c-9a	3c	IIB61	RAJ	20	--	11	--	10	--	12	--	17	--	17	--	36	--	6	--	9	--	8	--
IIb	8c-9a	3t	none	RAJ	38	--	69	--	80	--	102	--	193	--	165	--	240	--	230	--	215	--	162	--
IIb	8c-9a	none	none	RAJ	29	7	16	9	29	0	15	2	17	--	26	0	42	5	8	--	8	--	3	--
IIb	8c-9a	3a	none	WHB	16,189	29,317	20,544	55,150	19,378	7,033	16,535	11,626	15,783	4,329	16,266	3,029	20,400	9,608	1,153	1,318	399	595	7,377	3,092
IIb	8c-9a	3a	IIB61	WHB	3,805	9,728	5,079	10,239	5,743	2,074	4,359	2,289	4,316	1,157	4,695	1,764	5,085	1,079	1	1	68	101	152	65
IIb	8c-9a	3b	none	WHB	2	--	1	--	2	--	1	--	1	--	2	--	0	0	--	--	--	--	0	--
IIb	8c-9a	3b	IIB61	WHB	0	--	1	--	1	--	0	--	1	--	1	--	1	0	--	--	--	--	--	--
IIb	8c-9a	3c	none	WHB	11	--	18	--	0	--	3	--	9	--	4	--	9	--	0	--	0	--	19	--
IIb	8c-9a	3c	IIB61	WHB	20	--	17	--	18	--	14	--	9	--	10	--	15	--	--	--	--	--	4	--
IIb	8c-9a	3t	none	WHB	0	--	0	--	0	--	0	--	1	--	0	--	0	--	--	--	--	--	0	--
IIb	8c-9a	none	none	WHB	255	634	108	165	89	36	215	95	521	65	351	29	363	104	--	--	--	--	437	2

The contributions of the individual derogations to the overall landings can be taken from Tables 5.7.3.1. For brevity, landings and discards in weight by derogation are restricted to anglerfish (ANF), horse mackerels (JAX), mackerel (MAC), rays (RAJ) and blue whiting (WHB). Note that ANF, JAX and RAJ include more than one species.



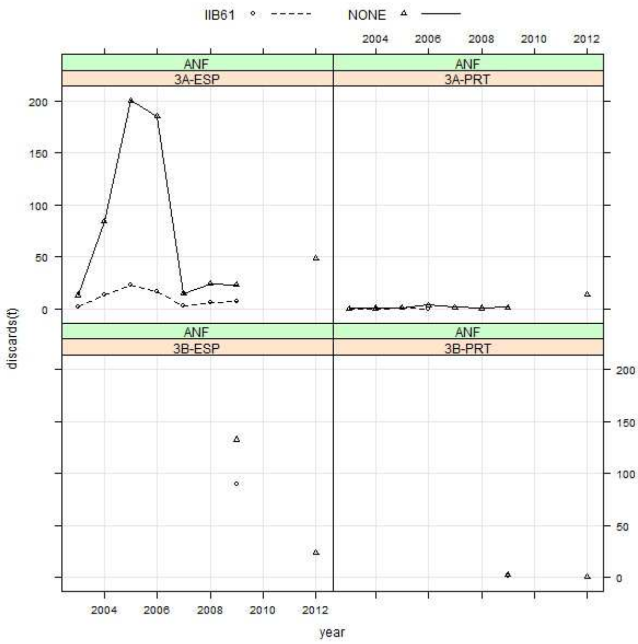
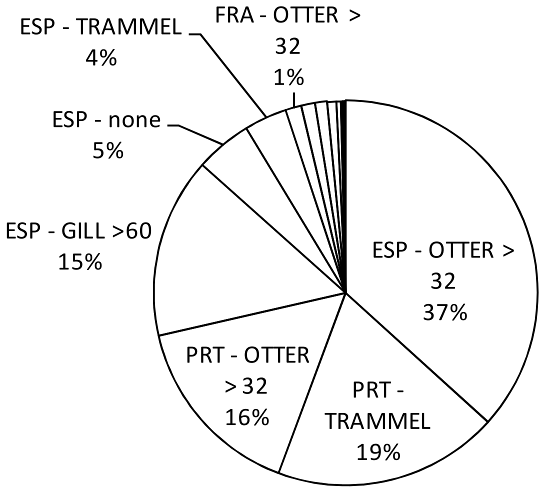


Fig. 5.7.3.3. Trends in landings (up) and discards (down) of anglerfish by Member State, regulated gear and specon. All the Spanish vessels were under the effort regime (none) in 2012.

From these species, special attention is given to anglerfishes (Figures 5.7.3.1, 5.7.3.2 and 5.7.3.3). However, the group anglerfish includes two species, *Lophius piscatorius* and *L. budegassa*, which are in different exploitation status and have different areas of distribution. Landings are decreasing in the Spanish regulated trawl and gillnet and are stable in the other cases (Fig. 5.7.3.3). In 2005 and 2006 the Spanish trawlers using mesh size over 32 mm discarded 223 t and 202 t respectively.

LANDINGS



DISCARDS

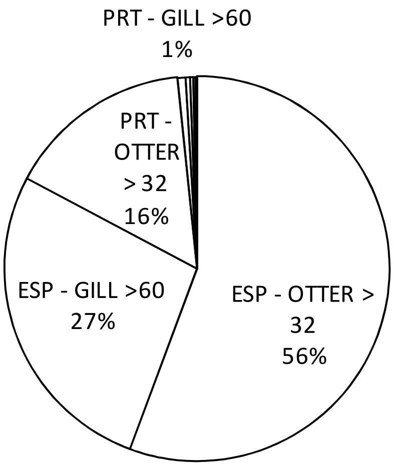


Figure 5.7.3.4. 2012 anglerfish landings (up) and discards (down) by fleet in 8c & 9a (ESP: Spain, PRT: Portugal, FRA: France).

Figure 5.7.3.4 shows the 2012 anglerfish landings and discards by fleet. The Spanish regulated trawlers (3a) landed 37% of anglerfish, followed by Portuguese trammel (3t, 19%), Portuguese regulated trawl

(3a, 16%) and others. All the regulated Spanish gears were under the normal effort regime in 2012. 56% of anglerfish discards is carried out by the Spanish regulated trawlers, 27% by the Spanish gillnet and 16% by the Portuguese regulated trawlers (according to the EWG procedure, Portugal discards come from the application of Spanish discard rates to Portugal landings).

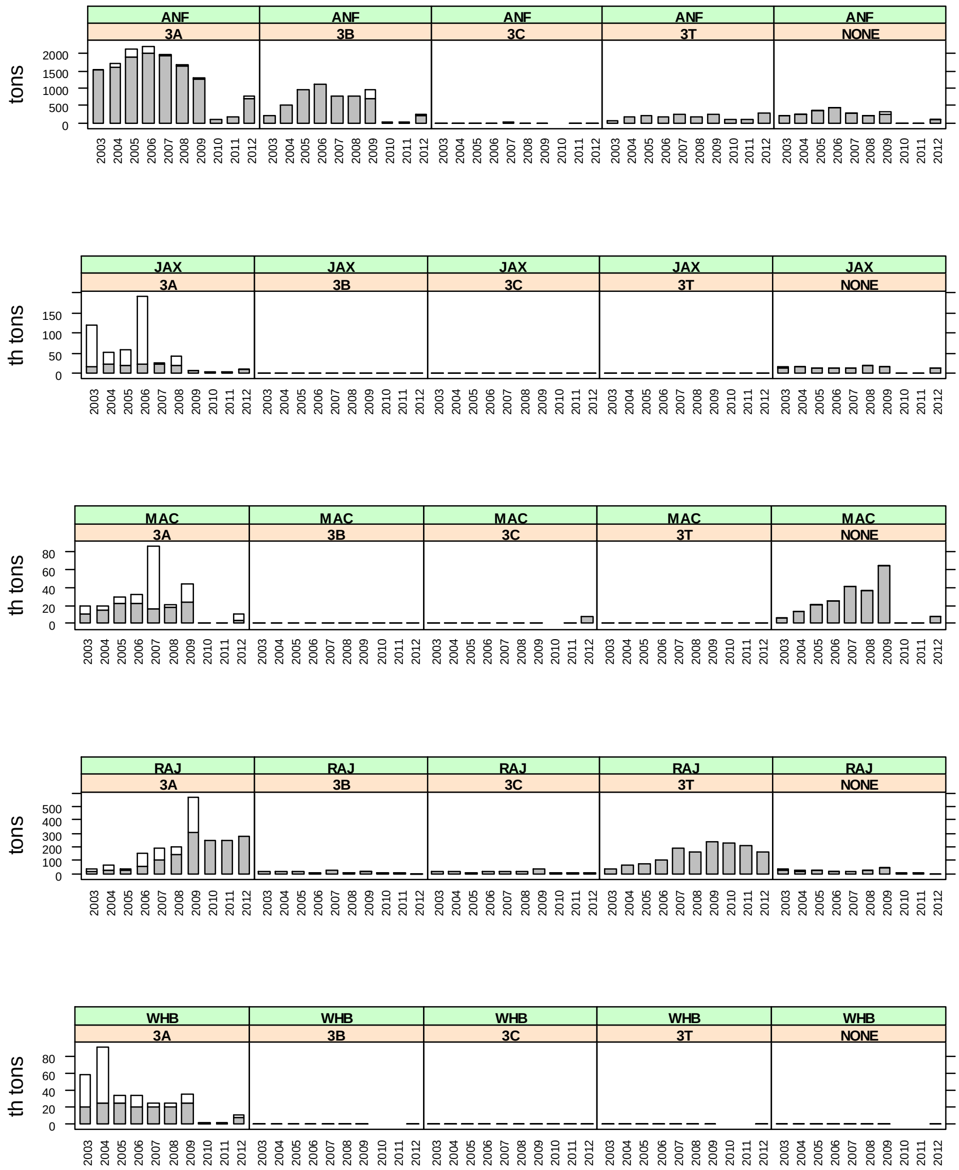
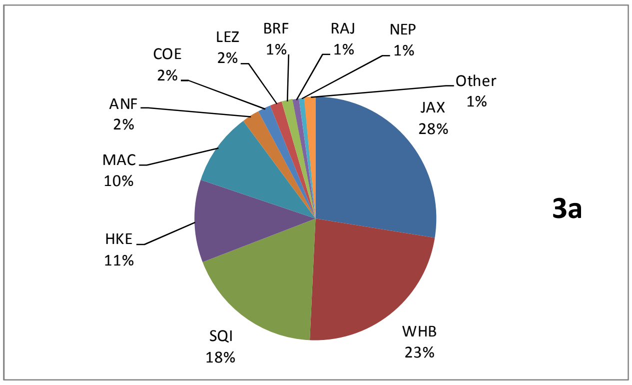


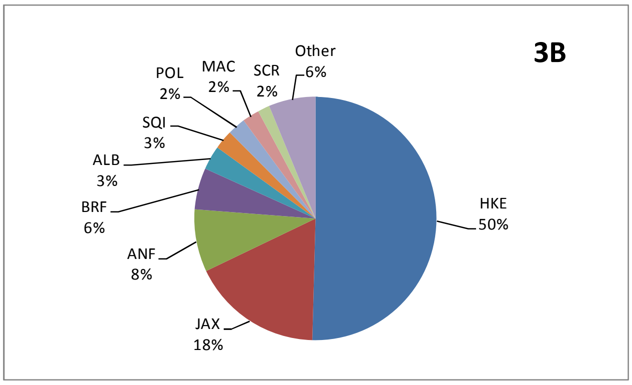
Figure 5.7.3.5. Landings by species and gear for the years 2003-2012 (discards presented in white colour). **Spanish data for 2010-2011 not available.** (ANF = Anglerfishes, JAX = *Trachurus spp.*, MAC = Mackerel, RAJ = Rays and WHB = Blue Whiting). Anglerfish discard quality index for trawl in 2012 was A (high representativeness).

The data given in the Table 5.7.3.1 form the basis of the Figure 5.7.3.5 displaying the catches of anglerfish, horse mackerels, mackerel, rays and blue whiting by gear for the years 2003-2012. The lack of white bars further indicates that discard data were not provided or there were no discards. The very low catches in 2010 and 2011 are related to the lack of information from Spanish fleets.

Regulated trawlers (3a) harvest high quantities of horse mackerels, mackerel and blue whiting (Figure 5.7.3.5). The main species in unregulated gears (NONE) are mackerel and horse mackerels.

In the Figure 5.7.3.6 we can observe the species landed by the regulated gears. Small pelagics like horse mackerels, blue whiting and mackerel represent a high percentage of landings in weight. Figures 5.7.3.7, 5.7.3.8 and 5.7.3.9 show that regulated gears obtain representative parts of the total landings of these species.





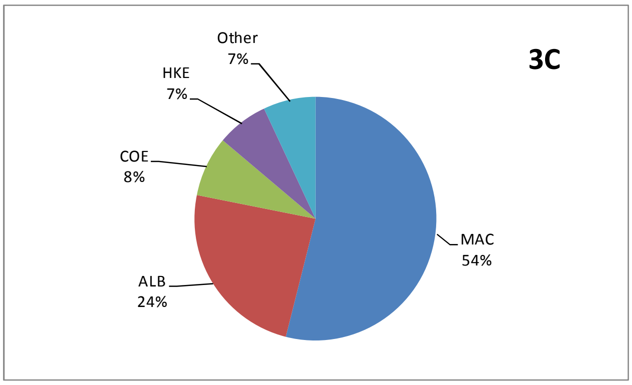


Fig. 5.7.3.6. Landings species composition in regulated gears for the year 2012.

Fig. 5.7.3.6 shows the high importance of the small pelagics in the 8c & 9a regulated gears landings (more than 61% in trawlers, 20% in gillnet and 54% in longline).

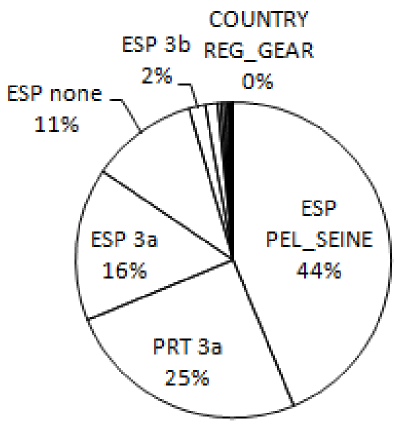


Figure 5.7.3.7. 2012 horse mackerel landings by fleet in 8c & 9a (ESP: Spain, PRT: Portugal)

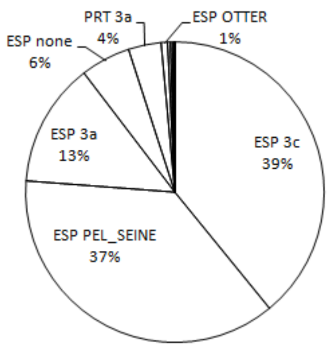


Figure 5.7.3.8. 2012 mackerel landings by fleet in 8c & 9a (ESP: Spain, PRT: Portugal).

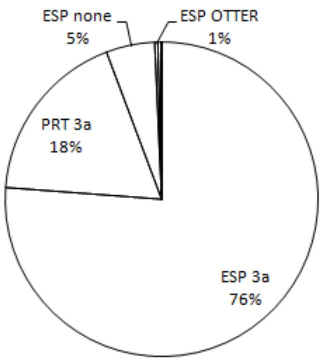


Figure 5.7.3.8. 2012 blue whiting landings by fleet in 8c & 9a (ESP: Spain, PRT: Portugal).

5.7.4 ToR 1.d CPUE and LPUE of hake, Norway lobster and anglerfish by fisheries

Hake CPUE have a high increase between 2003 and 2009 (Figure 5.7.4.1), this fact is corroborated with the ICES WGHMM information (Figure 5.7.4.2). The assessment performed by WGHMM in May 2013 (ICES, 2013) shows that hake biomass has increased since 2006.

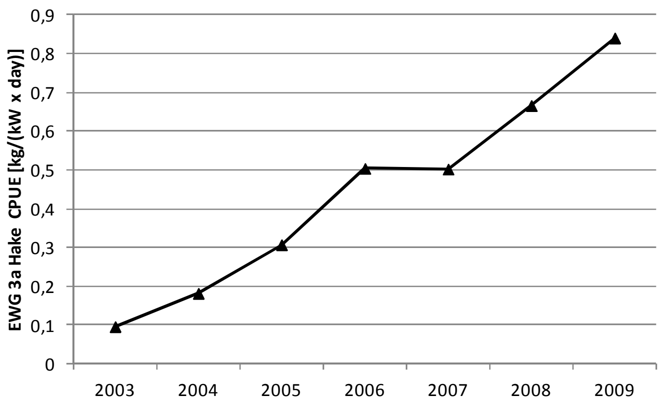


Fig. 5.7.4.1. Hake CPUE for otter trawl with mesh size over 32 mm (gear “3a”) for all countries from 2003 to 2009. CPUE points for the period 2010-2012 are omitted because Spanish data for 2010 and 2011 are not available and hake landings in 2012 are considered not reliable. It must be taken into account that 8c & 9a regulated trawlers (“3a”) include 7 Spanish and Portuguese different metiers (Tables 5.7.1 and 5.7.2), with different gears and mesh sizes, some of them directed to hake and others directed to other species (crustaceans, small pelagic). This is the general trend. 2012 3a HKE landings were 3523 t.

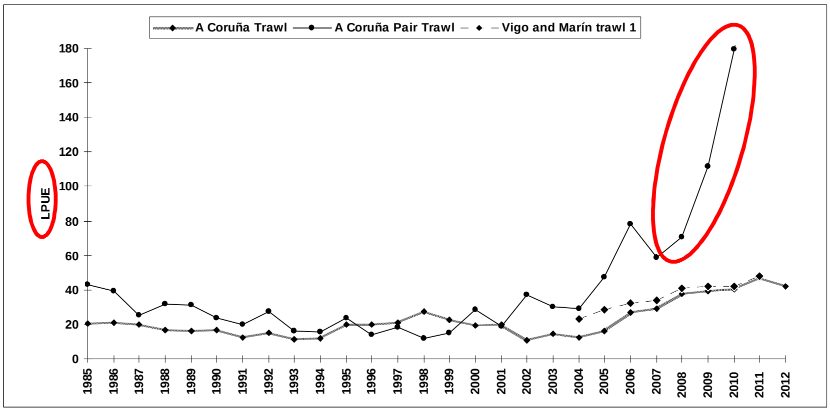


Fig. 5.7.4.2. Hake LPUE from 1985 to 2012 from the 2013 ICES WGHMM.

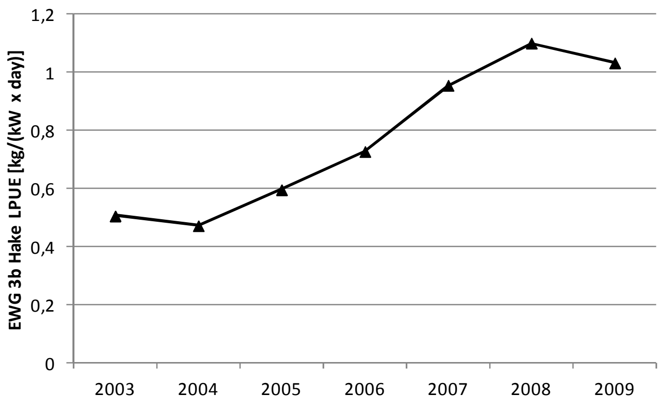


Fig. 5.7.4.3. Hake LPUE for gillnet with mesh size over 60 mm (gear "3b") for all countries from 2003 to 2009. LPUE points for the period 2010-2012 are omitted because Spanish data for 2010 and 2011 are not available and hake landings in 2012 are considered not reliable. It must be taken into account that 8c & 9a regulated gillnets ("3b") include 6 Spanish and Portuguese different metiers (Tables 5.7.1 and 5.7.2), with different mesh sizes, some of them directed to hake and others directed to other species (e.g. anglerfish). This is the general trend. 2012 3b HKE landings were 1263 t.

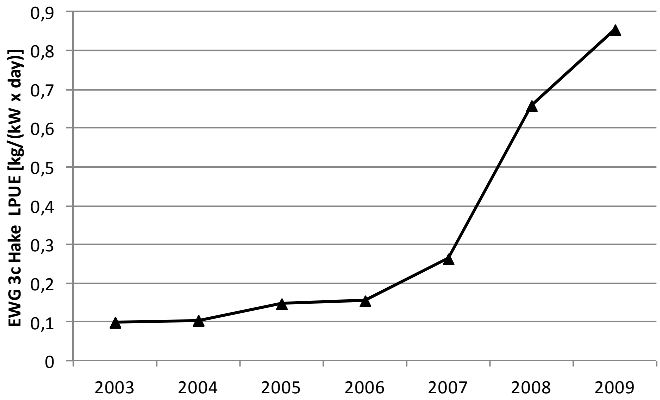


Fig. 5.7.4.4. Hake LPUE for longline with mesh size over 60 mm (gear "3c") for all countries from 2003 to 2009. LPUE points for the period 2010-2012 are omitted because Spanish data for 2010 and 2011 are not available and hake landings in 2012 are considered not reliable. It must be taken into account that 8c & 9a regulated longlines ("3c") include 3 Spanish and Portuguese different metiers (Tables 5.7.1 and 5.7.2). This is the general trend. 2012 3c HKE landings were 842 t.

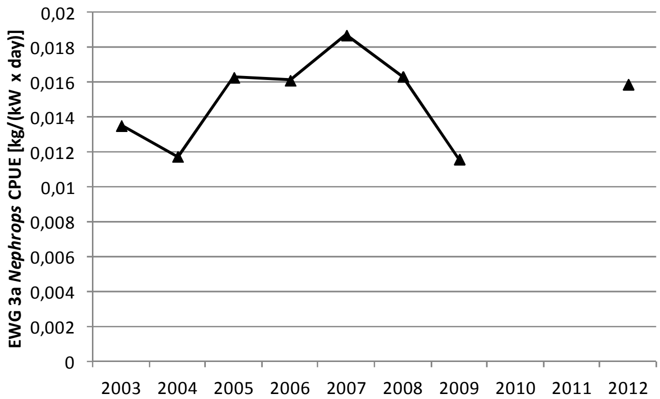


Fig. 5.7.4.5. *Nephrops* CPUE for otter trawl with mesh size over 32 mm (gear "3a") for all countries from 2003 to 2009 and 2012. CPUE points for the period 2010-2011 are omitted because Spanish data for 2010 and 2011 are not available. Management should be carried out at FU level. In 8c & 9a there are 7 different FUs. 2012 3a NEP landings were 238 t.

Nephrops data in 8c9a are mostly from Functional Units 28 and 29 (60%, 2013 ICES WGHMM), in SW and S Portugal (9a). The remaining FUs from Cantabrian Sea (8c) and 9a North except FU 30 (Cádiz), are almost depleted. *Nephrops* is caught as by catch from other fisheries in very low quantities. Figure 5.7.4.6 compares the standardized *Nephrops* CPUE presented in WGHMM for FUs 28 and 29 (ICES, 2012) and the CPUE derived from the data presented to this EWG, considering only the Portuguese catches and effort, that are almost the total in these FUs. In the case of this species, discards are negligible and catches are considered equal to landings. The overall trend since 2005 is decreasing in both cases, although there is a slight increase in 2012 in WGHMM data and stability in EWG data. The EWG CPUE was estimated only for Portuguese bottom trawl (3a), with demersal trawl and crustacean trawl together. The standardized CPUE presented to WGHMM (ICES, 2013) was estimated only for Portuguese crustacean trawl fleet and using only trips targeting *Nephrops*.

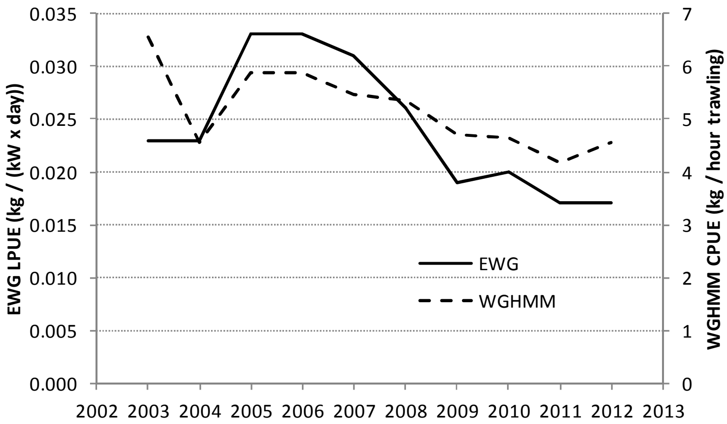


Figure 5.7.4.6 Comparison of *Nephrops* CPUE trends in Functional Units 28 and 29 (SW and S Portugal, within area 9a) using only Portuguese catch and effort data (EWG: CPUE estimated with this EWG data [demersal and crustacean trawl together]; WGHMM: standardized CPUE estimates presented at WGHMM [only crustacean trawl and trips directed to *Nephrops*]).

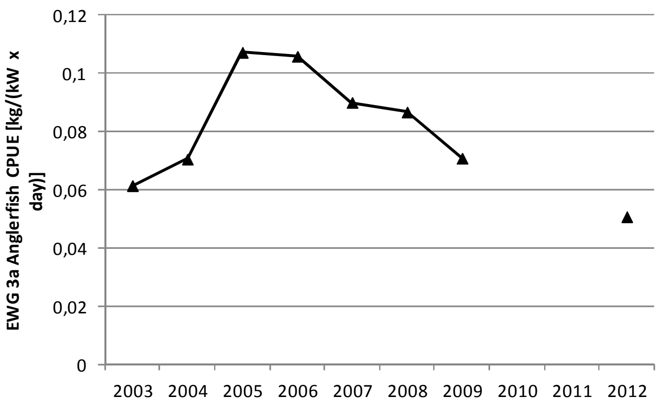


Fig. 5.7.4.7. Anglerfish CPUE for otter trawl with mesh size over 32 mm (gear "3a") for all countries from 2003 to 2009 and 2012. CPUE points for the period 2010-2011 are omitted because Spanish data for 2010 and 2011 are not available. 2012 3a ANF landings were 700 t.

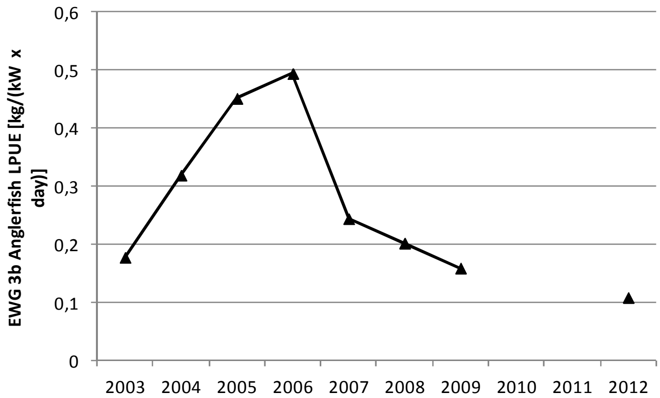


Fig. 5.7.4.8. Anglerfish LPUE for gillnet with mesh size over 60 mm (gear "3b") for all countries from 2003 to 2009 and 2012. LPUE points for the period 2010-2011 are omitted because Spanish data for 2010 and 2011 are not available. 2012 3b ANF landings were 700 t.

The evolution of the 3c ANF CPUE is not presented because there were only 2 t of 3c ANF landings in 2012.

5.7.5 Information on small boats (<10m by area)

Only Portugal has provided data for vessels below 10 m operating in areas 8c-9a, though specifying neither gear nor fishery. These vessels operate, in general, with several gears and do not fill logbooks. Data on catch and effort for these vessels are based on landings records. However, as no data from Spain were available and Annex IIB does not include limitations on this fleet effort, no analysis on this fleet segment was performed.

Since 2003, Portugal has carried out a specific sampling plan to collect data on the activity of the small scale fleet (<10m vessels) operating in continental waters. The data are collected with a stratified random strategy by interviews to skippers, and provides information about catches by species and effort. This sampling plan is under the scope of Reg. (EC) 1639/2001 and the results are presented on the DCF annual reports requested by the DGMARE.

<10 m vessels Spanish information is collected by sales notes, this segment of the fleet is not presented in logbooks. Sales notes only provide information about name of the vessel, port of landing, sold weight by species, price by kg and euros by species. It is not possible to know neither gear nor fishing area.

5.7.6 ToR 2 Remarks on quality of catches and discard estimates

Discards are only provided for trawl (and Spanish gillnets since 2008) for all time series for all species for Spain and for hake and sporadically for other species for Portugal. Discard quality index was A (high representativeness) for hake, *Nephrops*, blue whiting and monkfish in all cases. Although some discards were reported in 2004-2005, *Nephrops* discards are considered zero or negligible. This species has a high market value and almost no *Nephrops* below the minimum landing size is caught.

For more detailed information on quality of catches and discard estimates, see the section 4 “Data Quality” for each country.

5.7.7 ToR 3 Trend in calculated maximum effort of regulated gears and uptake by Member State

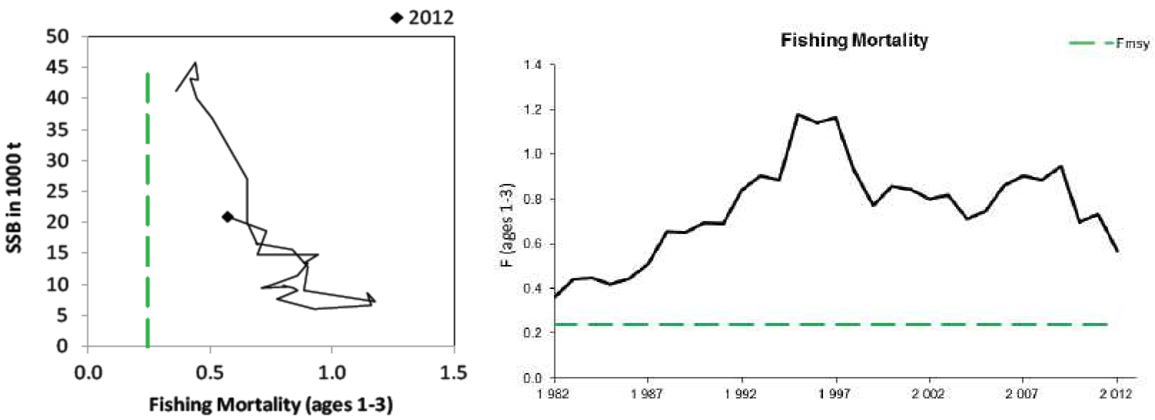
No adequate data are available to address this ToR. The allowed activity by vessel for the period 2003-2012 is presented in Table 5.7.3. Although the field “Number of Vessels” in effort database has been filled, the data on the fishing activity is incomplete. Also, the vessels included can operate with different area/fishery/gear/mesh size combinations and therefore, the same vessels may be included in different records. Spain did not present any data on the fishing activity in 2000-2009.

5.7.8 ToR 4 Correlation between partial hake mortality and fishing effort by Member State and fisheries

The STECF EWG 13-13 presents hake catchability (Fig. 5.7.8.2), partial fishing mortalities vs effort (Fig. 5.7.8.3) and partial F (Fig. 5.7.8.4) by major fleets and Member States using the fishing mortality and removals (catches) of the southern stock of hake (ICES Divisions VIIIc and IXa) estimated by 2013 ICES WGHMM (Table 5.7.8.1 and Fig. 5.7.8.1) and the landings and discards volumes presented to the STECF EWG 13-13 (present meeting) (Table 5.7.2.1 and Fig. 5.7.2.4). The full list of all fleets can be downloaded from the EWG’s web page: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313 .

Table 5.7.8.1. VIIIc and IXa hake stock. Fishing mortality and removals (catches) by year (2003-2012) from 2013 ICES WGHMM.

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F	0,82	0,71	0,75	0,86	0,9	0,89	0,95	0,7	0,73	0,57
REMOVALS	8200	7900	10300	14100	17400	19100	22200	16900	19000	16600



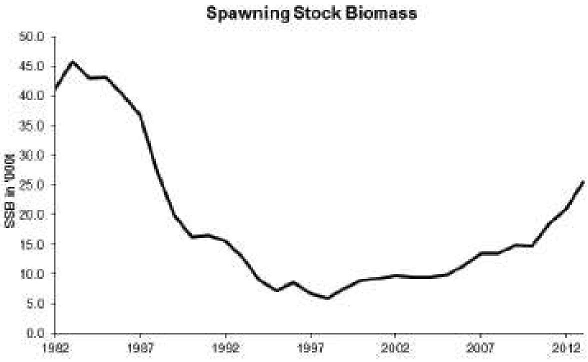


Fig. 5.7.8.1. Hake in Divisions VIIIc and IXa. SSB/F (top left), partial F (top right) and SSB (bottom) for the time-series used in the ICES WG assessment (2013 ICES advice).

The recovery plan was agreed by the EU in 2005 (EC Reg. No. 2166/2005, Appendix 7.4.7.1). The aim of the plan is to rebuild the stock to safe biological limits, set as a spawning-stock biomass above 35 000 tonnes by 2016, and to reduce fishing mortality to 0.27. The main elements of the plan are a 10% annual reduction in F with a 15% constraint on TAC change between years. ICES has not evaluated the plan. The trends in fishing effort in units of kWdays at sea of the relevant fleets are also presented in Table 5.7.1.1 and Fig. 5.7.1.3. Given the data deficiency in 2010 and 2011, STECF EWG 13-13 does not further conclude on the significant correlation between the summed partial Fs of hake for regulated gear groups and their fishing effort with respect to the effects of fishing effort management.

Table 5.7.8.2. VIIIc and IX hake (catches). The left part of the table lists estimated F trajectories from the management plan and the 2013 ICES hake assessment, as well as partial Fs for **catches** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs from total catches of all effort regulated gears to the overall F estimate of the stock.

2006 F reduction by 10 percent, 2010 F reduction by 15%, until F<=0.3, Fmsy=0.24														Effort kW days running previous year baseline														
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012				
F plan reduction by 10% running year							0,860	0,774	0,697	0,627	0,564	0,508	0,457		days at sea plan													
reduction F plan								-0,10	-0,10	-0,10	-0,10	-0,10	-0,10															
F estimated				0,82	0,71	0,75	0,86	0,9	0,89	0,95	0,7	0,73	0,57	Effort estimate	28055542	28022977	25153199	27008944	29257150	27446641	27902345	10356861	10004354	22154007				
reduction F estimated								0,01	0	0,07	-0,21	-0,18	-0,36								0,02	-0,63	-0,03	1,21				
														EFFORT												2004-2012		
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n	
ESP	3a	none	catches	0,217	0,314	0,304	0,566	0,458	0,514	0,535			0,113		17277623	17396695	13749740	13893752	12361071	10453571	10362874			8113213	0,140	0,765	7	0,316
ESP	3b	none	catches	0,059	0,065	0,080	0,087	0,121	0,153	0,160			0,033		1113925	1549312	1821269	1832158	2066960	2526136	3148277			1474835	0,930	0,002	7	5,658
ESP	3c	none	catches	0,012	0,013	0,017	0,020	0,030	0,065	0,095			0,026		966487	1075511	1232245	1585739	1368617	1418877	1827844			2521419	0,224	0,629	7	0,514
ESP	3t	none	catches	0,001	0,001	0,001	0,002	0,002	0,005	0,007			0,003		438995	736892	955031	742397	716707	917963	932788			870809	0,559	0,192	7	1,507
FRA	3a	none	catches	0,003	0,003	0,002	0,006	0,003	0,003	0,003	0,002	0,002	0,001		120552	110098	198178	345256	274429	315954	315954	47904	71646	77491	0,791	0,011	9	3,421
FRA	3b	none	catches	0,000	0,003	0,007	0,005	0,007	0,016	0,015	0,010	0,005	0,007		5762	28023	97700	69478	128595	296765	296765	114202	61604	82788	0,966	0,000	9	9,885
FRA	3c	none	catches	0,001		0,000		0,000	0,005	0,005	0,004	0,002	0,001		3318	3972	2094	588	700	40052	40052	83794	46310	55815	0,633	0,067	9	2,163
FRA	3t	none	catches	0,000			0,000		0,000	0,000	0,000	0,000	0,000		3977	525		1878		2823	2823	5048	3686	6551	0,775	0,041	7	2,742
IRL	3a	none	catches	0,000											4208			1612				82						
PRT	3a	none	catches	0,020	0,080	0,141	0,072	0,104	0,081	0,122	0,055	0,048	0,053		7537482	6731967	6035109	6697929	9127488	8495638	7695013	6803723	6937449	6811209	0,113	0,772	9	0,301
PRT	3b	none	catches	0,003	0,001	0,005	0,010	0,029	0,031	0,024	0,028	0,012	0,007		123665	34971	195966	347231	969153	1062852	1039862	929325	464994	383878	0,981	0,000	9	13,378
PRT	3c	none	catches	0,000	0,000	0,003	0,004	0,002	0,002	0,004	0,005	0,004	0,003		384819	314759	612160	965402	990563	889396	976080	935206	988430	354971	0,638	0,064	9	2,192
PRT	3t	none	catches	0,000	0,000	0,004	0,004	0,012	0,006	0,009	0,009	0,013	0,016		74729	40252	253707	525524	1252867	1026614	1264013	1437577	1430235	1401028	0,876	0,002	9	4,805
Sum				0,318	0,480	0,565	0,775	0,768	0,881	0,979	0,113	0,084	0,263		28055542	28022977	25153199	27008944	29257150	27446641	27902345	10356861	10004354	22154007	0,860	0,003	9	4,459
check sum Fpar/F				0,39	0,68	0,75	0,90	0,85	0,99	1,03	0,16	0,12	0,46															

Table 5.7.8.3. VIIIc and IX hake (landings). The left part of the table lists estimated F trajectories from the management plan and the 2013 ICES hake assessment, as well as partial Fs for **landings** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs from landings of all effort regulated gears to the overall F estimate of the stock.

2006 F reduction by 10 percent, 2010 F reduction by 15%, until F<=0.3, Fmsy=0.24															Effort kW days running previous year baseline														
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012				
F plan reduction by 10% running year							0,860	0,774	0,697	0,627	0,564	0,508	0,457			days at sea plan													
reduction F plan								-0,10	-0,10	-0,10	-0,10	-0,10	-0,10																
F estimated				0,82	0,71	0,75	0,86	0,9	0,89	0,95	0,7	0,73	0,57		Effort estimated (regulate	28055542	28022977	25153199	27008944	29257150	27446641	27902345	10356861	10004354	22154007				
reduction F estimated								0,01	0	0,07	-0,21	-0,18	-0,36									0,02	-0,63	-0,03	1,21				
															EFFORT												2004-2012		
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n	
ESP	3a	none	landings	0,202	0,205	0,248	0,382	0,394	0,402	0,413			0,092			17277623	17396695	13749740	13893752	12361071	10453571	10362874			8113213	0,017	0,971	7	0,038
ESP	3b	none	landings	0,059	0,065	0,080	0,087	0,121	0,152	0,159			0,030			1113925	1549312	1821269	1832158	2066960	2526136	3148277			1474835	0,925	0,003	7	5,444
ESP	3c	none	landings	0,012	0,013	0,017	0,020	0,030	0,065	0,095			0,025			966487	1075511	1232245	1585739	1368617	1418877	1827844			2521419	0,217	0,640	7	0,497
ESP	3t	none	landings	0,001	0,001	0,001	0,002	0,002	0,005	0,007			0,003			438995	736892	955031	742397	716707	917963	932788			870809	0,550	0,201	7	1,473
FRA	3a	none	landings	0,003	0,002	0,001	0,003	0,002	0,002	0,002	0,001	0,001	0,000			120552	110098	198178	345256	274429	315954	315954	47904	71646	77491	0,879	0,002	9	4,877
FRA	3b	none	landings	0,000	0,003	0,007	0,005	0,007	0,016	0,015	0,010	0,005	0,007			5762	28023	97700	69478	128595	296765	296765	114202	61604	82788	0,968	0,000	9	10,206
FRA	3c	none	landings	0,001		0,000		0,000	0,005	0,005	0,004	0,002	0,001			3318	3972	2094	588	700	40052	40052	83794	46310	55815	0,633	0,067	9	2,163
FRA	3t	none	landings	0,000			0,000		0,000	0,000	0,000	0,000	0,000			3977	525		1878		2823	2823	5048	3686	6551	0,775	0,041	7	2,742
IRL	3a	none	landings	0,000												4208			1612				82						
PRT	3a	none	landings	0,019	0,018	0,025	0,035	0,037	0,041	0,039	0,031	0,019	0,029			7537482	6731967	6035109	6697929	9127488	8495638	7695013	6803723	6937449	6811209	0,662	0,052	9	2,337
PRT	3b	none	landings	0,003	0,001	0,005	0,010	0,029	0,031	0,024	0,028	0,012	0,007			123665	34971	195966	347231	969153	1062852	1039862	929325	464994	383878	0,980	0,000	9	13,029
PRT	3c	none	landings	0,000	0,000	0,003	0,004	0,002	0,002	0,004	0,005	0,004	0,003			384819	314759	612160	965402	990563	889396	976080	935206	988430	354971	0,645	0,061	9	2,233
PRT	3t	none	landings	0,000	0,000	0,004	0,004	0,012	0,006	0,009	0,009	0,013	0,015			74729	40252	253707	525524	1252867	1026614	1264013	1437577	1430235	1401028	0,897	0,001	9	5,369
Sum				0,301	0,308	0,392	0,551	0,636	0,728	0,771	0,089	0,055	0,211			28055542	28022977	25153199	27008944	29257150	27446641	27902345	10356861	10004354	22154007	0,824	0,006	9	3,848
check sum Fpar/F				0,37	0,43	0,52	0,64	0,71	0,82	0,81	0,13	0,07	0,37																

Table 5.7.8.4. VIIIc and IX hake (discards). The left part of the table lists estimated F trajectories from the management plan and the 2013 ICES hake assessment, as well as partial Fs for **discards** of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs from discards of all effort regulated gears to the overall F estimate of the stock.

2006 F reduction by 10 percent, 2010 F reduction by 15%, until F<=0.3, Fmsy=0.24													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan reduction by 10% running year							0,860	0,774	0,697	0,627	0,564	0,508	0,457
reduction F plan								-0,10	-0,10	-0,10	-0,10	-0,10	-0,10
F estimated				0,82	0,71	0,75	0,86	0,9	0,89	0,95	0,7	0,73	0,57
reduction F estimated								0,01	0	0,07	-0,21	-0,18	-0,36
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
ESP	3a	none	discards	0,015	0,109	0,056	0,184	0,064	0,112	0,122			0,021
ESP	3b	none	discards	0,000	0,000	0,000	0,000	0,000	0,001	0,001			0,003
ESP	3c	none	discards	0,000	0,000	0,000	0,000	0,000	0,000	0,000			0,001
ESP	3t	none	discards	0,000	0,000	0,000	0,000	0,000	0,000	0,000			0,000
FRA	3a	none	discards	0,000	0,001	0,001	0,003	0,001	0,001	0,001	0,001	0,001	0,000
FRA	3b	none	discards	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
FRA	3c	none	discards	0,000		0,000		0,000	0,000	0,000	0,000	0,000	0,000
FRA	3t	none	discards	0,000			0,000		0,000	0,000	0,000	0,000	0,000
IRL	3a	none	discards	0,000									
PRT	3a	none	discards	0,001	0,062	0,116	0,037	0,068	0,040	0,084	0,024	0,029	0,025
PRT	3b	none	discards	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
PRT	3c	none	discards	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000
PRT	3t	none	discards	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,000	0,002
Sum				0,017	0,172	0,173	0,224	0,132	0,154	0,207	0,025	0,030	0,053
check sum Fpar/F				0,02	0,24	0,23	0,26	0,15	0,17	0,22	0,04	0,04	0,09

Effort kW days running previous year baseline														
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012				
	days at sea plan													
Effort estimated (regulated gears)	28055542	28022977	25153199	27008944	29257150	27446641	27902345	10356861	10004354	22154007				
							0,02	-0,63	-0,03	1,21				
EFFORT												2004-2012		
kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n	
	17277623	17396695	13749740	13893752	12361071	10453571	10362874			8113213	0,391	0,386	7	0,950
	1113925	1549312	1821269	1832158	2066960	2526136	3148277			1474835	-0,219	0,637	7	-0,502
	966487	1075511	1232245	1585739	1368617	1418877	1827844			2521419	0,865	0,012	7	3,855
	438995	736892	955031	742397	716707	917963	932788			870809	0,136	0,771	7	0,307
	120552	110098	198178	345256	274429	315954	315954	47904	71646	77491	0,579	0,102	9	1,879
	5762	28023	97700	69478	128595	296765	296765	114202	61604	82788	0,149	0,702	9	0,399
	3318	3972	2094	588	700	40052	40052	83794	46310	55815				
	3977	525		1878		2823	2823	5048	3686	6551				
	4208			1612				82						
	7537482	6731967	6035109	6697929	9127488	8495638	7695013	6803723	6937449	6811209	-0,062	0,874	9	-0,164
	123665	34971	195966	347231	969153	1062852	1039862	929325	464994	383878	0,279	0,467	9	0,769
	384819	314759	612160	965402	990563	889396	976080	935206	988430	354971	-0,573	0,107	9	-1,850
	74729	40252	253707	525524	1252867	1026614	1264013	1437577	1430235	1401028	0,305	0,425	9	0,847
	28055542	28022977	25153199	27008944	29257150	27446641	27902345	10356861	10004354	22154007	0,844	0,004	9	4,163

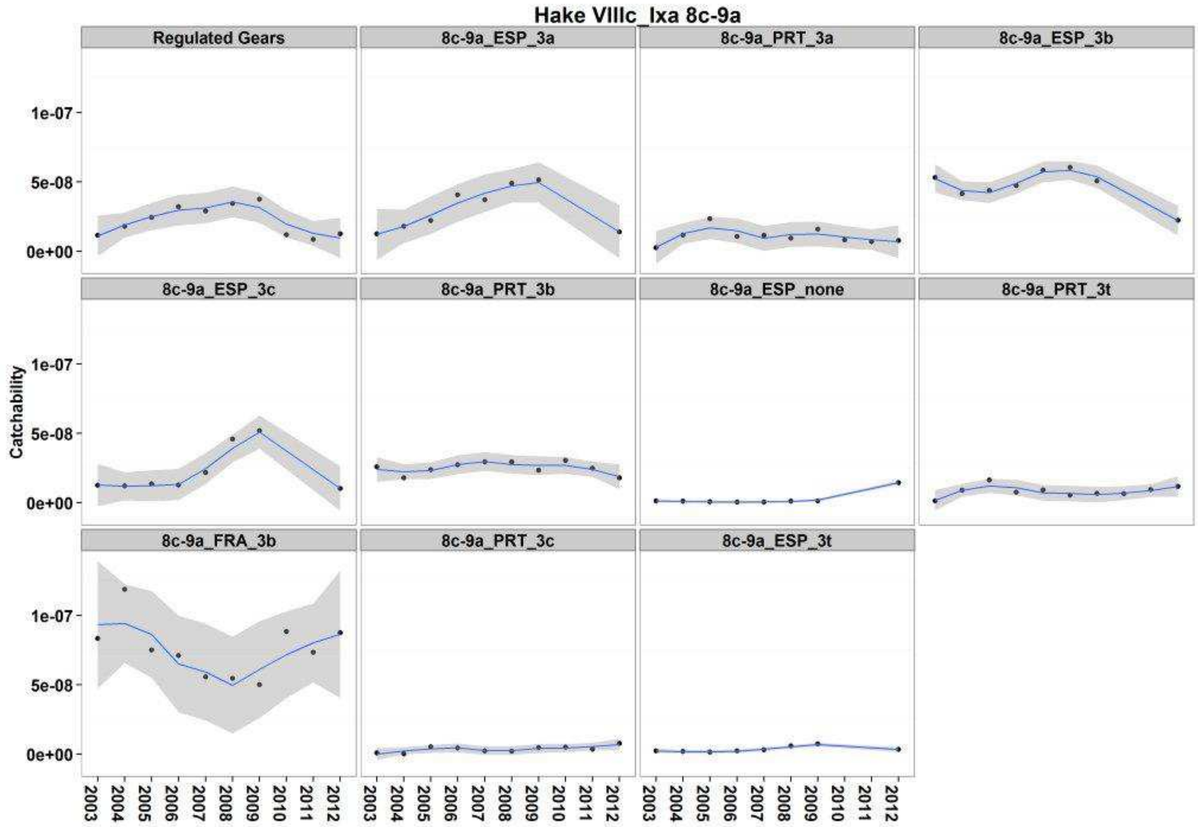


Fig. 5.7.8.2. Hake in Divisions VIIIc and IXa. Catchability by major fleets and Member States (2003-2012) taking into account catches (landings and discards). There is discard information for all trawlers all years and for Spanish gillnet since 2008. No Spanish data in 2010 and 2011. The code automatically selects the top 10 gears for the most recent 3-years in terms of catches and then only gears with >1% of the catch. They are displayed in order left-right, top-bottom. Data points are circles, a line represents a fitted smoother added to help highlight trends and the grey shading represents ± 2 standard errors (approx 95% confidence interval).

VIIIc and IXa hake catchability for areas VIIIc and IXa has decreased in 2012 for the regulated gears and the Spanish regulated trawl, gillnet and longline (Fig. 5.7.8.2).

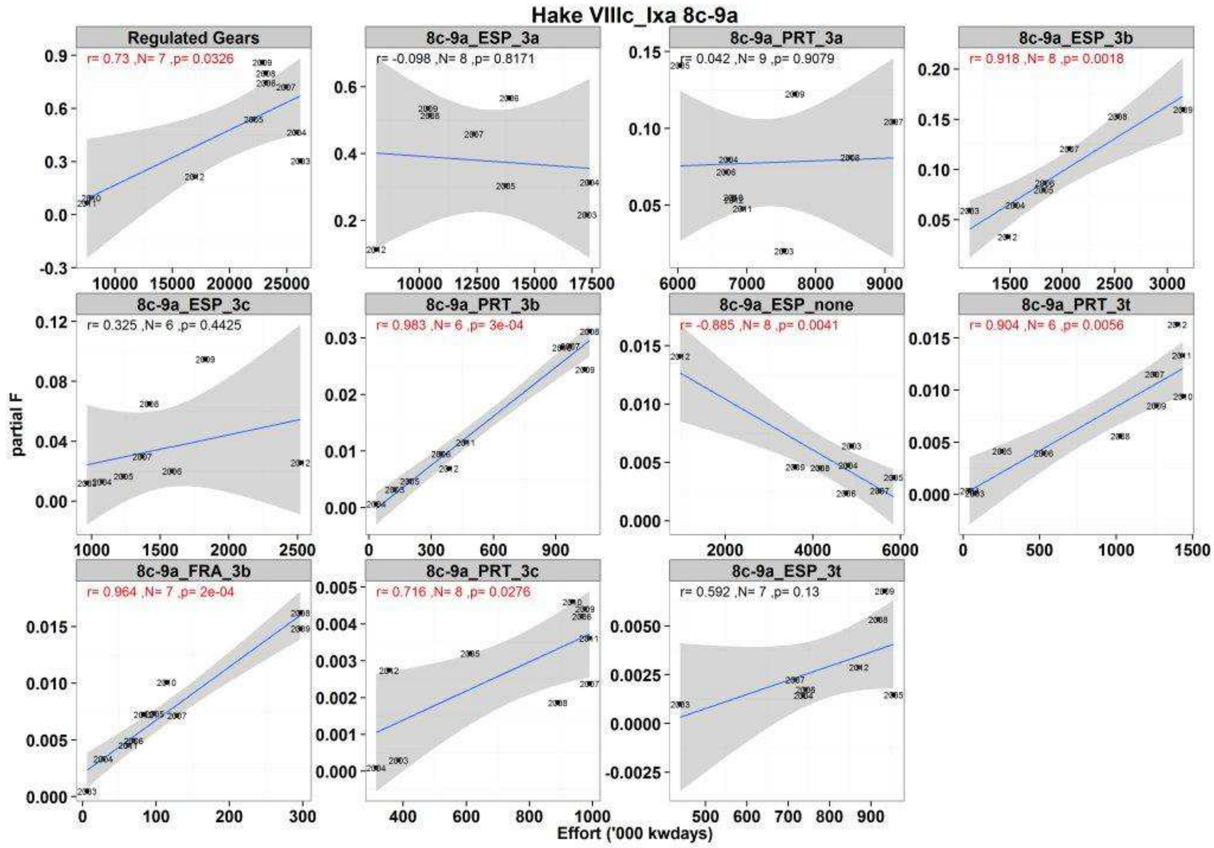


Fig. 5.7.8.3. Hake in Divisions VIIIc and IXa. Regression of partial fishing mortalities over effort (kWdays at sea) by major fleets and Member States (2003-2012) taking into account catches (landings and discards). There is discard information for all trawlers all years and for Spanish gillnet since 2008. No Spanish data in 2010 and 2011. The code automatically selects the top 10 gears for the most recent 3-years in terms of catches and then only gears with >1% of the catch. They are displayed in order left-right, top-bottom. R value shows linear model fit (grey 95% confidence interval), with p-value (significant relationships at 0.05 level shown in red; N and p values adjusted for correlation).

Resulting regressions are shown in Fig. 5.7.8.3 for major fleets. Partial F is significantly correlated to effort for regulated gears, for Spanish, Portuguese and French regulated gillnet, Portuguese regulated longline and Portuguese trammel.

Partial F and effort show a significant inverse correlation for the Spanish non regulated gears except trammel (“none”).

It must be taken into account that 2012 values are outliers in several Spanish fleets (regulated trawl [3a] and longline [3c] and non regulated gears except trammel [“none”]). This could be due to the very low 2012 F obtained in the 2013 ICES WG (0.57, Table 5.7.8.1 and Fig. 5.7.8.1), that possibly would be revised in 2014. Moreover, the Spanish effort in kWdays presented to the STECF EWG 13-13 was also quite low in comparison with the values of other years. If there were no 2012 data, there would not be a significant relation between F/effort in the Spanish non regulated gears except trammel (“none”).

The presented parameters r (absolute value of Pearson's coefficient of correlation), numbers of points considered as well as a p-value to quantify the statistical significance (≤0.05) (Fig. 5.7.8.3) allow conclusions about the quality of the correlation between the partial F and fisheries specific fishing effort. Because there is auto-correlation in the data, the N-value (and p-value) is adjusted to address this and so it results in an N smaller than the actual number of data points. The objective of this is to make the correlation statistic more robust. The code automatically selects the top 10 gears for the most recent 3-years in terms of catches and then only gears with >1% of the catch. They are then displayed in order left-right, top-bottom.

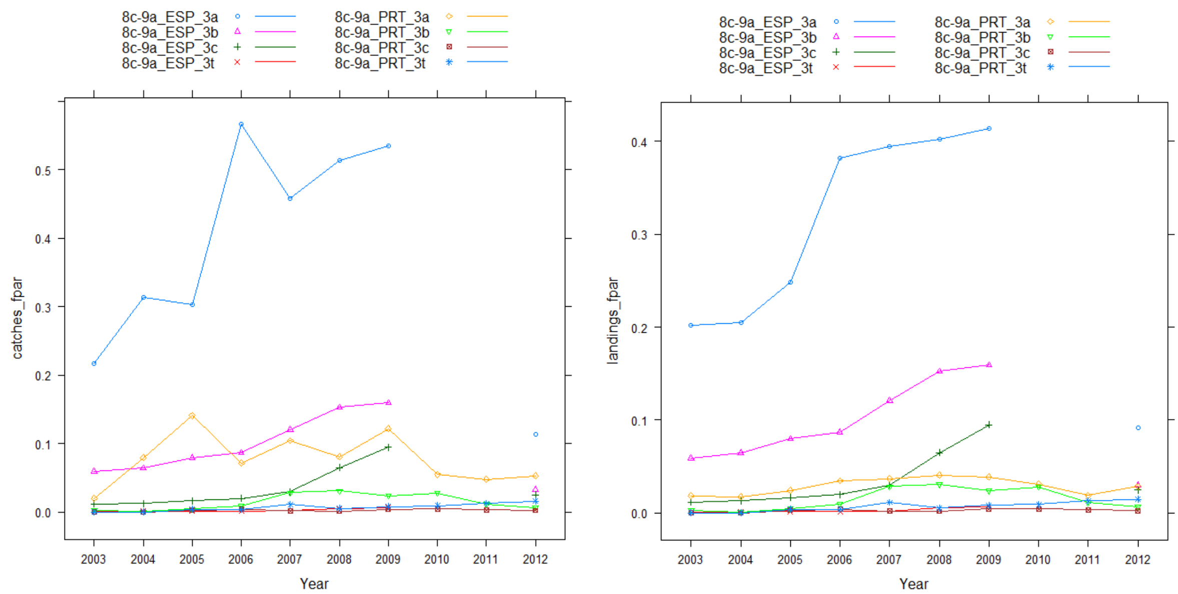


Fig. 5.7.8.4. Hake in Divisions VIIIc and IXa. Partial fishing mortalities by major fleets and Member States (2003-2012) taking into account catches (left) and only landings (right). There is discard information for all trawlers all years and for Spanish gillnet since 2008. No Spanish data in 2010 and 2011. Data prior to effort control regulation (2003-2005) might be incomplete and shall be taken with caution.

Figure 5.7.8.4 shows that the fleet that would have a higher partial F according with the STECF EWG 13-13 would be the Spanish regulated trawlers.

It can be concluded from the estimated F of the stock assessment (Table 5.7.8.1 and Fig. 5.7.8.1) that fishing mortality has decreased in recent years but is well above the F_{MSY} proxy in 2012 (Table 5.7.8.1 and Fig. 5.7.8.1). The estimated F for 2012 by the ICES WG was 0.57, more than 2 times higher than the target of the recovery plan (0.27), and more than 2 times higher than the target of the ICES WGHMM since 2010 (F_{MSY}= 0.24). Nevertheless CPUE seems to increase in the last years (Figs. 5.7.4.1 to 5.7.4.4).

5.7.9 ToR 5 Considerations in order to accomplish spatio-temoral patterns in standardized catchability indices for hake, Nephrops and anglerfish

Depending on data availability this ToR will be addressed during the follow-up meeting STECF EWG in June 2014.

5.8 Western Channel effort regime evaluation in the context of Annex IIC to Council Regulation (EC) No 57/2011)

5.8.1 ToR 1.a Fishing effort in kWdays, GTdays, and number of vessels by Member State and fisheries

STECF EWG-13-13 notes that assignment of derogations and special conditions is based on best expert knowledge. Data errors may exist regarding the huge data bases and the special knowledge required to deal with them (grouping and exact formulation of data queries).

STECF EWG noted six years ago a change in Annexes IIC to Council Reg. 41/2007 for 2007 as compared to the Annex IIC to 51/2006 which removed the special conditions IIC71a and IIC71b to static nets <220mm (3b). STECF EWG further notes that there were no special derogations added to Annex IIC of Council Reg. 40/2008, Annex IIC of Council Reg. 43/2009, Annex IIC of Council Reg. 53/2010 or Annex IIC of Council Reg. 57/2011, or Annex IIC of Council Reg. 43/2012. Table 5.8.1.1 lists the historic developments of days at sea by vessel and derogations.

Table 5.8.1.1 – Western Channel - Historic trends in days at sea by vessel specified in the Council Regulations since 2005.

Annex	AREA	REG GEAR	SPECON	2005	2006	2007	2008	2009	2010	2011	2012	2013
IIc	7e	3a	none	240	216	192	192	192	164	164	164	164
IIc	7e	3b	none	240	216	192	192	192	164	164	164	164
IIc	7e	3b deleted	ICC71ab		365							

The previously identified French data problems affecting 2002 have so far not been corrected. STECF EWG decided therefore only to provide effort trends graphically starting from 2003. For brevity and clarity in this report only information since 2004 are tabulated. The dominating fleet from the two existing derogations in 7e (3a and 3b) is by far the English beam trawl fleet with percentages in the last 8 years in excess of 55% of the effort deployed (Table 5.8.1.2 and Figures 5.8.1.1 and 5.8.1.2). The other fleets involved are the French static gear fleet with a decreasing trend from 22% in 2006 to 8% in 2012 of the deployed effort and the Belgian beam trawl fleet with an increasing trend from less then 1% in 2000 up to about 16% in 2007 followed by a fluctuation around 13%. STECF-EWG however notes that about 85% of the overall effort deployed could not be allocated to regulated gear (e.g. gears outside the regulation such as otter- and pelagic trawls, dredges and pots). The “total” trend in Figure 5.8.1.2 is therefore highly influenced by the none regulated gear group. Effort from regulated gears remain low. The composition of the unregulated gears can be found in Table 5.8.1.7. Figure 5.8.1.3 shows the trends for all the unregulated gear in area VIIe.

The differences between the data provided in 2011 and 2012 in effort (kW*days at sea) are provided in Table 5.8.1.3. The main differences appear in the Danish revisions in Otter trawl and Per Trawl in the earlier time series (up to 26%). The 40% difference of the Scottish dredges in 2010 is likely to be an error in submission. Belgian has also revised all their 2011 effort substantially (between 7% and 89% for the different gears) due to an error in last year’s calculations.

Information on GT*days at sea and the number of vessels active in 7e is presented in Tables 5.8.1.4 and 5.8.1.5 respectively.

The trends in the nominal effort of the two derogations (3a and 3b) are illustrated in Table 5.8.1.6. The beam trawl fleets decreased gradually from 2% below the 2004 level in 2005 to 39% below that level in 2009. Thereafter it increased again to a relative effort deployed in 2012, 28% below the 2004 level. Also the static gear effort dropped substantially from 4% below the 2004 level in 2006 to a 71% below the 2004 level in 2012.

Category ‘none’ represents unregulated gear types and mesh sizes in addition to unidentified mesh sizes The effort of the unregulated gear group ‘None’ has been around 85% of the overall nominal effort for the whole time series.

Table 5.8.1.7 shows the disaggregation of the ‘none’ category into the different gears categories. Effort by otter trawl is by far the dominant gear category with percentages in excess of 41% for all years. Dredges contribute around 25 %. Pelagic trawl and pots contribute each about 10% to the overall effort of the non regulated gear. The rest of the gears also account for about 10%.

Table 5.8.1.2 – Western Channel - Trend in nominal effort (kW*days at sea) by existing derogations given in Table 1 of Annex IIC (Coun. Reg. 43/2012) and Member State, 2004-2012. Derogations are sorted by gear, special condition (SPECON), and country. Data qualities are summarised in Section 4 of the report.

ANNEX	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012
IIc	7e	3a	none	BEL	633428	689624	628907	837161	584560	358399	383303	514973	554941
IIc	7e	3a	none	ENG	3206806	3227096	3283897	3021075	2871790	2197118	2227991	2318845	2474852
IIc	7e	3a	none	FRA	317275	261700	289867	320576	146443	138669	303078	200030	131536
IIc	7e	3a	none	GBJ	209969	121139							
IIc	7e	3a	none	IRL	34577	16518	6474	16610	2143	442			
IIc	7e	3a	none	NLD									
IIc	7e	3a	none	SCO				3666		1396			
IIc	**7e**	**3a Total**	**none**		**4402055**	**4316077**	**4209145**	**4199088**	**3604936**	**2696024**	**2914372**	**3033848**	**3161329**
IIc	7e	3b	none	ENG	206294	178818	153434	103278	104187	104045	109304	118156	113947
IIc	7e	3b	none	FRA	1236654	946127	1236595	920004	615534	611990	304540	280434	302188
IIc	7e	3b	none	SCO			1215	3240	9315	2430			
IIc	**7e**	**3b Total**	**none**		**1442948**	**1124945**	**1391244**	**1026522**	**729036**	**718465**	**413844**	**398590**	**416135**
IIc	7e	none	none	BEL	6625	11039	17515	17231	45760	106007	138035	95963	213484
IIc	7e	none	none	DEU	106234	92768	29865		36994	21196	139157	51687	199687
IIc	7e	none	none	DNK	1780	46728	107696	39322	80473	17994	90505		67919
IIc	7e	none	none	ENG	4177419	4262278	4138385	4149320	3744303	4043960	4222836	4398527	4523403
IIc	7e	none	none	ESP									13629
IIc	7e	none	none	FRA	17093208	17780680	19456045	19370589	12637420	12553428	12823801	13095161	12156880
IIc	7e	none	none	GBG	75868	57128	45780	57710	28376	37038	68030	58026	61697
IIc	7e	none	none	GBJ	1476	6745	19360	30580	25740	31020	38060	42020	13640
IIc	7e	none	none	IOM			19902	1116	778				18368
IIc	7e	none	none	IRL	347597	152539	3880	23340	1023	14228	52800	22942	13220
IIc	7e	none	none	LTU						29520		150400	
IIc	7e	none	none	NIR	1302						576		
IIc	7e	none	none	NLD	449855	632891	956066	894614	1073200	801327	1040600	558954	949302
IIc	7e	none	none	SCO	607937	691419	585805	595030	606253	676127	598837	543344	641501
IIc	**7e**	**none Total**	**none**		**22869301**	**23734215**	**25380299**	**25178852**	**18280320**	**18331845**	**19213237**	**19017024**	**18872730**
IIc	**7e**	**Grand Total**	**none**		**28714304**	**29175237**	**30980688**	**30404462**	**22614292**	**21746334**	**22541453**	**22449462**	**22450194**

Table 5.8.1.3 – Western Channel – Percentage difference in effort (kW*days at sea) by existing derogations given in Table 1 of Annex IIC (Coun. Reg. 43/2012) and Member State, 2004-2011. Derogations are sorted by gear, special condition (SPECON), and country. Data qualities are summarised in Section 4 of the report.

ANNEX	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	VESSEL_LENGTH	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
IIc	7e	3a	none	BEL	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	14%
IIc	7e	3a	none	ENG	O10T15M				0%	0%	0%	0%	0%	3%	0%	0%	0%
IIc	7e	3a	none	ENG	O15M				0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	3a	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	3a	none	FRA	O15M		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	3a	none	GBJ	O15M				0	0%	0%						
IIc	7e	3a	NONE	IRL	O15M				0%	0%	0%	0%	0%	0%	0%		
IIc	7e	3a	none	NLD	O15M	0%											
IIc	7e	3a	none	SCO	O15M								0%		0%		
IIc	7e	3b	none	ENG	O10T15M				0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	3b	none	ENG	O15M				0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	3b	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	3b	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	3b	none	SCO	O15M							0%	0%	0%	0%		
IIc	7e	BEAM	none	BEL	O15M										0%	0%	89%
IIc	7e	BEAM	none	ENG	O10T15M				0%	0%	0%						0%
IIc	7e	BEAM	none	ENG	O15M				0%	0%	0%	0%	0%		0%	0%	0%
IIc	7e	BEAM	none	FRA	O10T15M						0%					0%	0%
IIc	7e	BEAM	none	FRA	O15M				0%	0%		0%					
IIc	7e	BEAM	none	GBJ	O15M					0%							
IIc	7e	BEAM	NONE	IRL	O15M	0%	0%	0%		0%							
IIc	7e	BEAM	none	NLD	O15M		0%										
IIc	7e	DEM_SEINE	none	BEL	O15M											0%	7%
IIc	7e	DEM_SEINE	none	ENG	O15M						0%	0%			0%	0%	0%
IIc	7e	DEM_SEINE	none	FRA	o10t15m											0%	
IIc	7e	DEM_SEINE	none	FRA	o15m											0%	0%
IIc	7e	DEM_SEINE	none	NLD	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	DEM_SEINE	none	SCO	O15M							0%	0%	0%	3%	0%	0%
IIc	7e	DREDGE	none	BEL	O15M									0%	0%	0%	15%
IIc	7e	DREDGE	none	ENG	O10T15M				0%	0%	0%	0%	0%	5%	0%	0%	0%
IIc	7e	DREDGE	none	ENG	O15M				0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	DREDGE	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	DREDGE	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	DREDGE	none	GBJ	O15M				0%							0%	0%
IIc	7e	DREDGE	none	IOM	O10T15M									0%			
IIc	7e	DREDGE	none	IOM	O15M							0%	0%				
IIc	7e	DREDGE	NONE	IRL	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%			0%
IIc	7e	DREDGE	none	NLD	O15M		0%	0%	0%		0%	0%	0%	0%	0%	0%	
IIc	7e	DREDGE	none	SCO	O10T15M			0%			0%					40%	
IIc	7e	DREDGE	none	SCO	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	GILL	none	BEL	O15M									0%			
IIc	7e	GILL	none	ENG	O10T15M				0%	0%	0%	0%	0%	0%	1%	0%	0%
IIc	7e	GILL	none	ENG	O15M					0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	GILL	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	GILL	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	GILL	none	SCO	O15M							0%					
IIc	7e	LONGLINE	none	DNK	O15M			0%									
IIc	7e	LONGLINE	none	ENG	O10T15M				0%	0%	0%	0%	0%	0%	5%	6%	0%
IIc	7e	LONGLINE	none	ENG	O15M				0%	0%	0%	0%	0%		0%		0%
IIc	7e	LONGLINE	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	LONGLINE	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	LONGLINE	none	SCO	O15M									0%			
IIc	7e	none	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%
IIc	7e	none	none	FRA	O15M	0%	0%	0%	0%		0%	0%	0%	0%	0%		0%
IIc	7e	OTTER	none	BEL	O15M					0%	0%	0%	0%	0%	0%	0%	25%
IIc	7e	OTTER	none	DNK	O15M	12%	1%	-15%	-11%			-1%					
IIc	7e	OTTER	none	ENG	O10T15M				0%	0%	0%	0%	0%	1%	0%	0%	0%
IIc	7e	OTTER	none	ENG	O15M				0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	OTTER	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	OTTER	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	OTTER	none	GBG	O10T15M						0%	0%	0%	0%	0%	0%	0%
IIc	7e	OTTER	none	GBG	O15M							0%					
IIc	7e	OTTER	none	GBJ	O15M				0%		0%	0%	0%	0%	0%	0%	0%
IIc	7e	OTTER	NONE	IRL	O15M					0%				0%			
IIc	7e	OTTER	none	NIR	O15M					0%						0%	
IIc	7e	OTTER	none	NLD	O15M	0%	0%	0%	0%	0%	0%	0%	0%				
IIc	7e	OTTER	none	SCO	O10T15M				0%	0%	0%	0%	0%		0%	0%	0%
IIc	7e	OTTER	none	SCO	O15M	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%
IIc	7e	PEL_SEINE	none	ENG	o10t15m												0%
IIc	7e	PEL_SEINE	none	ENG	o15m											0%	
IIc	7e	PEL_SEINE	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	PEL_SEINE	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	PEL_SEINE	none	SCO	O15M											0%	0%
IIc	7e	PEL_TRAWL	none	DEU	O15M	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%
IIc	7e	PEL_TRAWL	none	DNK	O15M	-9%	-4%	1%	12%	25%	1%	10%	26%	-9%	0%	0%	
IIc	7e	PEL_TRAWL	none	ENG	O10T15M				0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	PEL_TRAWL	none	ENG	O15M				0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	PEL_TRAWL	none	FRA	O10T15M		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	PEL_TRAWL	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	PEL_TRAWL	none	GBG	O10T15M								0%		0%		
IIc	7e	PEL_TRAWL	none	GBJ	o15m												0%
IIc	7e	PEL_TRAWL	NONE	IRL	O10T15M		0%										
IIc	7e	PEL_TRAWL	NONE	IRL	O15M	0%	0%	0%	0%	0%			0%		0%	0%	0%
IIc	7e	PEL_TRAWL	none	LTU	O40M										0%		0%
IIc	7e	PEL_TRAWL	none	NLD	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	PEL_TRAWL	none	SCO	O10T15M				0%	0%	0%	0%			0%		
IIc	7e	PEL_TRAWL	none	SCO	O15M	0%	0%	0%	0%				0%	0%		0%	0%
IIc	7e	POTS	none	ENG	O10T15M				0%	0%	0%	0%	0%	0%	-10%	2%	0%
IIc	7e	POTS	none	ENG	O15M				0%	0%	0%	0%	0%	0%	0%	2%	1%
IIc	7e	POTS	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	POTS	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	POTS	none	GBG	O10T15M									0%		0%	
IIc	7e	POTS	none	GBG	O15M					0%	0%	0%	0%	11%	2%	0%	0%
IIc	7e	POTS	NONE	IRL	O15M										0%		
IIc	7e	POTS	none	SCO	O10T15M			0%									
IIc	7e	POTS	none	SCO	O15M		0%										
IIc	7e	TRAMMEL	none	ENG	O10T15M						0%	0%	0%	0%	0%	0%	0%
IIc	7e	TRAMMEL	none	ENG	O15M				0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	TRAMMEL	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
IIc	7e	TRAMMEL	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Table 5.8.1.4 – Western Channel - Trend in GTdays (GT*days at sea) by existing derogations given in Table 1 of Annex IIC (Coun. Reg. 43/2012) and Member State, 2004-2012. Derogations are sorted by gear, special condition (SPECON), and country. Data qualities are summarised in Section 4 of the report.

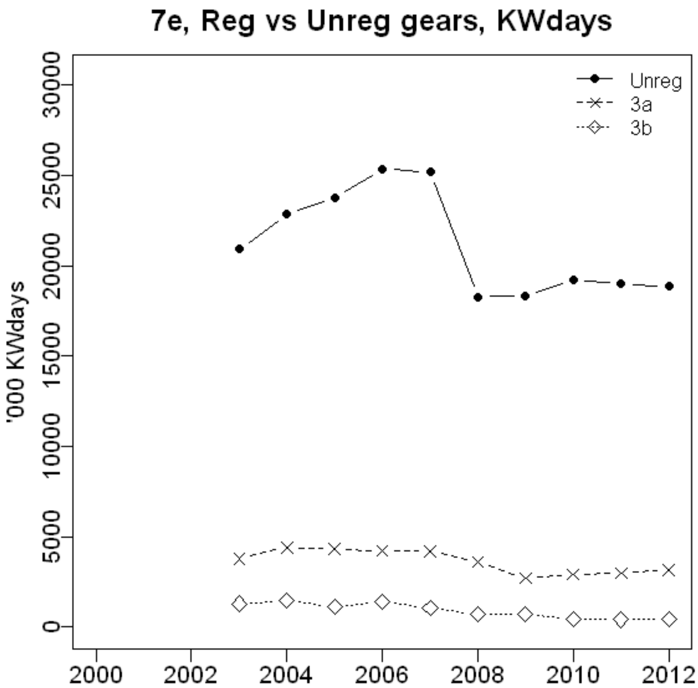
ANNEX	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012
IIc	7e	3a	none	BEL	217960	230378	211798	264266	182061	108653	115214	158450	163206
IIc	7e	3a	none	ENG	931813	932208	957038	922227	919080	715956	732929	810429	942571
IIc	7e	3a	none	FRA	67633	58636	54792	58858	22666	21952	59701	45891	29538
IIc	7e	3a	none	GBJ	63209	36001							
IIc	7e	3a	none	IRL	7838	4112	2022	3620	810	196			
IIc	7e	3a	none	NLD									
IIc	7e	3a	none	SCO				1296		592			
IIc	**7e**	**3a Total**	**none**		**1288453**	**1261335**	**1225650**	**1250267**	**1124617**	**847349**	**907844**	**1014770**	**1135315**
IIc	7e	3b	none	ENG	48508	45697	42816	24434	24507	21666	25049	24994	24202
IIc	7e	3b	none	FRA	158424	125936	172966	133602	77388	76950	43128	33332	36865
IIc	7e	3b	none	SCO			384	1024	2944	768			
IIc	**7e**	**3b Total**	**none**		**206932**	**171633**	**216166**	**159060**	**104839**	**99384**	**68177**	**58326**	**61067**
IIc	7e	none	none	BEL	3636	5200	6484	6161	15039	34208	43562	29969	65661
IIc	7e	none	none	DEU	143250	106230	39730		50030	29112	154280	48999	189473
IIc	7e	none	none	DNK	774	23056	55676	18646	35877	8022	40349		45702
IIc	7e	none	none	ENG	1004424	1014489	996194	942884	917363	947737	1020597	1028118	1221418
IIc	7e	none	none	ESP									12069
IIc	7e	none	none	FRA	3320926	3501265	3904177	3818126	2530061	2518492	2948271	2952478	2670451
IIc	7e	none	none	GBG	14231	10689	8385	12267	5219	6974	12573	10903	11211
IIc	7e	none	none	GBJ	511	1708	5787	9141	7694	9271	11377	12561	4078
IIc	7e	none	none	IOM			4547	255	114				4121
IIc	7e	none	none	IRL	107588	41848	1240	10073	415	6676	52272	10030	5783
IIc	7e	none	none	LTU						28497		149507	
IIc	7e	none	none	NIR	301						221		
IIc	7e	none	none	NLD	331902	391614	734553	602242	769364	432549	687063	355146	791963
IIc	7e	none	none	SCO	198595	218717	194240	208252	229716	265052	225247	200533	233498
IIc	**7e**	**none Total**	**none**		**5126138**	**5314816**	**5951013**	**5628047**	**4560892**	**4286590**	**5195812**	**4798244**	**5255428**
IIc	**7e**	**Grand Total**	**none**		**6621523**	**6747784**	**7392829**	**7037374**	**5790348**	**5233323**	**6171833**	**5871340**	**6451810**

Table 5.8.1.5 – Western Channel - Trend in number of vessels by existing derogations given in Table 1 of Annex IIC (Coun. Reg. 43/2012) and Member State, 2004-2012. Derogations are sorted by gear, special condition (SPECON), and country. Data qualities are summarised in section 4 of the report.

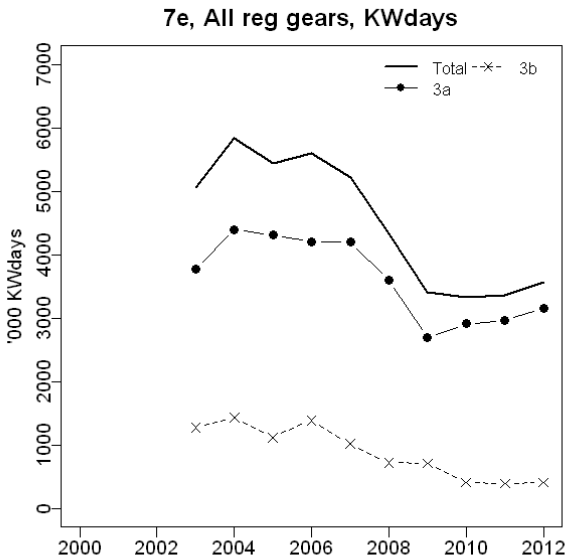
ANNEX	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2004	2005	2006	2007	2008	2009	2010	2011	2012
IIc	7e	3a	none	BEL	57	67	58	55	49	44	31	33	37
IIc	7e	3a	none	ENG	62	53	51	53	47	43	38	44	43
IIc	7e	3a	none	FRA	12	13	20	15	11	10	13	8	6
IIc	7e	3a	none	GBJ	4	2							
IIc	7e	3a	none	IRL	2	2	5	1	2	1			
IIc	7e	3a	none	NLD									
IIc	7e	3a	none	SCO				1		1			
IIc	**7e**	**3a Total**	**none**		**137**	**137**	**134**	**125**	**109**	**99**	**82**	**85**	**86**
IIc	7e	3b	none	ENG	21	17	17	14	12	13	12	12	11
IIc	7e	3b	none	FRA	68	62	77	48	34	34	22	22	25
IIc	7e	3b	none	SCO			1	1	1	1			
IIc	**7e**	**3b Total**	**none**		**89**	**79**	**95**	**63**	**47**	**48**	**34**	**34**	**36**
IIc	7e	none	none	BEL	3	6	7	6	12	28	23	20	22
IIc	7e	none	none	DEU	4	3	3		2	1	3	1	2
IIc	7e	none	none	DNK	1	4	8	1	1	1	1		1
IIc	7e	none	none	ENG	178	162	170	175	174	156	154	158	158
IIc	7e	none	none	ESP									5
IIc	7e	none	none	FRA	837	943	1114	1259	868	1022	688	654	642
IIc	7e	none	none	GBG	1	2	4	5	4	3	3	2	3
IIc	7e	none	none	GBJ	1	1	1	1	1	1	2	3	1
IIc	7e	none	none	IOM			1	1	2				1
IIc	7e	none	none	IRL	13	5	1	3	2	2	1	2	3
IIc	7e	none	none	LTU						1		1	
IIc	7e	none	none	NIR	1						1		
IIc	7e	none	none	NLD	15	13	13	19	15	18	16	17	15
IIc	7e	none	none	SCO	23	14	21	16	15	18	18	19	18
IIc	**7e**	**none Total**	**none**		**1077**	**1153**	**1343**	**1486**	**1096**	**1251**	**910**	**877**	**871**
IIc	**7e**	**Grand Total**	**none**		**1303**	**1369**	**1572**	**1674**	**1252**	**1398**	**1026**	**996**	**993**

Table 5.8.1.6 Western Channel - Trend in nominal effort (kW*days at sea) by derogations given in Table 1 of Annex IIC (Coun. Reg. 43/2012), 2004-2012. Derogations are sorted by gear and special condition (SPECON). Data qualities are summarised in Section 4 of the report.

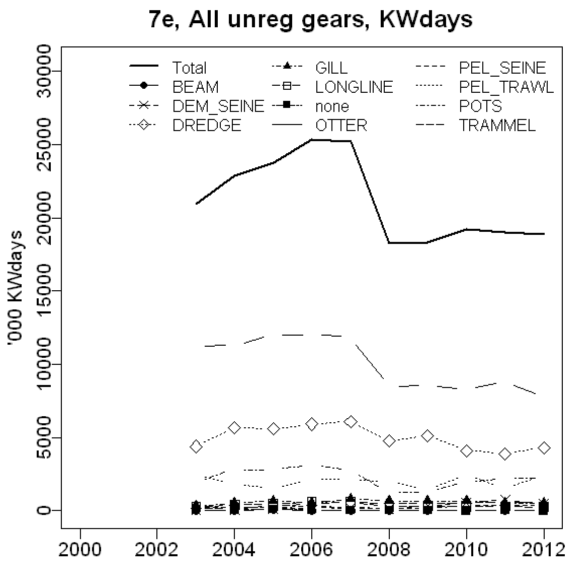
ANNEX	REG AREA	REG GEAR (	SPECON	2004	2005	2006	2007	2008	2009	2010	2011	2012	Rel. Change to 04	Rel. Change to 11
IIc	7e	3a	none	4402055	4316077	4209145	4199088	3604936	2696024	2914372	3033848	3161329	-0.28	0.04
IIc	7e	3b	none	1442948	1124945	1391244	1026522	729036	718465	413844	398590	416135	-0.71	0.04
IIc	7e	none	none	22869301	23734215	25380299	25178852	18280320	18331845	19213237	19017024	18872730	-0.17	-0.01
Sum	**7e**			**28714304**	**29175237**	**30980688**	**30404462**	**22614292**	**21746334**	**22541453**	**22449462**	**22450194**	-0.22	0.00



Figures 5.8.1.1 – Western Channel -Trend in nominal effort (kW*days at sea) by derogations given in Table 1 of Annex IIC (Coun. Reg. 43/2012), 2003-2012. Derogations are sorted by gear and special condition (SPECON). Data qualities are summarised in section 4. 3a represents beam trawls of mesh size ≥ 80 mm and 3b represents static nets with mesh size < 220 mm.



Figures 5.8.1.2 – Western Channel -Trend in nominal effort (kW*days at sea) by derogations given in Table 1 of Annex IIC (Coun. Reg. 43/2012), 2003-2012. Derogations are sorted by gear and special condition (SPECON). Data qualities are summarised in section 4. 3a represents beam trawls of mesh size ≥ 80 mm and 3b represents static nets with mesh size < 220 mm.



Figures 5.8.1.3 – Western Channel -Trend in nominal effort (kW*days at sea) by unregulated gear according to Table 1 of Annex IIC (Coun. Reg. 43/2012), 2003-2012. Data qualities are summarised in section 4.

Table. 5.8.1.7. Western Channel Unregulated gear (category none-none) effort (kW*Days) by gear type, 2004-2012.

ANNEX	REG_AREA	REG_GEAR	REG GEAR COD	2004	2005	2006	2007	2008	2009	2010	2011	2012
IIc	7e	none	OTTER	11306477	11989022	12028329	11848608	8487417	8578780	8281710	8829762	7718110
IIc	7e	none	DREDGE	5637002	5602368	5903594	6083728	4767408	5120969	4098107	3897499	4292450
IIc	7e	none	PEL_TRAWL	1830379	1475309	2168733	2140059	2012123	1410938	2458100	1537387	2449951
IIc	7e	none	POTS	2801196	2784755	3141625	2718763	1232195	1275601	1972511	2202740	2252751
IIc	7e	none	TRAMMEL	131206	346504	436467	626072	486195	475625	522126	571254	541891
IIc	7e	none	GILL	488105	674577	534836	781892	658756	666149	661402	520427	507914
IIc	7e	none	DEM_SEINE	52316	94168	202941	166784	129716	309602	537514	730853	453211
IIc	7e	none	PEL_SEINE	193853	183887	295531	207190	175282	174967	321953	344896	395244
IIc	7e	none	LONGLINE	382787	441367	615657	587251	312345	279633	321512	301230	237950
IIc	7e	none	BEAM	12234	65823	9980	6031	0	20698	38302	32175	23258
IIc	7e	none	none	33746	76435	42606	12474	18883	18883	0	48801	0
Sum				**22869301**	**23734215**	**25380299**	**25178852**	**18280320**	**18331845**	**19213237**	**19017024**	**18872730**

5.8.2 ToR 1.b Catches (landings and discards) of sole in weight and numbers at age by fisheries

Although the data available for the review of Annex IIC of regulation 53/2010 comes from all countries involved in the fisheries, there is little information on discards for most of the species. Only very sparse discard information is available for anglerfish, cod, haddock, hake, plaice, sole and whiting. The lack of discard information on plaice in particular, increases the likelihood of incorrect assumptions on total removals for that species.

Table 5.8.2.1 lists the landings, discards, discard rates and a “Discard Coverage Index” for the sole by derogations (see explanation of “Discard Coverage Index” in section 4.5). In the regulated beam trawl gear (3a) the discard rates never supersede the 1% and gets an A classification for “Discard Coverage Index” for all years except 2009 and 2010 when they are classified as B. Discard rates for the regulated static gear (3b) is only available for 2012 and gets a C categorisation for “Discard Coverage Index”. For brevity, the following sections represent the landings and discards by derogation in weight for a subset of the species caught ie. anglerfish (ANF), cod (COD), haddock (HAD), hake, (HKE), Nephrops (NEP), plaice (PLE), saithe (POK), sole (SOL), and whiting (WHG). However, additional data queries for other species can be made depending on data provisions of the national catches by the experts or national institutes. The data given in the table form the basis of Figure 5.8.2.1 displaying the catch compositions by derogations for the years 2004-2012. The absence of dark bars representing discards also indicates lack of observations rather than low discard numbers.

Figure 5.8.2.1 shows that sole landings have been fluctuating around average. The lower landings for sole in 2003 and 2004 are likely to be an artefact as they are about 50% lower than the landings submitted to ICES (landings used in the assessment of sole 7e). See also section 5.8.10 where the data points for 2003 and 2004 were omitted from the partial F evaluations. For comment on the other species, see section below (*Tor 1.c).*

Table 5.8.2.2 provides the sole catches of the unregulated gear types. The sole catches of the unregulated gear are in excess of 27% of the overall sole catches in area 7e for each year of the data series (2004-2012). The otter trawl fleet is the main fleet involved with percentages in excess of 22%. For 2012 the unregulated gears account for 27% of the overall sole catches where the otter trawl fleet is responsible for 22% of these catches.

Tab. 5.8.2.1 Western Channel - Landings (t), discards (t) and relative discard rates for sole and derogation, 2004-2012 – Note: Discard information for area 7e are sparse and not available for all countries. The bottom part of the table repeats the discard rates together with a “Discard Coverage Index” A,B or C. (see explanation of “Discard Coverage Index” in section 4.5).

ANNEX	REG_GEAR	SPECIES	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R
IIc	3a	SOL	185	0	0.000	487	0	0.000	530	0	0.000	496	1.557	0.003	431	0.029	0.000	348	3.598	0.01	375	2.283	0.006	430	1.323	0.003	478	0.578	0.001
IIc	3b	SOL	48			71			41			49			45			48			22			49			42	0.064	0.002
IIc	none	SOL	193			302			269			274			233			222			197			226			189		

ANNEX	REG_GEAR	SPECIES	2004 R	2004 DCI	2005 R	2004 DCI	2006 R	2004 DCI	2007 R	2004 DCI	2008 R	2004 DCI	2009 R	2004 DCI	2010 R	2004 DCI	2011 R	2011 DQI	2012 R	2004 DCI
IIc	3a	SOL	0.000	A	0.000	A	0.000	A	0.003	A	0.000	A	0.01	B	0.006	B	0.003	A	0.001	A
IIc	3b	SOL																	0.002	C
IIc	none	SOL																		

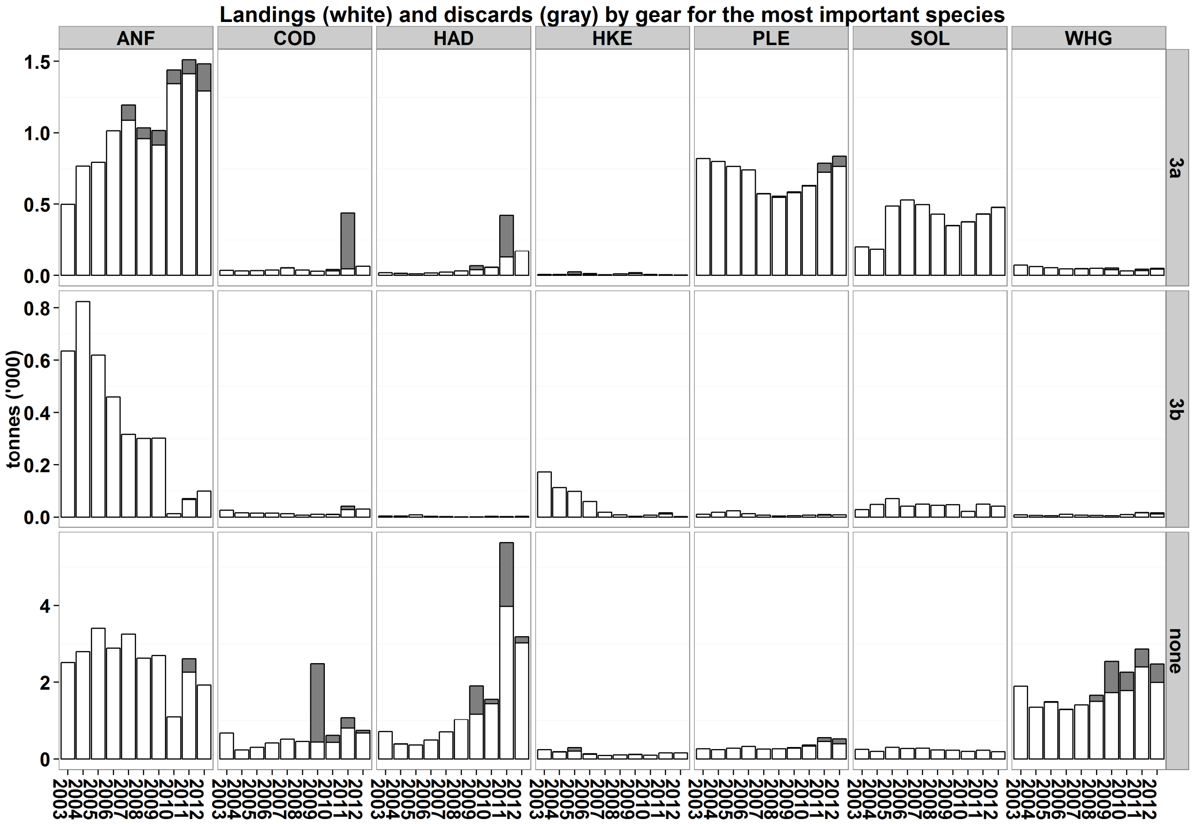


Fig. 5.8.2.1 – Western Channel - Landings (t) and discard (t) by derogation and species, 2004-2012, as well as for the “none” regulated gear. Note that information collected on discards is incomplete, so the apparent absence of discards in the figures for a given species/gear does not necessarily mean zero discards.

Table. 5.8.2.2. Western Chanel. Unregulated gear (category none-none) sole (t) catch composition by gear type, 2004-2012. Note: Discard information for area 7e are sparse and therefore the table figures should rather be interpreted as landings then catches.

ANNEX	REG_ARE	REG_GEA	SPECON	SPECIES	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L
IIc	7e	OTTER	NONE	SOL	165	235	237	240	193	187	157	188	153
IIc	7e	DREDGE	NONE	SOL	17	29	26	31	39	32	23	29	30
IIc	7e	POTS	none	SOL	0	3	0	1	0	0	10	4	3
IIc	7e	GILL	none	SOL	2	5	0	0	0	1	3	2	1
IIc	7e	PEL_TRAV	none	SOL	0	0	0	0	0	0	1	1	1
IIc	7e	TRAMMEL	none	SOL	5	12	0	1	2	2	1	1	1
IIc	7e	PEL_SEIN	none	SOL							0		0
IIc	7e	BEAM	NONE	SOL	1	13	1	0		1	1	1	0
IIc	7e	DEM_SEIN	NONE	SOL			0				0	1	0
IIc	7e	LONGLINE	none	SOL	0	0	0	0	0	0	0	0	0
IIc	7e	none	none	SOL	2	4	4	0	0	0		0	
Sum					**193**	**302**	**269**	**274**	**233**	**222**	**197**	**226**	**189**

The relative contribution of sole weights in the catch (Table 5.8.2.3) shows an increase from 2003 to 2006 and stabilization afterwards for the dominating beam trawls (3a), which coincides with a decrease of the category “none”, mainly otter trawls which are not effort regulated in Annex IIc. STECF EWG notes however that this otter trawl fleet is generally responsible for about 25-35% of the estimated sole and plaice catches in weight and about 85% of the cod catches in weight. The static nets with mesh size <220 mm (3b) are taking around 4-11% of sole catches in weight. There is no difference in ranking of the derogations according to the year 2012 or the average of 2010-2012.

Table 5.8.2.3 Western Channel - Ranked derogations according to relative sole catches in weight (t) 2004-2012. Ranking is according to the year 2012 and the average 2010-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	2004 Rel	2005 Rel	2006 Rel	2007 Rel	2008 Rel	2009 Rel	2010 Rel	2011 Rel	2012 Rel	Avg.2010-2012
IIc	7e	SOL	3a	0.44	0.57	0.63	0.61	0.61	0.56	0.63	0.61	0.67	0.64
IIc	7e	SOL	none	0.45	0.35	0.32	0.33	0.33	0.36	0.33	0.32	0.27	0.31
IIc	7e	SOL	3b	0.11	0.08	0.05	0.06	0.06	0.08	0.04	0.07	0.06	0.06

5.8.3 ToR 1.c Catches (landings and discards) of non-sole species in weight and numbers at age by fisheries

Table 5.8.3.1 lists the landings, discards, discard rates and a “Discard Coverage Index” for the main species except sole by derogation, 2004-2012 (see explanation of “Discard Coverage Index” in section 4.5). As the “none” category is a mixture of gear, discard rates (sometimes available from otter trawls) are not tabulated).

For anglerfish, only discard information is available for the regulated beam trawl gear (3a), fluctuating between 7% and 13% with a C qualifier for “Discard Coverage Index” for all years. Sparse information from otter trawls suggests discard rates around 17%.

For cod, discard information for the regulated beam trawl gear (3a) is available since 2003, varying between extreme values (0%-90%) with “Discard Coverage Index” categories A and B). The regulated static gear (3b) discard rated vary between 0% and 31% with a “Discard Coverage Index” of C. Information from otter trawls suggests discard rates between 0% and 83% with a “Discard Coverage Index” of C. STECF-EWG would like to point out the huge spread of discard rates and that most of these values are obtained with a “Discard Coverage Index” of C. The 0% discards rates with a “Discard

Coverage Index" of A are very likely not reflecting an overall year behaviour of any gear. This applies also to other non-sole species.

For plaice, discard information for the regulated beam trawl gear (3a) is available since 2003, varying between extreme values (0%-8%) with a "Discard Coverage Index" of A. Very few discard information is available for the regulated static gear (3b), varying between 0% and 16% with a "Discard Coverage Index" of C. Information from otter trawls suggests discard rates between 0% and 26% with a "Discard Coverage Index" of B.

Figure 5.8.3.1 incorporates next to sole, also the other main species in the fisheries.

The landings of anglerfish for the beam trawl fleets (3a) have substantially increased in 2010, 2011 and 2012 whereas the landings of the regulated static gear (3b) has substantially decreased over that period.

Plaice catches for the regulated beam trawl gear (derogation 3a) have fluctuated around average. The catches (predominantly landings) of the other main non-sole species for regulated beam trawl gear have been stable at low levels. The substantial cod discards in 2013 should be allocated to a very good recruitment year class 2009. Landings by static nets (derogations 3b) are dominated by anglerfish which show a sharp decline since 2010. The category "none" which is responsible for most of the landings (except for sole, plaice and partly anglerfish) consist mainly of otter trawls. Information from otter trawls suggest that there is substantial discarding of cod, haddock and whiting. However, it should be noted that there is almost no discard information available for the period before 2010, and therefore no trends in discard practices can be concluded. Landings of anglerfish have dropped substantially in 2010; whereas landings of cod, haddock and whiting have increased since 2005 (Haddock landings have more than double in 2011 and go inside with high discarding). It appears that the very strong cod year class 2009 was heavily discarded as 0 year old fish by the otter trawlers. All the 2012 landings are somewhat lower than the 2011 landings.

Table 5.8.3.2 provides the cod catches of the unregulated gear types. The cod catches of the unregulated gear are in excess of 84% of the overall cod catches in area 7e for each year of the data series (2004-2012). The otter trawl fleet is taking the bulk of these catches with percentages in excess of 80%. For 2012 the unregulated gears account for 88% of the overall cod catches where the otter trawl fleet is responsible for 81% of these catches.

Table 5.8.3.3 provides the plaice catches of the unregulated gear types. The plaice catches of the unregulated gear are in excess of 23% of the overall plaice catches in area 7e for each year of the data series (2004-2012). The otter trawl fleet is the main fleet involved with percentages in excess of 22%. For 2012 the unregulated gears account for 33% of the overall plaice catches where the otter trawl fleet is responsible for 32% of these catches.

For the main pelagic species, herring, horse mackerel, mackerel and sprat, discard information is very sparse and only sometimes available for otter trawls with a "Discard Coverage Index" of C (information on the STECF website).

Again STECF-EWG would like to mention that there is little information on discards for area 7e for the non-sole species and therefore that the above percentages are more likely to be representative of landings than of total catches.

Tab. 5.8.3.1 Western Channel - Landings (t), discards (t) and relative discard rates by species and derogation, 2004-2012 – Note: Discard information for area 7e is sparse and not available for all countries. The bottom part of the table repeats the discard rates together with a “Discard Coverage Index” A,B or C. (see explanation of “Discard Coverage Index” in section 4.5).

ANNEX	REG_ARE	SPECIES	REG_GEA	2004 L	2004 D	2004 R	2005 L	2005 D	2005 R	2006 L	2006 D	2006 R	2007 L	2007 D	2007 R	2008 L	2008 D	2008 R	2009 L	2009 D	2009 R	2010 L	2010 D	2010 R	2011 L	2011 D	2011 R	2012 L	2012 D	2012 R
IIc	7e	ANF	3a	769			795			1014			1087	108.865	0.091	959	75.545	0.073	915	100.499	0.099	1345	95.023	0.066	1413	98.277	0.065	1293	189.724	0.128
IIc	7e	ANF	3b	824			619			459			317			301			302			13			67	3.524	0.05	100		
IIc	7e	ANF	none	2802			3411			2895			3255			2620			2690			1104			2260			1925		
IIc	7e	COD	3a	30	0.657	0.022	33	0	0	36	0	0	50	2.665	0.051	37			28	1.224	0.042	31	10.216	0.25	45	392.222	0.897	63	0.004	0
IIc	7e	COD	3b	16			15			15			14			8			11	0	0	10	0.305	0.029	29	12.692	0.307	31	0	0
IIc	7e	COD	none	232			303			416			511			451			434			432			798			672		
IIc	7e	HAD	3a	13	2.187	0.147	11	0	0	17	0	0	22	0.275	0.012	30			38	28.994	0.433	54	3.359	0.058	128	293.154	0.696	170	1.509	0.009
IIc	7e	HAD	3b	4			8			3			2			1			1			3	0	0	2			3	0	0
IIc	7e	HAD	none	384			363			492			703			1024			1167			1441			3975			3031		
IIc	7e	HKE	3a	6	0.532	0.077	6	17.393	0.739	6	7.158	0.548	4	0.225	0.056	10	0	0	13	4.959	0.279	7	0.058	0.008	5	0	0	3	0.109	0.035
IIc	7e	HKE	3b	113			98			59			19			9			3			8	0.099	0.013	12	4.528	0.268	2	0	0
IIc	7e	HKE	none	179			206			119			89			102			109			97			159			154		
IIc	7e	NEP	3a	0			0			0			0			0			0						0			0		
IIc	7e	NEP	3b				0			0			0			0			0			0			0			0		
IIc	7e	NEP	none	8			13			6			10			9			9			17			16			18		
IIc	7e	PLE	3a	801	0	0	767	0	0	743	0	0	571	2.346	0.004	547	8.208	0.015	581	6.226	0.011	627	4.995	0.008	726	62.353	0.079	767	70.186	0.084
IIc	7e	PLE	3b	19			25			13			8			4			6			7			8	1.55	0.16	9	0	0
IIc	7e	PLE	none	243			280			323			257			261			275			328			449			388		
IIc	7e	POK	3a	1			0			0			0			0			0			0			0	0	0	0		
IIc	7e	POK	3b	11			17			3			1			1			3			5			3			5	0	0
IIc	7e	POK	none	6			3			3			1			1			1			16			2			1		
IIc	7e	WHG	3a	61	0	0	53	0.553	0.01	45	0	0	45	1.155	0.025	48	0	0	39	12.767	0.247	30	1.588	0.051	32	10.65	0.25	42	7.331	0.148
IIc	7e	WHG	3b	7			5			10			8			7			6			10	0.01	0.001	16	1.511	0.085	12	4.003	0.251
IIc	7e	WHG	none	1352			1478			1295			1409			1501			1729			1781			2397			1993		

ANNEX	REG_ARE	SPECIES	REG_GEA	2004 R	2004 DCI	2005 R	2004 DCI	2006 R	2004 DCI	2007 R	2004 DCI	2008 R	2004 DCI	2009 R	2004 DCI	2010 R	2004 DCI	2011 R	2004 DCI	2012 R	2004 DCI
IIc	7e	ANF	3a							0.091	C	0.073	C	0.099	C	0.066	C	0.065	C	0.128	C
IIc	7e	ANF	3b															0.05	B		
IIc	7e	ANF	none																		
IIc	7e	COD	3a	0.022	B	0	B	0	A	0.051	A			0.042	B	0.25	A	0.897	B	0	A
IIc	7e	COD	3b											0	C	0.029	C	0.307	C	0	C
IIc	7e	COD	none																		
IIc	7e	HAD	3a	0.147	B	0	A	0	A	0.012	A			0.433	B	0.058	A	0.696	A	0.009	B
IIc	7e	HAD	3b													0	C			0	C
IIc	7e	HAD	none																		
IIc	7e	HKE	3a	0.077	B	0.739	A	0.548	A	0.056	A	0	B	0.279	B	0.008	B	0	B	0.035	B
IIc	7e	HKE	3b													0.013	C	0.268	C	0	C
IIc	7e	HKE	none																		
IIc	7e	NEP	3a																		
IIc	7e	NEP	3b																		
IIc	7e	NEP	none																		
IIc	7e	PLE	3a	0	A	0	A	0	A	0.004	A	0.015	A	0.011	B	0.008	A	0.079	A	0.084	A
IIc	7e	PLE	3b															0.16	C	0	C
IIc	7e	PLE	none																		
IIc	7e	POK	3a															0	C		
IIc	7e	POK	3b																	0	C
IIc	7e	POK	none																		
IIc	7e	WHG	3a	0	A	0.01	B	0	A	0.025	A	0	A	0.247	B	0.051	B	0.25	A	0.148	A
IIc	7e	WHG	3b													0.001	C	0.085	C	0.251	C
IIc	7e	WHG	none																		

Table. 5.8.3.2. Western Chanel. Unregulated gear (category none-none) cod (t) catch composition by gear type, 2004-2012. Note: Discard information for area 7e are sparse and therefore the table figures should rather be interpreted as landings then catches.

ANNEX	REG_ARE	REG_GEAI	SPECON	SPECIES	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L
IIc	7e	OTTER	NONE	COD	223	298	391	503	438	415	399	749	618
IIc	7e	DEM_SEIN	NONE	COD			1	1		5	10	26	19
IIc	7e	PEL_SEINI	none	COD							0		15
IIc	7e	TRAMMEL	none	COD	1	1	2	2	4	3	6	9	14
IIc	7e	GILL	none	COD	4	3	4	3	5	7	6	4	2
IIc	7e	PEL_TRAV	none	COD	0	0	0	0	0	0	5	1	2
IIc	7e	LONGLINE	none	COD	3	0	17	1	1	1	0	5	2
IIc	7e	DREDGE	none	COD	0	0	0	1	2	2	6	1	0
IIc	7e	POTS	none	COD	0	0	0	0	0	0	1	1	0
IIc	7e	BEAM	none	COD	0	0	0			0	0	0	0
IIc	7e	none	none	COD				0				1	
Sum					**232**	**303**	**416**	**511**	**451**	**434**	**432**	**798**	**672**

Table 5.8.3.3 Western Chanel. Unregulated gear (category none-none) plaice (t) catch composition by gear type, 2004-2012. Note: Discard information for area 7e are sparse and therefore the table figures should rather be interpreted as landings then catches.

ANNEX	REG_ARE	REG_GEA	SPECON	SPECIES	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L
IIc	7e	OTTER	NONE	PLE	232	258	311	247	252	262	316	428	367
IIc	7e	DEM_SEIN	NONE	PLE		0	0	0	0	3	4	9	11
IIc	7e	DREDGE	NONE	PLE	9	14	10	8	8	8	5	9	6
IIc	7e	PEL_SEIN	none	PLE				0			0		1
IIc	7e	TRAMMEL	none	PLE	0	3	0	0	1	1	0	1	1
IIc	7e	PEL_TRAW	none	PLE	0	0	0	0	0	0	0	0	1
IIc	7e	GILL	none	PLE	0	1	0	0	0	1	1	1	1
IIc	7e	BEAM	none	PLE	2	4	1	2		0	1	1	0
IIc	7e	POTS	none	PLE	0	0	0	0	0	0	0	0	0
IIc	7e	LONGLINE	none	PLE	0	0	0	0	0	0	0	0	0
IIc	7e	none	none	PLE	1	0		0	0	0		0	
Sum					**243**	**280**	**323**	**257**	**261**	**275**	**328**	**449**	**388**

5.8.4 ToR 1.d CPUE and LPUE of sole, plaice and cod by fisheries and Member States

Limited discard information are available for sole, plaice and cod, therefore LPUE for sole, plaice and cod are represented in Tables 5.8.4.1-6. Figures 5.8.4.1-3 show CPUE and LPUE trends for sole, plaice and cod since 2003. Graphically, only the regulated gears and the most important unregulated gears (otter trawl and dredges) are presented.

Tables showing CPUE by gear groups (regulated and unregulated), area and nation are not presented in this report but are available on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

For sole the regulated beam trawl gear (3a) show a stable trend for the main fleets of England, France and Belgium with values of around 150, 250 and 45 g/kW*days respectively. The high value for the French beamers could be explained because they are predominantly smaller boats with smaller engines compared to the English and Belgium beam trawl fleet. The low values for the Belgian fleet reflect more the "non targeting" nature of the fleet for sole. The CPUE and LPUE from the French static gear (3b) fluctuates highly from year to year between 30 and 150 g/kW*days whereas the English static gear is more stable around 50 g/kW*days.

The highest CPUE and LPUE for plaice are recorded by the Belgian beam trawl fleet (3a), fluctuating between 70 and 260 g/kW*days, closely followed by the English beam trawl fleet of around 250 g/kW*days over the whole period. French beam trawl CPUE and LPUE has increased sharply from 16 g/kW*days in 2007 to 115 g/kW*days in 2011. The English otter trawl fleet also showed a sharp increase from 73 g/kW*days in 2007 to 170 g/kW*days in 2011 and 158 g/kW*days in 2012.

Cod CPUE and LPUE have the highest values for English static gear (3b) with a sharp increase from 38 g/kW*days in 2008 to 167 g/kW*days in 2012. The French otter trawls, fluctuating between 20 and 98 g/kW*days, whereas the English otter trawl and gill net fleet obtain only values between 11 and 54 g/kW*days. The large CPUE value for the French otter trawls increased steadily from 20 g/kW*days in 2004 to 98 g/kW*days in 2011. The value for 2012 is 88 g/kW*days.

Table 5.8.4.1 Western Channel - Sole CPUE (g/(kW*days)) by derogation, Country and year, 2004-2012. Note: Discard information for area 7e area sparse and therefore LPUE is provided in the table. (CPUE is presented in the figures).

ANNEX	SPECIES	REG AREA COD	COUNTRY	REG GEAR COD	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2010-2012
IIc	SOL	7e	BEL	3a	11	36	51	41	41	45	42	39	58	47
IIc	SOL	7e	BEL	BEAM	0	0	0	0	0		0	0	0	0
IIc	SOL	7e	BEL	DEM_SEINE	0	0	0	0	0	0	0	0	0	0
IIc	SOL	7e	BEL	DREDGE	0	0	0	0	0	15	16	0	12	12
IIc	SOL	7e	BEL	OTTER		0	0	0	0	0	0	49	132	72
IIc	SOL	7e	ENG	3a	40	128	142	141	130	137	133	151	164	150
IIc	SOL	7e	ENG	3b	5	6	7	48	67	87	27	42	70	47
IIc	SOL	7e	ENG	BEAM	0	152	122	0	0	364	0	0	0	0
IIc	SOL	7e	ENG	DEM_SEINE	0		0	0	0		0	0	0	0
IIc	SOL	7e	ENG	DREDGE	6	12	12	11	11	8	15	14	12	14
IIc	SOL	7e	ENG	GILL	0	0	0	0	0	11	11	0	0	6
IIc	SOL	7e	ENG	LONGLINE	0	0		0	0	0	0	0	0	0
IIc	SOL	7e	ENG	OTTER	9	15	19	21	17	13	12	11	16	13
IIc	SOL	7e	ENG	PEL_SEINE	0	0	0	0	0	0	0	0	0	0
IIc	SOL	7e	ENG	PEL_TRAWL			0		0		0	0	0	0
IIc	SOL	7e	ENG	POTS	0	0	0	0	0	0	0	0	0	0
IIc	SOL	7e	ENG	TRAMMEL	0	0	0	0	0	0	0	0	0	0
IIc	SOL	7e	FRA	3a	132	115	107	103	225	224	208	305	289	255
IIc	SOL	7e	FRA	3b	38	74	32	48	62	62	62	157	113	109
IIc	SOL	7e	FRA	BEAM	168	209	0	0	0	0	684	0	0	471
IIc	SOL	7e	FRA	DEM_SEINE	0	0	0	0	0	0	0	6	0	2
IIc	SOL	7e	FRA	DREDGE	2	3	2	3	6	6	1	2	3	2
IIc	SOL	7e	FRA	GILL	5	8	0	0	0	0	4	2	2	3
IIc	SOL	7e	FRA	LONGLINE	0	0	0	0	0	0	0	0	0	0
IIc	SOL	7e	FRA	none	59	52	94	0	0	0	0	0	0	0
IIc	SOL	7e	FRA	OTTER	16	21	20	20	24	24	21	24	20	22
IIc	SOL	7e	FRA	PEL_SEINE							0	0	0	0
IIc	SOL	7e	FRA	PEL_TRAWL	0	0	0	0	0	0	0	1	1	1
IIc	SOL	7e	FRA	POTS	0	2	0	1	0	0	8	3	2	4
IIc	SOL	7e	FRA	TRAMMEL	42	35	0	2	4	4	2	2	2	2
IIc	SOL	7e	GBG	OTTER	0				0	0	0	0	0	0
IIc	SOL	7e	GBJ	3a	33	157	0	0	0	0	0	0	0	0
IIc	SOL	7e	GBJ	BEAM	0	0	0	0	0	0	0	0	0	0
IIc	SOL	7e	GBJ	OTTER	0		0	0	0	0	0	0	0	0
IIc	SOL	7e	IOM	DREDGE	0	0		0		0	0	0	0	0
IIc	SOL	7e	IRL	3a	0		0	120	0		0	0	0	0
IIc	SOL	7e	IRL	BEAM	0	0	0	0	0	0	0	0	0	0
IIc	SOL	7e	IRL	DREDGE		0				0	0	0	0	0
IIc	SOL	7e	IRL	OTTER		0	0	0		0	0	0	0	0
IIc	SOL	7e	NIR	OTTER	0	0	0	0	0	0	0	0	0	0
IIc	SOL	7e	SCO	DEM_SEINE	0	0					0	0	0	0
IIc	SOL	7e	SCO	DREDGE	2	4	8	9	19	4	3	0	2	2
IIc	SOL	7e	SCO	OTTER	0					9	0	4	6	4

Table 5.8.4.2 Western Channel - Sole CPUE (g/(kW*days)) by derogation and year, 2004-2012. Note: Discard information for area 7e area sparse and therefore LPUE is provided in the table. (CPUE is presented in the figures).

ANNEX	SPECIES	REG AREA COD	REG GEAR COD	SPECON	LPUE 2003	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2010-2012
IIc	SOL	7e	3a	none	53	42	113	126	118	119	129	129	142	151	141
IIc	SOL	7e	3b	none	23	33	63	29	48	62	65	53	123	101	92
IIc	SOL	7e	BEAM	none	0	82	197	100	0	0	48	26	0	0	11
IIc	SOL	7e	DEM_SEINE	none				0				0	1	0	1
IIc	SOL	7e	DREDGE	none	4	3	5	4	5	8	6	6	7	7	7
IIc	SOL	7e	GILL	none	17	4	7	0	0	0	2	5	2	2	3
IIc	SOL	7e	LONGLINE	none	0	0	0	0	0	0	0	0	0	0	0
IIc	SOL	7e	none	none	63	59	52	94	0	0	0	0	0	0	0
IIc	SOL	7e	OTTER	none	20	15	20	20	20	23	22	19	21	20	20
IIc	SOL	7e	PEL_SEINE	none								0	0	0	0
IIc	SOL	7e	PEL_TRAWL	none	0	0	0	0	0	0	0	0	1	0	0
IIc	SOL	7e	POTS	none	0	0	1	0	0	0	0	5	2	1	3
IIc	SOL	7e	TRAMMEL	none	8	38	35	0	2	4	4	2	2	2	2

Table 5.8.4.3 Western Channel - plaice CPUE (g/(kW*days)) by derogation, Country and year, 2004-2012. Note: Discard information for area 7e area sparse and therefore LPUE is provided in the table. (CPUE is presented in the figures).

ANNEX	SPECIES	REG AREA	COUNTRY	REG GEAR COD	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2010-2012
IIc	PLE	7e	BEL	3a	73	70	81	99	113	145	130	262	223	213
IIc	PLE	7e	BEL	DEM_SEINE	0	0	0	0	0	0	0	39	14	17
IIc	PLE	7e	BEL	DREDGE	0	0	0	0		0	0	0	0	0
IIc	PLE	7e	BEL	OTTER		0	57	0	31	0	39	296	237	191
IIc	PLE	7e	ENG	3a	215	217	209	160	166	238	248	245	255	250
IIc	PLE	7e	ENG	3b	5	0	0	0	10	29	9	17	35	21
IIc	PLE	7e	ENG	BEAM	775	152	122	332	0	0	0	165	0	68
IIc	PLE	7e	ENG	DEM_SEINE	0	0	0	0	0	0	0	15	11	10
IIc	PLE	7e	ENG	DREDGE	6	7	4	1	2	2	3	4	2	3
IIc	PLE	7e	ENG	GILL	0	0	0	0	0	11	11	0	0	6
IIc	PLE	7e	ENG	LONGLINE	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	ENG	OTTER	71	73	111	73	80	81	127	170	158	151
IIc	PLE	7e	ENG	PEL_SEINE	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	ENG	PEL_TRAWL		0		0	0	0	0	0	0	0
IIc	PLE	7e	ENG	POTS	0		0	0	0	0	0	0	0	0
IIc	PLE	7e	ENG	TRAMMEL	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	FRA	3a	107	38	21	16	34	36	82	115	84	93
IIc	PLE	7e	FRA	3b	14	25	11	8	5	5	20	18	17	18
IIc	PLE	7e	FRA	BEAM	0	38	0	0	0	0	0	0	0	0
IIc	PLE	7e	FRA	DEM_SEINE	0	0	0	0	0	0	15	24	61	30
IIc	PLE	7e	FRA	DREDGE	1	1	1	1	2	2	0	1	1	1
IIc	PLE	7e	FRA	GILL	0	2	0	0	0	0	0	0	0	0
IIc	PLE	7e	FRA	LONGLINE	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	FRA	none	30	0		0	0	0	0	0	0	0
IIc	PLE	7e	FRA	OTTER	12	13	14	13	19	19	17	22	20	20
IIc	PLE	7e	FRA	PEL_SEINE				0			0	0	3	1
IIc	PLE	7e	FRA	PEL_TRAWL	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	FRA	POTS		0		0			0	0	0	0
IIc	PLE	7e	FRA	TRAMMEL	0	9	0	0	2	2	0	2	2	1
IIc	PLE	7e	GBG	OTTER	0				0	0	0	0	337	182
IIc	PLE	7e	GBJ	3a	152	66	0	0	0	0	0	0	0	0
IIc	PLE	7e	GBJ	BEAM	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	GBJ	OTTER	0	0	52	0	0	0	0	0	0	0
IIc	PLE	7e	IRL	3a			0	0			0	0	0	0
IIc	PLE	7e	IRL	BEAM	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	IRL	DREDGE		0				0	0	0	0	0
IIc	PLE	7e	IRL	OTTER		0	0	0		0	0	0	0	0
IIc	PLE	7e	NIR	OTTER	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	NLD	DEM_SEINE						9	4	12	20	11
IIc	PLE	7e	SCO	3a	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	SCO	DEM_SEINE	0	0	0	0	0	13	0	0	0	0
IIc	PLE	7e	SCO	DREDGE	0	0	0	0	2	2	0	0	0	0
IIc	PLE	7e	SCO	OTTER	0		0			26	7	25	40	25

Table 5.8.4.4 Western Channel - Plaice CPUE (g/(kW*days)) by derogation and year, 2004-2012. Note: Discard information for area 7e area sparse and therefore LPUE is provided in the table. (CPUE is presented in the figures).

ANNEX	SPECIES	REG AREA COD	REG GEAR COD	SPECON	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2010-2012
IIc	PLE	7e	3a	none	182	178	177	136	152	215	215	239	243	233
IIc	PLE	7e	3b	none	12	21	9	7	5	8	17	18	22	19
IIc	PLE	7e	BEAM	none	82	61	100	332	0	0	0	31	0	11
IIc	PLE	7e	DEM_SEINE	none		0	0	0	0	10	6	14	24	14
IIc	PLE	7e	DREDGE	none	2	2	2	1	2	2	1	2	1	2
IIc	PLE	7e	GILL	none	0	1	0	0	0	2	2	0	0	1
IIc	PLE	7e	LONGLINE	none	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	none	none	30	0		0	0	0	0	0	0	0
IIc	PLE	7e	OTTER	none	21	21	26	21	30	30	38	48	48	45
IIc	PLE	7e	PEL_SEINE	none				0			0	0	3	1
IIc	PLE	7e	PEL_TRAWL	none	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	POTS	none	0	0	0	0	0	0	0	0	0	0
IIc	PLE	7e	TRAMMEL	none	0	9	0	0	2	2	0	2	2	1

Table 5.8.4.5 Western Channel - Cod CPUE (g/(kW*days)) by derogation, Country and year, 2004-2012. Note: Discard information for area 7e area sparse and therefore LPUE is provided in the table. (CPUE is presented in the figures).

ANNEX	SPECIES	REG AREA	COUNTRY	REG GEAR COD	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2010-2012
IIc	COD	7e	BEL	3a	3	4	8	6	9	17	10	12	11	11
IIc	COD	7e	BEL	DEM_SEINE	0	0	0	0	0	0	49	235	96	117
IIc	COD	7e	BEL	OTTER			0	0	0		0	0	0	0
IIc	COD	7e	ENG	3a	7	8	9	14	11	10	11	17	23	17
IIc	COD	7e	ENG	3b	58	56	85	116	38	67	64	127	167	120
IIc	COD	7e	ENG	BEAM		0	0		0	0	0	0	0	0
IIc	COD	7e	ENG	DEM_SEINE	0		0	0	0	0	29	15	21	20
IIc	COD	7e	ENG	DREDGE	0	0	0	0	0	0	0	0	0	0
IIc	COD	7e	ENG	GILL	11	27	23	24	46	54	44	26	30	37
IIc	COD	7e	ENG	LONGLINE	0	0	0	0	0	0	0	0	0	0
IIc	COD	7e	ENG	OTTER	20	22	23	45	41	24	32	37	49	39
IIc	COD	7e	ENG	PEL_SEINE	0	0	0	0	0	0	0	0	0	0
IIc	COD	7e	ENG	PEL_TRAWL	0			0	0	0	0	0	0	0
IIc	COD	7e	ENG	POTS	0	0	0	0	0	0	0	0	0	0
IIc	COD	7e	ENG	TRAMMEL	0	0	0	0	0	0	0	30	49	34
IIc	COD	7e	FRA	3a	3	0	3	0	0	0	0	0	0	0
IIc	COD	7e	FRA	3b	3	4	2	2	5	5	10	50	43	34
IIc	COD	7e	FRA	BEAM		0		0	0	0	0	0	0	0
IIc	COD	7e	FRA	DEM_SEINE	0	0	0	0	0	0	29	54	51	45
IIc	COD	7e	FRA	DREDGE	0	0	0	0	1	1	2	0	0	1
IIc	COD	7e	FRA	GILL	5	2	4	1	2	2	2	6	2	3
IIc	COD	7e	FRA	LONGLINE	11	0	33	2	4	4	0	20	5	8
IIc	COD	7e	FRA	none				0			0	20	0	20
IIc	COD	7e	FRA	OTTER	20	26	34	42	55	55	54	98	88	80
IIc	COD	7e	FRA	PEL_SEINE							0	0	38	14
IIc	COD	7e	FRA	PEL_TRAWL	0	0	0	0	0	0	4	1	2	3
IIc	COD	7e	FRA	POTS	0						0	1	0	0
IIc	COD	7e	FRA	TRAMMEL	8	3	5	3	6	6	12	15	25	17
IIc	COD	7e	GBG	OTTER	0		0	0	0		0	0	0	0
IIc	COD	7e	GBJ	3a	19	17	0	0	0	0	0	0	0	0
IIc	COD	7e	GBJ	BEAM	0	0	0	0	0	0	0	0	0	0
IIc	COD	7e	GBJ	OTTER	0		0	0	0	0	0	0	0	0
IIc	COD	7e	IRL	3a	0	0	0	120	0		0	0	0	0
IIc	COD	7e	IRL	BEAM	0	0	0	0	0	0	0	0	0	0
IIc	COD	7e	IRL	OTTER	0	0	0	0		0	0	0	343	343
IIc	COD	7e	NIR	OTTER		0	0	0	0	0	0	0	0	0
IIc	COD	7e	NLD	DEM_SEINE						19	12	27	33	23
IIc	COD	7e	SCO	3a	0	0	0	273	0		0	0	0	0
IIc	COD	7e	SCO	3b	0	0				0	0	0	0	0
IIc	COD	7e	SCO	DEM_SEINE	0	0	23	18		13	0	14	0	8
IIc	COD	7e	SCO	DREDGE		0	0	0	0	0	0	0	0	0
IIc	COD	7e	SCO	OTTER	0					9	7	41	75	43

Table 5.8.4.6 Western Channel - Cod CPUE (g/(kW*days)) by derogation and year, 2004-2012. Note: Discard information for area 7e area sparse and therefore LPUE is provided in the table. (CPUE is presented in the figures).

ANNEX	SPECIES	REG AREA COD	REG GEAR COD	SPECON	LPUE 2004	LPUE 2005	LPUE 2006	LPUE 2007	LPUE 2008	LPUE 2009	LPUE 2010	LPUE 2011	LPUE 2012	LPUE 2010-2012
IIc	COD	7e	3a	none	7	7	9	12	10	10	10	15	20	15
IIc	COD	7e	3b	none	11	12	12	14	10	14	24	73	77	58
IIc	COD	7e	BEAM	none	0	0	0		0	0	0	0	0	0
IIc	COD	7e	DEM_SEINE	none			5	6		16	19	36	42	32
IIc	COD	7e	DREDGE	none	0	0	0	0	0	0	1	0	0	0
IIc	COD	7e	GILL	none	6	4	7	4	8	9	8	8	4	7
IIc	COD	7e	LONGLINE	none	8	0	26	2	3	4	0	17	4	7
IIc	COD	7e	none	none				0			0	20	0	20
IIc	COD	7e	OTTER	none	20	25	33	42	52	48	48	85	80	71
IIc	COD	7e	PEL_SEINE	none							0	0	38	14
IIc	COD	7e	PEL_TRAWL	none	0	0	0	0	0	0	2	1	1	1
IIc	COD	7e	POTS	none	0	0	0	0	0	0	0	0	0	0
IIc	COD	7e	TRAMMEL	none	8	3	5	3	6	6	11	16	26	18

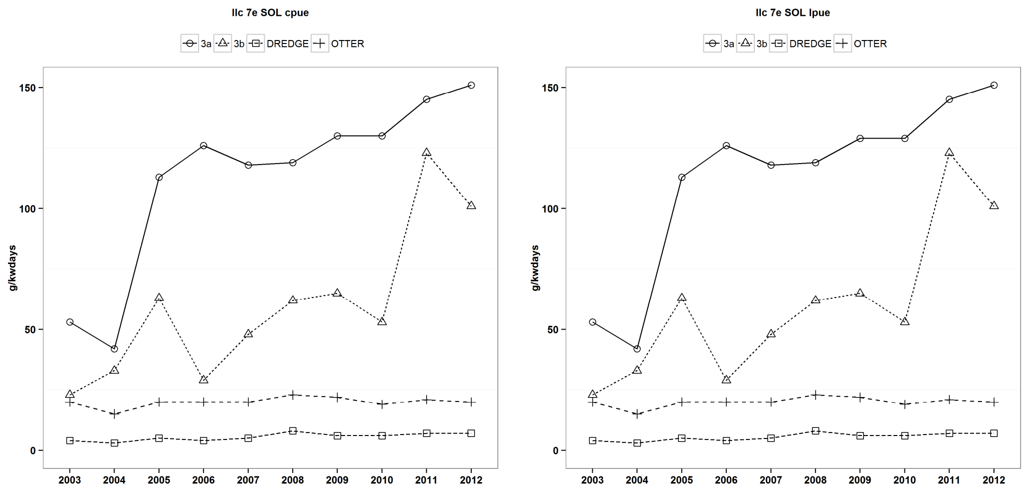


Figure 5.8.4.1 Western Channel - Sole – CPUE (left) and LPUE (right) (g/(kW*days)) by derogation and year, 2003-2012.

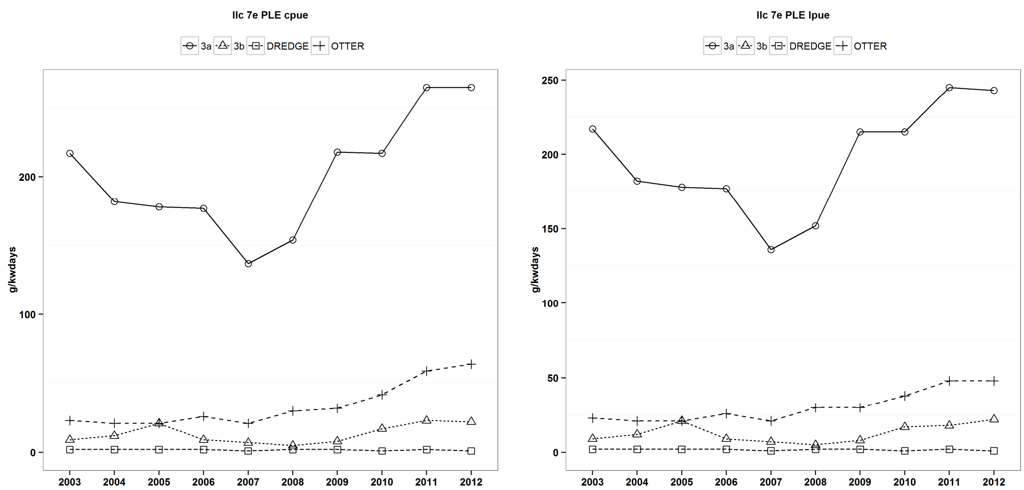


Figure 5.8.4.2 Western Channel - Plaice – CPUE (left) and LPUE (right) (g/(kW*days)) by derogation and year, 2003-2012.

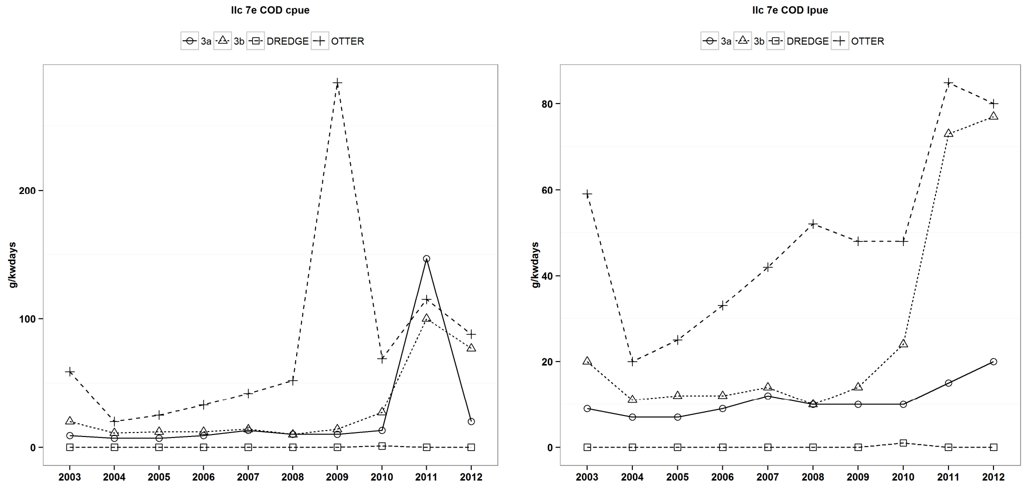


Figure 5.8.4.3 Western Channel - Cod – CPUE (left) and LPUE (right) (g/(kW*days)) by derogation and year, 2003-2012.

5.8.5 *ToR 2 Information on small boats (<10m)*

5.8.5.1 Fishing effort of small boats by Member State

It should be noted that not all countries have submitted information and that the total figures are therefore likely to give an underestimation of effort and catches of this vessel category.

Table 5.8.5.1.1 provides an overview of the effort deployed by vessels >10m (regulated and non regulated gear) and vessels <10m in the Western Channel for the period 2004-2011. The effort from the vessels <10m fluctuates between 13% and 25% of the effort deployed by the vessels >10m.

Table 5.8.5.1.1 Western Channel - Trend in nominal effort (kW*days at sea) by derogations given in Table 1 of Annex IIC (Coun. Reg. 43/2012), unregulated gear and vessels <10m, 2004-2012.

ANNEX	REG AREA (	REG GEAR	SPECON	2004	2005	2006	2007	2008	2009	2010	2011	2012
IIc	7e	3a	none	4402055	4316077	4209145	4199088	3604936	2696024	2914372	3033848	3161329
IIc	7e	3b	none	1442948	1124945	1391244	1026522	729036	718465	413844	398590	416135
IIc	7e	none	none	22869301	23734215	25380299	25178852	18280320	18331845	19213237	19017024	18872730
Sum_O10m	**7e**			**28714304**	**29175237**	**30980688**	**30404462**	**22614292**	**21746334**	**22541453**	**22449462**	**22450194**
Sum_U10m	**7e**			**4723799**	**3698241**	**5633713**	**5463330**	**4315920**	**3878714**	**4903821**	**5615040**	**5560087**
%-U10m	**7e**			**16**	**13**	**18**	**18**	**19**	**18**	**22**	**25**	**25**

5.8.5.2 Catches (landings and discards) of sole and associated species by small boats by Member State

Table 5.8.5.2.1 gives a preliminary overview of the catches of some main species (anglerfish, cod, haddock, hake, Nephrops, plaice, saithe, sole and whiting in area 7e for vessels <10m (2004-2012). STECF EWG would like to mention that although these figures are underestimates, they indicate that between 7% and 14% of the sole catches are taken by vessels < 10m.

More detailed information for vessels <10 meters were available only from France for the period 2003-2007. This information was presented in the 2008 report and is not repeated here. An update will be provided once new data become available.

Table 5.8.5.2.1 Western Channel – Overview of anglerfish, cod, haddock, hake, nephrops, plaice, saithe, sole and whiting catches by vessels <10m, 2004-2012.

ANNEX	REG_ARE	SPECIES	REG_GEAR	2004 L	2005 L	2006 L	2007 L	2008 L	2009 L	2010 L	2011 L	2012 L
IIc	7e	ANF	3a	769	795	1014	1087	959	915	1345	1413	1293
IIc	7e	ANF	3b	824	619	459	317	301	302	13	67	100
IIc	7e	ANF	none	2802	3411	2895	3255	2620	2690	1104	2260	1925
SUM_O10m				4395	4825	4367	4659	3881	3907	2461	3740	3317
SUM_U10m				262	217	201	287	238	226	179	197	240
%_U10m				6	4	5	6	6	6	7	5	7
IIc	7e	COD	3a	30	33	36	50	37	28	31	45	63
IIc	7e	COD	3b	16	15	15	14	8	11	10	29	31
IIc	7e	COD	none	232	303	416	511	451	434	432	798	672
SUM_O10m				277	351	466	575	496	472	473	872	766
SUM_U10m				27	18	40	56	36	47	84	141	174
%_U10m				10	5	9	10	7	10	18	16	23
IIc	7e	HAD	3a	13	11	17	22	30	38	54	128	170
IIc	7e	HAD	3b	4	8	3	2	1	1	3	2	3
IIc	7e	HAD	none	384	363	492	703	1024	1167	1441	3975	3031
SUM_O10m				401	381	513	728	1055	1206	1498	4105	3204
SUM_U10m				4	7	8	27	37	28	59	96	148
%_U10m				1	2	1	4	4	2	4	2	5
IIc	7e	HKE	3a	6	6	6	4	10	13	7	5	3
IIc	7e	HKE	3b	113	98	59	19	9	3	8	12	2
IIc	7e	HKE	none	179	206	119	89	102	109	97	159	154
SUM_O10m				298	310	185	112	121	125	111	176	159
SUM_U10m				2	2	1	1	3	5	5	5	2
%_U10m				1	1	1	1	3	4	5	3	1
IIc	7e	NEP	3a	0	0	0	0	0	0		0	0
IIc	7e	NEP	3b		0	0	0	0	0	0	0	0
IIc	7e	NEP	none	8	13	6	10	9	9	17	16	18
SUM_O10m				8	13	7	10	9	9	17	16	18
SUM_U10m				0	0	0		0	3	1	1	0
%_U10m				0	0	0	0	0	38	3	4	1
IIc	7e	PLE	3a	801	767	743	571	547	581	627	726	767
IIc	7e	PLE	3b	19	25	13	8	4	6	7	8	9
IIc	7e	PLE	none	243	280	323	257	261	275	328	449	388
SUM_O10m				1063	1071	1079	836	812	861	962	1183	1164
SUM_U10m				82	67	131	105	75	66	106	112	161
%_U10m				8	6	12	13	9	8	11	9	14
IIc	7e	POK	3a	1	0	0	0	0	0	0	0	0
IIc	7e	POK	3b	11	17	3	1	1	3	5	3	5
IIc	7e	POK	none	6	3	3	1	1	1	16	2	1
SUM_O10m				18	20	6	3	3	5	21	4	6
SUM_U10m				1	1	1	1	1	2	2	2	3
%_U10m				6	4	15	29	26	30	9	47	52
IIc	7e	SOL	3a	185	487	530	496	431	348	375	430	478
IIc	7e	SOL	3b	48	71	41	49	45	48	22	49	42
IIc	7e	SOL	none	193	302	269	274	233	222	197	226	189
SUM_O10m				426	860	841	819	709	619	594	706	709
SUM_U10m				59	75	87	86	51	44	69	87	101
%_U10m				14	9	10	10	7	7	12	12	14
IIc	7e	WHG	3a	61	53	45	45	48	39	30	32	42
IIc	7e	WHG	3b	7	5	10	8	7	6	10	16	12
IIc	7e	WHG	none	1352	1478	1295	1409	1501	1729	1781	2397	1993
SUM_O10m				1420	1536	1350	1462	1556	1774	1820	2445	2048
SUM_U10m				79	55	73	123	128	141	155	123	155
%_U10m				6	4	5	8	8	8	9	5	8

5.8.6 ToR 3 Evaluation of fully documented fisheries FDF

5.8.6.1 Fishing effort of FDF by Member State and fisheries in comparison with fisheries not working under FDF provisions

Only England had vessels operating under an FDF fisheries for the first time in 2012. 7 vessels were operational in the FDF fisheries using the regulated beam trawl gear (3a) and one vessel using the unregulated beam trawl gear. The total number of English vessels operating these gears are 43 and 2 respectively.

Effort deployed by the regulated beam trawls (3a) FDF, accounts for 22% of the total English effort for that gear. The unregulated beamers fishing with a FDF licence represented 16% of the total English effort for that gear (Table 5.8.6.1.1).

The effort of the FDF fisheries to the total deployed effort by the regulated beamers (3a) and unregulated beamers amount to 17% and 1% respectively (Table 5.8.6.1.1).

Table 5.8.6.1.1 Western Channel: (A part 1) total fishing effort for countries with Fully Documented Fisheries (FDF, REM/CCTV), (B) FDF (REM/CCTV) nominal fishing effort (kW*days) and (A part 2, C) the percentage of total effort attributable to FDFs for 2012

Table A, part 1

COUNTRY	GEAR	2012
ENG	3a	2474852
	3b	113947
	BEAM	1587
	DEM_SEINE	95175
	DREDGE	1745440
	GILL	33495
	LONGLINE	35542
	OTTER	1415239
	PEL_SEINE	
	PEL_TRAWL	551025
	POTS	625564
	TRAMMEL	20336
	none	
ENG Total		7112202

Table B

COUNTRY	GEAR	2012
ENG	3a	537367
	3b	
	BEAM	251
	DEM_SEINE	
	DREDGE	
	GILL	
	LONGLINE	
	OTTER	
	PEL_SEINE	
	PEL_TRAWL	
	POTS	
	TRAMMEL	
	none	
ENG Total		537618

Table C

2012
21.7%
0.0%
15.8%
0.0%
0.0%
0.0%
0.0%
0.0%
0.0%
0.0%
0.0%
0.0%
0.0%
7.6%

Table A, part 2
Effort of all contries by gear

GEAR	2012
3a	3161329
3b	416135
BEAM	23258
DEM_SEINE	453211
DREDGE	4292450
GILL	507914
LONGLINE	237950
OTTER	7718110
PEL_SEINE	395244
PEL_TRAWL	2449951
POTS	2252751
TRAMMEL	541891
none	
Grand Total	22450194

Table B

GEAR	2012
3a	537367
3b	
BEAM	251
DEM_SEINE	
DREDGE	
GILL	
LONGLINE	
OTTER	
PEL_SEINE	
PEL_TRAWL	
POTS	
TRAMMEL	
none	
Grand Total	537618

Table C

2012
17.0%
0.0%
1.1%
0.0%
0.0%
0.0%
0.0%
0.0%
0.0%
0.0%
0.0%
0.0%
0.0%
2.4%

5.8.6.2 Catches (landings and discards) of sole and other species taken by FDF fisheries by Member State and fisheries in comparison with fisheries not working under FDF provisions

Only England had vessels operating under an FDF fisheries for the first time in 2012. The landings obligation only applied to sole. Catches of sole accounted for 27% in the regulated beam trawls (3a) and for 36% in the unregulated beamers (Table 5.8.6.2.1). The catches of sole from to FDF fisheries to the total international catches of the 3a regulated gears and the unregulated beamers amount for 23% and 28% respectively (Table 5.8.6.2.1). This FDF fisheries also catches 11% of the total catches of plaice, 11% of turbot, 10% of anglerfish and 5% of megrim. Other species separately, represent less than 3% of total catches in this area.

Table 5.8.6.2.1 Western Channel: (A part 1) total catches for sole for countries with Fully Documented Fisheries (FDF, REM/CCTV) (B) catches (tonnes), and (A part 2, C) the percentage of catches attributed to FDFs for 2012.

Table A, part 1

COUNTRY	GEAR	2012
ENG	3a	408
	3b	8
	BEAM	0.245
	DEM_SEINE	0
	DREDGE	21
	GILL	0
	LONGLINE	0
	OTTER	23
	PEL_SEINE	0
	PEL_TRAWL	0
	POTS	0
	TRAMMEL	0
	none	0
ENG Total		460

Table B

COUNTRY	GEAR	2012
ENG	3a	110
	3b	
	BEAM	0.089
	DEM_SEINE	
	DREDGE	
	GILL	
	LONGLINE	
	OTTER	
	PEL_SEINE	
	PEL_TRAWL	
	POTS	
	TRAMMEL	
	none	
ENG Total		110

Table C

2012
26.9%
0.0%
36.3%
0.0%
0.0%
0.0%
0.0%
0.0%
0.0%
0.0%
0.0%
0.0%
0.0%
23.9%

Table A, part 2
Sole catches of all contries by gear

GEAR	2012
3a	478
3b	42
BEAM	0.315
DEM_SEINE	0
DREDGE	30
GILL	1
LONGLINE	0
OTTER	153
PEL_SEINE	0
PEL_TRAWL	1
POTS	3
TRAMMEL	1
none	0
Grand Total	710

Table B

GEAR	2012
3a	110
3b	
BEAM	0.089
DEM_SEINE	
DREDGE	
GILL	
LONGLINE	
OTTER	
PEL_SEINE	
PEL_TRAWL	
POTS	
TRAMMEL	
none	
Grand Total	110

Table C

2012
22.9%
0.0%
28.3%
0.0%
0.0%
0.0%
0.0%
0.0%
0.0%
0.0%
0.0%
0.0%
0.0%
15.5%

5.8.6.3 Comparative analysis of sole selectivity by FDF fisheries and non-FDF fisheries

STECF EWG 13-13 was unable to address this ToR due to the unavailability of the necessary information.

5.8.7 ToR 4 Spatio-temporal patterns in effective effort by fisheries

Figure 5.8.7.1 shows the spatial distribution of the effective fishing effort for beam trawl fleets with mesh size ≥80mm (3a) during the period 2003 to 2012. The pattern seems similar for the whole period with higher effort deployed south of Devon.

Figure 5.8.7.2 shows the spatial distribution of the effective fishing effort for static nets with mesh size <220mm (3b) during the period 2003 to 2012. The fishing effort pattern is rather homogeneous over the whole VIIe area and full time series with occasional higher densities of activities along the most southern point of the English coast and off the French coast from Saint-Malo.

Figure 5.8.7.3 shows the spatial distribution of the effective fishing effort for the unregulated beam trawl fleet with no mesh size provided or mesh size < 80mm during the period 2003 to 2012. Since 2008, the effort which was predominantly deployed on the English coast and the French coast north of Cherbourg, has substantially decreased in all rectangles and is now more evenly spread over the whole area.

Figure 5.8.7.4 shows the spatial distribution of the effective fishing effort for the unregulated demersal seine during the period 2003 to 2012. The years 2003 and 2004 only indicate activities in 1 rectangle. Since 2005 most effort deployed in the same rectangles off the English coast with a substantial increase in the last 4 years, especially south of Dorcet up to the French coast.

Figure 5.8.7.5 shows the spatial distribution of the effective fishing effort for the unregulated dredges during the period 2003 to 2012. Most effort deployed off the English coast and off the coast of Saint Malo.

Figure 5.8.7.6 shows the spatial distribution of the effective fishing effort for the unregulated gill nets during the period 2003 to 2012. A similar pattern appears apparent of effort deployment for all years over almost the whole VIIe area, with higher concentrations on the most southern part of the English coast and off the coast of Saint-Malo. In 2010, 2011 and 2012 they appear to be less effort deployed along the French coast.

Figure 5.8.7.7 shows the spatial distribution of the effective fishing effort for the unregulated longlines during the period 2003 to 2012. Again, a similar pattern appears apparent of effort deployment for all years over almost the whole VIIe area, with the highest concentrations along the English coast off Brixham.

Figure 5.8.7.8 shows the spatial distribution of the effective fishing effort for the unregulated otter trawls during the period 2003 to 2012. From 2003 until 2012 a similar pattern appears apparent of effort deployment over almost the whole VIIe area with higher concentrations along the English coast and off the coast of Saint Malo.

Figure 5.8.7.9 shows the spatial distribution of the effective fishing effort for the unregulated pelagic seine during the period 2003 to 2012. Very sparse patches of effort deployment, predominantly along the French coast off Brest until 2009. Since then a more widely effort spread over the whole VIIe area with even higher concentrations off the French coast at Brest.

Figure 5.8.7.10 shows the spatial distribution of the effective fishing effort for the unregulated pelagic trawls during the period 2003 to 2012. A similar pattern appears apparent of effort deployment for all years over almost the whole VIIe area, with the highest concentrations on the English coast off Brixham.

Figure 5.8.7.11 shows the spatial distribution of the effective fishing effort for the unregulated pots during the period 2003 to 2012. A similar pattern appears apparent of effort deployment for all years, predominantly along the English coast and the French coast off Saint Malo.

Figure 5.8.7.12 shows the spatial distribution of the effective fishing effort for the unregulated trammel nets during the period 2003 to 2012. A similar pattern appears apparent of effort deployment for all years, with the highest concentrations predominantly off the French coast.

Figure 5.8.7.13 shows the spatial distribution of the effective fishing effort for the unregulated gear ("none-none"), gears without mesh size given during the period 2003 to 2012.A similar pattern of effort deployment for all years, predominantly off the French coast with some relatively higher values. For 2011 very high effort was deployed along the French coast and particularly off Brest. STECF notes that these relative high values only represent a very small amount of the total effort deployed in VIIe.

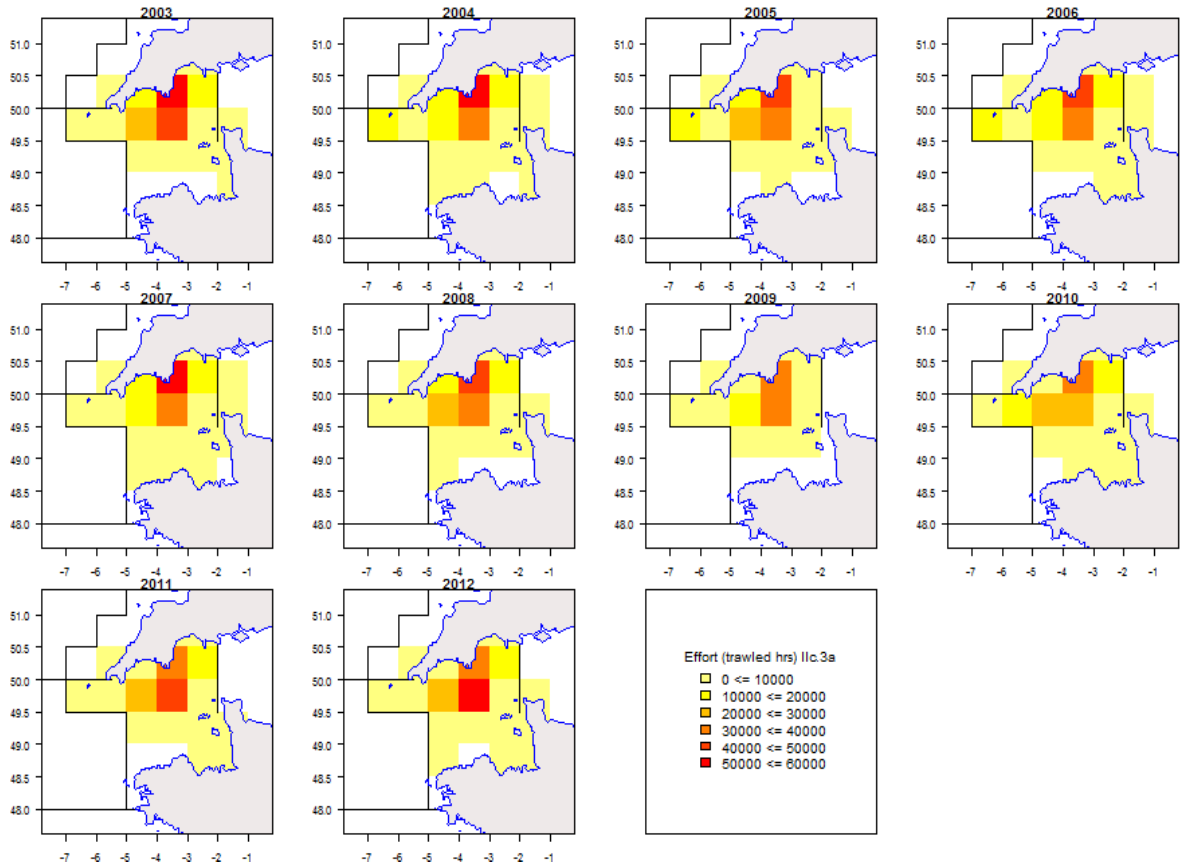


Figure 5.8.7.1. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for the Beam trawl fleet with mesh size ≥80 mm(3a), 2003-2012.

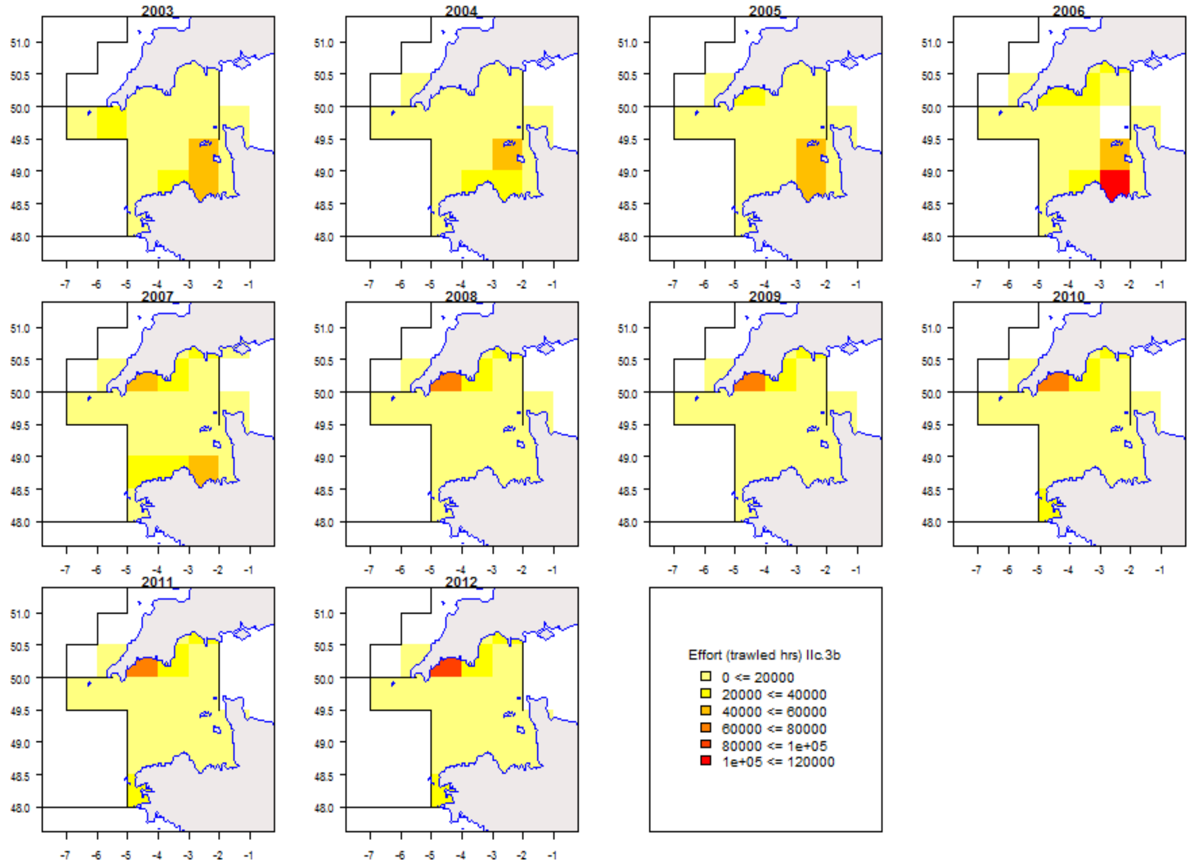


Figure 5.8.7.2. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for static nets with mesh size <220mm (3b), 2003-2012.

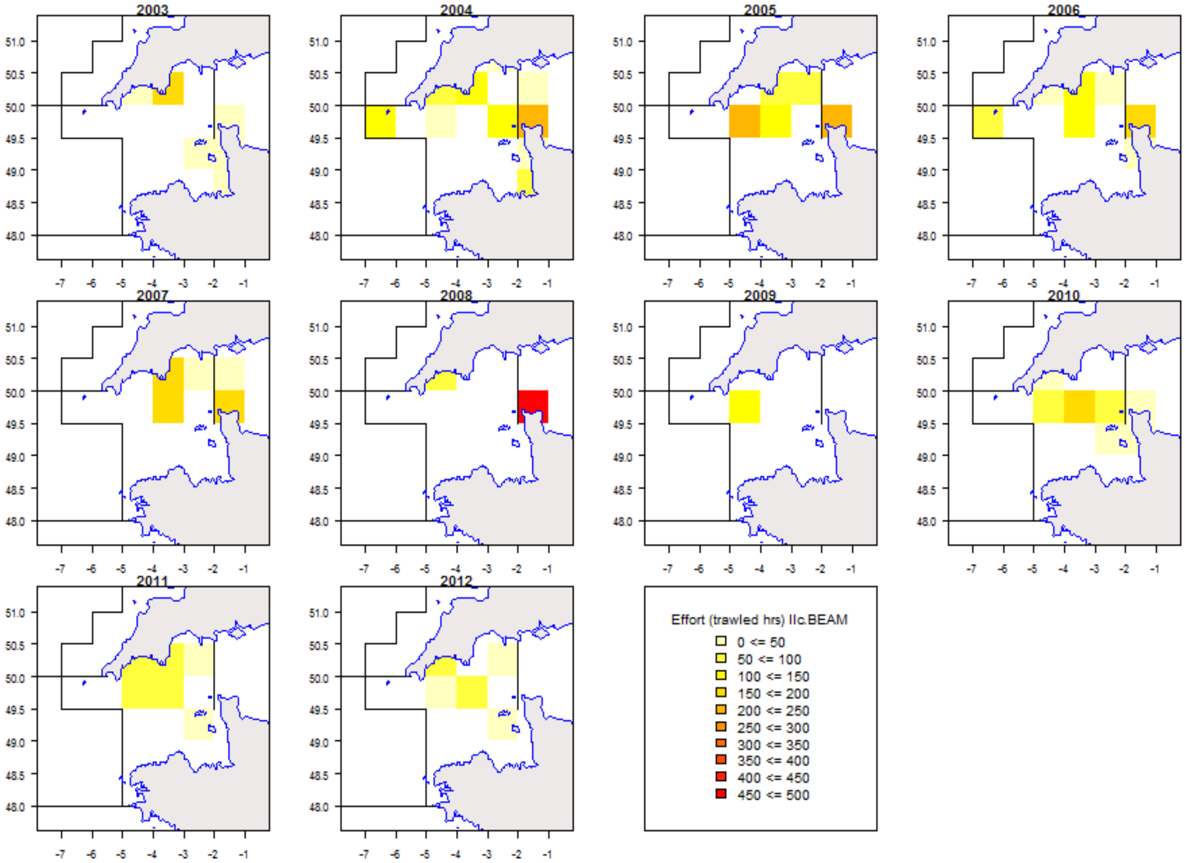


Figure 5.8.7.3. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Beam trawl fleet with no mesh size provided or mesh size <80 mm, 2003-2012.

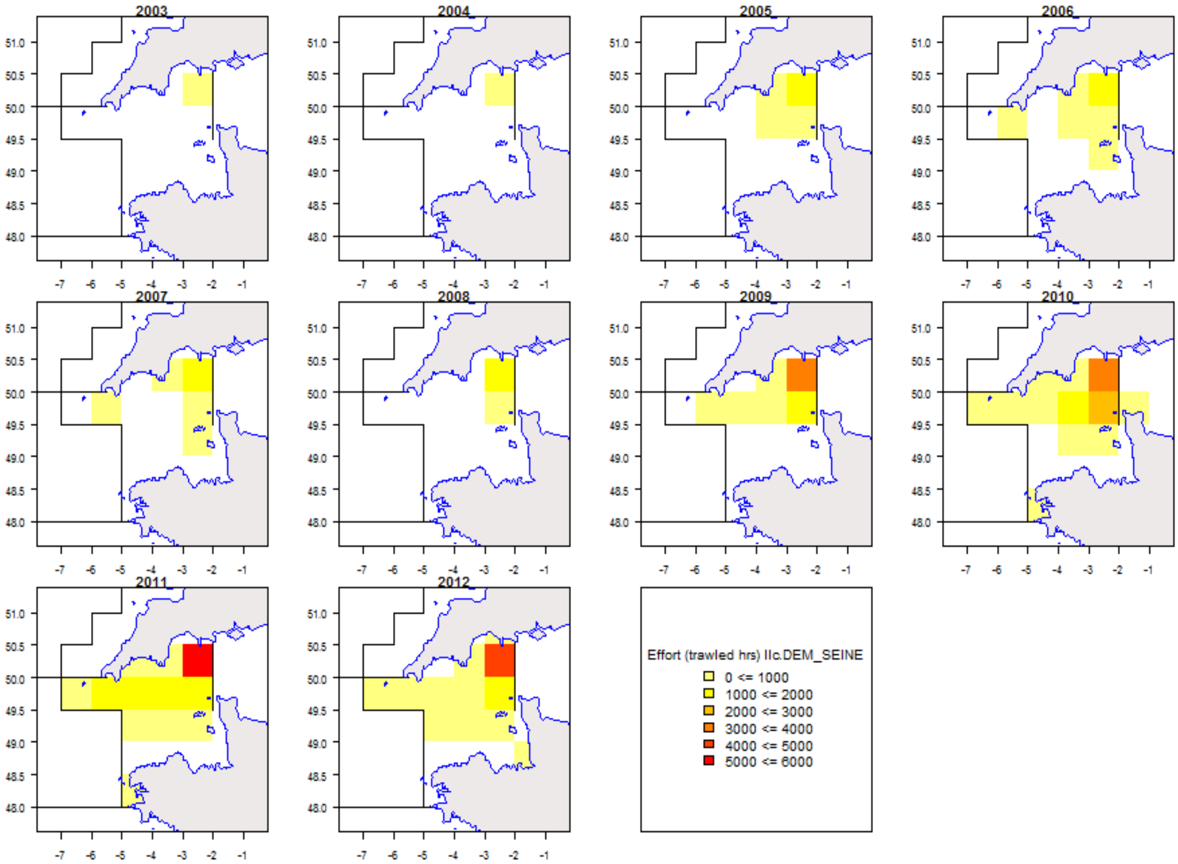


Figure 5.8.7.4. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Demersal Seine, 2003-2012.

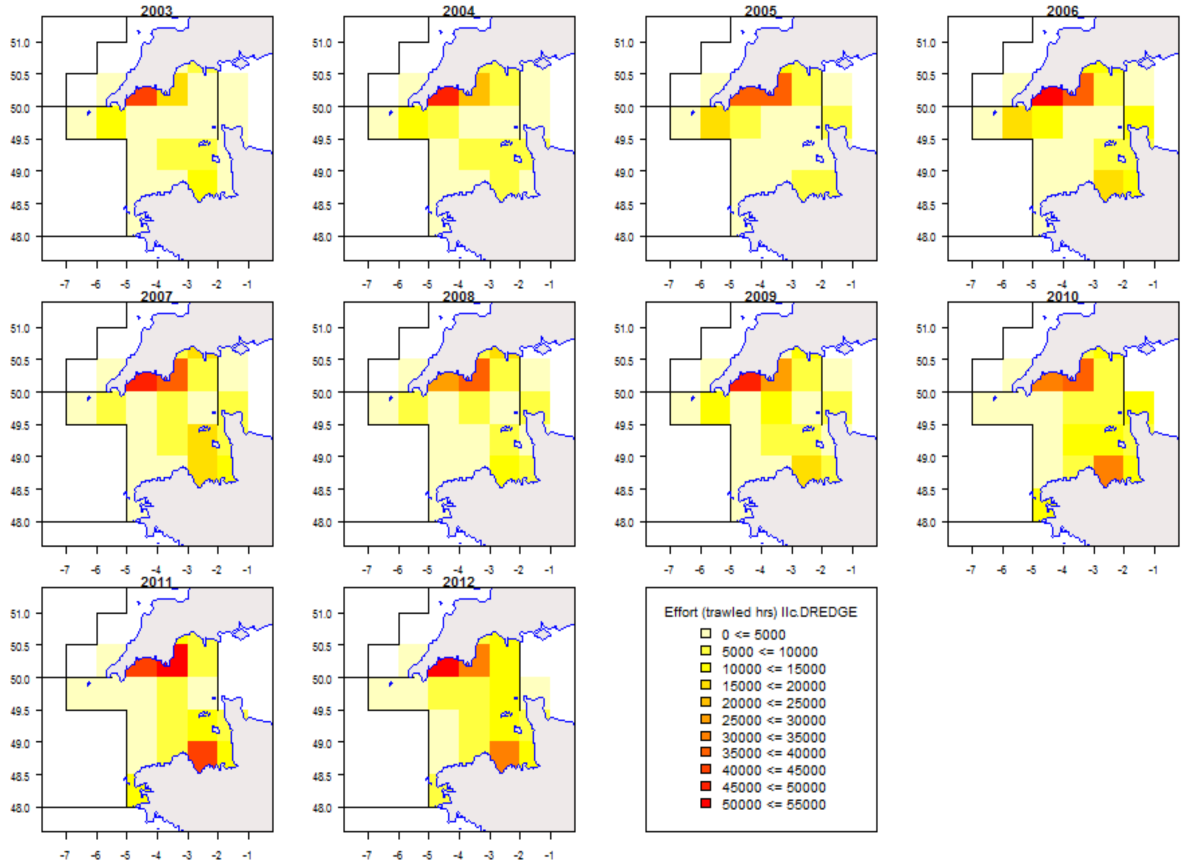


Figure 5.8.7.5. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Dredges, 2003-2012.

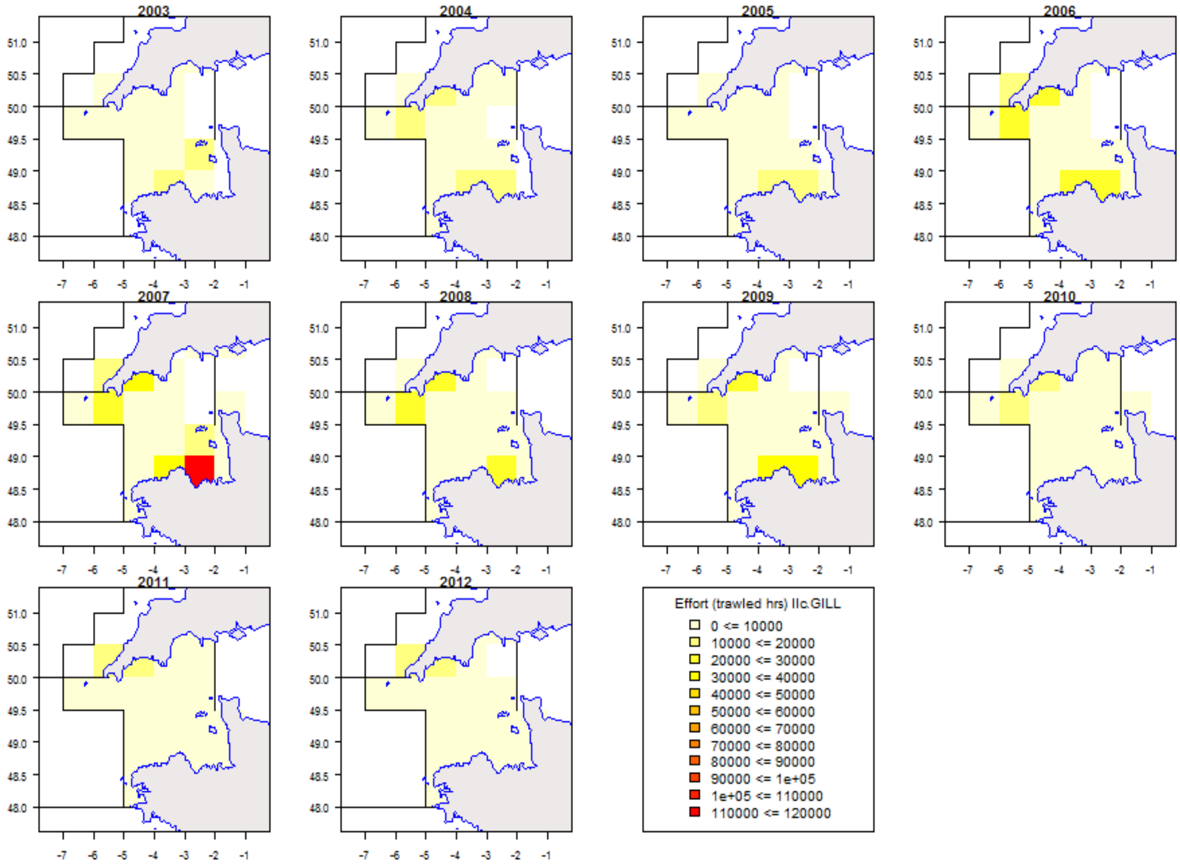


Figure 5.8.7.6. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Gill nets, 2003-2012.

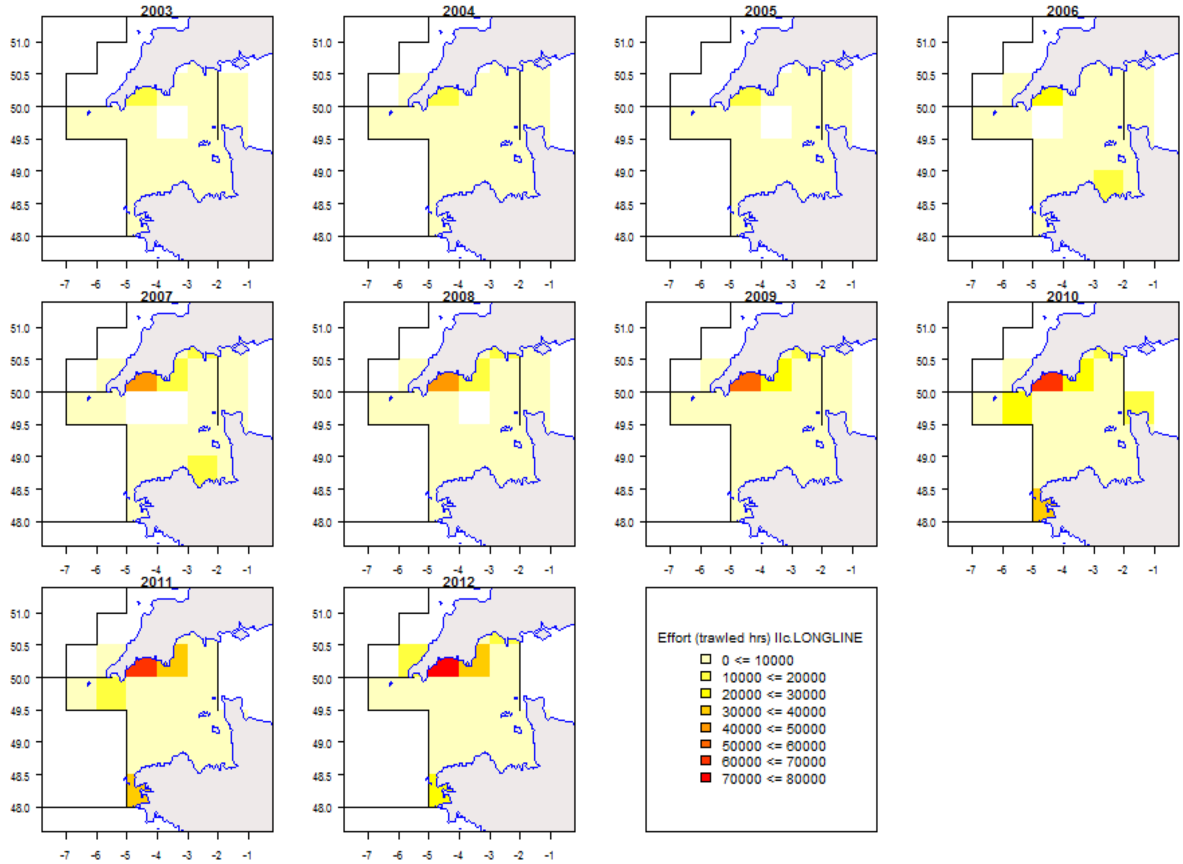


Figure 5.8.7.7. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Longlines, 2003-2012.

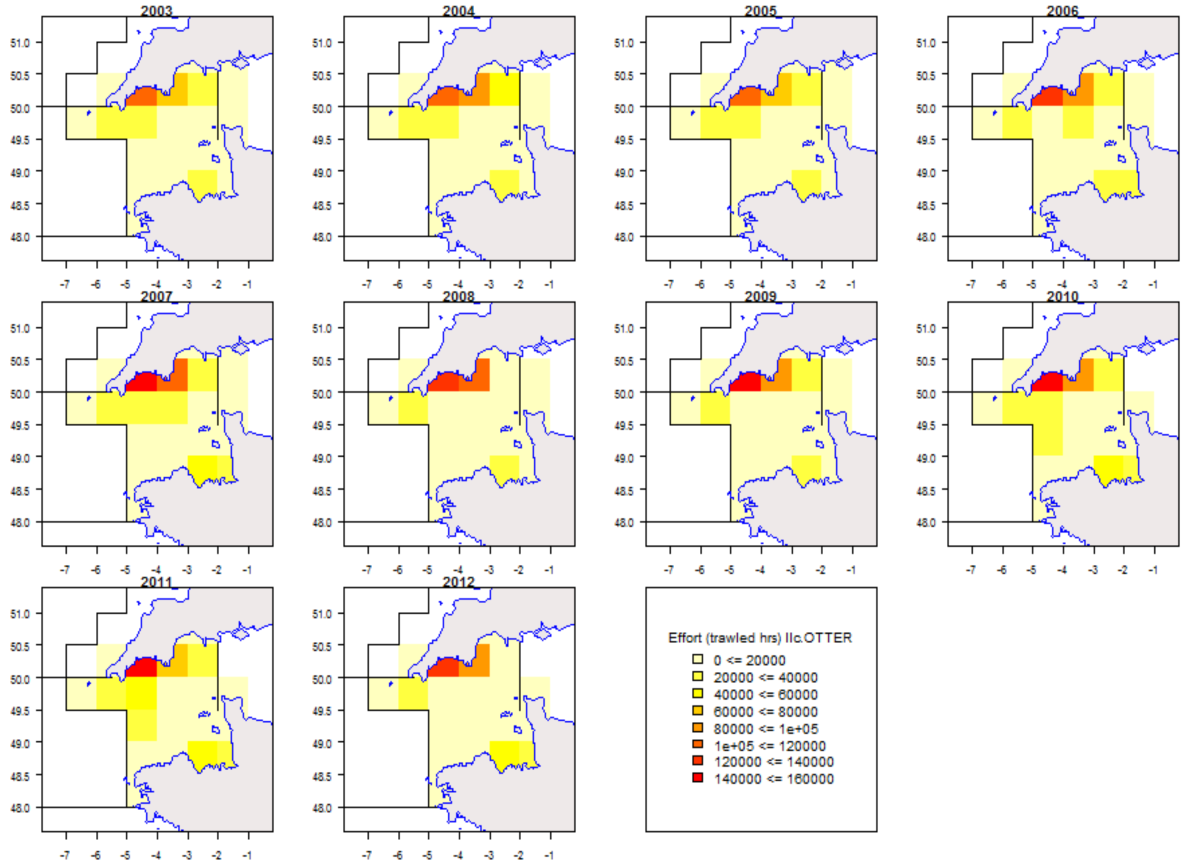


Figure 5.8.7.8. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Otter Trawl, 2003-2012.

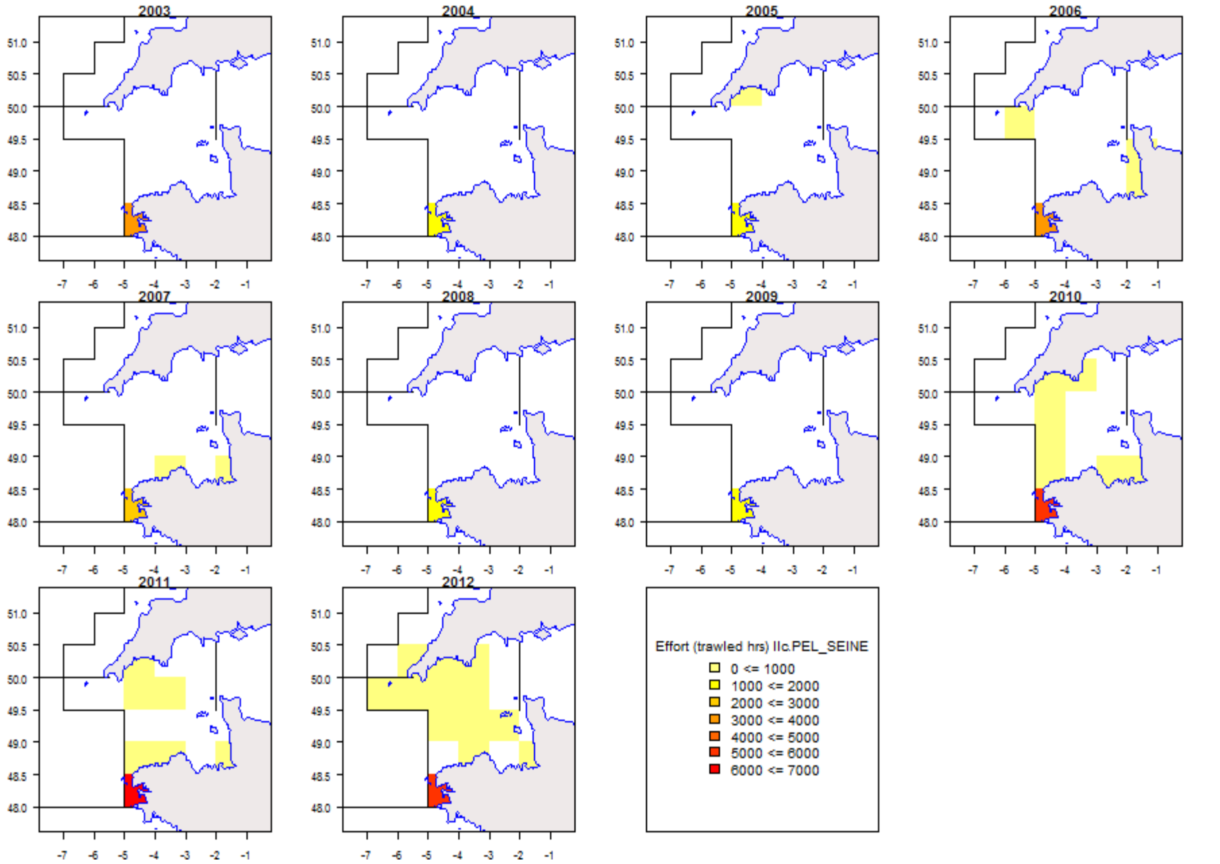


Figure 5.8.7.9. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Pelagic Seine, 2003-2012.

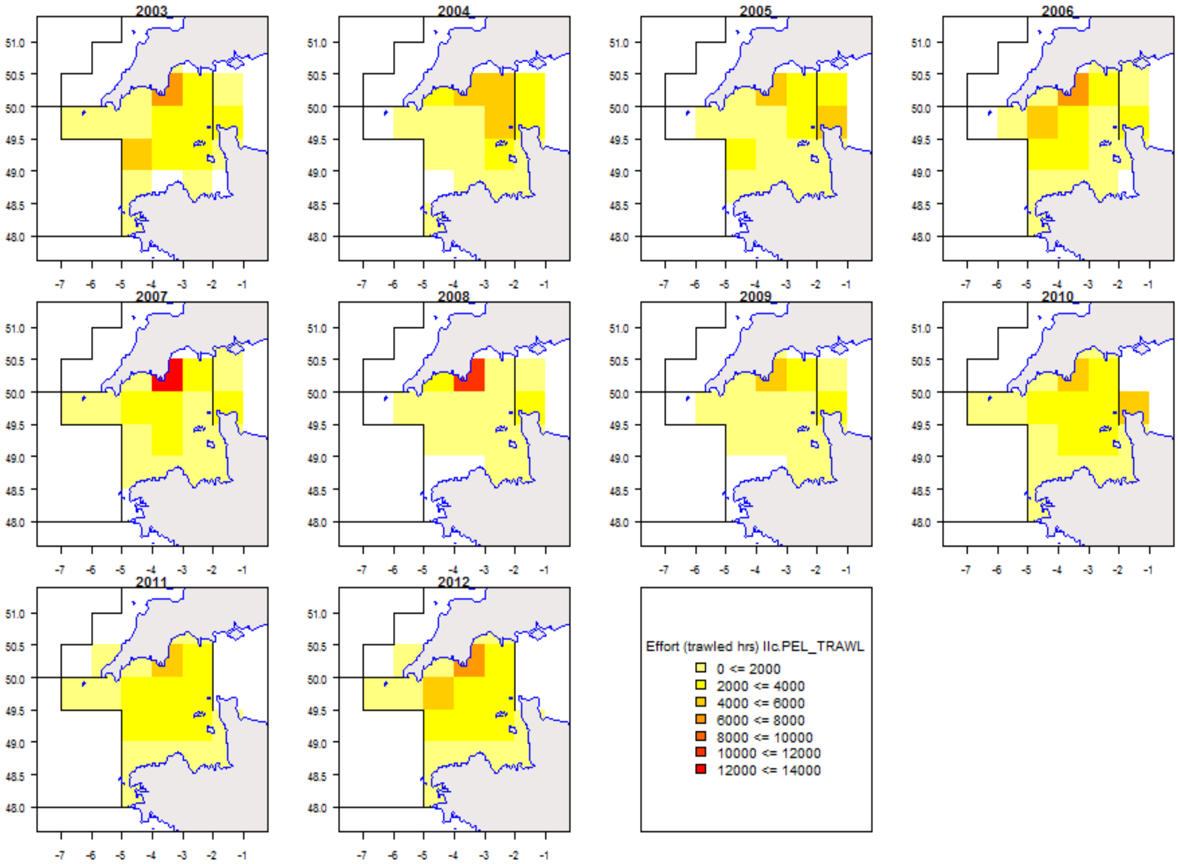


Figure 5.8.7.10. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Pelagic Trawl, 2003-2012.

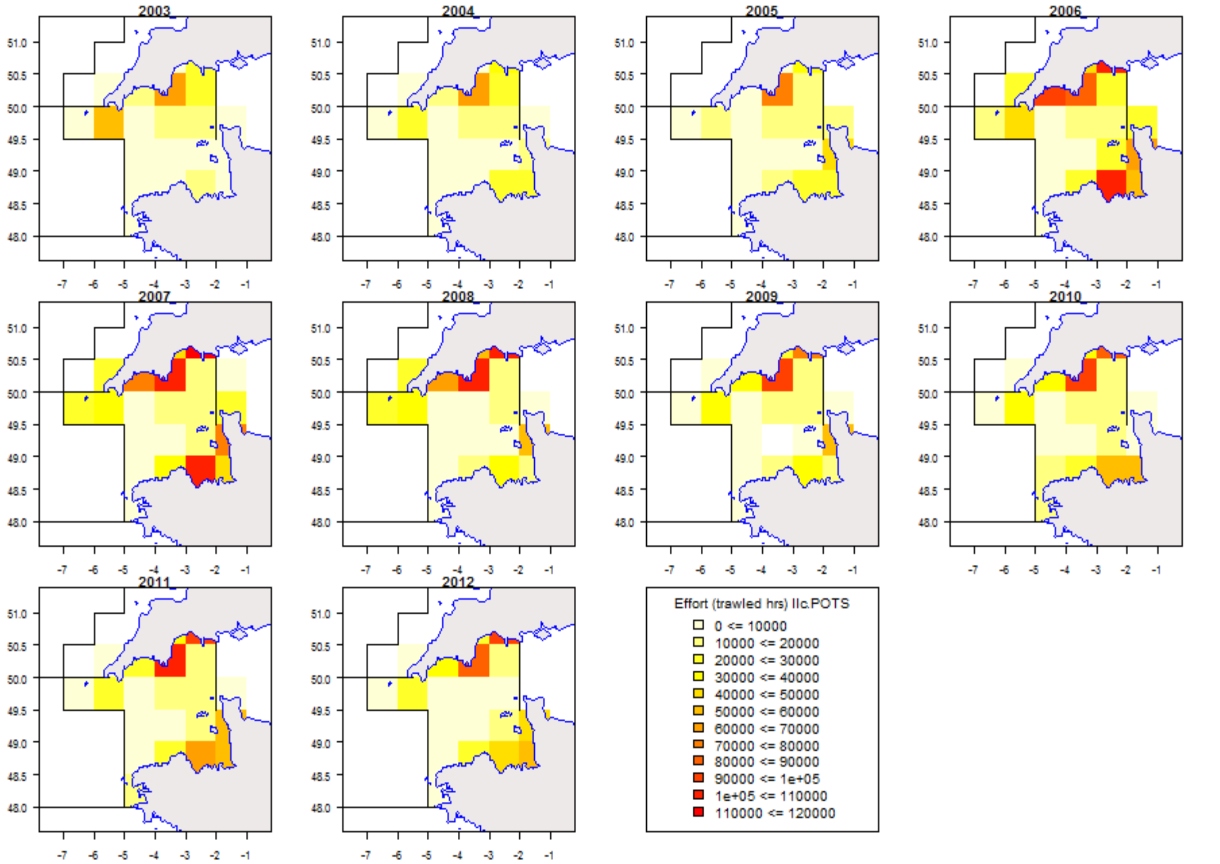


Figure 5.8.7.11. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Pots, 2003-2012.

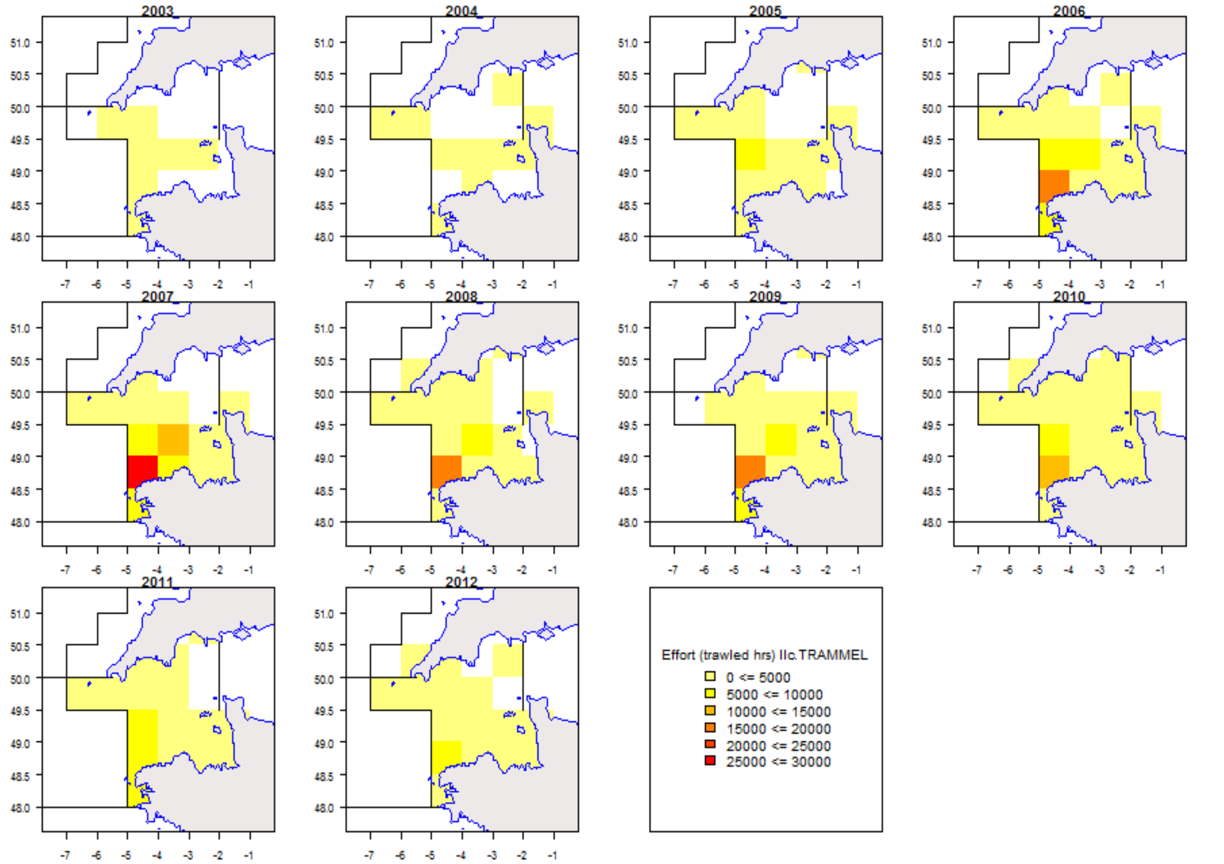


Figure 5.8.7.12. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Trammel nets, 2003-2012.

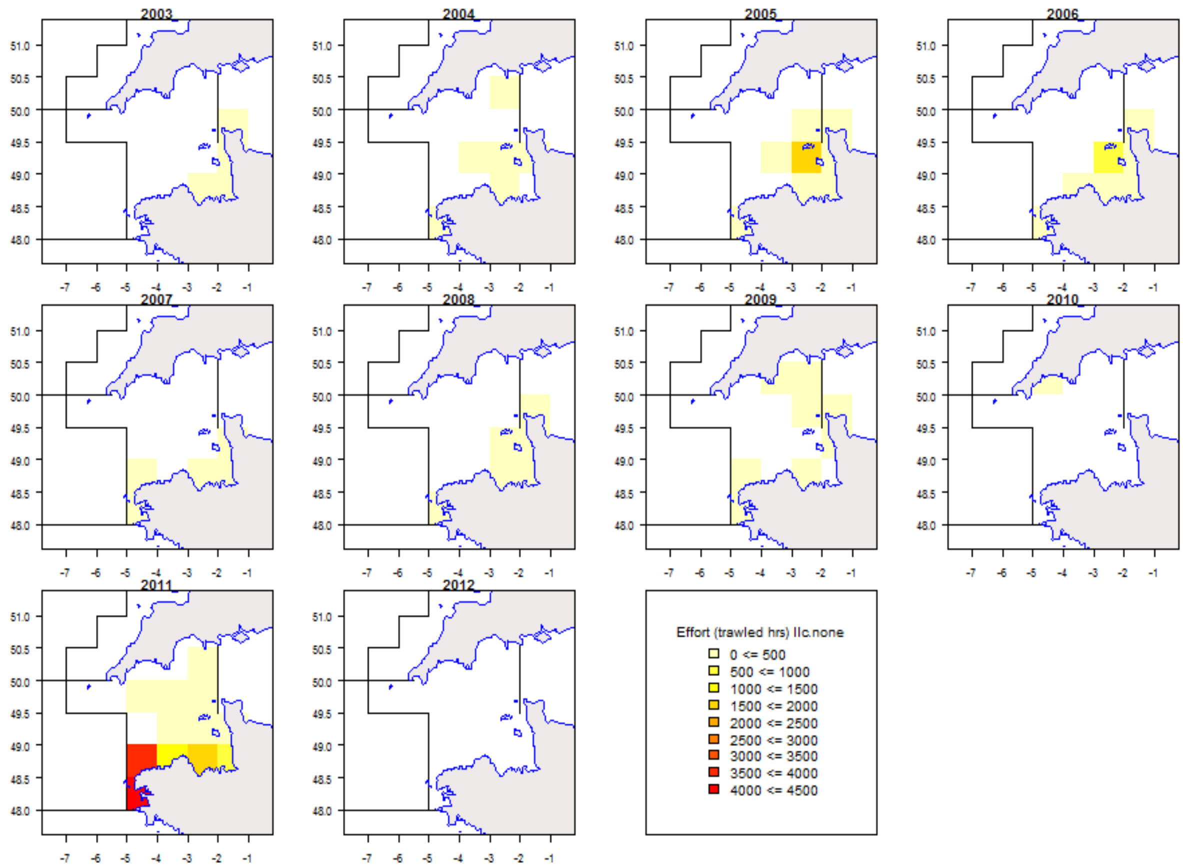


Figure 5.8.7.13. Western Channel. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for None ("none-none"), gears without mesh size given, 2003-2012.

5.8.8 ToR 5 Trend in calculated maximum effort of regulated gears and uptake by Member State

Table 5.8.8.1 lists the effort in units of days at sea estimated for the effort regulated and non effort regulated fisheries by Member State. Although, the time series is only considered complete for the three most recent years 2010 to 2012 (data from the French fisheries is only available for the last 3 years), there is information from English and the Belgian regulated beam trawl fleet (3a) and from English regulated static gear (3b) since 2005.

Unlike the situation in the Baltic, the definitions of few fisheries and specific days at sea allocations to them allow the assessment of the effort uptake from the numbers of boats using effort regulated gears, assuming no major changes in gears used. Multiple counting of vessels (overestimation) is implied from vessels using more than one regulated gear. The maximum numbers of days available for such fisheries, i.e. the maximum days at sea per vessel multiplied with the number of vessels, are also given in the Table 5.8.8.1. EWG-13-13 would like to note that the UK has developed a "Days at Sea Scheme" where extra days can be claimed. The EU COM informed EWG-13-13 that in 2011, 42 extra days were requested and obtained by the UK(English) regulated beam trawl fleet (3a) mounting up to a total days at sea of 206 days for 2011. Therefore the “max-days” in 2011 is not 7216 (164 days x 44 vessels) but 9064 (206 days x 44 vessels) and thus the %-used is not 79% but 63%. In 2013, UK has put forward a new request for 43 extra days for their beam trawl fleet (3a). France requested 11 extra days for their beam trawl fleet (3a) and 14 extra days for their static gear (3b). Both member states have been granted their request for 2013.

For the regulated beam trawl fleet (3a), the English series indicate an increasing uptake (47% - 95%) over time whereas the Belgian and the French regulated beam trawl fleet show a stable uptake on a low (around 10%) and high level (around 65%) respectively. The English regulated static gear (3b) show a slight increase (20%-40%) over time whereas the French regulated static gear show a stable uptake around 50%.

Table 5.8.8.1 Western Channel - Trend in days at sea by existing derogations given in Table 1 of Annex IIC (Coun. Reg. 43/2012) and Member State, 2004-2012. Maximum days at sea are calculated from number of vessels multiplied with the maximum days allowed per vessel. Derogations are sorted by gear, special condition (SPECON), and country. Data qualities are summarised in Section 4 of the report.

* = special derogation for UK-3a gear in 2011 obtaining 206 days instead of the basic 164 days.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY		2004	2005	2006	2007	2008	2009	2010	2011	2012
7e	3a	none	BEL	Vessel	57	67	58	55	49	44	31	33	37
				max-days		16080	12528	10560	9408	8448	5084	5412	6068
				days-used			670	810	542	174	342	521	534
				% used			0.05	0.08	0.06	0.02	0.07	0.10	0.09
7e	3a	none	ENG	Vessel	62	53	51	53	47	43	38	44	43
				max-days		12720	11016	10176	9024	8256	6232	9064*	7052
				days-used	6026	5960	6065	6167	6175	4769	5070	5687	6675
				% used		0.47	0.55	0.61	0.68	0.58	0.81	0.63*	0.95
7e	3a	none	FRA	Vessel	12	13	20	15	11	10	13	8	6
				max-days							2132	1312	984
				days-used							1271	914	606
				% used							0.60	0.70	0.62
7e	3a	none	GBJ	Vessel	4	2							
				max-days		480							
				days-used	333	174							
				% used		0.36							
7e	**3a Total**	**none**		**Vessel**	**135**	**135**	**129**	**123**	**107**	**97**	**82**	**85**	**86**
				max-days	**0**	**29280**	**23544**	**20736**	**18432**	**16704**	**13448**	**15788**	**14104**
				days-used	**6359**	**6134**	**6735**	**6977**	**6717**	**4943**	**6683**	**7122**	**7815**
				% used							**0.50**	**0.45**	**0.55**
7e	3b	none	ENG	Vessel	21	17	17	14	12	13	12	12	11
				max-days		4080	3672	2688	2304	2496	1968	1968	1804
				days-used	1211	1047	844	584	566	646	618	752	721
				% used		0.26	0.23	0.22	0.25	0.26	0.31	0.38	0.40
7e	3b	none	FRA	Vessel	68	62	77	48	34	34	22	22	25
				max-days							3608	3608	4100
				days-used							1830	1780	1951
				% used							0.51	0.49	0.48
7e	**3b Total**	**none**		**Vessel**	**89**	**79**	**94**	**62**	**46**	**47**	**34**	**34**	**36**
				max-days	**0**	**4080**	**3672**	**2688**	**2304**	**2496**	**5576**	**5576**	**5904**
				days-used	**1211**	**1047**	**844**	**584**	**566**	**646**	**2448**	**2532**	**2672**
				% used							0.44	0.45	0.45
7e	none	none	BEL	Vessel	3	6	7	6	12	28	23	20	22
				days-used						20			
7e	none	none	DEU	Vessel	4	3	3		2	1	3	1	2
				days-used						4	34	12	46
7e	none	none	DNK	Vessel	1	4	8	1	1	1	1		1
				days-used	2	40	123	32	27	6	30		24
7e	none	none	ENG	Vessel	178	162	170	175	174	156	154	158	158
				days-used	19227	19410	18298	18693	16610	17383	17797	18402	17213
7e	none	none	ESP	Vessel									5
				days-used									135
7e	none	none	FRA	Vessel	837	943	1114	1259	868	1022	688	654	642
				days-used							52225	54427	51683
7e	none	none	GBG	Vessel	1	2	4	5	4	3	3	2	3
				days-used	226	172	152	245	100	121	277	180	229
7e	none	none	GBJ	Vessel	1	1	1	1	1	1	2	3	1
				days-used	2	27	88	139	117	140	173	191	62
7e	none	none	IOM	Vessel			1	1	2				1
				days-used			53	3	4				56
7e	none	none	IRL	Vessel	13	5	1	3	2	2	1	2	3
				days-used									
7e	none	none	LTU	Vessel						1		1	
				days-used									
7e	none	none	NIR	Vessel	1						1		
				days-used	7						1		
7e	none	none	NLD	Vessel	15	13	13	19	15	18	16	17	15
				days-used								468	433
7e	none	none	SCO	Vessel	23	14	21	16	15	18	18	19	18
				days-used									
7e	**none Total**	**none**		**Vessel**	**1077**	**1153**	**1343**	**1486**	**1096**	**1251**	**910**	**877**	**871**
				days-used	**19464**	**19649**	**18714**	**19112**	**16858**	**17674**	**70537**	**73680**	**69881**
				Vessel	**1301**	**1367**	**1566**	**1671**	**1249**	**1395**	**1026**	**996**	**993**
7e	**Grand Total**	**none**		**days-used**	**27034**	**26830**	**26293**	**26673**	**24141**	**23263**	**79668**	**83334**	**80368**

5.8.9 ToR 6 Data quality and any unexpected evolutions of the trends in catches and effort by Member State and fisheries

STECF EWG 13-13 reiterates its observation that a relatively high percentage of sole are landed by non-effort regulated gears.

5.8.10 ToR 7 Correlation between partial sole mortality and fishing effort by Member State and fisheries

The STECF EWG presents partial fishing mortalities by major fisheries and Member States in relation to the estimated fishing mortality by ICES (2013) and the landings volumes in relation to the estimated total landings for the years available. Discards of sole in VIIe are negligible and are not included in the sole VIIe assessment. The full list of all fisheries can be downloaded from the EWG's web page: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

Table 5.8.10.1 lists the fishing mortalities anticipated from the management plan as well as those estimated by ICES 2013. It can be concluded from the estimated F that the stock is sustainably exploited since 2009 (Fmsy=0.27), assuming that discarding is negligible (less than 1%). Since 2009, the estimated partial Fs of the effort regulated gear groups contributed about 60% to the overall fishing mortality. The remainder is then contributed by other gear groups, not regulated by fishing effort and additional unallocated removals considered by ICES. The presented parameters r (absolute value of Pearson's coefficient of correlation), numbers of points considered, as well as a p value to quantify the statistical significance (≤ 0.05) allow conclusions about the quality of the correlation between the partial F and fisheries specific fishing effort.

Figure 5.8.10.1 shows the correlation between the partial F's and the effort for the main fisheries, using the full time series available (2003-2012). It was noted however that for 2003 and 2004, the DCF data do represent only about 50% of the landings reported to ICES (basis for the partial F's) and therefore should not be taken into account in the regression evaluation. As the adjustments to the ICES data in those years were predominantly done for the English beam trawl fleet (3a), catching most of the sole, it is not surprising that these two data years appear as outliers for the English beam trawl fleet (ENG 3a). Therefore STECF-EWG decided to exclude the first two years of data for the partial F analysis. Figure 5.8.10.2 shows the correlation between the partial F's and the effort for the main fisheries for the shorter time series 2005-2012. Figure 5.8.10.3 shows the catchability and Figure 5.8.10.4 the time series of the partial F's over the same period for the main fisheries.

STECF EWG 13-13 notes that the correlations between the summed partial Fs for landings of the major fisheries and their estimated fishing efforts are significant for the period 2005-2012 (Table 5.8.10.1). The partial Fs of Belgian and English fisheries using the regulated gear 3a, accounting for about 50% of the landings, are closely correlated with their specific effort estimates in kW*days at sea. Also the unregulated French otter trawl fleet, taking about 17% of the sole landings, has a significant correlation between partial F and kW*days at sea (Figure 5.8.10.2). However for the French regulated beam trawl fisheries (3a), which represent just about 5% of the sole landings, the correlation between F and effort (kW*days) is statistically not significant. The regulated static gear (3b) show a negative regression for the English fleet and a rather high p-value for the French fleet. This indicates that effective fisheries management for sole in ICES Division VIIe by fishing effort in units of kW*days at sea appears possible, also an auxiliary measure to catch constraints and technical measures. Catchability of the main metiers are rather stable apart from the French regulated beam trawl fleet (3a). Since 2008 there appears to be a shift in catchability in the regulated French beam trawl fleet when more vessels between 10-15m were active then vessels over 15m.

STECF EWG 13-06 notes that if a fishing effort regime in the Western Channel is to be maintained, it shall consider an appropriate measure of effective unit of fishing effort to account for vessel size/power and gear effectiveness.

Table 5.8.10.1 Western Channel sole. The left part of the table lists estimated F trajectories from the management plan and the ICES 2013 sole assessment, as well as partial Fs for landings of fisheries using regulated gears. The right part of the table lists the respective trends in fishing effort (kW*days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock.

Runnig previous year annual F reductions by 20 percent until F<=Fmsy=0.27													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan								0.356	0.285	0.270	0.270	0.270	0.270
reduction F plan									-0.20	-0.05	0.00	0.00	0.00
F estimated				0.255	0.304	0.334	0.352	0.356	0.321	0.214	0.208	0.213	0.246
reduction F estimated									-0.10	-0.33	-0.03	0.02	0.15
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BEL	3a	none	landings	0.00019	0.00203	0.00814	0.01106	0.01181	0.00859	0.00476	0.00470	0.00542	0.00902
ENG	3a	none	landings	0.04254	0.03601	0.13284	0.16066	0.14998	0.13183	0.09179	0.08843	0.09302	0.11508
ENG	3b	none	landings	0.00016	0.00026	0.00040	0.00038	0.00179	0.00235	0.00294	0.00091	0.00141	0.00227
FRA	3a	none	landings	0.00142	0.01214	0.00947	0.01055	0.01148	0.01177	0.00972	0.01865	0.01604	0.01079
FRA	3b	none	landings	0.00669	0.01345	0.02247	0.01389	0.01545	0.01354	0.01169	0.00574	0.01169	0.00968
GBJ	3a	none	landings	0.00301	0.00199	0.00613							
IRL	3a	none	landings	0.00016	0.00007		0.00017	0.00074	0.00012				
Sum				0.05417	0.06595	0.17945	0.19671	0.19125	0.16820	0.12090	0.11843	0.12758	0.14684
check sum Fpar/F				0.21	0.22	0.54	0.56	0.54	0.52	0.56	0.57	0.6	0.6

Effort kW days running previous year baseline														
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012				
Effort plan					5218704	4174963	3966215	3966215	3966215	3966215				
						-0.20	-0.05	0.00	0.00	0.00				
Effort estimated	5057647	5845003	5441022	5599174	5218704	4324657	3410663	3328216	3432438	3577464				
							-0.21	-0.02	0.03	0.04				
EFFORT											2005-2012			
kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n	
	211491	633428	689624	628907	837161	584560	358399	383303	514973	554941	0.875	0.004	8	4.427
	3374514	3206806	3227096	3283897	3021075	2871790	2197118	2227991	2318845	2474852	0.943	0.000	8	6.941
	323618	206294	178818	153434	103278	104187	104045	109304	118156	113947	-0.775	0.024	8	-3.004
	45086	317275	261700	289867	320576	146443	138669	303078	200030	131536	0.282	0.499	8	0.720
	956465	1236654	946127	1236595	920004	615534	611990	304540	280434	302188	0.678	0.065	8	2.259
	122867	209969	121139											
	23606	34577	16518	6474	16610	2143	442				0.975	0.005	5	7.600
	5057647	5845003	5441022	5599174	5218704	4324657	3410663	3328216	3432438	3577464	0.957	0.000	8	8.081

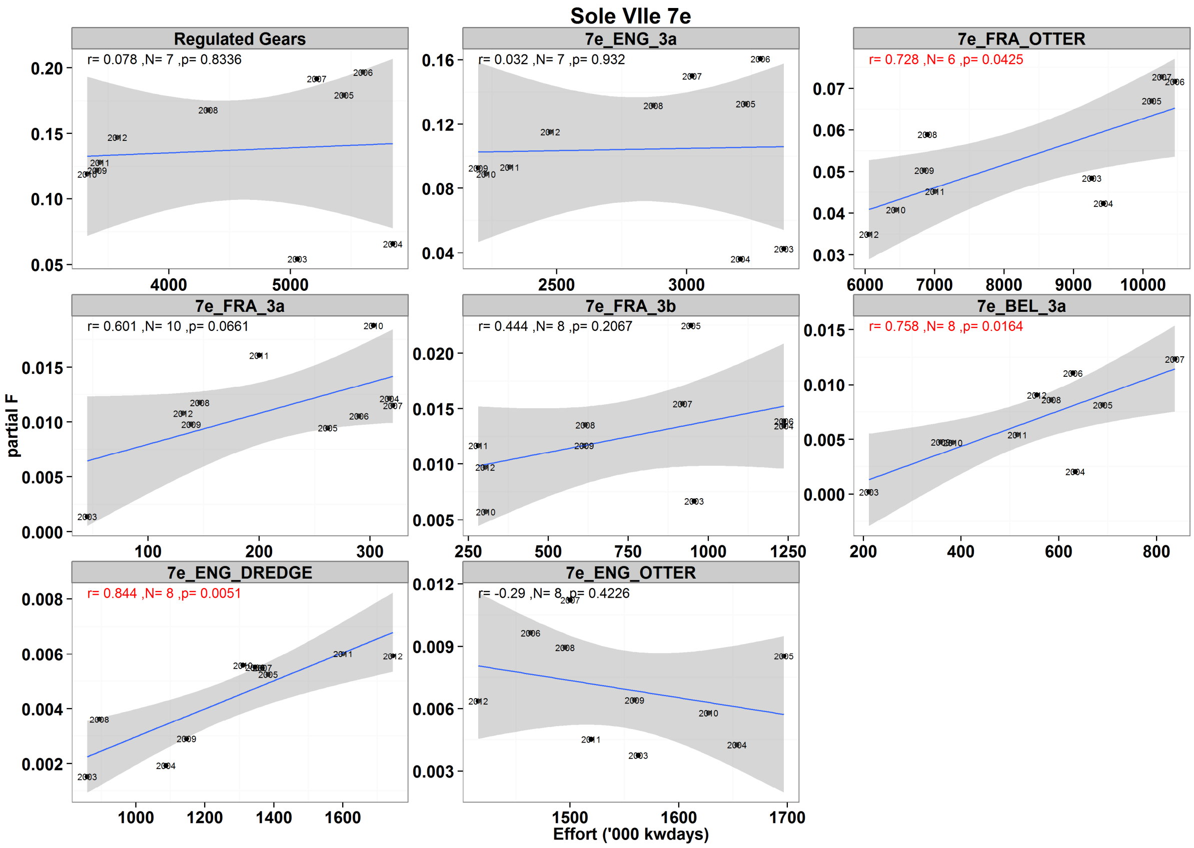


Fig. 5.8.10.1 Western Channel sole. Partial fishing mortality (based on harvest rate estimates) over effort (kW*days) of the major fisheries, 2003-2012.

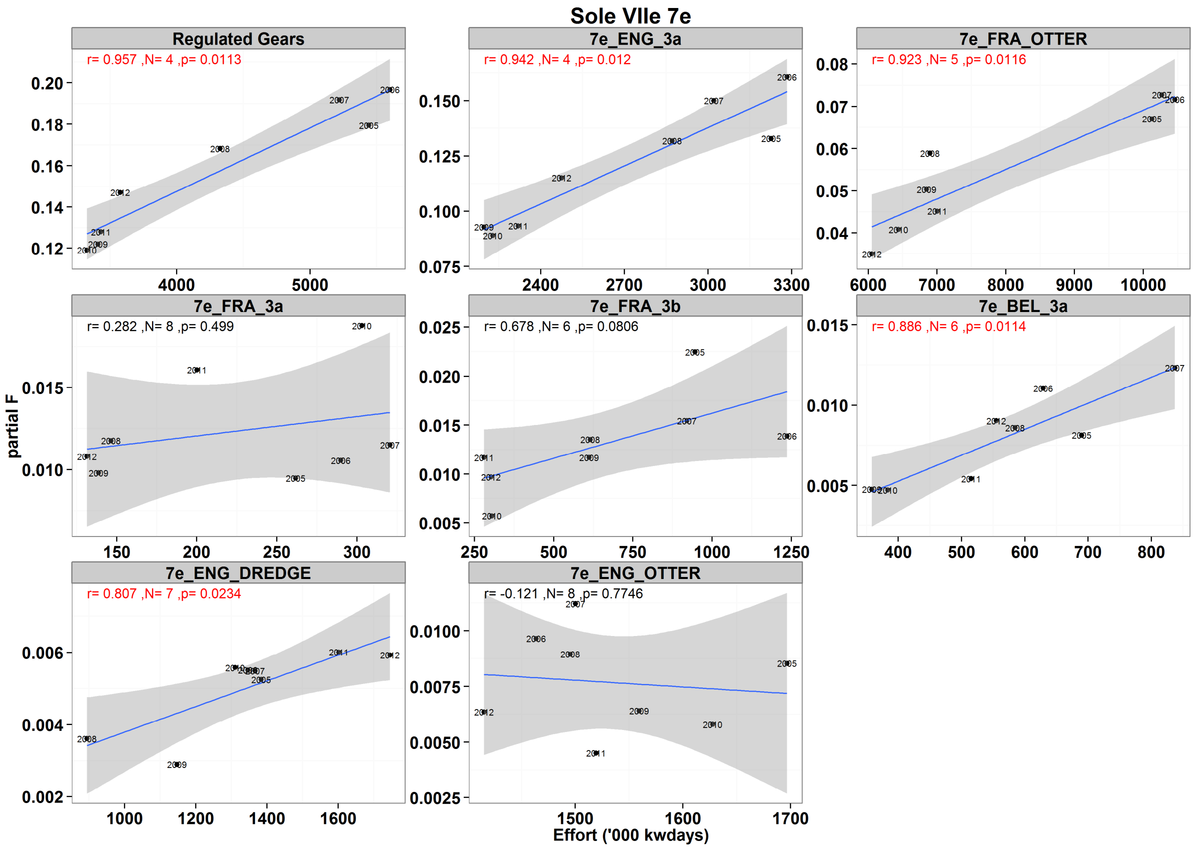


Fig. 5.8.10.2 Western Channel sole. Partial fishing mortality (based on harvest rate estimates) over effort (kW*days) of the major fisheries, 2005-2012.

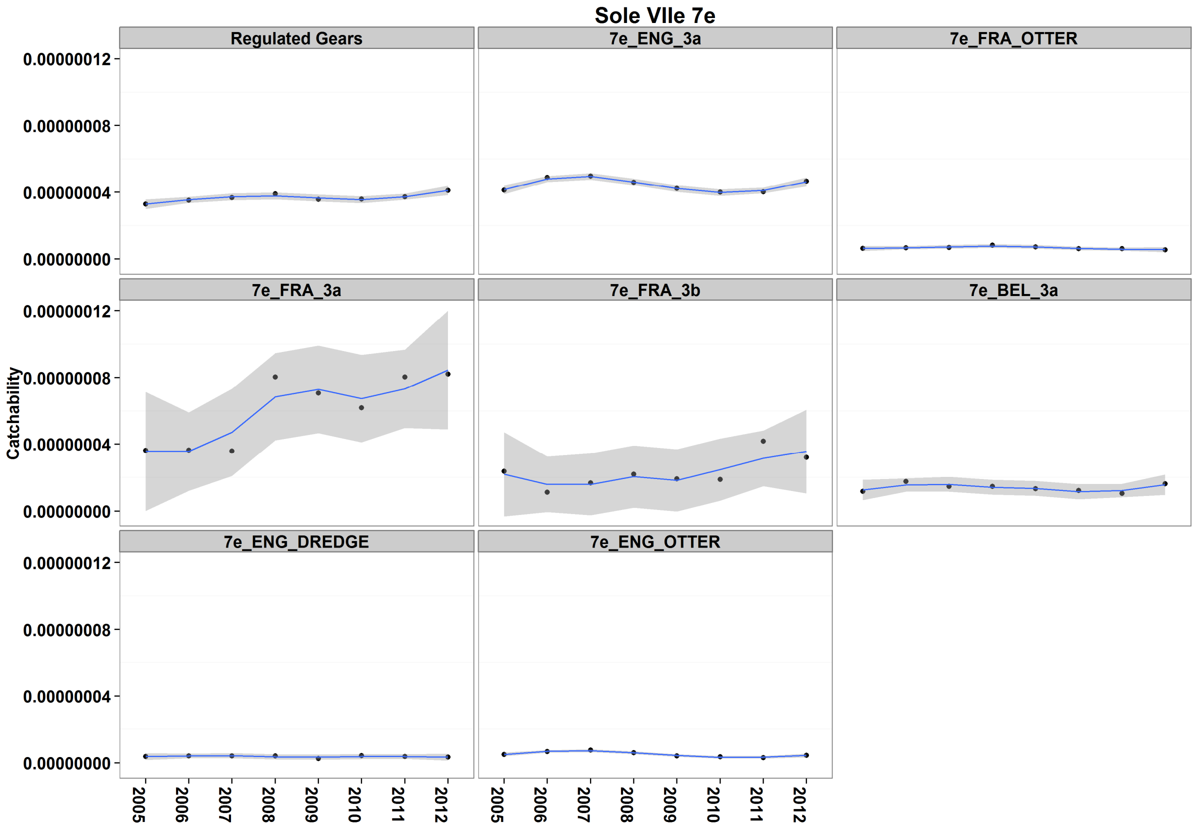


Fig. 5.8.10.3 Western Channel sole. Catchability of the major fisheries, 2005-2012.

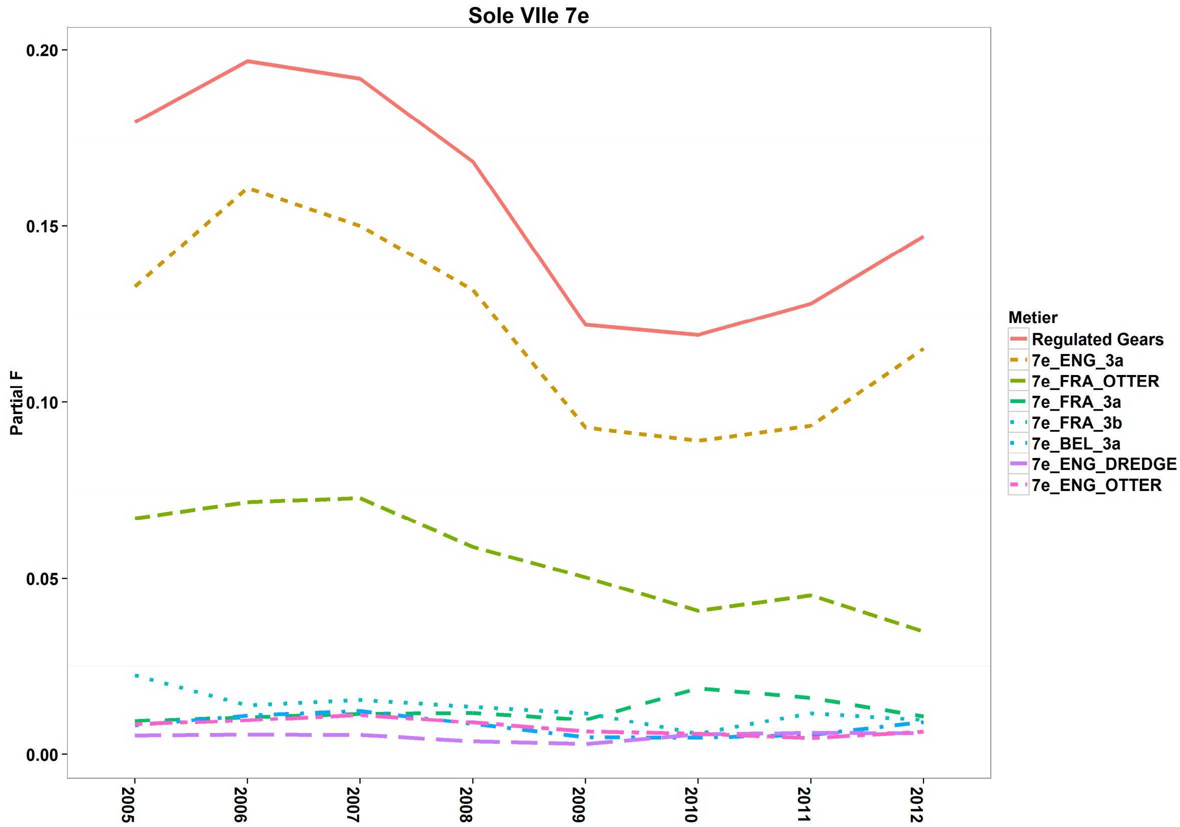


Fig. 5.8.10.4 Western Channel sole. Time series of partial fishing mortalityof major fisheries, 2005-2012.

5.8.11 New ToR to facilitate STECF's management plan evaluation

5.8.11.1 Relationship between fishing mortality or biomass with fishing effort, taking into account partial fishing mortality between fleet segments (including non-regulated)

STECF EWG 13-13 notes that the previous section 5.8.10 elaborates on relationship between the partial fishing mortalities and the effort in kW*days by major fisheries and Member States in relation to the estimated fishing mortality by ICES (2013) for regulated and non-regulated gears.

5.8.11.2 Comparison of different effort units (in particular differences between days-at-sea and kW*days)

Section 5.8.10 elaborates on relationship between the partial fishing mortalities and the effort in kW*days by major fisheries and Member States in relation to the estimated fishing mortality by ICES (2013) for regulated and non-regulated gears.

As explained in section 5.8.10, the 2002 and 2003 data was also excluded from this analysis.

Where time series of days at sea were available for more than 5 years, comparison plots were made for regulated and non-regulated gears by Member States; investigating the relationship between:

1) The partial fishing mortality and the effort in days at sea (left panels)

2) The partial fishing mortality and the effort in kW days at sea (right panels)

Unfortunately all French gear groups were excluded from this comparison as only 3 years of days at sea were available at this EWG-13-13.

Figure 5.8.11.2.1 show the linear trends of the available regulated gears from Belgium (3a) and England (3a and 3b). For the regulated beam trawl gear (3a) there is a slightly better fit of the data points for the English fleet if kW*days is used than when days at sea is used. For the English regulated static gear (3b) the relationship is negative in both cases.

Figures 5.8.11.2.2a-b shows the linear trends of the available unregulated gears from England. For the unregulated beam trawl gear and the dredges there is a slightly better fit of the data points if kW*days is used than when days at sea is used. For the other unregulated gears there is a poor fit or a negative trend between the partial fishing and both effort units.

STECF EWG 13-13 notes that the regulated and non regulated beam trawl gear, responsible for the majority of the sole catches, show predominantly a slightly better regression to the partial fishing mortality if kW*days is used than when days at sea is used. Therefore a kW*days regulation may seem more appropriate.

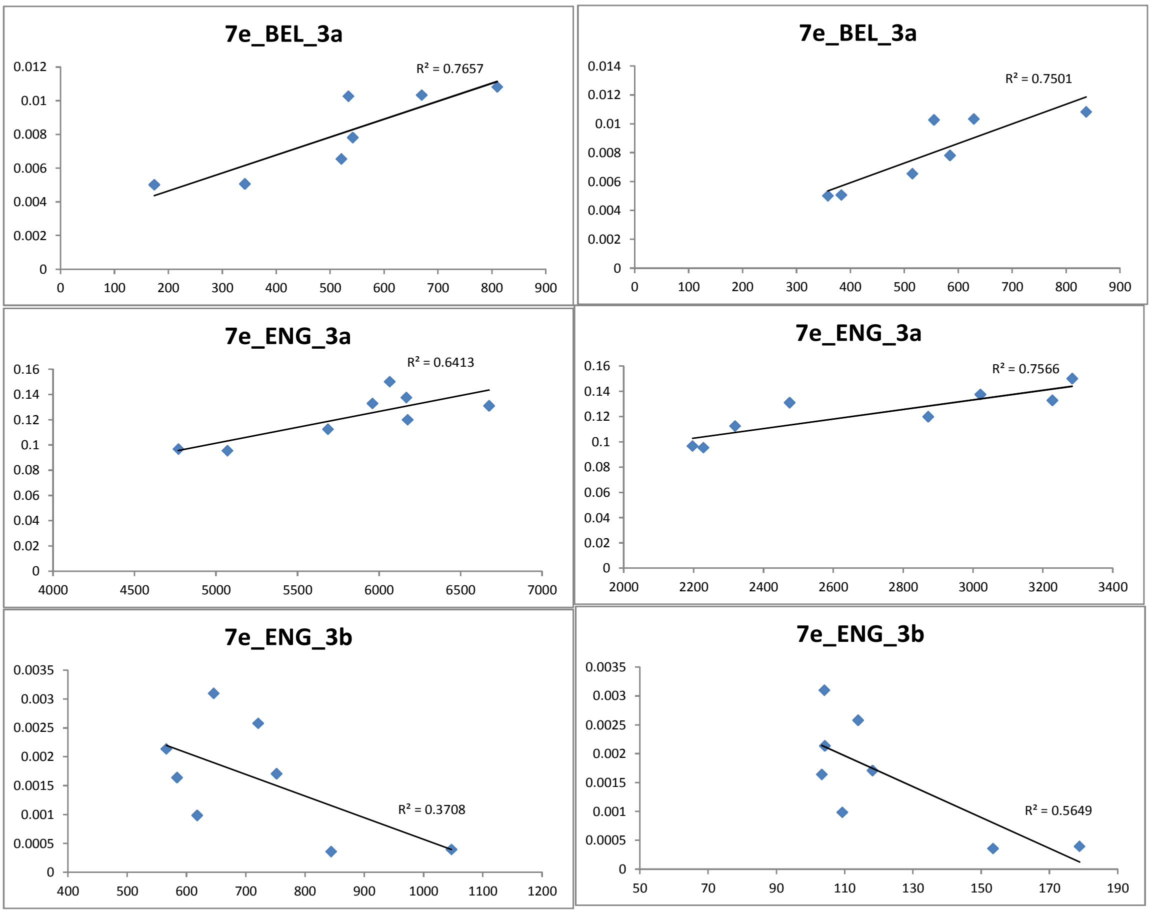


Fig. 5.8.11.2.1a Western Channel sole. Partial fishing mortality (based on harvest rate estimates) over effort (days at sea- left panels) and (kW days at sea – right panels, units in thousands) of major regulated fisheries, 2005-2012.

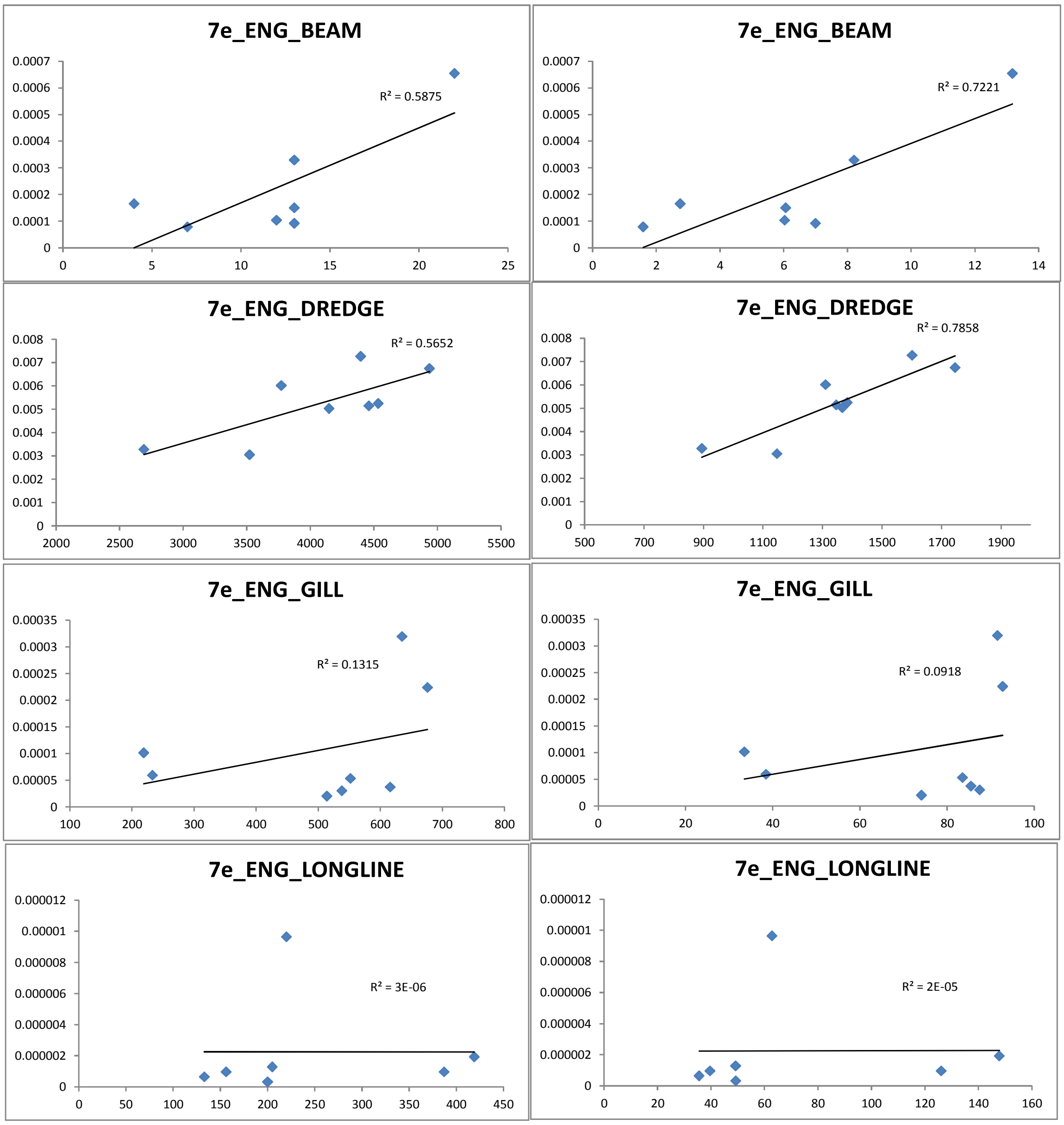


Fig. 5.8.11.2.2a Western Channel sole. Partial fishing mortality (based on harvest rate estimates) over effort (days at sea - left panels) and (kW days at sea – right panels in units of thousands) of major unregulated fisheries, 2005-2012.

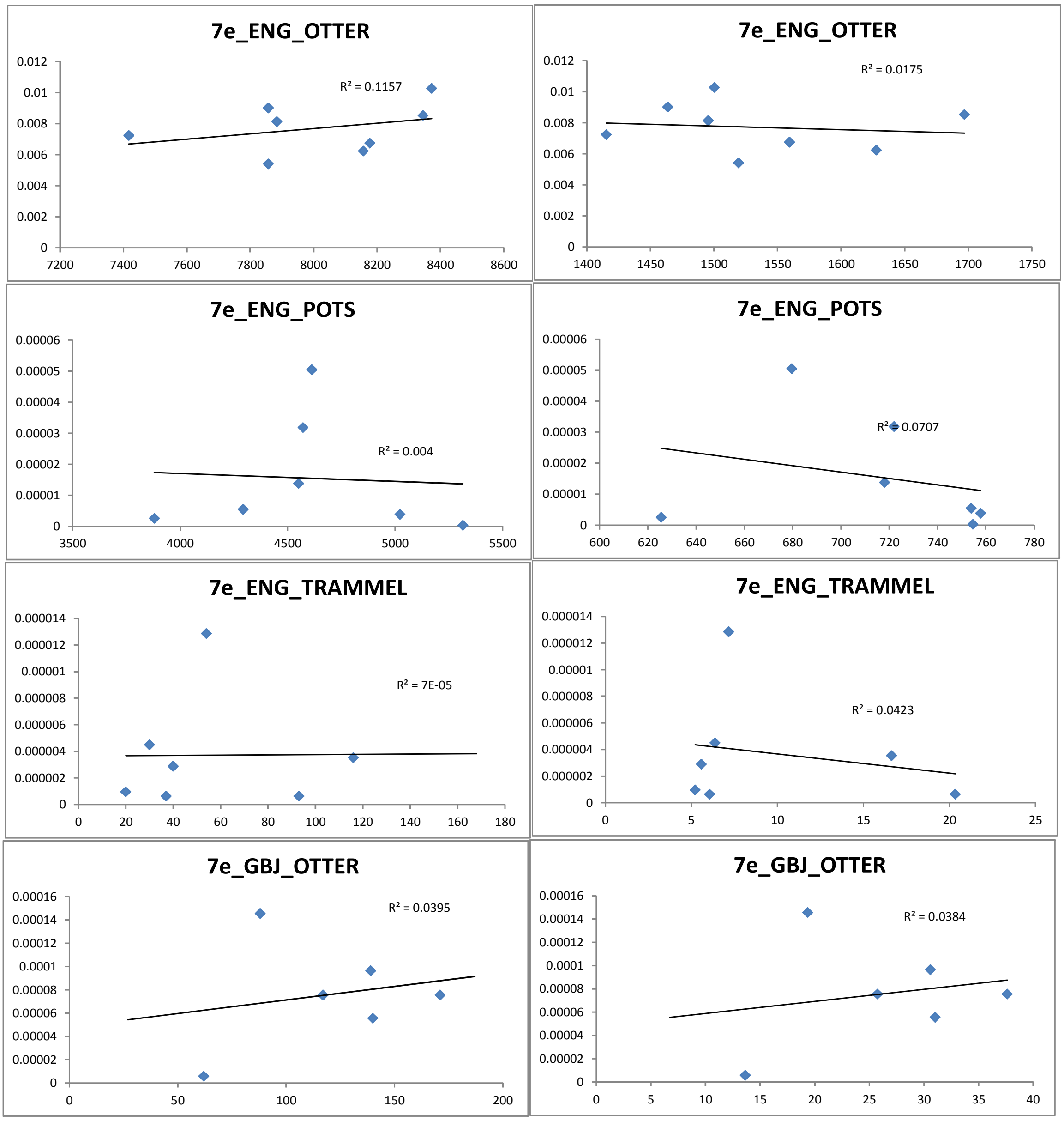


Fig. 5.8.11.2.2b Western Channel sole. Partial fishing mortality (based on harvest rate estimates) over effort (days at sea- left panels) and (kW days at sea – right panels in units of thousands) of major unregulated fisheries, 2005-2012.

5.8.11.3 Recent changes in management

STECF EWG 13-13 presents spatio-temporal patterns in effective fishing effort by rectangle and regulated gears in section 5.8.7 of the present report.

STECF EWG 13-13 notes that the UK has developed a “Days at Sea Scheme” for Western Channel for which extra days at sea can be claimed for the regulated gears in the sole VIIe management plan. The EU informed EWG-13-13 that in 2011, 42 extra days were requested and obtained by the UK regulated beam trawl fleet (3a) mounting up to total days at sea of 206 days for 2011 instead of the basic 164 days. In 2013, the UK has put forward a new request for 43 extra days for their beam trawl fleet (3a). France requested 11 extra days for their beam trawl fleet (3a) and 14 extra days for their static gear (3b). Both member states have been granted their request for 2013.

5.9 Deep Sea and Western Waters effort regime evaluations

Details of the Deep Sea Regulations can be found in COUNCIL REGULATION (EC) No 2347/2002.

The format for presenting Deep Sea information was discussed during the July 2009 SGMOS meeting when experts with particular knowledge were present. It was agreed that the most useful presentation would be data summarised on a regional approach so as to identify geographic differences in effort distribution by key member states and important gears. It was decided that regions would be based on ICES areas. It may be the case that similarities between some of these areas would allow areas to be combined in future summaries. Where an ICES area contained waters within EU jurisdiction and waters outside of this, separate summaries are provided where data allow.

In this section of the report tables showing effort by gear groups (regulated and unregulated), area and nation are only summaries. The full tables are available on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313.

It should be noted that Spain has not provided data for 2010 and 2011.

Details of the Western Waters regulations and its geographical extent can be found in the regulation COUNCIL REGULATION (EC) No 1415/2004.

The EWG experienced extreme difficulties in preparing these data and the interpretation of them is confounded by uncertainty in the western waters data summaries for some member states most notably Portugal, France and Spain. **SINCE THESE COUNTRIES OPERATE EXTENSIVELY IN THE WESTERN WATERS AREAS AND ARE LIKELY TO CONTRIBUTE A SIGNIFICANT PROPORTION TO THE OVERALL EFFORT COVERED BY THIS REGULATION, THE DATA SHORTFALL IMPLIES THAT OVERALL EFFORT FIGURES REMAIN UNRELIABLE.**

The EWG database records effort in the areas covered by the Western waters regulation including effort which becomes categorised as ‘deep sea’. Since these two regulations are legislated to be non-overlapping, columns are included to show the western waters effort without the deep sea.

Table 5.9.1. COUNCIL REGULATION (EC) No 2347/2002 Annex I and 2 species list:

Code	Annex	Scientific name	Common name
ALF	1	*Beryx* spp	Alfonsinos
APQ	1	*Apristurus laurussonii*	Iceland catchark
ARU	1	*Argentina silus*	Greater silver smelt
BLI	1	*Molva dypterygia*	Blue ling
BSF	1	*Aphanopus carbo*	Black scabbard
CFB	1	*Centroscyllium fabricii*	Black dogfish
CYO	1	*Centroscymnus coelolepis*	Portuguese dogfish
CYP	1	*Centroscymnus crepidater*	Longnose velvet dogfish
DCA	1	*Deania calcea*	Birdbeak dogfish
ETR	1	*Etmopterus princeps*	Greater lantern shark
ETX	1	*Etmopterus spinax*	Velvet belly
FOX	1	*Phycis blennoides*	Forkbeards
GAM	1	*Galeus murinus*	Mouse catshark
GSK	1	*Somniosus microcephalus*	Greenland shark
GUP	1	*Centrophorus granulosus*	Gulper shark
GUQ	1	*Centrophorus squamosus*	Leafscale gulper shark
HXC	1	*Chlamydoselachus anguineus*	Frilled shark
ORY	1	*Hoplostethus atlanticus*	Orange roughy
OXN	1	*Oxynotus paradoxus*	Sharpback shark
RNG	1	*Coryphaenoides rupestris*	Roundnose grenadier
SBL	1	*Hexanchus griseus*	Six-gilled shark
SCK	1	*Dalatias licha*	Kitefin shark
SHO	1	*Galeus melastomus*	Blackmouth dogfish
SYR	1	*Scymnodon ringens*	Knifetooth dogfish
ALC	2	*Alepocephalus bairdii*	Baird's smoothhead
ANT	2	*Antimora rostrata*	Blue antimora
BRF	2	*Helicolenus dactylopterus*	Blue mouth redfish
CMO	2	*Chimaera monstrosa*	Rabbitfish
COE	2	*Conger conger*	Conger eel
CYH	2	*Hydrolagus mirabilis*	Large-eyed rabbitfish
ELZ	2	*Lycodes esmarkii*	Eelpout
EPI	2	*Epigonus telescopus*	Black cardinal fish
HPR	2	*Hoplostethus mediterraneus*	Silver roughy
JAD	2	*Dipturus nidarosiensis*	Norwegian skate
KEF	2	*Chaceon affinis*	Deep-water red crab
PHO	2	*Alepocephalus rostratus*	Risso's smoothhead
RCT	2	*Rhinochimaera atlantica*	Straightnose rabbitfish
RHG	2	*Macrourus berglax*	Roughhead grenadier
RIB	2	*Mora moro*	Common mora
RJG	2	*Amblyraja hyperborea*	Arctic skate
RJY	2	*Rajella fyllae*	Round skate
SBR	2	*Pagellus bogaraveo*	Red (blackspot) seabream
SFS	2	*Lepidopus caudatus*	Silver scabbard fish
SFV	2	*Sebastes viviparus*	Small redfish
TJX	2	*Trachyscorpia cristulata*	Spiny (deep sea) scorpionfish
WRF	2	*Polyprion americanus*	Wreckfish

5.9.1 ToR 1a Fishing effort by area

DEEP SEA

Effort within the Deep sea and Western waters has been compiled for kW*days-at-sea, GT*days-at-sea, and numbers of vessels. Within the report the focus is on kW*Days at sea. Information on GT*days at sea and numbers of vessels is available via the website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

Overview of spatial distribution of fishing effort data: Collation of data to address questions associated with deepwater fisheries provided an opportunity to present spatial data across wide geographic areas giving a general picture of the distribution of fishing activity.

For each ICES Sub-area, tables are included which show effort by country (and an overall effort for the area) and effort by gear. In addition, figures illustrating trends are included for the most important gears.

Figures 5.9.1.1 to 5.9.1.5 show respectively the distribution of effort for five of the categories of gear; bottom trawl, pelagic trawl, longline, gill nets and beam trawl specified in the Terms of Reference.

Bottom trawl effort is concentrated in ICES Area IVa as well as the Continental shelf and slope to the west and southwest of Ireland and the UK. Bottom trawl effort in the Bay of Biscay, the Cantabrian Sea and off the Portuguese coast increased in 2012 compared to 2010 and 2011.

Pelagic trawling was concentrated to the west of Ireland, and to the west and north of Scotland in the mid 2000s. This effort decreased greatly between 2007 and 2009, increased again in 2010, but has reduced again in 2011 and 2012.

Longline effort was concentrated on the shelf and slope between Shetland and Portugal but has been in decline in recent years. Longline effort from the Azores has shown an increase since 2009.

In the mid 2000s gill net effort was concentrated in the Celtic sea and Porcupine Bank. Due to current restrictions in the use of deepwater gill nets much of this effort is now concentrated in the Celtic sea, with some effort in the North sea, west of Scotland and the Bay of Biscay.

Beam trawling is concentrated in the Celtic sea and the western English Channel. While beam trawls are not a deepwater gear some of the species caught are classified under Annex 2.

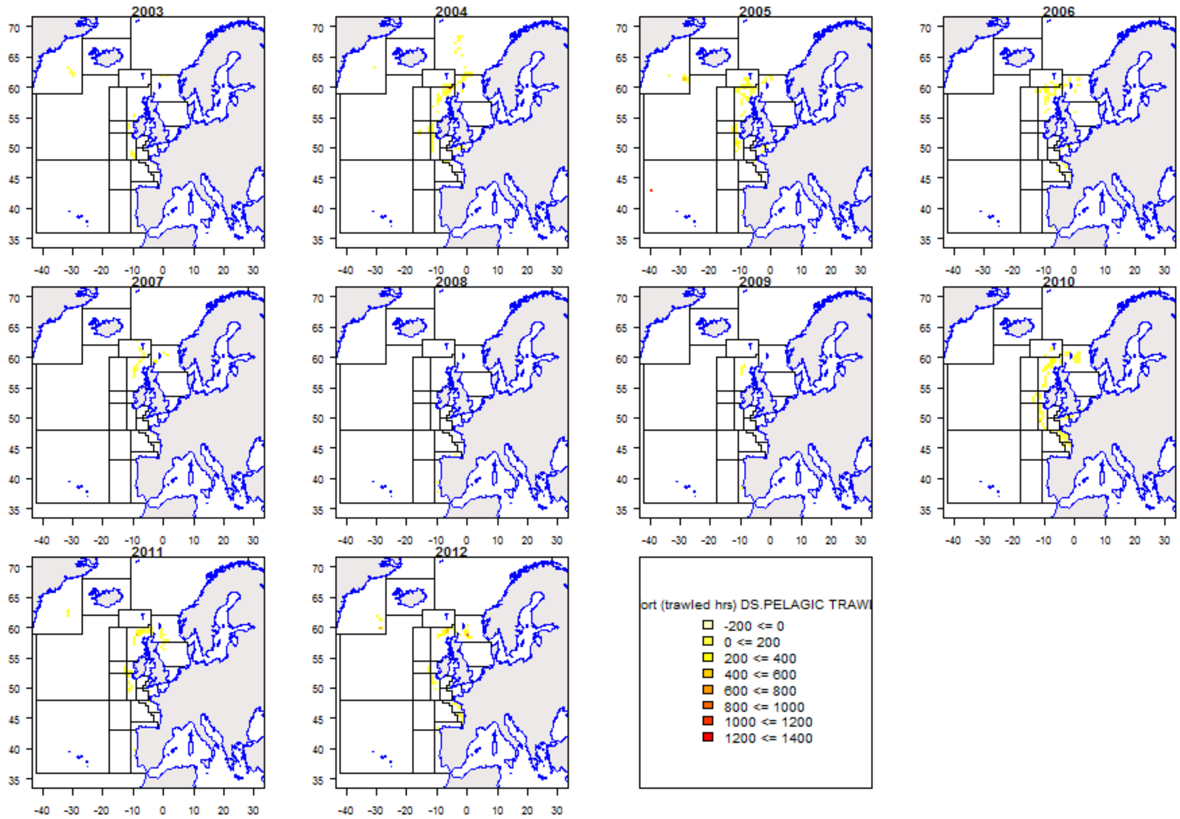


Figure 5.9.1.1 Distribution of pelagic trawl effort (specified as deep sea fisheries), 2003 – 2012.

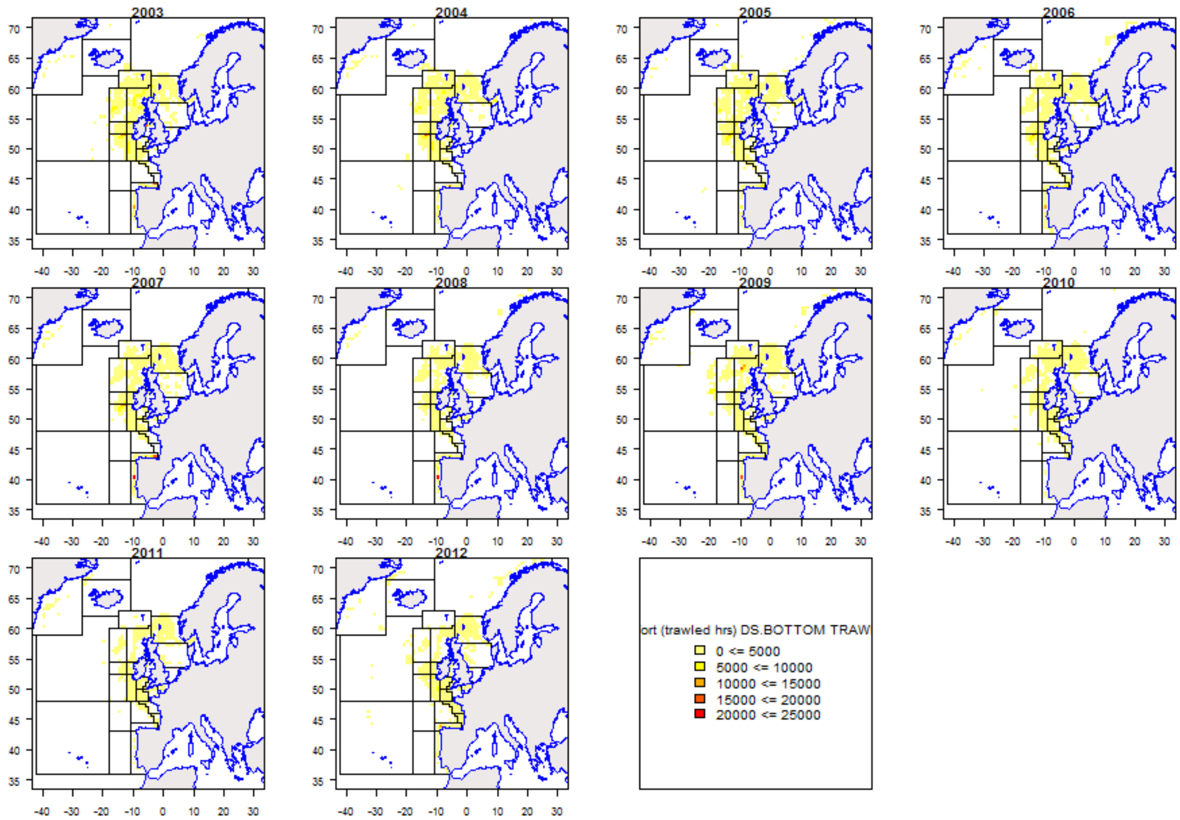


Figure 5.9.1.2 Distribution of bottom trawl effort (specified as deep sea fisheries), 2003 – 2012.

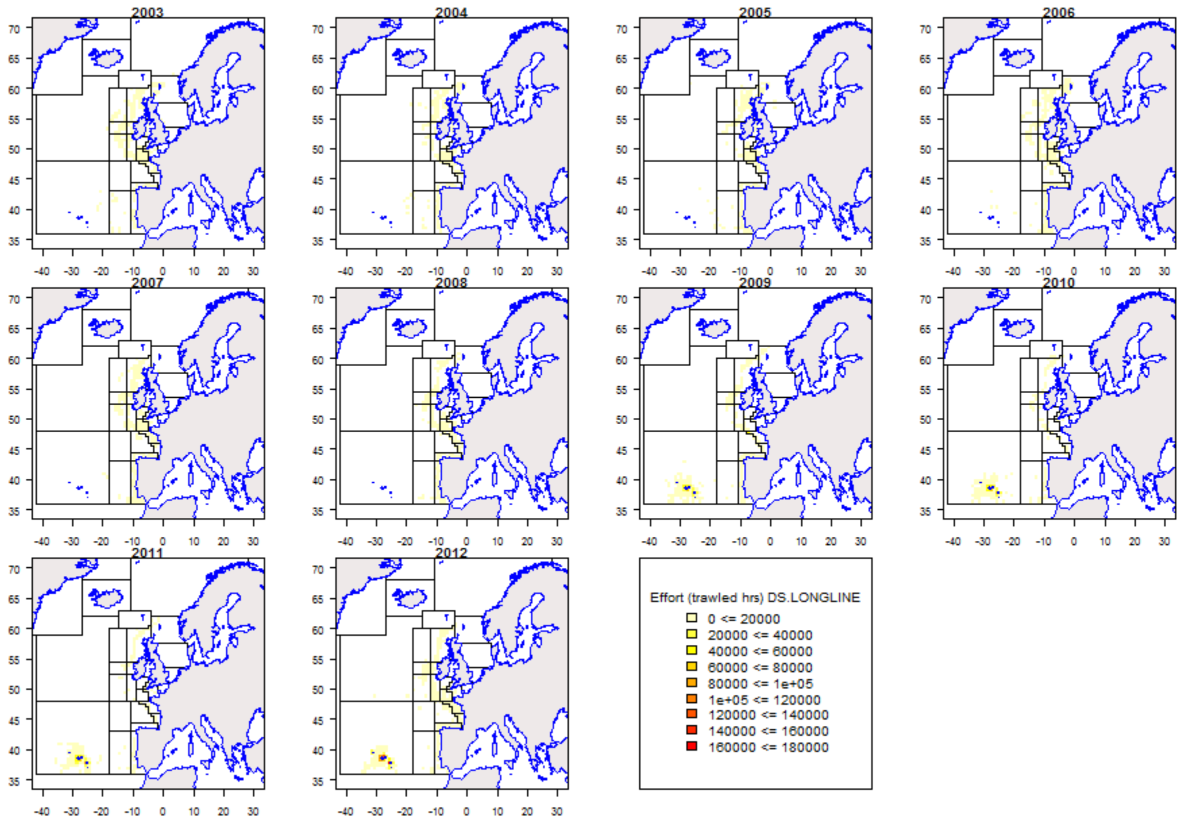


Figure 5.9.1.3 Distribution of longline effort (specified as deep sea fisheries), 2003 - 2012

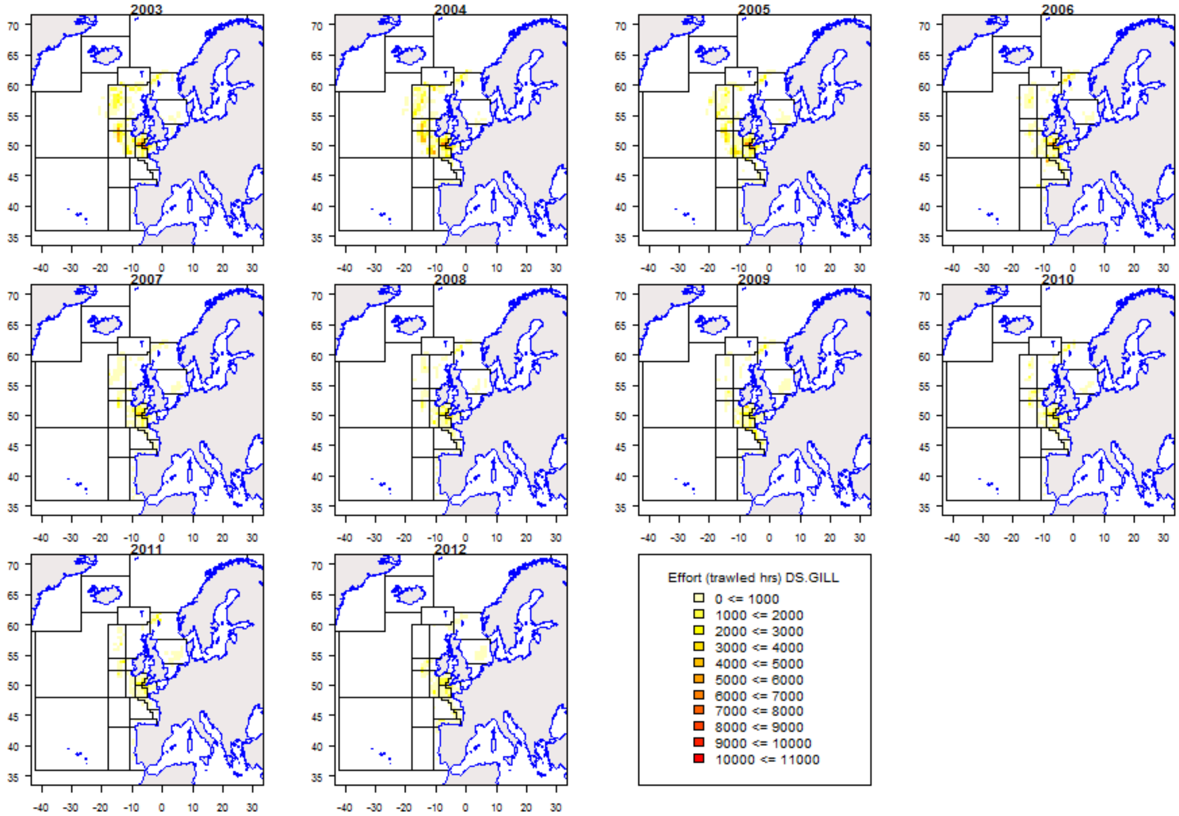


Figure 5.9.1.4 Distribution of gill net effort (specified as deep sea fisheries), 2003 – 2012.

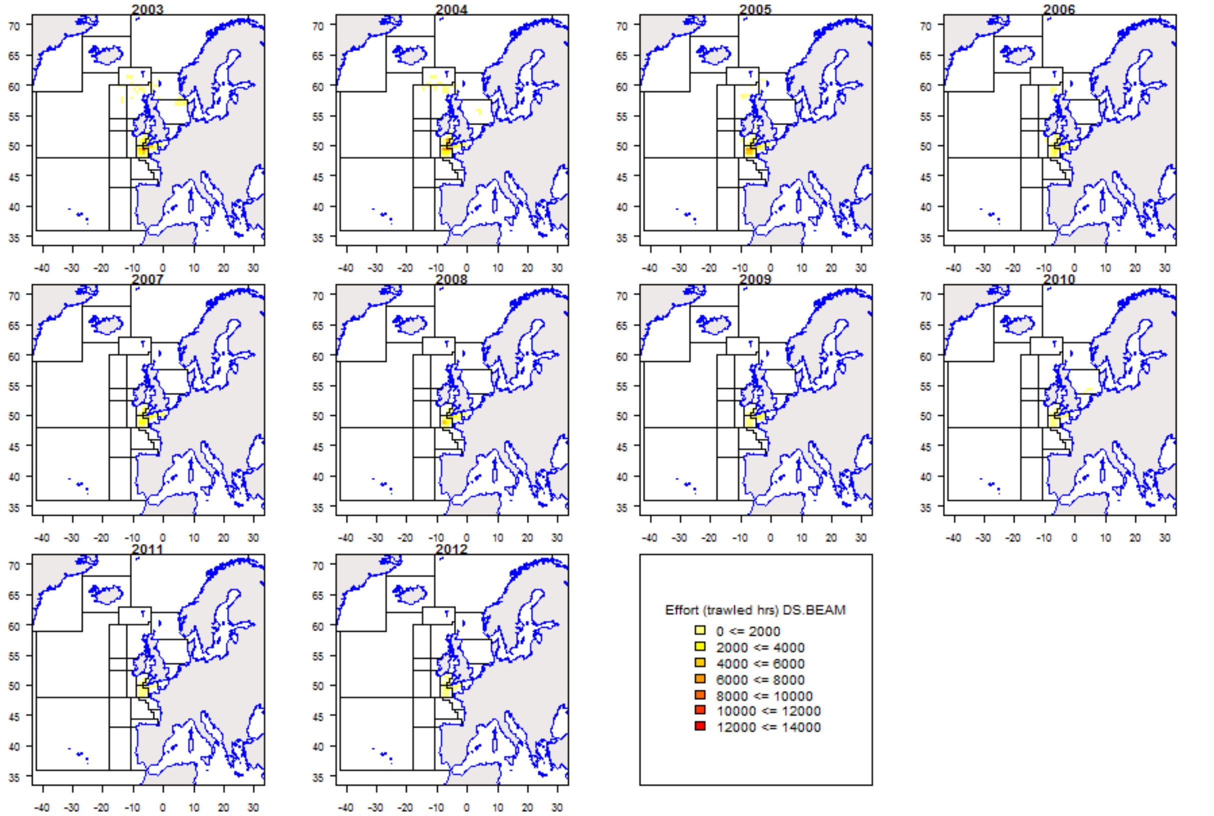


Figure 5.9.1.5 Distribution of beam trawl effort (specified as deep sea fisheries), 2003 – 2012.

WESTERN WATERS

Effort data under the Western Waters regulation is presented by a number of EU and non-EU areas. Where relevant these encompass breakdowns by country, gear and vessel length groups.

5.9.1.1 Fishing effort in ICES area I by fisheries and Member States only linked to Deep Sea species

Area I non-EU

Only sparse effort by Germany was reported previously from this area (Tables 5.9.1.1.1, 5.9.1.1.2 and Figure 5.9.1.1.1). However France reported some effort in 2012. None of this is in EU waters.

Table 5.9.1.1.1.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state ICES Sub-area I non-EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
1 non EU	DEU							70600			2427			
	FRA													96750
1 non EU Total								70600			2427			96750

Table 5.9.1.1.2.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state ICES Sub-area I non-EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
1 non EU	BOTTOM TRAWLS	DEU							70600			2427			
		FRA													96750
1 non EU Total									70600			2427			96750

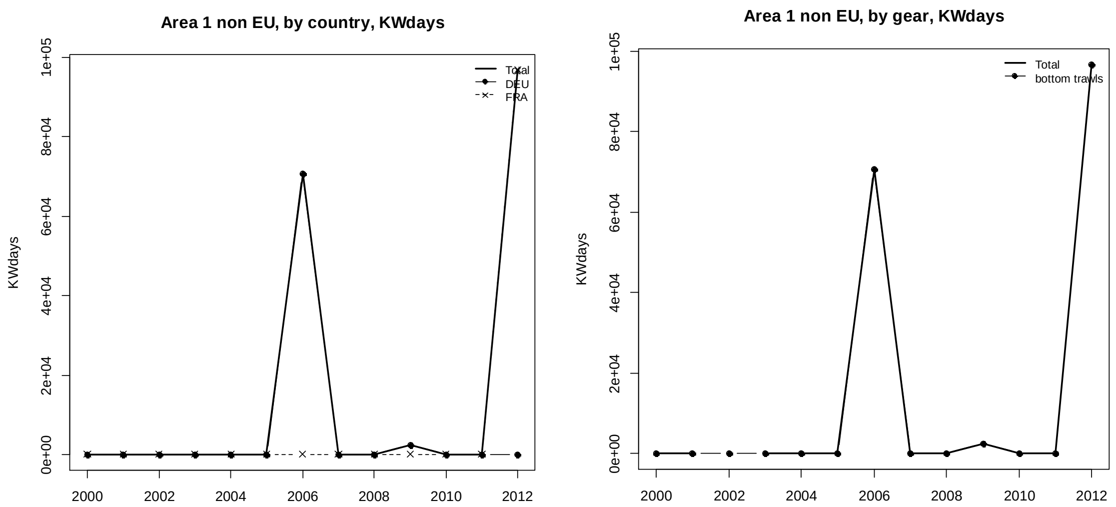


Figure 5.9.1.1.1.- Deep Sea Effort (kW*days) 2000-2012 by member state and by gear ICES Area I non EU.

5.9.1.2 Fishing effort in ICES area II by fisheries and Member States only linked to Deep Sea species

Area II EU

Five countries reported effort in this area with the majority being carried out by two countries, France and UK, with the pattern of each varying through time (Table 5.9.1.2.1). French effort showed a particularly noticeable drop in the mid 2000s, before increasing again from 2006. French effort has dropped sharply in 2011 and 2012. UK effort has fluctuated throughout the time series and mainly comprises bottom trawl, with some gill net effort. Netherlands pelagic trawl effort stopped in 2007 (Table 5.9.1.2.2). Germany contributed some effort in the mid 2000s. Effort in Sub-area II (EU) shows no obvious trend.

The principal gear used in this Sub-area (Table 5.9.1.2.2, and Figure 5.9.1.2.1) was the otter trawl (by France and UK). UK gill net effort fluctuated between 2002 and 2010 (albeit at a relatively low level), but had ceased since 2010.

Table 5.9.1.2.1.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state ICES Sub-area II EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
2 EU	DEU				33516	87864		12000						
	DNK	10311												
	FRA	208280	325607	623365	43886	29608	65124	210353	134456	248412	246993	144020	63238	141426
	NLD	24265	22652		13200	158115								
	UK	53922	34900	43295	66870	26431	12017	200446	97363	79378	73683	71877	19261	80985
2 EU Total		296778	383159	666660	157472	302018	77141	422799	231819	327790	320676	215897	82499	222411

Table 5.9.1.2.2.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state ICES Sub-area II EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
2 EU	BOTTOM TRAWLS	DEU					4410		12000						
		FRA	208280	325607	623365	43886	29608	65124	210353	134456	248412	246993	144020	63238	141426
		UK	53922	34900	43295	66870	17755	4661	178712	45144	24171	47637	69845	19261	80985
	GILL	DEU				33516	53802								
		UK					8676	7356	21734	39241	55207	26046	2032		
	PELAGIC TRAWLS	DEU					29652								
		DNK	10311												
		NLD	24265	22652		13200	158115								
		UK								12978					
2 EU Total			296778	383159	666660	157472	302018	77141	422799	231819	327790	320676	215897	82499	222411

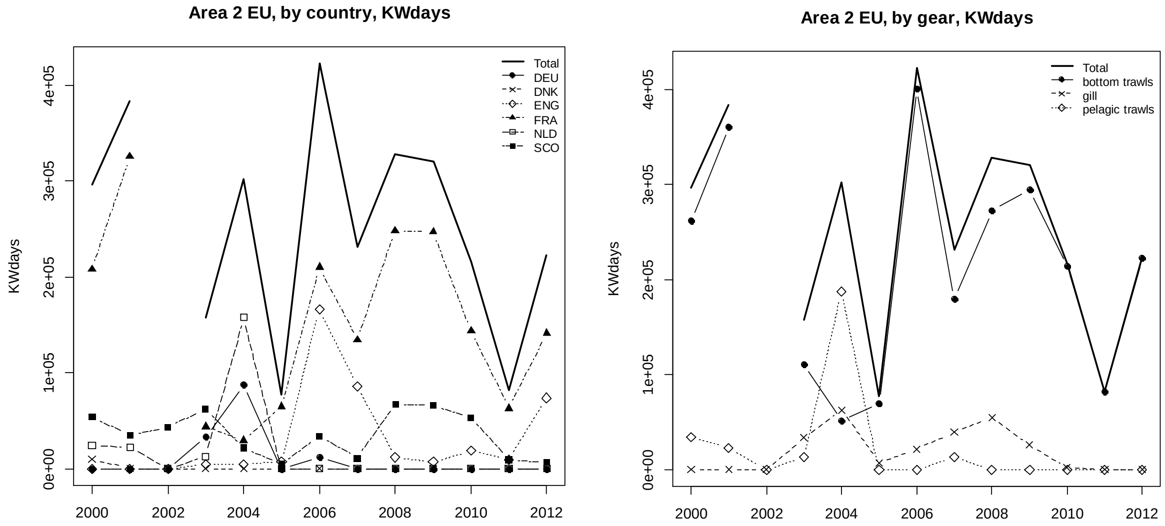


Figure 5.9.1.2.1.- Deep Sea Effort (kW*days) 2000-2012 by member state and by gear ICES Area II EU. Due to the uncertainty in French 2002 data this year has been removed from the figure.

Area II non-EU

Seven countries reported effort in this area with the majority being carried out by the UK (Table 5.9.1.2.3). Total effort has decreased since the mid 2000s. UK bottom trawl effort has been in decline since 2008, however effort by France, which started in 2010, is increasing. Netherlands pelagic trawl effort stopped in 2006 (Table 5.9.1.2.4). Germany contributed some effort in the mid 2000s. Effort in Sub-area II (non EU) has been decreasing since 2004.

The principal gear used in this Sub-area (Table 5.9.1.2.4, and Figures 5.9.1.2.2.) was the otter trawl (by UK and France). Netherland pelagic trawl effort reached a peak in 2004 but has ceased since 2007.

Table 5.9.1.2.3.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state ICES Sub-area II non-EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
2 non EU	DEU				94653	49420	43686	262923			266743			
	DNK	22351												
	FRA											81836	115246	183749
	IRL			2940	1350									
	NLD		86785		349335	781113	196020	216254						
	PRT	764606	175049											
	UK	1059	1536	813	701782	649580	817921	802633	613414	603521	380425	283442	247297	229508
2 non EU Total		788016	263370	3753	1147120	1480113	1057627	1281810	613414	603521	647168	365278	362543	413257

Table 5.9.1.2.4.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state ICES Sub-area II non-EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
2 non EU	BOTTOM TRAWLS	DEU				94653		43686	262923			266743			
		DNK	8367												
		FRA											71532	115246	183749
		PRT	486524	175049											
		UK	1059	1536	813	701782	649580	817921	802633	470655	603521	380425	283442	247297	229508
	DREDGE	FRA											10304		
	LONGLINE	IRL				1350									
	PELAGIC TRAWLS	DEU					49420								
		DNK	13984												
		IRL			2940										
		NLD		86785		349335	781113	196020	216254						
		PRT	278082												
		UK								142759					
2 non EU Total			788016	263370	3753	1147120	1480113	1057627	1281810	613414	603521	647168	365278	362543	413257

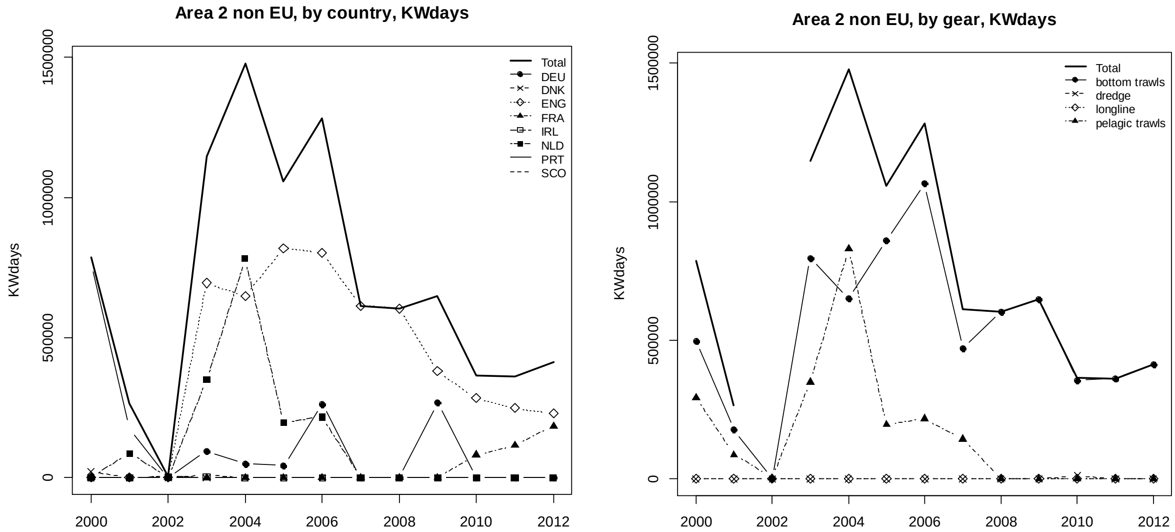


Figure 5.9.1.2.2. Deep Sea Effort (kwdays) 2000-2012 by member state and by gear ICES Area II non EU. Due to the uncertainty in French 2002 data this year has been removed from the figure.

5.9.1.3 Fishing effort in ICES area III by fisheries and Member States only linked to Deep Sea species

Area III no Baltic

All effort takes place in EU waters but is very limited and the majority of the records are for Danish vessels using bottom trawls. German data was reported for 2004 only and France reported a small amount of effort in 2012.

Table 5.9.1.3.1.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state ICES Sub-area III EU no Baltic.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
3 no Baltic	DEU					1470								
	DNK	259424	170543	156554	231924	529970	383720	155403	4128		8990	2682	17698	
	FRA													1850
3 no Baltic Total		259424	170543	156554	231924	531440	383720	155403	4128		8990	2682	17698	1850

Table 5.9.1.3.2.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state ICES Sub-area III EU no Baltic.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
3 no Baltic	BOTTOM TRAWLS	DEU					1470								
		DNK	209235	170543	155557	231924	529970	383720	155403	4128		8990	2682	17698	
		FRA													1850
	LONGLINE	DNK			997										
	PELAGIC TRAWLS	DNK	50189												
3 no Baltic Total			259424	170543	156554	231924	531440	383720	155403	4128		8990	2682	17698	1850

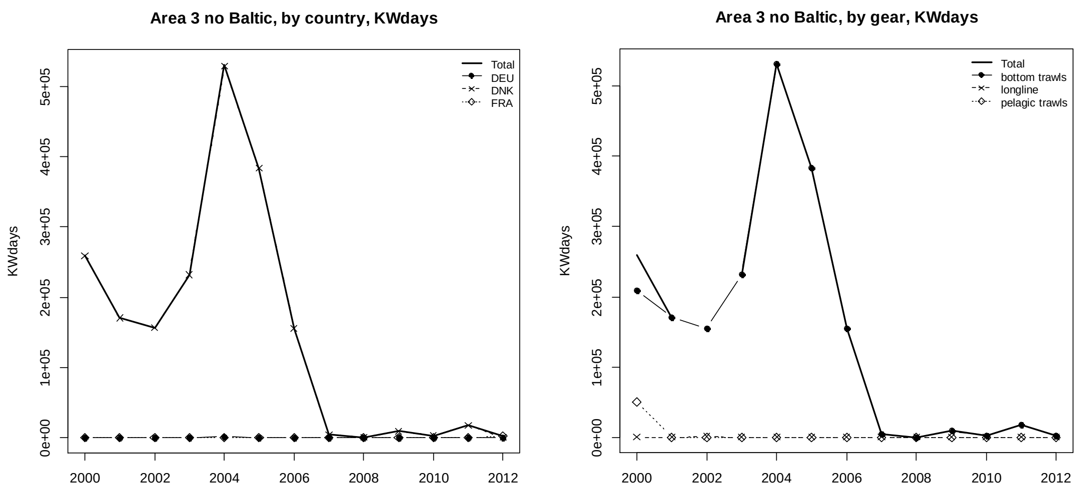


Figure 5.9.1.3.1.- Deep Sea Effort (kwdays) 2000-2012 by member state ICES Area III no Baltic.

5.9.1.4 Fishing effort in ICES area IV by fisheries and Member States only linked to Deep Sea species

Area IV

All reported effort in this ICES area occurs in EU waters. Six countries have reported effort in this area with four countries, France, Netherlands, Denmark and UK contributing the most (Tables 5.9.1.4.1 and 5.9.1.4.2). There is an obvious downward trend in overall effort up to 2008 but effort increased again in 2009 and seems to have stabilised in 2010 and 2011, before increasing again in 2012. French and UK effort showed marked declines up to 2002, after which French effort was reasonably constant before increasing in 2012. UK effort has stayed reasonably stable. While Dutch effort peaked in the mid 2000s significant longlining was again carried out in the last three years. Germany has also contributed sporadic effort.

Denmark submitted a revision of historical effort in 2012, which led to a major increase in their previously reported effort for the area. Apart from 2000 the effort was quite stable up to 2007, when it began to decrease. After reporting no effort in 2011 it has reported a large amount of effort for 2012. All this effort was recorded for bottom trawls.

Otter trawl was by far the most important gear used, by France, Denmark and the UK. UK gill net effort was stable up to 2006 after which it fluctuated somewhat. The reported 2012 UK effort is only 20% of that recorded in 2011 The UK also used beam trawl but have not reported effort since 2005. The UK also reports small amounts of longline effort. Netherlands pelagic effort which peaked in 2003 has begun increasing again in the last two years.

Table 5.9.1.4.1.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state ICES Sub-area IV.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
4	DEU					206302	134099	195941	15600		123550		19416	26586
	DNK	1191536	176947	121607	216490	100543	123079	121490	125089	26555	6215	16297		611372
	FRA	1017129	635135	1575689	277155	176632	261732	178577	289736	185516	173847	484416	286163	714657
	IRL	25800	35145	10500		4701								
	NLD	7260	134640	128276	619530	537132	500354	195760	222638	40084		106630	117744	201960
	UK	915288	1331006	1309362	1824463	1258477	1294938	1388434	1015346	991177	1371175	1402424	1480961	907825
4 Total		3157013	2312873	3145434	2937638	2283787	2314202	2080202	1668409	1243332	1674787	2009767	1904284	2462400

Table 5.9.1.4.2.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state ICES Sub-area IV.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
4	BEAM	NLD											8826		
		UK	3222	32751	37836	48867	16008	13125							
	BOTTOM TRAWLS	DEU					39270	61113	108000			123550		19416	
		DNK	1098619	176947	116858	216490	100543	123079	121490	125089	26555	6215	16297		424424
		FRA	1017129	635135	1575689	277155	176632	261732	178577	289736	185516	173847	477056	285427	714657
		IRL	25800	35145	10500										
		UK	904847	1277117	1241007	1429526	879032	937099	942983	803140	795289	1104312	1191245	1122185	816323
	DREDGE	FRA											7360		
	GILL	DEU						3798							26586
		UK		1968		253583	305389	259341	399015	136272	187454	225154	200327	350442	79141
	LONGLINE	DNK			249										
		UK	7219	11557	3004	63020	50987	85373	46397	11044	8434	41709	10672	8244	12091
	PELAGIC TRAWLS	DEU					167032	69188	87941	15600					
		DNK	92917		4500										186948
		IRL					4701								
		NLD	7260	134640	128276	619530	537132	500354	195760	222638	40084		97804	117744	201960
		UK		7613	27515	28560	7061			64890					
	POTS	UK				907			39						
	TRAMMEL	FRA												736	
		UK											180	90	270
4 Total			3157013	2312873	3145434	2937638	2283787	2314202	2080202	1668409	1243332	1674787	2009767	1904284	2462400

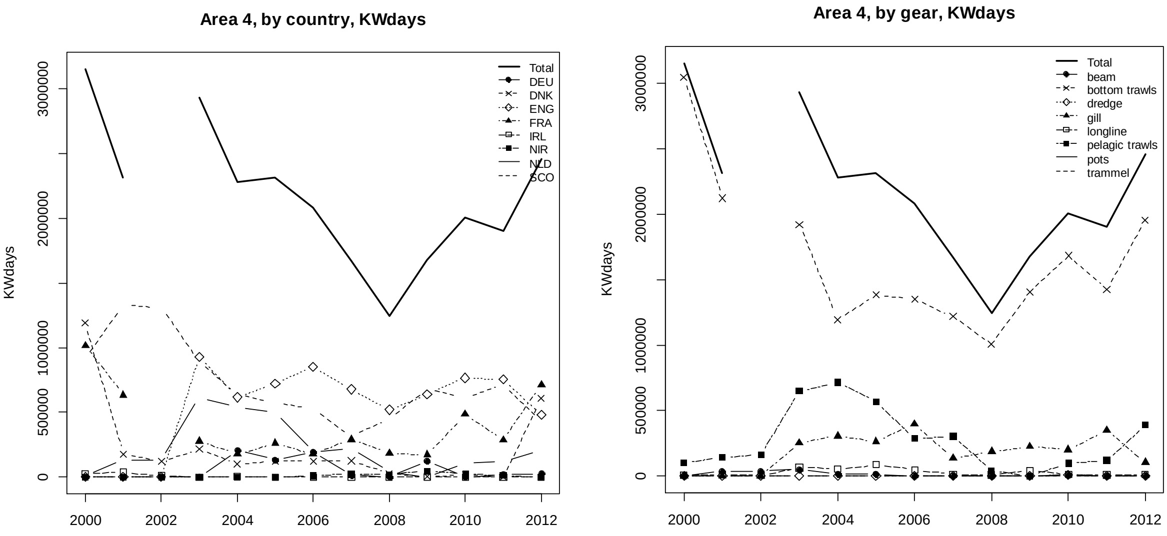


Figure 5.9.1.4.1. Deep Sea fishing effort (kW*days), 2000 – 2012, by member state and by gear, in ICES Sub-area IV EU. Due to the uncertainty in French 2002 data this year has been removed from the figure.

5.9.1.5 Fishing effort in ICES area V

Deepwater V EU

Four countries, France, Netherlands and UK and Germany contributed effort in this area, with Ireland reporting effort only in 2001 (Tables 5.9.1.5.1 and 5.9.1.5.2 and Figure 5.9.1.5.1). In the EU portion, French effort has dominated throughout the series and remained high up to 2009, however this effort had dropped by 90% by 2011 with a small increase again in 2012. UK effort showed a marked decline since 2004 and is now at quite a low level.

The predominant gear used was otter trawl, by France and the UK, but this effort has decreased in recent years. Gill net effort by France ceased in 2009 and by the UK in 2006. Netherlands pelagic trawl effort has decreased during the time period and has recorded effort only once, 2010, in the last four years. German effort in the middle part of the time series was both gill nets and pelagic trawls.

Table 5.9.1.5.1.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state ICES Sub-area V EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
5 EU	DEU				4851	4942	60375	12742	2600					
	FRA	952552	991663	4018388	1231117	1203179	992021	981544	1177248	947792	947792	381100	96200	131350
	IRL		1800											
	NLD		228862	14014	117600	175353	80010	31618	11453	33971		6600		
	UK	71576	75066	81539	187245	250636	59417	23658	296	11228	20837	41132	5877	840
5 EU Total		1024128	1297391	4113941	1540813	1634110	1191823	1049562	1191597	992991	968629	428832	102077	132190

Table 5.9.1.5.2.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state ICES Sub-area V EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
5 EU	BEAM	FRA				1519	12288								
	BOTTOM TRAWLS	FRA	868648	959279	3653332	1195742	1102571	921365	927080	1111008	793232	793232	381100	96200	131350
		IRL		1800											
		UK	68486	74278	74021	57191	84681	14668	15854	296	11228	20837	37747	5877	840
	GILL	DEU				4851									
		FRA	83904	32384	365056	33856	88320	70656	54464	66240	154560	154560			
		UK				130054	106655	41530	7804						
	LONGLINE	UK		788				3219					3385		
	PELAGIC TRAWLS	DEU					4942	60375	12742	2600					
		NLD		228862	14014	117600	175353	80010	31618	11453	33971		6600		
		UK	3090		7518		59300								
5 EU Total			1024128	1297391	4113941	1540813	1634110	1191823	1049562	1191597	992991	968629	428832	102077	132190

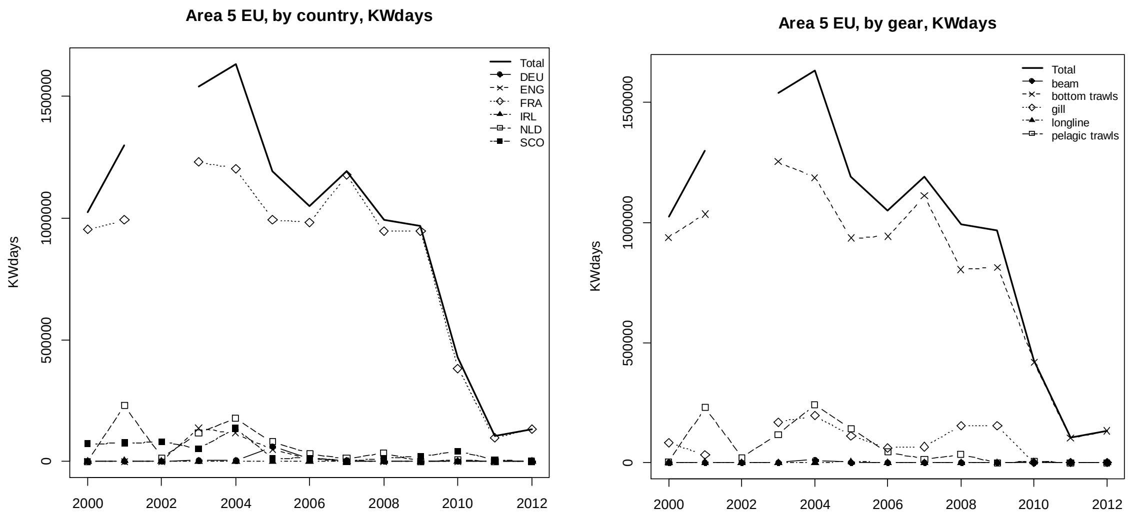


Figure 5.9.1.5.1. Deep Sea fishing effort (kW*days), 2000 – 2012, by member state and by gear, in ICES Sub-area V EU. Due to the uncertainty in French 2002 data this year has been removed from the figure.

Western Waters V EU

There is uncertainty relating to French effort, values in 2002 are extremely high. Overall effort figures are therefore unreliable.

Effort within this area has declined over time, and the pace of decline had quickened in the last number of years. In 2012 effort increased slightly but is only approximately 15% of that recorded for 2009. Historically bottom trawls, gill nets and pelagic trawl by France, the UK and the Netherlands accounted for the majority of the effort. Since 2009 pelagic trawl and gill nets have almost ceased, and in 2012 bottom trawl effort was confined to France, (Table 5.9.1.5.3. and Figure 5.9.1.5.2).

Table 5.9.1.5.3.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area V EU, 2000-2012.

				2000			2001			2002			2003			2004			2005		
Area	Gear	Country	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
5 EU	beam	FRA	o15m	0	0		0	0		0	0		1519	1519		12288	12288		0	0	
		SCO	o15m	0		0	1608		1608	0		0	0		0	0		0	0		0
	bottom trawls	DEU	o15m	1020		1020	0		0	0		0	0		0	0		0	0		0
		ENG	o15m	0	0		0	0		0	0		5712	5712		8405	8405		3135	3135	
		FRA	o15m	871738	868648	3090	971028	959279	11749	3787280	3653332	133948	1202423	1195742	6681	1106396	1102571	3825	923573	921365	2208
		IRL	o15m	0	0		1800	1800		0	0		0	0		0	0		0	0	
		SCO	o15m	86876	68486	18390	111676	74278	37398	84950	74021	10929	57491	51479	6012	83343	76276	7067	14952	11533	3419
	dredge	SCO	o15m	0		0	0		0	0		0	260		260	0		0	0		0
	gill	DEU	o15m	0	0	0	0	0	0	0	0	0	15876	4851	11025	5733	0	5733	0	0	0
		ENG	o15m	0	0	0	0	0	0	0	0	0	158890	130054	28836	106655	106655	0	42147	41530	617
		FRA	o15m	83904	83904	0	32384	32384	0	369816	365056	4760	35328	33856	1472	88320	88320	0	70656	70656	0
		SCO	o15m	246		246	0		0	0		0	0		0	0		0	0		0
	longline	ENG	o15m	0	0		0	0		0	0		0	0		0	0		3219	3219	
		ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		SCO	o15m	0	0	0	1404	788	616	7892	0	7892	0	0	0	0	0	0	0	0	0
	pelagic trawls	DEU	o15m	0	0	0	0	0	0	0	0	0	102767	0	102767	4942	4942	0	70965	60375	10590
		FRA	o15m	79488		79488	9719		9719	329728		329728	47104		47104	14720		14720	17664		17664
		IRL	o15m	0		0	0		0	0		0	13057		13057	29321		29321	27100		27100
		NLD	o15m	0	0	0	451252	228862	222390	28028	14014	14014	200693	117600	83093	341000	175353	165647	142740	80010	62730
		SCO	o15m	3090	3090	0	5112	0	5112	38700	7518	31182	52687	0	52687	94966	59300	35666	0	0	0
	pots	ENG	o15m	0		0	0		0	0		0	0		0	744		744	0		0
		NIR	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		SCO	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	trammel	FRA	o15m	0		0	41216		41216	0		0	0		0	0		0	0		0
5 EU Total				1126362	1024128	102234	1627199	1297391	329808	4646394	4113941	532453	1893807	1540813	352994	1896833	1634110	262723	1316151	1191823	124328

2006			2007			2008			2009			2010			2011			2012		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0	0		0	0		0	0		0	0		0	0		0	0		0	0	
0		0	0		0	0		0	0		0	0		0	0		0	0		0
5100		5100	0		0	0		0	0		0	0		0	0		0	0		0
1522	1522		0	0		0	0		0	0		0	0		0	0		0	0	
930601	927080	3521	1117358	1111008	6350	793232	793232	0	793232	793232	0	381100	381100	0	96200	96200	0	131350	131350	0
0	0		0	0		0	0		0	0		0	0		0	0		0	0	
16313	14332	1981	2566	296	2270	12661	11228	1433	0	20837	-20837	0	37747	-37747	21118	5877	15241	0	840	-840
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7804	7804	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
54464	54464	0	82432	66240	16192	154560	154560	0	154560	154560	0	0	0	0	0	0	0	846	0	846
0		0	0		0	0		0	0		0	0		0	0		0	559		559
0	0		0	0		0	0		0	0		0	0		0	0		0	0	
0		0	0		0	0		0	0		0	0		0	0		0	412		412
0	0	0	0	0	0	0	0	0	0	0	0	3681	3385	296	238	0	238	0	0	0
28639	12742	15897	2600	2600	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
55936		55936	29440		29440	17664		17664	17664		17664	0		0	0		0	0		0
0		0	5880		5880	0		0	0		0	0		0	2800		2800	0		0
83036	31618	51418	44686	11453	33233	48530	33971	14559	43560	0	43560	6600	6600	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	16120	0	16120	0	0	0	0	0	0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
1744		1744	0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	231		231	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
1185159	1049562	135597	1284962	1191597	93365	1026647	992991	33656	1009016	968629	40387	407732	428832	-21100	120356	102077	18279	133167	132190	977

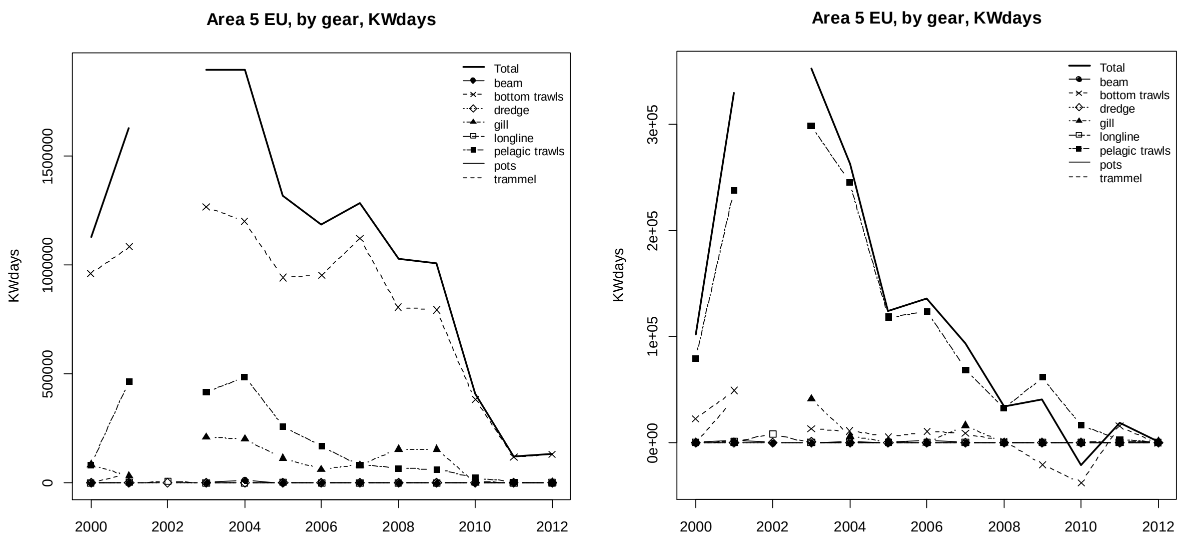


Figure 5.9.1.5.2.- Effort (kW*days) reported within ICES Sub-area V EU by gear type, 2000-2012, with (left) and without (right) reported deepwater effort.

Deepwater V non-EU

In this area bottom trawl effort of both France and the UK peaked in 2004 and has decreased slowly since. The UK reported no effort since 2010 and France has not recorded effort for 2012. German effort dropped from the mid 2000s before bottom trawl effort began rising in 2009. This effort has continued to 2012. Germany and the Netherlands recorded pelagic trawl effort up to 2007, but this has since stopped, bar 2010 effort recorded for the Netherlands.

Table 5.9.1.5.4.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state ICES Sub-area V non-EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
5 non EU	DEU				256560	194758	446140	274286	23400	7281	103500	385062	244500	231906
	FRA	113443	696775	1835624	664525	776742	381706	325531	294664	219992	219992	44400	7400	
	NLD		7260		271601	15850	154495	26765	47559			7428		
	UK	201788	271314	476184	917320	1071860	885811	422340	272851	114920	128263	232011		
5 non EU Total		315231	975349	2311808	2110006	2059210	1868152	1048922	638474	342193	451755	668901	251900	231906

Table 5.9.1.5.5.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state ICES Sub-area V non-EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
5 non EU	BEAM	FRA				6077	7400								
	BOTTOM TRAWLS	DEU				256560	174990	339900	249060		7281	103500	385062	244500	231906
		FRA	113443	696775	1835624	658448	769342	381706	325531	294664	219992	219992	44400	7400	
		UK	201788	271314	476184	917320	1071860	885811	422340	272851	114920	128263	232011		
	PELAGIC TRAWLS	DEU					19768	106240	25226	23400					
		NLD		7260		271601	15850	154495	26765	47559			7428		
5 non EU Total			315231	975349	2311808	2110006	2059210	1868152	1048922	638474	342193	451755	668901	251900	231906

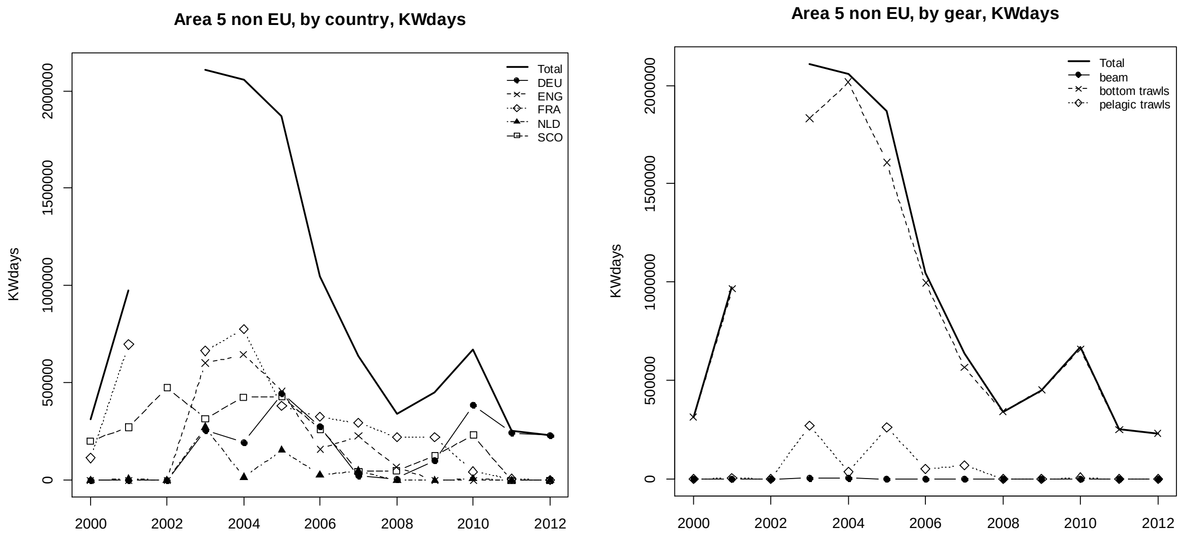


Figure 5.9.1.5.3. Deep Sea fishing effort (kW*days), 2000 – 2012, by member state and by gear, in ICES Sub-area V non-EU. Due to the uncertainty in French 2002 data this year has been removed from the figure.

Western Waters V non-EU

There is uncertainty relating to French effort, values in 2002 are extremely high. Overall effort figures are unreliable.

Overall effort within this area has declined over time, having previously been fished by a number of nations utilising bottom and pelagic trawls (Table 5.9.1.5.6. and Figure 5.9.1.5.4).

The majority of fishing effort within the area is directed toward fisheries not covered by the western waters regulation. Fishing was principally carried out by Germany, the Netherlands, and the UK. Bottom trawling is the primary gear within the area, much of which targets deepwater fisheries. Bottom trawl effort for 2012 has only been reported by Germany.

Pelagic trawl effort, conducted mainly by Scotland and the Netherlands, fluctuated between 2003 and 2005, at which stage effort started declining. Pelagic effort ceased in 2010.

Table 5.9.1.5.6.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area V non EU, 2000-2012.

					2000			2001			2002			2003			2004			2005	
Area	Gear	Country	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
5 non EU	beam	FRA	o15m		0			0			0			6077			7400			0	
		SCO	o15m	67634		67634	0		0	0		0	0		0	0		0	0		0
	bottom trawls	DEU	o15m	210449	0	210449	319410	0	319410	153555	0	153555	369090	256560	112530	208425	174990	33435	342960	339900	3060
		DNK	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		ENG	o15m	0	0	0	0	0	0	0	0	0	602100	602100	0	652390	646050	6340	455353	455353	0
		FRA	o15m	2931	113443	-110512	16112	696775	-680663	53420	1835624	-1782204	58750	658448	-599698	29974	769342	-739368	7979	381706	-373727
		SCO	o15m	409056	201788	207268	565565	271314	294251	856447	476184	380263	721186	315220	405966	840663	425810	414853	931460	430458	501002
	gill	FRA	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
			o15m	0		0	0		0	0		0	2944		2944	0		0	0		0
	longline	SCO	o15m	5595		5595	800		800	18168		18168	3608		3608	0		0	0		0
	pelagic trawls	DEU	o15m	0	0	0	0	0	0	0	0	0	167013	0	167013	19768	19768	0	106240	106240	0
		DNK	o15m	0		0	0		0	7005		7005	40568		40568	0		0	0		0
		FRA	o15m	55936		55936	103040		103040	0		0	23552		23552	41216		41216	52992		52992
		NLD	o15m	49302	0	49302	18234	7260	10974	22210	0	22210	522811	271601	251210	89936	15850	74086	385028	154495	230533
		SCO	o15m	19140		19140	0		0	0		0	15888		15888	46080		46080	8353		8353
	trammel	FRA	o15m	0		0	20608		20608	0		0	0		0	0		0	0		0
5 non EU Total				820043	315231	504812	1043769	975349	68420	1110805	2311808	-1201003	2527510	2110006	423581	1928452	2059210	-123358	2290365	1868152	422213

	2006			2007			2008			2009			2010			2011			2012	
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
	0			0			0			0			0			0			0	
0		0	0		0	0		0	0		0	0		0	0		0	0		0
250260	249060	1200	137210	0	137210	7281	7281	0	130500	103500	27000	385062	385062	0	244500	244500	0	231906	231906	0
0		0	0		0	0		0	0		0	0		0	26413		26413	0		0
159462	159462	0	226963	226963	0	67258	67258	0	0	0	0	0	0	0	0	0	0	0	0	0
12989	325531	-312542	23690	294664	-270974	1850	219992	-218142	1850	219992	-218142	60422	44400	16022	8872	7400	1472	0	0	0
704552	262878	441674	342705	45888	296817	252446	47662	204784	414088	128263	285825	475549	232011	243538	1540	0	1540	0	0	0
0		0	0		0	0		0	0		0	0		0	292		292	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
57020	25226	31794	23400	23400	0	20800	0	20800	0	0	0	0	0	0	0	0	0	0	0	0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
23552		23552	17664		17664	0		0	0		0	0		0	0		0	0		0
53530	26765	26765	81918	47559	34359	0	0	0	0	0	0	7428	7428	0	0	0	0	0	0	0
28980		28980	82287		82287	68337		68337	0		0	28120		28120	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
1290345	1048922	241423	935837	638474	297363	417972	342193	75779	546438	451755	94683	956581	668901	287680	281617	251900	29717	231906	231906	0

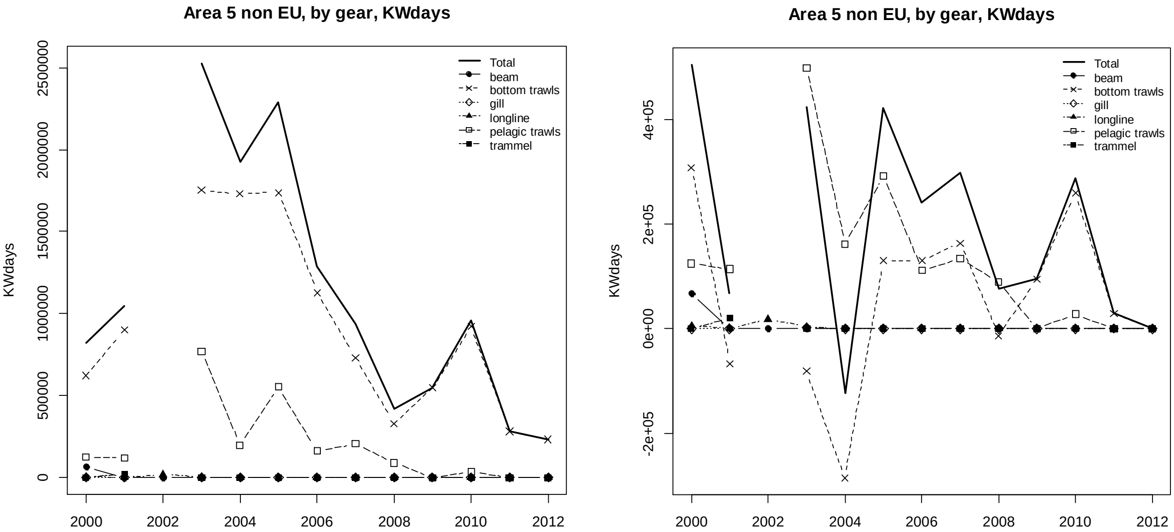


Figure 5.9.1.5.4.- Effort (kW*days) reported within ICES Sub-area V non-EU by gear type, 2000-2012, with (left) and without (right) reported deepwater effort.

5.9.1.6 Fishing effort in ICES area VI

Deepwater VI EU

Several countries, France, Netherlands, Ireland, UK and Germany fished in this area (Tables 5.9.1.6.1 and 5.9.1.6.2 and Figure 5.9.1.6.1). In this area French and UK effort dominated throughout the series. French effort peaked in 2001 but and between 2007 and 2010 had stabilised at about 40% of earlier values. This effort has dropped again in 2011 and 2012. UK effort peaked in 2003 and has also stabilised in the last four years, but at a much lower level than French effort. Bottom trawl was the predominant gear used in area VI followed by pelagic trawling and gill nets. Total effort has been in decline since 2002.

In addition to otter trawl, UK effort comprises all the other gear types. UK gill net activity had declined up to 2010 but showed an increase again in 2011. However in 2012 effort dropped to an insignificant amount. UK longline effort, which had declined between 2008 and 2010, has begun to increase again in the last two years.

Irish effort is primarily for bottom trawl, with some effort recorded for pelagic trawl between 2000 and 2004. Effort decreased after 2005 and has fluctuated since.

Dutch effort, which consisted entirely of pelagic trawls, fluctuated during the early 2000s. This stabilised between 2006 and 2010 even though no effort was recorded in 2009. However in the last two years effort has begun decreasing again. German effort was concentrated between 2003 and 2007, with gill nets and pelagic trawls being used. In 2010 German effort was recorded for gill nets and in 2012 was recorded for pelagic trawls.

Table 5.9.1.6.1.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state ICES Sub-area VI EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
6 EU	DEU				441	557611	335978	356344	215066			34839		312000
	DNK	2406												
	ESP										199237			294198
	FRA	6300751	6720756	26462011	5332009	5605366	5279115	4105642	3912664	3795716	3795716	3097857	2063204	2082197
	IRL	584925	845204	554224	306629	220854	254537	63679	160602	132217	32282	81929	16578	34122
	NLD	1574305	1573595	1380242	604027	2937769	1737822	1054019	1061055	1013096		988482	658560	529201
	UK	3218645	4045381	3988130	5298339	4552120	2924540	1834797	1574185	925284	1362479	1221865	1064186	972123
6 EU Total		11681032	13184936	32384607	11541445	13873720	10531992	7414481	6923572	5866313	5389714	5424972	3802528	4223841

Table 5.9.1.6.2.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state ICES Sub-area VI EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
6 EU	BEAM	FRA				54693	95526								
		UK	11278	9298	4214	17964	50267	14625							
	BOTTOM TRAWLS	DEU					12530								
		DNK	2406												
		ESP										142583			150200
		FRA	6041623	6316287	25605568	4967172	5355877	5116610	3995234	3543821	3594454	3594454	2997921	2046576	2063044
		IRL	449853	522150	216898	299429	192885	253337	63679	148902	132217	32282	81929	16578	33413
		UK	3045072	3803261	3585331	3765838	2782751	1794175	1225019	942905	665645	1145465	959278	712339	652372
	DREDGE	UK				12688									
	GILL	DEU				441	66848	29540	15192				34839		
		FRA	255888	313683	807848	307424	111848	124528	100472	286283	161800	161800	99936	16628	19153
		IRL		8844											
		UK	19068		15406	1013475	841609	690287	147742	90561	105292	50425	69752	123079	272
	LONGLINE	ESP										56654			143998
		FRA							9936	82560	39462	39462			
		IRL	3693	45222	8100	7200	17000	1200		11700					
		UK	30852	50791	99769	439338	561125	387085	462036	531318	149543	166589	192835	228768	319479
	none	IRL													709
	PELAGIC TRAWLS	DEU					478233	306438	341152	215066					312000
		FRA	3240	90786	48595	2720	42115	37977							
		IRL	131379	268988	329226		10969								
		NLD	1574305	1573595	1380242	604027	2937769	1737822	1054019	1061055	1013096		988482	658560	529201
		UK	112375	182031	283410	5120	297769	38368							
	POTS	UK				43916	18599			9401	4804				
6 EU Total			11681032	13184936	32384607	11541445	13873720	10531992	7414481	6923572	5866313	5389714	5424972	3802528	4223841

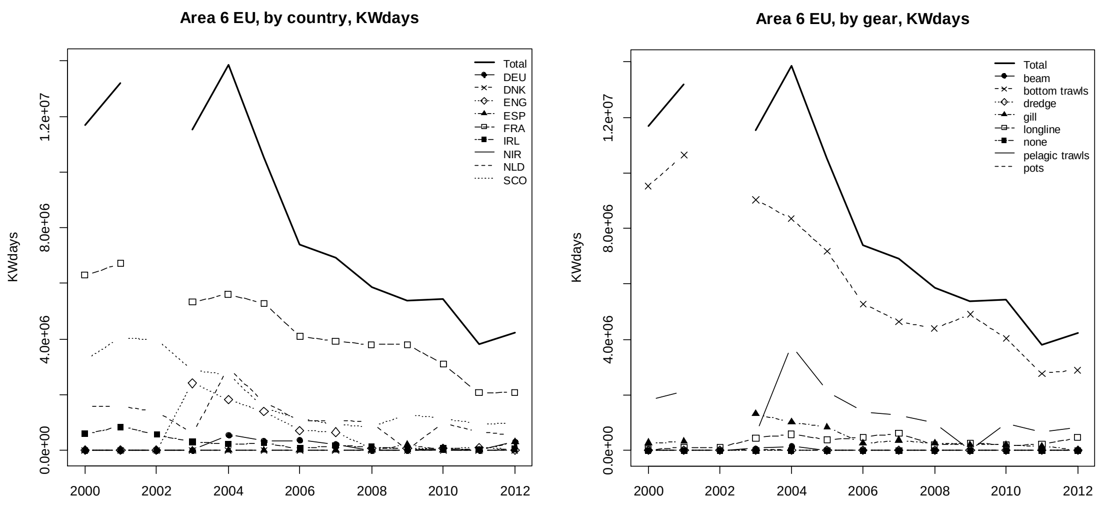


Figure 5.9.1.6.1. Deep Sea fishing effort (kW*days), 2000 – 2012, by country and by gear, in ICES Sub-area VI EU. Due to the uncertainty in French 2002 data this year has been removed from the figure.

Western Waters VI EU

There is uncertainty relating to French effort, values in 2002 are extremely high. Overall effort figures are unreliable. There has been a gradual decline in effort within Area VI EU over the period (Table 5.9.1.6.3. and Figure 5.9.1.6.2.)

The influence of deepwater fisheries in Area VI EU is less than in Area V, here the majority of annual effort is directed to non-deepwater fisheries. A variety of nations operate within this area.

Bottom trawling and pelagic trawling are the primary gear categories within this area, along with smaller amounts of pots and gill nets.

Bottom trawling effort has declined throughout the time series. Effort from 2006 to 2008 was stable before dropping in 2009 by roughly 50%. It stabilised here again for three years before declining once more in 2012. Scotland continues to dominate bottom trawl effort, with large contributions from France (directed toward deepwater fisheries), and to a lesser extent Ireland.

Pelagic trawl effort peaked in 2004 and has shown a steady decline since. There was a small increase in effort in 2011, but this has dropped in 2012 and is back at 2010 levels. Historically pelagic effort was dominated by the Netherlands, with major additional effort from Scotland and Ireland. Netherlands effort has been in decline in the last number of years. In 2012 Ireland recorded the most effort in this sector.

A number of other gear categories are reported from this area, occurring at comparatively low levels. This includes pot, dredging, longlines and gillnets. Of these, pots have the highest effort. Much of this effort originates from Scottish vessels, although Irish, English and Northern Irish vessels also utilise this gear. Gillnetting previously showed higher levels of effort, the majority of which was associated with deepwater fisheries, which have subsequently declined since 2006 to low levels. Scotland, France and Germany carry out demersal gillnetting at lower levels.

Table 5.9.1.6.3.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area VI EU, 2000-2012.

					2000			2001			2002			2003			2004			2005	
Area	Gear	Country	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
6 EU	beam	ENG	o10t15m	0		0	0		0	0		0	442		442	0		0	0		0
		BEL	o15m	27240		27240	10308		10308	5595		5595	19005		19005	18103		18103	8566		8566
		ENG	o15m	0		0	0		0	0		0	832		832	12067		12067	1810		1810
		FRA	o15m	0	0	0	1472	0	1472	0	0	0	25827	54693	-28866	37257	95526	-58269	0	0	0
		IRL	o15m	10523		10523	12528		12528	0		0	0		0	38963		38963	5068		5068
		SCO	o15m	144668	11278	133390	84589	9298	75291	110422	4214	106208	148341	17964	130377	251008	50267	200741	144717	14625	130092
	bottom trawls	ENG	o10t15m	0		0	0		0	0		0	78267		78267	27096		27096	37472		37472
		FRA	o10t15m	0		0	0		0	0		0	23547		23547	0		0	0		0
		IOM	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		IRL	o10t15m	102163		102163	91438		91438	62234		62234	93897		93897	61003		61003	31160		31160
		NIR	o10t15m	0	0	0	0	0	0	0	0	0	16445	0	16445	22824	0	22824	15635	0	15635
		SCO	o10t15m	1642074	0	1642074	1668443	0	1668443	1574994	224	1574770	1802760	0	1802760	1810666	6994	1803672	1679974	0	1679974
		BEL	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		DEU	o15m	65842	0	65842	59689	0	59689	23580	0	23580	19191	0	19191	12530	12530	0	35586	0	35586
		DNK	o15m	44514	2406	42108	87663	0	87663	130437	0	130437	162941	0	162941	98707	0	98707	0	0	0
		ENG	o15m	0	0	0	0	0	0	0	0	0	1187262	1116819	70443	819392	734282	85110	683083	632562	50521
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	6431933	6041623	390310	6857206	6316287	540919	24478451	25605568	-1127117	4829354	4967172	-137818	4713492	5355877	-642385	5117917	5116610	1307
		IOM	o15m	0		0	0		0	0		0	181		181	1172		1172	181		181
		IRL	o15m	2271093	449853	1821240	2188989	522150	1666839	1392006	216898	1175108	2053249	299429	1753820	1544175	192885	1351290	1290918	253337	1037581
		NIR	o15m	0	0	0	0	0	0	0	0	0	604490	18578	585912	501317	4099	497218	421825	4808	417017
		NLD	o15m	0		0	0		0	10592		10592	9840		9840	0		0	0		0
		SCO	o15m	13099323	3045072	10054251	13318903	3803261	9515642	11946784	3585107	8361677	10919812	2630441	8289371	9215112	2037376	7177736	6859956	1156805	5703151
	dredge	ENG	o10t15m	0		0	0		0	0		0	9672		9672	19995		19995	9672		9672
		FRA	o10t15m	0		0	0		0	0		0	7332		7332	1128		1128	0		0
		IOM	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		IRL	o10t15m	7649		7649	13630		13630	9954		9954	680		680	397		397	397		397
		NIR	o10t15m	0		0	0		0	0		0	8736		8736	13993		13993	22540		22540
		SCO	o10t15m	228953		228953	236363		236363	222879		222879	229317		229317	241114		241114	220231		220231
		ENG	o15m	0		0	0		0	0		0	13537		13537	8710		8710	31402		31402
		IOM	o15m	0		0	0		0	0		0	8144		8144	13229		13229	2722		2722
		IRL	o15m	515		515	8935		8935	24050		24050	10260		10260	19884		19884	0		0
		NIR	o15m	0		0	0		0	0		0	30375		30375	31729		31729	13754		13754
		SCO	o15m	1596666	0	1596666	1662645	0	1662645	1842336	0	1842336	1638062	12688	1625374	1348167	0	1348167	1209839	0	1209839
	gill	IRL	o10t15m	1740		1740	0		0	1740		1740	735		735	1711		1711	192		192
		NIR	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		SCO	o10t15m	9427		9427	12986		12986	5822		5822	5005		5005	246		246	2038		2038
		DEU	o15m	265418	0	265418	90861	0	90861	41454	0	41454	138094	441	137653	134492	66848	67644	132800	29540	103260
		ENG	o15m	0	0	0	0	0	0	0	0	0	937655	880886	56769	651447	651447	0	525032	498085	26947
		FRA	o15m	19259	255888	-236629	135040	313683	-178643	431452	807848	-376396	109888	307424	-197536	159958	111848	48110	268726	124528	144198
		IRL	o15m	1994	0	1994	19636	8844	10792	6518	0	6518	19232	0	19232	20402	0	20402	0	0	0
		SCO	o15m	30278	19068	11210	12132	0	12132	16681	15406	1275	152512	132589	19923	190162	190162	0	252944	192202	60742
	longline	IRL	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		NIR	o10t15m	0		0	0		0	0		0	0		0	0		0	1574		1574
		SCO	o10t15m	0		0	0		0	2016		2016	0		0	0		0	0		0
		ENG	o15m	0	0	0	0	0	0	0	0	0	380566	366509	14057	461786	425223	36563	314209	264360	49849
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	52948	0	52948	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		IRL	o15m	3693	3693	0	45222	45222	0	10800	8100	2700	7200	7200	0	18400	17000	1400	3000	1200	1800
		ENG	o15m	30167	3693	26474	45222	45222	0	10800	8100	2700	-183083	-176054.5	-7028.5	-212493	-195611.5	-16881.5	-154104.5	-130980	-23124.5
	none	IRL	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		SCO	o10t15m	50876		50876	57096		57096	59693		59693	52102		52102	26746		26746	42054		42054
		IRL	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		SCO	o15m	0		0	0		0	0		0	0		0	112		112	195		195
	pelagic trawls	IRL	o10t15m	16394		16394	5671		5671	20155		20155	172		172	0		0	320		320
		SCO	o10t15m	0		0	0		0	157		157	0		0	157		157	0		0
		DEU	o15m	666036	0	666036	774479	0	774479	590791	0	590791	682432	0	682432	762402	478233	284169	638384	306438	331946
		DNK	o15m	161281		161281	24349		24349	31509		31509	74864		74864	289874		289874	180965		180965
		ENG	o15m	0		0	0		0	0		0	519661		519661	411524		411524	294900		294900
		FRA	o15m	273019	3240	269779	223838	90786	133052	1026100	48595	977505	379243	2720	376523	437400	42115	395285	197616	37977	159639
		IRL	o15m	2159868	131379	2028489	1418939	268988	1149951	2164888	329226	1835662	2591699	0	2591699	2755700	10969	2744731	1534869	0	1534869
		NIR	o15m	0	0	0	0	0	0	0	0	0	296038	5120	290918	461786	5760	456026	272866	0	272866
		NLD	o15m	3672629	1574305	2098324	3976905	1573595	2403310	3453892	1380242	2073650	2400041	604027	1796014	6156392	2937769	3218623	5544240	1737822	3806418
		SCO	o15m	3251290	112375	3138915	3617298	182031	3435267	4574857	283410	4291447	5440059	0	5440059	5663711	292009	5371702	4517350	38368	4478982
		LTU	o40m	0		0	0		0	0		0	0		0	0		0	0		0
	pots	ENG	o10t15m	0		0	0		0	0		0	23270		23270	0		0	8376		8376
		IRL	o10t15m	0		0	10556		10556	11542		11542	42987		42987	51068		51068	19007		19007
		NIR	o10t15m	0		0	0		0	0		0	46855		46855	100776		100776	121866		121866
		SCO	o10t15m	1301245		1301245	1373675		1373675	1141446		1141446	1214692		1214692	1320474		1320474	1401767		1401767
		DEU	o15m	0		0	0		0	21168		21168	24696		24696	49833		49833	55125		55125
		ENG	o15m	0	0	0	0	0	0	0	0	0	280047	43916	236131	145394	0	145394	219603	0	219603
		GBJ	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		IRL	o15m	358415		358415	564982		564982	568652		568652	619014		619014	631838		631838	584531		584531
		NIR	o15m	0		0	0		0	0		0	71548		71548	92984		92984	91613		91613
		SCO	o15m	384786	0	384786	373210	0	373210	412552	0	412552	466579	0	466579	389057	18599	370458	325376	0	325376
	trammel	FRA	o10t15m	564		564	0		0	0		0	0		0	0		0	0		0
		IRL	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		SCO	o10t15m	2265		2265	1416		1416	0		0	636		636	435		435	0		0
		ENG	o15m	0		0	0		0	0		0	27508		27508	0		0	0		0
		FRA	o15m	0		0	114816		114816	0		0	0		0	0		0	0		0
		IRL	o15m	0		0	0		0	0		0	0		0	0		0	12000		12000
6 EU Total				38443918	11681032	26762886	39247170	13184936	26062234	56600722	32384607	24216115	41083726	11541445	29542281	42417927	13873720	28544207	35714910	10531992	25182918

	2006			2007			2008			2009			2010			2011			2012	
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0		0	0		0	0		0	0		0	0		0	0		0	0		0
4415		4415	2356		2356	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6335		6335	0		0	0		0	0		0	0		0	0		0	0		0
101694	0	101694	1803	0	1803	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
36827		36827	42813		42813	56881		56881	9421		9421	12314		12314	20017		20017	37521		37521
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	649		649	0		0	0		0	0		0	0		0
18456		18456	13467		13467	16261		16261	6016		6016	12798		12798	7903		7903	6309		6309
49371	0	49371	84096	0	84096	56871	0	56871	58295	531	57764	116005	0	116005	137987	0	137987	99194	0	99194
1657683	0	1657683	1680552	0	1680552	1532567	0	1532567	1459322	0	1459322	1293038	0	1293038	1112107	0	1112107	1200395	0	1200395
1766		1766	795		795	0		0	0		0	1176		1176	0		0	0		0
22797	0	22797	23652	0	23652	3060	0	3060	4854	0	4854	6957	0	6957	0	0	0	1103	0	1103
11520	0	11520	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
382087	319610	62477	270096	244116	25980	78276	35830	42446	61318	32930	28388	70815	68327	2488	49349	47724	1625	35874	5327	30547
0	0	0	0	0	0	0	0	0	0	142583	-142583	0	0	0	0	0	0	174309	150200	24109
4263214	3995234	267980	3942141	3543821	398320	3963300	3594454	368846	3963300	3594454	368846	3095528	2997921	97607	2151504	2046576	104928	2143724	2063044	80680
894		894	0		0	0		0	0		0	0		0	0		0	284		284
1412180	63679	1348501	1396292	148902	1247390	1195738	132217	1063521	801585	32282	769303	919701	81929	837772	825742	16578	809164	704529	33413	671116
434857	2813	432044	710247	5420	704827	639134	10312	628822	513126	3187	509939	786835	7822	779013	813435	790	812645	707288	0	707288
0		0	0		0	0		0	0		0	0		0	5464		5464	884		884
5800069	902596	4897473	5705025	693369	5011656	6214274	619503	5594771	6744754	1108817	5635937	5980778	883129	5097649	5843202	663825	5179377	6089033	647045	5441988
20508		20508	17860		17860	23879		23879	7068		7068	0		0	12928		12928	20353		20353
0		0	0		0	0		0	0		0	0		0	0		0	0		0
2508		2508	2304		2304	13871		13871	5443		5443	884		884	4862		4862	2920		2920
556		556	884		884	0		0	0		0	0		0	640		640	11709		11709
10921		10921	2685		2685	10115		10115	13738		13738	10177		10177	2588		2588	35407		35407
147675		147675	108381		108381	121309		121309	132383		132383	154918		154918	150292		150292	186572		186572
36378		36378	18125		18125	3868		3868	17617		17617	7304		7304	18182		18182	39266		39266
6625		6625	8981		8981	22011		22011	9981		9981	6966		6966	12509		12509	37183		37183
0		0	19404		19404	7938		7938	0		0	0		0	0		0	0		0
5332		5332	19744		19744	14763		14763	50602		50602	15643		15643	2415		2415	106265		106265
931168	0	931168	712625	0	712625	857773	0	857773	834279	0	834279	806927	0	806927	707876	0	707876	934114	0	934114
2379		2379	7351		7351	5421		5421	1140		1140	551		551	2075		2075	75		75
0		0	0		0	3564		3564	0		0	0		0	0		0	0		0
1044		1044	553		553	5493		5493	0		0	0		0	0		0	0		0
56548	15192	41356	161064	0	161064	141492	0	141492	91269	0	91269	114683	34839	79844	107771	0	107771	65261	0	65261
102666	102666	0	90561	90561	0	0	0	0	41885	41885	0	2540	2540	0	60851	60851	0	30899	0	30899
276528	100472	176056	228799	286283	-57484	649678	161800	487878	649678	161800	487878	375934	99936	275998	633039	16628	616411	494285	19153	475132
1175	0	1175	5995	0	5995	4528	0	4528	2135	0	2135	0	0	0	0	0	0	0	0	0
132772	45076	87696	65169	0	65169	186312	105292	81020	109053	8540	100513	190339	67212	123127	157892	62228	95664	146672	272	146400
0		0	0		0	0		0	0		0	1397		1397	7470		7470	3471		3471
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
312858	282970	29888	325325	308904	16421	28103	28103	0	0	0	0	0	0	0	0	0	0	4415	4415	0
0	0	0	0	0	0	0	0	0	0	56654	-56654	0	0	0	0	0	0	459895	143998	315897
163130	9936	153194	445344	82560	362784	277750	39462	238288	277750	39462	238288	189072	0	189072	172250	0	172250	205044	0	205044
0	0	0	11700	11700	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-74864	-136517	61653	71709.5	-101472	173181.5	124823.5	5679.5	119144	138875	19731	119144	94536	0	94536	86125	0	86125	100314.5	-2207.5	102522
0		0	0		0	218		218	0		0	835		835	0		0	69		69
50920		50920	61281		61281	47721		47721	50969		50969	43058		43058	41387		41387	57776		57776
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13315	709	12606
0		0	2223		2223	20908		20908	48410		48410	55669		55669	57503		57503	47269		47269
4320		4320	2512		2512	2092		2092	640		640	1488		1488	12652		12652	4097		4097
0		0	0		0	0		0	0		0	0		0	0		0	0		0
1143771	341152	802619	1161097	215066	946031	684150	0	684150	484479	0	484479	367736	0	367736	1073742	0	1073742	739578	312000	427578
820379		820379	132815		132815	99889		99889	0		0	0		0	119982		119982	94838		94838
890428		890428	845598		845598	653736		653736	721818		721818	425610		425610	296414		296414	110154		110154
305922	0	305922	324841	0	324841	257796	0	257796	257796	0	257796	233392	0	233392	138664	0	138664	39480	0	39480
1754981	0	1754981	1463653	0	1463653	1645492	0	1645492	1580228	0	1580228	1385132	0	1385132	1637878	0	1637878	2155644	0	2155644
287355	0	287355	249162	0	249162	124524	0	124524	64013	0	64013	178558	0	178558	408601	0	408601	316834	0	316834
4327834	1054019	3273815	4430203	1061055	3369148	3824546	1013096	2811450	2815153	0	2815153	1557718	988482	569236	1258498	658560	599938	1667234	529201	1138033
2316619	0	2316619	2185832	0	2185832	1458951	0	1458951	1798030	0	1798030	1559693	0	1559693	1766211	0	1766211	1651511	0	1651511
0		0	0		0	0		0	29520		29520	0		0	150400		150400	0		0
9260		9260	11967		11967	3531		3531	45565		45565	135451		135451	65461		65461	26762		26762
123069		123069	201366		201366	165038		165038	175838		175838	207251		207251	145184		145184	156218		156218
111192		111192	201613		201613	188029		188029	143821		143821	158370		158370	160594		160594	201561		201561
1474879		1474879	1661647		1661647	1630841		1630841	1657389		1657389	1761371		1761371	1534473		1534473	1519643		1519643
98384		98384	92176		92176	34398		34398	46978		46978	75535		75535	63157		63157	7991		7991
228556	0	228556	500374	8960	491414	147114	0	147114	63725	0	63725	64031	0	64031	61952	0	61952	51799	0	51799
0		0	0		0	0		0	321		321	0		0	1043		1043	0		0
441124		441124	462973		462973	394266		394266	327243		327243	297001		297001	209050		209050	127620		127620
60072		60072	110316		110316	82843		82843	11306		11306	25479		25479	135049		135049	440		440
374470	0	374470	421709	441	421268	400018	4804	395214	526231	0	526231	622139	0	622139	530089	0	530089	497483	0	497483
0		0	0		0	0		0	0		0	0		0	0		0	0		0
448		448	0		0	0		0	0		0	0		0	359		359	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
31610323	7414481	24195842	31168435	6923572	24244863	28379716	5866313	22513403	27418881	5389714	22029167	24048181	5424972	18623209	23583447	3802528	19780919	23990246	4223841	19766405

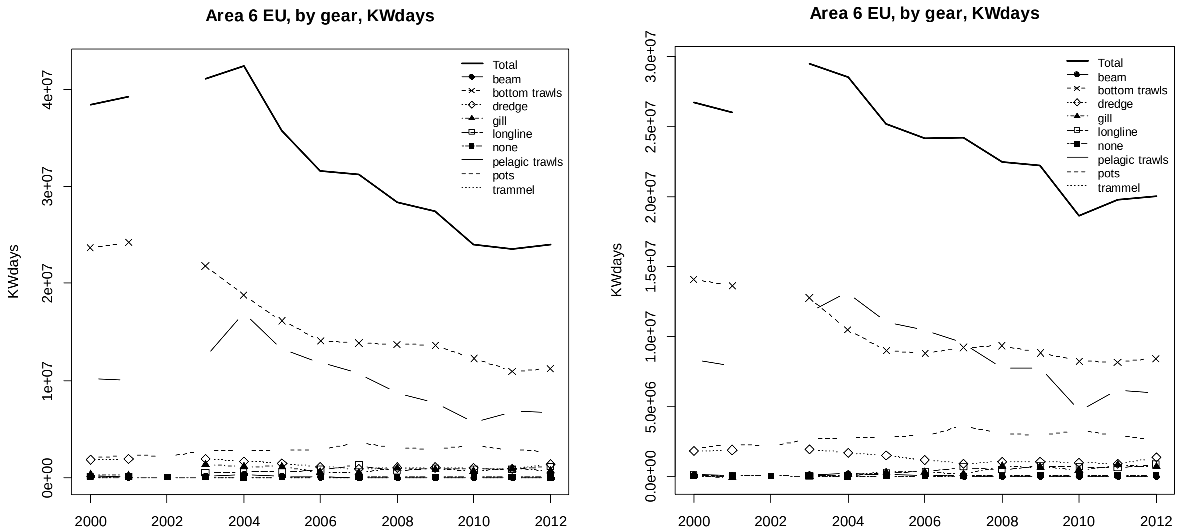


Figure 5.9.1.6.2.- Effort (kW*days) reported within ICES Sub-area VI EU by gear type, 2000-2012, with (left) and without (right) reported deepwater effort.

Deepwater VI non-EU

The effort in Area VI non-EU peaked in 2004 and has been in decline since, with the 2012 figure being the smallest of the time series, (Tables 5.9.1.6.4, 5.9.1.6.5 and Figure 5.9.1.6.3). This effort has been dominated by the UK, however UK effort has dropped by more than 99% since its peak in 2004. In 2012 Spain recorded effort in this area for bottom trawls for the first time.

Bottom trawl was the most important method, with some gill net effort being reported up to 2001 by Portugal and 2007 by the UK. Netherlands carried out pelagic trawls for a number of years in the mid 2000s.

Table 5.9.1.6.4.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state ICES Sub-area VI non-EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
6 non EU	ESP													215918
	EST						12656	18080						
	NLD				4398	139938								
	PRT	342636	361300			72900								
	UK	99475	260982	232059	1222142	1398142	706837	529460	367291	170600	99545	135929	41990	8514
6 non EU Total		442111	622282	232059	1226540	1610980	719493	547540	367291	170600	99545	135929	41990	224432

Table 5.9.1.6.5.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state ICES Sub-area VI non-EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
6 non EU	BOTTOM TRAWLS	ESP													215918
		EST						12656	18080						
		UK	99475	213568	153329	871779	1024477	548210	451499	316165	151087	99545	135929	41990	8514
	GILL	PRT	342636	361300											
		UK		46526	78730	342362	373665	158627	77961	51126					
	LONGLINE	PRT					72900								
		UK		888		8001									
	PELAGIC TRAWLS	NLD				4398	139938								
	POTS	UK									19513				
6 non EU Total			442111	622282	232059	1226540	1610980	719493	547540	367291	170600	99545	135929	41990	224432

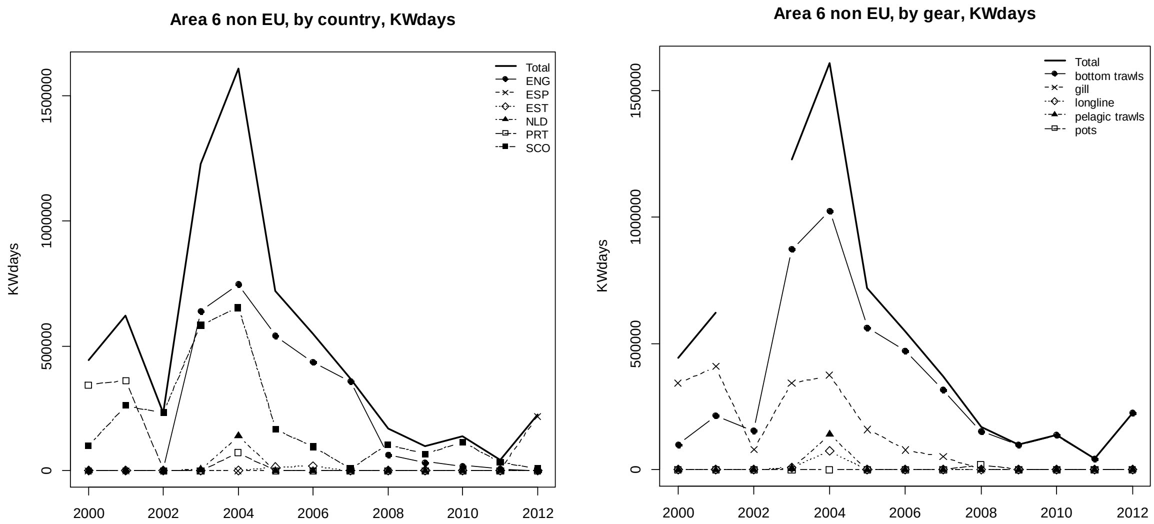


Figure 5.9.1.6.3. Deep Sea fishing effort (kW*days), 2000 – 2012, by country and by gear, in ICES Sub-area VI non-EU.

Western Waters VI non-EU

Effort has been declining within this area over time, having peaked in 2004. Effort had increased slightly between 2008 and 2010, and has stabilised since (Table 5.9.1.6.6. and Figure 5.9.1.6.4.).

Bottom trawling is the primary activity, carried out by English and Scottish vessels. Much of the effort had been directed towards deepwater fisheries. Scottish effort, which had increased to to 2010, has begun to decline again. In 2012 England, whose effort had been in decline since 2004, didn’t report any bottom trawl effort, however, Spain recorded a large amount of effort, for the first time.

At the beginning of the time series, gillnetting also occurred, carried out by England, Scotland and Portugal, and much of this effort was directed toward deepwater fisheries. Since 2006 effort within this category has been minimal.

A period of pelagic trawling which occurred between 2003 and 2005 has ceased. Effort by Germany using pots from 2010 to 2012 seems to be directed at deep-water red crab.

Table 5.9.1.6.6.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area VI non-EU, 2000-2012.

					2000			2001			2002			2003			2004			2005	
Area	Gear	Country	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
6 non EU	bottom trawls	DNK	o15m	0		0	0		0	0		0	6371		6371	0		0	0		0
		ENG	o15m	0	0	0	0	0	0	0	0	0	514353	514353	0	727273	698028	29245	528446	528446	0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		SCO	o15m	154635	99475	55160	269854	213568	56286	205365	153329	52036	458126	357426	100700	352587	326449	26138	24708	19764	4944
		EST	o40m		0			0			0			0			0			12656	
		LTU	o40m	0		0	0		0	0		0	0		0	0		0	0		0
	gill	ENG	o15m	0	0	0	0	0	0	0	0	0	126696	124990	1706	47538	47538	0	12044	12044	0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	342636	342636	0	361300	361300	0	158848	0	158848	0	0	0	51136	0	51136	0	0	0
		SCO	o15m	75883	0	75883	87388	46526	40862	124119	78730	45389	226990	217372	9618	326127	326127	0	151406	146583	4823
	longline	PRT	o15m	0	0	0	0	0	0	0	0	0	0	0	0	136080	72900	63180	0	0	0
		SCO	o15m	23050	0	23050	25498	888	24610	1111	0	1111	8001	8001	0	0	0	0	0	0	0
	pelagic trawls	DEU	o15m	0		0	0		0	0		0	9884		9884	0		0	0		0
		DNK	o15m	24060		24060	0		0	0		0	0		0	0		0	0		0
		NLD	o15m	0	0	0	0	0	0	0	0	0	214451	4398	210053	254730	139938	114792	88605	0	88605
		SCO	o15m	33150		33150	9046		9046	0		0	154562		154562	0		0	0		0
	pots	DEU	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		ENG	o15m	0		0	0		0	0		0	24797		24797	0		0	0		0
		SCO	o15m	0	0		0	0		0	0		0	0		0	0		0	0	
6 non EU Total				653414	442111	211303	753086	622282	130804	489443	232059	257384	1744231	1226540	517691	1895471	1610980	284491	805209	719493	98372

	2006			2007			2008			2009			2010			2011			2012	
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0		0	0		0	0		0	0		0	0		0	0		0	0		0
434191	434191	0	307643	307643	0	65188	65188	0	33612	33612	0	19940	19940	0	6940	6940	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	230572	215918	14654
0		0	0		0	0		0	0		0	2427		2427	0		0	0		0
39808	17308	22500	57544	8522	49022	94473	85899	8574	182346	65933	116413	415654	115989	299665	278137	35050	243087	68660	8514	60146
	18080			0			0			0			0			0			0	
0		0	0		0	0		0	0		0	0		0	0		0	53718		53718
0	0	0	58329	51126	7203	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0		0	0		0	0		0	0		0	0		0	0		0	818		818
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
77961	77961	0	67248	0	67248	0	0	0	15317	0	15317	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	645	0	645
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	39709		39709	91296		91296	23101		23101
0		0	35364		35364	0		0	0		0	0		0	0		0	0		0
0	0		0	0		19513	19513		0	0		0	0		0	0		0	0	
551960	547540	22500	526128	367291	158837	179174	170600	8574	231275	99545	131730	477730	135929	341801	376373	41990	334383	377514	224432	153082

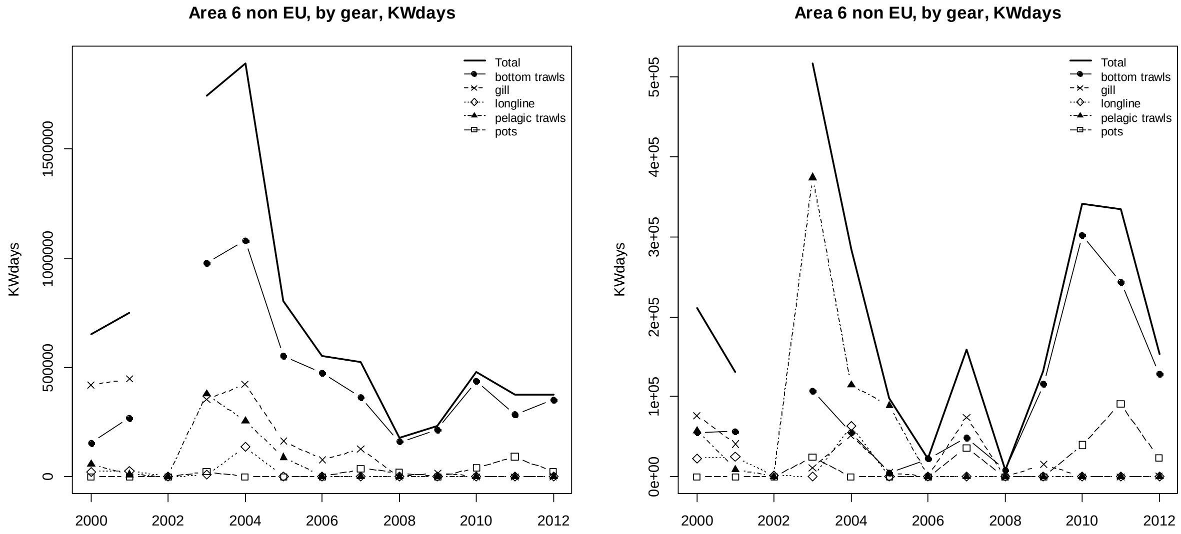


Figure 5.9.1.6.4.- Effort (kW*days) reported within ICES Sub-area VI non-EU by gear type, 2000-2012, with (left) and without (right) reported deepwater effort.

5.9.1.7 Fishing effort in ICES area VII excluding VIId

Deepwater VII EU no VIId

Six countries supplied data indicating activity in this area (Tables 5.9.1.7.1, 5.9.1.7.2 and Figure 5.9.1.7.1), from 2003 to 2007 by Germany, and 2009 and 2012 from Spain. UK, France and Ireland were the main countries with the Netherlands also reporting pelagic trawl effort in this area throughout the time series

This area has been broken up into Area VII (EU no VIId), EU VIId, and non EU. EU VIId is the eastern English channel and is often associated with the North Sea as much as the English Channel.

With the exception of the UK, effort of most of the other nations has dropped dramatically. For the UK effort peaked in 2004 at 7.5 million KWdays before it began dropping. However UK effort has been relatively stable since 2009. French effort has also declined by just over 60% in the time period and for Ireland it is even more striking, down from 1.6 million KWdays to just under 190,000 KWdays.

The main effort in this area is recorded for the UK bottom trawl effort, followed by France and Ireland. In 2012 however Spain recorded extensive bottom trawl effort, similar to that recorded by the UK in the middle part of the time series. Gill net effort in France and the UK has been declining since reaching a peak in 2004. Between 2006 and 2008 the UK longline effort was nearly as important as gill nets, but this effort decreased quickly up to 2011, before showing an increase again in 2012. Spain also reported considerable longline effort for 2012. The UK reported effort by beam trawls and trammel nets but both have been in decline recently, although there was an increase in trammel net activity in 2012.

In general the declines in effort reported above are evident in most gears. The Netherlands has been responsible for most of the pelagic trawling. This effort fluctuated between 2000 and 2005, and became intermittent at low levels after that. The Netherlands reported quite high effort again for 2010 but this has decreased again in 2011 and 2012.

Table 5.9.1.7.1.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state ICES Sub-area VII EU no VIId.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
7 EU no 7d	DEU				111935	318242	344403		8398					
	ESP										374808			3827062
	FRA	2029867	2388719	7738371	1544420	1236669	1591217	1633554	1424224	992530	981979	965551	688175	827292
	IRL	1576450	2867608	3033612	3290922	2495796	2236290	1158833	811713	607795	128419	107778	130793	187119
	NLD	1146962	219372	535722	150544	636250	299936	22652		53536		482503	225060	111619
	UK	1835996	1593830	1456107	7415966	7135728	6434736	4853687	5236725	4235020	2851074	3000554	2671318	2336111
7 EU no 7d Total		6589275	7069529	12763812	12513787	11822685	10906582	7668726	7481060	5888881	4336280	4556386	3715346	7289203

Table 5.9.1.7.2.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state ICES Sub-area VII EU no VIId.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
7 EU no 7d	BEAM	IRL		59082	5372			17507							1547
		UK				1780538	1655828	1630596	910940	974833	788631	434315	333813	322008	381556
	BOTTOM TRAWLS	ESP										154898			2528775
		FRA	1729990	1936562	5021776	1142499	944045	1027472	1228501	1011353	705892	695341	757599	576611	680547
		IRL	1326313	2468071	2536986	3036176	2473880	2187958	1127858	749478	603370	128419	107778	130793	176355
		NLD											3385		
		UK	1325727	1126415	976686	3185967	2846227	2725982	2650833	2909815	2041911	1812445	1872463	1760043	1071343
	DREDGE	FRA											110		
	GILL	DEU				111935	185086	189137		8398					
		ESP										8985			1588
		FRA	291082	439105	2708847	396953	261655	555657	351137	245631	219877	219877	129931	107103	135602
		IRL	159080	144985	132049	165956	18916	11875	30975	30385	4425				
		UK	368315	206294	209473	1919589	2262210	1656905	623470	639964	638693	491055	592565	513031	609884
	LONGLINE	ESP										210925			1281762
		FRA	8795	9688			21409	1133	46139	167240	66761	66761	72518		9338
		IRL	43647	69347	65700	73800	3000	18950		31850					
		UK	92543	139149	173271	458307	305419	352092	615056	691143	746843	110627	172638	70581	244630
	none	ESP													14937
		IRL		1612											9217
	PELAGIC TRAWLS	DEU					133156	155266							
		FRA		3364	7748	4968	5912	3355	2479				1620	1768	
		IRL	47410	124511	293505	14990									
		NLD	1146962	219372	535722	150544	636250	299936	22652		53536		479118	225060	111619
		UK		72061		34271	41484	50625					27309		
	POTS	FRA					3648						3087		140
		UK				545	8376				15155		654	162	
	TRAMMEL	FRA						3600	5298				686	2693	1665
		UK	49411	49911	96677	36749	16184	18536	53388	20970	3787	2632	1112	5493	28698
7 EU no 7d Total			6589275	7069529	12763812	12513787	11822685	10906582	7668726	7481060	5888881	4336280	4556386	3715346	7289203

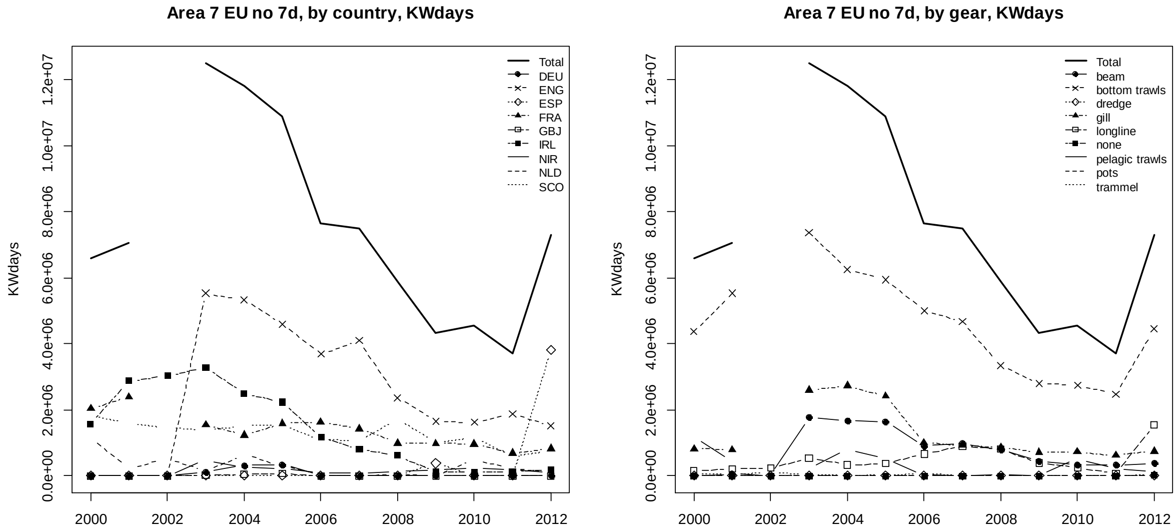


Figure 5.9.1.7.1. Deep Sea fishing effort (kW*days), 2000 – 2012, by country and by gear, in ICES Sub-area VII EU no VIId. Due to the uncertainty in French 2002 data this year has been removed from the figure.

VII EU no VIId Western Waters

There is uncertainty relating to French effort.

Within EU waters of Area VII, excluding VIId, a wide variety of activity occurs incorporating a number of nations. Overall effort declined from 2004 until 2007, but has been fluctuating since. A relatively small proportion of effort is directed to deepwater fisheries (Table 5.9.1.7.3 and Figure 5.9.1.7.2).

The main gear in use is the bottom trawl, with France the primary contributor followed by Ireland and the UK. Bottom trawl effort has remained relatively stable throughout the time series. Within the UK effort by England has dropped gradually while that of Scotland has stayed stable.

Pelagic trawling is dominated by the Netherlands and with smaller amounts by Ireland, UK, France and Germany. Netherlands effort has decreased slightly in the last two years after being reasonably stable since 2003.Effort by Germany and France has been stable, while that of Ireland has begun to increase since 2008. Within the UK effort by England is stable while that of Scotland has declined.

Beam trawling, mainly carried out by England, Belgium and Ireland, has declined from a peak in 2003. This is likely due to a number of decommissioning schemes removing vessels from the fleet. Effort seems to have stabilised since 2009.

Dredging effort (by France, Scotland, England and Ireland) has remained stable through the time series. A small amount of effort is also directed toward pots and gillnets, particularly by France.

Table 5.9.1.7.3.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area VII EU no VIId, 2000-2012.

					2000			2001			2002			2003			2004			2005	
Area	Gear	Country	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
7 EU no 7d	beam	ENG	o10t15m	0		0	0		0	0		0	200993		200993	81373		81373	83351		83351
		FRA	o10t15m	19608		19608	15582		15582	14707		14707	7217		7217	27252		27252	72001		72001
		IRL	o10t15m	1320		1320	0		0	0		0	0		0	0		0	0		0
		NIR	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		SCO	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		BEL	o15m	3307239		3307239	3841067		3841067	4365260		4365260	4799487		4799487	6051749		6051749	5691268		5691268
		ENG	o15m	0	0	0	0	0	0	0	0	0	6021585	1758136	4263449	5739694	1616438	4123256	5804604	1556059	4248545
		FRA	o15m	0		0	85561		85561	181057		181057	40289		40289	296461		296461	244545		244545
		GBJ	o15m	0	0	0	0	0	0	0	0	0	325328	22402	302926	409038	39390	369648	205771	74537	131234
		IRL	o15m	4016703	0	4016703	3710536	59082	3651454	3625994	5372	3620622	4899946	0	4899946	3605637	0	3605637	3489563	17507	3472056
		NIR	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		NLD	o15m	233246		233246	2184		2184	7048		7048	22000		22000	0		0	5884		5884
		SCO	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	bottom trawls	ENG	o10t15m	0	0	0	0	0	0	0	0	0	1574217	6554	1567663	1564197	4602	1559595	1548480	3845	1544635
		FRA	o10t15m	459112	672	458440	504324	0	504324	3109661	0	3109661	1215705	0	1215705	1442682	0	1442682	1330539	0	1330539
		GBG	o10t15m	0		0	0		0	0		0	0		0	0		0	730		730
		IOM	o10t15m	0		0	0		0	0		0	239		239	0		0	2126		2126
		IRL	o10t15m	292972		292972	316604		316604	311512		311512	429700		429700	397518		397518	398023		398023
		NIR	o10t15m	0	0	0	0	0	0	0	0	0	327595	354	327241	480458	531	479927	470614	738	469876
		SCO	o10t15m	1313	0	1313	0	0	0	0	0	0	39704	0	39704	78848	0	78848	74832	1043	73789
		BEL	o15m	39210		39210	37083		37083	36086		36086	22209		22209	132868		132868	232400		232400
		DNK	o15m	182847		182847	146098		146098	51441		51441	111205		111205	213006		213006	77968		77968
		ENG	o15m	0	0	0	0	0	0	0	0	0	3710594	1819086	1891508	3615810	1660127	1955683	3088269	1375370	1712899
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	11477151	1729318	9747833	15259853	1936562	13323291	74353370	5021776	69331594	17600326	1142499	16457827	17806538	944045	16862493	18308670	1027472	17281198
		GBG	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		GBJ	o15m	0		0	0		0	0		0	3557		3557	0		0	6745		6745
		IOM	o15m	0		0	0		0	0		0	27459		27459	11188		11188	25251		25251
		IRL	o15m	8395827	1326313	7069514	9791002	2468071	7322931	10855752	2536986	8318766	12877606	3036176	9841430	13028688	2473880	10554808	12713515	2187958	10525557
		NIR	o15m	0	0	0	0	0	0	0	0	0	5131423	441798	4689625	3873541	237891	3635650	3688605	189486	3499119
		NLD	o15m	55980	0	55980	216084	0	216084	208550	0	208550	255710	0	255710	64393	0	64393	108566	0	108566
		SCO	o15m	1922928	1325727	597201	1590164	1126415	463749	1454815	976686	478129	1454776	918175	536601	1478468	943076	535392	1807434	1155500	651934
	dredge	ENG	o10t15m	0		0	0		0	0		0	328023		328023	415033		415033	606335		606335
		FRA	o10t15m	859043	0	859043	1048444	0	1048444	7828280	0	7828280	2320953	0	2320953	2954269	0	2954269	2755241	0	2755241
		IOM	o10t15m	0		0	0		0	0		0	717		717	0		0	209		209
		IRL	o10t15m	10671		10671	18238		18238	5518		5518	19763		19763	16170		16170	2686		2686
		NIR	o10t15m	0		0	0		0	0		0	29469		29469	44290		44290	50615		50615
		SCO	o10t15m	6351		6351	21611		21611	19662		19662	9496		9496	4196		4196	22366		22366
		BEL	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		ENG	o15m	0		0	0		0	0		0	820677		820677	928810		928810	1034158		1034158
		FRA	o15m	399764		399764	510343		510343	2543721		2543721	631654		631654	904367		904367	644169		644169
		GBJ	o15m	0		0	0		0	0		0	57295		57295	0		0	0		0
		IOM	o15m	0		0	0		0	0		0	7856		7856	5387		5387	4985		4985
		IRL	o15m	828345		828345	618445		618445	608505		608505	1067220		1067220	1117122		1117122	584823		584823
		NIR	o15m	0		0	0		0	0		0	105733		105733	93221		93221	61077		61077
		NLD	o15m	0		0	54426		54426	56253		56253	153790		153790	136772		136772	198540		198540
		SCO	o15m	1157996		1157996	1479778		1479778	1328895		1328895	1470555		1470555	1326466		1326466	1595680		1595680
	gill	ENG	o10t15m	0	0	0	0	0	0	0	0	0	372118	146512	225606	416116	151424	264692	329209	141351	187858
		FRA	o10t15m	275261	0	275261	273569	0	273569	2213729	0	2213729	740936	0	740936	1015940	0	1015940	904288	0	904288
		IRL	o10t15m	83141		83141	63582		63582	56252		56252	98676		98676	96556		96556	79440		79440
		NIR	o10t15m	0		0	0		0	0		0	0		0	222		222	0		0
		NLD	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		BEL	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		DEU	o15m	417051	0	417051	391578	0	391578	377303	0	377303	371138	111935	259203	452381	185086	267295	396914	189137	207777
		ENG	o15m	0	0	0	0	0	0	0	0	0	1715029	1455854	259175	1805994	1588610	217384	1364180	1206139	158041
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	807869	291082	516787	896164	439105	457059	2198446	2708847	-510401	1042726	396953	645773	1069302	261655	807647	1240907	555657	685250
		GBJ	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		IRL	o15m	1545953	159080	1386873	1294591	144985	1149606	778516	132049	646467	1055553	165956	889597	853461	18916	834545	626023	11875	614148
		NIR	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		NLD	o15m	0		0	660		660	0		0	0		0	0		0	0		0
		SCO	o15m	450872	368315	82557	348860	206294	142566	246997	209473	37524	467260	317223	150037	640666	522176	118490	499567	309415	190152
	longline	ENG	o10t15m	0	0	0	0	0	0	0	0	0	82631	638	81993	65028	1314	63714	58340	1161	57179
		ESP	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	41782		41782	25673		25673	327200		327200	111426		111426	153667		153667	198527		198527
		IRL	o10t15m	0		0	0		0	0		0	0		0	0		0	4074		4074
		SCO	o10t15m	0		0	0		0	0		0	0		0	0		0	221		221
		DNK	o15m	0		0	0		0	6993		6993	0		0	0		0	0		0
		ENG	o15m	0	0	0	0	0	0	0	0	0	362159	330420	31739	334140	297945	36195	359017	300599	58418
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	127040	8795	118245	84155	9688	74467	178820	0	178820	123656	0	123656	184636	21409	163227	206807	1133	205674
		IRL	o15m	77156	43647	33509	134643	69347	65296	69300	65700	3600	91311	73800	17511	4400	3000	1400	68722	18950	49772
		SCO	o15m	196263	92543	103720	306560	139149	167411	286098	173271	112827	139261	127249	12012	6160	6160	0	50975	50332	643
	none	FRA	o10t15m	26031		26031	12208		12208	55474		55474	10756		10756	33746		33746	76396		76396
		IRL	o10t15m	0		0	0		0	2088		2088	0		0	0		0	0		0
		SCO	o10t15m	0		0	0		0	0		0	0		0	0		0	2130		2130
		DNK	o15m	14700		14700	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	205		205	365		365	8717		8717	21008		21008	0		0	327		327
		IRL	o15m	0	0	0	4581	1612	2969	375	0	375	0	0	0	0	0	0	0	0	0
	pelagic trawls	ENG	o10t15m	0		0	0		0	0		0	7950		7950	19022		19022	13409		13409
		FRA	o10t15m	38446	0	38446	49353	424	48929	225559	0	225559	111398	0	111398	109005	0	109005	72864	0	72864
		GBG	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		IRL	o10t15m	716		716	8378		8378	1911		1911	6720		6720	7060		7060	2988		2988
		NIR	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		SCO	o10t15m	0		0	0		0	0		0	2086		2086	5066		5066	1341		1341
		DEU	o15m	1152412	0	1152412	1029246	0	1029246	1168186	0	1168186	1152793	0	1152793	1236846	133156	1103690	936424	155266	781158
		DNK	o15m	454122		454122	356152		356152	389577		389577	180216		180216	285933		285933	529574		529574
		ENG	o15m	0	0	0	0	0	0	0	0	0	1120013	0	1120013	909490	0	909490	601144	0	601144
		ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	1105863	0	1105863	1634683	2940	1631743	5899371	7748	5891623	1767960	4968	1762992	1645559	5912	1639647	1623092	3355	1619737
		GBJ	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		IRL	o15m	2716924	47410	2669514	1950784	124511	1826273	2651504	293505	2357999	1565407	14990	1550417	1762567	0	1762567	1592041	0	1592041
		NIR	o15m	0	0	0	0	0	0	0	0	0	295531	34271	261260	257341	6400	250941	287278	30242	257036
		NLD	o15m	7343001	1146962	6196039	6139612	219372	5920240	5033174	535722	4497452	4778550	150544	4628006	5183074	636250	4546824	4516777	299936	4216841
		SCO	o15m	760782	0	760782	1094798	72061	1022737	886920	0	886920	471303	0	471303	1092027	35084	1056943	1107013	20383	1086630
		LTU	o40m	0		0	0		0	0		0	0		0	0		0	0		0
	pots	ENG	o10t15m	0	0	0	0	0	0	0	0	0	1082863	0	1082863	1084923	0	1084923	1177925	0	1177925
		FRA	o10t15m	482132	0	482132	680910	0	680910	4388916	0	4388916	1048241	0	1048241	1768450	0	1768450	1751646	0	1751646
		GBG	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		IOM	o10t15m	0		0	0		0	0		0	1581		1581	1395		1395	0		0
		IRL	o10t15m	66827		66827	76572		76572	95186		95186	49481		49481	138065		138065	192380		192380
		NIR	o10t15m	0		0	0		0	0		0	34180		34180	30312		30312	26230		26230
		SCO	o10t15m	49070		49070	52119		52119	2136		2136	1565		1565	0		0	12627		12627
		DEU	o15m	0		0	0		0	48951		48951	79821		79821	22932		22932	67473		67473
		ENG	o15m	0	0	0	0	0	0	0	0	0	555677	545	555132	537343	8376	528967	496013	0	496013
		FRA	o15m	358292	0	358292	301650	0	301650	957513	0	957513	206908	0	206908	310610	3648	306962	331470	0	331470
		GBG	o15m	0		0	0		0	0		0	0		0	75868		75868	56398		56398
		GBJ	o15m	0		0	0		0	0		0	72196		72196	80150		80150	17726		17726
		IOM	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		IRL	o15m	29274		29274	44134		44134	79530		79530	107939		107939	58839		58839	107808		107808
		NIR	o15m	0		0	0		0	0		0	0		0	781		781	0		0
		SCO	o15m	0	0	0	3384	0	3384	0	0	0	0	0	0	0	0	0	0	0	0
	trammel	ENG	o10t15m	0	0	0	0	0	0	0	0	0	373	0	373	243	0	243	11051	5706	5345
		FRA	o10t15m	362480	0	362480	428847	0	428847	1376153	0	1376153	463009	0	463009	613504	0	613504	763828	0	763828
		IRL	o10t15m	0		0	0		0	0		0	802		802	0		0	0		0
		ENG	o15m	0	0	0	0	0	0	0	0	0	17903	16706	1197	40645	2822	37823	16189	12830	3359
		FRA	o15m	140184	0	140184	216520	0	216520	1121650	0	1121650	299226	0	299226	358319	0	358319	438016	3600	434416
		IRL	o15m	0		0	3885		3885	0		0	0		0	172		172	16260		16260
		SCO	o15m	74562	49411	25151	102966	49911	53055	112004	96677	15327	50501	20043	30458	13362	13362	0	0	0	0
7 EU no 7d Total				52866037	6589275	46276762	57278609	7069529	50209080	142210636	12763812	129446824	90459908	12513787	77946121	93126828	11822685	81304143	90273687	10906582	79367105

	2006			2007			2008			2009			2010			2011			2012	
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
61634		61634	77449		77449	96733		96733	50274		50274	59927		59927	69980		69980	84607		84607
99790		99790	130720		130720	55970		55970	48196		48196	111460		111460	117792		117792	69224		69224
0		0	748		748	0		0	0		0	0		0	0		0	0		0
145		145	0		0	3401		3401	82		82	0		0	0		0	0		0
0		0	0		0	1378		1378	0		0	0		0	0		0	0		0
4400152		4400152	4308567		4308567	2841633		2841633	2596153		2596153	3112466		3112466	3458008		3458008	3874607		3874607
5296966	910940	4386026	4980958	971167	4009791	4272013	788631	3483382	3829861	434315	3395546	3686937	333813	3353124	3860618	322008	3538610	3667325	381556	3285769
207818		207818	189856		189856	90473		90473	90473		90473	196958		196958	87754		87754	62709		62709
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2560813	0	2560813	2317723	0	2317723	1394546	0	1394546	1090173	0	1090173	1166341	0	1166341	1092076	0	1092076	1264517	1547	1262970
0		0	0		0	238		238	288		288	0		0	0		0	0		0
0		0	0		0	0		0	0		0	1467		1467	0		0	3235		3235
0	0	0	4740	3666	1074	0	0	0	1396	0	1396	0	0	0	0	0	0	0	0	0
1575058	9768	1565290	1675567	18440	1657127	1628854	10101	1618753	1749571	9759	1739812	1739408	1009	1738399	1668442	989	1667453	1602051	2854	1599197
2045449	0	2045449	2477485	0	2477485	1442715	0	1442715	1414733	0	1414733	1473669	2814	1470855	1559074	324	1558750	1440137	0	1440137
6042		6042	11393		11393	5605		5605	3090		3090	7854		7854	2298		2298	11868		11868
373		373	4973		4973	8235		8235	12652		12652	6188		6188	78525		78525	66856		66856
466124		466124	619016		619016	554130		554130	628520		628520	705336		705336	652020		652020	759628		759628
471479	0	471479	451548	0	451548	492927	0	492927	474066	0	474066	398376	82	398294	306889	0	306889	407288	0	407288
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458682		458682	541488		541488	535010		535010	498969		498969	437109		437109	351547		351547	489331		489331
121909		121909	77502		77502	54619		54619	161809		161809	0		0	0		0	0		0
3084725	1680393	1404332	3034922	1956036	1078886	2014449	1001010	1013439	1617857	899723	718134	1961967	916477	1045490	2041608	1224388	817220	1801653	694663	1106990
0	0	0	0	0	0	0	0	0	0	154898	-154898	0	0	0	0	0	0	3742780	2528775	1214005
17116070	1228501	15887569	16055918	1011353	15044565	12339845	705892	11633953	12298413	695341	11603072	15129220	754785	14374435	14776517	576287	14200230	14652767	680547	13972220
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5054		5054	25439		25439	7252		7252	9330		9330	16620		16620	75300		75300	42259		42259
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162551	0	162551	113851	0	113851	91281	0	91281	216240	0	216240	258516	3385	255131	259780	0	259780	154541	0	154541
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617534		617534	573308		573308	417874		417874	562160		562160	655367		655367	788032		788032	888453		888453
3279571	0	3279571	3330398	0	3330398	2518083	0	2518083	2478802	0	2478802	1680695	110	1680585	1680609	0	1680609	1594941	0	1594941
186		186	3599		3599	6605		6605	0		0	0		0	0		0	0		0
24492		24492	38799		38799	63475		63475	75323		75323	92844		92844	138448		138448	111243		111243
51904		51904	41507		41507	62664		62664	17874		17874	16018		16018	27961		27961	43701		43701
34863		34863	36187		36187	10087		10087	43352		43352	74611		74611	24045		24045	38532		38532
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1171472		1171472	1079311		1079311	760558		760558	801975		801975	954110		954110	1179089		1179089	1311621		1311621
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33423		33423	12059		12059	12816		12816	3908		3908	10953		10953	0		0	0		0
188454		188454	326638		326638	249862		249862	300350		300350	379675		379675	404069		404069	421176		421176
47758		47758	65029		65029	82416		82416	82629		82629	97030		97030	49892		49892	77669		77669
130515		130515	179128		179128	146404		146404	213697		213697	77210		77210	0		0	0		0
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311725	103130	208595	277319	76449	200870	245683	78641	167042	273159	68803	204356	264715	66165	198550	261479	86313	175166	263845	89284	174561
951675	0	951675	917344	0	917344	704412	0	704412	704349	0	704349	442616	4212	438404	453543	0	453543	453261	1086	452175
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0		0	0		0	2700		2700	0		0	0		0	0		0	0		0
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79681	0	79681	111755	0	111755	69017	0	69017	69017	0	69017	111331	0	111331	96641	0	96641	122264	0	122264
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596		596	0		0	0		0	894		894	0		0	0		0	0		0
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1362255	0	1362255	2007140	0	2007140	2278960	0	2278960	3575662	0	3575662	4333838	0	4333838	2323534	0	2323534	3762800	0	3762800
153357	0	153357	191854	0	191854	118872	0	118872	126604	0	126604	123838	0	123838	182539	0	182539	240458	0	240458
4683381	22652	4660729	4252343	0	4252343	5963606	53536	5910070	4570498	0	4570498	5980349	479118	5501231	4111501	225060	3886441	3749935	111619	3638316
310332	0	310332	927221	0	927221	1033393	0	1033393	803582	0	803582	1135333	0	1135333	113676	0	113676	195698	0	195698
0		0	0		0	0		0	246000		246000	0		0	601600		601600	60800		60800
986043	0	986043	950806	0	950806	908744	0	908744	964163	0	964163	984022	654	983368	952812	162	952650	851206	0	851206
2194275	0	2194275	1912615	0	1912615	417846	0	417846	417846	0	417846	1034869	3087	1031782	1251737	0	1251737	1358973	140	1358833
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308644		308644	510050		510050	460907		460907	505456		505456	625175		625175	575993		575993	577673		577673
42220		42220	41589		41589	97166		97166	75477		75477	90511		90511	45249		45249	50414		50414
31257		31257	35190		35190	33366		33366	94393		94393	84485		84485	77922		77922	76297		76297
37763		37763	49735		49735	33957		33957	45423		45423	41460		41460	63464		63464	23675		23675
500612	0	500612	567335	0	567335	592420	0	592420	608494	0	608494	612065	0	612065	579240	0	579240	450587	0	450587
383133	0	383133	367272	0	367272	150231	0	150231	150231	0	150231	372225	0	372225	385966	0	385966	414227	0	414227
39402		39402	67026		67026	39489		39489	65761		65761	54663		54663	55728		55728	46024		46024
31959		31959	35952		35952	88230		88230	90251		90251	62274		62274	52172		52172	68016		68016
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103058		103058	57898		57898	48282		48282	41122		41122	33333		33333	18642		18642	8604		8604
1206		1206	581		581	580		580	1597		1597	220		220	534		534	5304		5304
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7679	3267	4412	13686	8509	5177	18151	2835	15316	16870	1435	15435	3172	0	3172	16093	0	16093	11907	0	11907
906651	0	906651	1057950	0	1057950	662533	0	662533	662382	0	662382	493742	466	493276	505116	2253	502863	476744	1397	475347
6673		6673	18759		18759	23267		23267	30616		30616	30733		30733	27980		27980	27574		27574
63807	50121	13686	16867	12461	4406	20745	952	19793	3249	1197	2052	13969	1112	12857	72025	5493	66532	105327	28698	76629
465337	5298	460039	471663	0	471663	381102	0	381102	381102	0	381102	498932	220	498712	494870	440	494430	460213	268	459945
13550		13550	6624		6624	22125		22125	7800		7800	35672		35672	23000		23000	49028		49028
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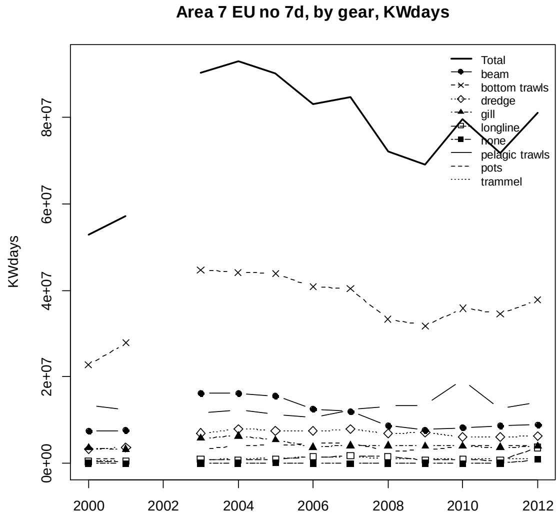


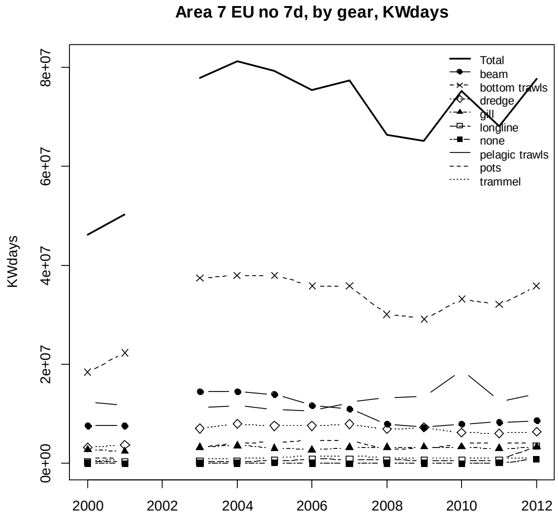


Figure 5.9.1.7.2.- Effort (kW*days) reported within ICES Sub-area VII EU no VIId by gear type, 2000-2012, with (left) and without (right) reported deepwater effort. Due to uncertainty in French 2002 data this year has been removed from the figures.

Deepwater VII non-EU

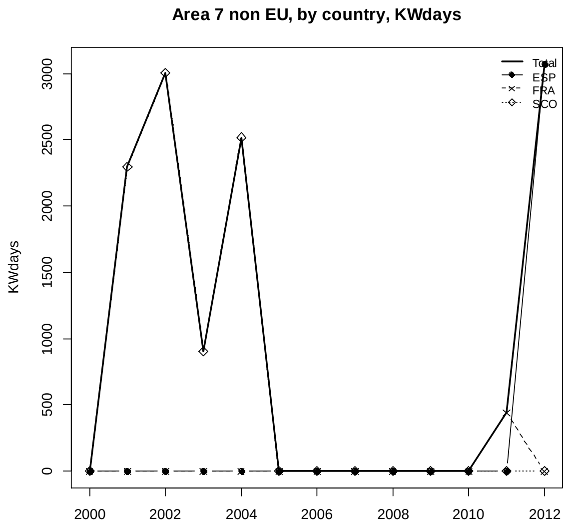
Prior to 2011 Area VII non EU effort was confined to the UK and was made up of bottom trawling and gill netting. This effort stopped in 2004. In 2011 France reported a small amount of bottom trawl effort and in 2012 Spain reported small amounts of bottom trawl and longline effort.

Table 5.9.1.7.4.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state ICES Sub-area VII non-EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
7 non EU	ESP													3074
	FRA												442	
	UK		2296	3003	906	2519								
7 non EU Total			2296	3003	906	2519							442	3074

Table 5.9.1.7.5.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state ICES Sub-area VII non-EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
7 non EU	BOTTOM TRAWLS	ESP													1419
		FRA												442	
		UK		2296		906									
	GILL	UK			3003		2519								
	LONGLINE	ESP													1655
7 non EU Total				2296	3003	906	2519							442	3074



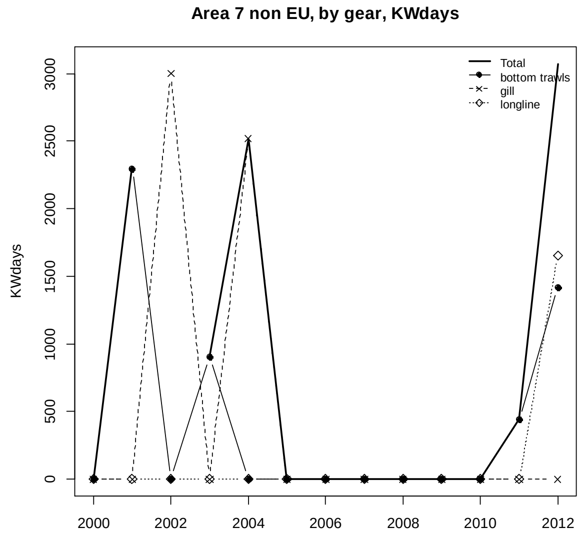


Figure 5.9.1.7.3. Deep Sea fishing effort (kW*days), 2000 – 2012, by country and by gear, in ICES Sub-area VII non-EU.

Western Waters VII non-EU

There is uncertainty relating to French effort.

No effort was recorded in this area between 2006 and 2008, (Table 5.9.1.7.6). Prior to that there was some effort for Netherlands in pelagic trawl, and sporadic effort in bottom trawls, gill nets and longlines.

Since 2009 small amounts of bottom trawl effort have been recorded by France, Spain and Scotland. Longline effort was reported from 2010 to 2012 by France and Scotland again, and in 2012 by Spain. Occasional pelagic trawl effort has been reported by Germany, France, Spain and the Netherlands.

Table 5.9.1.7.6.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area VII non-EU, 2000-2012.

					2000			2001			2002			2003			2004			2005	
Area	Gear	Country	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
7 non EU	bottom trawls	ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		SCO	o15m	0	0	0	2296	2296	0	0	0	0	906	906	0	308	0	308	0	0	0
	gill	ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		SCO	o15m	0	0		0	0		3003	3003		0	0		2519	2519		0	0	
	longline	ESP	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	0		0	0		0	0		0	3302		3302	0		0	0		0
		SCO	o15m	0		0	5211		5211	0		0	0		0	0		0	0		0
	none	ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	pelagic trawls	DEU	o15m	37093		37093	0		0	0		0	10598		10598	0		0	0		0
		ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		NLD	o15m	0		0	0		0	0		0	301413		301413	43510		43510	222896		222896
		SCO	o15m	0		0	3862		3862	0		0	28928		28928	0		0	0		0
7 non EU Total				37093	0	37093	11369	2296	9073	3003	3003	0	345147	906	344241	46337	2519	43818	222896	0	222896

	2006			2007			2008			2009			2010			2011			2012	
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4160	1419	2741
0	0	0	0	0	0	0	0	0	0	0	0	8232	0	8232	442	442	0	810	0	810
0	0	0	0	0	0	0	0	0	7875	0	7875	0	0	0	0	0	0	0	0	0
0		0	0		0	0		0	0		0	0		0	0		0	1102		1102
0		0	0		0	0		0	0		0	0		0	0		0	1104		1104
0	0		0	0		0	0		0	0		0	0		0	0		0	0	
0		0	0		0	0		0	0		0	0		0	0		0	478		478
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	136266	1655	134611
0		0	0		0	0		0	0		0	8722		8722	4420		4420	9810		9810
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	28325		28325	14713		14713	1432		1432
0		0	0		0	0		0	0		0	0		0	0		0	1940		1940
0		0	0		0	0		0	0		0	36000		36000	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	4520		4520
0		0	0		0	0		0	0		0	57930		57930	10328		10328	71233		71233
0		0	0		0	0		0	75820		75820	0		0	26164		26164	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	83695	0	83695	139209	0	139209	56067	442	55625	232855	3074	229781

5.9.1.8 Fishing effort in ICES area VIId

Deepwater VIId

Area VII EU VIId effort is primarily from UK and France and this effort fluctuates greatly from year to year.

2006 marks a change in effort from English beam to Scottish bottom trawl, although the bottom trawl effort has been in decline since its peak in 2008, (Figure 5.9.1.8.1). Between 2010 and 2012 France has reported bottom trawl effort as well.

From 2001 to 2004 the Netherlands reported some pelagic effort, and in 2010 and 2011 some bottom trawl effort has been recorded. France reported pelagic effort from 2000 to 2006.

Table 5.9.1.8.1.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state ICES Sub-area VIId.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
7d	FRA	3274	230	66355	9090	27425	43790	5530	4517	1716	1716	12482	21014	12408
	NLD		35596	13240	68230	141760						2708	6000	
	UK		825		42719	14231	22041	1264	36304	127017	59626	19436	14506	1875
7d Total		3274	36651	79595	120039	183416	65831	6794	40821	128733	61342	34626	41520	14283

Table 5.9.1.8.2.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state ICES Sub-area VIId.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
7d	BEAM	FRA		230											
		UK				41808	14231	22041	1264	17015	6524				
	BOTTOM TRAWLS	FRA	736						1997	4517			11930	20231	12025
		NLD											2708	6000	
		UK		825						19289	120493	59626	19436	14506	1875
	LONGLINE	FRA									1716	1716	221		221
		UK				911									
	PELAGIC TRAWLS	FRA	2538		66355	9090	27425	43790	3533					220	
		NLD		35596	13240	68230	141760								
	POTS	FRA												141	
	TRAMMEL	FRA											331	422	162
7d Total			3274	36651	79595	120039	183416	65831	6794	40821	128733	61342	34626	41520	14283

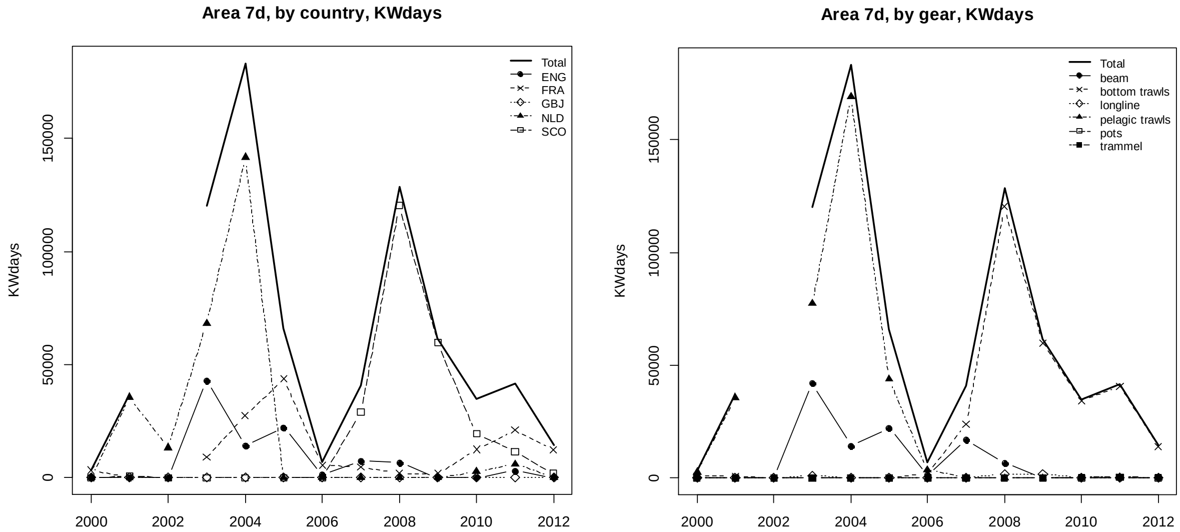


Figure 5.9.1.8.1. Deep Sea fishing effort (kW*days), 2000 – 2012, by country and by gear, in ICES Sub-area VIId. Due to the uncertainty in French 2002 data this year has been removed from the figure.

Western Waters VIId

Effort within Area VIId had been increasing up to 2006, after which it began to decline. Over the last three years however effort has appeared to stabilise. France is the principal nation operating within this area, driving the overall trends. There is an issue with 2002 French data and therefore this year should be discounted. There is essentially no effort associated with deepwater fisheries (Table 5.9.1.8.3 and Figure 5.9.1.8.2).

While a wide variety of gears are utilised within this area, bottom trawling by France and dredging, also France and the UK, show the greatest effort. Pelagic trawling is primarily carried out by the Netherlands, France and Germany, with some minor effort from other nations. Beam trawling is mainly by Belgium, with small effort from France and UK, and the majority of trammel net effort is by France.

Table 5.9.1.8.3.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area VIId, 2000-2012.

					2000			2001			2002			2003			2004			2005	
Area	Gear	Country	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
7d	beam	BEL	o10t15m	12013		12013	15994		15994	13958		13958	0		0	0		0	0		0
		ENG	o10t15m	0		0	0		0	0		0	178756		178756	141022		141022	137624		137624
		FRA	o10t15m	138547	0	138547	290088	230	289858	1472926	0	1472926	474891	0	474891	447989	0	447989	319077	0	319077
		BEL	o15m	1884437		1884437	2227183		2227183	2507831		2507831	2583050		2583050	2422541		2422541	2070380		2070380
		ENG	o15m	0	0	0	0	0	0	0	0	0	654896	41808	613088	530775	14032	516743	286106	22041	264065
		FRA	o15m	172379		172379	442895		442895	1923052		1923052	673373		673373	950816		950816	668392		668392
		GBJ	o15m	0	0	0	0	0	0	0	0	0	5180	0	5180	14375	199	14176	10346	0	10346
		NLD	o15m	1471		1471	2572		2572	4415		4415	0		0	5147		5147	0		0
		SCO	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	bottom trawls	BEL	o10t15m	1419		1419	1618		1618	0		0	0		0	0		0	0		0
		ENG	o10t15m	0		0	0		0	0		0	276459		276459	271809		271809	251054		251054
		FRA	o10t15m	276361	0	276361	800843	0	800843	4995642	0	4995642	1862829	0	1862829	1984591	0	1984591	2014199	0	2014199
		SCO	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		BEL	o15m	23757		23757	19276		19276	7802		7802	2084		2084	27043		27043	10924		10924
		DNK	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		ENG	o15m	0	0	0	0	0	0	0	0	0	6702	0	6702	18641	0	18641	41318	0	41318
		FRA	o15m	3571895	736	3571159	6531175	0	6531175	38851172	0	38851172	10842697	0	10842697	11705268	0	11705268	10835136	0	10835136
		GBJ	o15m	0		0	0		0	0		0	27897		27897	20201		20201	23483		23483
		IRL	o15m	0		0	0		0	0		0	5344		5344	0		0	0		0
		NLD	o15m	221430	0	221430	249901	0	249901	175232	0	175232	193684	0	193684	323486	0	323486	344814	0	344814
		SCO	o15m	4101	0	4101	825	825	0	0	0	0	12405	0	12405	0	0	0	0	0	0
	dredge	ENG	o10t15m	0		0	0		0	0		0	190898		190898	117699		117699	130483		130483
		FRA	o10t15m	288262		288262	1244390		1244390	5338241		5338241	1408038		1408038	1978038		1978038	2658944		2658944
		SCO	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		BEL	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		ENG	o15m	0		0	0		0	0		0	227365		227365	189389		189389	172479		172479
		FRA	o15m	831479		831479	2664630		2664630	12536088		12536088	3272292		3272292	4190146		4190146	5370590		5370590
		IOM	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		IRL	o15m	0		0	0		0	0		0	139925		139925	208062		208062	51300		51300
		NLD	o15m	20957		20957	20890		20890	24724		24724	121848		121848	88314		88314	59562		59562
		SCO	o15m	9371		9371	8438		8438	985		985	105859		105859	135367		135367	85179		85179
	gill	BEL	o10t15m	5322		5322	0		0	0		0	1375		1375	471		471	0		0
		ENG	o10t15m	0		0	0		0	0		0	4498		4498	3373		3373	219		219
		FRA	o10t15m	81309		81309	301156		301156	1620316		1620316	428866		428866	230389		230389	205371		205371
		BEL	o15m	0		0	13299		13299	6049		6049	15232		15232	18120		18120	19026		19026
		DEU	o15m	844		844	0		0	0		0	0		0	0		0	0		0
		ENG	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	94649		94649	42072		42072	708558		708558	135124		135124	111106		111106	37647		37647
		NLD	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	longline	ENG	o10t15m	0		0	0		0	0		0	43692		43692	31882		31882	39988		39988
		FRA	o10t15m	9911	0	9911	25838	0	25838	953160	0	953160	88085	0	88085	103303	0	103303	91082	0	91082
		ENG	o15m	0	0	0	0	0	0	0	0	0	911	911	0	0	0	0	0	0	0
		ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	50883		50883	80671		80671	411504		411504	56719		56719	60067		60067	6229		6229
	none	FRA	o10t15m	5145		5145	2058		2058	0		0	102507		102507	85409		85409	2468		2468
		FRA	o15m	0		0	0		0	10744		10744	53068		53068	87408		87408	0		0
	pelagic trawls	ENG	o10t15m	0		0	0		0	0		0	0		0	0		0	1218		1218
		FRA	o10t15m	3995	0	3995	36087	0	36087	583735	0	583735	334671	0	334671	265198	0	265198	411922	0	411922
		SCO	o10t15m	0		0	0		0	0		0	1639		1639	0		0	0		0
		DEU	o15m	306752		306752	186367		186367	202281		202281	192238		192238	256061		256061	252645		252645
		DNK	o15m	0		0	0		0	0		0	17615		17615	0		0	4050		4050
		ENG	o15m	0		0	0		0	0		0	405297		405297	486912		486912	449401		449401
		FRA	o15m	812202	2538	809664	1339409	0	1339409	4957287	66355	4890932	1491834	9090	1482744	1874695	27425	1847270	1981575	43790	1937785
		IRL	o15m	11700		11700	0		0	13843		13843	0		0	0		0	0		0
		LTU	o40m	0		0	0		0	0		0	0		0	0		0	0		0
		NIR	o15m	0		0	0		0	0		0	0		0	7680		7680	0		0
		NLD	o15m	2170260	0	2170260	2149949	35596	2114353	1550882	13240	1537642	2460589	68230	2392359	1965236	141760	1823476	1838845	0	1838845
		SCO	o15m	2543		2543	13099		13099	34936		34936	0		0	0		0	0		0
	pots	ENG	o10t15m	0		0	0		0	0		0	455318		455318	405275		405275	444340		444340
		FRA	o10t15m	43649	0	43649	61304	0	61304	603473	0	603473	67772	0	67772	79729	0	79729	132541	0	132541
		ENG	o15m	0		0	0		0	0		0	57062		57062	63848		63848	101017		101017
		FRA	o15m	29488		29488	31730		31730	114920		114920	13342		13342	36717		36717	77214		77214
		GBG	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		GBJ	o15m	0		0	0		0	0		0	0		0	1512		1512	0		0
	trammel	ENG	o10t15m	0		0	0		0	0		0	11295		11295	8742		8742	9183		9183
		FRA	o10t15m	174556	0	174556	938665	0	938665	7057120	0	7057120	1938504	0	1938504	2116989	0	2116989	2505884	0	2505884
		IRL	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		BEL	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	91079	0	91079	327867	0	327867	1464752	0	1464752	615347	0	615347	515961	0	515961	802345	0	802345
7d Total				11352166	3274	11348892	20070289	36651	20033638	88145628	79595	88066033	32259072	120039	32139033	34586802	183416	34403386	34955600	65831	34889769

	2006			2007			2008			2009			2010			2011			2012	
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0		0	0		0	0		0	0		0	0		0	0		0	0		0
156183		156183	147478		147478	189297		189297	200709		200709	187831		187831	161558		161558	192816		192816
562145	0	562145	588358	0	588358	497791	0	497791	497791	0	497791	395548	0	395548	398689	0	398689	483846	0	483846
2782454		2782454	3184292		3184292	2696039		2696039	2226560		2226560	1924990		1924990	1881904		1881904	1554192		1554192
203081	1264	201817	180704	7239	173465	179585	6524	173061	203490	0	203490	84354	0	84354	39435	0	39435	48785	0	48785
747367		747367	574879		574879	656013		656013	656013		656013	184402		184402	147537		147537	200968		200968
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4796		4796	0		0	0		0	1471		1471	0		0	663		663	0		0
0	0	0	9776	9776	0	3055	0	3055	6353	0	6353	0	0	0	0	0	0	0	0	0
0		0	0		0	0		0	0		0	0		0	2210		2210	0		0
172387		172387	149703		149703	144447		144447	143126		143126	148423		148423	136908		136908	153644		153644
2963942	525	2963417	3174239	0	3174239	2260060	0	2260060	2256872	0	2256872	1757627	0	1757627	2041029	2860	2038169	1971312	0	1971312
894		894	1788		1788	0		0	0		0	0		0	0		0	0		0
23328		23328	13756		13756	15816		15816	46344		46344	142527		142527	188933		188933	217336		217336
0		0	10016		10016	0		0	0		0	0		0	0		0	0		0
30864	0	30864	5084	0	5084	59054	0	59054	148815	0	148815	227741	0	227741	332110	2943	329167	334873	0	334873
11145296	1472	11143824	10474572	4517	10470055	8140065	0	8140065	7908201	0	7908201	5597093	11930	5585163	5119404	17371	5102033	4883251	12025	4871226
10560		10560	13420		13420	9680		9680	7480		7480	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	945		945
287224	0	287224	434839	0	434839	625656	0	625656	608242	0	608242	728019	2708	725311	611819	6000	605819	706896	0	706896
115117	0	115117	207336	19289	188047	340147	120493	219654	330859	59626	271233	250268	19436	230832	227705	11563	216142	146819	1875	144944
105802		105802	143027		143027	137115		137115	87868		87868	158847		158847	91936		91936	77979		77979
3199963		3199963	2627561		2627561	2463234		2463234	2455520		2455520	1801763		1801763	2233550		2233550	1957404		1957404
0		0	0		0	0		0	0		0	4251		4251	0		0	0		0
0		0	3723		3723	18490		18490	85486		85486	75562		75562	49669		49669	29197		29197
236687		236687	279007		279007	220826		220826	295786		295786	357892		357892	480465		480465	180700		180700
5919406		5919406	5018197		5018197	4307266		4307266	4284322		4284322	2561916		2561916	3143882		3143882	2872092		2872092
0		0	0		0	0		0	2316		2316	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	884		884	31860		31860
119581		119581	97064		97064	146896		146896	130823		130823	93755		93755	0		0	0		0
264240		264240	376741		376741	299207		299207	539144		539144	1445337		1445337	1232845		1232845	809219		809219
0		0	0		0	4710		4710	0		0	3685		3685	0		0	0		0
2529		2529	1699		1699	4957		4957	12756		12756	25620		25620	25787		25787	7399		7399
237516		237516	350342		350342	132543		132543	132543		132543	63930		63930	35458		35458	79630		79630
23556		23556	906		906	5850		5850	19527		19527	7200		7200	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	3249		3249
63609		63609	36151		36151	18452		18452	18452		18452	34731		34731	9727		9727	30032		30032
442		442	0		0	0		0	0		0	0		0	0		0	0		0
40165		40165	37362		37362	39699		39699	40081		40081	46296		46296	38205		38205	35662		35662
100220	0	100220	122800	0	122800	103313	1716	101597	103313	1716	101597	105941	221	105720	84953	0	84953	65520	221	65299
0	0	0	561	0	561	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0		0	0		0	0		0	0		0	0		0	0		0	672		672
14522		14522	39773		39773	13367		13367	13367		13367	12273		12273	1559		1559	4400		4400
4036		4036	15289		15289	84558		84558	84558		84558	0		0	4141		4141	0		0
28908		28908	4314		4314	157051		157051	157051		157051	0		0	0		0	0		0
870		870	0		0	0		0	0		0	0		0	0		0	0		0
368239	0	368239	504108	0	504108	317645	0	317645	317367	0	317367	180417	0	180417	197731	220	197511	258496	0	258496
0		0	0		0	0		0	0		0	0		0	0		0	0		0
222395		222395	225990		225990	168359		168359	166693		166693	298994		298994	360449		360449	427985		427985
0		0	0		0	0		0	0		0	0		0	16195		16195	99055		99055
278743		278743	481527		481527	263669		263669	306734		306734	218563		218563	117360		117360	209464		209464
2134645	3533	2131112	1773861	0	1773861	1323773	0	1323773	1323773	0	1323773	898279	0	898279	593833	0	593833	916969	0	916969
20000		20000	0		0	33000		33000	100940		100940	0		0	0		0	0		0
0		0	0		0	0		0	19680		19680	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
1277534	0	1277534	1613832	0	1613832	1588572	0	1588572	1714632	0	1714632	1451892	0	1451892	682597	0	682597	1265767	0	1265767
9748		9748	0		0	0		0	0		0	0		0	0		0	0		0
384311		384311	442350		442350	377034		377034	344887		344887	382655		382655	384280		384280	404151		404151
314291	0	314291	226545	0	226545	91168	0	91168	91168	0	91168	704266	0	704266	348716	141	348575	385515	0	385515
90300		90300	111499		111499	104667		104667	78262		78262	64135		64135	60552		60552	47839		47839
75462		75462	90988		90988	53385		53385	53385		53385	12940		12940	10352		10352	17608		17608
17667		17667	12661		12661	0		0	3171		3171	2182		2182	8223		8223	17257		17257
0		0	0		0	0		0	0		0	0		0	0		0	0		0
6081		6081	7708		7708	9580		9580	5968		5968	8324		8324	8075		8075	8332		8332
2979380	0	2979380	2945844	0	2945844	2052319	0	2052319	2048565	0	2048565	1576941	331	1576610	1615044	0	1615044	1591412	162	1591250
0		0	0		0	0		0	0		0	0		0	0		0	220		220
0		0	26676		26676	16200		16200	7416		7416	21600		21600	30600		30600	34086		34086
702341	0	702341	642980	0	642980	559170	0	559170	559170	0	559170	219436	0	219436	224252	422	223830	179864	0	179864
38448827	6794	38442033	37431326	40821	37390505	30932780	128733	30804047	30847050	61342	30785708	24468446	34626	24433820	23381224	41520	23339704	22944718	14283	22930435

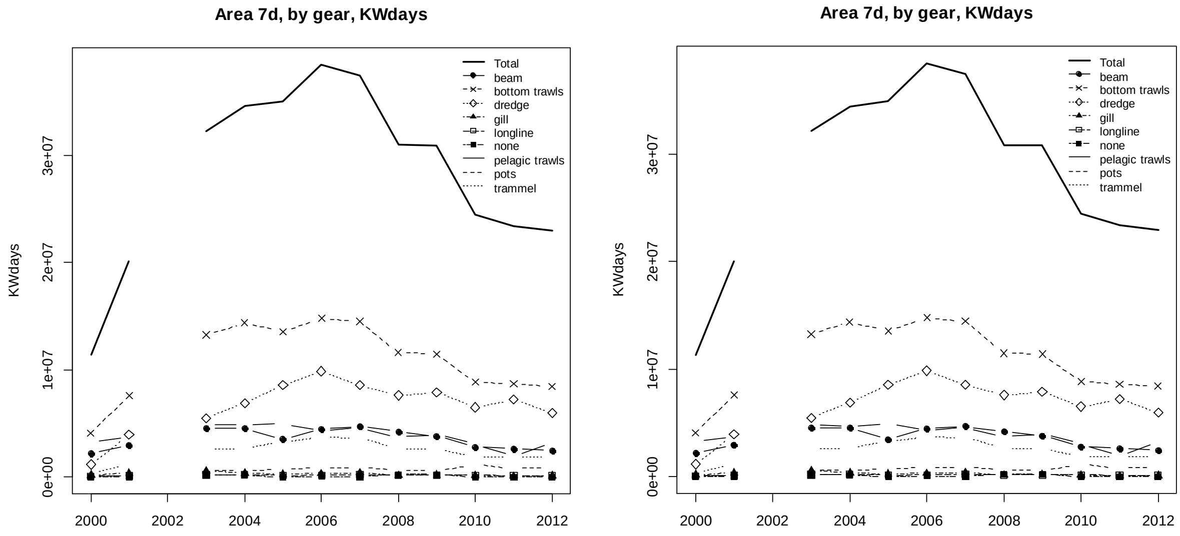


Figure 5.9.1.8.2.- Effort (kW*days) reported within ICES Sub-area VIId by gear type, 2000-2012, with (left) and without (right) reported deepwater effort. Due to uncertainty in French 2002 data this year has been removed from the figures.

5.9.1.9 Fishing effort in the Biologically Sensitive Area

There is uncertainty relating to 2002 French effort.

From a peak in 2003 there was a gradual decline until 2006 after which effort fluctuated. In 2011 there was a 20% decrease compared to 2010, but in 2012 effort levels increased again, comparable to those between 2005 and 2010(Table 5.9.1.9.1 and Figure 5.9.1.9.1). Overall, bottom trawl effort predominates within the area, in common with the picture for the wider EU waters of Area VII. Ireland provides the majority of this effort, followed by France and the UK. Prior to 2009 Ireland and France contributed similar amounts but since 2010 Irish effort increased while France decreased. In 2012 Spain reported high bottom trawl effort for this area.

Pelagic trawls effort had increased in recent years, in particular by Irish and German vessels, while effort from the Netherlands has stayed constant.

Gillnetting, by France, Ireland and England, shows a decline in effort similar in recent years. This is mainly down to a reduction of French effort. Beam trawling, carried out almost exclusively by Ireland, showed a pronounced decline until 2008 after which effort stabilised. There was a drop in Irish effort in 2011 but this increased again in 2012.

The use of pots and dredges in the area is low, however both gears show marked increases in most recent years. Both gears are used almost exclusively by Ireland.

Table 5.9.1.9.1.- Effort (kW*days) by country, gear and vessel size group within the BSA Area, 2000-2012.

					2000			2001			2002			2003			2004			2005	
Area	Gear	Country	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
BSA	beam	FRA	o10t15m	0		0	0		0	0		0	147		147	1028		1028	0		0
		IRL	o10t15m	1320		1320	0		0	0		0	0		0	0		0	0		0
		ENG	o15m	0		0	0		0	0		0	123144		123144	126299		126299	121301		121301
		FRA	o15m	0		0	0		0	0		0	736		736	0		0	0		0
		GBJ	o15m	0		0	0		0	0		0	5214		5214	0		0	3690		3690
		IRL	o15m	2476553		2476553	2446989		2446989	2493468		2493468	3057578		3057578	2024402		2024402	2366210		2366210
	bottom trawls	ENG	o10t15m	0		0	0		0	0		0	187		187	0		0	0		0
		FRA	o10t15m	0		0	729		729	0		0	9717		9717	2469		2469	5779		5779
		IRL	o10t15m	197249		197249	206432		206432	251398		251398	363720		363720	361385		361385	318867		318867
		ENG	o15m	0		0	0		0	0		0	1121805		1121805	1112851		1112851	937084		937084
		ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	4624713		4624713	6021542		6021542	30013150		30013150	7359217		7359217	6558503		6558503	5986029		5986029
		IRL	o15m	3839065		3839065	4235608		4235608	5440454		5440454	6357592		6357592	6239288		6239288	5318872		5318872
		NIR	o15m	0		0	0		0	0		0	3018		3018	9742		9742	5628		5628
		NLD	o15m	0		0	8796		8796	734		734	19680		19680	0		0	0		0
		SCO	o15m	397712		397712	229925		229925	166305		166305	162863		162863	220742		220742	135867		135867
	dredge	ENG	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	0		0	3696		3696	18306		18306	3796		3796	2099		2099	7030		7030
		IRL	o10t15m	505		505	14758		14758	5518		5518	19763		19763	16170		16170	2686		2686
		ENG	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	2216		2216	0		0	16935		16935	981		981	5618		5618	6993		6993
		IRL	o15m	162716		162716	91984		91984	13806		13806	130279		130279	87392		87392	97290		97290
		SCO	o15m	0		0	0		0	0		0	4157		4157	0		0	0		0
	gill	ENG	o10t15m	0		0	0		0	0		0	26954		26954	26637		26637	16009		16009
		FRA	o10t15m	0		0	0		0	0		0	0		0	1206		1206	0		0
		IRL	o10t15m	60425		60425	38606		38606	38941		38941	59748		59748	66732		66732	58528		58528
		DEU	o15m	24420		24420	5404		5404	7514		7514	32698		32698	38186		38186	18512		18512
		ENG	o15m	0		0	0		0	0		0	256302		256302	350021		350021	218585		218585
		ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	323241		323241	456239		456239	3381794		3381794	954326		954326	947097		947097	1144216		1144216
		IRL	o15m	474484		474484	533290		533290	556104		556104	736368		736368	634358		634358	463542		463542
		SCO	o15m	128714		128714	132822		132822	5038		5038	79005		79005	63895		63895	9586		9586
	longline	ENG	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	0		0	0		0	1112		1112	4356		4356	0		0	0		0
		IRL	o10t15m	0		0	0		0	0		0	0		0	0		0	436		436
		ENG	o15m	0		0	0		0	0		0	29490		29490	32225		32225	32502		32502
		ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	79946		79946	40848		40848	192312		192312	15741		15741	12698		12698	20472		20472
		IRL	o15m	28314		28314	22068		22068	0		0	14346		14346	0		0	21511		21511
		SCO	o15m	7049		7049	992		992	51584		51584	20082		20082	0		0	0		0
	none	IRL	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		IRL	o15m	0		0	3872		3872	375		375	0		0	0		0	0		0
	pelagic trawls	FRA	o10t15m	970		970	0		0	0		0	0		0	0		0	444		444
		IRL	o10t15m	0		0	448		448	0		0	1960		1960	2650		2650	0		0
		DEU	o15m	332939		332939	219170		219170	201377		201377	417205		417205	461106		461106	203082		203082
		ENG	o15m	0		0	0		0	0		0	227676		227676	271407		271407	269645		269645
		FRA	o15m	275303		275303	253786		253786	500927		500927	309251		309251	208006		208006	326643		326643
		IRL	o15m	1079314		1079314	958056		958056	852818		852818	613744		613744	853756		853756	725256		725256
		NIR	o15m	0		0	0		0	0		0	26094		26094	31854		31854	52854		52854
		NLD	o15m	1074997		1074997	2057215		2057215	478739		478739	1151065		1151065	1633095		1633095	967750		967750
		SCO	o15m	241997		241997	372886		372886	220016		220016	97359		97359	442369		442369	146720		146720
	pots	ENG	o10t15m	0		0	0		0	0		0	0		0	44		44	0		0
		FRA	o10t15m	0		0	0		0	0		0	0		0	220		220	0		0
		IRL	o10t15m	66103		66103	76572		76572	88680		88680	40748		40748	93647		93647	124598		124598
		DEU	o15m	0		0	0		0	0		0	0		0	441		441	0		0
		ENG	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	9921		9921	4905		4905	2224		2224	5847		5847	21105		21105	3892		3892
		IRL	o15m	1201		1201	1074		1074	0		0	2871		2871	1581		1581	671		671
	trammel	ENG	o10t15m	0		0	0		0	0		0	0		0	0		0	2050		2050
		FRA	o10t15m	0		0	0		0	0		0	0		0	0		0	4374		4374
		IRL	o10t15m	0		0	0		0	0		0	160		160	0		0	0		0
		ENG	o15m	0		0	0		0	0		0	0		0	9829		9829	6178		6178
		FRA	o15m	0		0	0		0	0		0	8040		8040	7864		7864	4994		4994
		IRL	o15m	0		0	3885		3885	0		0	0		0	0		0	0		0
		SCO	o15m	0		0	0		0	0		0	12336		12336	0		0	0		0
BSA Total				15911387		15911387	18442597		18442597	44999629		44999629	23887366		23887366	22980017		22980017	20156376		20156376

	2006			2007			2008			2009			2010			2011			2012	
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0		0	440		440	0		0	0		0	2017		2017	3755		3755	176		176
0		0	0		0	0		0	0		0	0		0	0		0	0		0
126605		126605	11012		11012	3848		3848	23408		23408	60723		60723	105041		105041	63437		63437
657		657	831		831	0		0	0		0	1598		1598	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
1426734		1426734	1145248		1145248	695074		695074	653053		653053	662489		662489	356556		356556	536504		536504
0		0	326		326	468		468	0		0	0		0	0		0	0		0
837		837	2594		2594	6991		6991	5961		5961	9246		9246	17885		17885	5654		5654
341772		341772	450099		450099	452538		452538	524788		524788	596883		596883	520615		520615	610577		610577
1217163		1217163	1180630		1180630	1026696		1026696	940642		940642	1010822		1010822	1073342		1073342	1236900		1236900
0		0	0		0	0		0	0		0	0		0	0		0	1604600		1604600
5796059		5796059	5720768		5720768	4607029		4607029	4567101		4567101	2984866		2984866	2413727		2413727	2561634		2561634
4456909		4456909	4860493		4860493	4560695		4560695	4675826		4675826	4775122		4775122	4192362		4192362	4176373		4176373
1092		1092	0		0	10324		10324	2423		2423	41172		41172	21257		21257	32956		32956
0		0	762		762	0		0	1530		1530	708		708	0		0	4221		4221
227482		227482	213564		213564	541060		541060	528121		528121	792844		792844	611242		611242	569989		569989
0		0	0		0	0		0	0		0	0		0	0		0	144		144
965		965	12082		12082	7596		7596	7596		7596	17964		17964	17333		17333	12033		12033
5237		5237	6625		6625	16726		16726	15758		15758	22500		22500	31239		31239	16879		16879
0		0	0		0	3382		3382	0		0	0		0	0		0	0		0
0		0	5399		5399	5781		5781	5781		5781	16595		16595	30191		30191	10211		10211
38072		38072	45932		45932	58134		58134	109653		109653	78890		78890	71995		71995	123961		123961
543		543	0		0	1997		1997	0		0	972		972	0		0	0		0
21005		21005	6134		6134	7015		7015	11998		11998	20617		20617	15542		15542	15678		15678
0		0	0		0	6391		6391	6391		6391	0		0	500		500	654		654
80160		80160	87793		87793	115964		115964	142545		142545	121066		121066	86583		86583	99017		99017
0		0	4862		4862	0		0	0		0	0		0	0		0	0		0
215730		215730	226793		226793	162279		162279	162354		162354	165994		165994	145293		145293	153746		153746
0		0	0		0	0		0	0		0	0		0	0		0	1161		1161
963379		963379	1027582		1027582	707073		707073	707073		707073	404952		404952	515920		515920	534552		534552
290983		290983	379623		379623	382348		382348	370007		370007	351139		351139	331027		331027	356501		356501
0		0	0		0	0		0	30955		30955	2910		2910	0		0	0		0
111		111	0		0	0		0	368		368	0		0	0		0	0		0
0		0	0		0	0		0	0		0	1345		1345	103		103	173		173
251		251	5757		5757	11421		11421	18772		18772	11702		11702	8148		8148	7754		7754
28886		28886	69025		69025	4570		4570	215		215	885		885	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	278659		278659
84008		84008	11587		11587	104854		104854	104854		104854	19111		19111	75389		75389	176197		176197
0		0	2330		2330	699		699	2856		2856	7030		7030	1645		1645	4573		4573
43002		43002	33185		33185	89937		89937	11066		11066	5024		5024	0		0	73270		73270
0		0	233		233	275		275	0		0	52		52	0		0	0		0
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0		0	2652		2652	0		0	0		0	0		0	1912		1912	0		0
0		0	0		0	0		0	0		0	0		0	0		0	462261		462261
0		0	0		0	1064		1064	1064		1064	5465		5465	3130		3130	1285		1285
0		0	827		827	3788		3788	10466		10466	5704		5704	10503		10503	39934		39934
59606		59606	95556		95556	221226		221226	607073		607073	336430		336430	617935		617935	577869		577869
254553		254553	97159		97159	102583		102583	318971		318971	706129		706129	430171		430171	118955		118955
212989		212989	249834		249834	156242		156242	156242		156242	321813		321813	162453		162453	207397		207397
640447		640447	1206605		1206605	1158363		1158363	1668613		1668613	2058997		2058997	594843		594843	1827134		1827134
11186		11186	38964		38964	14170		14170	29242		29242	0		0	0		0	62995		62995
1211930		1211930	1516373		1516373	1560452		1560452	1778313		1778313	1506957		1506957	1598172		1598172	1380269		1380269
0		0	217449		217449	357630		357630	511318		511318	586611		586611	11923		11923	21858		21858
0		0	0		0	0		0	0		0	0		0	0		0	189		189
0		0	1694		1694	148		148	148		148	2031		2031	4793		4793	1245		1245
67897		67897	181751		181751	170391		170391	177863		177863	217068		217068	193864		193864	188258		188258
6464		6464	1727		1727	0		0	0		0	0		0	0		0	0		0
168		168	0		0	0		0	0		0	0		0	0		0	0		0
5739		5739	410		410	441		441	441		441	2210		2210	400		400	800		800
7945		7945	8842		8842	7893		7893	6637		6637	5131		5131	0		0	0		0
1979		1979	1273		1273	410		410	1531		1531	1025		1025	4100		4100	2067		2067
35684		35684	23449		23449	19152		19152	19152		19152	16751		16751	19183		19183	3805		3805
6074		6074	18369		18369	21941		21941	28328		28328	30554		30554	27097		27097	24089		24089
11869		11869	4781		4781	1886		1886	2052		2052	4198		4198	11413		11413	25404		25404
29880		29880	18218		18218	20679		20679	20679		20679	8525		8525	11844		11844	4599		4599
0		0	6624		6624	22125		22125	7800		7800	35120		35120	23000		23000	49028		49028
0		0	0		0	0		0	0		0	0		0	0		0	0		0
17932052		17932052	19204266		19204266	17431749		17431749	18977028		18977028	18037957		18037957	14373426		14373426	18268916		18268916

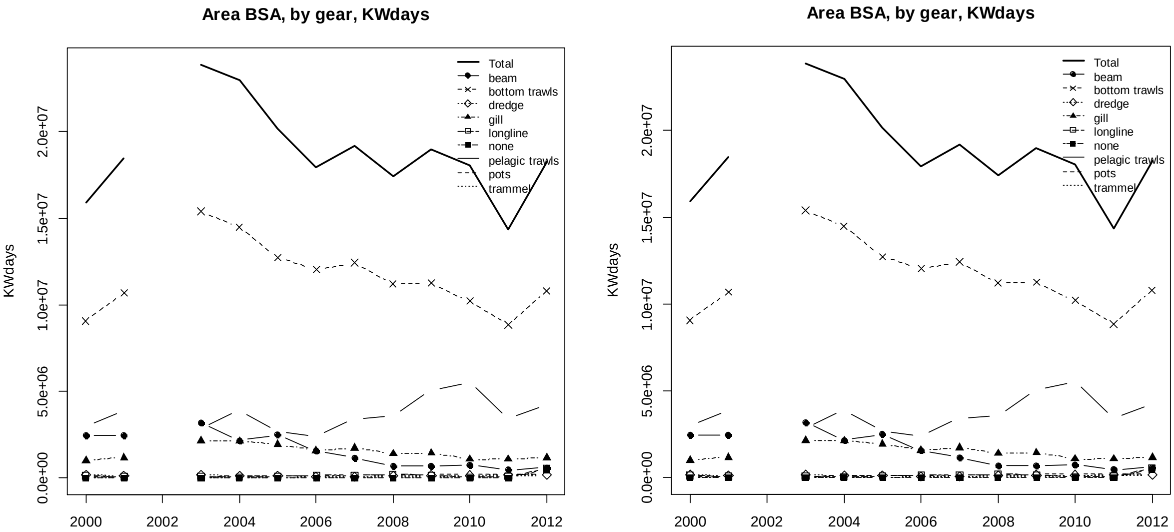


Figure 5.9.1.9.1.- Effort (kW*days) reported within the BSA by gear type, 2000-2012, with (left) and without (right) reported deepwater effort. Due to uncertainty in French 2002 data this year has been removed from the figures.

5.9.1.10 Fishing effort in ICES area VIII

Deepwater VIII EU

Most of the effort in this area was contributed by four countries, UK, France, Spain and Netherlands, as shown in Tables 5.9.1.10.1 and 5.9.1.10.2. Small amounts of effort were reported from Ireland, Portugal and Germany on occasion.

Netherlands effort, entirely for pelagic trawl, declined to zero in 2007, but some was recorded again in 2010. Netherlands effort comprised the majority of the pelagic trawling effort.

UK and French effort increased to the mid 2000s but has since declined. Spanish effort was stable at low levels between 2002 and 2008, before recording a major increase in 2009. After this peak Spain reported no data in this area until 2012, however the 2012 effort was three times the previous highest effort.

Figure 5.9.1.10.1 shows trends in effort by country and by main gears illustrating that bottom trawls were the most important followed by pelagic trawls, gill nets and longlines. In general the pattern of peak effort in the mid 2000s followed by decline is evident in all gears. There was a peak of effort in both bottom trawl and longlines in 2009 but this had decreased again in 2010 and 2011. The Spanish effort reported this year lifts 2012 to the highest in the time series.

Bottom trawl was the predominant gear used in this region, with, historically, 92% of the effort reported by France. This was reversed in 2012 with Spain reporting 90% of the effort. Gill net effort was initially confined to France but since 2004 the UK has been contributing 50%. In 2012 Spain again reported the majority of the effort.

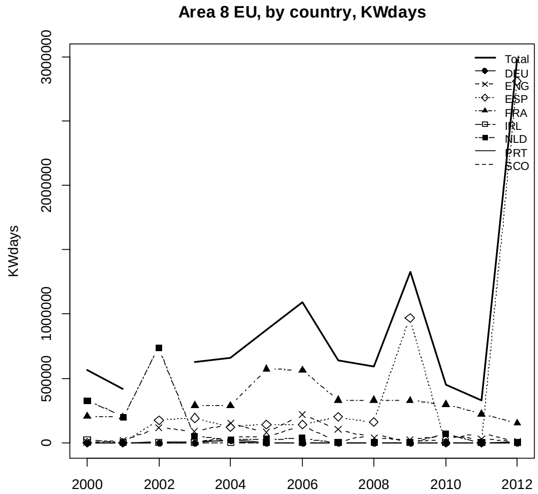
Over the time series the majority of the longline effort came from the UK, but Spain reported large effort for 2009, and doubled that effort in 2012. In 2011 France reported increased effort for trammel nets, similar to that reported for the early 2000s, but this decreased again in 2012.

Table 5.9.1.10.1.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state ICES Sub-area VIII EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8 EU	DEU					22626								
	ESP			176264	191014	119988	142950	142037	199227	158387	971345			2810612
	FRA	206775	198432	1221537	289751	287276	572978	563460	330069	330114	326333	296990	222426	152795
	IRL	23400		2500										
	NLD	328154	200158	734687	49974	22284	26400	35596				67980		
	PRT			4069	9663	10329				1089				8080
	UK		3001		87112	195594	131379	351815	108637	102356	29684	84663	106929	6887
8 EU Total		558329	401591	2139057	627514	658097	873707	1092908	637933	591946	1327362	449633	329355	2978374

Table 5.9.1.10.2.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state ICES Sub-area VIII EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8 EU	BEAM	UK									880				
	BOTTOM TRAWLS	ESP			159589	147836	78301	59641	75924	133403	84600	285745			1404693
		FRA	141365	161208	999557	177729	229630	473093	424001	194049	280599	276818	173738	147863	114434
		PRT									1089				8080
		UK											6943	9166	287
	DREDGE	FRA												73	
	GILL	ESP			5124	10091	8707	20233	17137	2638	3814	129719			196134
		FRA	53458	24366	88991	95204	53378	78282	117246	121418	20269	20269	28215	21244	14077
		UK					89612	67015	278374	57053	58969	29684	51073	18881	6600
	LONGLINE	ESP			7884	24830	31131	60298	48533	61414	63745	538568			1087768
		FRA	5379	10849	2054			1417	2674	407	19486	19486	76154	41262	14347
		PRT			4069	9663	10329								
		UK		3001		87112	105982	64364	73441	51584	41960		12761	78882	
	none	ESP			3667	8196	1849	2778	358	1544	3889	11863			90933
	PELAGIC TRAWLS	DEU					22626								
		ESP									2273	5406			5341
		FRA	3807		116371	8225		7442	10239	6521			13619	882	3730
		IRL	23400		2500										
		NLD	328154	200158	734687	49974	22284	26400	35596				67980		
		UK											13886		
	POTS	ESP													23970
		FRA						1596					2464		
	TRAMMEL	ESP				61			85	228	66	44			1773
		FRA	2766	2009	14564	8593	4268	11148	9300	7674	9760	9760	2800	11102	6207
		UK									547				
8 EU Total			558329	401591	2139057	627514	658097	873707	1092908	637933	591946	1327362	449633	329355	2978374



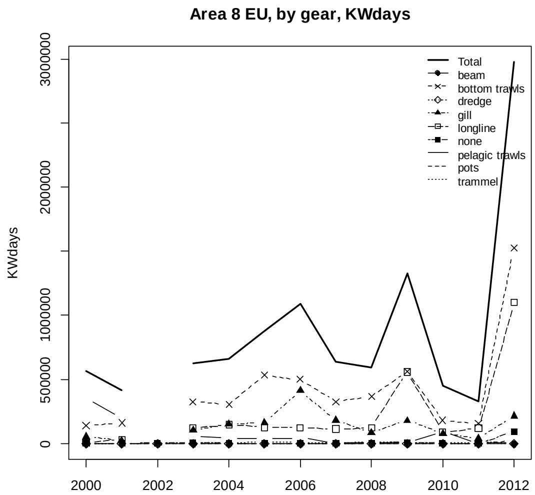


Figure 5.9.1.10.1. Deep Sea fishing effort (kW*days), 2000 – 2012, by country and by gear, in ICES Sub-area VIII EU. Due to the uncertainty in French 2002 data this year has been removed from the figure.

Western Waters VIII EU

Note: There is great uncertainty relating to effort descriptions of this area. Issues appear in French 2002 data and there is uncertainty around 2010 data. Spain did not provide information for 2010 or 2011.

Two nations primarily fish this area, France and Spain. The overall trend has fluctuated within this area with greatest effort around 2006/2007 following increased French effort. With the lack of Spanish data in 2010 and 2011 it is impossible to provide information on recent effort trends. Spanish effort has been reported again for 2012 which has led to the increase in recorded effort. Little effort is associated with deepwater fisheries (Table 5.9.1.10.3 and Figure 5.9.1.10.2).

Most effort occurs with bottom trawling gear, dominated by France. French bottom trawl effort in 2010 and 2011 is approximately 40% of what it was in the preceding five years, and it dropped further by 40% in 2012. Spanish effort for 2012 is quite high, similar to levels reported by France for 2010 and 2011. A small (1-2%) proportion of effort is contributed by Portugal.

Pelagic trawling accounts for around 12-18% of effort within the area, again primarily by France and Spain. French effort had been stable at a low level between 2008 and 2011, but showed an increase again in 2012. Spain reported pelagic effort for the first time since 2005.

Other gears are used within the area to lesser extents, with trammel and gillnetting accounting for around 10% each. France is again the dominant nation using both gear classes, particularly within the trammel category. French trammel net effort however, which was stable until 2009, has since decreased by approximately 90%. French gill net effort has begun to decrease since 2010.

Spain reported longline effort for 2012 well in excess of that reported by France. French effort has begun to increase since 2010 after a period of low, stable, effort.

Table 5.9.1.10.3.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area VIII EU, 2000-2012.

					2000			2001			2002			2003			2004			2005	
Area	Gear	Country	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
8 EU	3a	ESP	none	0		0	0		0	1294869		1294869	1025995		1025995	1231609		1231609	1418940		1418940
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	0		0	0		0	0		0	73004		73004	8503		8503	18769		18769
	3b	ESP	none	0		0	0		0	418138		418138	432698		432698	576138		576138	726348		726348
		FRA	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	3c	ESP	none	0		0	0		0	515959		515959	521325		521325	568483		568483	574857		574857
		FRA	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	0		0	0		0	0		0	9663		9663	10329		10329	3550		3550
	beam	FRA	o10t15m	0		0	0		0	0		0	15860		15860	16628		16628	35522		35522
		BEL	o15m	913195		913195	820583		820583	771813		771813	618667		618667	656093		656093	836309		836309
		ENG	o15m	0	0	0	0	0	0	0	0	0	220	0	220	0	0	0	0	0	0
		FRA	o15m	0		0	0		0	0		0	0		0	9728		9728	0		0
		IRL	o15m	0		0	0		0	0		0	0		0	1492		1492	0		0
		NLD	o15m	0		0	973068		973068	0		0	0		0	0		0	0		0
	bottom trawls	ESP	none	0	0	0	0	0	0	7661229	159589	7501640	13275010	147836	13127174	11346357	78301	11268056	8815762	59641	8756121
		ESP	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	1206539	592	1205947	2068789	0	2068789	8727547	0	8727547	3067089	0	3067089	3820207	461	3819746	5430623	0	5430623
		DNK	o15m	32020		32020	0		0	0		0	0		0	0		0	0		0
		ENG	o15m	0	0	0	0	0	0	0	0	0	67484	0	67484	129094	0	129094	80390	0	80390
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	3712065	140773	3571292	6201271	161208	6040063	31414798	999557	30415241	8356263	177729	8178534	9670496	229169	9441327	13681228	473093	13208135
		IRL	o15m	0		0	242		242	11050		11050	10028		10028	10663		10663	0		0
		NIR	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		NLD	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	140423	0	140423	54732	0	54732	82622	0	82622	25281	0	25281	2796	0	2796	2796	0	2796
		SCO	o15m	0	0	0	0	0	0	4634	0	4634	0	0	0	0	0	0	0	0	0
	dem_seine	FRA	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	dredge	ESP	none	0		0	0		0	0		0	0		0	0		0	0		0
		ESP	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o10t15m	257278	0	257278	331011	0	331011	1350691	0	1350691	397245	0	397245	424849	0	424849	475747	0	475747
		ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	3189		3189	885		885	13770		13770	620		620	4130		4130	1722		1722
		IRL	o15m	0		0	0		0	0		0	17804		17804	0		0	0		0
		SCO	o15m	0		0	25124		25124	0		0	0		0	0		0	0		0
	gill	ESP	none	0	0	0	0	0	0	1004942	5124	999818	894906	10091	884815	1213582	8707	1204875	1430508	20233	1410275
		ENG	o10t15m	0	0		0	0		0	0		0	0		0	0		0	0	
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o10t15m	278713	482	278231	487657	0	487657	1835097	0	1835097	586583	0	586583	740538	0	740538	1514317	5614	1508703
		IRL	o10t15m	0		0	0		0	0		0	144		144	0		0	0		0
		ENG	o15m	0	0	0	0	0	0	0	0	0	0	0	0	49056	43008	6048	43734	16406	27328
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	961665	52976	908689	1163285	24366	1138919	4179645	88991	4090654	1058556	95204	963352	1187019	53378	1133641	2058958	72668	1986290
		IRL	o15m	12116		12116	0		0	0		0	0		0	1800		1800	0		0
		SCO	o15m	0	0	0	0	0	0	0	0	0	7163	0	7163	66082	46604	19478	102765	50609	52156
	longline	ESP	none	0	0	0	0	0	0	223921	7884	216037	279010	24830	254180	284009	31131	252878	247783	60298	187485
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o10t15m	33120	802	32318	105834	6838	98996	504724	2054	502670	82748	0	82748	144520	0	144520	473380	0	473380
		IRL	o10t15m	0		0	0		0	0		0	0		0	0		0	873		873
		ENG	o15m	0	0	0	0	0	0	0	0	0	97042	87112	9930	111278	105982	5296	71646	64364	7282
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	57670	4577	53093	70295	4011	66284	433331	0	433331	155703	0	155703	165058	0	165058	138014	1417	136597
		IRL	o15m	0		0	0		0	0		0	485		485	4275		4275	8879		8879
		PRT	o15m		0			0			4069			9663			10329			0	
		SCO	o15m	0	0	0	3001	3001	0	0	0	0	0	0	0	0	0	0	1102	0	1102
	none	ESP	none	0	0	0	0	0	0	5753450	3667	5749783	4634113	8196	4625917	4482906	1849	4481057	5520930	2778	5518152
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o10t15m	151747		151747	214786		214786	1027994		1027994	178628		178628	179275		179275	186043		186043
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	900		900	0		0	0		0	4802		4802	0		0	6517		6517
		IRL	o15m	0		0	0		0	0		0	0		0	0		0	25000		25000
	otter	FRA	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		BEL	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	pel_seine	FRA	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	pel_trawl	FRA	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	pelagic trawls	ESP	none	0	0	0	0	0	0	8621388	0	8621388	15858441	0	15858441	5334468	0	5334468	4257594	0	4257594
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o10t15m	138026	0	138026	378217	0	378217	1211975	0	1211975	312462	0	312462	267350	0	267350	569222	0	569222
		IRL	o10t15m	0		0	5824		5824	6944		6944	0		0	0		0	0		0
		DEU	o15m	246685	0	246685	323841	0	323841	207308	0	207308	51022	0	51022	122593	22626	99967	298693	0	298693
		DNK	o15m	73875		73875	21385		21385	0		0	0		0	0		0	0		0
		ENG	o15m	0	0	0	0	0	0	0	0	0	181144	0	181144	224597	0	224597	166621	0	166621
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	3263817	3807	3260010	2850008	0	2850008	18916865	116371	18800494	3656818	8225	3648593	1632314	0	1632314	4030865	7442	4023423
		IRL	o15m	357375	23400	333975	99474	0	99474	206508	2500	204008	202314	0	202314	196430	0	196430	195308	0	195308
		NIR	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		NLD	o15m	2322788	328154	1994634	3585045	200158	3384887	1885345	734687	1150658	847751	49974	797777	203153	22284	180869	536805	26400	510405
		SCO	o15m	14662		14662	0		0	0		0	3972		3972	0		0	0		0
	pots	ESP	none	0		0	0		0	347578		347578	473182		473182	684460		684460	539499		539499
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o10t15m	21273	0	21273	9531	0	9531	60945	0	60945	53430	0	53430	190520	0	190520	57703	0	57703
		IRL	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		DEU	o15m	0		0	0		0	0		0	24255		24255	37485		37485	2646		2646
		ENG	o15m	0		0	0		0	0		0	0		0	10185		10185	0		0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	279991	0	279991	174914	0	174914	579693	0	579693	184899	0	184899	158381	0	158381	127796	1596	126200
	trammel	ESP	none	0	0	0	0	0	0	235826	0	235826	266077	61	266016	441945	0	441945	654742	0	654742
		ENG	o10t15m	0	0		0	0		0	0		0	0		0	0		0	0	
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o10t15m	215285	0	215285	267154	0	267154	1328129	0	1328129	527208	0	527208	754404	0	754404	1494444	948	1493496
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	297998	2766	295232	479212	2009	477203	2311607	14564	2297043	776822	8593	768229	865017	4268	860749	2116251	10200	2106051
8 EU Total				14992415	558329	14434086	20715168	401591	20313577	103150335	2139057	101015347	59313936	627514	58696085	48240295	658097	47592527	58981201	873707	58107494

2006			2007			2008			2009			2010			2011			2012		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
1679648		1679648	1641234		1641234	1553902		1553902	1529901		1529901	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	39910		39910
54602		54602	0		0	0		0	41730		41730	0		0	14420		14420	121713		121713
626935		626935	691660		691660	946341		946341	1234163		1234163	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	2322		2322
0		0	0		0	0		0	0		0	0		0	0		0	34420		34420
559331		559331	707969		707969	772428		772428	918735		918735	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	1029		1029
0		0	0		0	0		0	0		0	0		0	0		0	21143		21143
0		0	0		0	0		0	0		0	0		0	0		0	0		0
4104		4104	438		438	0		0	0		0	1569		1569	1258		1258	440		440
942990		942990	980041		980041	776015		776015	924272		924272	912846		912846	898622		898622	723000		723000
0	0	0	0	0	0	880	880	0	0	0	0	0	0	0	0	0	0	0	0	0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
8904063	75924	8828139	8016774	133403	7883371	6183515	84600	6098915	6211119	0	6211119	0	0	0	0	0	0	0	0	0
0		0	0		0	0		0	0		0	0		0	0		0	3188		3188
8384886	0	8384886	9142569	456	9142113	6819825	1799	6818026	6772216	1799	6770417	3050309	818	3049491	3023692	158	3023534	2334559	0	2334559
0		0	11850		11850	0		0	62415		62415	0		0	0		0	0		0
104436	0	104436	0	0	0	0	0	0	7920	0	7920	13619	6943	6676	42040	9166	32874	24444	0	24444
0	0	0	0	0	0	0	0	0	0	285745	-285745	0	0	0	0	0	0	5888458	1404693	4483765
14574204	424001	14150203	16077214	193593	15883621	14723046	278800	14444246	14639513	275019	14364494	4683314	172920	4510394	5356219	147705	5208514	3295469	114434	3181035
33917		33917	6448		6448	1800		1800	2304		2304	0		0	1080		1080	2000		2000
0		0	0		0	0		0	2707		2707	0		0	0		0	0		0
0		0	0		0	0		0	12776		12776	8936		8936	0		0	1972		1972
108595	0	108595	569383	0	569383	598782	1089	597693	287116	0	287116	225946	0	225946	419385	0	419385	365769	8080	357689
0	0	0	0	0	0	0	0	0	1180	0	1180	0	0	0	4615	0	4615	11010	287	10723
0		0	0		0	0		0	0		0	0		0	215		215	0		0
0		0	0		0	0		0	0		0	0		0	0		0	606861		606861
0		0	49		49	0		0	588		588	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	300		300
598745	0	598745	505681	0	505681	411552	0	411552	400047	0	400047	142985	0	142985	151355	73	151282	302271	0	302271
0		0	0		0	0		0	0		0	0		0	0		0	661		661
0		0	3117		3117	0		0	0		0	7173		7173	8504		8504	6627		6627
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
1683385	17137	1666248	1425842	2638	1423204	1808366	3814	1804552	1908846	0	1908846	0	0	0	0	0	0	0	0	0
3096	3096		0	0		2050	2050		5351	5351		2255	2255		0	0		1384	1384	
0	0	0	0	0	0	0	0	0	0	216	-216	0	0	0	0	0	0	438634	4074	434560
1984675	1758	1982917	1658799	4902	1653897	1155945	3354	1152591	1146949	3354	1143595	761691	264	761427	776761	322	776439	762505	0	762505
0		0	0		0	0		0	0		0	0		0	0		0	0		0
199548	151232	48316	54377	53577	800	16679	16679	0	41720	18037	23683	78604	34280	44324	79668	18881	60787	63381	4689	58692
0	0	0	0	0	0	0	0	0	0	129503	-129503	0	0	0	0	0	0	933963	192060	741903
2032257	115488	1916769	1695291	116516	1578775	2145942	16915	2129027	2129970	16915	2113055	2316170	27951	2288219	1756019	20922	1735097	1703856	14077	1689779
0		0	0		0	0		0	0		0	0		0	0		0	0		0
172436	124046	48390	69676	3476	66200	112945	40240	72705	39250	6296	32954	71340	14538	56802	22686	0	22686	28587	527	28060
184225	48533	135692	265484	61414	204070	315958	63745	252213	452625	0	452625	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	2291	-2291	0	0	0	0	0	0	636891	127165	509726
744255	1824	742431	653368	407	652961	510060	2029	508031	510060	2029	508031	833216	162	833054	780880	0	780880	788358	88	788270
2473		2473	0		0	0		0	873		873	0		0	0		0	0		0
69002	61704	7298	66303	48028	18275	40775	18300	22475	962	0	962	3958	0	3958	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	536277	-536277	0	0	0	0	0	0	3881944	960603	2921341
183189	850	182339	205807	0	205807	280569	17457	263112	280569	17457	263112	469680	75992	393688	559245	41262	517983	605726	14259	591467
11367		11367	13432		13432	0		0	0		0	0		0	0		0	0		0
	0			0			0			0			0			0			0	
12682	11737	945	6574	3556	3018	27684	23660	4024	0	0	0	25598	12761	12837	97949	78882	19067	28658	0	28658
4449478	358	4449120	5208751	1544	5207207	3783266	3889	3779377	3032063	0	3032063	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13942	1081	12861
348466		348466	266967		266967	433638		433638	433638		433638	0		0	150856		150856	0		0
0	0	0	0	0	0	0	0	0	0	11863	-11863	0	0	0	0	0	0	892456	89852	802604
3297		3297	11699		11699	16177		16177	16177		16177	0		0	10311		10311	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	2706446		2706446	3029634		3029634	3234890		3234890
0		0	0		0	0		0	0		0	0		0	0		0	3449		3449
0		0	0		0	0		0	0		0	4614663		4614663	4273105		4273105	4964000		4964000
0		0	0		0	0		0	0		0	828		828	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	588		588
0		0	0		0	0		0	0		0	44624		44624	140721		140721	180038		180038
0		0	0		0	0		0	0		0	102598		102598	43346		43346	285976		285976
3791866	0	3791866	4067360	0	4067360	3665276	2273	3663003	6461572	0	6461572	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41087	93	40994
746908	0	746908	753222	0	753222	311515	0	311515	304711	0	304711	666466	442	666024	511346	0	511346	289465	0	289465
0		0	0		0	0		0	0		0	0		0	0		0	0		0
183966	0	183966	0	0	0	85325	0	85325	47295	0	47295	41237	0	41237	11025	0	11025	21933	0	21933
38027		38027	181719		181719	184439		184439	181440		181440	29240		29240	7123		7123	89296		89296
92445	0	92445	36288	0	36288	167200	0	167200	224055	0	224055	61083	13886	47197	30569	0	30569	0	0	0
0	0	0	0	0	0	0	0	0	0	5406	-5406	0	0	0	0	0	0	1544248	5248	1539000
5409869	10239	5399630	3929356	6521	3922835	1576063	0	1576063	1522637	0	1522637	1849723	13177	1836546	1646033	882	1645151	2307163	3730	2303433
137196	0	137196	100377	0	100377	22418	0	22418	21871	0	21871	52668	0	52668	11100	0	11100	44306	0	44306
0		0	0		0	0		0	2165		2165	0		0	0		0	0		0
472316	35596	436720	106118	0	106118	403896	0	403896	189568	0	189568	99986	67980	32006	23760	0	23760	0	0	0
0		0	0		0	0		0	25396		25396	0		0	0		0	0		0
463663		463663	585731		585731	497069		497069	410088		410088	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	42861	21746	21115
75783	0	75783	64399	0	64399	10741	0	10741	10741	0	10741	429758	412	429346	468645	0	468645	421214	0	421214
0		0	0		0	0		0	0		0	0		0	90		90	133		133
29507		29507	45482		45482	33957		33957	6174		6174	7272		7272	8009		8009	6896		6896
0		0	0		0	9856		9856	0		0	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12877	2224	10653
145664	0	145664	103419	0	103419	14170	0	14170	14170	0	14170	347860	2052	345808	265852	0	265852	262653	0	262653
527309	85	527224	536042	228	535814	641249	66	641183	647739	0	647739	0	0	0	0	0	0	0	0	0
0	0		0	0		547	547		0	0		0	0		0	0		0	0	
0	0	0	0	0	0	0	0	0	0	44	-44	0	0	0	0	0	0	377127	1681	375446
2793823	0	2793823	2913921	774	2913147	2552035	0	2552035	2552035	0	2552035	2023726	516	2023210	2010833	0	2010833	2135966	0	2135966
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	92439	92	92347
2247644	9300	2238344	2390601	6900	2383701	2358160	9760	2348400	2356030	9760	2346270	2336004	2284	2333720	2159736	11102	2148634	2396238	6207	2390031
65816273	1092908	64723365	65770832	637933	65132899	55972056	591946	55380110	58025442	1327362	56698080	29023391	449633	28573758	28796707	329355	28467352	43322694	2978374	40344320

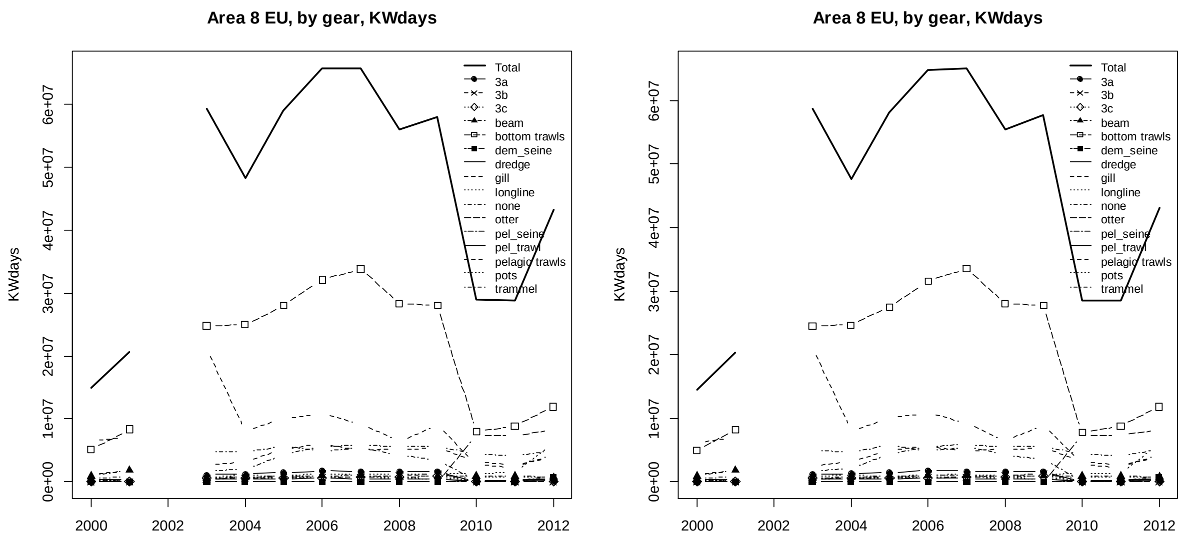


Figure 5.9.1.10.2.- Effort (kW*days) reported within ICES Sub-area VIII EU by gear type, 2000-2012, with (left) and without (right) reported deepwater effort. Due to uncertainty in French 2002 data this year has been removed from the figures.

Deepwater VIII non-EU

Fishing effort in Area VIII non EU was minimal. The UK has some historical effort for gill nets and pots, and France conducted a small amount of bottom trawl in 2011. Spain reported bottom trawl and longline effort for 2012

Table 5.9.1.10.4.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state ICES Sub-area VIII non-EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8 non EU	ESP													2397
	FRA												497	
	UK							34994		5376				
8 non EU Total								34994		5376			497	2397

Table 5.9.1.10.5.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state ICES Sub-area VIII non-EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8 non EU	BOTTOM TRAWLS	ESP													1985
		FRA												497	
	GILL	UK							34994						
	LONGLINE	ESP													412
	POTS	UK									5376				
8 non EU Total									34994		5376			497	2397

Western Waters VIII non-EU

Minimal effort occurs sporadically within this area, Table 5.9.1.10.6. In 2012 Spain reported effort in all categories except gill nets and pots. Without this Spanish effort total effort in 2012 in this area would have decreased compared to 2010 and 2011.

Table 5.9.1.10.6.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area VIII non-EU, 2000-2012.

					2000			2001			2002			2003			2004			2005	
Area	Gear	Country	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
8 non EU	bottom trawls	FRA	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	gill	FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		SCO	o15m	0	0		0	0		0	0		0	0		0	0		0	0	
	longline	ESP	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		SCO	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	none	ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	pelagic trawls	ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	pots	SCO	o15m	0	0		0	0		0	0		0	0		0	0		0	0	
	trammel	FRA	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
8 non EU Total				0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

	2006			2007			2008			2009			2010			2011			2012	
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0		0	0		0	0		0	0		0	2804		2804	294		294	0		0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4559	1985	2574
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6121	497	5624	662	0	662
23762		23762	0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	3825		3825	2995		2995
34994	34994		0	0		0	0		0	0		0	0		0	0		0	0	
0		0	0		0	0		0	0		0	0		0	0		0	2177		2177
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	188404	412	187992
0		0	0		0	0		0	0		0	30301		30301	14876		14876	10298		10298
0		0	0		0	0		0	0		0	73754		73754	66928		66928	9452		9452
0		0	0		0	0		0	0		0	0		0	0		0	3131		3131
0		0	0		0	0		0	0		0	0		0	0		0	4737		4737
0		0	0		0	0		0	0		0	52118		52118	71356		71356	7282		7282
0	0		0	0		5376	5376		0	0		0	0		0	0		0	0	
0		0	0		0	0		0	0		0	573		573	158		158	0		0
0		0	0		0	0		0	0		0	0		0	0		0	94		94
58756	34994	23762	0	0	0	5376	5376	0	0	0	0	159550	0	159550	163558	497	163061	233791	2397	231394

5.9.1.11 Fishing effort in ICES area IX

Deepwater IX EU

Most of the effort in area IX was contributed by Portugal, with lesser amounts by Spain, as shown in Tables 5.9.1.11.1 and 5.9.1.11.2. Occasional, small amounts of effort were recorded by France and UK. Prior to 2003 recorded effort was quite low and the highest values occur in recent years.

Portuguese longline effort is the most important in the area and this gear is responsible for the overall trend, however in 2012 Spain reported 10% of the effort.

Portuguese bottom trawl effort peaked in 2007, and none was reported for 2012. Between 2002 and 2010 Spanish bottom trawl effort fluctuated slightly, but the effort recorded for 2012 is the highest for the time series. Spain also reported large effort for pots in 2012.

Table 5.9.1.11.1.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state ICES Sub-area IX EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
9 EU	ESP			145453	161165	94341	98119	136223	280696	148213	100673			451421
	FRA									1472	1472		588	
	PRT	40929	28032	15563	323445	254615	465091	820110	964352	859628	787838	628818	601916	627340
	UK							138797	11906					
9 EU Total		40929	28032	161016	484610	348956	563210	1095130	1256954	1009313	889983	628818	602504	1078761

Table 5.9.1.11.2.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state ICES Sub-area IX EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
9 EU	BOTTOM TRAWLS	ESP			141910	159002	88954	84697	117280	266955	135644	88673			285478
		FRA												588	
		PRT	9210		6122	6182	37237	63980	90888	133980	85031	103658	37393	30150	
	DREDGE	PRT						89	74				89		
	GILL	ESP			1933	351			159	210	1372				10935
		FRA									1472	1472			
		PRT	1477	5141	1859	3712		2956	4340	16061	12332	7604	2453	1760	772
		UK							130733	11906					
	LONGLINE	ESP			986		1264	6112	14148	13531	10249	12000			64590
		PRT	27976	22191	7582	309598	213345	393156	710169	787845	734259	667917	580377	567197	621507
		UK							4928						
	none	ESP			562	1812	4123	7310	4612		948				6989
	PELAGIC TRAWLS	ESP													693
		PRT				201		71	60		142	137		66	
	POTS	ESP			62										80785
		PRT		428			1865	354	1541	1331	3296	395	100	153	216
		UK							3136						
	TRAMMEL	ESP							24						1951
		PRT	2266	272		3752	2168	4485	13038	25135	24568	8127	8406	2590	4845
9 EU Total			40929	28032	161016	484610	348956	563210	1095130	1256954	1009313	889983	628818	602504	1078761

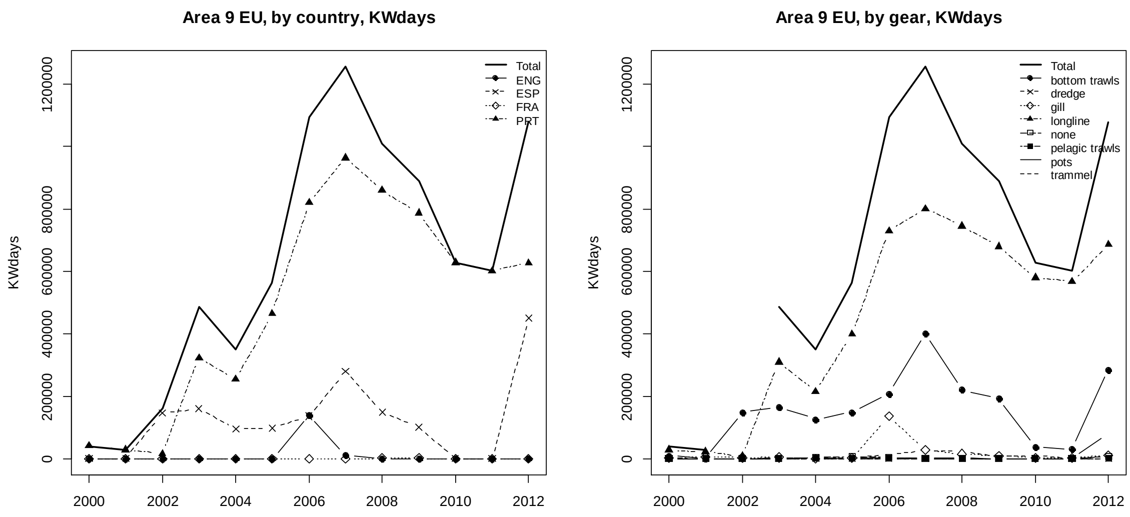


Figure 5.9.1.11.1. Deep Sea fishing effort (kW*days), 2000 – 2012, by country and by gear, in ICES Sub-area IX EU. Due to the uncertainty in French 2002 data this year has been removed from the figure.

Western Waters **IX EU**

Two nations are active in this area, Portugal and Spain, although minor contributions from other nations do occur (Table 5.9.1.11.3 and Figure 5.9.1.11.2). Spanish data was not provided for 2010 or 2011.

Overall effort increased from 2001 peaking between 2007 and 2009. With the lack of Spanish data for 2009 and 2010 effort in the area appeared to drop by approximately 50%. The inclusion of Spanish data for 2012 brings the total effort level back up to 2006 levels, just before the peak. Comparatively little effort is directed toward deepwater fisheries, apart from Portuguese longlines. Spanish deepwater effort was only provided in this area for 2009 and 2012. Given the low effort assigned to deepwater fisheries in these years deepwater effort may not have been significant over the period.

The main fishing activity is bottom trawling, and while this is carried out by both nations, Portuguese effort is much higher. Over the period Portuguese effort increased until 2007, but has been declining slowly since. In 2008 and 2009 it made up 80% of the bottom trawl effort. Spanish effort levels had remained relatively stable in recent years, up to 2009, but the effort reported for 2012 is very similar to Portuguese effort for the year.

Spanish pelagic trawls were the next most important, in terms of effort, up to 2009. The Spanish pelagic effort for 2012 is approximately 35% of that reported for 2009.

Low effort levels of trammel net, gillnet, and pots occur, are carried out, particularly by Portugal. Trammel net effort has increased in recent years, while effort in both pots and gill nets have been in decline.

Table 5.9.1.11.3.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area IX EU, 2000-2012.

					2000			2001			2002			2003			2004			2005	
Area	Gear	Country	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
9 EU	3a	ESP	none	0		0	0		0	814891		814891	794934		794934	1820246		1820246	1258665		1258665
		PRT	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	0		0	0		0	7621		7621	2386583		2386583	1649061		1649061	1590645		1590645
	3b	ESP	none	0		0	0		0	253541		253541	230249		230249	289007		289007	307394		307394
		PRT	o10t15m	0		0	0		0	0		0	33226		33226	0		0	26220		26220
		PRT	o15m	0		0	0		0	5884		5884	1796		1796	2695		2695	25049		25049
	3c	ESP	none	0		0	0		0	75080		75080	100476		100476	123556		123556	112117		112117
		PRT	o10t15m	110		110	0		0	0		0	1069		1069	15187		15187	62878		62878
		PRT	o15m	45336		45336	10923		10923	20594		20594	317899		317899	255435		255435	505958		505958
	beam	ESP	none	0		0	0		0	10822		10822	11804		11804	25121		25121	25154		25154
		ESP	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
	bottom trawls	ESP	none	0	0	0	0	0	0	2321107	141910	2179197	2386397	159002	2227395	3094901	88954	3005947	2368758	84697	2284061
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		IRL	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o10t15m	5816		5816	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		IRL	o15m	0		0	0		0	0		0	4208		4208	0		0	0		0
		PRT	o15m	3662193	9210	3652983	1753234	0	1753234	1663142	6122	1657020	5052614	6182	5046432	5071607	37237	5034370	4422899	63980	4358919
	dredge	ESP	none	0		0	0		0	8622		8622	10357		10357	23443		23443	24996		24996
		ESP	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o10t15m		0			0			0			0			0			89	
		ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	gill	ESP	none	0	0	0	0	0	0	236724	1933	234791	187819	351	187468	249307	0	249307	328203	0	328203
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o10t15m	193	0	193	0	0	0	3420	0	3420	16658	143	16515	0	0	0	25638	317	25321
		ENG	o15m	0	0		0	0		0	0		0	0		0	0		0	0	
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o15m	151310	1477	149833	93108	5141	87967	158698	1859	156839	71985	3569	68416	32276	0	32276	119202	2639	116563
	longline	ESP	none	0	0	0	0	0	0	86471	986	85485	65676	0	65676	99463	1264	98199	297488	6112	291376
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o10t15m	0	0	0	0	0	0	0	0	0	859	0	859	0	0	0	37393	16086	21307
		ENG	o15m	0	0		0	0		0	0		0	0		0	0		0	0	
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o15m	0	27976	-27976	15458	22191	-6733	0	7582	-7582	75114	309598	-234484	77114	213345	-136231	19322	377070	-357748
	none	ESP	none	0	0	0	0	0	0	374851	562	374289	252817	1812	251005	327183	4123	323060	326040	7310	318730
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	pelagic trawls	ESP	none	0		0	0		0	1570656		1570656	1998361		1998361	3483303		3483303	3067963		3067963
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o10t15m		0			0			0			201			0			71	
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	pots	ESP	none	0	0	0	0	0	0	788687	62	788625	856098	0	856098	1168353	0	1168353	667483	0	667483
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o10t15m	0	0	0	0	0	0	0	0	0	3119	0	3119	518	0	518	73475	0	73475
		DEU	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		ENG	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o15m	0	0	0	0	428	-428	0	0	0	8607	0	8607	4884	1865	3019	5363	354	5009
	trammel	ESP	none	0	0	0	0	0	0	227231	0	227231	174174	0	174174	298351	0	298351	314811	0	314811
		ESP	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o10t15m	2016	0	2016	438	0	438	980	0	980	36798	60	36738	623	0	623	65923	1055	64868
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o15m	72895	2266	70629	79384	272	79112	88515	0	88515	37931	3692	34239	44231	2168	42063	189840	3430	186410
9 EU Total				3939869	40929	3898940	1952545	28032	1924513	8717537	161016	8556521	15117628	484610	14633219	18155865	348956	17806909	16268877	563210	15705827

	2006			2007			2008			2009			2010			2011			2012	
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
740560		740560	817487		817487	924323		924323	873545		873545	0		0	0		0	0		0
382		382	71		71	13105		13105	35862		35862	45159		45159	50829		50829	43956		43956
505082		505082	186221		186221	182637		182637	237103		237103	265182		265182	825399		825399	1152966		1152966
289185		289185	365240		365240	383852		383852	433989		433989	0		0	0		0	0		0
50752		50752	84384		84384	104430		104430	157906		157906	142579		142579	88224		88224	91618		91618
65275		65275	68541		68541	71600		71600	118150		118150	105759		105759	91704		91704	86273		86273
195860		195860	138286		138286	124836		124836	180507		180507	0		0	0		0	0		0
112386		112386	135113		135113	119727		119727	162909		162909	140068		140068	189677		189677	45721		45721
757301		757301	706450		706450	630364		630364	701404		701404	704076		704076	707342		707342	193858		193858
25077		25077	28021		28021	18232		18232	16275		16275	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	40016		40016
2715222	117280	2597942	2179643	266955	1912688	1948330	135644	1812686	1881415	0	1881415	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	104122	244	103878
0		0	0		0	0		0	0		0	82		82	0		0	0		0
0		0	89		89	0		0	0		0	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	0	88673	-88673	0	0	0	0	0	0	4651143	285234	4365909
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	588	588	0	810	0	810
0		0	0		0	746		746	0		0	0		0	0		0	0		0
6029268	90888	5938380	8379491	133980	8245511	7701114	85031	7616083	7093202	103658	6989544	6267436	37393	6230043	5627416	30150	5597266	5126805	0	5126805
26099		26099	30039		30039	33876		33876	58241		58241	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	643		643
	74			0			0			0			89			0			0	
0		0	0		0	0		0	0		0	0		0	0		0	1128		1128
287174	159	287015	334189	210	333979	371351	1372	369979	598712	0	598712	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	407947	966	406981
47292	269	47023	108493	337	108156	112498	901	111597	97261	89	97172	81611	1056	80555	59136	197	58939	57893	0	57893
130733	130733		11906	11906		0	0		0	0		0	0		0	0		0	0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	170440	9969	160471
0	0	0	0	0	0	0	1472	-1472	0	1472	-1472	0	0	0	736	0	736	3054	0	3054
184177	4071	180106	718943	15724	703219	777508	11431	766077	668527	7515	661012	600022	1397	598625	225930	1563	224367	148094	772	147322
646323	14148	632175	256878	13531	243347	205655	10249	195406	275977	0	275977	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	675	-675	0	0	0	0	0	0	103960	26211	77749
0		0	0		0	0		0	0		0	0		0	684		684	0		0
52976	39265	13711	51615	52013	-398	56083	45702	10381	43053	54347	-11294	51577	17713	33864	30175	37019	-6844	18619	30971	-12352
4928	4928		0	0		0	0		0	0		0	0		0	0		0	0	
0	0	0	0	0	0	0	0	0	0	11325	-11325	0	0	0	0	0	0	178724	38379	140345
47149	670904	-623755	118832	735832	-617000	122982	688557	-565575	93497	613570	-520073	78133	562664	-484531	84475	530178	-445703	119790	590536	-470746
309026	4612	304414	315969	0	315969	380804	948	379856	563673	0	563673	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16029	1213	14816
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	250614	5776	244838
2802865		2802865	2872281		2872281	3041047		3041047	3346249		3346249	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	356945	345	356600
	60			0			142			0			0			66			0	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	895370	348	895022
0		0	0		0	0		0	0		0	0		0	0		0	323		323
0	0	0	0	0	0	0	0	0	0	137	-137	0	0	0	0	0	0	452	0	452
632260	0	632260	718759	0	718759	873801	0	873801	927395	0	927395	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	113489	79226	34263
121213	835	120378	178316	497	177819	250634	139	250495	216433	267	216166	231522	100	231422	234767	153	234614	179447	216	179231
0		0	7272		7272	0		0	0		0	14544		14544	14948		14948	0		0
3136	3136	0	26201	0	26201	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1866	1559	307
39918	706	39212	116636	834	115802	188751	3157	185594	178718	128	178590	138035	0	138035	174534	0	174534	106125	0	106125
275258	24	275234	276624	0	276624	352813	0	352813	359209	0	359209	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	357099	1891	355208
135727	910	134817	340488	3545	336943	386146	2648	383498	397042	535	396507	474877	156	474721	444680	0	444680	397781	2652	395129
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80581	60	80521
389797	12128	377669	923884	21590	902294	643654	21920	621734	866971	7592	859379	962700	8250	954450	985555	2590	982965	1003247	2193	1001054
17622401	1095130	16527405	20496362	1256954	19239408	20020899	1009313	19011728	20583225	889983	19693242	10303362	628818	9674633	9836799	602504	9234361	16506948	1078761	15428187

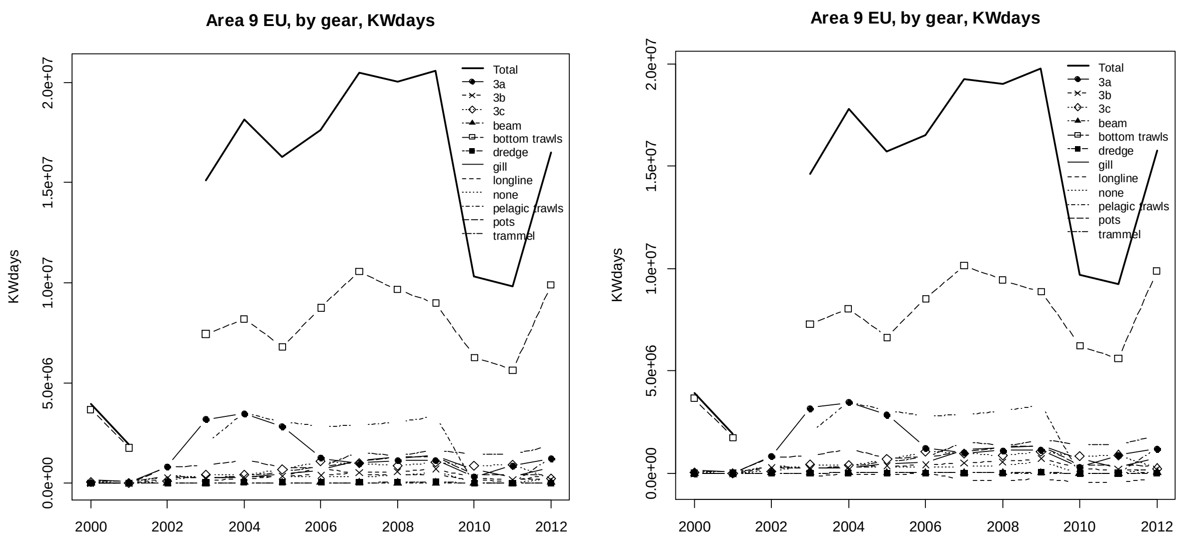


Figure 5.9.1.11.2.- Effort (kW*days) reported within ICES Sub-area IX EU by gear type, 2000-2012, with (left) and without (right) reported deepwater effort. Due to uncertainty in French 2002 data this year has been removed from the figures.

Deepwater IX non-EU

In Area IX non-EU effort peaked between 2003 and 2005 but has declined greatly since. All the effort is Portuguese. Between 2005 and 2011 it has been solely longline. In 2012 Portugal recorded an increase in longline effort and Spain recorded bottom trawl effort.

Table 5.9.1.11.4.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state ICES Sub-area IX non-EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
9 non EU	ESP													1687
	PRT	39812	63800	40008	163067	63968	163069	3356	13187	43272	11581	3401	5217	18640
9 non EU Total		39812	63800	40008	163067	63968	163069	3356	13187	43272	11581	3401	5217	20327

Table 5.9.1.11.4.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state ICES Sub-area IX non-EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
9 non EU	BOTTOM TRAWLS	ESP													1687
	GILL	PRT	7832	4718	9565	229		1968							
	LONGLINE	PRT	31559	59082	30155	162301	63968	159709	3356	13187	43272	11581	3401	5217	18640
	PELAGIC TRAWLS	PRT						1250							
	TRAMMEL	PRT	421		288	537		142							
9 non EU Total			39812	63800	40008	163067	63968	163069	3356	13187	43272	11581	3401	5217	20327

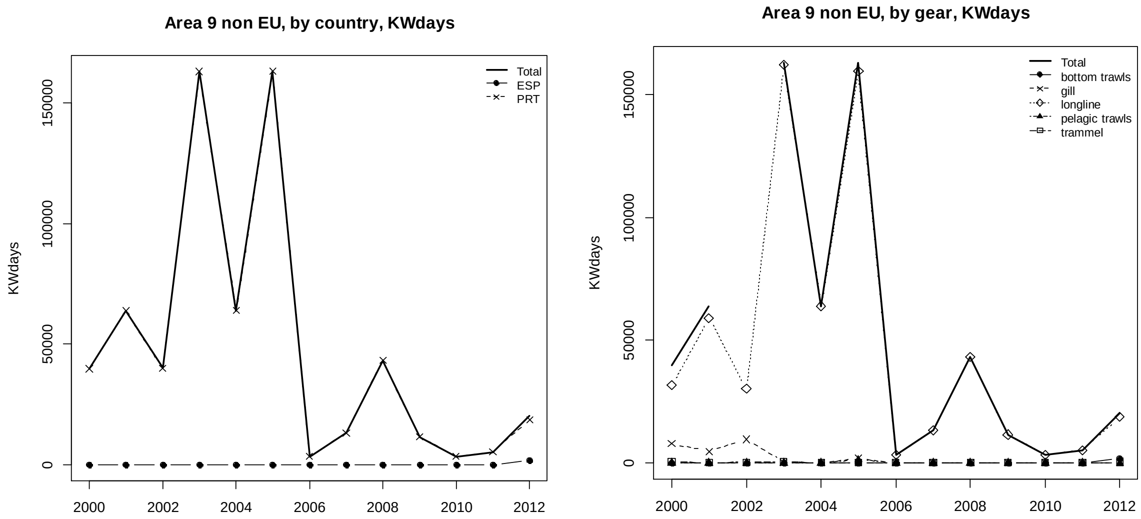


Figure 5.9.1.11.3. Deep Sea fishing effort (kW*days), 2000 – 2012, by country and by gear, in ICES Sub-area IX non-EU. Due to the uncertainty in French 2002 data this year has been removed from the figure.

Western Waters IX non-EU

Little effort is associated with this area in recent years. Prior to 2006 a variety of gears were used, all at low levels, and all of them by Portugal (Table 5.9.1.11.6. and Figure 5.9.1.11.4.). Since 2006, effort declined and was focused in longlines. In 2012 Portuguese longline effort increased. Some of the longline effort is associated with deepwater fisheries.

In 2012 Spain reported effort for bottom trawls, pelagic trawls and longlines. Lithuania reported effort for pelagic trawl.

Table 5.9.1.11.6.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area IX non-EU, 2000-2012.

					2000			2001			2002			2003			2004			2005	
Area	Gear	Country	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
9 non EU	bottom trawls	ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o15m	98235		98235	116517		116517	169518		169518	224597		224597	27180		27180	72890		72890
	gill	PRT	o10t15m	0	0	0	0	0	0	0	0	0	46304	229	46075	0	0	0	2471	0	2471
		PRT	o15m	130277	7832	122445	213782	4718	209064	201508	9565	191943	69055	0	69055	805	0	805	32635	1968	30667
	longline	PRT	o10t15m	0	0	0	0	0	0	0	0	0	19729	11250	8479	0	0	0	24403	11850	12553
		ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	49469	31559	17910	98993	59082	39911	45689	30155	15534	197108	151051	46057	35788	63968	-28180	167159	147859	19300
	none	ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	pelagic trawls	ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o15m		0			0			0			0			0			1250	
		LTU	o40m	0		0	0		0	0		0	0		0	0		0	0		0
	pots	PRT	o10t15m	0		0	0		0	0		0	642		642	0		0	2961		2961
		PRT	o15m	0		0	0		0	0		0	0		0	0		0	590		590
	trammel	PRT	o10t15m	339		339	0		0	680		680	9396		9396	0		0	9438		9438
		PRT	o15m	16195	421	15774	19851	0	19851	22840	288	22552	38958	537	38421	0	0	0	15314	142	15172
9 non EU Total				294515	39812	254703	449143	63800	385343	440235	40008	400227	605789	163067	442722	63773	63968	-195	327861	163069	166042

	2006			2007			2008			2009			2010			2011			2012	
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37661	1687	35974
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0		0	0		0	0		0	0		0	0		0	0		0	40340		40340
2714	3356	-642	4065	13187	-9122	34660	43272	-8612	43305	11581	31724	8020	3401	4619	12812	5217	7595	51438	18640	32798
0		0	0		0	0		0	0		0	0		0	0		0	3961		3961
0		0	0		0	0		0	0		0	0		0	0		0	1808		1808
	0			0			0			0			0			0			0	
0		0	0		0	0		0	0		0	0		0	0		0	10304		10304
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2714	3356	-642	4065	13187	-9122	34660	43272	-8612	43305	11581	31724	8020	3401	4619	12812	5217	7595	145512	20327	125185

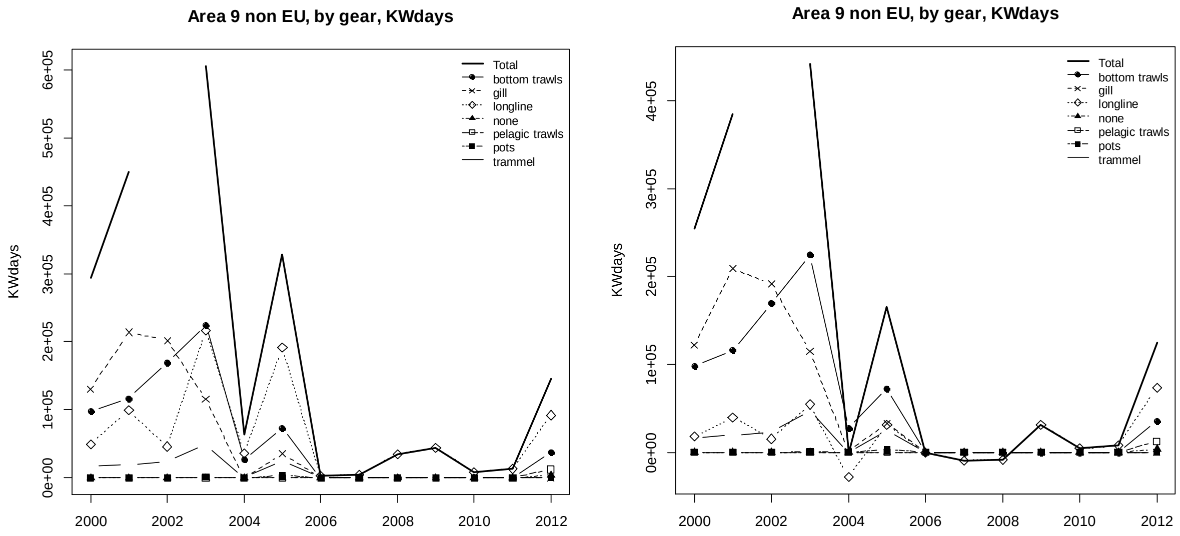


Figure 5.9.1.11.4.- Effort (kW*days) reported within ICES Sub-area IX non-EU by gear type, 2000-2012, with (left) and without (right) reported deepwater effort. Due to uncertainty in French 2002 data this year has been removed from the figures.

5.9.1.12 Fishing effort in ICES area X

Deepwater X EU

Reporting of effort in ICES X has been more sporadic than other areas. In 2012 Portugal updated their submission and reported large longline effort for 2009 to 2012. For the first three years this was quite consistent, with a small decrease in 2012.

Table 5.9.1.12.1.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state ICES Sub-area X EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
10 EU	ESP													1440
	PRT				7517			15006			1305573	1223923	1393208	988374
10 EU Total					7517			15006			1305573	1223923	1393208	989814

Table 5.9.1.12.2.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state ICES Sub-area X EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
10 EU	BOTTOM TRAWLS	ESP													1058
	LONGLINE	ESP													382
		PRT				7517			15006			1305573	1223923	1393208	988374
10 EU Total						7517			15006			1305573	1223923	1393208	989814

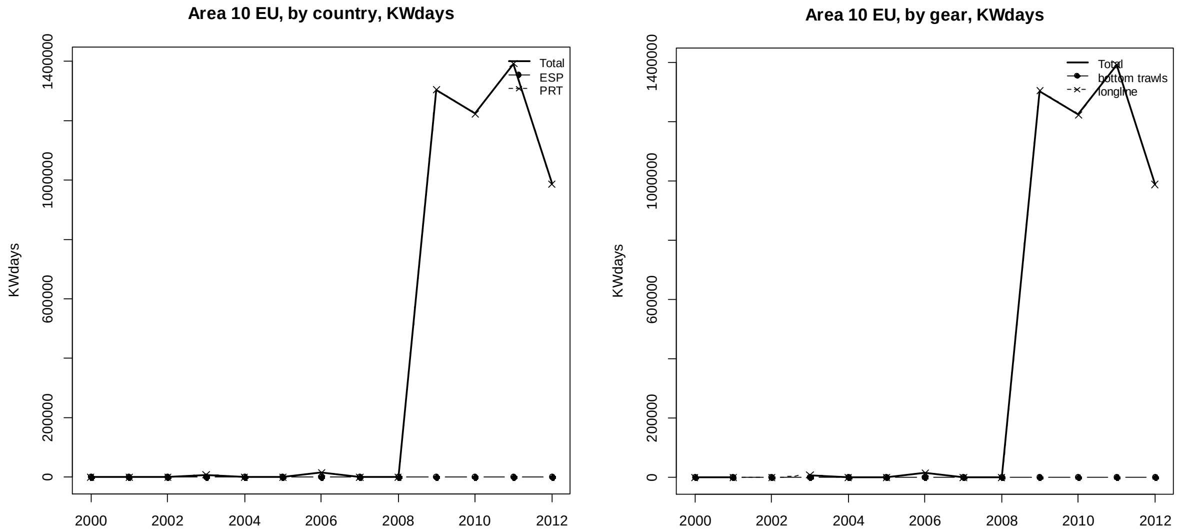


Figure 5.9.1.12.1. Deep Sea fishing effort (kW*days), 2000 – 2012, by country and by gear, in ICES Sub-area X EU.

Western Waters X EU

Little effort is carried out within this area. The effort that does occur is with longlines by Portugal (Table 5.9.1.12.3 and Figure 5.9.1.12.2). This effort was regularly associated with deepwater fisheries. In 2012 Spain reported effort for longline, gill net and bottom trawl. Spanish longline effort is not deepwater effort.

Table 5.9.1.12.3.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area X EU, 2000-2012.

					2000			2001			2002			2003			2004			2005	
Area	Gear	Country	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
10 EU	bottom trawls	ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		PRT	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	gill	ESP	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	longline	ESP	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o10t15m		0			0			0			0			0			0	
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	0	0	0	0	0	0	0	0	0	7517	7517	0	3550	0	3550	4201	0	4201
	none	ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	trammel	FRA	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
10 EU Total				0	0	0	0	0	0	0	0	0	7517	7517	0	3550	0	3550	4201	0	4201

	2006			2007			2008			2009			2010			2011			2012	
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1256	1058	198
0		0	750		750	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	74		74
0		0	0		0	0		0	0		0	0		0	0		0	1374		1374
0		0	0		0	0		0	0		0	0		0	0		0	77		77
	0			0			0			825191			785038			898336			716666	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	101864	382	101482
0		0	0		0	0		0	0		0	0		0	0		0	442		442
0	15006	-15006	0	0	0	0	0	0	12112	480382	-468270	0	438885	-438885	21182	494872	-473690	0	271708	-271708
0		0	0		0	0		0	0		0	0		0	0		0	11752		11752
0		0	0		0	0		0	0		0	0		0	184		184	0		0
0	15006	-15006	750	0	750	0	0	0	12112	1305573	-468270	0	1223923	-438885	21366	1393208	-473506	116839	989814	-156309

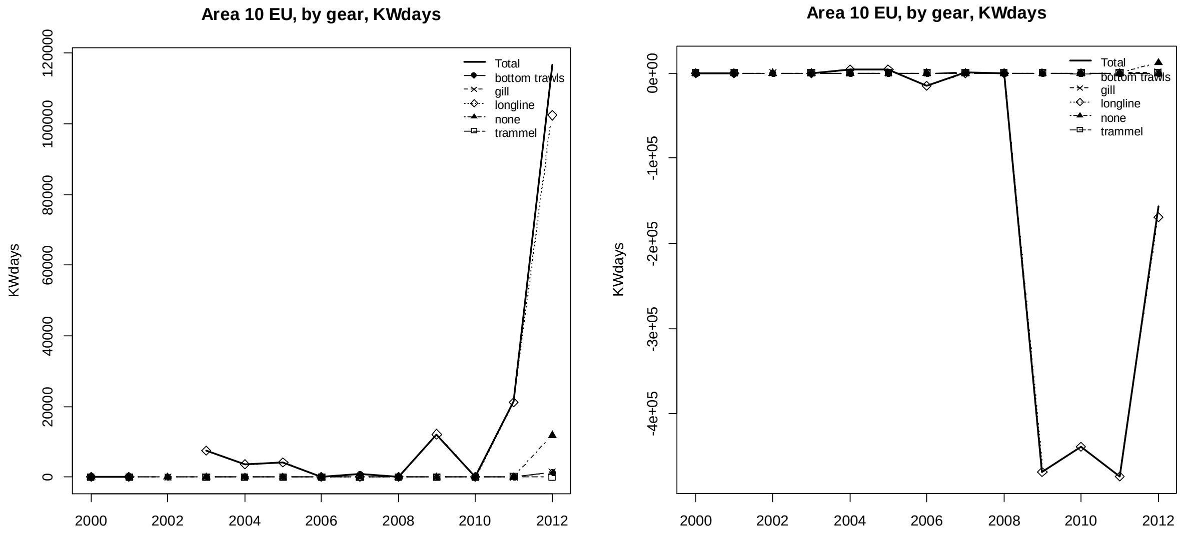


Figure 5.9.1.12.2.- Effort (kW*days) reported within ICES Sub-area X EU by gear type, 2000-2012, with (left) and without (right) reported deepwater effort.

Deepwater X non-EU

Most of the effort in the non EU part of X is Portuguese longline, with some pelagic trawl effort reported for 2005. Ireland, 2004 to 2005, recorded some effort from bottom trawls. Spain reported a small amount of longline effort for 2012, (Table 5.9.1.12.4 and 5.9.1.12.5 and Figure 5.9.1.12.3).

Table 5.9.1.12.4.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state ICES Sub-area X non-EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
10 non EU	ESP													169
	IRL					31378	8656							
	PRT		9929	6987	9188	26101	229555	8931	20388		2478			
10 non EU Total			9929	6987	9188	57479	238211	8931	20388		2478			169

Table 5.9.1.12.5.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state ICES Sub-area X non-EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
10 non EU	BOTTOM TRAWLS	IRL					31378	8656							
	LONGLINE	ESP													169
		PRT		9929	6987	9188	26101	25533	8931	20388		2478			
	PELAGIC TRAWLS	PRT						204022							
10 non EU Total				9929	6987	9188	57479	238211	8931	20388		2478			169

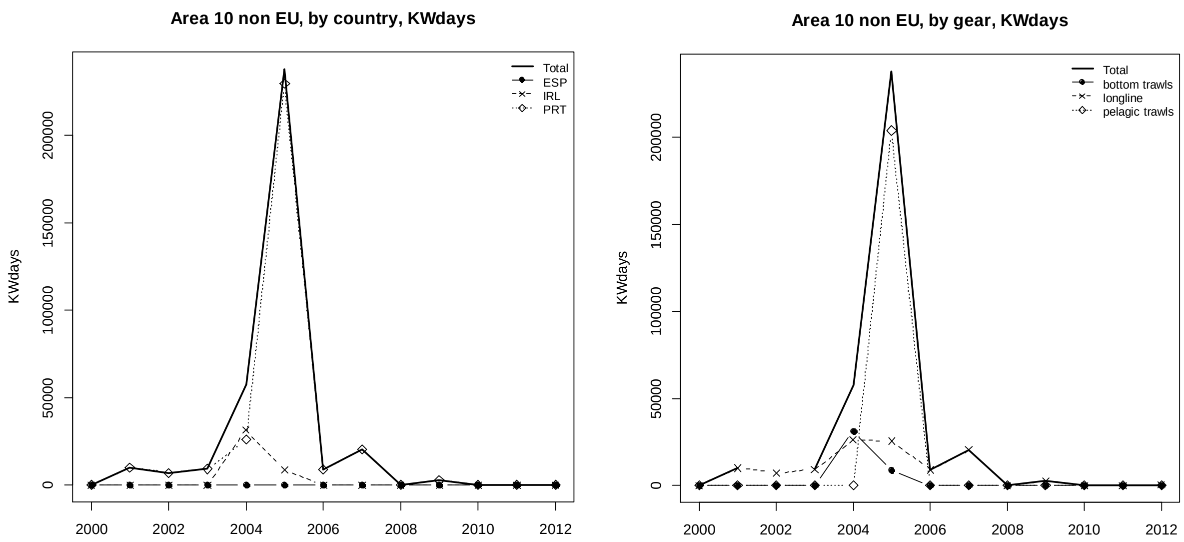


Figure 5.9.1.12.3. Deep Sea fishing effort (kW*days), 2000 – 2012, by country and by gear, in ICES Sub-area X non-EU.

Western Waters X non-EU

Little effort is carried out within Area X non EU. Effort which does occur is primarily with longlines by Portugal, associated with deepwater fisheries (Table 5.9.1.12.6. and Figure 5.9.1.12.4.). this effort ceased in 2009.

Occurrence of other gears or nations is more sporadic and tends to relate to deepwater fisheries, including small amounts of bottom trawling in 2004/2005 by Ireland. From 2010 to 2012 France recorded effort in all gear types. In 2012 Spain reported major effort for longlines and much smaller effort for bottom and pelagic trawls.

Table 5.9.1.12.6.- Effort (kW*days) by country, gear and vessel size group within ICES Sub-area X non-EU, 2000-2012.

					2000			2001			2002			2003			2004			2005	
Area	Gear	Country	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
10 non EU	bottom trawls	FRA	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		IRL	o15m	0	0		0	0		0	0		0	0		31378	31378		8656	8656	
	dredge	FRA	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
	gill	FRA	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	longline	FRA	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	13046	0	13046	30424	9929	20495	8439	6987	1452	16808	9188	7620	29859	26101	3758	39348	25533	13815
	none	ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	pelagic trawls	FRA	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o15m		0			0			0			0			0			204022	
	pots	FRA	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	trammel	FRA	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		FRA	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	0		0	6894		6894	0		0	0		0	0		0	0		0
10 non EU Total				13046	0	13046	37318	9929	27389	8439	6987	1452	16808	9188	7620	61237	57479	3758	48004	238211	13815

	2006			2007			2008			2009			2010			2011			2012	
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0		0	0		0	0		0	0		0	1059		1059	2594		2594	5362		5362
0		0	0		0	0		0	0		0	0		0	0		0	3671		3671
0		0	0		0	0		0	0		0	1964		1964	810		810	1176		1176
0	0		0	0		0	0		0	0		0	0		0	0		0	0	
0		0	0		0	0		0	0		0	0		0	0		0	220		220
0		0	0		0	0		0	0		0	111		111	765		765	0		0
0		0	0		0	0		0	0		0	0		0	660		660	0		0
0		0	0		0	0		0	0		0	5698		5698	133		133	1233		1233
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	634674	169	634505
0		0	0		0	0		0	0		0	0		0	4464		4464	7072		7072
8931	8931	0	0	20388	-20388	1792	0	1792	12786	2478	10308	0	0	0	0	0	0	0	0	0
0		0	0		0	0		0	0		0	0		0	0		0	22800		22800
0		0	0		0	0		0	0		0	1575		1575	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	10517		10517
0		0	0		0	0		0	0		0	2106		2106	1986		1986	0		0
	0			0			0			0			0			0			0	
0		0	0		0	0		0	0		0	0		0	73		73	110		110
0		0	0		0	9929		9929	2478		2478	0		0	0		0	0		0
0		0	0		0	0		0	0		0	1483		1483	4676		4676	309		309
0		0	0		0	0		0	0		0	323		323	1221		1221	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
8931	8931	0	0	20388	-20388	11721	0	11721	15264	2478	12786	14319	0	14319	17382	0	17382	687144	169	686975

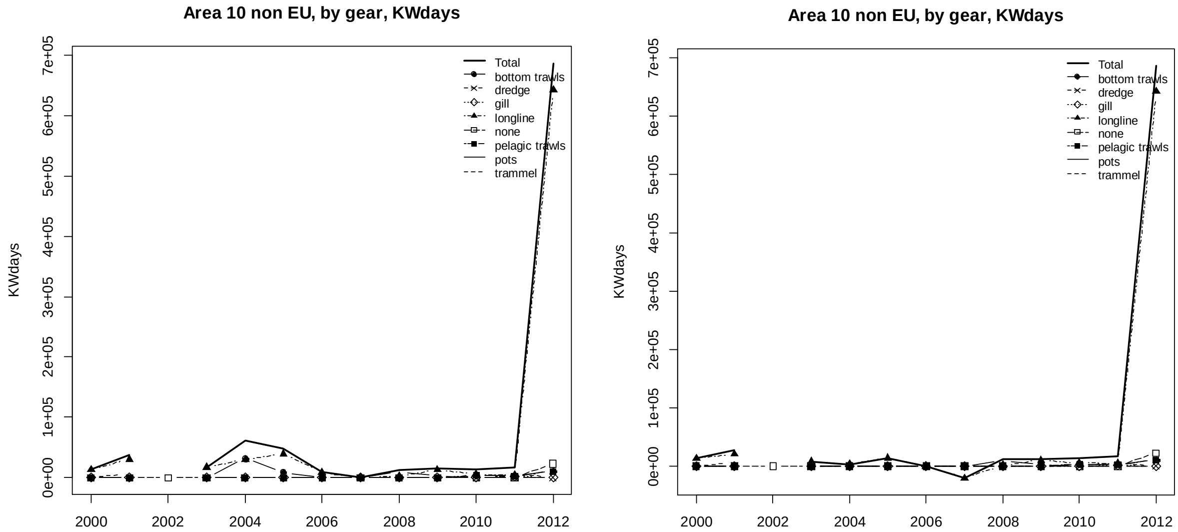


Figure 5.9.1.12.4.- Effort (kW*days) reported within ICES Sub-area X non-EU by gear type, 2000-2012, with (left) and without (right) reported deepwater effort. Due to uncertainty in French 2002 data this year has been removed from the figures.

5.9.1.13 Fishing effort in ICES area XII by fisheries and Member States only linked to Deep Sea species

Overall effort from ICES area XII is shown in Table 5.9.1.13.1. The UK recorded most effort throughout the series (mainly using otter trawl and gill net – Table 5.9.1.13.2 and Figure 5.9.1.13.1) although the trawl effort ceased in 2005 and all UK effort ceased in 2008. Other countries contributing effort included Germany, Netherlands, Estonia and Ireland. Spain provided effort for 2009 and is the only country to provide data for 2012. This effort was for bottom trawl and some pelagic trawl and other unspecified gears. In 2010 and 2011 only France has provided effort, from bottom trawls.

Table 5.9.1.13.1.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state ICES Sub-area XII non-EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
12 non EU	DEU				21000	22932	9708							
	ESP										2361476			289766
	EST						2712	28024	35328					
	FRA											5141	5530	
	IRL				29509									
	NLD					14420	22944							
	PRT					63180								
	UK	16797	46413	45579	102568	49670	113809	2356	4480	9359				
12 non EU Total		16797	46413	45579	153077	150202	149173	30380	39808	9359	2361476	5141	5530	289766

Table 5.9.1.13.2.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state ICES Sub-area XII non-EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
12 non EU	BOTTOM TRAWLS	ESP										1896092			287490
		EST						2712	28024	35328					
		FRA											5141	5530	
		IRL				28159									
		UK	10646	26963	7455	12768	3310	9255							
	GILL	UK	6151	19450	38124	87514	46360	104554	2356						
	LONGLINE	ESP													1232
		IRL				1350									
		PRT					63180								
	none	ESP										241944			
	PELAGIC TRAWLS	DEU				21000	22932	9708							
		ESP										223440			1044
		NLD					14420	22944							
	POTS	UK				2286				4480	9359				
12 non EU Total			16797	46413	45579	153077	150202	149173	30380	39808	9359	2361476	5141	5530	289766

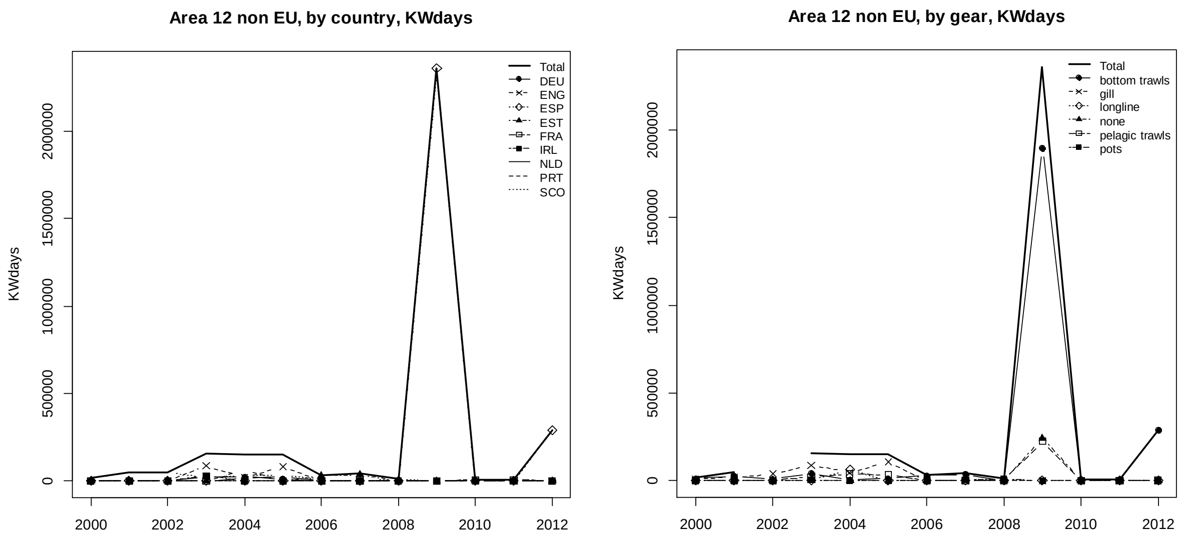


Figure 5.9.1.13.1. Deep Sea fishing effort (kW*days), 2000 – 2012, by country and by gear, in ICES Sub-area XII non-EU.

5.9.1.14 Fishing effort in ICES area XIV by fisheries and Member States only linked to Deep Sea species

Effort in ICES Area XIV, shown in Tables 5.9.1.14.1 and 5.9.1.14.2 and Figure 5.9.1.14.1, is mainly expended outside EU waters by Germany and the UK using otter trawls. UK effort peaked in 2004 but has since declined while German effort rose in the mid 2000s and remains at a relatively high level. There was an increase in German effort in 2011 but this has dropped to recent figures again in 2012. Spain has reported otter trawl effort for 2009 and a smaller amount for 2012. German pelagic trawling took place in the mid 2000s with effort also reported for 2011.

Table 5.9.1.14.1.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state ICES Sub-area XIV non-EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
14 non EU	DEU				1067316	1975374	1349730	1248640	1427857	1719689	1960922	1694549	2419111	1754268
	ESP										194085			211076
	PRT						35100							
	UK				801239	609192	261337		143075	96501	250077	186300	189933	105092
14 non EU Total					1868555	2584566	1646167	1248640	1570932	1816190	2405084	1880849	2609044	2070436

Table 5.9.1.14.2.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state ICES Sub-area XIV non-EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
14 non EU	BOTTOM TRAWLS	DEU				1016316	1963026	1232628	1248640	1427857	1719689	1960922	1694549	2313211	1754268
		ESP										194085			41329
		UK				801239	609192	261337		143075	96501	250077	186300	189933	105092
	LONGLINE	PRT						35100							
	PELAGIC TRAWLS	DEU				51000	12348	117102						105900	
		ESP													169747
14 non EU Total						1868555	2584566	1646167	1248640	1570932	1816190	2405084	1880849	2609044	2070436

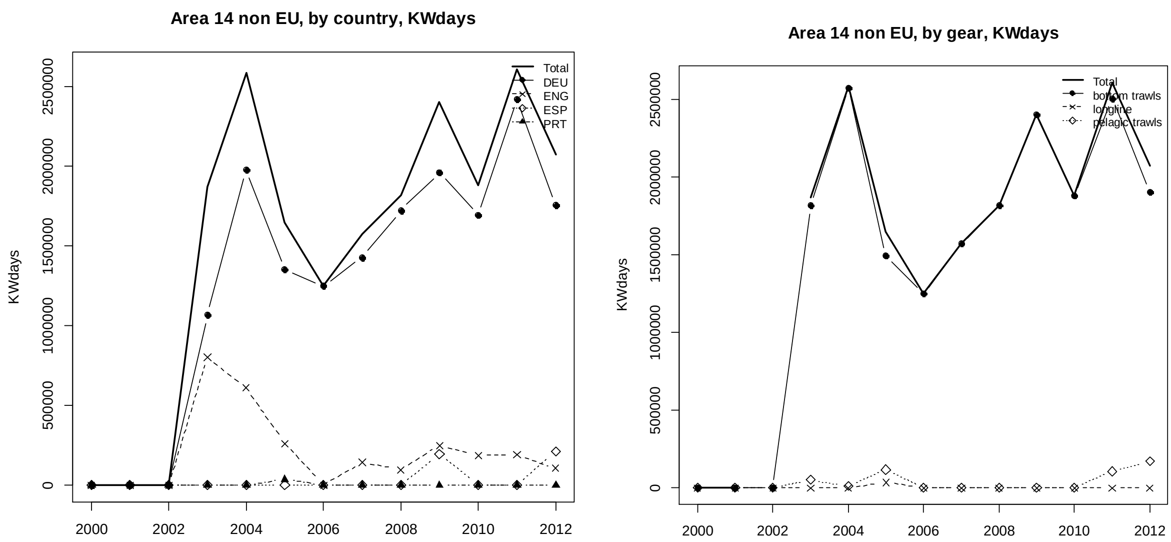


Figure 5.9.1.14.1. Deep Sea fishing effort (kW*days), 2000 – 2012, by country and by gear, in ICES Sub-area XIV non-EU.

5.9.1.15 Fishing effort in CECAF area 34.1.1

Deepwater 34.1.1 EU

All effort in CECAF 34.1.1 has been recorded by Portugal (Tables 5.9.1.15.1 and 5.9.1.15.2 and Figure 5.9.1.15.1). All the effort is for longline bar 2004 when it was recorded for trammel nets.

Table 5.9.1.15.1.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state CECAF area 34.1.1 EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.1.1 EU	PRT				2349	2327	9304	28137	9160	25508	26448	11077		11269
34.1.1 EU Total					2349	2327	9304	28137	9160	25508	26448	11077		11269

Table 5.9.1.15.2.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state CECAF area 34.1.1 EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.1.1 EU	LONGLINE	PRT				2349		9304	28137	9160	25508	26448	11077		11269
	TRAMMEL	PRT					2327								
34.1.1 EU Total						2349	2327	9304	28137	9160	25508	26448	11077		11269

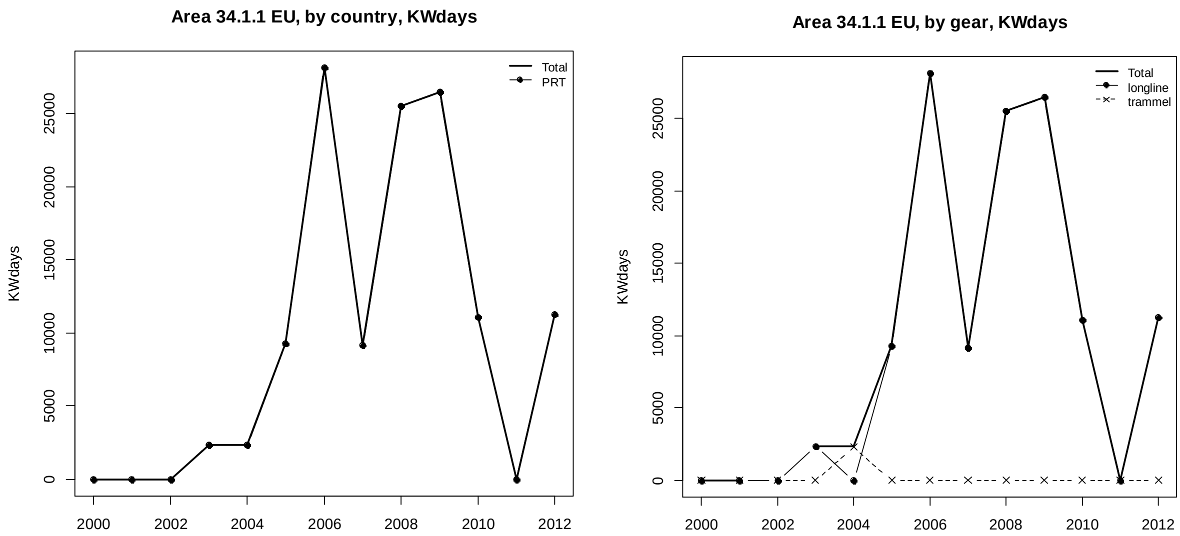


Figure 5.9.1.15.1. Deep Sea fishing effort (kW*days), 2000 – 2012, by country and by gear, in CECAF area 34.1.1 EU.

Western Waters 34.1.1 EU

Effort is low within this area. Portugal was the sole nation with effort reported in this area and is associated with longlining (Table 5.9.1.15.3 and Figure 5.9.1.15.2). Much of this effort is used to target deepwater fisheries. Between 2008 and 2009 greater effort became directed to other fisheries, and deepwater effort was further reduced in 2010 and 2011. In 2012 however all Portuguese longlining effort was focused on deepwater. A single year of Portuguese bottom trawling created an effort peak in 2007.

In 2012 Spain reported longlining effort which was not directed at deepwater.

Table 5.9.1.15.3.- Effort (kW*days) by country, gear and vessel size group within CECAF area 34.1.1 EU, 2000-2012.

					2000			2001			2002			2003			2004			2005	
Area	Gear	Country	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
34.1.1 EU	bottom trawls	PRT	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	longline	PRT	o10t15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	0	0	0	4092	0	4092	0	0	0	7038	2349	4689	7502	0	7502	5011	9304	-4293
	pelagic trawls	ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	trammel	PRT	o15m		0			0			0			0			2327			0	
34.1.1 EU Total				0	0	0	4092	0	4092	0	0	0	7038	2349	4689	7502	2327	7502	5011	9304	-4293

	2006			2007			2008			2009			2010			2011			2012	
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0		0	307168		307168	0		0	0		0	0		0	0		0	0		0
0	0	0	412	0	412	0	0	0	6132	0	6132	15906	3258	12648	3641	0	3641	0	0	0
0		0	0		0	0		0	0		0	0		0	0		0	13032		13032
10952	28137	-17185	13356	9160	4196	57440	25508	31932	62323	26448	35875	38270	7819	30451	47337	0	47337	0	11269	-11269
0		0	0		0	0		0	0		0	0		0	0		0	81		81
	0			0			0			0			0			0			0	
10952	28137	-17185	320936	9160	311776	57440	25508	31932	68455	26448	42007	54176	11077	43099	50978	0	50978	13113	11269	1844

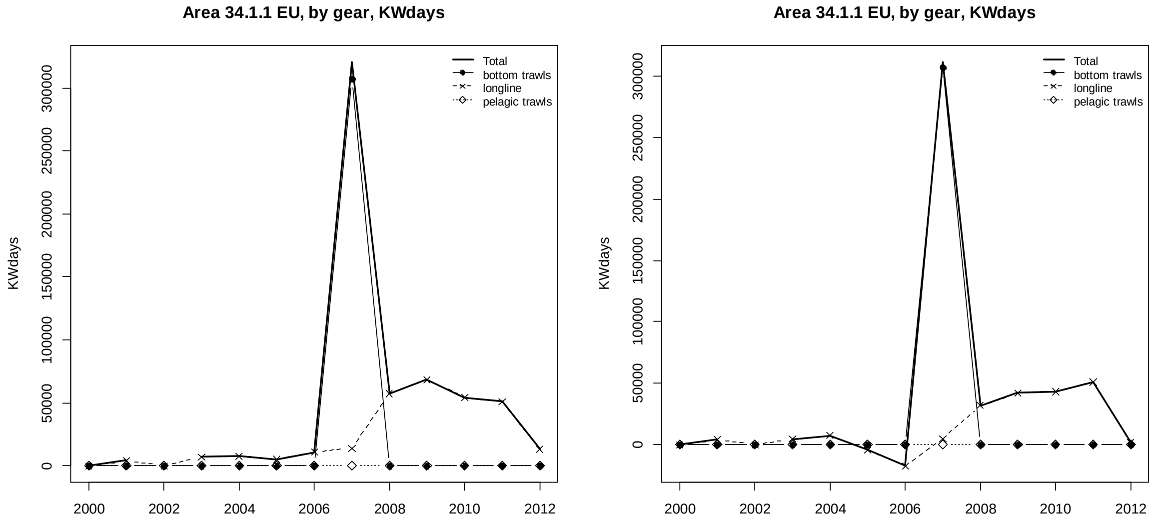


Figure 5.9.1.15.2.- Effort (kW*days) reported within CECAF area 34.1.1 EU by gear type, 2000-2012, with (left) and without (right) reported deepwater effort.

Western Waters 34.1.1 non-EU

Effort is low within this area. Portugal reported bottom trawl effort for 2000 to 2002 and again for 2009 and 2010. Since 2003 the major effort is for Portuguese longlines.

In 2012 Spain reported small effort for longlines. In 2010 Lithuania recorded effort for pelagic trawling.

Table 5.9.1.16.4.- Effort (kW*days) by country, gear and vessel size group within CECAF area 34.1.1 non-EU, 2000-2012.

				2000			2001			2002			2003			2004			2005		
Area	Gear	Country	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
34.1.1 non EU	bottom trawls	PRT	o15m	169762		169762	59388		59388	57369		57369	0		0	0		0	0		0
	longline	PRT	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
		ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	0		0	0		0	0		0	9135		9135	0		0	9213		9213
	pelagic trawls	LTU	o40m	0		0	0		0	0		0	0		0	0		0	0		0
34.1.1 non EU Total				169762		169762	59388		59388	57369		57369	9135		9135	0		0	9213		9213

2006			2007			2008			2009			2010			2011			2012		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0		0	0		0	0		0	12682		12682	22380		22380	0		0	0		0
0		0	13503		13503	21081		21081	14024		14024	14997		14997	31352		31352	0		0
0		0	0		0	0		0	0		0	0		0	0		0	309		309
0		0	26276		26276	59059		59059	38319		38319	45496		45496	9135		9135	30517		30517
0		0	0		0	0		0	0		0	365424		365424	0		0	0		0
0		0	39779		39779	80140		80140	65025		65025	448297		448297	40487		40487	30826		30826

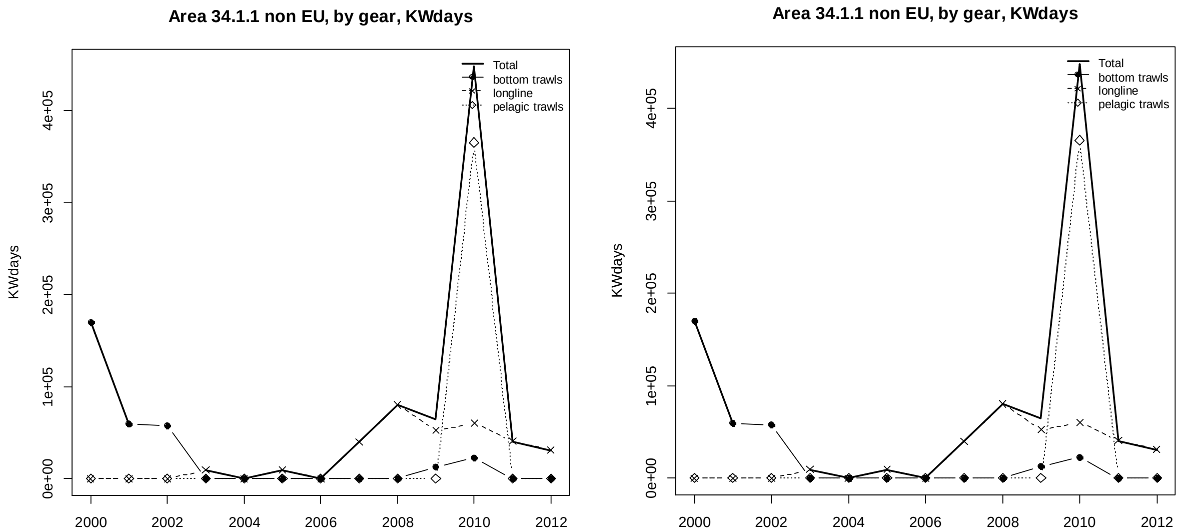


Figure 5.9.1.15.3.- Effort (kW*days) reported within CECAF area 34.1.1 non-EU by gear type, 2000-2012, with (left) and without (right) reported deepwater effort.

5.9.1.16 Fishing effort in CECAF area 34.1.2

Deepwater 34.1.2.EU

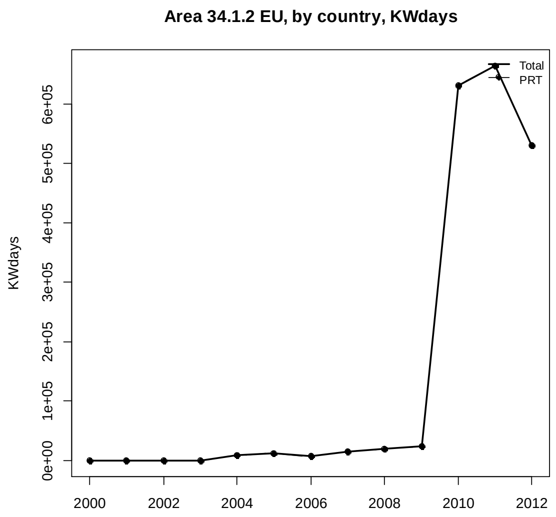
Up to 2011 all effort in CECAF 34.1.2 was in EU waters and recorded by Portugal, Tables 5.9.1.16.1 and 5.9.1.16.2. Prior to 2010 there had been an increasing trend in effort in the EU area, however a recent resubmission of data has shown a large increase in effort since 2010. All this effort is by longline.

Table 5.9.1.16.1.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state CECAF area 34.1.2 EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.1.2 EU	PRT					8771	12191	6808	14909	19293	24163	631527	664263	530592
34.1.2 EU Total						8771	12191	6808	14909	19293	24163	631527	664263	530592

Table 5.9.1.16.2.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state CECAF area 34.1.2 EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.1.2 EU	LONGLINE	PRT					8771	12191	6808	14909	19293	24163	631527	664263	530592
34.1.2 EU Total							8771	12191	6808	14909	19293	24163	631527	664263	530592



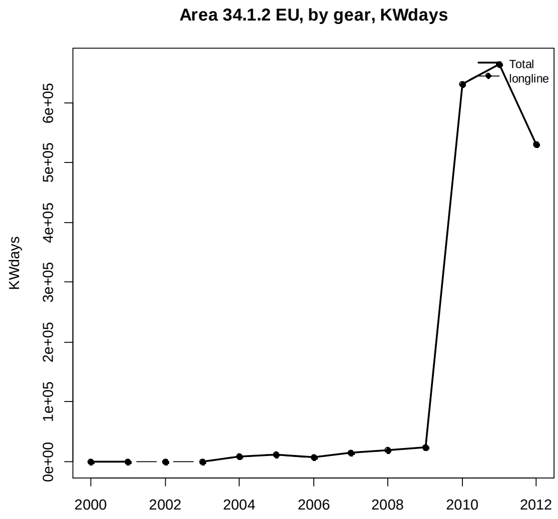


Figure 5.9.1.16.1. Deep Sea fishing effort (kW*days), 2000 – 2012, by country and by gear, in CECAF area 34.1.2 EU.

Western Waters 34.1.2.EU

A revision of Portuguese data has increased its longline effort in this area greatly between 2010 and 2012, (Table 5.9.1.16.3 and Figure 5.9.1.16.2). Spain has also reported longline effort for 2012.

Table 5.9.1.16.3.- Effort (kW*days) by country, gear and vessel size group within CECAF area 34.1.2 EU, 2000-2012.

				2000			2001			2002			2003			2004			2005		
Area	Gear	Country	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
34.1.2 EU	longline	PRT	o10t15m	0	0		0	0		0	0		0	0		0	0		0	0	
		ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	0	0	0	3581	0	3581	0	0	0	2148	0	2148	19547	8771	10776	14743	12191	2552
	none	ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	pots	IRL	o10t15m	0		0	0		0	0		0	0		0	0		0	0		0
	trammel	PRT	o15m	0		0	0		0	0		0	0		0	2327		2327	0		0
34.1.2 EU Total				0	0	0	3581	0	3581	0	0	0	2148	0	2148	21874	8771	13103	14743	12191	2552

2006			2007			2008			2009			2010			2011			2012		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0	0		0	0		0	0		0	0		532035	532035		552996	552996		493707	493707	
0		0	0		0	0		0	0		0	0		0	0		0	43967		43967
10737	6808	3929	11494	14909	-3415	24638	19293	5345	43453	24163	19290	106349	99492	6857	129625	111267	18358	55934	36885	19049
0		0	0		0	0		0	0		0	0		0	0		0	1484		1484
0		0	0		0	0		0	0		0	0		0	90		90	0		0
0		0	0		0	0		0	0		0	0		0	0		0	0		0
10737	6808	3929	11494	14909	-3415	24638	19293	5345	43453	24163	19290	638384	631527	6857	682711	664263	18448	595092	530592	64500

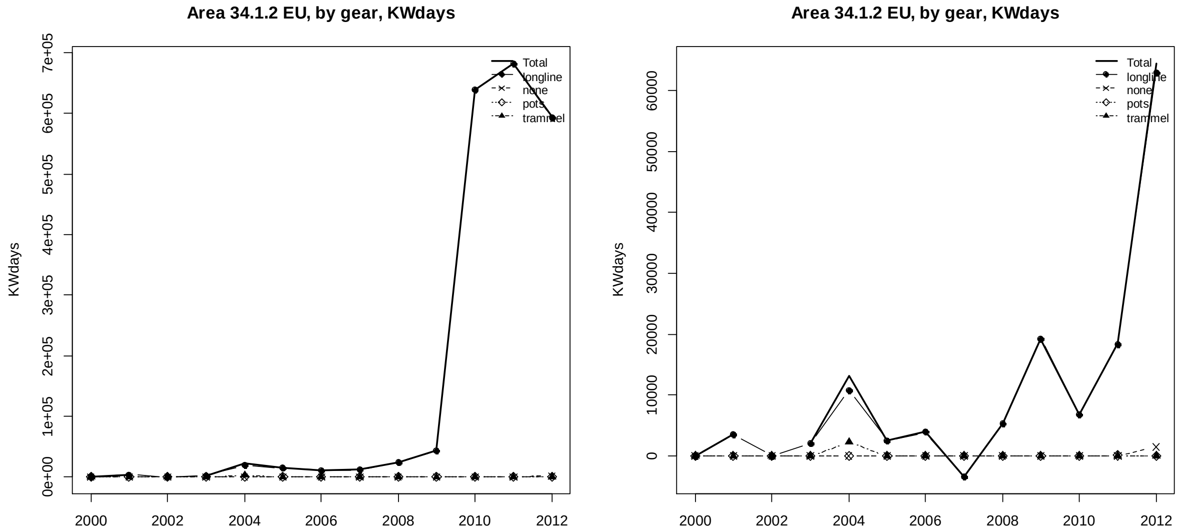


Figure 5.9.1.16.2.- Effort (kW*days) reported within CECAF area 34.1.2 EU by gear type, 2000-2012, with (left) and without (right) reported deepwater effort.

Western Waters 34.1.2 non-EU

Spain has reported some effort for 2012, (Table 5.9.1.16.4).

Table 5.9.1.16.4.- Effort (kW*days) by country, gear and vessel size group within CECAF area 34.1.2 non-EU, 2010-2012.

					2010			2011			2012	
Area	Gear	Country	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
34.1.2 non	longline	ESP	o15m	0		0	0		0	1253		1253
	none	ESP	o15m	0		0	0		0	3308		3308
34.1.2 non EU Total				0		0	0		0	4561		4561

5.9.1.17 Fishing effort in CECAF area 34.1.3

Deepwater and Western Waters 34.1.3 EU

No effort was submitted within this area.

Deepwater 34.1.3 non-EU

Very little effort has been recorded for this area. The Netherlands recorded some pelagic trawl effort for 2004, and Spain recorded bottom trawl effort for 2012.

Table 5.9.1.17.1.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state CECAF area 34.1.3 non-EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.1.3 non EU	ESP													304166
	NLD					22944								
34.1.3 non EU Total						22944								304166

Table 5.9.1.17.2.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state CECAF area 34.1.3 non-EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.1.3 non E	BOTTOM TRAWLS	ESP													304166
	PELAGIC TRAWLS	NLD					22944								
34.1.3 non EU Total							22944								304166

Western Waters 34.1.3 non-EU

No effort data has regularly been submitted for this area. The Netherlands made a submission of deepwater effort in 2004, highlighting a data issue, and in 2012 Spain also submitted deepwater effort.

5.9.1.18 Fishing effort in CECAF area 34.2

Deepwater 34.2.0 EU

Effort has been recorded for longline in this area by Portugal over the past four years.

Table 5.9.1.18.1.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state CECAF area 34.2.0 EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.2.0 EU	PRT										7927	11540	2373	1017
34.2.0 EU Total											7927	11540	2373	1017

Table 5.9.1.18.2.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state CECAF area 34.2.0 EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.2.0 EU	LONGLINE	PRT										7927	11540	2373	1017
34.2.0 EU Total												7927	11540	2373	1017

Western Waters 34.2.0 EU

Effort is low within this area. According to the data provided Ireland carried out some pelagic trawls in 2008, and Portugal submitted longline effort for 2011. Spain has recorded longline effort for 2012, (Table 5.9.1.18.3 and Figure 5.9.1.18.1).

Table 5.9.1.18.3.- Effort (kW*days) by country, gear and vessel size group within CECAF area 34.2.0 EU, 2007-2012.

				2007			2008			2009			2010			2011			2012	
Area	Gear	Country	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
34.2.0 EU	longline	PRT	o10t15m		0			0			1287			429			0			0	
		ESP	o15m	0		0	0		0	0		0	0		0	0		0	38360		38360
		PRT	o15m	0	0	0	0	0	0	0	6640	-6640	0	11111	-11111	7202	2373	4829	0	1017	-1017
	none	ESP	o15m	0		0	0		0	0		0	0		0	0		0	588		588
	pelagic trawls	IRL	o10t15m	0		0	291		291	0		0	0		0	0		0	0		0
34.2.0 EU Total				0	0	0	291	0	291	0	7927	-6640	0	11540	-11111	7202	2373	4829	38948	1017	37931

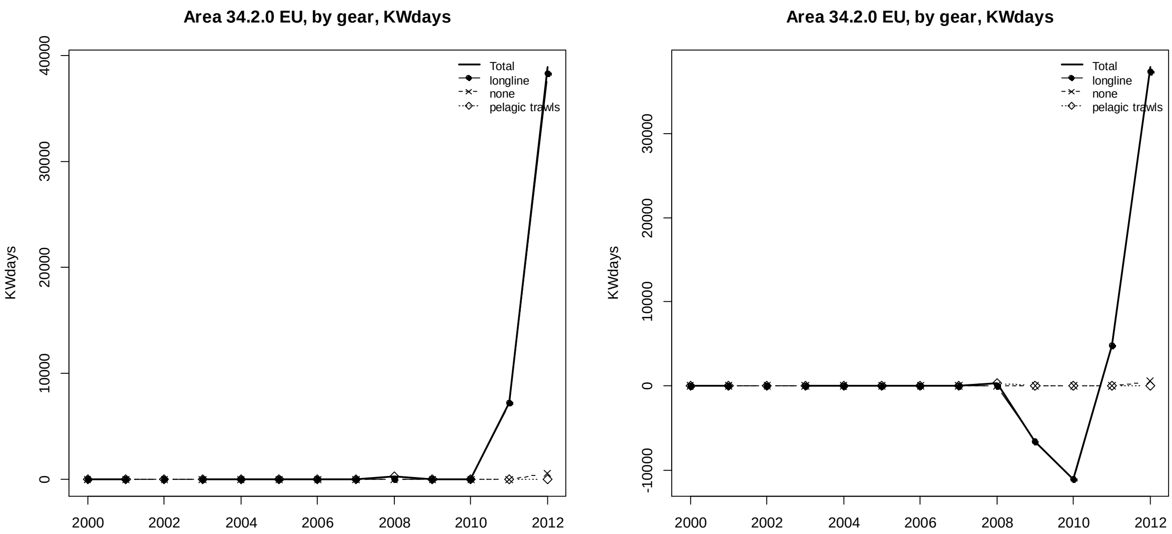


Figure 5.9.1.18.1.- Effort (kW*days) reported within CECAF area 34.2.0 EU by gear type, 2000-2012, with (left) and without (right) reported deepwater effort.

Deepwater 34.2.0 non-EU

Longline effort was reported for 2012 by Portugal.

Table 5.9.1.18.4.- Deep Sea fishing effort (kW*days) 2000 – 2012 by member state CECAF area 34.2.0 non-EU.

Area	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.2.0 non EU	PRT													18669
34.2.0 non EU Total														18669

Table 5.9.1.18.5.- Deep Sea fishing effort (kW*days) 2000 – 2012 by gear and member state CECAF area 34.2.0 non-EU.

Area	Gear	MS	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.2.0 non EI	LONGLINE	PRT													18669
34.2.0 non EU Total															18669

Western waters CECAF Area 34.2.0 non-EU

Effort is low within this area. According to the data provided, a relatively small Portuguese longline fishery, which began in this area in 2005, has fluctuated in recent years. In 2012 Lithuania has reported pelagic trawl effort and Spain has reported a large amount of bottom trawl effort, (Table 5.9.1.17.2 and Figure 5.9.1.18.2).

Table 5.9.1.18.6.- Effort (kW*days) by country, gear and vessel size group within CECAF area 34.2.0 non-EU, 2000-2012.

				2000			2001			2002			2003			2004			2005		
Area	Gear	Country	Vessel length	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
34.2.0 non EU	bottom trawls	PRT	o15m	0		0	0		0	6885		6885	0		0	0		0	0		0
	longline	ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
		PRT	o15m	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	63205	0	63205
	none	ESP	o15m	0		0	0		0	0		0	0		0	0		0	0		0
	pelagic trawls	LTU	o40m	0		0	0		0	0		0	0		0	0		0	0		0
34.2.0 non EU Total				0	0	0	0	0	0	6885	0	6885	0	0	0	0	0	0	63205	0	63205

2006			2007			2008			2009			2010			2011			2012		
Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort	Effort	Deep Effort	Excluding Deep Effort
0		0	0		0	0		0	0		0	0		0	0		0	0		0
0		0	0		0	0		0	0		0	0		0	0		0	542704		542704
29104	0	29104	15157	0	15157	13984	0	13984	0	0	0	23696	0	23696	12582	0	12582	26186	18669	7517
0		0	0		0	0		0	0		0	0		0	0		0	12201		12201
0		0	0		0	0		0	0		0	0		0	0		0	20608		20608
29104	0	29104	15157	0	15157	13984	0	13984	0	0	0	23696	0	23696	12582	0	12582	601699	18669	583030

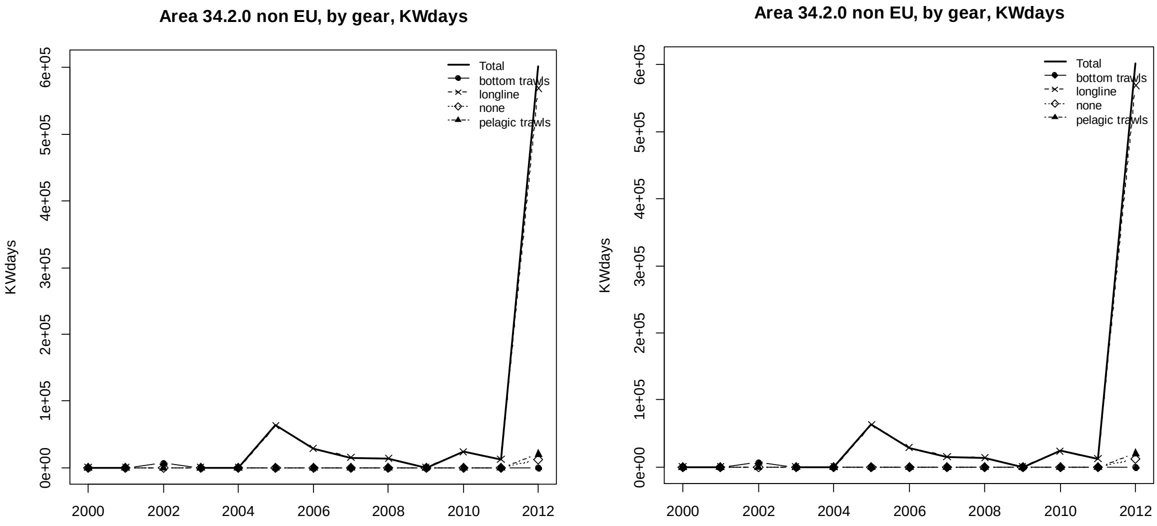


Figure 5.9.1.18.2.- Effort (kW*days) reported within CECAF area 34.2.0 non-EU by gear type, 2000-2012, with (left) and without (right) reported deepwater effort.

5.9.2 ToR 1b Catches (landings and discards) by area

In this section of the report tables showing catches by gear groups (regulated and unregulated), area and nation are only summaries. The full tables are available on the JRC website:

http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

Spain has not provided data for 2010 and 2011. This affects the analysis of the data in the report, particularly in more southern areas where Spain would be one of the major states participating in the fisheries of the area.

From 2012 Greenland halibut has now been included as a deepwater species. Their importance will be reflected in the Deepwater species tables, mainly in the northern regions. The species will not appear in the catch composition plots however. An analysis of the data shows Greenland halibut appearing in catch plots from ICES areas IV to VIII, which is highly unlikely. This may be due to issues of mis-identification or mis-recording. This matter can be looked into before next years meeting.

The rankings of the species in the landing and discard tables were based on the last year, whereas in previous years it was based on the average of the last three years of the time series.

5.9.2.1 Catches in ICES area I by fisheries and Member States only linked to Deep Sea species

Area I non-EU

Table 5.9.2.1.1 shows the top 5 deepwater species landed in Area I (non EU). In 2012 landings information from French bottom trawlers is provided for the first time. It is the only information provided for this area.

Table 5.9.2.1.1. Top 5 deepwater species landed (tonnes) in Area I (non EU). The ranking is based according to last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
1 NON EU	GHL	L	0	0	0	0	0	0	0	0	0	3

5.9.2.2 Catches in ICES area II by fisheries and Member States only linked to Deep Sea species

Area II EU

Tables 5.9.2.2.1 shows the top 5 deepwater species landed and discarded in Area II (EU). Greenland halibut are the most important landed species for the last number of years with catches coming from UK, French and German bottom trawlers.

Blue ling was another important species. Catches increased up to 2008-2009 and the fishery appears to be targeted as catches are quite clean. In 2010 however blue ling trawl catches dropped considerably, and are remaining low. Occasionally large landings of greater argentine are taken, by pelagic trawls, in a clean fishery operating in EU waters, (Figure 5.9.2.2.1), probably in the region of the Norwegian slope.

Table 5.9.2.2.1. Top 5 deepwater species landed (tonnes) in Area II (EU). The ranking is based according to last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
2 EU	GHL	L	56	12	30	38	45	55	105	104	28	58
2 EU	BLI	L	2	1	3	4	8	20	18	5	3	8
2 EU	ARU	L	2	430	0	0	0	0	0	23	0	0
2 EU	CMO	L	0	0	0	0	0	0	0	0	0	0
2 EU	COE	L	0	0	0	0	0	0	0	0	0	0

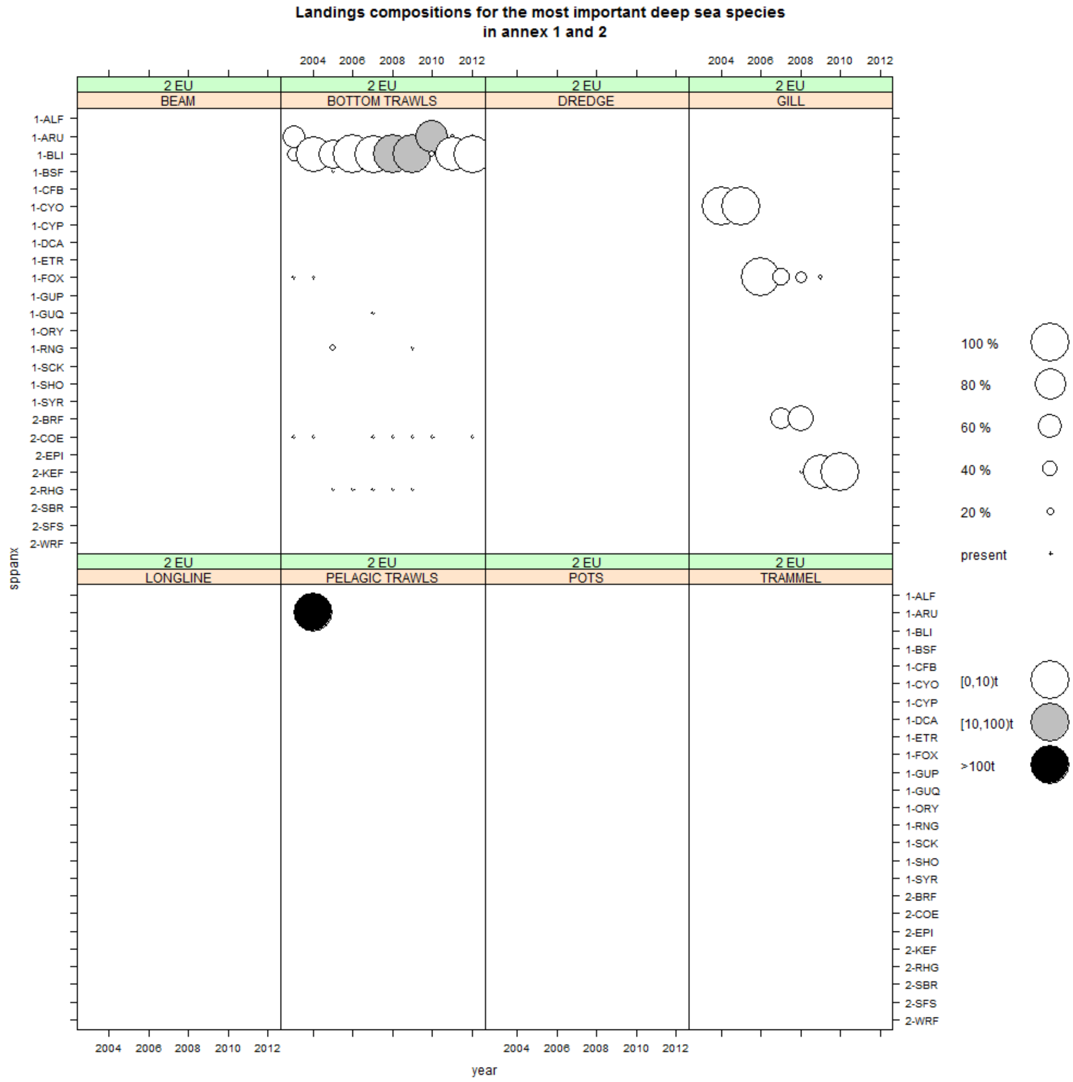


Figure 5.9.2.2.1. Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2012 by gear ICES Area II EU. Size of circles represents relative contribution to landings, shading indicates quantity.

Area II non-EU

There was deepwater effort in ICES Area II non-EU but no landings of Annex 1 or 2 species were recorded. Only small catches of Greenland halibut appear in the landings table (Table 5.9.2.2.2) from UK, France and Germany bottom trawls.

Table 5.9.2.2.2. Top 5 deepwater species landed (tonnes) in Area II (non EU). The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
2 NON EU	GHL	L	23	1	6	6	2	6	12	0	0	3

5.9.2.3 Catches in ICES area III by fisheries and Member States only linked to Deep Sea species

Area III no Baltic

Table 5.9.2.3.1 shows the top 3 deepwater species landed in Area III (no Baltic). The ranking is based according to the last year landings. Historically the main fishery was roundnose grenadier targeted by Danish bottom trawlers, up to 2006. No fishing took place in 2007 or 2008, but small amounts of grenadier were landed again between 2009 and 2011. Landings of blue ling were recorded between 2003 and 2006 also mainly by Danish bottom trawlers. In 2012 a small amount of black scabbard was landed by French bottom trawlers.

Table 5.9.2.3.1. Top 5 deepwater species landed (tonnes) in Area III (no Baltic). The ranking is based according to last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
3 no baltic	BSF	L	0	0	0	0	0	0	0	0	0	3
3 no baltic	RNG	L	4125	11429	14311	2715	0	0	1	1	5	0
3 no baltic	BLI	L	17	18	47	42	0	0	0	0	1	0

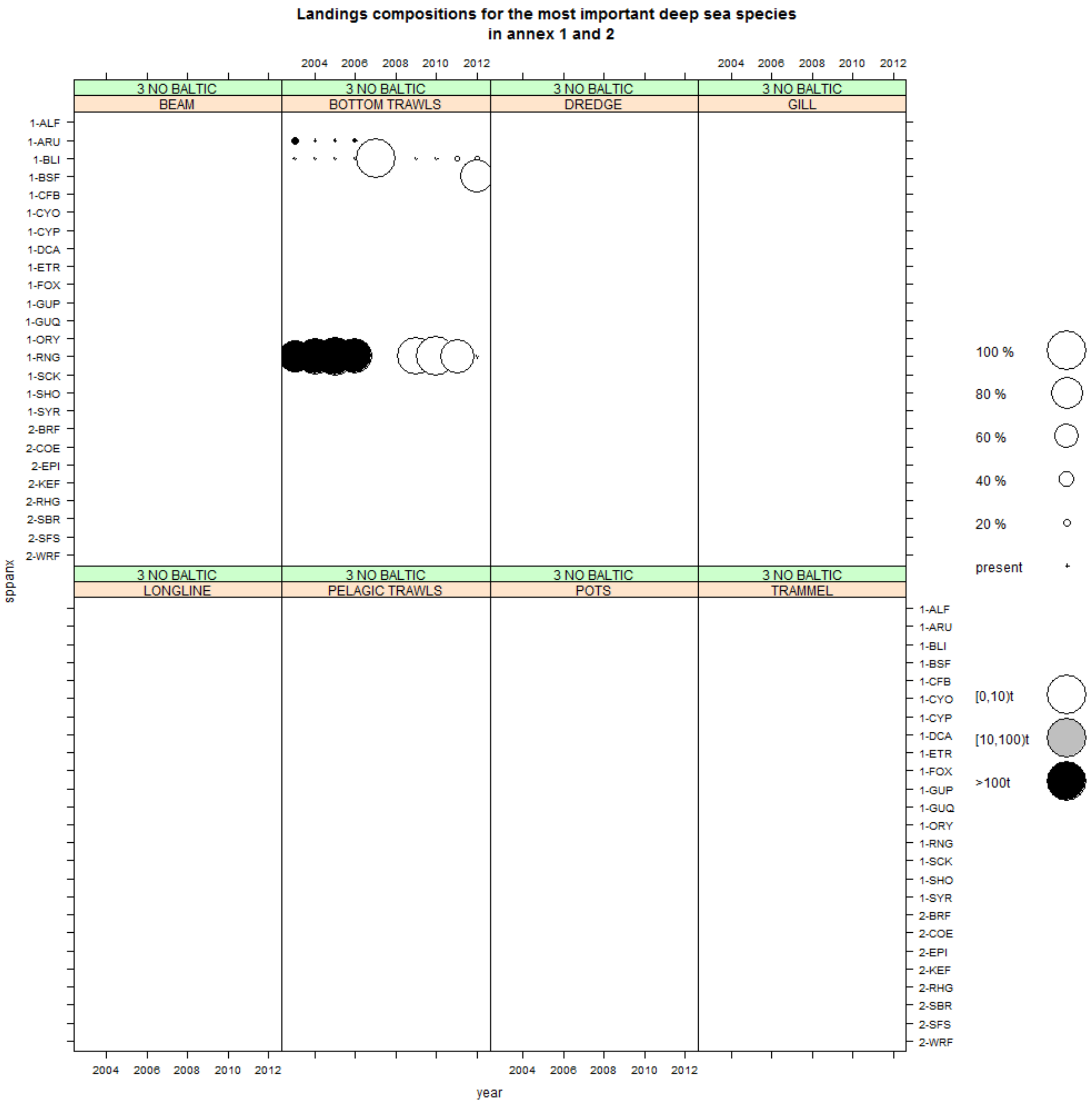


Figure 5.9.2.3.1. Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2012 by gear ICES Area III no Baltic. Size of circles represents relative contribution to landings, shading indicates quantity.

Discard information is only available for roundnose greadier (Table 5.9.2.3.2). The large value in 2006 should be treated with caution. It should be noted that zero values do not necessarily mean no discards data, it may mean that data are not available.

Table 5.9.2.3.2. Top 5 deepwater species discarded (tonnes) in Area III (no Baltic).

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
3 no baltic	RNG	D	231	0	0	2165426	0	0	1	0	149	0
3 no baltic	BLI	D	0	0	0	0	0	0	0	0	0	0
3 no baltic	BSF	D	0	0	0	0	0	0	0	0	0	0

5.9.2.4 Catches in ICES area IV by fisheries and Member States only linked to Deep Sea species

Area IV

Table 5.9.2.4.1 shows the top 5 deepwater species landed in Area IV (EU). Greenland halibut catches have fluctuated greatly through the time series, but after reaching a peak in 2009 have been stable at a lower level over the last three years. Landings of this species come from bottom trawl fisheries by France and the UK. Landings of Greater argentine, primarily from pelagic trawls, but also bottom trawls, have been sporadic in recent years. Conger eel landings, which were quite stable from 2003 – 2008, doubled in 2009 and have remained stable at this new level. Blue ling catches, which had increased between 2008 and 2010, have dropped to low levels. Gill net catches of deepwater crab have been declining since 2008.

Table 5.9.2.4.1. Top 5 deepwater species landed (tonnes) in Area IV (EU). The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
4 EU	GHL	L	126	93	5	10	7	32	139	62	74	56
4 EU	ARU	L	20	51	0	18	0	0	0	10	0	45
4 EU	COE	L	8	8	8	6	8	6	15	13	17	11
4 EU	CMO	L	2	0	0	0	0	0	0	6	2	10
4 EU	BLI	L	26	34	12	9	4	10	15	53	5	7

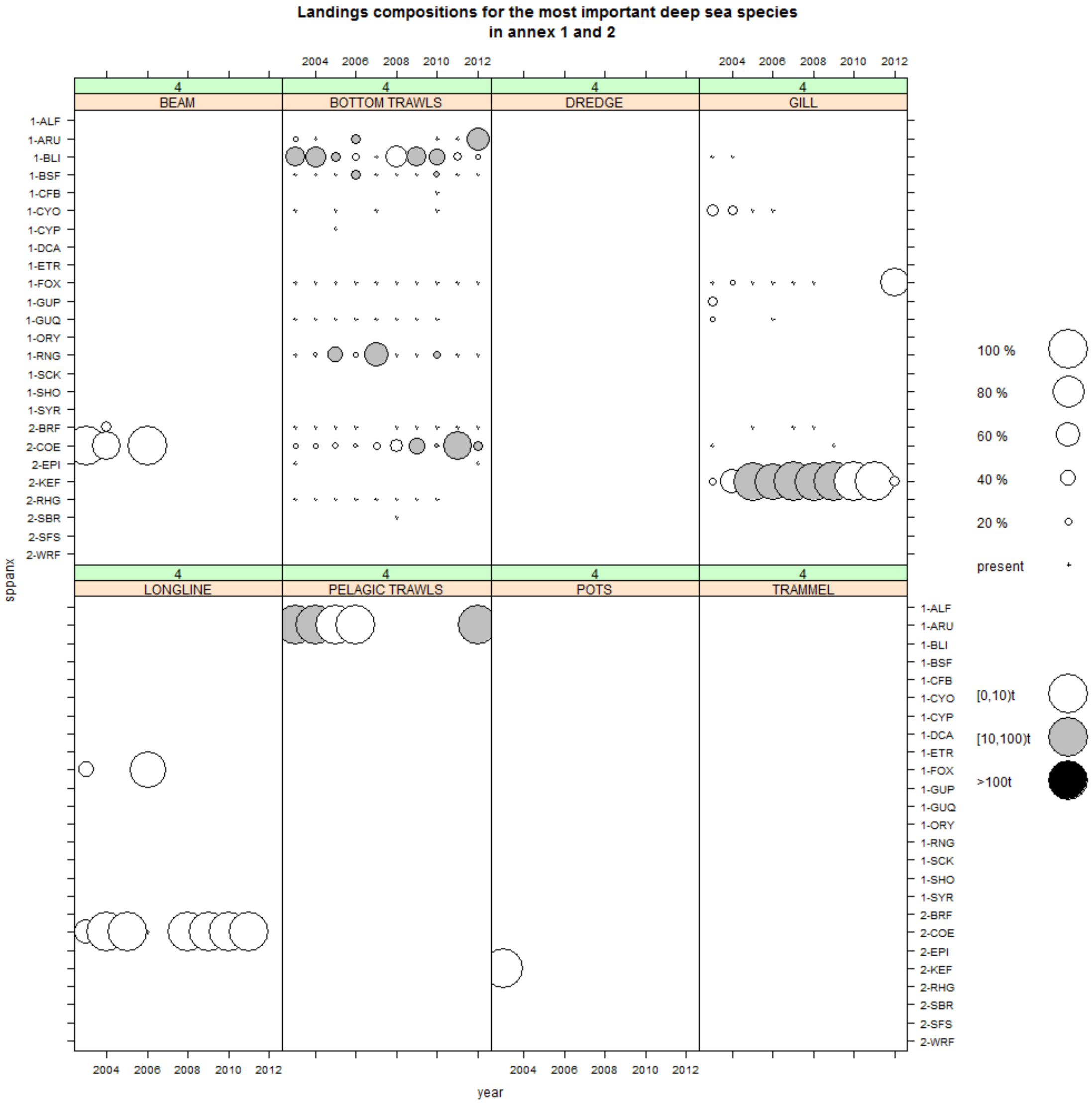


Figure 5.9.2.4.1. Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2012 by gear ICES Area IV. Size of circles represents relative contribution to landings, shading indicates quantity.

Table 5.9.2.4.2 Top 5 deepwater species discarded (tonnes) in Area IV (EU).

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
4 EU	CMO	D	3	1	11	0	0	0	0	4	0	0
4 EU	COE	D	0	0	0	0	0	0	0	2	0	0
4 EU	ARU	D	9	0	0	0	0	0	0	0	0	0
4 EU	BLI	D	86	31	11	0	0	0	0	0	0	0
4 EU	GHL	D	0	0	0	0	0	0	0	0	0	0

5.9.2.5 Catches in ICES area V by fisheries and Member States

Deepwater V EU

Bottom trawls provides the majority of landings from this area (Figure 5.9.2.5.1, Table 5.9.2.5.1). The main species targeted are roundnose grenadier and blue ling, with smaller catches of black scabbard, leafscale gulper sharks, and regular landings of roughhead grenadier and blue mouth redfish.

Blue ling landings were highest at the start of the time series, but have been in decline since 2003, apart from a second peak in 2007. Landings are stable since 2010 Greenland halibut landings fluctuated greatly before peaking in 2010. Landings have been in decline in 2011 and 2012. Roundnose grenadier landings were stable up to 2007 when they too went into decline. In 2012 landings of roundnose grenadier were very low.

In 2010 Scotland reported landings of greater silver smelt and France both Portuguese dogfish and black dogfish.

Up to 2009 gill nets were landing small amounts, less than 10 tonnes, of blue ling, and in the early part of the time series also caught deepwater red crab, *Chaceon affinis,* but this ended in 2006. Netherlands pelagic trawlers landed greater silver smelt in 2004 and 2005 but nothing since.

Beam trawl data from 2003 and 2004 may be misclassified bottom trawl data.

Table 5.9.2.5.1. Top 5 deepwater species landed in ICES Area V (EU). The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
5 EU	BLI	L	895	859	644	647	807	592	591	358	303	398
5 EU	GHL	L	268	164	72	62	14	251	522	1167	588	303
5 EU	BSF	L	145	81	71	75	96	145	145	111	79	114
5 EU	RNG	L	1041	1062	932	875	862	448	450	330	10	24
5 EU	CMO	L	1	0	0	0	0	0	0	23	12	10

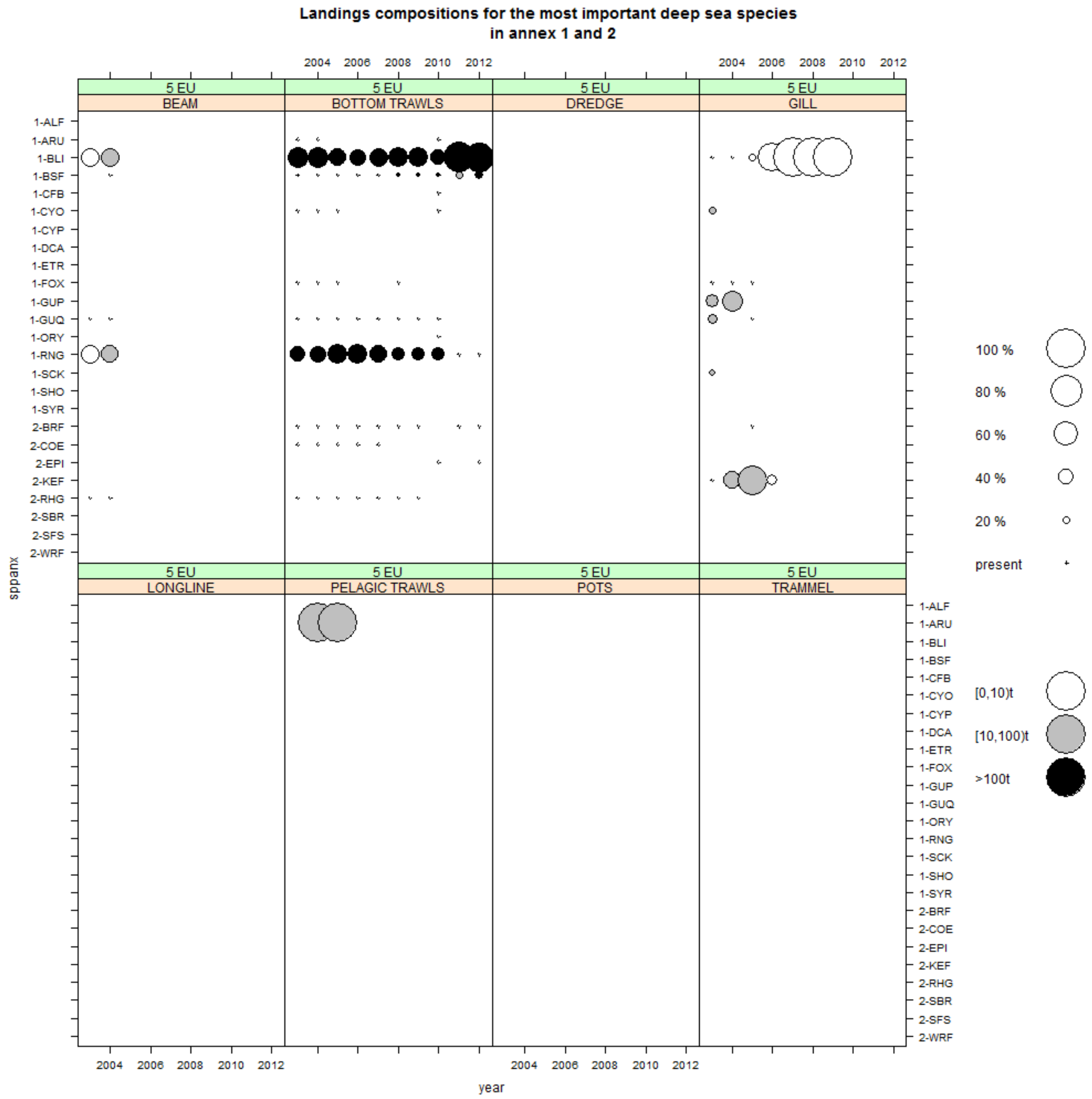


Figure 5.9.2.5.1. Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2012 by gear ICES Area V EU. Size of circles represents relative contribution to landings, shading indicates quantity.

Western Waters 5 EU

Catch and catch composition

The majority of demersal species landings are associated with the deepwater fisheries taking place within the area.

The top five demersal species landed from V EU are detailed within Table 5.9.2.5.2 showing anglerfish to have had the greatest landings in recent years. However anglerfish landings dropped dramatically from 270t in 2009 to just 3t in 2010, and 6t in 2011. Landings of this species originate solely from France. In 2009 and 2010 large landings of Greenland halibut were reported, but these dropped to recent levels in 2011. Landings of all other species averaged across 2009 to 2011 are very low.

Small quantities edible crab were landed from this area prior to 2006 (Table 5.9.2.5.3). Nothing has been landed since 2006.

The primary pelagic species landed is blue whiting, although no landings were reported for 2011. Sporadic landings of mackerel also occur (Table 5.9.2.5.4).

Table 5.9.2.5.2. Top demersal species landed (tonnes) within Area V EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
5 EU	BLI	L	895	859	644	647	807	592	590	351	303	398
5 EU	BSF	L	145	81	71	75	96	145	145	111	79	114
5 EU	RED	L	227	110	90	109	239	122	122	84	11	37
5 EU	RNG	L	656	682	706	747	769	404	404	309	8	23
5 EU	USK	L	10	14	11	18	25	14	14	14	2	21

Table 5.9.2.5.3. Scallop and crab species by gear landed within Area V EU, 2003-2012. Values are landings in tonnes. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
5 EU	CRE	L	5	6	4	20						

Table 5.9.2.5.4. Top pelagic species landed (tonnes) within Area V EU, 2003-2012. The ranking is based according to the last year landings.

No data

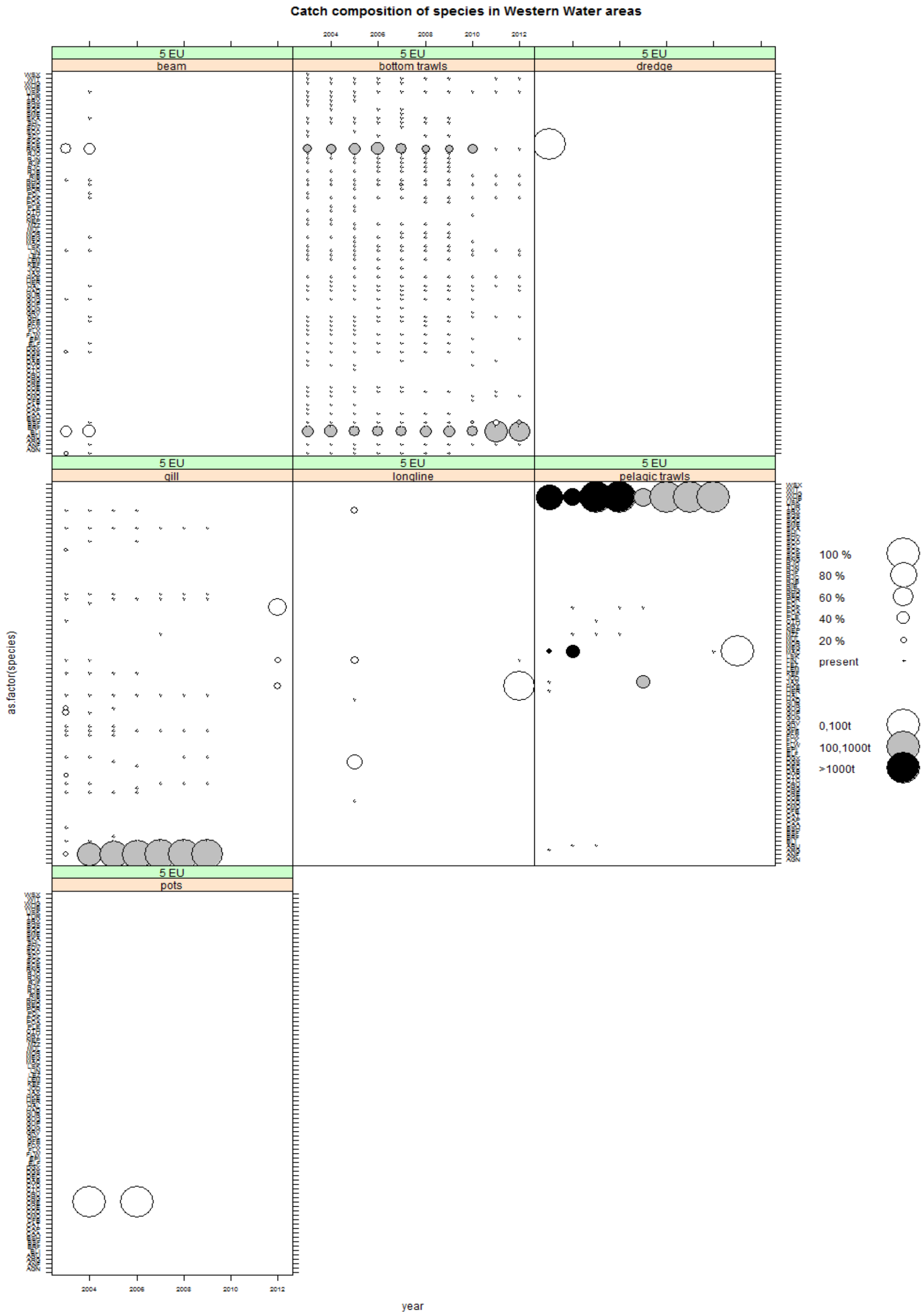


Figure 5.9.2.5.2. Landings composition by gear (countries combined) Western waters area V EU, 2003-2012. Size of circles represents relative contribution to landings, shading indicates quantity.

Deepwater V non-EU

Landings are solely provided by bottom trawls (Figure 5.9.2.5.3, Table 5.9.2.5.5). The main species landed are blue ling, Greenland halibut and Roundnose grenadier. However since 2005 there has been a significant reduction in the grenadier landings down to a very low level. From 2006 Blue ling provided the greatest landings however after reporting stable landings in the previous three years no landings are provided for 2011 or 2012. Greenland halibut landings increased from low levels in 2007 before peaking in 2010. Landings have declined again in 2011 and 2012.

France also records regular landings of black scabbard, but this ceased in 2010. Scottish landings of Portuguese dogfish ceased in 2005 but in 2010 France reported landings for both Portuguese dogfish and Black dogfish.

Again there is a possible issue of misclassified beam trawl data.

Table 5.9.2.5.5. Top 5 deepwater species landed in ICES Area V (non EU). The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
5 NON EU	GHL	L	174	77	49	51	4	187	404	1035	577	301
5 NON EU	RNG	L	385	380	226	128	93	44	45	21	2	1

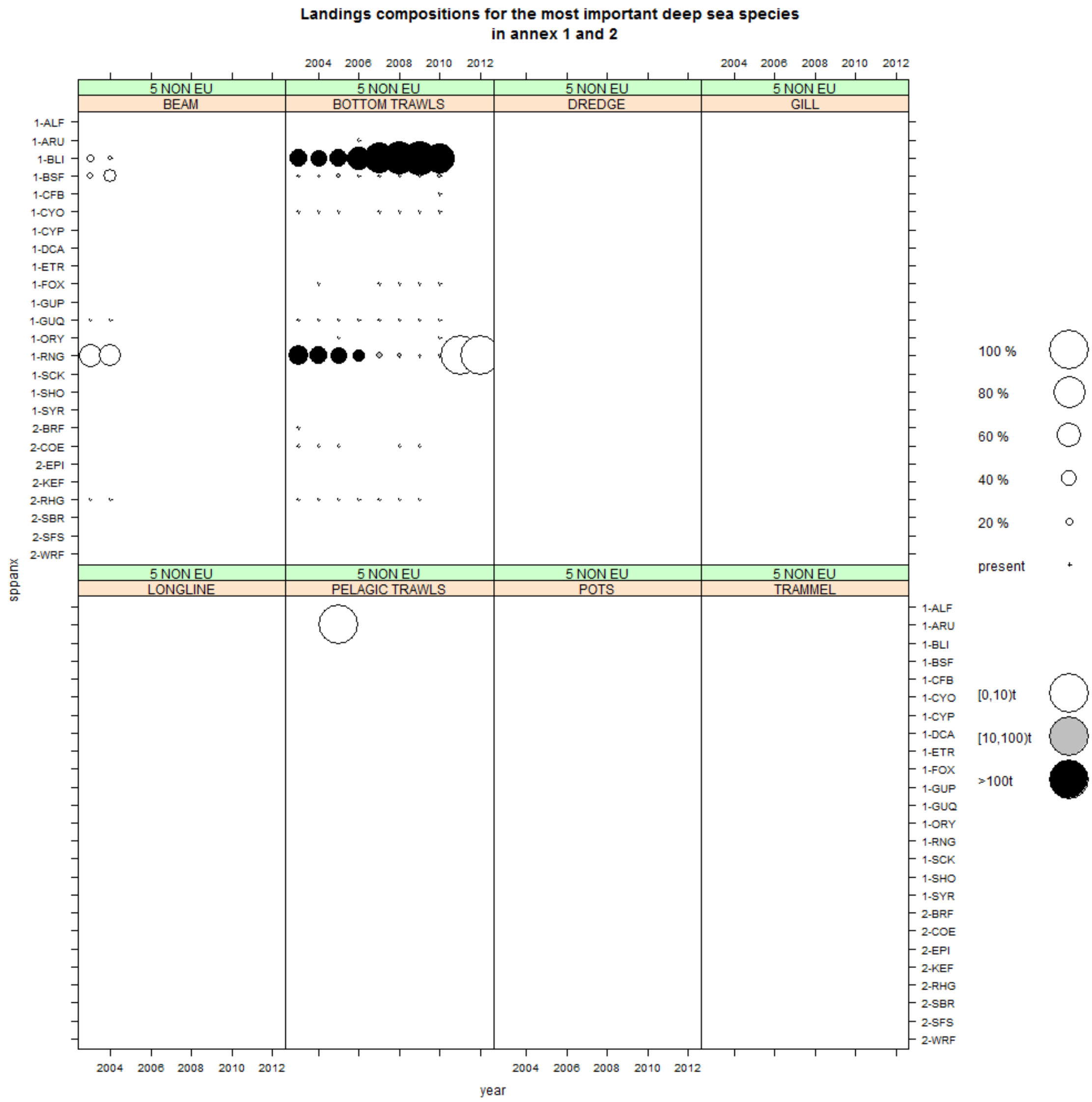


Figure 5.9.2.5.3. Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2012 by gear ICES Area V (non EU). Size of circles represents relative contribution to landings, shading indicates quantity.

Western Waters V non-EU

The top five demersal species landed from V non-EU are detailed within Table 5.9.2.5.6. Up to 2009 saithe contributed the biggest landings both as recent average and over the period available, however landings dropped markedly in 2011. In 2010 and 2011 the largest landings in this area were Greenland halibut reported by Germany and Scotland. Declining quantities of cod have also been landed from this area by Scotland, however in 2011 only 1t of cod were reported for this area by France. Anglerfish and haddock also occur in the current top five with variable landings, and no landings were reported for either species in 2011.

No landings of scallops or crabs were reported within this area.

Blue whiting is the sole pelagic species landed in recent years. In the last three years landings are only reported for 2010, (Table 5.9.2.5.8).

Table 5.9.2.5.6. Top demersal species landed (tonnes) within Area V non-EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
5 NON EU	GHL	L	161	64	41	22	231	186	467	1035	577	301
5 NON EU	RED	L	2273	1772	1553	964	335	6	14	87		23
5 NON EU	COD	L	492	782	804	337	424	412	339	366	1	7
5 NON EU	CAT	L	23	23	18	12	1	0	4	8	3	2
5 NON EU	RNG	L	2	37	44	0		0	2	21	2	1

Table 5.9.2.5.7. Scallop and crab species by gear landed within Area V non-EU, 2003-2012. Values are landings in tonnes. The ranking is based according to the last year landings.

No data

Table 5.9.2.5.8. Top pelagic species landed (tonnes) within Area V non-EU, 2003-2012. The ranking is based according to the last year landings.

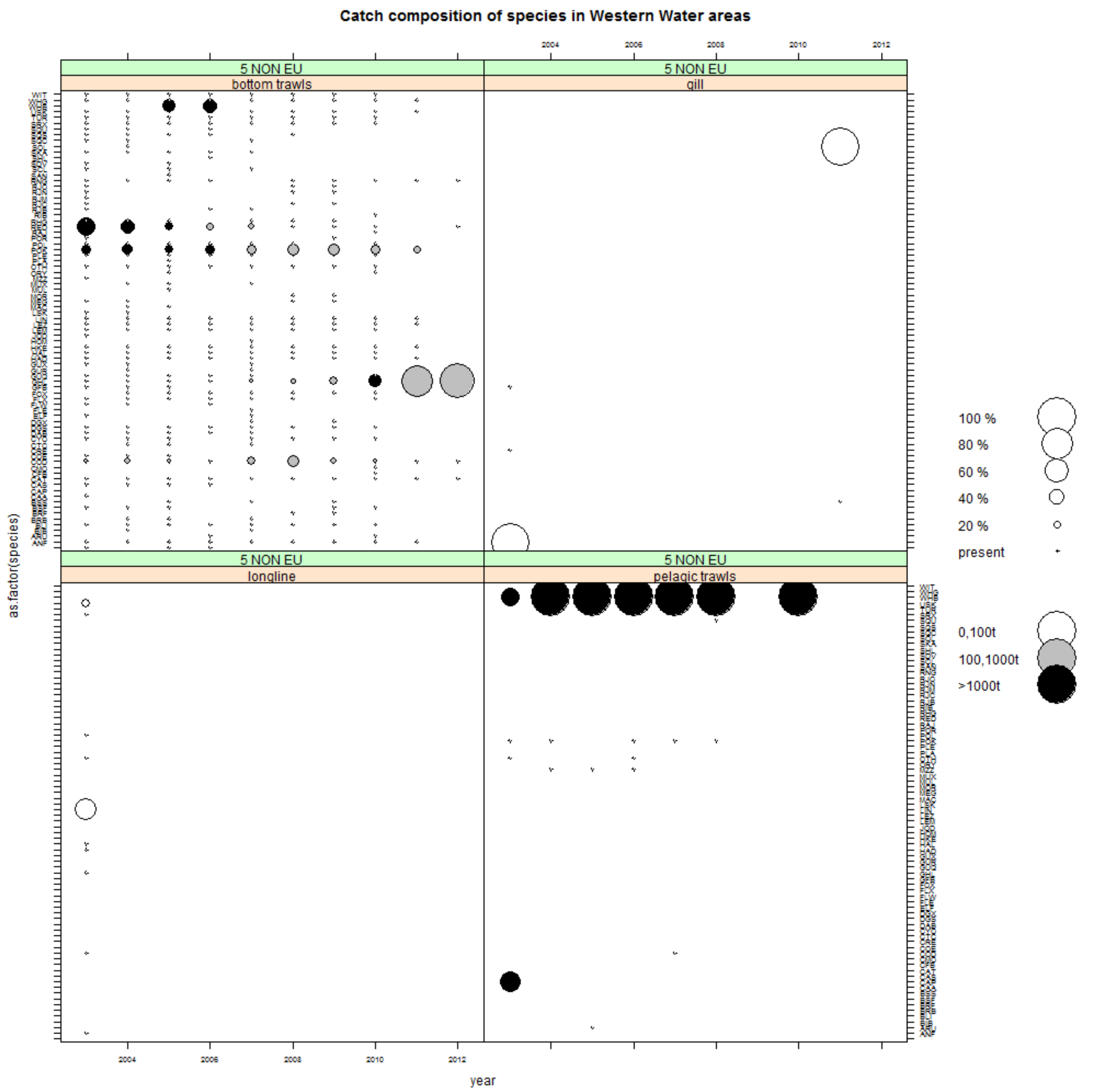


Figure 5.9.2.5.4. Landings composition by gear (countries combined) Western waters area V (non EU), 2003-2012. Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.2.6 Catches in ICES area VI by fisheries and Member States

Deepwater VI EU

Table 5.9.2.6.1 shows the top 5 deepwater species landed, and Figure 5.9.2.6.1 shows aggregate catches by gear in VI (EU).

There is a mixed bottom trawl fishery targeting roundnose grenadier, blue ling and black scabbard. It is conducted mainly by France with small landings by Scotland. Roundnose grenadier landings were highest in 2003 and have been in slow decline since, before increasing again in 2012. Black scabbard landings were reasonably stable up to 2009 but have declined by 40% in the last three years. Blue ling landings were stable until 2006, but then also began declining. Since 2010 France has reported landings of *Chimaera monstrosa*.

Of the other Annex 1 species Portuguese dogfish, leafscale gulper sharks and greater forkbeard are all landed consistently, albeit in small amounts. Of the Annex 2 species blue mouth redfish, conger eel and roughhead grenadier are also all landed regularly. Beam trawl landings of roundnose grenadier and blue ling, in 2003 and 2004, are probably misclassified.

Pelagic trawls, mainly Dutch, are targeting greater argentine. Landings decreased to very low levels between 2008 and 2010, but have increased in the last two years to the highest in the time series.

In recent years longlines are primarily targeting greater forkbeard. Landings have increased in the last three years. There are also regular landings of blue mouth redfish and conger eel. Historically various species of shark were targeted but these landings have stopped since 2007.

In the early 2000s there were large landings of Portuguese dogfish by the UK using gill nets. Other sharks, such as leafscale gulper shark, were also targeted. These landings stopped in 2006. Scotland and England are currently using gill nets to target deep-water red crab, *Chaceon affinis*, with regular landings of 10 – 100 tonnes up to 2009. These landings decreased in 2010 and 2011, and none were recorded for 2012. This species was also fished using pots up until 2008.

Table 5.9.2.6.1. Top 5 deepwater species landed in ICES Area VI (EU). The ranking is based according to the last year landings.

area	**species**	**Type**	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
6 EU	ARU	L	87	1204	186	216	195	0	36	27	1485	2318
6 EU	BSF	L	3106	2859	2614	1813	2052	2373	2427	1801	1536	1613
6 EU	BLI	L	2974	3288	2673	2565	2060	1717	1928	1450	1146	1031
6 EU	RNG	L	5104	4652	2978	1950	1579	1440	1447	1309	876	1021
6 EU	CMO	L	31	1	0	6	10	8	0	285	227	259

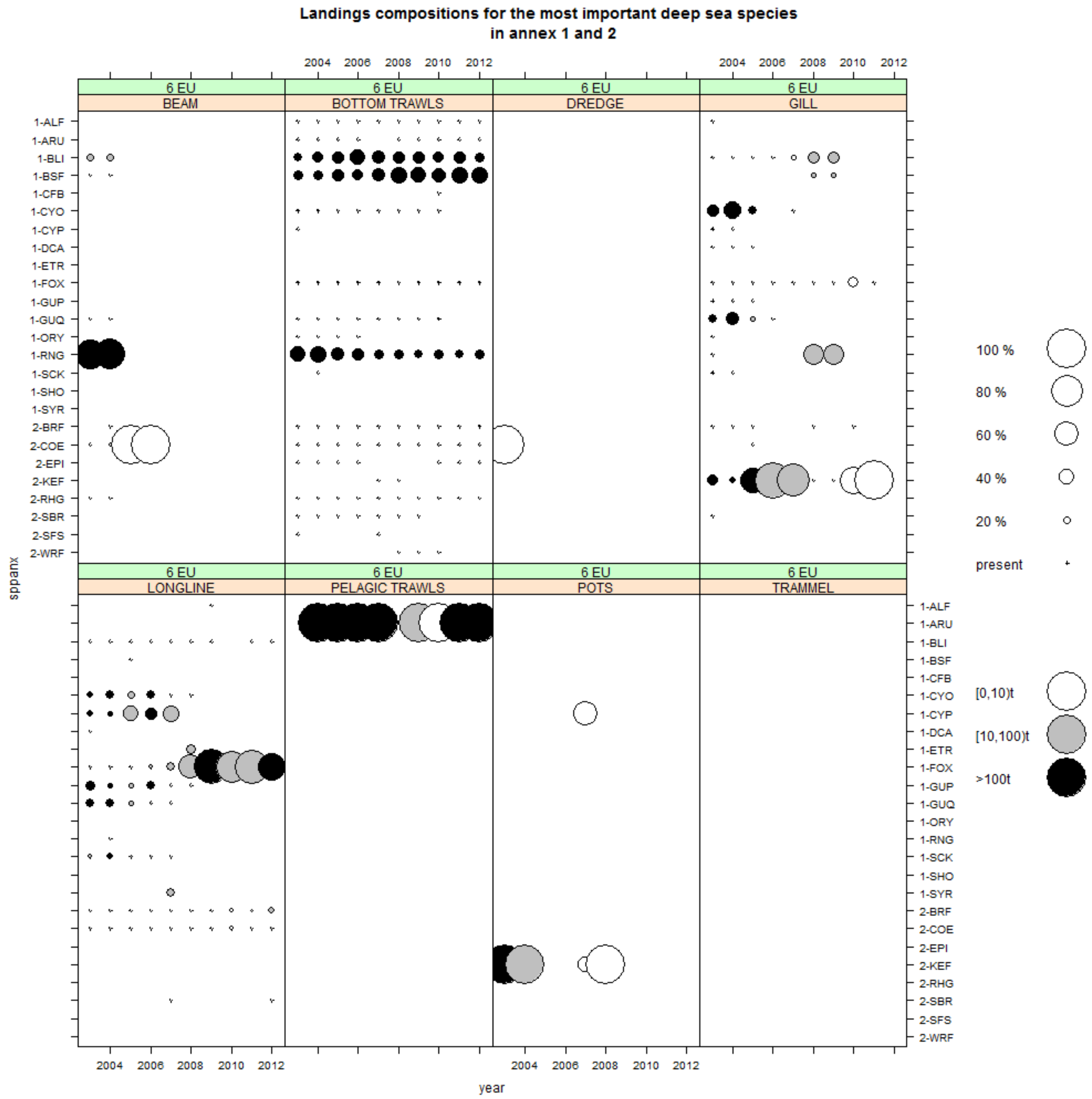


Figure 5.9.2.6.1. Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2012 by gear in ICES Area VI (EU). Size of circles represents relative contribution to landings, shading indicates quantity.

Western Waters VI EU

There are a variety of different fisheries taking place within area VI EU by a number of different gears, as seen in Figure 5.9.2.6.2. The top five demersal species landed from VI EU are detailed within Table 5.9.2.6.2. Landings of all five species are far higher than those in area V. *Nephrops* has both the greatest average landings and throughout the period, and although a slight decline is seen in most recent years landings appear to have stabilised. Saithe and Haddock show fluctuations without trend. Hake landings show a steady increase over the whole period, as do those of anglerfish until 2010 when landings were reduced. Anglerfish landings increased again in 2011.

Table 5.9.2.6.3 details landings of scallops and crabs in area VI EU. Large scallop landings occur from dredging, and showed a declining trend until 2007. In 2008 landings increased again, and were stable until 2012 when they increased by 50%. Relatively small amounts of scallops are landed from the ‘none’ category, but this has been declining in recent years.

Pots contribute large quantities of edible crabs . Landings of which increased until 2007. Since then they have fluctuated Landings dropped in 2008 and 2009, increased again in 2010 and 2011, before suffering another drop in 2012. Only minor landings of spider crab have occurred between 2007 and 2009, from pots and traps.

There are four top pelagic species landed from VI EU (Table 5.9.2.6.4). Mackerel have the highest landings. Landings decreased up to 2008, but have increased again since. Horse mackerel landings have doubled in 2011 and 2012 compared to previous landings. Blue whiting landings had been in decline since 2006 and reached their lowest level in 2011, however they showed an increase again in 2012. Herring landings were reasonably stable until 2010 but have begun to decrease in the last two years.

Table 5.9.2.6.2. Top demersal species landed (tonnes) within Area VI EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
6 EU	NEP	L	8951	8567	8705	11463	13990	13044	10733	10187	11135	12409
6 EU	HKE	L	636	1148	2012	2335	3481	3820	5236	6025	6552	8688
6 EU	POK	L	5147	4720	6486	9592	6688	6554	7355	5560	6629	7220
6 EU	HAD	L	6949	3749	3753	6221	5623	5259	5762	5128	3182	5584

Table 5.9.2.6.3. Scallop and crab species by gear landed within Area VI EU, 2003-2012. Values are landings in tonnes. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
6 EU	CRE	L	7940	8176	8138	8670	9343	8105	7421	8982	9205	7751
6 EU	SCR	L				0	5	2	4	0		
6 EU	SCE	L	5382	4663	4043	3090	2766	3606	3189	3060	3099	4664

Table 5.9.2.6.4. Top pelagic species landed (tonnes) within Area VI EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
6 EU	MAC	L	154579	126763	115097	98393	100539	86700	139443	107318	159088	119779
6 EU	JAX	L	22470	17745	14296	11168	22546	25066	19035	23547	40006	45178
6 EU	WHB	L	39217	117778	116028	150047	57709	31622	34394	40723	8758	28593
6 EU	HER	L	35808	32236	36406	39979	36262	30778	30059	29444	23782	25323

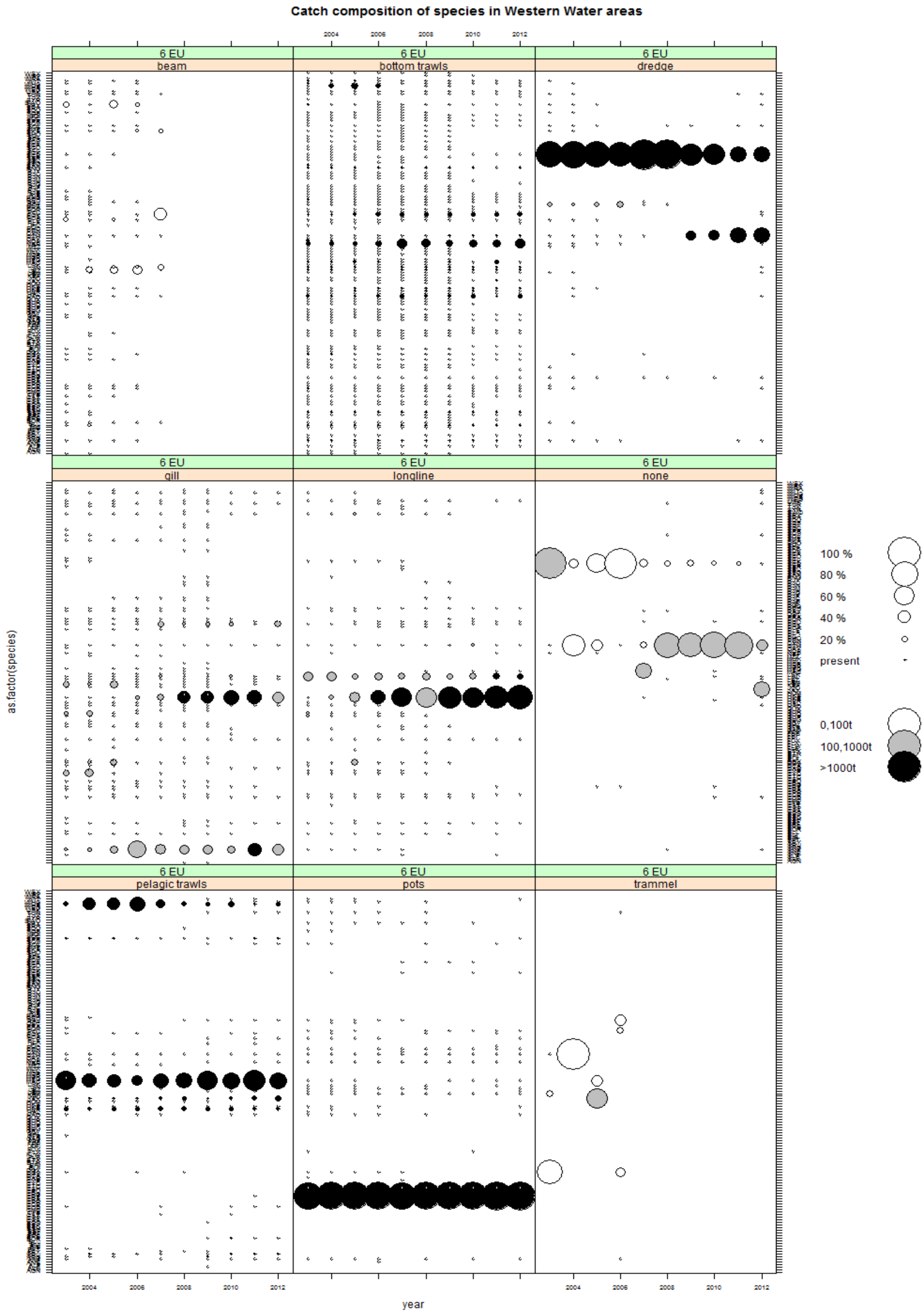


Figure 5.9.2.6.2 Landings composition by gear (countries combined) Western waters area VI EU, 2003-2012. Size of circles represents relative contribution to landings, shading indicates quantity.

Deepwater VI non-EU

Otter trawls in VI non EU have been targeting Blue ling, Greater forkbeard and Blue mouth redfish, but landings have been declining in recent years (Figure 5.9.2.6.3). In 2012 however landings of Silver scabbard fish, Baird's smoothhead, Roundnose grenadier and Roughhead grenadier were the most important.

Gill net landings, which were targeting deep-water red crab, Portuguese dogfish and greater forkbeard, ceased in 2007.

Table 5.9.2.6.5. Top 5 deepwater species landed in ICES Area VI (non EU). The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
6 NON EU	SFS	L	0	0	0	0	0	0	0	0	0	655
6 NON EU	ALC	L	0	0	61	82	0	0	0	0	0	335
6 NON EU	RNG	L	1	0	88	34	0	0	0	0	0	258
6 NON EU	RHG	L	0	0	0	0	0	0	0	0	0	191
6 NON EU	BSF	L	1	1	73	3	0	0	0	0	0	68

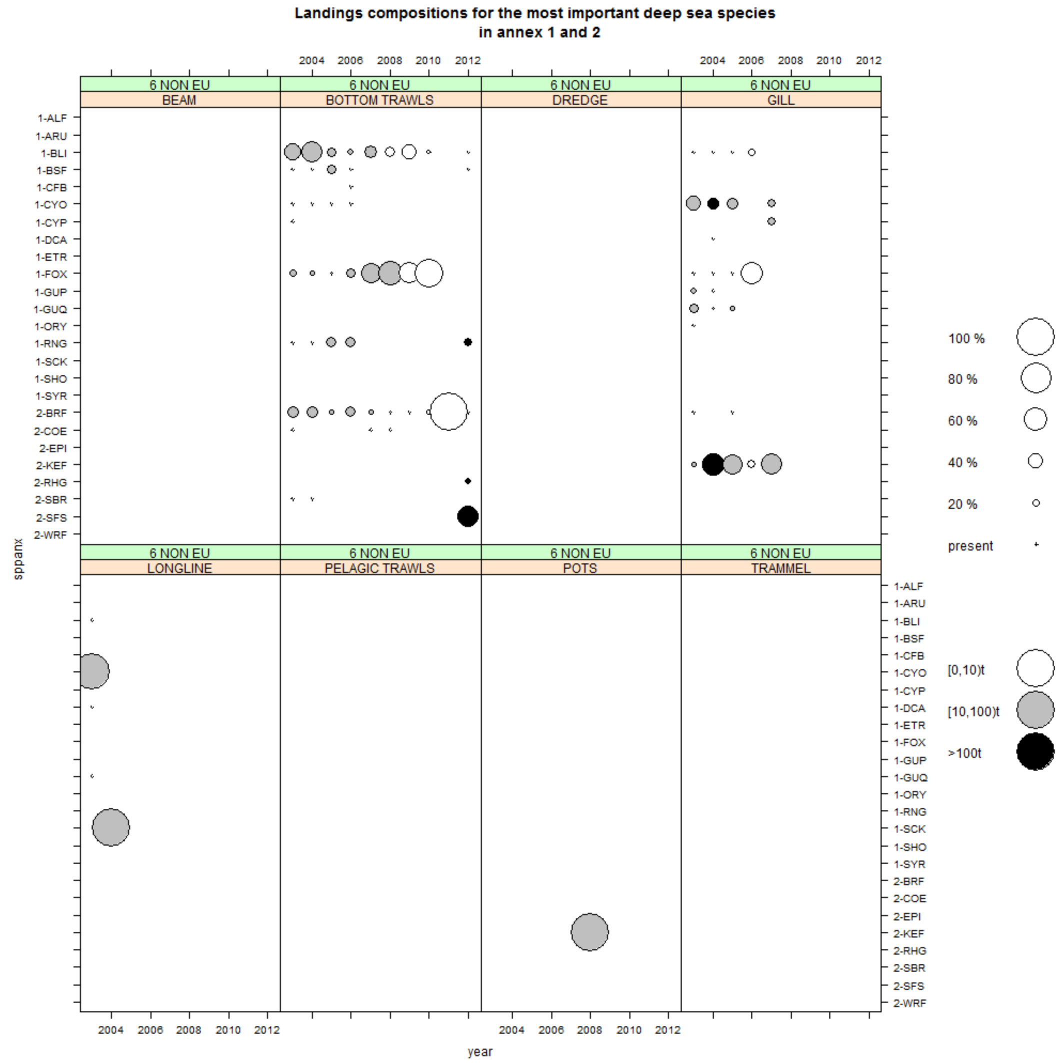


Figure 5.9.2.6.3. Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2012 by gear ICES Area VI (non EU). Size of circles represents relative contribution to landings, shading indicates quantity.

Western Waters VI non-EU

The top five demersal species landed from VI non-EU are detailed within Table 5.9.2.6.6 with more general composition given in Figure 5.9.2.6.4.Witch has been an important species for both England and Scotland although landings have decreased after peaking in 2004. 2011 landings were the lowest on record. However, haddock is now the top demersal species, although landings have fluctuated wildly in recent years. Landings of anglerfish have fluctuated over the years but they have been over 100t for the last two years. Landings of ling have been low during the time series. A small increase in the landings of saithe reflects the greater effort directed to demersal species within this area over the last two years.

Within area VI non-EU minimal crab landings occurred in 2003-2004, with nothing since. No scallop landings have been reported (Table 5.9.2.6.7).

This is not an area of activity for pelagic fishing. Blue whiting landings were reported in 2003, but since then there have been no pelagic landings (Table 5.9.2.6.8).

Table 5.9.2.6.6. Top demersal species landed (tonnes) within Area VI non-EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
6 NON EU	RHG	L										436
6 NON EU	KEF	L	41	186	40	0	62	28		78	140	47
6 NON EU	RNG	L	1	0	9							38
6 NON EU	ANF	L	52	126	217	94	172	20	42	124	104	37
6 NON EU	ALC	L										29

Table 5.9.2.6.7. Scallop and crab species by gear landed within Area VI non-EU, 2003-2012. Values are landings in tonnes. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
6 NON EU	CRE	L	1	5								

Table 5.9.2.6.8. Top pelagic species landed (tonnes) within Area VI non-EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
6 NON EU	WHB	L	8198									

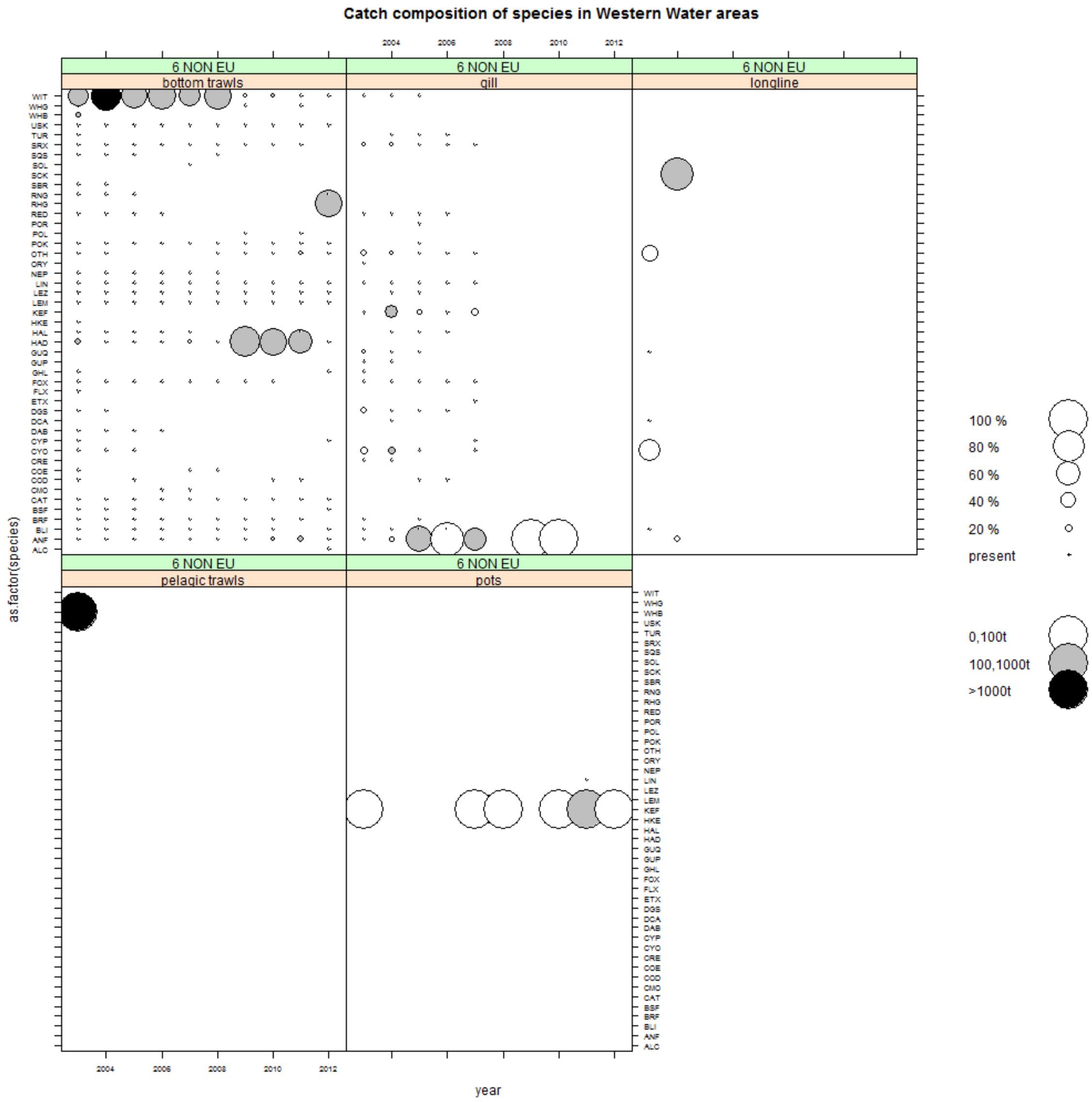


Figure 5.9.2.6.4 Landings composition by gear (countries combined) Western waters area VI non EU, 2003-2012. Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.2.7 Catches in ICES area VII excluding VIId by fisheries and Member States

Deepwater VII EU, no VIId

Landings of conger eel increased ten-fold in 2012, the majority being reported by Spain using longlines and bottom trawl. Spain reported large landings for blue mouth redfish, using the same two gears, and landings of Wreckfish, *Polyprion americanus* using longlines.

The bottom trawl fishery produced a wide variety of landings. France and Ireland were targeting roundnose grenadier and black scabbard. Landings of grenadier started to decrease after 2007 while black scabbard landings stayed higher. Black scabbard landings suffered a dip in 2010, but increased again in 2011 and remained high in 2012.

This fishery also reports catches for roughhead grenadier, Portuguese dogfish and cardinal fish. The cardinal fish catches were probably connected with the historic orange roughy fishery. Reported landings of the orange roughy fishery ceased in 2005. Reported landings of Portuguese dogfish ceased after 2007 but were reported again in 2010.

The beam trawl fishery is conducted primarily by England. The main landings are conger eel but landings have begun to decrease in recent years. Small amounts of greater forkbeard are also landed.

Gill nets targeted sharks early on but the only shark species with reported landings after 2006 is Portuguese dogfish. Landings of deep-water red crab decreased after 2007 but have increased again since 2010.

Pelagic trawling for greater silver smelt stopped in 2005, although the Netherlands restarted the fishery in 2010. No landings are reported for 2011 or 2012.

Table 5.9.2.7.1. Top 5 deepwater species landed in ICES Area VII no VIId (EU). The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
7 EU NO 7D	COE	L	677	571	496	381	295	215	148	145	107	1047
7 EU NO 7D	BRF	L	47	43	69	72	58	61	70	53	38	711
7 EU NO 7D	BSF	L	344	375	198	359	199	124	125	84	175	148
7 EU NO 7D	WRF	L	0	1	2	2	5	3	14	6	4	67
7 EU NO 7D	RNG	L	359	260	179	326	167	84	83	36	45	45

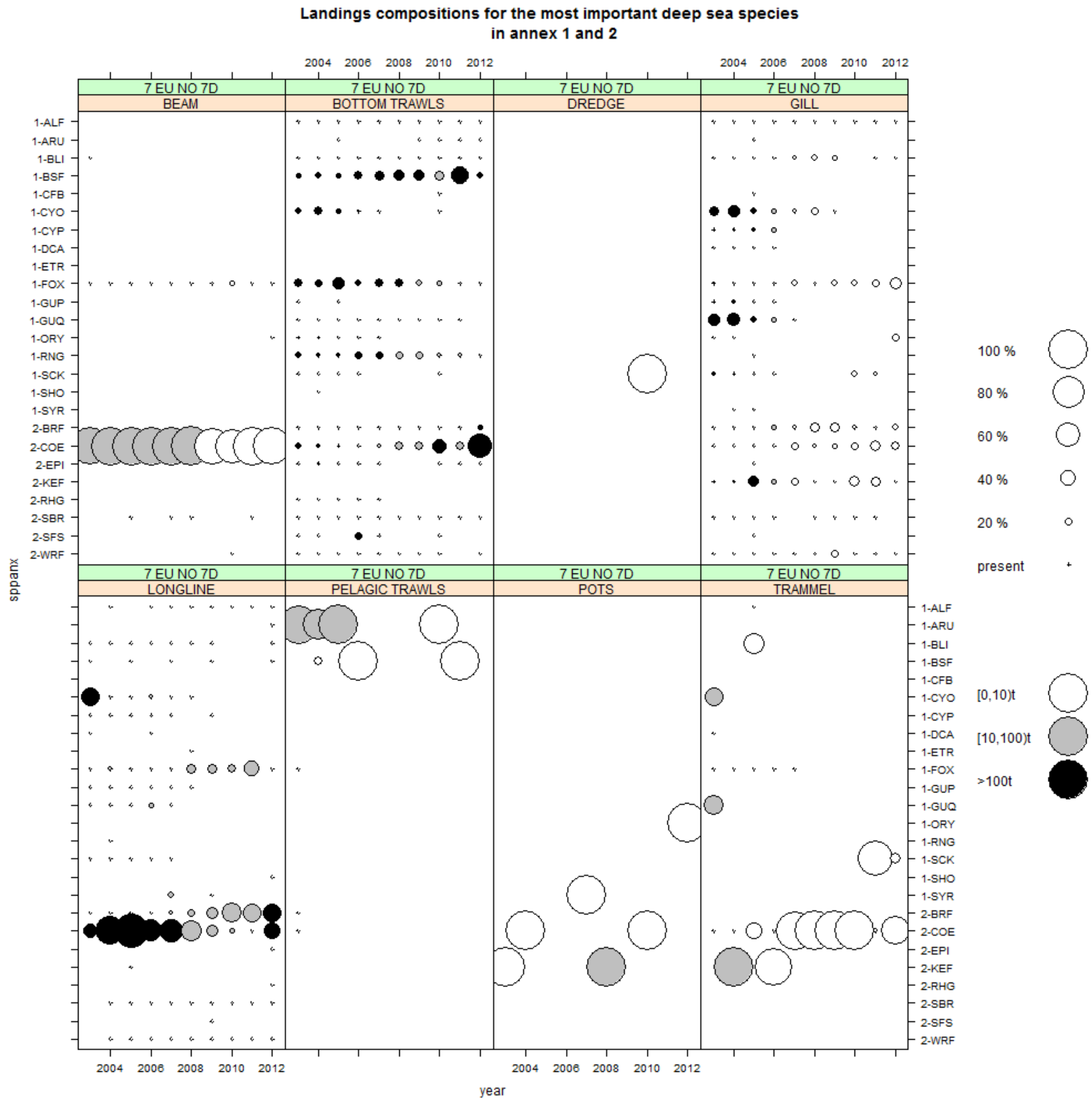


Figure 5.9.2.7.1. Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2012 by gear ICES Area VII EU no VIId

Western Waters VII EU, no VIId

The top five demersal species landed from this area are detailed within Table 5.9.2.7.2 with more general composition given in Figure 5.9.2.7.2. Anglerfish landings were quite stable between 2003 and 2009, before dropping in 2010. Landings increased again in 2011 and 2012 produced the highest figure of the time series. Hake and haddock landings were also stable up to 2009 but have increased steadily since. *Nephrops* landings increased in 2006 and have been stable since.

Crab and Scallop landings from the area are detailed in Table 5.9.2.7.3. This shows that the greatest landings of scallops by far originate from dredges and that there has been a general increase until 2009. After a slight dip in 2010 landings increased again in 2011 and 2012. Beam trawls also land scallops, although at a much lower level. Edible crabs are landed by a wide variety of gears, with pots yielding the greatest landings. 2012 had the highest landings in the time series at 9500t. Spider crabs are mainly targeted by gill nets. Landings have been relatively stable throughout the time series.

Horse mackerel tops the pelagic species landings, having shown greatly increased landings since 2009 (Table 5.9.2.7.4). Mackerel showed a large increase between 2006 and 2010. 2011 mackerel landings dropped to 2007 levels but increased again in 2012. Boarfish landings were first reported for 2007 and increased dramatically to 2010. Landings dropped sharply in 2011, before increasing again in 2012. Blue whiting landings peaked in 2007 and have been declining since. Herring landings have been stable through the time series, before showing a marked increase in 2012. 2011 also saw a large increase of landings of albacore tuna, double the 2009 figure and five times greater than the 2010 level. 2012 landings are similar to 2011.

Table 5.9.2.7.2. Top demersal species landed (tonnes) within Area VII EU no VIId, 2003-2011. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
7 EU no 7d	ANF	L	15085	16789	16708	16066	18040	15633	15934	11951	17601	21287
7 EU no 7d	HKE	L	4549	4737	4769	4516	4756	4493	4078	7713	10496	19592
7 EU no 7d	NEP	L	12128	12070	12914	12732	16229	17696	15291	15731	15326	17458
7 EU no 7d	HAD	L	6334	7097	5567	4714	6056	6385	7734	9727	13307	16689

Table 5.9.2.7.3. Scallop and crab species by gear landed within Area VII EU no VIId, 2003-2011. Values are landings in tonnes. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
7 EU no 7d	CRE	L	7539	7183	6196	6172	8319	6953	7090	8305	8806	9509
7 EU no 7d	SCR	L	2463	3235	2868	2502	2804	2535	2519	2032	2145	2169
7 EU no 7d	SCE	L	14349	20144	19703	17538	19116	19301	22411	19150	19935	21713

Table 5.9.2.7.4. Top pelagic species landed (tonnes) within Area VII EU no VIId, 2003-2011. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
7 EU NO 7d	JAX	L	33550	39575	39485	35948	21953	30574	90274	120234	95484	107184
7 EU NO 7d	BOR	L					772	1387	83055	136586	28073	77153
7 EU NO 7d	MAC	L	40939	48840	39563	18625	34943	38656	65508	82066	37958	52454
7 EU NO 7d	HER	L	16674	16993	18279	16227	15018	13425	12101	14380	17852	26959
7 EU NO 7d	WHB	L	23813	16085	85621	73753	113551	73139	34644	33926	2930	21629
7 EU NO 7d	ALB	L	1832	996	2207	210	1597	2245	2536	955	5548	5366
7 EU NO 7d	SWO	L	63	26	30	3	10	5	4	4	7	15
7 EU NO 7d	BFT	L	49	12	24	0	7	3	3	4	8	11
7 EU NO 7d	BET	L			0		3			0	2	0

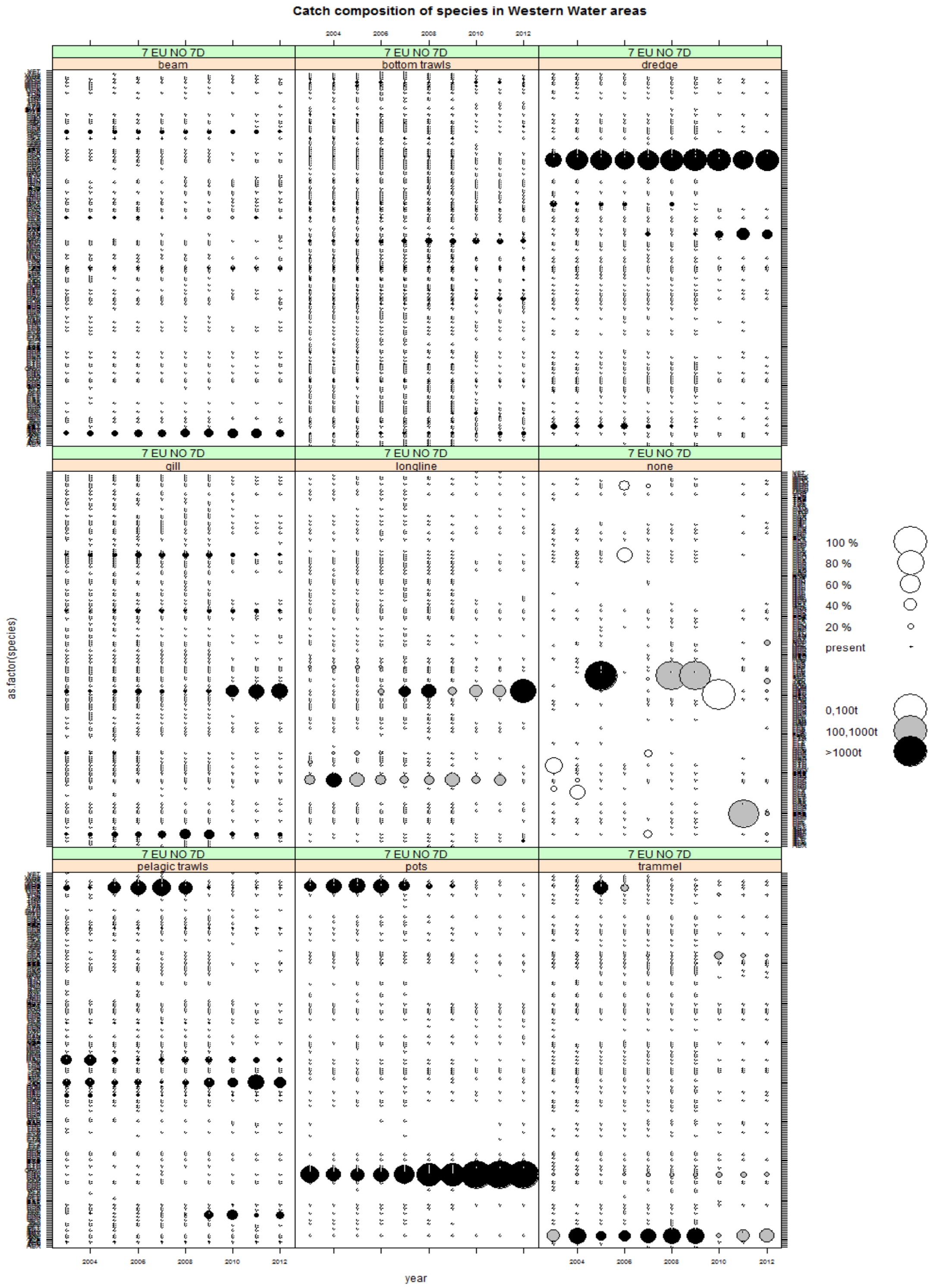


Figure 5.9.2.7.2. Landings composition by gear (countries combined) Western waters area VII EU excluding VIId, 2003-2012. Size of circles represents relative contribution to landings, shading indicates quantity.

Deepwater VII non-EU

No information has been reported since 2004, except for very small landings reported by Spain in 2012 for Conger eel and Bluemouth redfish, less than 0.5 tonnes in total, (Figure 5.9.2.7.3)

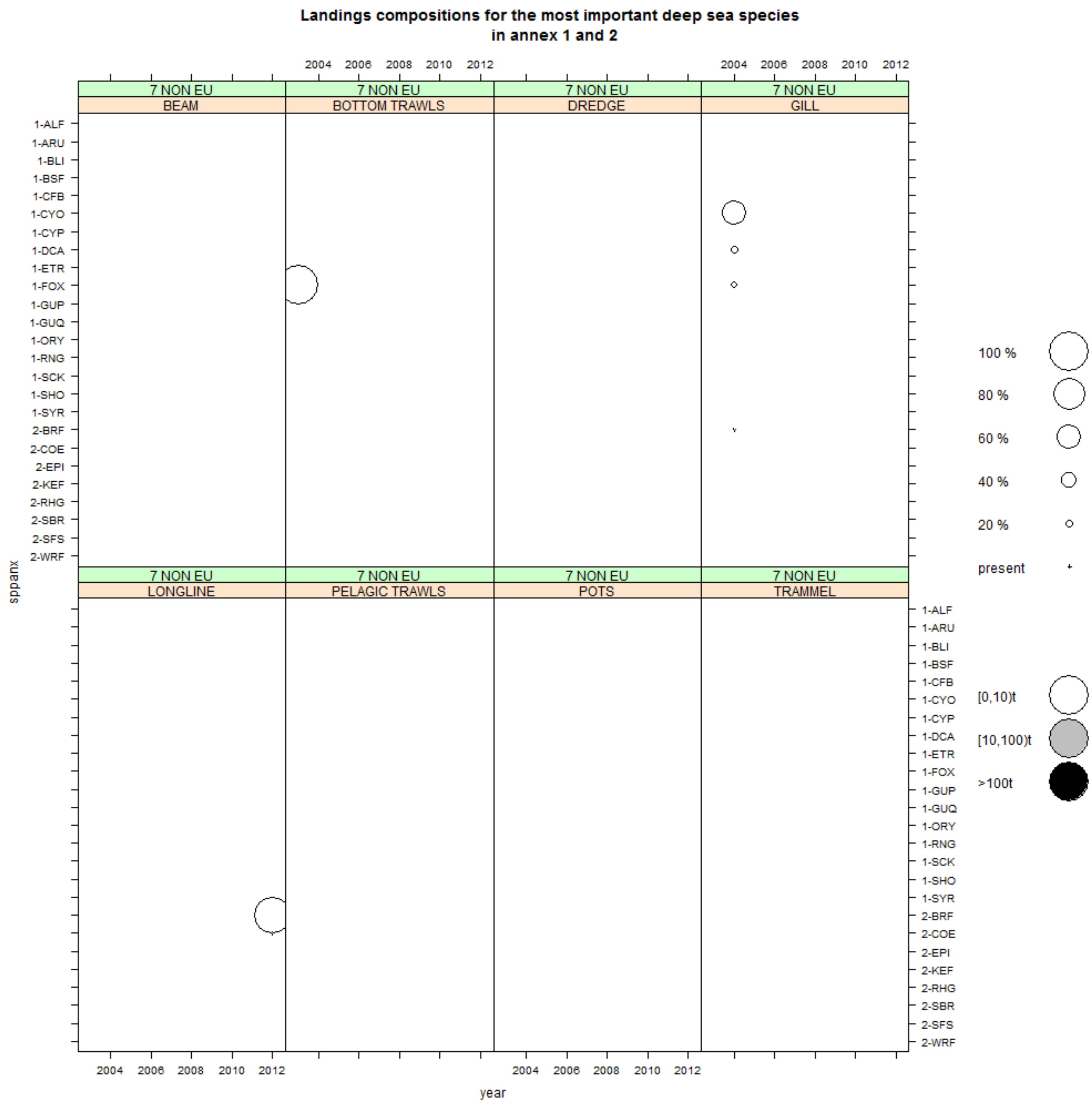


Figure 5.9.2.7.3. Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2012 by gear ICES Area VII (non EU)

Western Waters VII non-EU

Very few demersal species are landed from this area (Table 5.9.2.7.5). Small amounts of Hake landings have been reported since 2010. For 2012 small landings of Megrim, Anglerfish, Squid and Witch were reported.

There are no reported landings of scallops or crabs within this area.

Blue whiting historically is the only pelagic species with reported landings from the area (Table 5.9.2.7.7). It should be noted that blue whiting landings (2003, 2009 and 2010) do not match the occurrence of pelagic trawl effort which also occurs in 2004 and 2005, indicating an issue in the submitted data. In 2011 Netherlands reported landings of 2000t of horse mackerel. In 2012 there was a large increase in the landings of Albacore reported by France and Spain.

Table 5.9.2.7.5. Top demersal species landed (tonnes) within Area VII non-EU, 2003-2011. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
7 NON EU	HKE	L		0						1	4	9
7 NON EU	LEZ	L		0						0		4
7 NON EU	ANF	L	0	0						0	0	4
7 NON EU	SQI	L										3
7 NON EU	WIT	L								0		1

Table 5.9.2.7.6. Scallop and crab species by gear landed within Area VII non-EU, 2003-2011. Values are landings in tonnes. The ranking is based according to the last year landings.

No reported landings.

Table 5.9.2.7.7. Top pelagic species landed (tonnes) within Area VII non-EU, 2003-2011. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
7 NON EU	WHB	L	2515						1712	689		
7 NON EU	JAX	L									2078	
7 NON EU	ALB	L								157	46	805
7 NON EU	ANE	L										5
7 NON EU	SWO	L								2		1
7 NON EU	BFT	L								1		
7 NON EU	YFT	L								6		

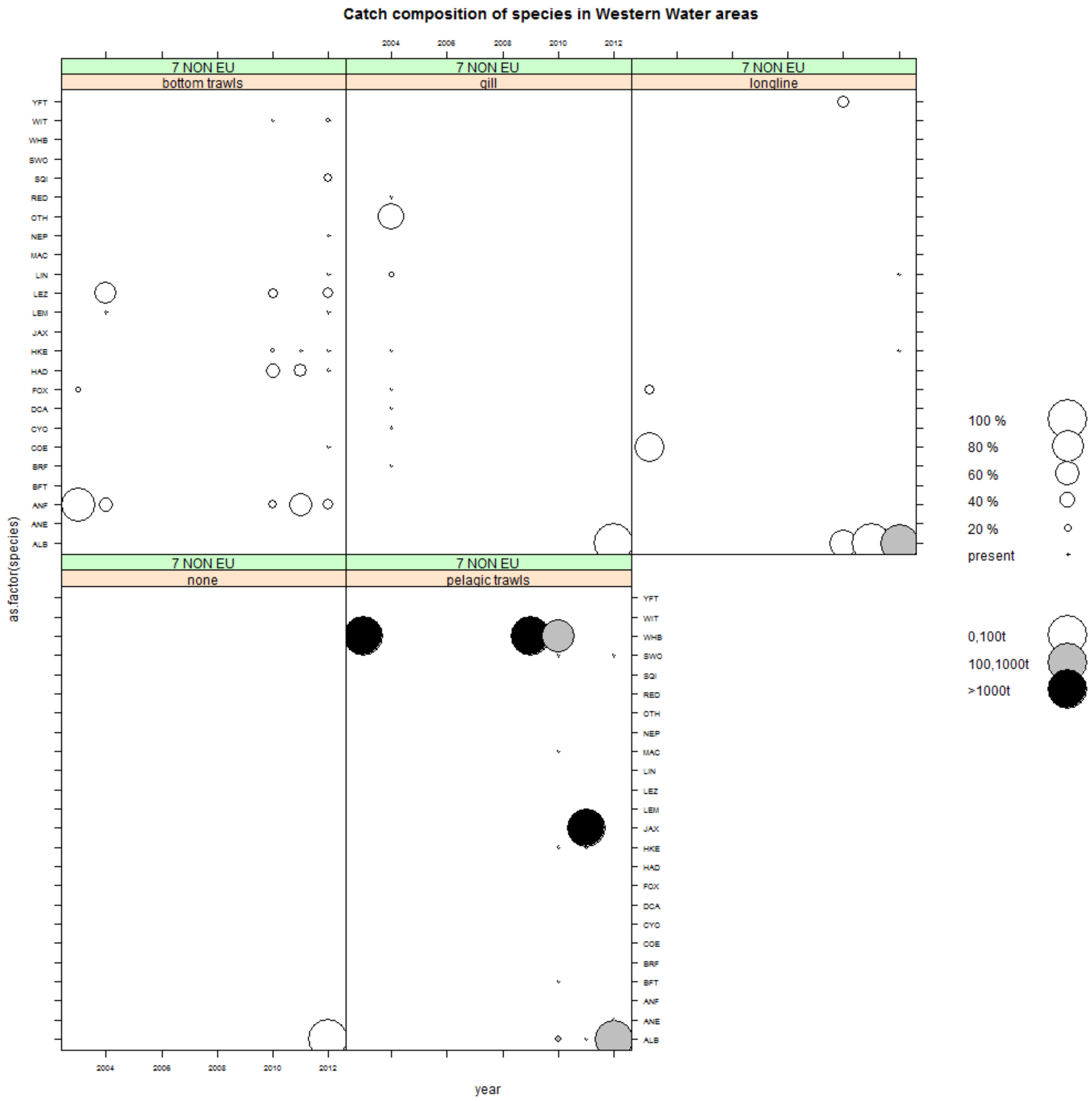


Figure 5.9.2.7.4. Landings composition by gear (countries combined) Western waters area VII non-EU, 2003-2011. Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.2.8 Catches in ICES area VIId by fisheries and Member States

Deepwater VIId

The catch data provided are very sparse. In recent years otter trawls were catching small amounts of red seabream. Small landings of conger eel, less than 10 tonnes, were reported for longlines in 2008 and 2009. In 2011 and 2012 small landings of roundnose grenadier were reported from French bottom trawls.

Table 5.9.2.8.1. Top 5 deepwater species landed (tonnes) in ICES Area VIId. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
7D	RNG	L	0	0	0	0	0	0	0	0	2	1
7D	SBR	L	0	0	0	0	2	10	10	4	1	0
7D	COE	L	0	0	0	0	0	7	6	0	0	0
7D	RIB	L	0	0	0	0	0	0	0	0	0	0

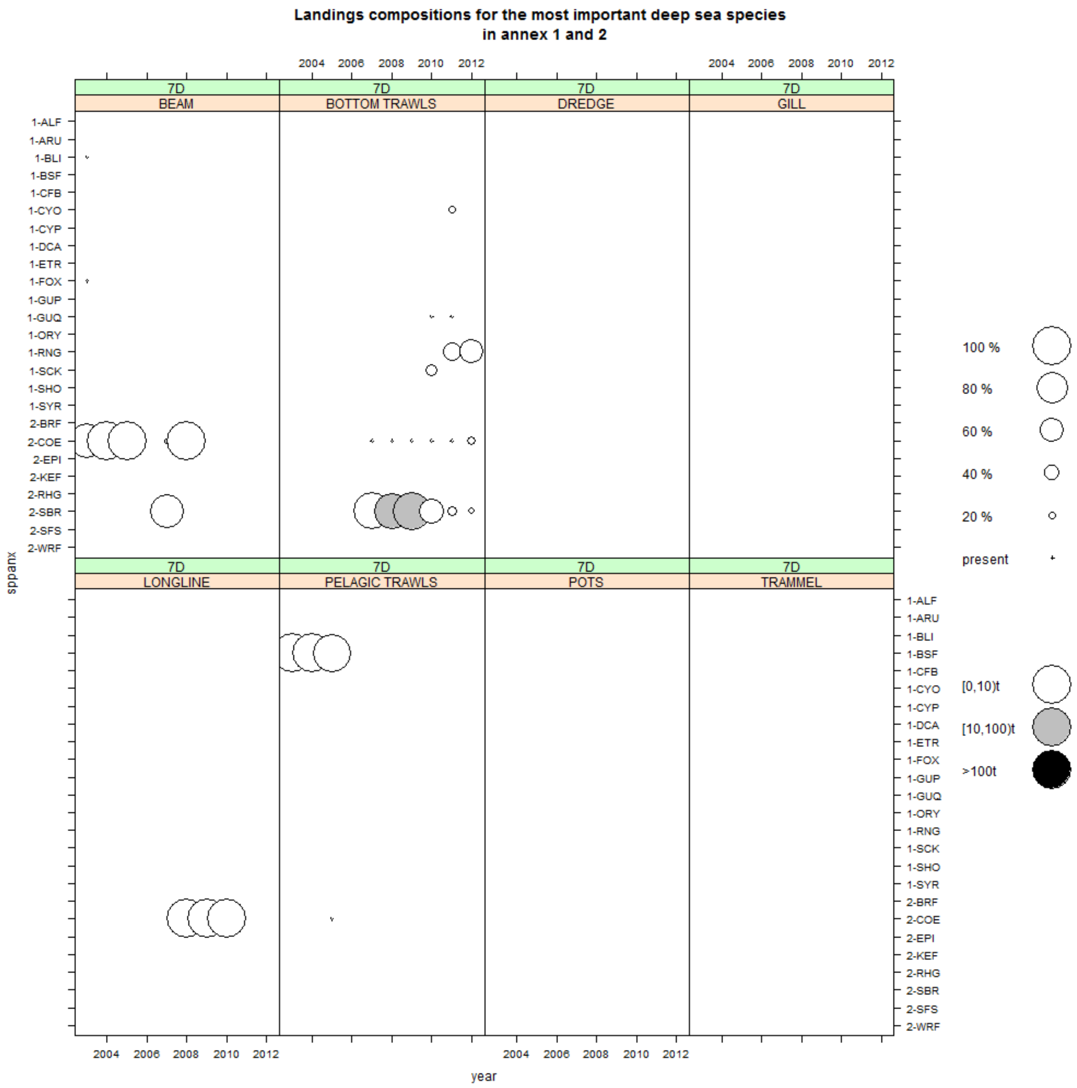


Figure 5.9.2.8.1. Landings of Annex 1&2 Deep Sea species (tonnes) 2003-20121 by gear ICES Area VIId.

Western Waters

There are a number of different fisheries taking place in this area by a number of different gears showing varying species compositions as seen in Figure 5.9.2.8.2. In relation to the top demersal species (Table 5.9.2.8.2) whiting contributes the greatest quantities. Having been in decline for a number of years landings have increased in 2010 and 2011 before decreasing again in 2012. Sole and plaice are currently landed in similar quantities following a decline, in 2009, in sole landings. Around 1000t of Seabass is landed from the area, with a slight decline in most recent years, before increasing again in 2012. Similar landings of Dab are also produced.

Table 5.9.2.8.3 details scallop and crab landings from the area, showing large and increasing landings volumes of scallops made by dredgers. There is a small pot fishery for edible crabs, after a dip in 2007 and 2008 landings have begun to increase again. Pot fishing for spider crabs was in decline up to 2009, but landings have increased again in the last three years.

Pelagic landings of Herring landings have remained at high levels since the start of the series before doubling in 2012. Horse mackerel have increased greatly since 2009, making this species the top landed pelagic species within VIId (Table 5.9.2.8.4). Mackerel landings have been in decline throughout the time period, although landings increased briefly in 2011. Pilchard landings stopped in 2009 before a small amount was recorded for 2012. Small amounts of tuna have been landed in 2011 and 2012.

Table 5.9.2.8.2. Top demersal species landed (tonnes) within Area VIId, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
7d	WHG	L	6363	4827	4502	3511	3052	3893	3992	5493	6295	3342
7d	SOL	L	5487	4878	4019	4141	4412	3950	4011	2692	3222	3080
7d	PLE	L	3879	3611	3066	2785	3144	2988	2682	2849	3130	2831
7d	BSS	L	995	1064	1143	849	1117	965	985	893	870	1058
7d	DAB	L	1034	945	905	944	903	798	865	982	1229	999

Table 5.9.2.8.3. Scallop and crab species by gear landed (tonnes) within Area VIId, 2003-2012. Values are landings in tonnes. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
7 d	CRE	L	709	787	820	775	521	508	494	588	681	976
7 d	SCR	L	137	88	101	71	74	18	16	85	96	99
7 d	SCE	L	10686	13477	16654	15331	14299	14313	18313	19153	22045	19424

Table 5.9.2.8.4. Top pelagic species landed (tonnes) within Area VIId, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
7d	HER	L	21274	25699	29328	26022	18256	12717	20063	18679	18306	34357
7d	JAX	L	1691	3171	2933	1700	3988	1852	18930	21181	19189	19382
7d	MAC	L	9900	8979	6797	6965	4695	5462	5545	4045	7679	4907
7d	PIL	L	6625	6620	10766	12397	7789	8514	8513			50
7d	ALB	L				0					31	2
7d	YFT	L										0
7d	BET	L										0

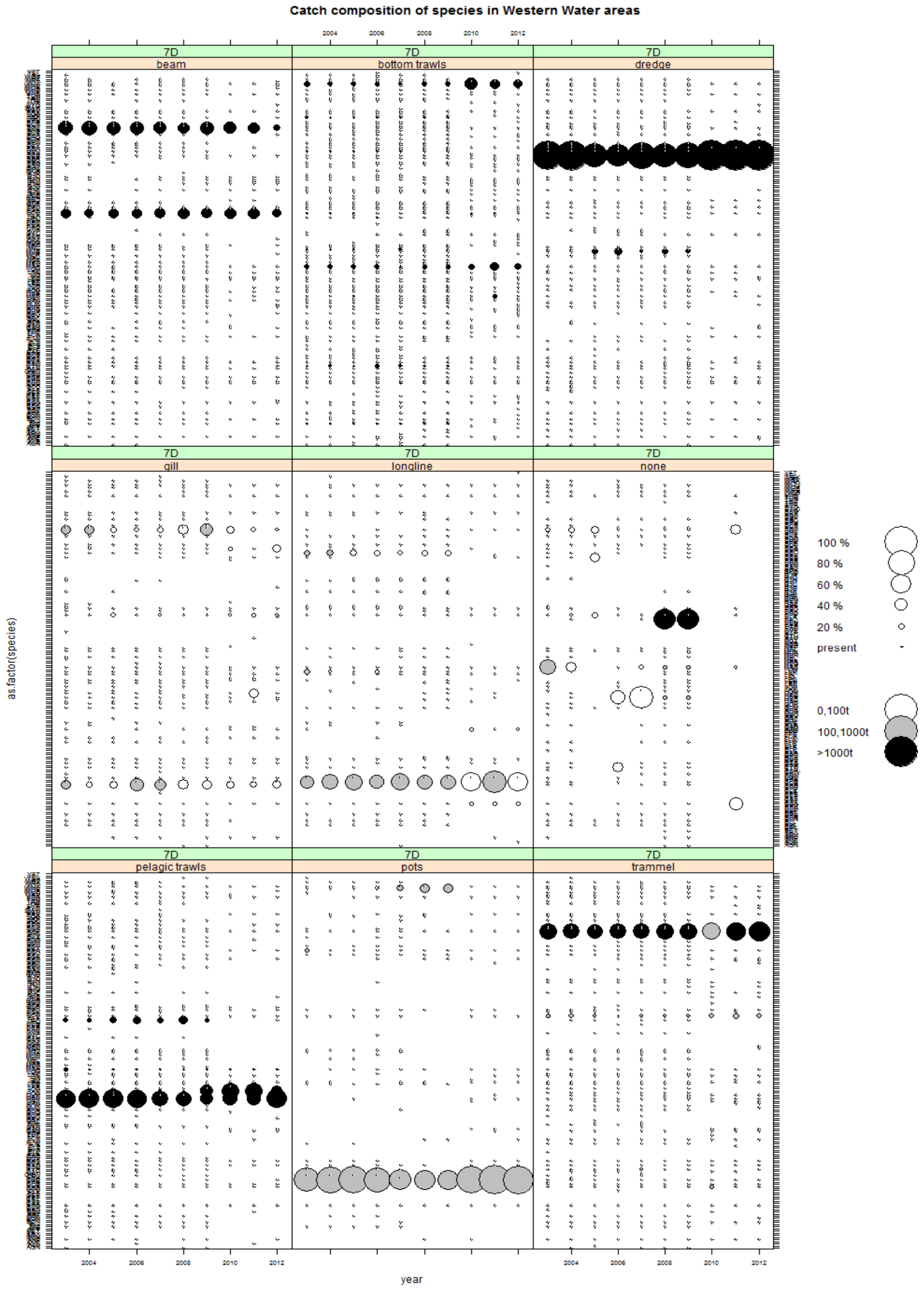


Figure 5.9.2.8.2 Landings composition by gear (countries combined) Western waters area VIId, 2003-2012. Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.2.9 Catches in the Biologically Sensitive Area by fisheries and Member States

Western Waters

As in the wider area VII, a variety of fisheries occur within the BSA through the use of different gears. Beam trawling occurs targeting anglerfish, gillnetting for hake, dredging for scallops and potting for edible crab. The general species composition by gear is given in Figure 5.9.2.9.1.

After being stable through the time series landings of Hake have begun to increase in the last two years. They now produce the highest landings for the area. Landings of Anglerfish suffered a drop in 2010 but have recovered since with those of 2012 being the highest of the time series Haddock have fluctuated around relatively stable levels over the period, but again showed an increase in 2012. Landings of Megrim and Whiting were quite stable up to 2009 when landings began to increase.

Table 5.9.2.9.2 details scallop and crab landings from the BSA. In this area scallop and crab landings are far lower than the wider VII EU area. Scallops from dredging were stable until 2007 but have shown an increasing trend up to 2011. Landings decreased again in 2012. Edible crabs landed from pots are also showing an increasing trend. All other gears contribute minimal landings.

In relation to pelagic species, Horse mackerel had previously been relatively stable until extremely large landings occurred in 2009 (Table 5.9.2.9.3). Horse mackerel landings dropped in 2010 but have increased again in the last two years. Boarfish landings have fluctuated considerably since first being reported in 2007. Mackerel, having recorded increased landings in 2009 and 2010, in 2011 dropped by 60% before increasing again in 2012. Herring landings were in decline up to 2011 but showed an increase in 2012 Landings of albacore tuna were quite low but French pelagic data recorded 386t in 2011 and this more than doubled again in 2012.

Table 5.9.2.9.1. Top demersal species landed (tonnes) within the BSA, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BSA	HKE	L	3544	4171	3699	3792	4104	3475	3655	3511	5600	7970
BSA	ANF	L	5323	4633	4082	4219	5147	4621	5100	3981	4990	6222
BSA	HAD	L	3671	3163	2957	2562	3106	2866	3982	3469	3970	5284
BSA	LEZ	L	2291	2124	2268	2015	2211	2258	3088	4355	3785	5275
BSA	WHG	L	5161	3126	2993	2398	2258	1632	2200	3276	3415	4712

Table 5.9.2.9.2. Scallop and crab species by gear landed within the BSA, 2003-2012. Values are landings in tonnes. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BSA	CRE	L	454	402	773	221	399	404	427	611	505	717
BSA	SCR	L	6	19	13	4	25	75	68	34	35	20
BSA	SCE	L	174	126	197	114	170	370	470	490	836	709

Table 5.9.2.9.3. Top pelagic species landed (tonnes) within the BSA, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BSA	JAX	L	8259	10139	10041	9347	5821	10866	40236	28191	31915	42029
BSA	BOR	L					772		39459	71612	7265	41948
BSA	MAC	L	17757	29705	22987	12602	24871	27851	42127	41028	17337	28583
BSA	HER	L	10322	8430	6086	6506	7486	6889	5832	6440	4390	6292
BSA	ALB	L	195	57	289	0	27	14	8	8	387	863
BSA	SWO	L	4	2	5		0	0	0		1	4
BSA	BFT	L	2	2			1				1	4

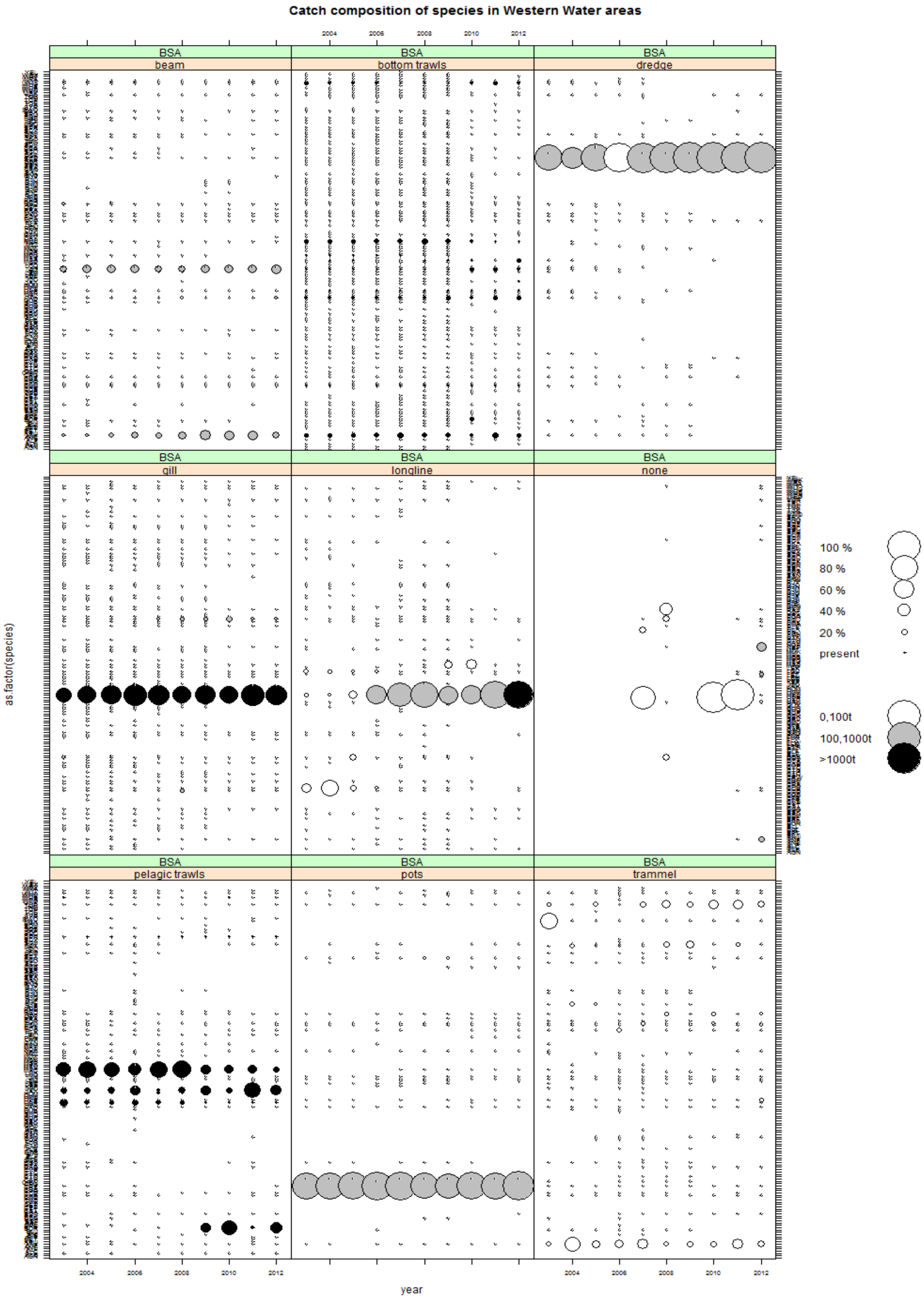


Figure 5.9.2.9.1. Landings composition by gear (countries combined) Western waters area BSA. Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.2.10 Catches in ICES area VIII by fisheries and Member States

Deepwater VIII EU

In 2012 Spain reported the majority of the landings for this area. Spain landed large amounts of conger eel, caught by bottom trawl and longlines. They also reported increased landings for blue mouth redfish using longline, bottom trawl and gill nets. Spanish longlines also reported increased landings for Red spot seabream, Blue ling and Wreckfish. Due to the lack of Spanish data for 2010 and 2011 it is impossible to say when this increase in these fisheries started.

Historically, France, England and Scotland reported landings for this area but in recent years these landings have nearly stopped.

French pelagic trawls regularly land small amounts, less than 10 tonnes, of black scabbard. Spain landed blackmouth dogfish in 2008 and 2009.

Table 5.9.2.10.1. Top 5 deepwater species landed in ICES Area VIII (EU). The ranking is based according to the last year landings.

area	**species**	**Type**	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8 EU	COE	L	99	143	81	75	71	91	167	29	48	2283
8 EU	BRF	L	1	8	27	69	17	49	145	6	42	865
8 EU	SBR	L	2	10	2	2	4	3	8	0	1	88
8 EU	BLI	L	3	6	8	13	9	14	41	5	3	85
8 EU	WRF	L	2	0	1	1	3	4	62	16	14	78

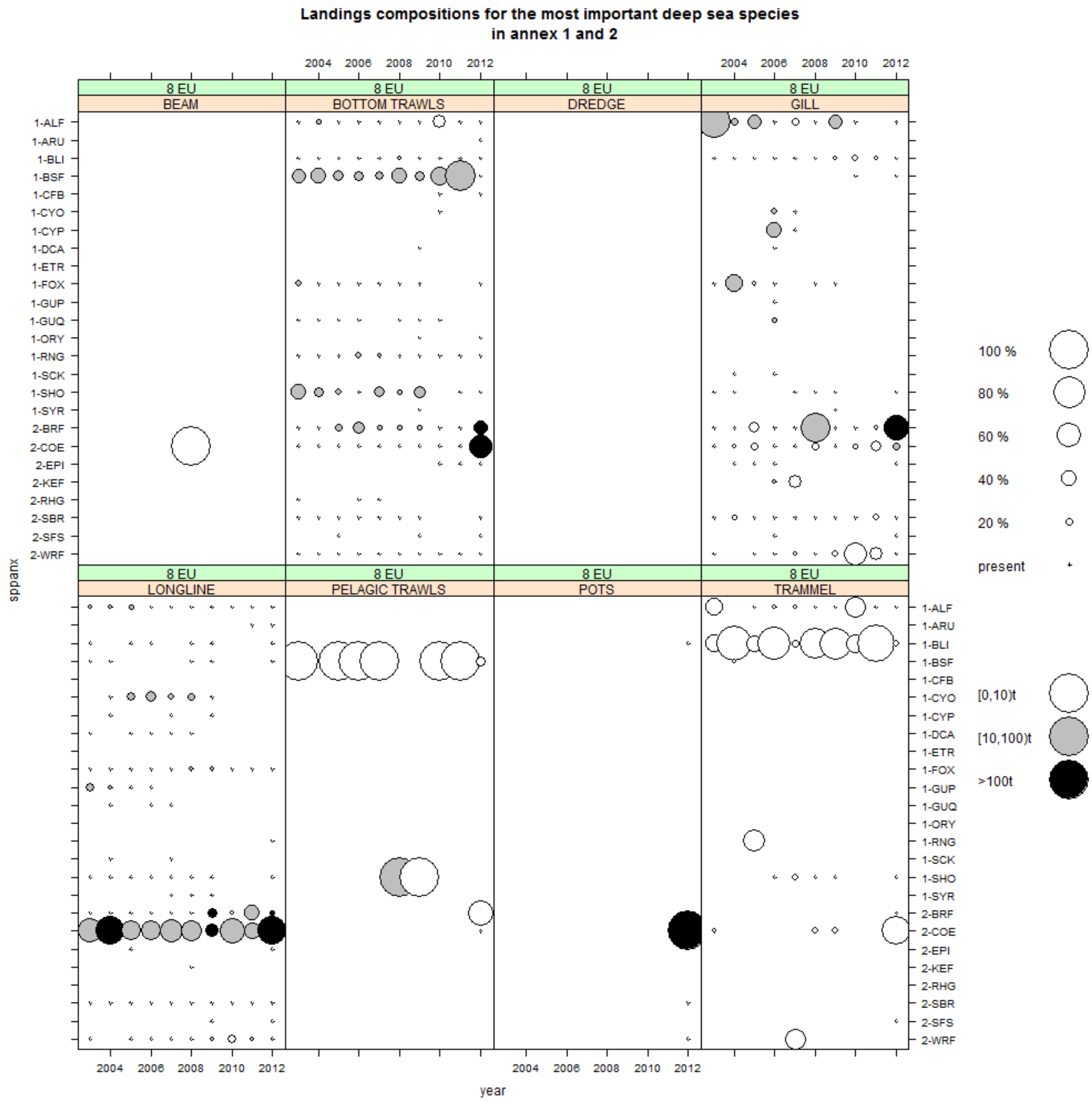


Figure 5.9.2.10.1 Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2012 by gear ICES Area VIII (EU)

Table 5.9.2.10.2. Top 5 deepwater species discarded in ICES Area VIII (EU).

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8 EU	BRF	D	0	0	0	0	0	0	0	0	0	670
8 EU	COE	D	0	0	0	0	0	0	0	1	0	41
8 EU	BLI	D	0	0	0	0	0	0	0	0	0	28
8 EU	SBR	D	0	0	0	0	0	0	0	0	0	0
8 EU	WRF	D	0	0	0	0	0	0	0	0	0	0

Western Waters VIII EU

Information from landings in this area appears to reflect the absence of data from Spain for 2010 and 2011. It is therefore difficult to give an objective assessment of landings for these years.

Hake provide the largest landings of demersal species. Landings increased up to 2008 and appear to be stable since, Table 5.9.2.10.3. Landings began increasing again in 2011 and in 2012 were the highest of the time series. Squid landings had a historic peak in 2004. In 2012 however landings surged to the highest in the time series. Anglerfish landings had been stable between 2004 and 2009, but appear to be decreasing. Sole landings have been stable since 2004. Landings of *Nephrops norvegicus* were stable through the time series, but suffered a decrease in 2012.

Details of scallop and crab landings from this area are given in Table 5.9.2.10.4. Scallops are primarily landed by dredge. Having been quite stable through the time series landings have declined dramatically in 2010 and 2011, but showed an improvement again in 2012. The main landings of edible crab are from pots, with some landings coming from bottom trawls. Crab landings from pots fell by 80% in 2008 and 2009, but since 2010 have increased greatly, with 2012 providing the highest landings of the time series.. Trammel nets provide landings of spider crabs, as do bottom trawls and gill nets. However landings from all three methods are in decline.

Pelagic landings have been dominated by mackerel which reached a peak in 2009. Landings appear to be dropping in recent years. Horse mackerel stocks were reasonably stable up to 2008 and have declined since. Anchovy landings declined from an early peal in 2004 with minimal landings reported for 2008 and 2009. Landings have improved since then with 2012 being the highest of the time series. Albacore tuna landings peaked in 2006 before decreasing to 2009. Landings for 2012 are the second highest of the series. Blue whiting landings peaked in 2009 and appear to be in decline since.

Table 5.9.2.10.3. Top demersal species landed (tonnes) within Area VIII EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8 EU	HKE	L	6034	6093	9609	9677	12348	16546	17137	9083	10114	18600
8 EU	SQI	L	376	396	489	220	178	324	204	3	14	4094
8 EU	ANF	L	5627	6943	7929	7861	7603	7348	7192	1056	2763	3755
8 EU	SOL	L	2278	2549	3299	3479	3279	3342	3427	3010	3643	3358
8 EU	NEP	L	2501	2605	3232	3020	2909	2765	2735	2587	3014	1865

Table 5.9.2.10.4. Scallop and crab species by gear landed within Area VIII EU, 2003-2012. Values are landings in tonnes. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8 EU	CRE	L	1082	1353	1020	1005	891	392	388	1430	1495	1797
8 EU	SCR	L	560	704	720	899	758	587	579	497	428	450
8 EU	SCE	L	540	533	660	633	727	635	618	179	217	571

Table 5.9.2.10.5. Top pelagic species landed (tonnes) within Area VIII EU, 2003-2012. The ranking is based according to the last year landings.

area	**species**	**Type**	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8 EU	MAC	L	24788	37059	49523	52583	56302	58359	98446	5446	4110	23677
8 EU	JAX	L	24517	26645	32564	31411	27570	30403	23403	1206	1008	15624
8 EU	ANE	L	3058	5634	205	910	97	0	0	2267	2048	12781
8 EU	ALB	L	4953	3785	10154	13066	7989	3642	1038	269	190	11799
8 EU	WHB	L	16513	18801	18244	16529	17652	16448	21482	31	41	6512
8 EU	BFT	L	698	1685	3444	1385	1721	1334	343	65	25	214
8 EU	SWO	L	47	23	94	88	43	16	3	6	2	36
8 EU	BET	L	60	16	326	52	320	5	5	0	0	15
8 EU	YFT	L			27		12			3		0

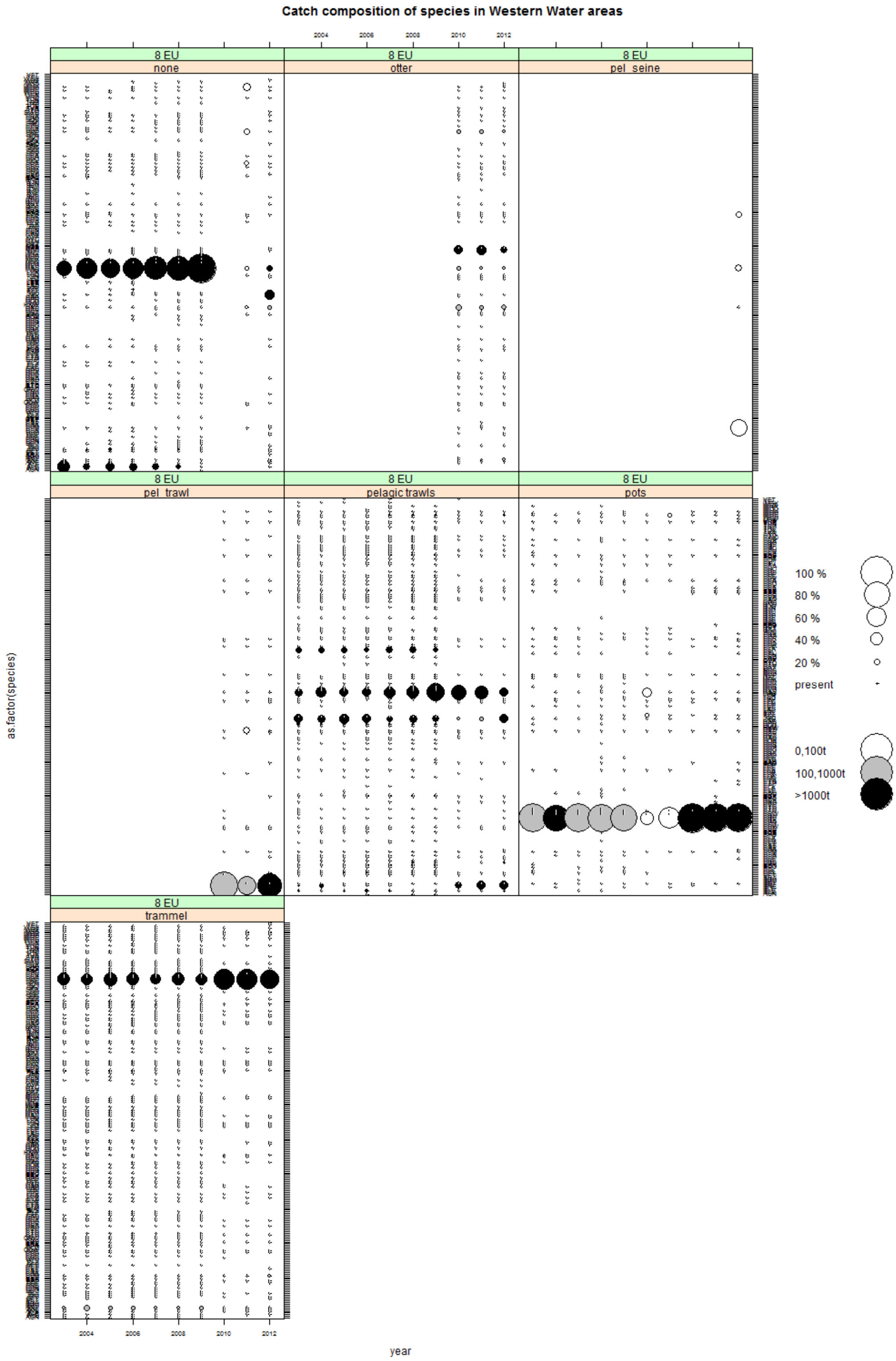


Figure 5.9.2.10.2. Landings composition by gear (countries combined) Western waters area VIII EU. Size of circles represents relative contribution to landings, shading indicates quantity.

Deepwater VIII non-EU

No information reported after 2006, bar small landings of Bluemouth redfish and Conger eel in 2012, by Spain

Table 5.9.2.10.5 Top 5 deepwater species landed (tonnes) in ICES Area VII (EU). The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8 non EU	BRF	L	0	0	0	0	0	0	0	0	0	0
8 non EU	COE	L	0	0	0	0	0	0	0	0	0	0
8 non EU	CMO	L	0	0	0	4	0	0	0	0	0	0
8 non EU	CYO	L	0	0	0	1	0	0	0	0	0	0
8 non EU	CYP	L	0	0	0	4	0	0	0	0	0	0
8 non EU	DCA	L	0	0	0	1	0	0	0	0	0	0

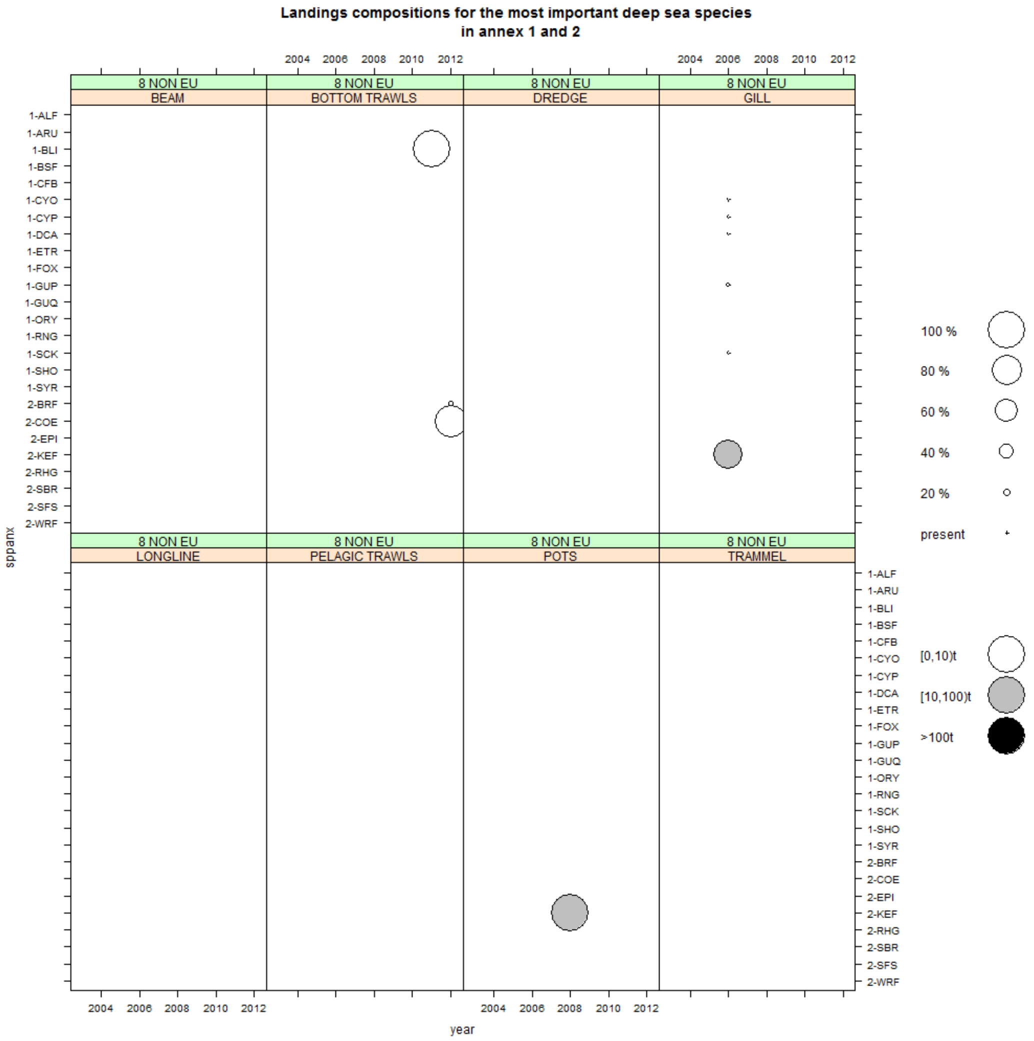


Figure 5.9.2.10.1 Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2012 by gear ICES Area VIII (EU).

Western Waters VIII non-EU

No demersal species landings were reported between 2003 and 2010. In 2011 18t of hake was reported for French bottom trawls (Table 5.9.2.10.6). Very small landings were reported for 2012

No scallops or crabs landings were reported (Table 5.9.2.10.7).

Albacore tuna landings were first reported in 2010 by France and Scotland and increased again 2011. In 2012 landings continued to increase but Spain was the main contributor rather than either of the earlier two countries, (Table 5.9.2.10.8). Horse mackerel landings were reported for 2006 by Portugal and 2012 by Spain.

Table 5.9.2.10.6. Top demersal species landed (tonnes) within Area VIII non-EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8 NON EU	SQI	L										1
8 NON EU	HKE	L								0	18	0
8 NON EU	NEP	L									0	0
8 NON EU	TUR	L								0	0	0

Table 5.9.2.10.7. Scallop and crab species by gear landed within Area VIII non-EU, 2003-2012. Values are landings in tonnes. The ranking is based according to the last year landings.

No reported landings.

Table 5.9.2.10.8. Top pelagic species landed (tonnes) within Area VIII non-EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8 NON EU	ALB	L								246	390	607
8 NON EU	JAX	L				69						65
8 NON EU	SWO	L								0	1	2
8 NON EU	BET	L										0

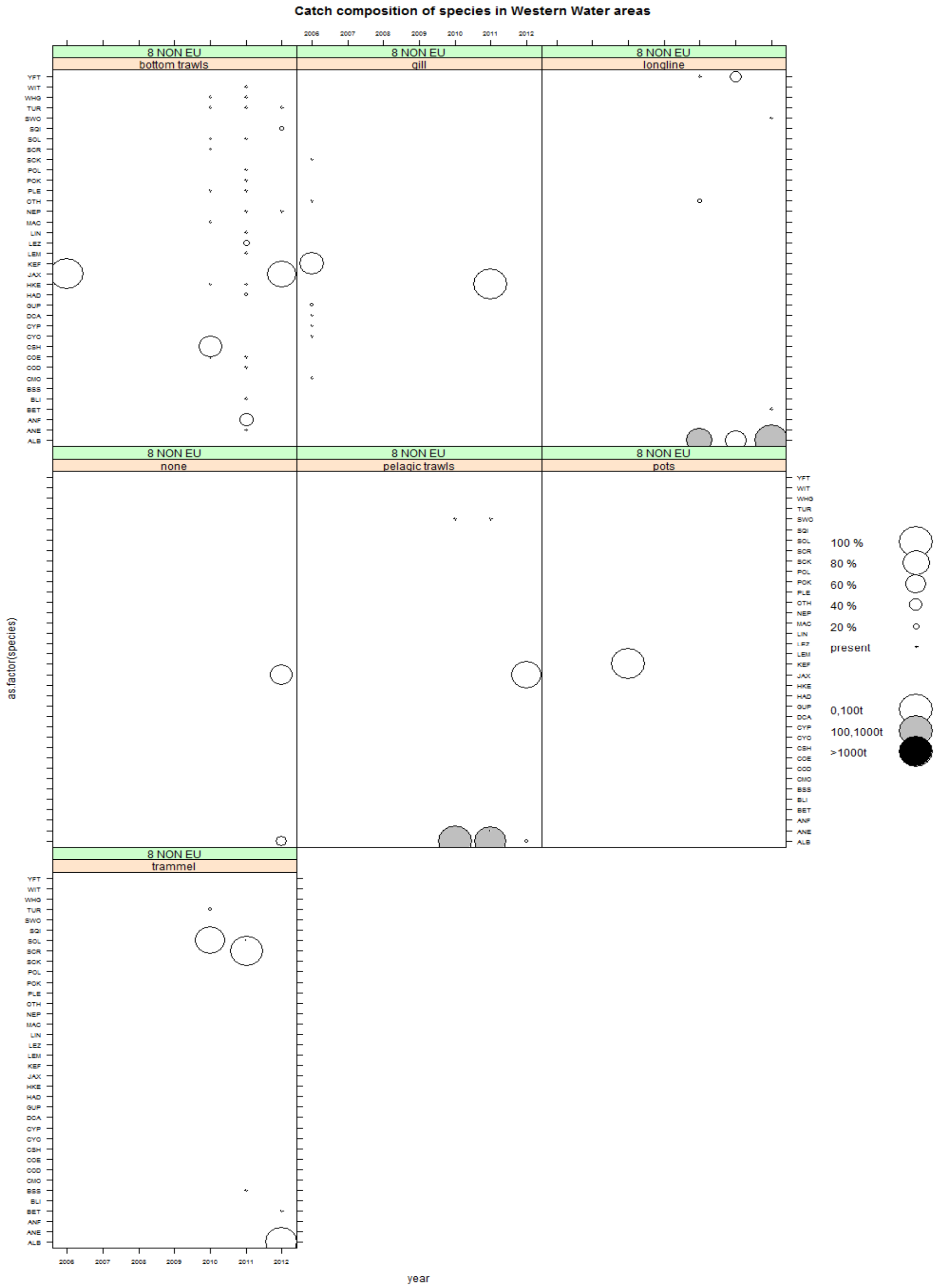


Figure 5.9.2.10.4. Landings composition by gear (countries combined) Western waters area VIII non-EU. Size of circles represents relative contribution to landings, shading indicates quantity. Spanish 2010 landings not included.

5.9.2.11 Catches in ICES area IX by fisheries and Member States

Deepwater IX EU

Portuguese longlining for Black scabbard fish is the major component of this area. Landings began to increase in 2005 and have been quite stable since 2007. Throughout the time series Portugal has reported small landings of Conger eel using longline. In 2012 Spain has reported large catches using longline, bottom trawl, and in particular pots. Spain also reported landings of blue mouth redfish in 2012, (Table 5.9.2.11.1, Fig 5.9.2.11.1).

Longlining is the major gear used in the area, mainly by Spain and Portugal, followed by bottom trawl. Blackmouth catshark were the main landings by bottom trawl historically, but these ceased in 2010.

Table 5.9.2.11.1. Top 5 deepwater species landed in ICES Area IX (EU). The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
9 EU	BSF	L	422	43	1175	1939	2720	2854	2701	2702	2704	2472
9 EU	COE	L	14	8	23	48	50	42	22	11	15	399
9 EU	BRF	L	3	0	5	10	47	18	19	14	12	172
9 EU	SBR	L	0	0	0	9	16	7	7	5	11	21
9 EU	FOX	L	4	1	7	11	12	20	7	7	9	13

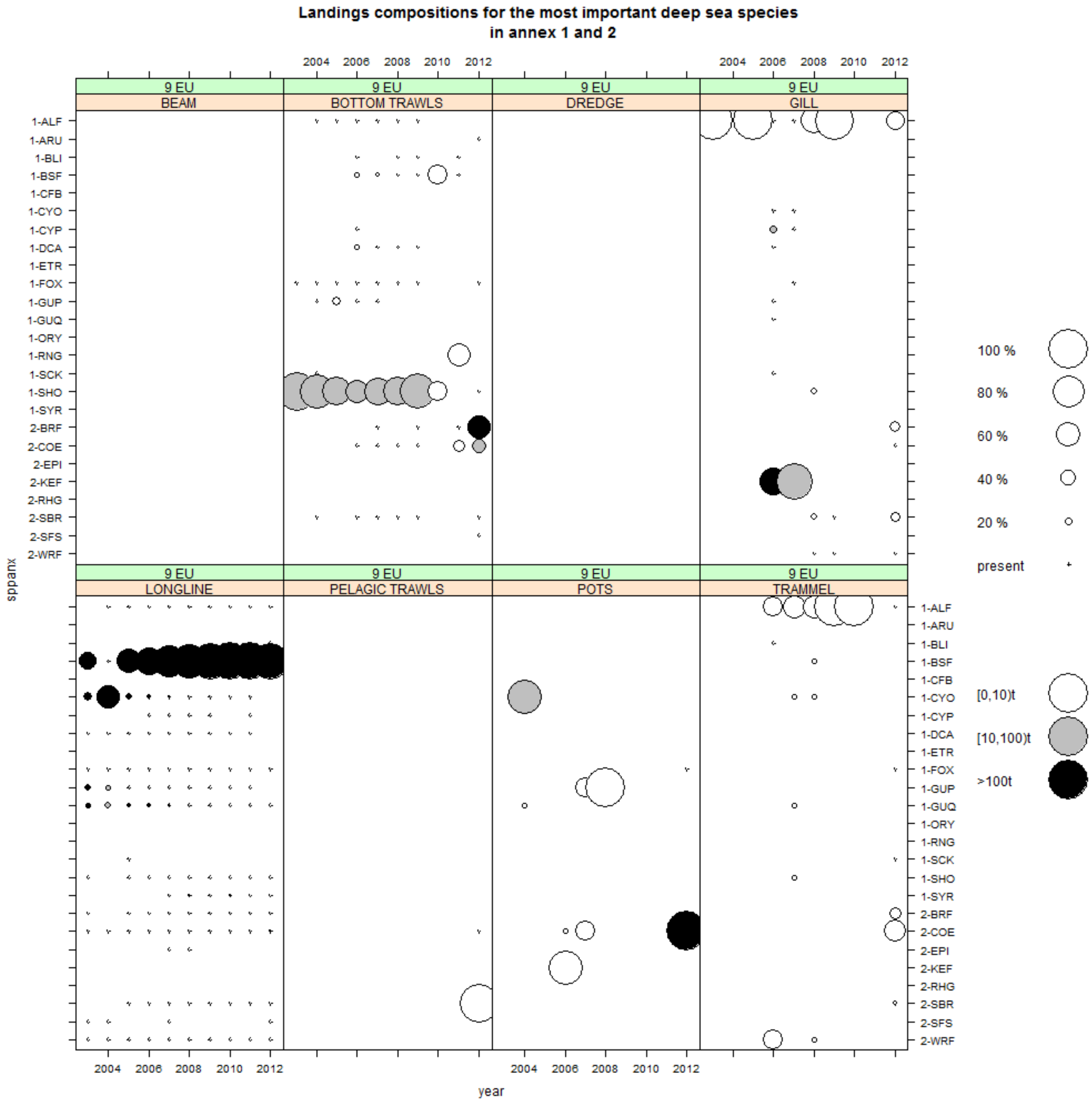


Figure 5.9.2.11.1 Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2012 by gear ICES Area IX (EU).

Table 5.9.2.11.2. Top 5 deepwater species discarded in ICES Area IX (EU).

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
9 EU	BRF	D	0	0	0	0	0	0	0	0	0	59
9 EU	COE	D	0	0	0	0	0	0	0	0	0	6
9 EU	BSF	D	0	0	0	0	0	0	0	0	0	0
9 EU	FOX	D	0	0	0	0	0	0	0	0	0	0
9 EU	SBR	D	0	0	0	0	0	0	0	0	0	0

Western Waters IX EU

Hake is the most important demersal species landed in this area. Landings began increasing in 2004 and peaked in 2009. Landings have decreased since, dropping by 50% in 2012. Northern shortfin squid landings were decreasing between 2004 and 2009, but Spain reported large landings in 2012 using bottom trawls. Anglerfish landings have remained quite stable despite experiencing a small peak in 2006 and 2007. Landings of Rajidae increased up to 2008 and have stabilised since.

Small landings of spider crab were reported between 2006 and 2010 by Portugal using trammel nets. In 2012 Spain reported all the spider crab, edible crab and scallop landings.

Spain and Portugal are the two countries reporting landings of pelagic species from this area with only Ireland reporting mackerel landings from pelagic trawl in 2008. Horse mackerel is the major species caught with both pelagic and bottom trawls being used. Landings have fluctuated somewhat throughout the time series, and without Spanish data for 2010 and 2011 it is not possible to give a full assessment of trends. Anchovy landings were very low until 2012 when Spain reported large landings using pelagic trawls. Blue whiting landings were high until 2010 but had dropped by 50% in 2012. Mackerel landings suffered a large drop in 2009, but appear to have stabilised since. Swordfish and albacore landings have fluctuated through the time series but in 2012 Spain reported high landings for swordfish using longlines.

Table 5.9.2.11.2. Top demersal species landed (tonnes) within Area IX EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
9 EU	HKE	L	913	751	1217	2777	4143	5025	6736	1764	1252	3189
9 EU	SQI	L	349	609	290	60	62	161	51			1802
9 EU	ANF	L	607	544	620	918	1164	763	596	187	276	610
9 EU	RAJ	L	47	56	62	111	269	277	423	501	489	454
9 EU	SOL	L	19	25	53	55	688	136	157	163	161	231

Table 5.9.2.11.3. Scallop and crab species by gear landed within Area IX EU, 2003-2012. Values are landings in tonnes. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
9EU	CRE	L										2
9EU	SCR	L				5	6		2	5		94
9EU	SCE	L										43

Table 5.9.2.11.4. Top pelagic species landed (tonnes) within Area IX EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
9 EU	JAX	L	7387	11325	7329	10412	12393	15012	10372	4637	4036	14191
9 EU	ANE	L	23	36	5	23	22	7	17	6	10	4813
9 EU	WHB	L	4271	6967	6993	4620	5220	6607	6123	1154	463	2827
9 EU	MAC	L	1975	3133	4115	4552	6886	6981	1416	189	246	1088
9 EU	SWO	L	22	46	12	6	15	13	7		7	195
9 EU	ALB	L	13	51	179	57	111	110	4			73
9 EU	BET	L		0		0			2			1

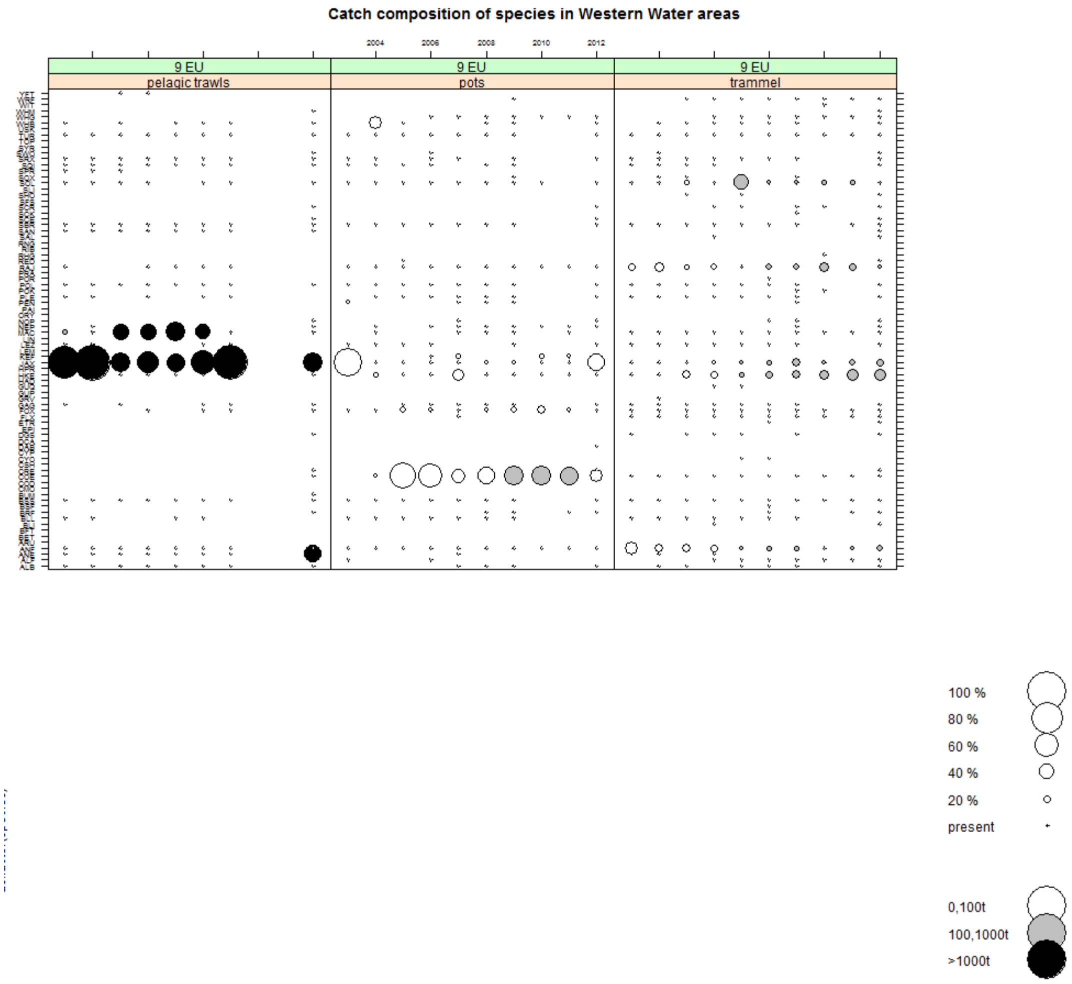


Figure 5.9.2.11.2. Landings composition by gear (countries combined) Western waters area IX EU. Size of circles represents relative contribution to landings, shading indicates quantity.

Deepwater IX non EU

Landings of conger eel and wreckfish from longline by Portugal fluctuated at low numbers through the time series. Occasionally landings of blue mouth redfish are also reported.

Table 5.9.2.11.5. Top 5 deepwater species landed in ICES Area IX (non EU). The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
9 NON EU	COE	L	1	12	8	4	9	10	12	6	12	14
9 NON EU	WRF	L	4	16	4	1	9	12	5	2	2	8
9 NON EU	ALF	L	1	0	0	0	0	0	0	0	0	6
9 NON EU	BRF	L	0	0	0	1	2	2	5	0	2	5

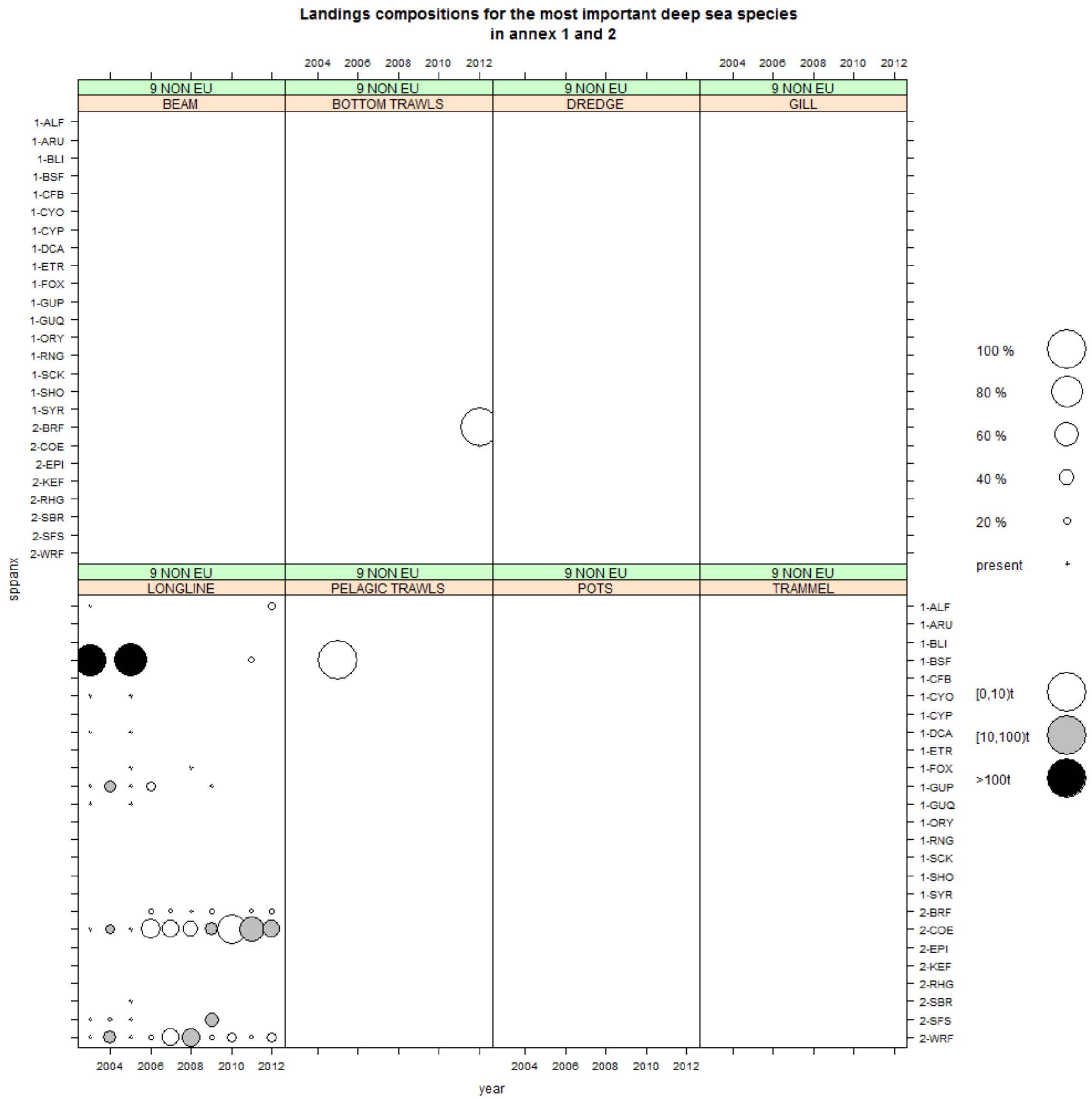


Figure 5.9.2.11.3 Catches of Annex 1&2 Deep Sea species (tonnes) 2003-2012by gear ICES Area IX (non EU).

Western Waters IX non-EU

Demersal landings are very low for this area. Conger eel were the most important species in 2012 followed by Wreckfish, Blue mouth redfish and Hake.

No landings of scallop or crab have been reported for this area

Pelagic landings in this area ceased between 2005 and 2011, except for a small amount of horse mackerel reported by Portugal in 2009. In 2012 landings were reported for Swordfish, Horse mackerel, Mackerel and Blue whiting, as well as lesser amounts of other tuna species.

Table 5.9.2.11.6. Top demersal species landed (tonnes) within Area IX non-EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
9 NON EU	COE	L	21	10	27	5	3	15	39	9	17	45
9 NON EU	WRF	L	19	10	10	1	4	15	21	1	4	17
9 NON EU	BRF	L				1		5	9		2	13
9 NON EU	HKE	L	48	9	34							10
9 NON EU	FOX	L	15		8	1		4		2		2
9 NON EU	RAJ	L			1			2	2			2

Table 5.9.2.11.7. Scallop and crab species by gear landed within Area IX non-EU, 2003-2012. Values are landings in tonnes. The ranking is based according to the last year landings.

No landings have been reported for this area.

Table 5.9.2.11.8. Top pelagic species landed (tonnes) within Area IX non-EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
9 NON EU	SWO	L	3		3							71
9 NON EU	JAX	L	4	26	59				2			42
9 NON EU	WHB	L	5	33	43							13
9 NON EU	MAC	L	5		6							10
9 NON EU	ALB	L										2
9 NON EU	BET	L			1							1
9 NON EU	YFT	L										0

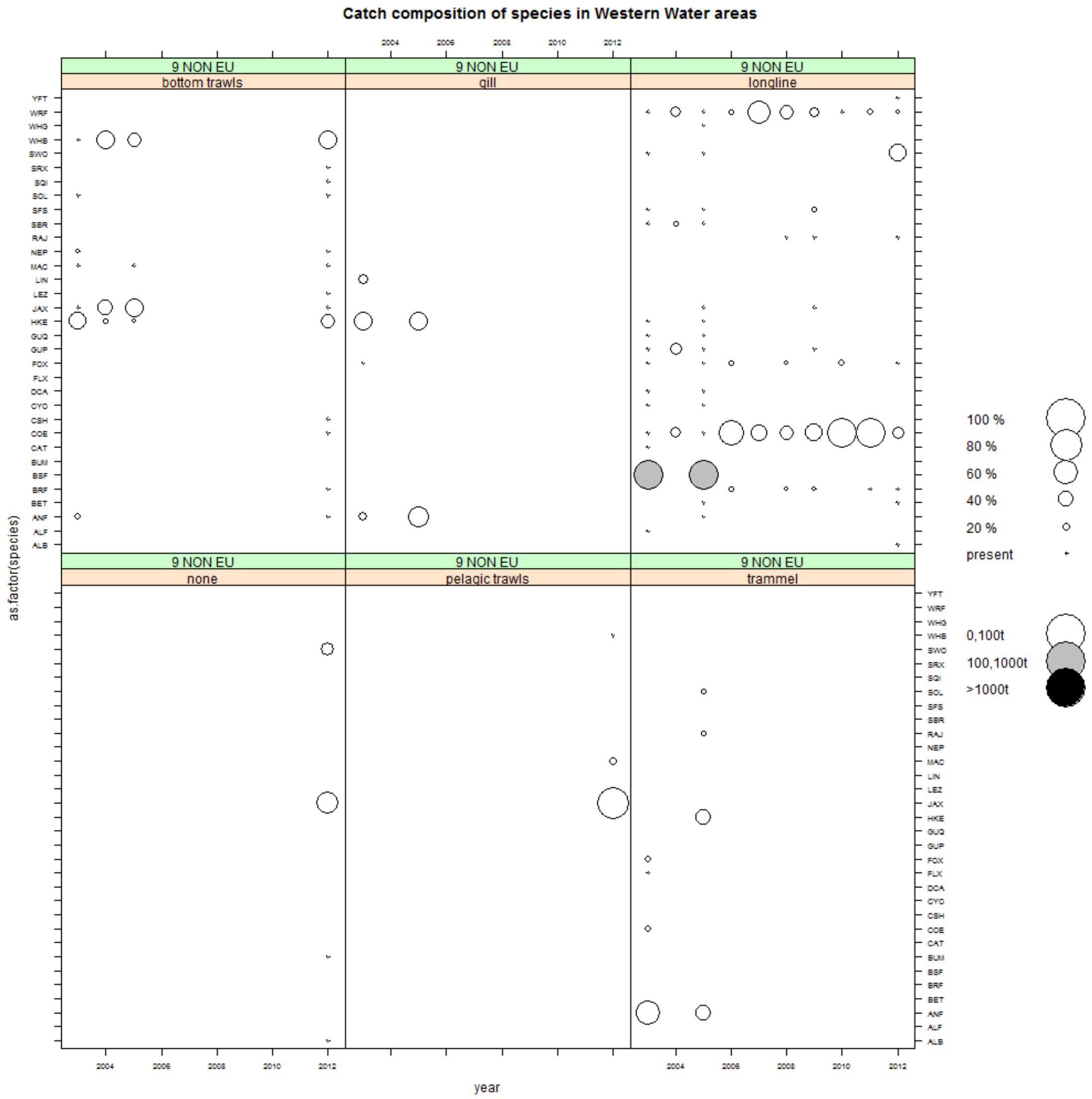


Figure 5.9.2.11.4. Landings composition by gear (countries combined) Western waters area IX non EU. Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.2.12 Catches in ICES area X by fisheries and Member States

Deepwater X EU

Portugal recently resubmitted their data for 2010 to 2012 for this area. It is mainly related to longlining in the Azores.

Table 5.9.2.12.1. Top 5 deepwater species landed in ICES Area X (EU). The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
10 EU	BSF	L	0	0	0	0	0	0	0	32	116	443
10 EU	SBR	L	0	0	0	0	0	0	0	403	357	303
10 EU	COE	L	0	0	0	0	0	0	0	198	271	259
10 EU	ALF	L	0	0	0	0	0	0	0	189	180	165
10 EU	SFS	L	0	0	0	0	0	0	0	46	97	156

Western Waters X EU

There have been no demersal, pelagic, scallop, or crab species landed from this area prior to 2012. A small amount of hake was landed by Spain. Spain landed approximately 180t of Swordfish from longlines, with small amounts of Horse mackerel and Albacore tuna

Table 5.9.2.12.2. Top demersal species landed within Area X (non EU), 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
10 EU	HKE	L										3
10 EU	POL	L										0
10 EU	ANF	L										0
10 EU	LIN	L										0

Table 5.9.2.12.3. Top pelagic species landed within Area X (EU), 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
10 EU	SWO	L										178
10 EU	JAX	L										10
10 EU	ALB	L										4
10 EU	ANE	L										1
10 EU	YFT	L							9			0

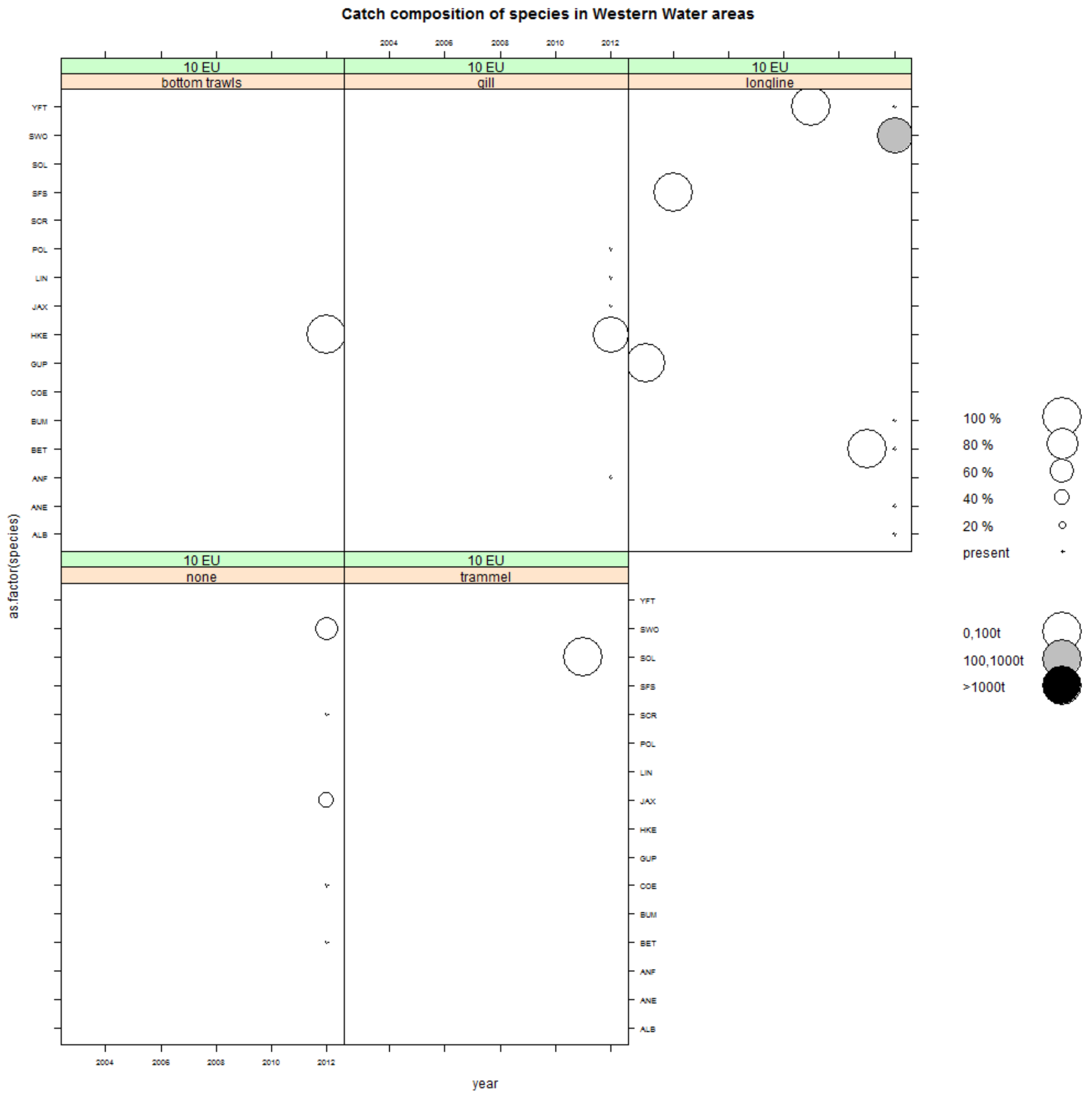


Figure 5.9.2.12.1 Landings composition by gear (countries combined) Western waters area X (EU). Size of circles represents relative contribution to landings, shading indicates quantity.

Deepwater X non-EU

Minor landings (less than 0.5 tonnes) of red seabream should be noted

Table 5.9.2.12.4. Top 5 deepwater species landed in ICES Area X (non EU). The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
10 NON EU	SBR	L	0	0	0	0	0	0	0	0	0	0

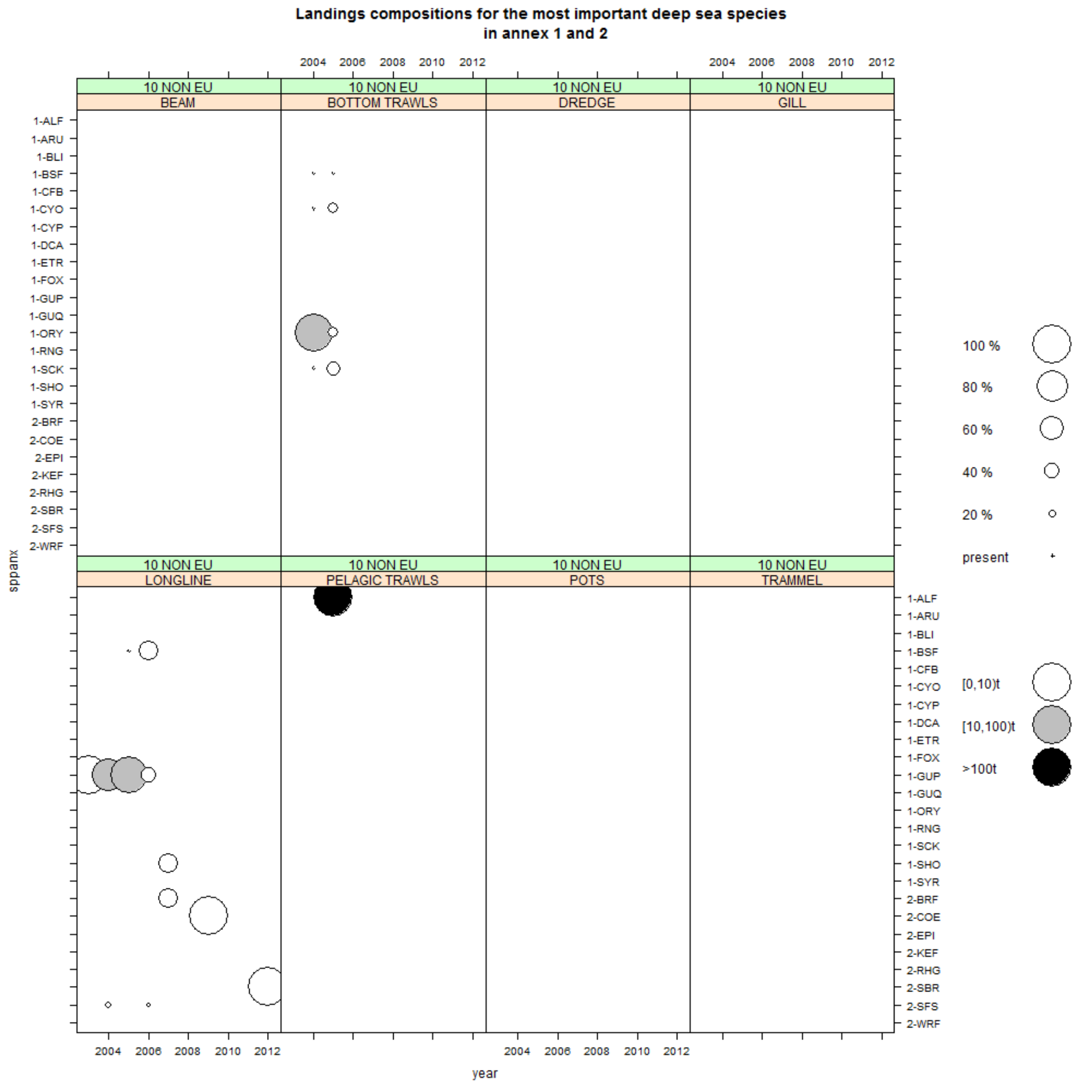


Figure 5.9.2.12.2. Catches of Annex 1&2 Deep Sea species (tonnes) 2003-2012by gear ICES Area X (non EU)

Western Waters X non-EU

Minimal landings of demersal species have been reported between 2012 and 2012, Table 5.9.2.12.5

France reported landings of 1t of scallops, and less of edible crab for 2012.

Minimal pelagic landings were reported prior to 2012. In 2012 Spain reported landings of Swordfish and Albacore tuna using longlines, along with small amounts of Horse mackerel from pelagic trawls.

Table 5.9.2.12.5. Top demersal species landed (tonnes) within Area X non-EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
10 NON EU	WHM	L										1
10 NON EU	HKE	L								1	0	1
10 NON EU	WHG	L								0	0	1
10 NON EU	BSS	L								0	0	1
10 NON EU	SOL	L								1	1	1

Table 5.9.2.12.6. Scallop and crab species by gear landed within Area X non-EU, 2003-2012. Values are landings in tonnes. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
10 NON EU	SCE	L										1

Table 5.9.2.12.7. Top pelagic species landed (tonnes) within Area X non-EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
10 NON EU	SWO	L	2		2	1		1				715
10 NON EU	ALB	L			2			1			5	650
10 NON EU	JAX	L										134
10 NON EU	BET	L										21
10 NON EU	MAC	L								1	0	0
10 NON EU	WHB	L										0

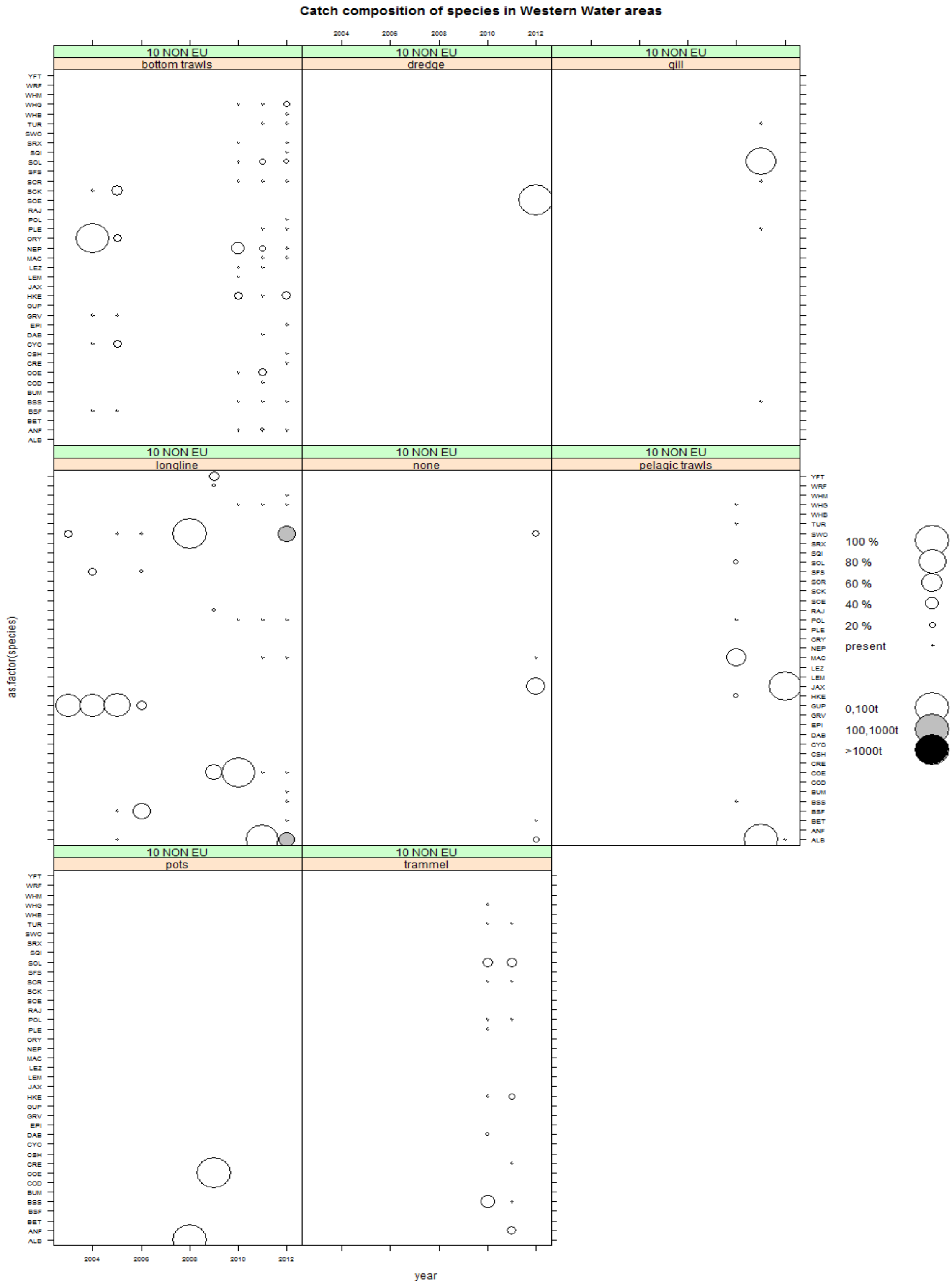


Figure 5.9.2.12.3. Landings composition by gear (countries combined) Western waters area X non-EU. Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.2.13 Catches in ICES area XII by fisheries and Member States only linked to Deep Sea species

Area XII non-EU

Figure 5.9.2.13.1 and Table 5.9.2.13.1 show that trawl landings were mainly of roundnose grenadier landed by Estonia between 2005 and 2007, with Spain reporting large landings of the species in 2009 and 2012. Spain also reported small grenadier landings by pelagic trawl for the same years.

In 2012 Spain reported landings of Bairds smoothhead, Roughhead grenadier, Silver scabbard fish and Blue ling from bottom and pelagic trawls.

Orange roughy was landed by Ireland in 2003. Sporadic landings of blue ling and black scabbard were reported up to 2006, with France reporting a small catch of black scabbard for 2010 and 2011.

Gill net catches of Portuguese dogfish, leafscale gulper shark and deep-water red crab by the UK ended in 2006.

Occasional pot landings of deep-water red crab ended in 2008.

Table 5.9.2.13.1. Top 5 deepwater species landed in ICES Area XII (non EU). The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
12 non EU	RNG	L	1		20	27	140		2328	2		1521
12 non EU	ALC	L			3	76	9					621
12 non EU	RHG	L										526
12 non EU	SFS	L										244
12 non EU	BLI	L	6		21	1	7		196	0	0	205

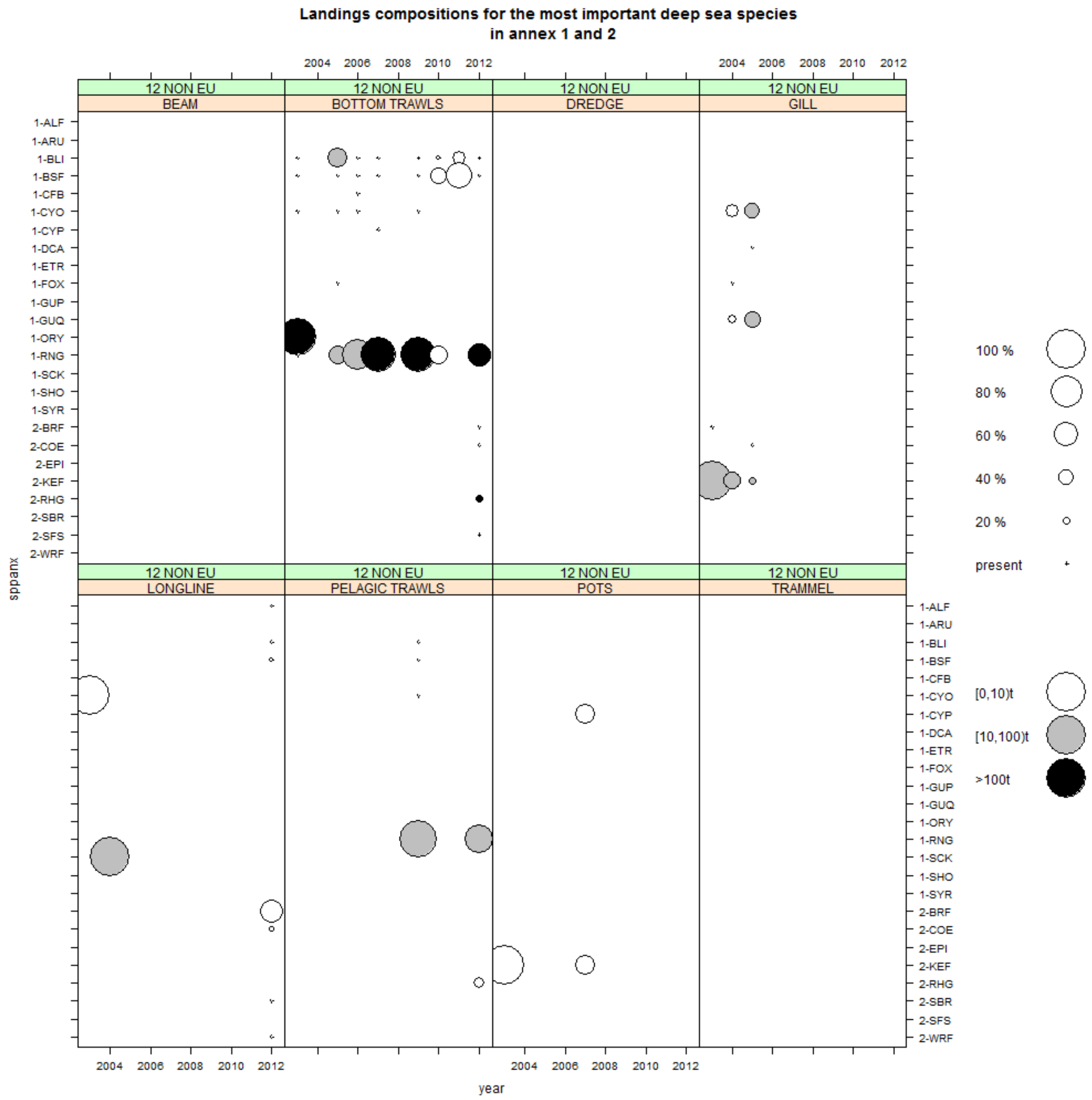


Figure 5.9.2.13.1 Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2012 by gear ICES Area XII (non EU)

5.9.2.14 Catches in ICES area XIV by fisheries and Member States only linked to Deep Sea species

Area XIV non-EU

The main species landed by bottom trawl, by Germany and the UK, is Greenland halibut followed by, small landings of roundnose grenadier and occasional landings of blue ling. In 2012 Spain reported large landings of roundnose and roughhead grenadiers using bottom and pelagic trawls.

Table 5.9.2.14.1. Top 5 deepwater species landed in ICES Area XIV (non EU). The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
14 non EU	GHL	L	3498	4546	4426	4298	4535	5044	5087	4812	5815	4468
14 non EU	RHG	L										2687
14 non EU	RNG	L	42	27	12	18	19	17	27	35	32	1911
14 non EU	BLI	L	6	7	18			1	77	3	7	3

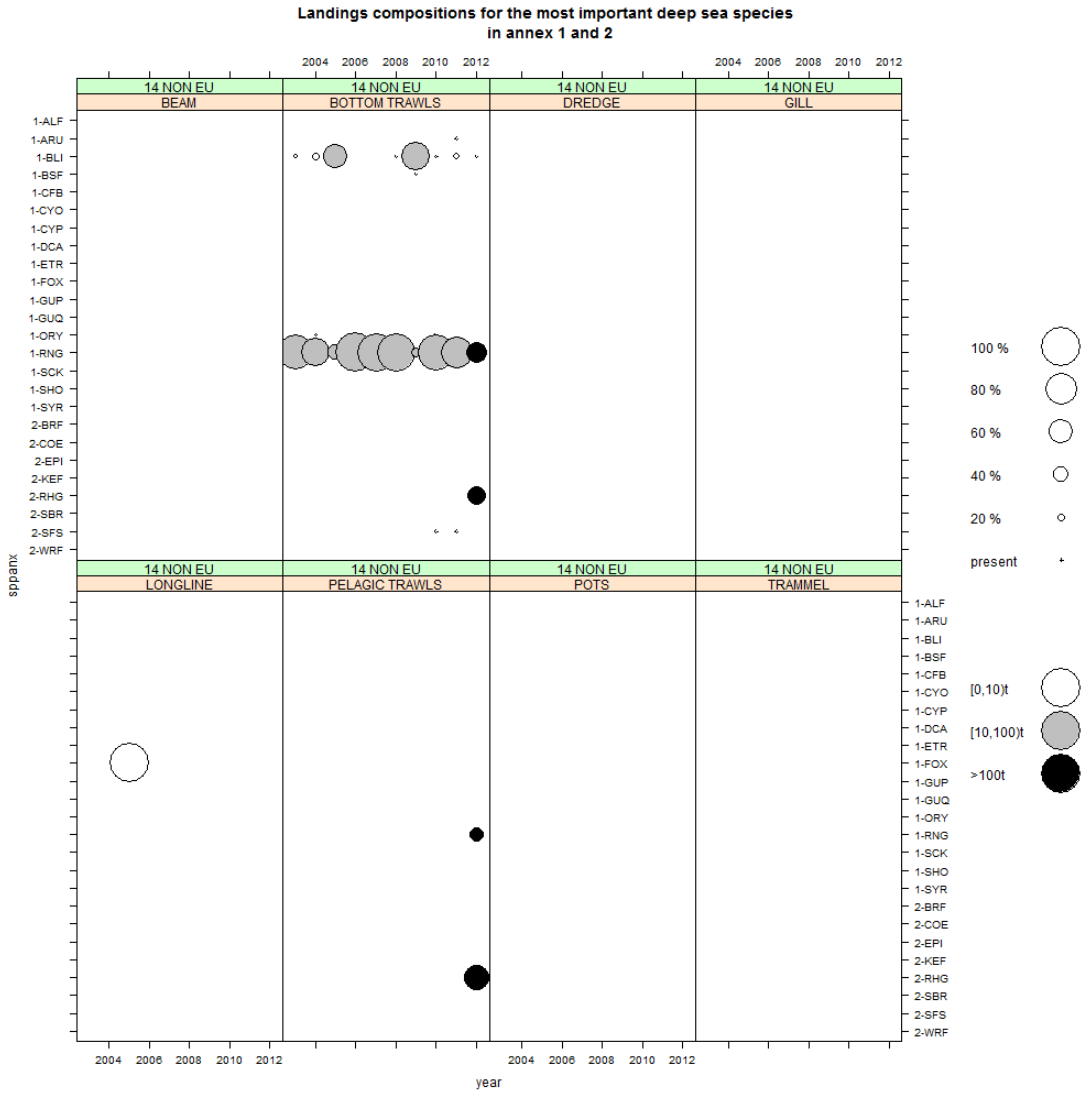


Figure 5.9.2.14.1 Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2012 by gear ICES Area XIV (non EU).

5.9.2.15 Catches in CECAF area 34.1.1 by fisheries and Member States

Deepwater 34.1.1 EU

Regular, small, landings are reported by Portugal, using longline, for Conger eel, Wreckfish and Greater forkbeard.

Table 5.9.2.15.1. Top 5 deepwater species landed in CECAF Area 34.1.1 (EU). The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.1.1 EU	COE	L	2	0	1	16	5	15	15	12	0	3
34.1.1 EU	WRF	L	0	0	1	16	6	14	11	3	0	3
34.1.1 EU	FOX	L	1	0	0	3	2	5	2	2	0	1

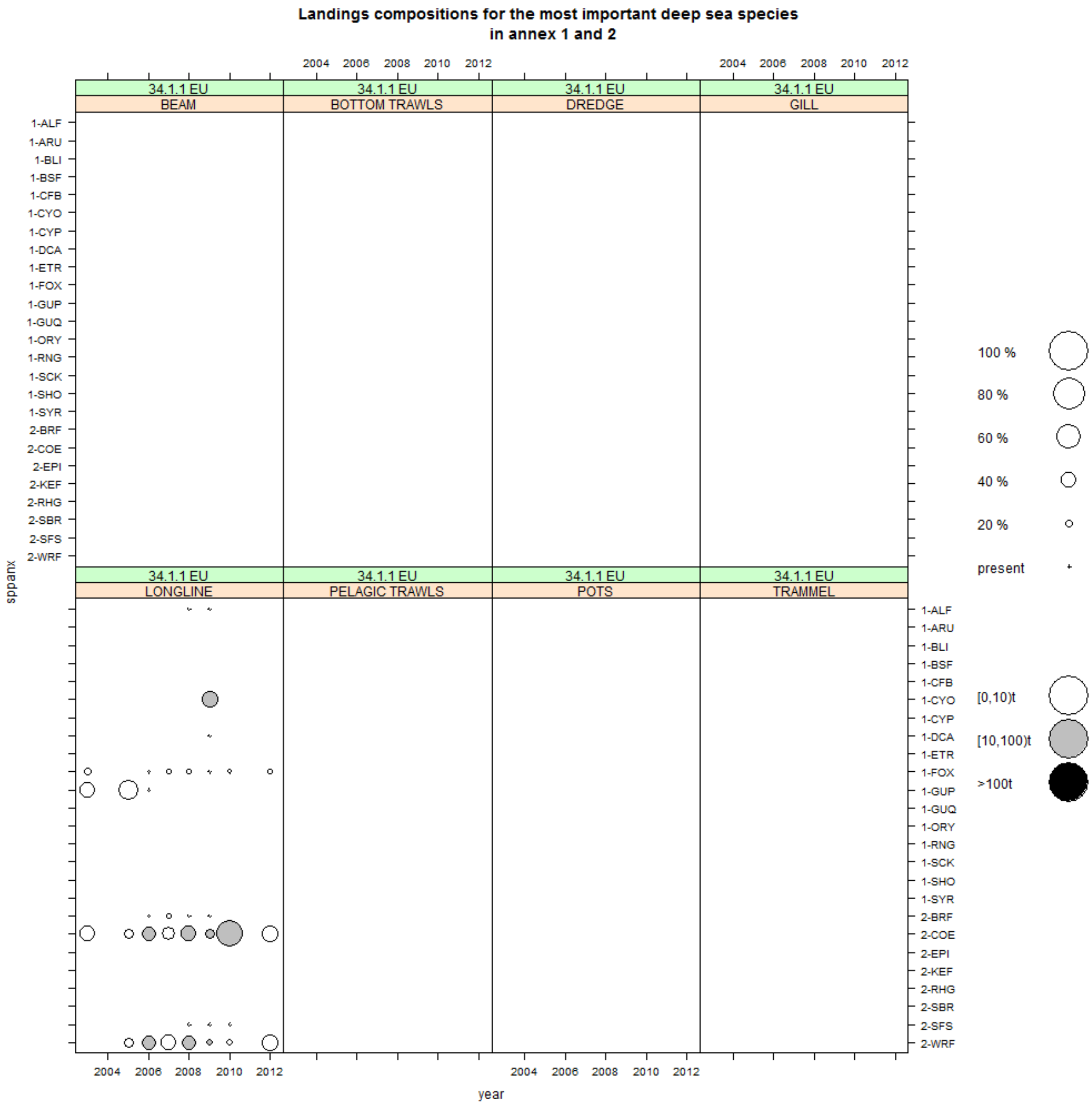


Figure 5.9.2.15.1 Landings of Annex 1&2 Deep Sea species (tonnes) 2003-2012 by gear CECAF Area 34.1.1 (EU).

Western Waters 34.1.1 EU

In 2013 Spain reported small landings of Swordfish for this area using longlines, Table 5.9.2.15.4 and Figure 5.9.2.15.2.

Table 5.9.2.15.2. Top demersal species landed (tonnes) within CECAF Area 34.1.1 EU, 2003-2012. The ranking is based according to the last year landings.

No data reported.

Table 5.9.2.15.3. Scallop and crab species by gear landed within CECAF Area 34.1.1 EU, 2003-2012. Values are landings in tonnes. The ranking is based according to the last year landings.

No data reported.

Table 5.9.2.15.4. Top pelagic species landed (tonnes) within CECAF Area 34.1.1 EU, 2003-2012. The ranking is based according to the last year landings.

area	**species**	**Type**	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.1.1 EU	SWO	L										16
34.1.1 EU	ANE	L										0

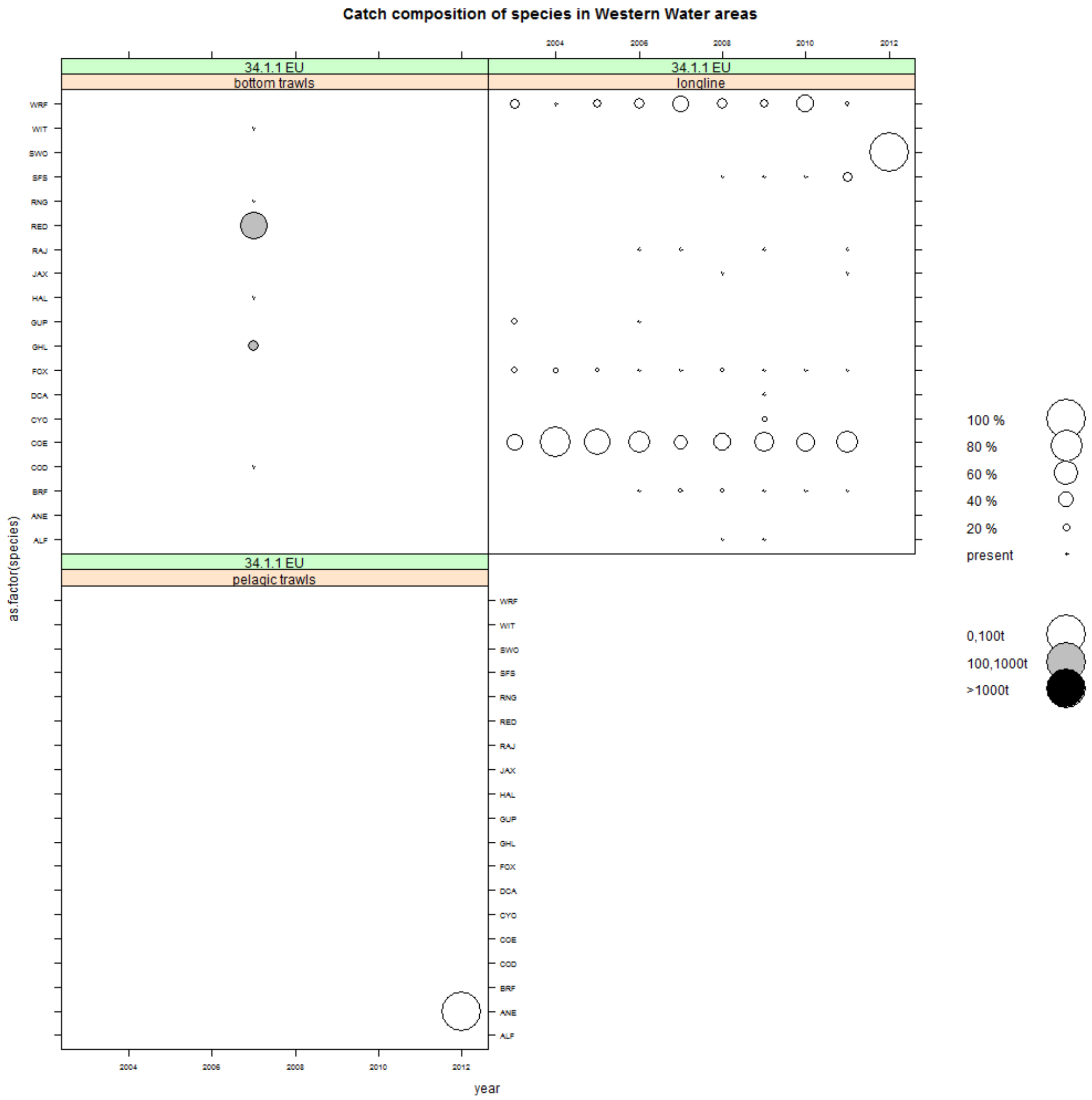


Figure 5.9.2.15.2 Landings composition by gear (countries combined) Western waters CECAF Area 34.1.1 (EU). Size of circles represents relative contribution to landings, shading indicates quantity.

Western Waters 34.1.1 non EU

Portugal has landed small amounts of Conger eel and Wreckfish through the time series. Since 2007 regular landings of Bluemouth redfish and occasional landings of Greater forkbeard and Rajidae are reported as well as Silver scabbardfish in 2012.

Lithuania reported 130 tonnes of Mackerel from pelagic trawls for 2012.

Table 5.9.2.15.5. Top demersal species landed (tonnes) within CECAF Area 34.1.1 non-EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.1.1 NON EU	COE		9		4		13	13	14	16	14	40
34.1.1 NON EU	SFS											13
34.1.1 NON EU	WRF		7		2		6	13	10	7	10	9
34.1.1 NON EU	FOX		4					1		2	2	4
34.1.1 NON EU	BRF						4	2	8	5	9	1
34.1.1 NON EU	RAJ							5	1			1

Table 5.9.2.15.6. Scallop and crab species by gear landed within CECAF Area 34.1.1 non-EU, 2003-2012. Values are landings in tonnes. The ranking is based according to the last year landings.

No data provided.

Table 5.9.2.15.7. Top pelagic species landed (tonnes) within CECAF Area 34.1.1 non-EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.1.1 NON EU	MAC	L										131
34.1.1 NON EU	SWO	L										1

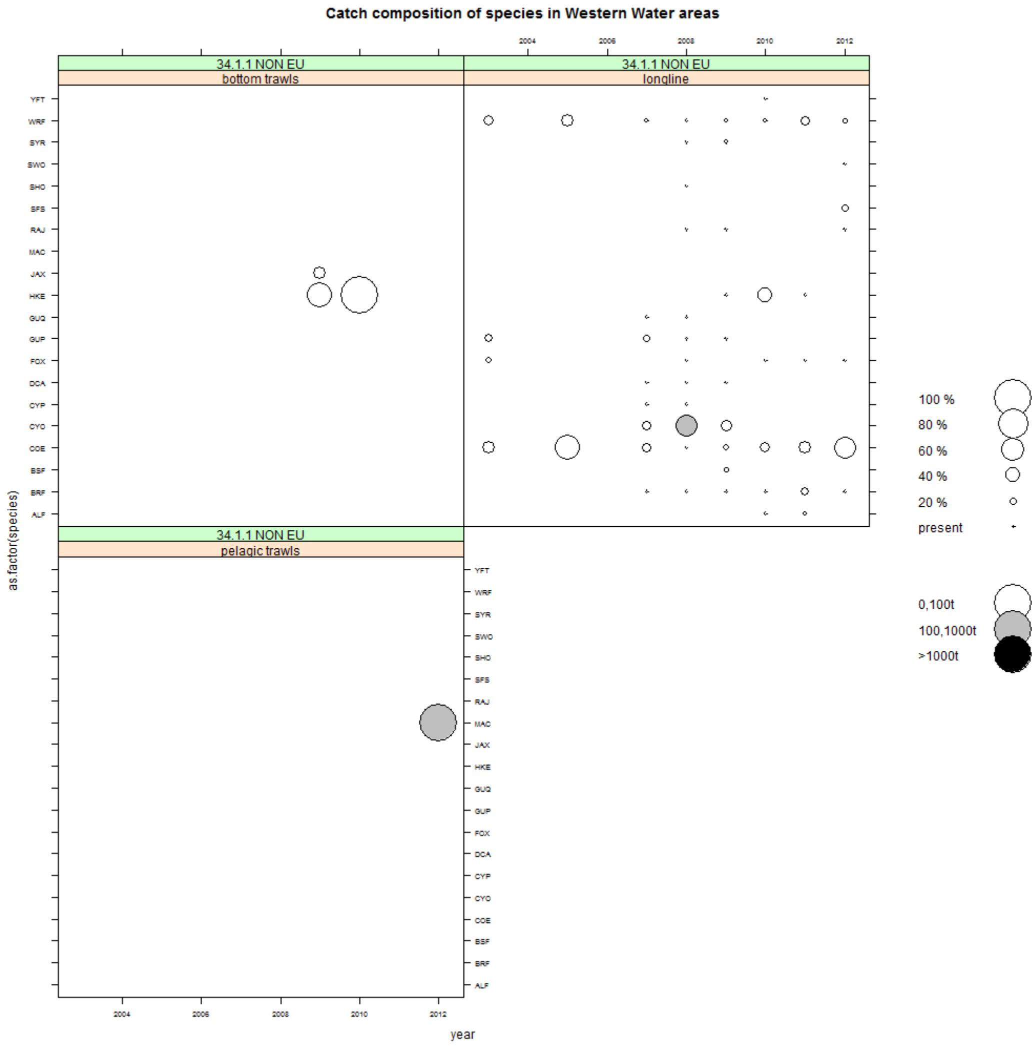


Figure 5.9.2.15.3 Landings composition by gear (countries combined) Western waters CECAF Area 34.1.1 non-EU. Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.2.16 Catches in CECAF area 34.1.2 by fisheries and Member States

Deepwater 34.1.2 EU

Portugal revised its data in 2012 and now shows landings in this area for the last three years. The main species are Black scabbard fish and Leafscale gulper shark caught using longlines by vessels less than 15m. They also report small landings of Conger eel and occasional landings of Alfonsinos and Wreckfish

Table 5.9.2.16.1 Top 5 deepwater species landed in CECAF Area 34.1.2 (EU). The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.1.2 EU	BSF	L	0	2	0	0	0	0	0	1792	1873	1657
34.1.2 EU	GUQ	L	0	0	0	0	0	0	0	185	170	119
34.1.2 EU	COE	L	0	5	7	8	9	13	14	5	1	8
34.1.2 EU	ALF	L	0	0	0	0	0	0	2	1	9	6
34.1.2 EU	WRF	L	0	4	2	5	11	7	10	2	0	6

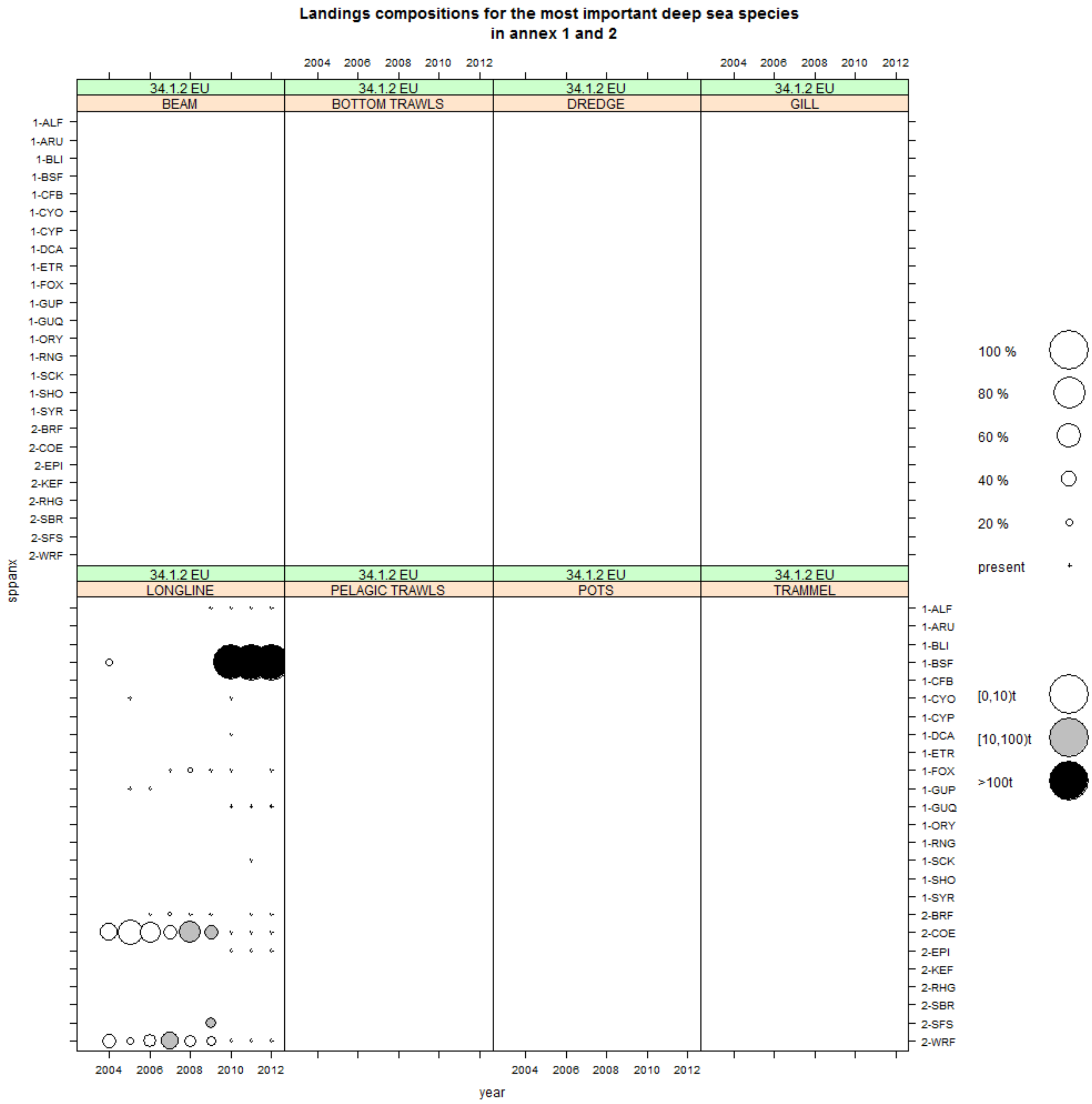


Figure 5.9.2.16.1 Catches of Annex 1&2 Deep Sea species (tonnes) 2003-2012 by gear CECAF Area 34.1.2 (EU).

Western Waters 34.1.2 EU

The revised Portuguese data shows recent large demersal landings for longlines. The main species landed are Black scabbardfish followed by Leafscale gulper shark. Smaller amounts of Conger eel and Wreckfish have been landed throughout the time series.

Small amounts of pelagic have been landed since 2010.

Table 5.9.2.16.2. Top demersal species landed (tonnes) within CECAF Area 34.1.2 EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.1.2 EU	BSF	L		2						1792	1873	1657
34.1.2 EU	GUQ	L								185	170	119
34.1.2 EU	COE	L	2	10	20	7	15	14	26	22	45	50
34.1.2 EU	WRF	L	2	3	5	4	14	9	17	7	8	16
34.1.2 EU	RAJ	L							1		2	4

Table 5.9.2.16.3. Scallop and crab species by gear landed within CECAF Area 34.1.2 EU, 2003-2012. Values are landings in tonnes. The ranking is based according to the last year landings.

No data provided.

Table 5.9.2.16.4. Top pelagic species landed (tonnes) within CECAF Area 34.1.2 EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.1.2 EU	BET	L								0	0	127
34.1.2 EU	SWO	L								2	3	25
34.1.2 EU	MAC	L										11
34.1.2 EU	ALB	L								0	0	1
34.1.2 EU	YFT	L										0

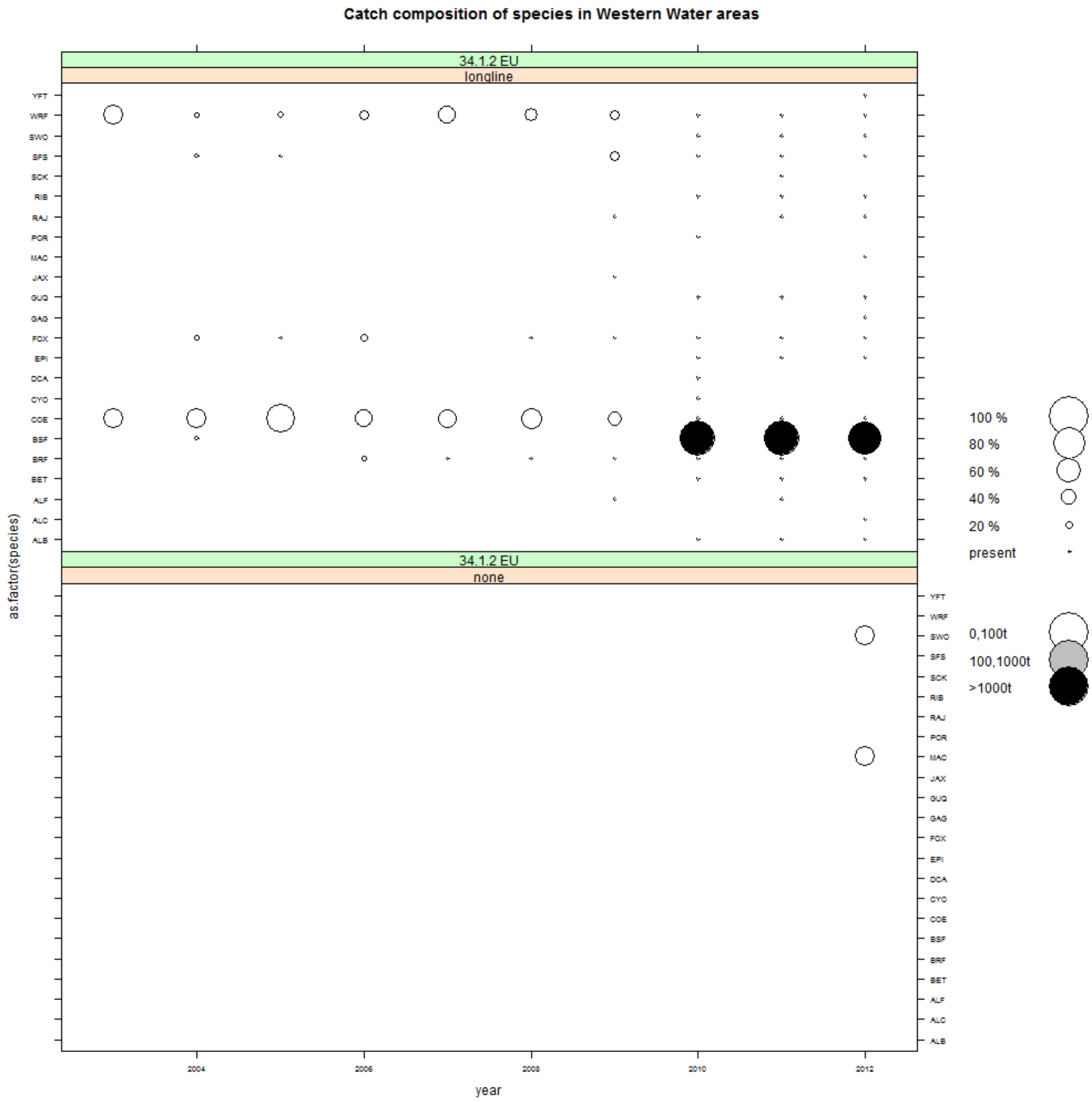


Figure 5.9.2.16.2 Landings composition by gear (countries combined) Western waters CECAF Area 34.1.2 (EU). Size of circles represents relative contribution to landings, shading indicates quantity.

Western Waters 34.1.2 non EU

In 2012 Spain reported some landings of Bigeye tuna from longlines, as well as very small amounts of Mackerel and Swordfish.

Table 5.9.2.16.5. Top pelagic species landed within CECAF Area 34.1.2 (non EU), 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.1.2 NON EU	BET	L										15
34.1.2 NON EU	MAC	L										1
34.1.2 NON EU	SWO	L										1

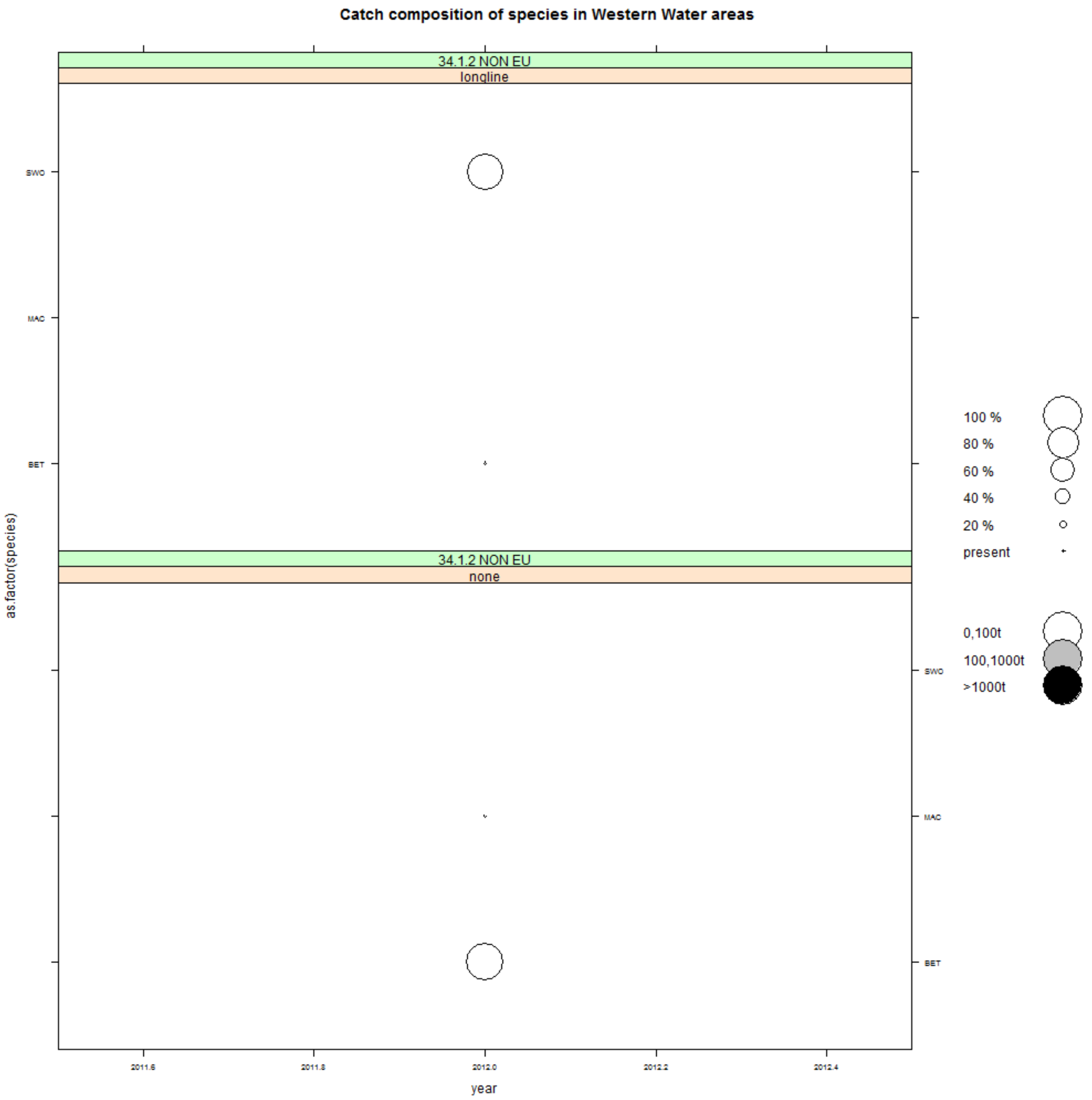


Figure 5.9.2.16.3 Landings composition by gear (countries combined) Western waters CECAF Area 34.1.2 (non EU). Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.2.17 Catches in CECAF area 34.1.3 by fisheries and Member States

Deepwater 34.1.3

Spain reported landings for this area for 2012. All landings were by bottom trawl.

Table 5.9.2.17.1. Top pelagic species landed (tonnes) within CECAF Area 34.1.3 non- EU, 2003-2012. The ranking is based according to the last year landings.

Area	Species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.1.3 non EU	BSF	L										14
34.1.3 non EU	SFS	L										5
34.1.3 non EU	FOX	L										0
34.1.3 non EU	BRF	L										0
34.1.3 non EU	ORY	L										0

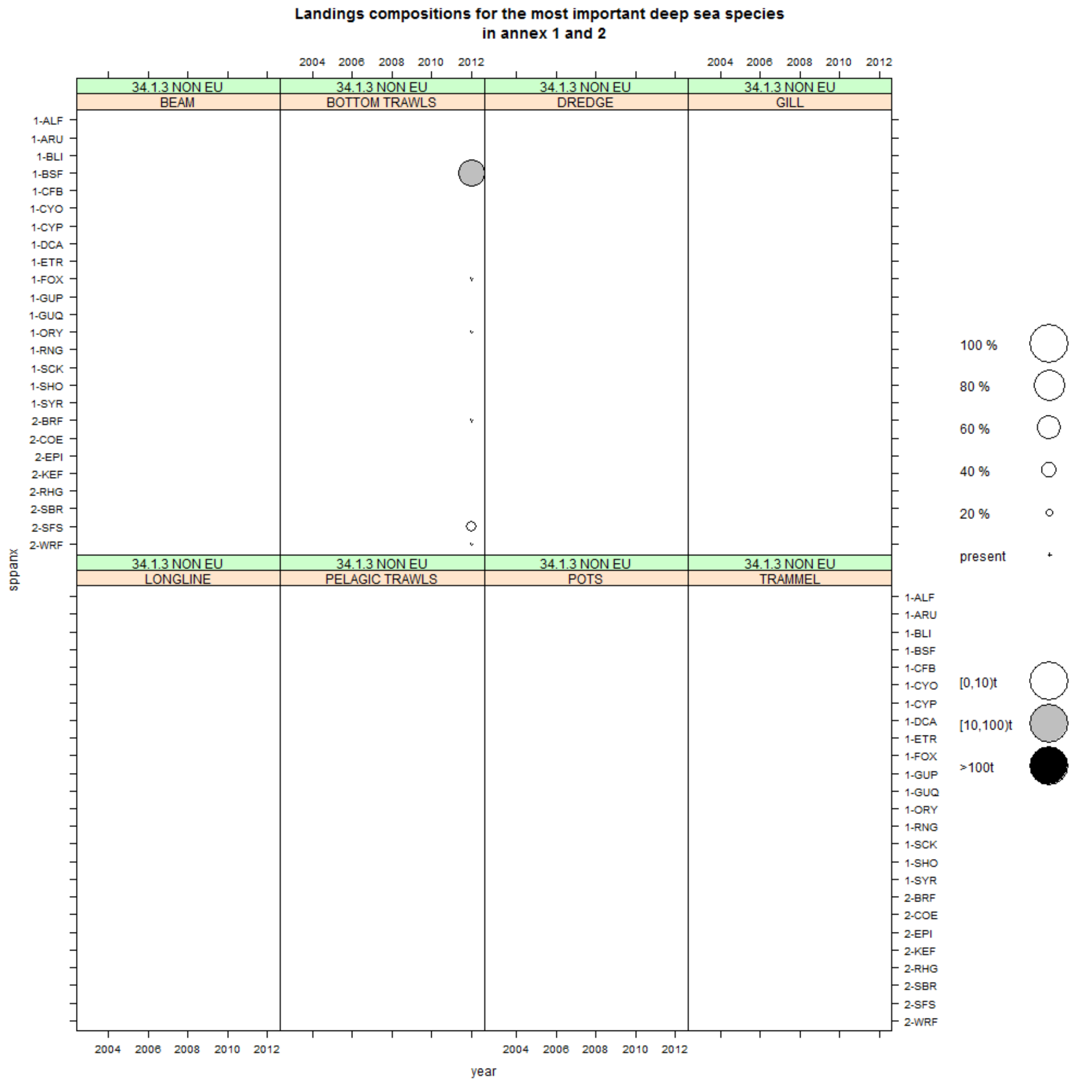


Figure 5.9.2.17.1 Catches of Annex 1&2 Deep Sea species (tonnes) 2003-2012 by gear CECAF Area 34.1.3 (non EU).

Western Waters 34.1.3

No data was presented for this area.

5.9.2.18 Catches in CECAF area 34.2 by fisheries and Member States

Deepwater 34.2.0 EU

Portugal submitted revised data showing small landings in this area for the last three years, all using longline.

Table 5.9.2.18.1 Top 5 deepwater species landed in CECAF Area 34.2 (EU). The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.2.0 EU	SBR	L	0	0	0	0	0	0	0	1	0	9
34.2.0 EU	SFS	L	0	0	0	0	0	0	0	0	0	9
34.2.0 EU	WRF	L	0	0	0	0	0	0	0	12	1	3

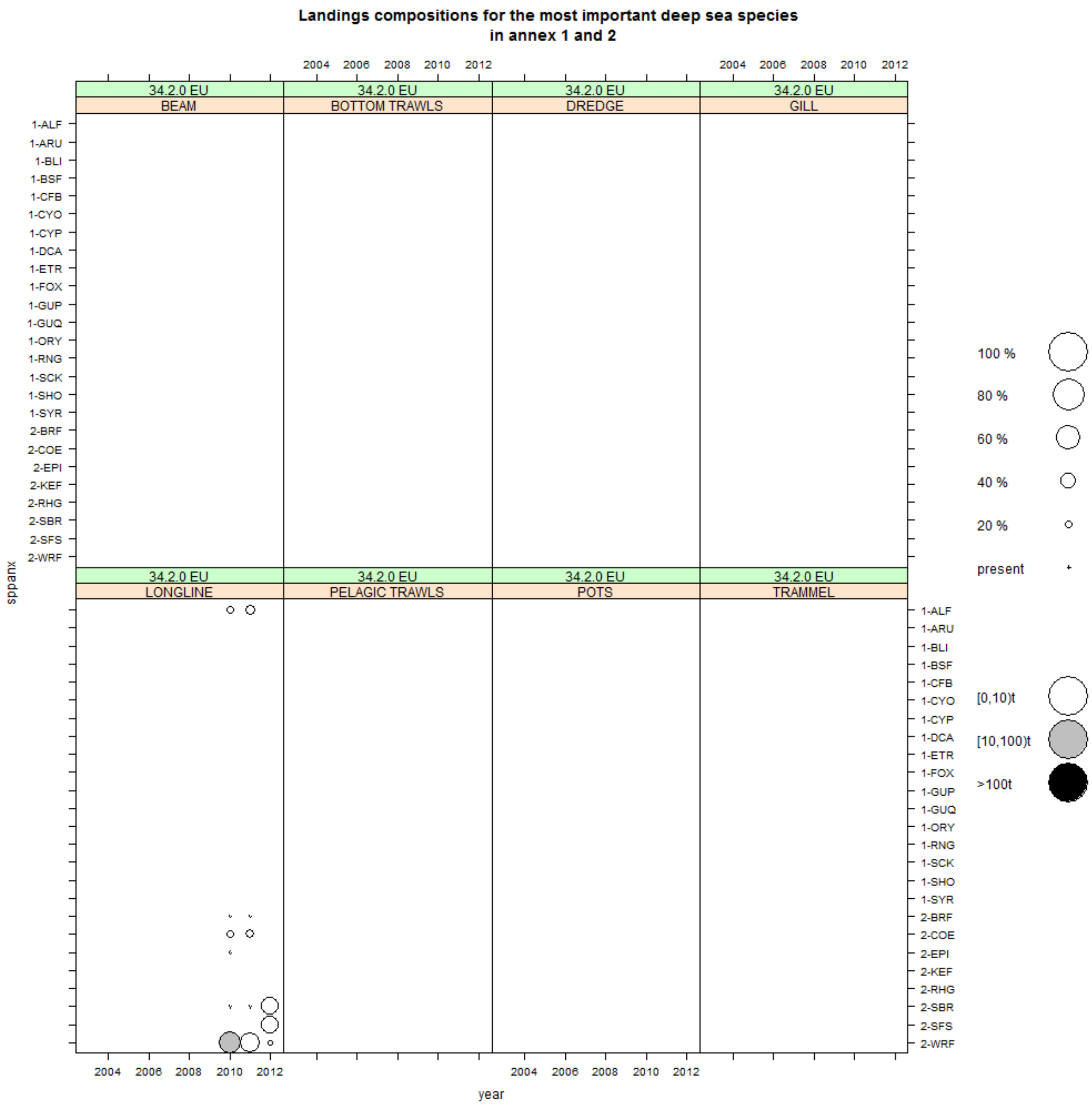


Figure 5.9.2.18.1 Catches of Annex 1&2 Deep Sea species (tonnes) 2003-2012 by gear CECAF Area 34.2 (EU).

Western Waters 34.2.0 EU

In 2012 Spain reported small landings of Swordfish and Bigeye tuna caught using longlines

Table 5.9.2.18.2. Top pelagic species landed (tonnes) within CECAF Area 34.2.0 EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.2.0 EU	SWO	L										36
34.2.0 EU	BET	L									2	7
34.2.0 EU	ALB	L										0
34.2.0 EU	YFT	L										0

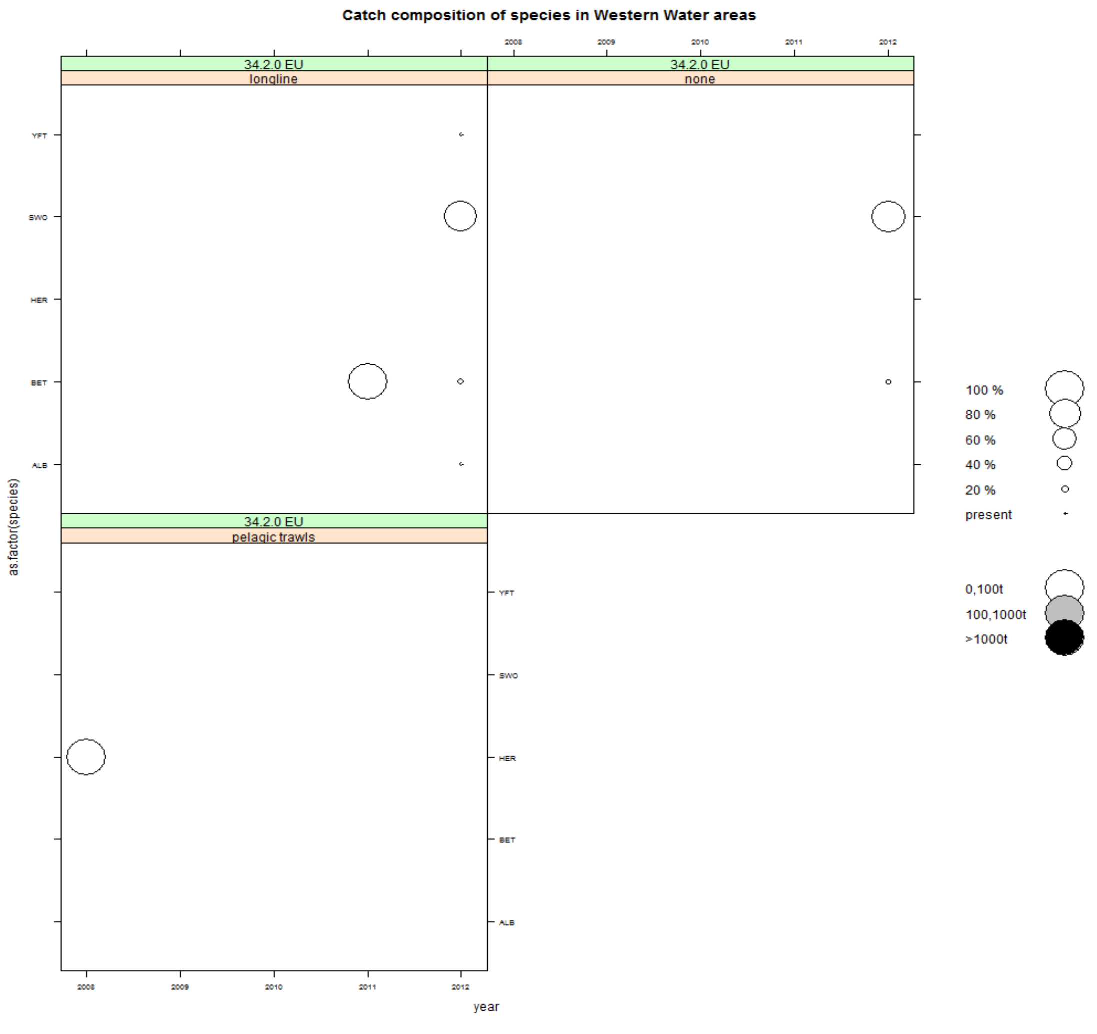


Figure 5.9.2.18.2 Landings composition by gear (countries combined) Western waters CECAF Area 34.2.0 EU. Size of circles represents relative contribution to landings, shading indicates quantity.

Deepwater 34.2.0 non EU

Portugal submitted revised data showing small landings in this area for 2013, all using longline.

Table 5.9.2.18.3 Top 5 deepwater species landed in CECAF Area 34.2 (non EU). The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.2.0 NON EU	COE	L	0	0	0	0	0	0	0	0	0	12
34.2.0 NON EU	BRF	L	0	0	0	0	0	0	0	0	0	7
34.2.0 NON EU	WRF	L	0	0	0	0	0	0	0	0	0	7
34.2.0 NON EU	FOX	L	0	0	0	0	0	0	0	0	0	1
34.2.0 NON EU	SCK	L	0	0	0	0	0	0	0	0	0	1

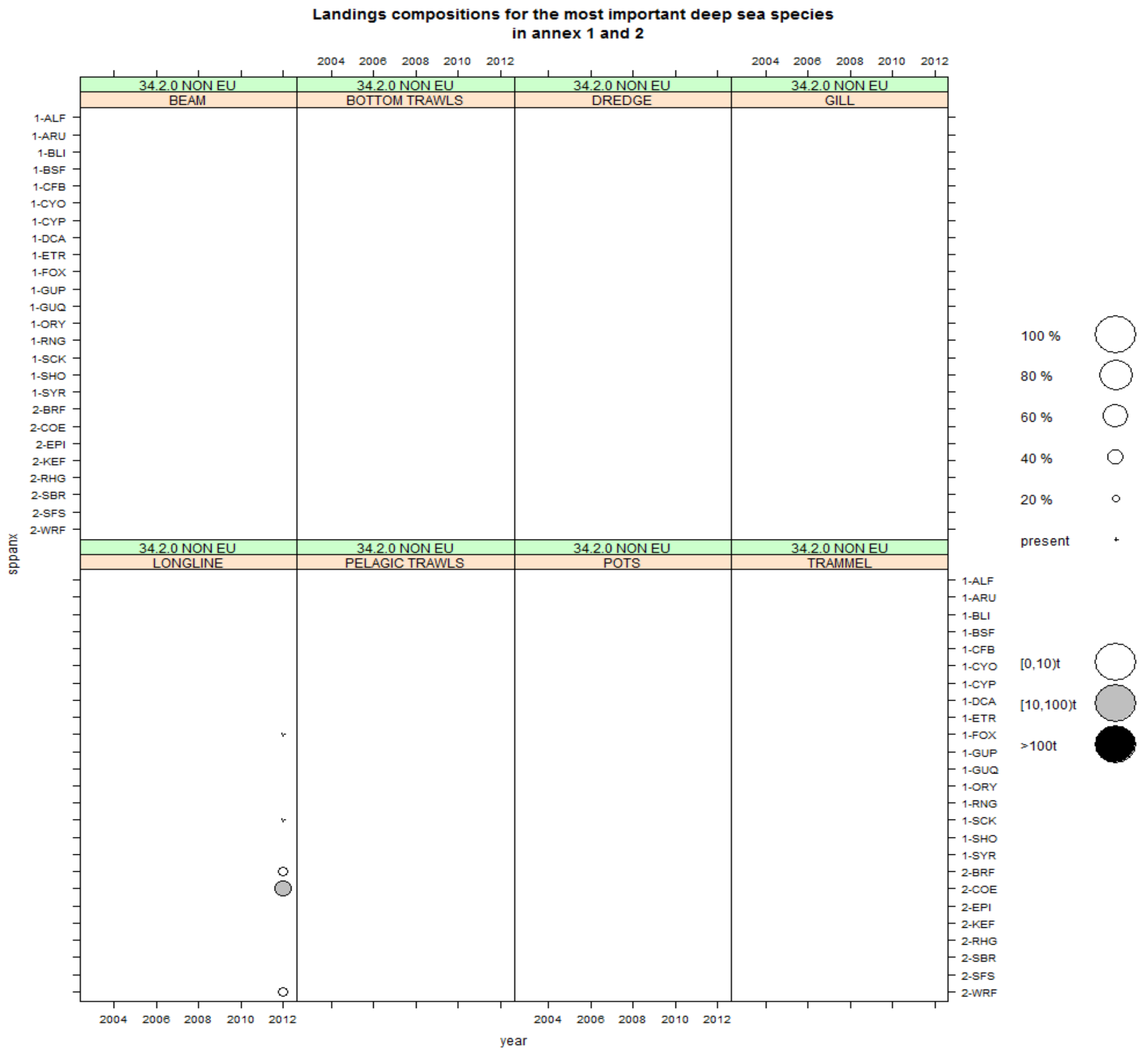


Figure 5.9.2.18.3 Catches of Annex 1&2 Deep Sea species (tonnes) 2003-2012 by gear CECAF Area 34.2 (non EU).

Western Waters 34.2.0 non-EU

Small landings of demersal fish have been reported by Portugal

In 2012 Spain reported landings for Swordfish and other tuna species caught using longlines. Lithuania reported very small landings of Mackerel and Horse mackerel caught using pelagic trawls.

Table 5.9.2.18.4. Top demersal species landed (tonnes) within CECAF Area 34.2.0 non-EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.2.0 non EU	COE	L				6	9	4		15	10	12
34.2.0 non EU	BRF	L					1			6	2	7
34.2.0 non EU	WRF	L				14	13	4		8	6	7
34.2.0 non EU	RAJ	L								4		3

Table 5.9.2.18.5. Scallop and crab species by gear landed within CECAF Area 34.2.0 non-EU, 2003-2012. Values are landings in tonnes. The ranking is based according to the last year landings.

No data provided

Table 5.9.2.18.6. Top pelagic species landed (tonnes) within CECAF Area 34.2.0 non-EU, 2003-2012. The ranking is based according to the last year landings.

area	species	Type	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
34.2.0 NON EU	SWO	L			5							561
34.2.0 NON EU	BET	L			1							50
34.2.0 NON EU	YFT	L										10
34.2.0 NON EU	JAX	L										4
34.2.0 NON EU	MAC	L										1
34.2.0 NON EU	ALB	L										0

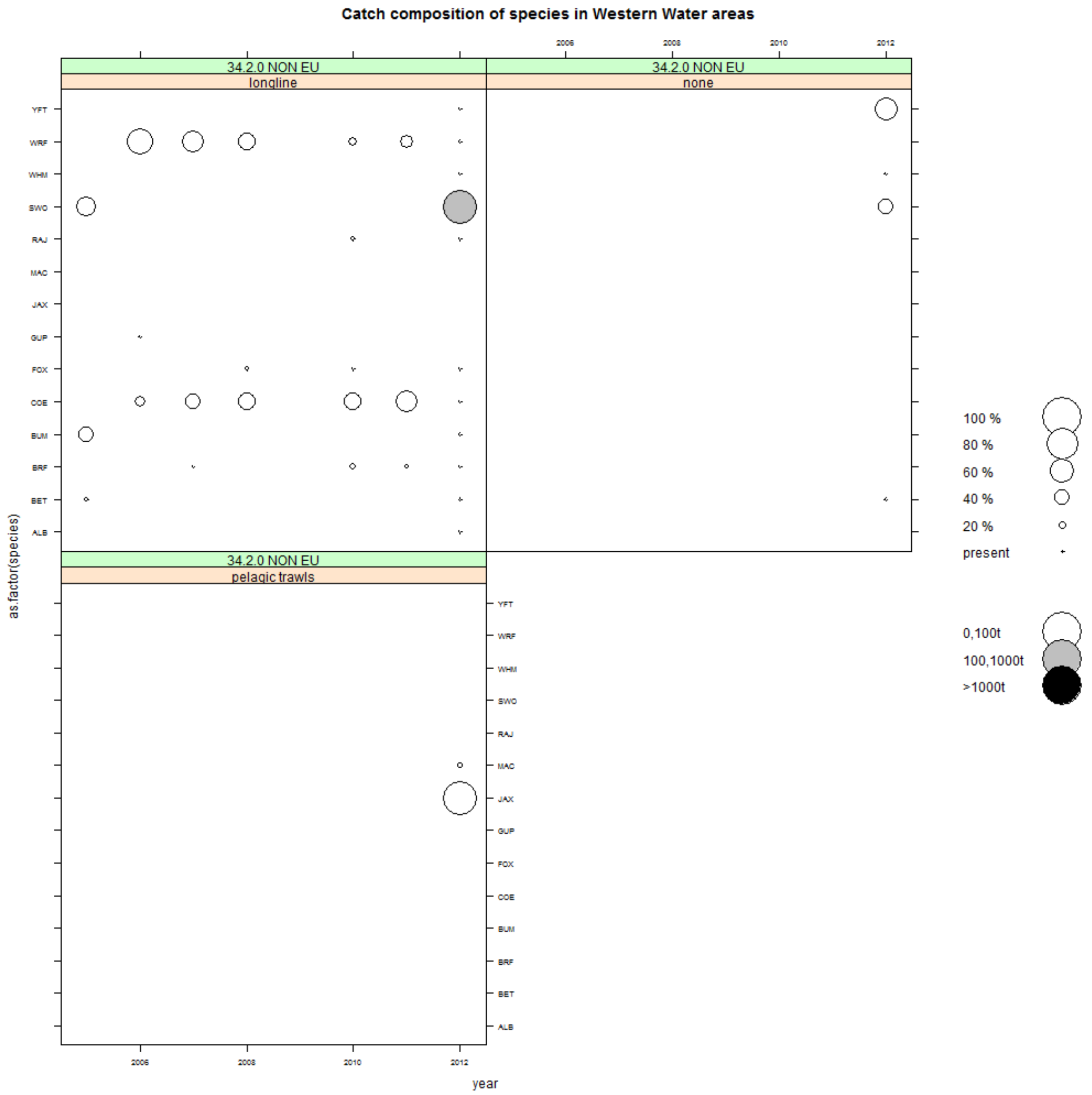


Figure 5.9.2.18.4 Landings composition by gear (countries combined) Western waters CECAF Area 34.2.0 non-EU. Size of circles represents relative contribution to landings, shading indicates quantity.

5.9.3 ToR 1c CPUE and LPUE (landings and discards) by area

In this section of the report tables showing CPUE by gear groups (regulated and unregulated), and area are only summaries. The full tables are available on the JRC website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313.

Some of the tables and graphs presented in this section need to be treated with caution due to the fact that Spain has not provided data for 2010 and 2011. This will mainly affect information from ICES area VIII to CECAF area 34.2 0 where Spain is one of the main participators. It should also be noted that discard estimates are generally scarce. However, CPUE is presented interpreting lack of discard information as no discards. LPUE values are also provided on the internet site: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

From 2012 Greenland halibut has now been included as a deepwater species. Their importance will be reflected in the Deepwater species tables, mainly in the northern regions.

The tables included in this TOR are prepared using the top deepwater species in the deepwater section and the top demersal species in the Western waters section of each Area.

5.9.3.1 CPUE in ICES area I by fisheries and Member States only linked to Deep Sea species

Area I non-EU

France reported CPUE data for 2012 for Greenland halibut.

Table 5.9.3.1.1 Area I non-EU CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	1 non EU	GHL	BOTTOM TRAWLS										28

5.9.3.2 CPUE in ICES area II by fisheries and Member States only linked to Deep Sea species

Area II EU

Limited CPUE data are available for deepwater stocks in Area II EU, Table 5.9.2.3.1. Data for Greenland halibut from bottom trawls fluctuates through the time series, as does Blue ling, albeit at lower levels. Data for the other species is patchy.

Table 5.9.3.2.1 Area II EU CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	2 EU	ARU	BOTTOM TRAWLS	22							108	5	0
			PELAGIC TRAWLS		2290								
		BLI	BOTTOM TRAWLS	14	16	46	11	47	74	62	22	39	35
		CMO	BOTTOM TRAWLS	1									1
		COE	BOTTOM TRAWLS	0	0			0	0	0	0		0
		GHL	BOTTOM TRAWLS	502	214	429	96	250	202	356	486	339	261
			GILL		11			2	3				

Area II non-EU

There is only CPUE data relating to Greenland halibut available for area II non-EU.

Table 5.9.3.2.2 Area II EU CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	2 non EU	GHL	BOTTOM TRAWLS	29	1	7	5	3	10	19	0		7

5.9.3.3 CPUE in ICES area III by fisheries and Member States only linked to Deep Sea species

Area III no Baltic

Very limited CPUE data are available for deepwater stocks in Area III no Baltic, table 5.9.3.3.1. All the data relates to bottom trawls. CPUE for Roundnose grenadier increased markedly up to 2006. In recent years data has been presented again on roundnose grenadier, and blue ling, although in the case of roundnose grenadier at a much lower level than prior to 2006. CPUE for blue ling showed an increase in 2012. Data were reported for Black scabbard for the first time.

Table 5.9.3.3.1 Area III no Baltic CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	3 no Baltic	BLI	BOTTOM TRAWLS	74	34	123	270	83		19	0	40	267
		BSF	BOTTOM TRAWLS										1472
		RNG	BOTTOM TRAWLS	18781	21506	37297	13951734			207	227	8656	35

5.9.3.4 CPUE in ICES area IV by fisheries and Member States only linked to Deep Sea species

Area IV

CPUE data for deepwater stocks in Area IV are presented in table 5.9.3.4.1. The data relates primarily to bottom trawls. CPUE data for greater argentine ceased after 2006, apart from one record in 2010, before being recorded again in 2012. CPUEs for Blue ling have decreased since the start of the time series, apart from a small spike in 2010, and are now at very low levels. Conger eel is targeted by bottom trawl although data is also presented for longlines between 2008 and 2011. CPUEs for Greenland halibut have fluctuated through the time series.

Table 5.9.3.4.1 Area IV CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	4	ARU	BOTTOM TRAWLS	9	5		9		0		6	0	14
			PELAGIC TRAWLS	19	63	1	20						47
		BLI	BOTTOM TRAWLS	58	54	17	7	3	10	11	31	3	3
			GILL	0	0								
		CMO	BOTTOM TRAWLS	3	1	8	0	0	0	0	6	1	5
			GILL			0							
		COE	BEAM	7	3								
			BOTTOM TRAWLS	4	7	6	4	7	6	9	9	12	6
			GILL	0						0			
			LONGLINE	2	2	4	4		30	37	47	34	
		GHL	BOTTOM TRAWLS	65	78	3	7	5	32	98	37	52	28
			GILL	0	0	2	0	0	0	1	1		1

5.9.3.5 CPUE in ICES area V by fisheries and Member States

Deepwater V EU

CPUE data available for deepwater stocks in Area V EU are presented in table 5.9.3.5.1. CPUEs were highest for bottom trawls, targeting blue ling, roundnose grenadier, Greenland halibut, black scabbard and, in recent years, *Chimaera monstrosa*. Effort for beam and pelagic trawls ceased in 2004 and for gill nets in 2009.

CPUEs for blue ling were stable through the time series but increased greatly in 2011 and 2012. A similar increase was recorded for black scabbard whereas while roundnose grenadier figures increased in 2010 they dropped rapidly in 2011. Greenland halibut also peaked in 2010 but has been in decline since. CPUEs have been reported for *Chimaera monstrosa* since 2010.

Table 5.9.3.5.1 Area V EU DS CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	5 EU	BLI	BEAM	361	1065								
			BOTTOM TRAWLS	711	713	683	683	726	733	723	856	2966	3015
			GILL	18	0	40	50	5	14	14			
		BSF	BEAM		105								
			BOTTOM TRAWLS	116	67	76	80	86	181	179	267	779	865
		CMO	BOTTOM TRAWLS	1	0						73	117	78
		GHL	BEAM		5								
			BOTTOM TRAWLS	73	71	23	12	9	80	145	316	114	15
			GILL	15	9	16							
		RNG	BEAM	349	1034								
			BOTTOM TRAWLS	524	564	754	792	692	503	497	741	81	173

Western Waters V EU

No data presented in this section as all species relates to the top 5 deep sea species in the area (see former section).

CPUEs in the western waters of area V EU were highest for bottom trawls, although the largest LPUE values recorded are for anglerfish caught by gill nets (Table 5.9.3.5.2). However no information has been reported for this for 2010 and 2011. Since 2008 greater CPUEs are being recorded for Greenland halibut and halibut in bottom trawls.

Table 5.9.3.5.2 Area V EU WW CPUE (g/(kW*days)), 2003-2012.

No data presented, see former table 5.9.3.5.1.

Deepwater V non-EU

Once again CPUEs in area V non-EU were highest for bottom trawls. In 2003 and 2004 high CPUEs were presented for beam trawl. It is quite possible that this should be reclassified as bottom trawl, (Table 5.9.3.5.3).

CPUEs for Greenland halibut increased between 2007 and 2009 before dropping again in 2012. Those for roundnose grenadier were consistent up to 2009 but have decreased since.

Table 5.9.3.5.3 Area V non-EU DS CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	5 non EU	GHL	BEAM	64	1								
			BOTTOM TRAWLS	95	38	30	51	7	545	894	1565	2290	1297
		RNG	BEAM	1247	498								
			BOTTOM TRAWLS	206	187	141	129	164	129	101	32	7	5

Western waters V non-EU

CPUEs in the western waters of area V EU were highest for bottom trawls, Table 5.9.3.5.4.

CPUEs for cod peaked in 2008 and have been in decline since. Low CPUE data is reported for Wolffish.

Table 5 9.3.5.4 Area V non-EU WW CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
WW	5 non EU	CAT	BOTTOM TRAWLS	13	13	10	10	1	0	8	9	12	10
		COD	BOTTOM TRAWLS	281	452	466	432	579	1252	621	397	2	29
			LONGLINE	261									
			PELAGIC TRAWLS					2					

5.9.3.6 CPUE in ICES area VI by fisheries and Member States

Deepwater VI EU

Spanish data is lacking for this area for 2010 and 2011 which causes difficulties analysing the data.

Once again bottom trawl is the dominant method used in this area, (Table 5.9.3.6.1).

CPUEs for blue ling have been very stable through the time series whereas those for black scabbard have begun to increase in the last two years. CPUEs for roundnose grenadier declined up to 2006 but have been relatively stable since. CPUEs for *Chimaera monstrosa* rose in 2010 and appear to have stabilised in since.

CPUEs for greater argentine caught by pelagic trawl fluctuated between 2004 and 2007, before ceasing. In 2011 and 2012 however the Netherlands and Germany revived the fishery.

Once again it is quite possible that beam trawl effort in 2003 and 2004 should be reclassified as bottom trawl.

Table 5.9.3.6.1 Area VI EU DS CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	6 EU	ARU	BOTTOM TRAWLS	10	2	5	1		0	1	5	1	2
			PELAGIC TRAWLS		316	72	153	153			7	2252	2771
		BLI	BEAM	493	258								
			BOTTOM TRAWLS	321	389	373	484	443	386	386	359	413	355
			GILL	31	5	4	5	15	80	100			
			LONGLINE	2	0	1	9	4	1	32		2	7
		BSF	BEAM	116	41								
			BOTTOM TRAWLS	343	342	365	343	443	538	492	446	553	556
			GILL						37	47			
			LONGLINE			0							
		CMO	BOTTOM TRAWLS	3	0	0	1	2	2		73	82	89
		RNG	BEAM	1851	1021								
			BOTTOM TRAWLS	550	540	416	369	341	319	287	324	316	352
			GILL	0					143	179			
			LONGLINE		0								

Western Waters VI EU

Bottom trawls are the main fishery in this area, followed by longlining and gill nets.

Table 5.9.3.6.2 presents CPUE data for the four most important demersal species. Discarding appears to take place in the bottom trawl fleet for anglerfish, haddock, hake and saithe.

Hake longline and gill net CPUEs are showing an increasing trend, with gill nets peaking in 2010, but staying at high levels since. Longline CPUEs are continuing to increase with 2012 being the highest in the time series. CPUEs for bottom trawl have been reasonably stable since 2004.

Saithe CPUEs in the gill net fishery began increasing in 2006, and reached their highest value in 2012. CPUEs for the bottom trawl fishery reached a peak in 2006 before going into decline. Figures showed an increase once more in 2012.

Nephrops CPUEs for pots have remained quite stable through the series.

Haddock bottom trawl CPUEs have been in decline since a peak in 2006, bar 2010 when a spike in CPUE occurred.

Table 5.9.3.6.2 Area VI EU WW CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	REG_GEAR	SPECIES	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
WW	6 EU	BEAM	HAD	12	22	5	11	38					
			HKE		1	3	2						
			NEP	10									
			POK	0	18		14	247					
		BOTTOM TRAWLS	HAD	660	481	419	901	742	611	699	646	422	547
			HKE	121	226	262	77	242	238	131	208	190	207
			NEP	390	427	502	772	968	906	744	776	965	1056
			POK	725	309	944	1075	622	651	512	486	682	812
		DREDGE	HAD		0								0
			HKE		0	0							
			NEP	1	2	3	3						1
			POK										6
		GILL	HAD	2	0	3	10	18	16	19	11	9	6
			HKE	8	12	27	202	605	1127	1254	1487	1313	1202
			NEP	0	1								
			POK	16	4	3	117	499	372	414	423	279	750
		LONGLINE	HAD	1	1	7	6	4	1	0		0	
			HKE	283	489	1117	1330	1490	1357	2089	2603	3851	4598
			NEP		0							0	
			POK	4	3	6	8	13	9	4	2	8	2
		none	HAD										20
			HKE					2					11
			NEP	0	5	1						0	10
		PELAGIC TRAWLS	HAD	1			0	0			1	1	
			HKE	1		0	0			36	14	0	7
			NEP							0		0	0
			POK	2		0	0	0			0	0	
		POTS	HAD	6	3	0	0		0				0
			HKE	0	0		0						0
			NEP	163	187	206	200	153	189	199	192	190	224
			POK		0				0			0	

Deepwater VI non-EU

CPUEs from the bottom trawl have been very low in recent years, Table 5.9.3.6.3. In 2012 data was reported for a number of species by Spain, with Silver scabbard fish being the most important, followed by *Alepocephalus bairdii* and roundnose grenadier.

Data for deepwater red crab from gill nets ceased in 2007, and data was reported for 2008 for pots.

Table 5.9.3.6.3 Area VI non-EU DS CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	6 non EU	ALC	BOTTOM TRAWLS			109	176						1494
		BSF	BOTTOM TRAWLS	1	1	130	7						305
		KEF	GILL	69	497	253	4	714					
			POTS						1435				
		RHG	BOTTOM TRAWLS										849
		RNG	BOTTOM TRAWLS	2	0	158	72						1149
		SFS	BOTTOM TRAWLS										2916

Western waters VI non-EU

CPUEs for anglerfish have fluctuated throughout the time series. CPUE for gill net peaked and ceased in 2009. Portugal reported data for longlines in 2004.

Table 5.9.3.6.4 Area VI non-EU WW CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	REG_GEAR	SPECIES	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
WW	6 non EU	BOTTOM TRAWLS	ANF	34	30	52	77	166	128	86	284	365	108
		GILL	ANF	53	169	1152	745	891		1516			
		LONGLINE	ANF		162								

5.9.3.7 CPUE in ICES area VII excluding VIId by fisheries and Member States

Deepwater VII EU no VIId

Spanish data is lacking for this area for 2010 and 2011 which causes difficulties analysing the data.

CPUEs for conger eel caught on longline peaked between 2004 and 2005 but have been in decline since. CPUEs in 2012 increased again however, close to levels last seen in 2006, Table 5.9.3.7.1. Conger eel CPUEs from the bottom trawl fishery were stable at low levels, before an increase was noted in 2012.

CPUEs for Bluemouth redfish using longlines began increasing in 2007 and have continued to do so up to 2012. An increase was also noted for bottom trawls in 2012.

After peaking in 2006 bottom trawl CPUEs for roundnose grenadier have stabilised in recent years, at a very low level. Black scabbard CPUEs were stable for the time series, at a similar level to grenadiers, despite a spike in 2011. CPUEs for Wreckfish using longlines are on the increase since 2009, but all other methods are in decline

Table 5.9.3.7.1 Area VII EU no VIId DS CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	7 EU no 7d	BRF	BOTTOM TRAWLS	4	3	8	11	5	6	8	2	5	41
			GILL	3	8	8	16	5	9	13	3	2	3
			LONGLINE	17	5	3	4	34	40	96	185	348	380
			none										86
			PELAGIC TRAWLS	0									
		BSF	BOTTOM TRAWLS	46	59	33	72	43	37	44	41	71	30
			LONGLINE	7		0		0		3			8
			none										5
			PELAGIC TRAWLS		7		8					1	
		COE	BEAM	22	30	37	31	31	39	17	17	29	17
			BOTTOM TRAWLS	47	39	21	13	19	29	35	46	37	120
			GILL	2	2	4	6	8	4	8	6	5	4
			LONGLINE	531	814	808	424	187	104	94	51	40	326
			none										58
			PELAGIC TRAWLS	5									
			POTS		84						6		
			TRAMMEL	0	1	12	1	36	17	9	28	105	13
		RNG	BOTTOM TRAWLS	49	42	30	65	36	25	30	17	18	10
			GILL			1							
			LONGLINE		0								
		WRF	BEAM								0		
			BOTTOM TRAWLS	0	0	0	0	0	0	0	0		0
			GILL	0	0	0	1	2	4	11	2	2	1
			LONGLINE		2	5	2	3	0	16	21	37	43

Western Waters VII EU no VIId

Spanish data is lacking for this area for 2010 and 2011 which causes difficulties analysing the data.

CPUE information is presented for this area, Tables 5.9.3.7.2. Discarding appears to take place in the bottom trawl fleet for haddock, hake and whiting, with a small amount for anglerfish also.

For anglerfish gill net CPUEs showed an increase up to 2009, but have declined since, while bottom trawl figures were reasonably stable up to 2009 but have begun to increase since. Trammel nets had the highest CPUEs up to 2009.

Haddock bottom trawl CPUEs were stable to 2008, but are increasing since. Beam trawl CPUE has begun increasing since 2008.

Gill net and longline CPUEs for hake are increasing rapidly in the last number of years. CPUEs for bottom trawls were stable at low levels, but have also begun increasing since 2010.

Bottom trawl CPUEs for *Nephrops* had been increasing gradually between 2004 and 2010, but have started to increase at a faster rate in the last two years.

Table 5.9.3.7.2 Area VII EU no VIId WW CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
WW	7 EU no 7d	ANF	BEAM	159	195	197	243	300	331	415	437	481	578
			BOTTOM TRAWLS	229	230	223	252	280	264	302	199	359	430
			DREDGE	16	9	11	15	12	8	13	21	21	24
			GILL	327	376	520	428	546	751	767	406	508	523
			LONGLINE	10	2	7	1	2	0	0	0	0	0
			none	2	15	13	2	632	2	2		38	263
			PELAGIC TRAWLS	0	3	1	1	1	1	1	1	1	6
			POTS	2	1	0	1	1	1	0	1	0	3
			TRAMMEL	965	1251	1163	747	785	1111	1134	185	638	789
		HAD	BEAM	26	31	34	30	49	125	85	72	191	218
			BOTTOM TRAWLS	332	334	231	237	227	320	465	390	611	1959
			DREDGE	0	1	0	0	0	0	0	0	2	0
			GILL	26	23	27	30	30	23	30	28	50	43
			LONGLINE	8	12	16	9	5	1	0	3	5	1
			none					7	2			58	118
			PELAGIC TRAWLS	1	50	1	0	0	0	0	0	3	18
			POTS	0	2	0	0	0	0	0	0	1	0
			TRAMMEL	0	0	0	0	1	0	1	2	2	2
		HKE	BEAM	8	7	21	15	10	10	10	11	9	9
			BOTTOM TRAWLS	72	72	112	76	99	81	56	79	95	136
			DREDGE	0	0	0	0	0	0	0	0	0	0
			GILL	342	333	352	427	335	278	427	978	1653	1868
			LONGLINE	50	33	73	352	633	903	711	953	1028	2037
			none			23		24				422	235
			PELAGIC TRAWLS	1	1	0	0	0	0	1	6	42	18
			POTS	0	1	0	0	0	0	0	0	1	0
			TRAMMEL	6	3	4	5	4	4	2	74	8	48
		NEP	BEAM	5	9	7	8	7	4	5	3	3	1
			BOTTOM TRAWLS	268	266	290	309	398	528	478	445	523	883
			DREDGE		1		0			0			
			GILL	0	3	4	1	0	1	1	0	0	1
			LONGLINE	1							0		
			none		0	64			1			1	434
			PELAGIC TRAWLS	1	7	3	0	1	0	2	0	4	3
			POTS	3	13	1	0	1	2	2	3	2	2
			TRAMMEL	1		0	0	0	0	0	2	2	0

Deepwater VII non-EU

CPUE data is very sparse from this area.

Table 5.9.3.7.1 Area VII non-EU DS CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	7 non EU	BRF	GILL		5								
			LONGLINE										133
		COE	LONGLINE										14

Western waters VII non-EU

Bar the last three years CPUE data from this area is very limited.

Table 5.9.3.7.4 Area VII non-EU WW CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
WW	7 non EU	ANF	BOTTOM TRAWLS	206	302						1	158	864
		HKE	BOTTOM TRAWLS								0	23	215
			GILL		187								
			LONGLINE										59
			PELAGIC TRAWLS								12	110	
		LEZ	BOTTOM TRAWLS		455						1		1267
		SQI	BOTTOM TRAWLS										560
		WIT	BOTTOM TRAWLS								0		284

5.9.3.8 CPUE in ICES area VIId by fisheries and Member States

Deepwater

Spanish data is lacking for this area for 2010 and 2011 which causes difficulties analysing the data.

There is limited CPUE data from this area. In the last number of years it relates primarily to bottom trawling for red (blackspot) seabream.

Table 5.9.3.8.1 Area VIId DS CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	7d	COE	BEAM	9	12	5		4	21				
			BOTTOM TRAWLS					3	7	3	2	7	35
			LONGLINE						3332	3332	452		
			PELAGIC TRAWLS			0							
		RIB	BOTTOM TRAWLS										1
		RNG	BOTTOM TRAWLS									55	90
		SBR	BEAM					26					
			BOTTOM TRAWLS					54	83	169	117	29	23

Western waters

Spanish data is lacking for this area for 2010 and 2011 which causes difficulties analysing the data.

Discarding appears to take place in the bottom trawl fleet for dab, plaice and whiting. There is also some discarding in beam trawls for dab, plaice and common sole. There is also an issue with the 2010 CPUE figures for bottom trawls with respect to dab and plaice reported by the Netherlands, France and Belgium.

Beam and bottom trawl CPUEs for plaice have shown an increase in 2011, despite the 2010 data mentioned above, Table 5.9.3.8.2. figures dropped again in 2012 however. Trammel net figures, which had been stable, increased in 2011 and 2012. Gill net levels were stable up to 2010 before peaking in 2011. The 2012 figure is close to the long term average.

Beam trawl CPUEs for Sole have fluctuated throughout the time series. Gill net CPUEs were quite stable with two large years in 2008 and 2009, but they have declined in the last number of years with 2012 being the second lowest in the time series. Trammel net figures, which had been in decline, showed an increase in 2011, and again in 2012.

Dab bottom trawl CPUEs were stable up to 2009, with a peak in 2007. As mentioned above there is an issue with the 2010 data. Figures have been decreasing since 2011, however the 2012 figure is still higher than the long term average. Beam trawl CPUEs have shown a small increase since 2010.Gill net CPUEs are stable.

Longline CPUEs for Seabass have begun to increase in recent years with 2011 and 2012 being the highest of the time series. CPUEs from pelagic trawls increased up to 2011 but dropped again in 2012. CPUEs for bottom trawls increased to 1020 and have fluctuated since.

Bottom trawl CPUEs for whiting were reasonably constant up to 2009. The CPUE increased dramatically in 2010 but has fallen back in each of the last two years.

Table 5.9.3.8.3 Area VIId WW CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
WW	7d	BSS	BEAM	1	2	2	1	1	1	1	0	0	15
			BOTTOM TRAWLS	52	47	47	40	54	63	65	178	64	100
			DREDGE	0	0	0	0	0	2	2	1	0	1
			GILL	14	16	14	17	9	11	15	40	42	24
			LONGLINE	71	59	98	106	135	151	168	122	187	186
			none	2	2		0	84	5	5		85	
			PELAGIC TRAWLS	50	68	90	50	60	47	44	112	138	43
			POTS	0	0	0	0	0	0	0	1	3	1
			TRAMMEL	14	12	9	5	6	8	8	7	7	10
		DAB	BEAM	89	44	97	69	46	58	71	96	121	117
			BOTTOM TRAWLS	169	151	51	77	136	48	53	12095	234	102
			DREDGE	0	1	1	1	0	1	1	0	0	0
			GILL	22	21	25	23	32	52	48	71	64	45
			LONGLINE	0			0				0	0	
			none	28	70		1	7	9	10			
			PELAGIC TRAWLS	1	1	1	1	0	1	1	1	2	4
			POTS	0	0	0	0	0	0		4	2	7
			TRAMMEL	21	17	20	19	43	497	23	859	93	61
		PLE	BEAM	425	505	442	393	431	524	481	670	756	593
			BOTTOM TRAWLS	126	236	82	70	56	66	65	19089	218	113
			DREDGE	13	11	17	8	6	10	10	8	8	8
			GILL	121	127	233	54	137	124	118	109	549	150
			LONGLINE	1	0	2	4	1	1	4	2	5	2
			none	92	170	158	7	22	18	19		17	
			PELAGIC TRAWLS	3	3	3	1	0	3	3	3	7	9
			POTS	0	1	0	1	1			7	6	12
			TRAMMEL	143	179	96	68	97	101	97	143	216	204
		SOL	BEAM	630	609	539	482	455	477	567	623	580	482
			BOTTOM TRAWLS	57	43	34	40	44	48	50	46	84	54
			DREDGE	7	9	13	5	2	5	6	8	7	10
			GILL	392	392	264	161	224	518	559	244	348	177
			LONGLINE	0			0		0	3	1	8	5
			none	295	287	207	57	33	39	39		66	
			PELAGIC TRAWLS	5	3	3	3	1	4	4	4	8	9
			POTS	0	0	0	0	1	0	0	5	4	19
			TRAMMEL	593	516	458	373	453	493	495	337	649	722
		WHG	BEAM	20	20	18	23	19	22	21	33	27	31
			BOTTOM TRAWLS	879	345	323	229	210	378	333	2666	1169	490
			DREDGE	1	0	0	0	0	1	1	0	0	0
			GILL	8	13	27	19	11	12	13	32	12	8
			LONGLINE		1	0	0	0	0	0	1	1	1
			none	13	18		20	87	60	61			
			PELAGIC TRAWLS	17	11	8	6	12	28	27	106	13	22
			POTS	0	0	0	0	0	0		2	6	2
			TRAMMEL	8	9	10	5	6	8	5	27	8	7

5.9.3.9 CPUE in the Biologically Sensitive Area by fisheries and Member States

Spanish data is lacking for this area for 2010 and 2011 which causes difficulties analysing the data.

Beam trawl, bottom trawl, gill nets and trammel nets provide CPUEs for anglerfish, Table 5.9.3.9.1. Figures for trammel nets declined until 2008 since when they have shown a recovery. In the early years of the series bottom trawls came second to trammel nets, but in recent years they produce the highest CPUEs. Beam trawl figures have also increased steadily since the start of the series. Gill net figures are stable at lower levels.

Bottom trawls provide the highest CPUEs for haddock with the figure reported for 2012 needing to be treated with caution. Bottom trawl CPUEs had been increasing in the last number of years, but at a moderate rate. Beam trawls and gill nets provide lower but increasing CPUEs.

Historically Gill nets produced the highest CPUEs for hake, increasing slowly through the time series. The CPUE doubled in 2011 and is at a similar level this year. In recent years Longline effort has also become very important, starting from a very low base, and in 2011 and 2012 has surpassed gill nets. Bottom trawls are a small but increasing source of effort.

Beam and bottom trawls report similar CPUEs for megrim in recent years. Levels for both gears increased in 2009 and were stable up to 2011. In 2012 CPUEs increased by 50% again.

The greatest CPUEs for whiting come from bottom trawls. Figures were stable between 2003 and 2009, increased in 2010 and 2011, and doubled again in 2012. Gill net CPUEs also doubled in 2012.

Table 5.9.3.9.1 BSA WW CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
WW	BSA	ANF	BEAM	65	90	131	214	213	338	499	476	493	475
			BOTTOM TRAWLS	317	290	280	311	379	380	409	346	521	676
			DREDGE	7	11	1	12	2	2	0			
			GILL	102	100	96	68	93	73	87	68	103	81
			LONGLINE	7	2	2	0	0	3	5		1	
			none									19	294
			PELAGIC TRAWLS	1	2	2	1	0	1	2	0	0	3
			POTS	3	4		28	5	5	2	2	3	10
			TRAMMEL	483	844	466	313	336	253	290	287	387	352
		HAD	BEAM	40	52	61	74	87	130	142	134	113	238
			BOTTOM TRAWLS	221	201	213	197	234	238	335	322	428	76523
			DREDGE	5	20	1	4						
			GILL	57	42	48	47	56	74	83	72	111	108
			LONGLINE	19	80	30	8	4	2	3	10	2	
			none						182				159
			PELAGIC TRAWLS	2	9	3	1	1	0	0	0	2	7
			POTS	10	8	2	2	2	0	1	3	16	9
			TRAMMEL	0	1	5	4	2	2	13	3	4	5
		HKE	BEAM	22	18	16	23	31	28	26	44	46	73
			BOTTOM TRAWLS	75	71	75	84	88	89	91	155	191	431
			DREDGE	2	2				0	0			
			GILL	1070	1451	1382	1633	1646	1472	1725	1633	3091	3036
			LONGLINE	215	267	522	1092	1050	1987	995	2353	3135	3927
			none									11944	82
			PELAGIC TRAWLS	2	2	0	0	0	0	1	8	60	32
			POTS	11	3	1		1		0	0	9	1
			TRAMMEL	2	0	3	36	2	6	2	73	12	227
		LEZ	BEAM	157	227	239	269	256	280	408	440	420	623
			BOTTOM TRAWLS	115	112	130	132	153	183	249	393	404	742
			DREDGE	1	2	1	17						
			GILL	8	6	8	4	4	6	5	17	10	18
			LONGLINE	14		0		0		1		0	
			none									11	223
			PELAGIC TRAWLS	1	1	1	0	0	0	0	0	0	1
			POTS	3	5		0	1	3	1	2	0	0
			TRAMMEL	2	0	3	1	6	0	1	3	2	1
		WHG	BEAM	18	14	10	12	18	5	3	5	15	10
			BOTTOM TRAWLS	314	204	228	195	177	143	193	318	380	743
			DREDGE	4	12	4	2	2					
			GILL	67	45	34	20	23	23	20	22	32	73
			LONGLINE	4	3	6	7	0	1	1		1	1
			none										101
			PELAGIC TRAWLS	45	11	3	0	0		0	0	3	1
			POTS	20		2		1		1	0	15	3
			TRAMMEL	0	6	3	1	1	0	1	2	3	2

5.9.3.10 CPUE in ICES area VIII by fisheries and Member States

Deepwater VIII EU

Spanish data is lacking for this area for 2010 and 2011 which causes difficulties analysing the data, however the bulk of the CPUE data reported in 2012 was from Spain. As a result of this data CPUEs for all species and gears in table 5.9.3.10.1are at or above the highest in their respective time series.

The highest CPUEs for conger eel are provided by longlines. Figures were stable up to 2008. Since then CPUEs were low but showed a large increase in 2012. Spain also reported very high CPUEs for conger eel from pots in 2012. Gill nets and bottom trawls provide some effort but figures fluctuate through the time series.

The importance of CPUEs from bottom trawls and gill nets for bluemouth redfish had been replaced in recent years by longlines. In 2012 however gill nets were the most important again.

CPUEs from the other three species in the table are not large, even in 2012. Trammel nets followed by bottom trawl are most important for blue ling, with gill nets and longlines the most important for both Bluemouth redfish and Wreckfish.

Table 5.9.3.10.1 Area VIII EU DS CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	8 EU	BLI	BOTTOM TRAWLS	3	13	12	21	25	31	20	15	13	26
			GILL	16	4	4	4	4	7	17	23	6	33
			LONGLINE	0		1	4		10	46			57
			none						26	9			27
			POTS										0
			TRAMMEL	20	281	32	15	5	82	87	89	45	63
		BRF	BOTTOM TRAWLS	2	12	31	108	46	45	41	6	2	653
			GILL	0	26	60	36	7	384	15	3	7	1033
			LONGLINE	5	1	5	5	3	3	213	58	349	253
			none							35			368
			PELAGIC TRAWLS										123
			POTS										25
			TRAMMEL										30
		COE	BEAM						133				
			BOTTOM TRAWLS	13	14	9	4	9	9	15	6	4	387
			GILL	1	42	38	4	6	97	13	20	16	311
			LONGLINE	773	895	554	571	593	630	279	303	385	1303
			none	12		40		40		3			1196
			PELAGIC TRAWLS										18
			POTS										4965
			TRAMMEL	5					18	16			295
		SBR	BOTTOM TRAWLS	0	2	1	1	6	1	1			12
			GILL	14	55	2	2	11	1	3	2	9	7
			LONGLINE	3	7	9	10	4	18	13	1	3	57
			none	0			42						61
			POTS										3
		WRF	BOTTOM TRAWLS	1	0	0	0	0	10	6	5	1	2
			GILL	0		1	1	15	7	26	80	19	89
			LONGLINE	12		5	6	4	2	97	99	106	50
			none										10
			POTS										0
			TRAMMEL					13					

Western Waters VIII EU

Spanish data is lacking for this area for 2010 and 2011 which causes difficulties analysing the data.

Beam trawl CPUEs were reasonably through the time series but have begun increasing since 2009. Bottom trawls have been stable throughout, despite a spike in 2010. Gill nets CPUEs were stable between 2003 and 2009. The figures doubled in 2010 and have remained stable at this new level since. Longline CPUEs have been fluctuating in recent years. Trammel net CPUEs were high in 2003 and 2004. They have been stable at a lower level since with a slight peak in 2011.

Bottom trawl, gill nets, beam trawl and trammel nets have all produced CPUEs for anglerfish. In recent years beam trawl CPUEs are increasing and it is becoming more important than the other gears. Bottom trawl figures have been quite stable despite a large dip in 2010. Gill net CPUEs were stable up to 2009, suffered a large dip in 2010, and are showing a slow increase since. Trammel net CPUEs have dropped to a very low level since 2009.

Gill net CPUEs for hake increased greatly in 2010 and have remained high since. CPUEs for longlines have fluctuated in recent years while those for bottom trawls increased up to 2010, but have since begun decreasing again.

Beam trawl CPUEs for Sole have been quite stable through the time series, while those for trammel nets dipped between 2005 and 2010, but have begun to increase in the last two years.

Bottom trawl CPUEs for *Nephrops* were stable up to 2009. They spiked in 2010 but have decreased again since.

Table 5.9.3.10.2 Area VIII EU WW CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
WW	8 EU	ANF	BEAM	185	13	207	147	145	243	286	248	249	324
			BOTTOM TRAWLS	177	208	197	164	149	163	161	51	134	136
			DREDGE	2	2	1	0	0	3	4		1	
			GILL	202	308	308	282	281	261	312	56	121	158
			LONGLINE	1	1	1	2	8	3	1	0	1	1
			none	4	4	3	23	12	4	7			79
			PELAGIC TRAWLS	2	5	0	1	1	1	3	2	4	3
			POTS	1	2	0	0	2	1	2	0	0	2
			TRAMMEL	195	283	136	112	95	120	128	8	34	32
		HKE	BEAM	22	17	18	10	3	4	13	10	31	29
			BOTTOM TRAWLS	121	145	192	258	245	350	386	643	144	267
			DREDGE	8	1	4	4	2	2	2	9	1	0
			GILL	770	663	728	461	655	980	953	2307	2640	2643
			LONGLINE	146	129	173	213	316	673	878	442	697	504
			none	12	10	8	8	8	19	25		7	732
			PELAGIC TRAWLS	22	7	22	15	30	11	8	55	198	191
			POTS	3	1	0	1	0	11	12	7	12	8
			TRAMMEL	79	65	27	18	37	40	45	59	59	44
		NEP	BEAM	6	6	9	7	3	1	2	4	4	2
			BOTTOM TRAWLS	96	100	113	89	82	91	93	984	185	89
			DREDGE	0	0	5	0	0	2	2	13		0
			GILL	0	1	0	0	0	1	1	0	0	0
			LONGLINE	0				0	0				
			none	1	0	0	0	0	0	0			0
			PELAGIC TRAWLS	0		0	0	0	5	4	1	8	2
			POTS	4	5	19	2	2	2	3	4	6	5
			TRAMMEL	0	1	0	1	0	0	0	1	0	0
		SOL	BEAM	466	468	401	402	406	369	402	525	437	532
			BOTTOM TRAWLS	28	29	34	26	27	26	27	522	54	38
			DREDGE	5	4	6	4	7	5	5	3	10	2
			GILL	83	78	68	49	29	27	26	41	38	20
			LONGLINE	0	8	7	5	0	0	0	2	2	0
			none	0	1	0	1	0	0	0		13	3
			PELAGIC TRAWLS	0	0	0	0	0	1	1	1	2	2
			POTS	0	0	0	0	0	0	0	1	3	4
			TRAMMEL	639	561	390	334	301	377	378	375	556	416
		SQI	BEAM			0							
			BOTTOM TRAWLS	14	15	16	6	5	11	7	0	1	164
			DREDGE			0	0						
			GILL	1	1	2	1	1	1	1	0	0	65
			LONGLINE	0	0			0	0	0			0
			none	0	0	0	0	0	0	0			452
			PELAGIC TRAWLS	0	0		0	0	0	0			0
			POTS	0									1
			TRAMMEL	0	0	0	0	0	0	0			0

Deepwater VIII non-EU

CPUE information is only available for 2012

Table 5.9.3.10.3 Area VIII non-EU DS CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	8 non EU	BRF	BOTTOM TRAWLS										6
		COE	BOTTOM TRAWLS										38

Western waters VIII non-EU

CPUE information was only supplied for this area in recent years.

Table 5.9.3.10.4 Area VIII non-EU WW CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
WW	8 non EU	HKE	BOTTOM TRAWLS								2	192	31
			GILL									4303	
		NEP	BOTTOM TRAWLS									27	5
		SQI	BOTTOM TRAWLS										233
		TUR	BOTTOM TRAWLS								12	22	3
			TRAMMEL								35		

5.9.3.11 CPUE in ICES area IX by fisheries and Member States

Deepwater IX EU

Spanish data is lacking for this area for 2010 and 2011 which causes difficulties analysing the data.

Longlines are the main gear used in this area, although in 2012 Spain has supplied CPUE data for a number of other gear types.

Longline CPUEs for black scabbard have increased through the time series up to 2011, but have decreased in 2012. Longline CPUEs for Bluemouth redfish and Conger eel were stable at low levels until 2012 when an increase was reported. Longline figures for Greater forkbeard and Red seabream are stable.

Table 5.9.3.11.1 Area IX EU DS CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	9 EU	BRF	BOTTOM TRAWLS					3		1		3	599
			GILL										291
			LONGLINE	10		13	13	57	24	28	24	21	72
			none				4						748
			POTS										18
			TRAMMEL										41
		BSF	BOTTOM TRAWLS				34	17	14	5	27	8	
			LONGLINE	1363	200	2943	2649	3385	3828	3971	4654	4767	3603
			TRAMMEL						41				
		COE	BOTTOM TRAWLS				1	1	0	0		33	269
			GILL										34
			LONGLINE	45	37	58	65	61	56	32	19	25	180
			none										336
			PELAGIC TRAWLS										115
			POTS				214	751					2481
			TRAMMEL										72
		FOX	BOTTOM TRAWLS	5	0	3	2	4	20	10			1
			GILL					0					
			LONGLINE	10	5	18	14	12	20	8	12	16	19
			none						20				
			POTS										0
			TRAMMEL										1
		SBR	BOTTOM TRAWLS		1		3	2	0	0			17
			GILL						68	4			258
			LONGLINE			0	11	19	8	11	9	19	14
			none										66
			PELAGIC TRAWLS										3931
			TRAMMEL										13

Western Waters IX EU

Spanish data is lacking for this area for 2010 and 2011 which causes difficulties analysing the data.

CPUEs in this area are highest for gill nets followed by bottom trawl and trammel nets. Gill net CPUEs increased up to 1020 but have begun to decrease again in the last two years. Bottom trawl CPUEs peaked in 2009 and appear to be decreasing since. Due to the lack of Spanish data in 2010 and 2011 however the position is unclear. Trammel net CPUEs have increased through the time series, with a large spike occurring in 2007. Longline CPUEs increased between 2007 and 2009, but have declined and fluctuated since.

Gill nets are the most important gear for Hake, table 5.9.3.11.2. CPUEs increased up to 2007 but have decreased in the last two years. Bottom trawl CPUEs peaked in 2009 and appear to have stabilised at a lower level since. Longlines and trammel nets have become more important in recent years.

Trammel net CPUEs for angler fish decreased through the time series but appear to be increasing again since 2011. Bottom trawl and gill nets show a similar pattern but at a much lower level.

Table 5.9.3.11.2 Area IX EU WW CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
WW	9 EU	ANF	BEAM	0	0	1	1	1	3	1			
			BOTTOM TRAWLS	49	41	59	83	77	52	37	13	23	32
			GILL	99	77	97	107	62	48	53	11	30	18
			LONGLINE		2	0	0	1	0	0			0
			none	14	6	3	4	5	11	8			6
			PELAGIC TRAWLS	0	2	0	2	0	0	0			1
			POTS	0	1	1	1	1	1	2	10	2	25
			TRAMMEL	135	113	120	97	110	88	91	59	78	137
		HKE	BEAM	20	3	11	37	53	161	64			24
			BOTTOM TRAWLS	78	129	306	369	391	457	721	200	189	275
			DREDGE							5			24
			GILL	224	144	237	274	510	631	612	734	644	445
			LONGLINE	6	2	43	43	69	234	401	115	93	279
			none	19	19	11	11	37	45	42			165
			PELAGIC TRAWLS	0	0	2	0	4	1	2			3
			POTS	2	2	1	4	55	10	10	10	52	24
			TRAMMEL	20	32	119	99	163	124	164	158	243	261
		RAJ	BEAM	3	1	1				5			
			BOTTOM TRAWLS	1	0	1	3	7	13	33	37	38	25
			DREDGE		0								
			GILL	28	12	6	3	10	3	3	11	11	2
			LONGLINE	1	0	0	1	7	3	5	8	12	20
			none	20	12	6	8	7	6	12			
			PELAGIC TRAWLS	0			0	0	0	0			
			POTS	0	1	2	2	2	7	8	21	19	7
			TRAMMEL	85	118	79	88	105	108	121	160	150	88
		SOL	BEAM	36	12	15	54	48	34	32			42
			BOTTOM TRAWLS	0	0	0	1	1	2	2	2	2	6
			DREDGE		0								
			GILL	8	10	8	7	6	3	4	6		23
			LONGLINE			0	0		0	0			0
			none	8	6	3	3	2	3	3			3
			PELAGIC TRAWLS	0	0	0	0		0	0			0
			POTS	0	0	0	2	1	3	0	5		1
			TRAMMEL	33	46	72	47	427	75	75	98	101	76
		SQI	BEAM	1	1	11	1						0
			BOTTOM TRAWLS	32	52	29	5	3	13	4			161
			DREDGE										3
			GILL	0	0		0	0	0	0			1
			LONGLINE										0
			none	1	5	1	1		1	0			61
			PELAGIC TRAWLS	2	1	2	4	7	6	2			0
			POTS	0	0	0	0		0	0			
			TRAMMEL	0	0	0	0						0

Deepwater IX non-EU

Prior to 2011 all the data was provided by Portugal, but Spain provided some data in 2012.

Longline CPUEs for Conger eel increased between 2008 and 2011 but decreased in 2012. Longline data for Wreckfish fluctuates through the time series.

Table 5.9.3.11.3 Area IX non-EU DS CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	9 non EU	BRF	BOTTOM TRAWLS										364
			LONGLINE				298	152	46	432		383	215
		COE	BOTTOM TRAWLS										62
			LONGLINE	6	188	50	1192	682	231	1036	1764	2300	751
		FOX	LONGLINE			25			23				
		WRF	LONGLINE	25	250	25	298	682	277	432	588	383	429

Western waters IX non-EU

Prior to 2011 all the data was provided by Portugal, but Spain provided some data in 2012.

Table 5.9.3.11.4 Area IX non-EU WW CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
WW	9 non EU	HKE	BOTTOM TRAWLS	111	331	206							289
			GILL	156		171							
			LONGLINE	23		52							
			PELAGIC TRAWLS										11
			TRAMMEL			121							
		RAJ	LONGLINE						58	46			22
			TRAMMEL			40							

5.9.3.12 CPUE in ICES area X by fisheries and Member States

Deepwater X EU

All the 2010 and 2011 data was supplied by Portugal, with Spain contributing some data in 2012.

Table 5.9.3.12.1 Area X EU DS CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	10 EU	ALF	LONGLINE								155	129	166
		BSF	LONGLINE								26	83	448
		COE	BOTTOM TRAWLS										213
			LONGLINE								161	195	262
		SBR	LONGLINE								329	256	306
		SFS	LONGLINE								37	69	158

Western Waters X EU

All 2012 data has been reported by Spain.

Table 5.9.3.12.2 Area X EU WW CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
WW	10 EU	ANF	GILL										21
		HKE	BOTTOM TRAWLS										10
			GILL										2031
		LIN	GILL										16
		POL	GILL										79

Deepwater X non-EU

CPUE data for 2012 was supplied by Spain

Table 5.9.3.12.3 Area X non-EU DS CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	10 non EU	SBR	LONGLINE										213

Western waters X non-EU

CPUE data for this area was supplied by France for the three years, and by Spain in 2012. Spanish data is lacking for this area for 2010 and 2011 which causes difficulties analysing the data.

Table 5.9.3.12.4 Area X non-EU WW CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
WW	10 non EU	BSS	BOTTOM TRAWLS								2	16	5
			GILL									9	
			LONGLINE										1
			PELAGIC TRAWLS								8		
			TRAMMEL								115	15	
		HKE	BOTTOM TRAWLS								162	23	85
			PELAGIC TRAWLS								60		
			TRAMMEL								11	33	
		SOL	BOTTOM TRAWLS								64	108	51
			GILL									564	
			PELAGIC TRAWLS								57		
			TRAMMEL								83	49	
		WHG	BOTTOM TRAWLS								30	20	53
			LONGLINE								49	1	0
			PELAGIC TRAWLS								11		
			TRAMMEL								3		

5.9.3.13 CPUE in ICES area XII by fisheries and Member States only linked to Deep Sea species

Area XII non EU

Spanish data is lacking for this area for 2010 and 2011 which causes difficulties analysing the data.

Bottom trawl CPUE data is sporadic through the time series and was mainly reported for Blue ling and Roundnose grenadier. Both datasets have fluctuated through the years. In 2012 Spain provided data for a number of species using a number of other gears.

Table 5.9.3.13.1 Area XII non-EU DS CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	12 non EU	ALC	BOTTOM TRAWLS			218	2701	265					2129
		BLI	BOTTOM TRAWLS	141		1744	53	202		103	82	58	713
			LONGLINE										41
			PELAGIC TRAWLS							1			
		GHL	BOTTOM TRAWLS			37	61						398
			GILL	3									
		RHG	BOTTOM TRAWLS										1812
			PELAGIC TRAWLS										4741
		RNG	BOTTOM TRAWLS	15		1660	953	3967		1169	356		5245
			PELAGIC TRAWLS							248			12596
		SFS	BOTTOM TRAWLS										850

5.9.3.14 CPUE in ICES area XIV by fisheries and Member States only linked to Deep Sea species

Area XIV non-EU

Spanish data is lacking for this area for 2010 and 2011 which causes difficulties analysing the data.

CPUE data for Greenland halibut was provided by Germany and the UK. The data has been reasonably consistent through the time series.

CPUEs for Roundnose grenadiers were consistent at low levels through the time series. Again the data was provided by Germany and the UK. In 2012 Spain reported high CPUEs for the fishery. They also reported high CPUE values for Roughhead grenadier in 2012.

Sporadic CPUEs are provided for blue ling but at very low levels.

Table 5.9.3.14.1 Area XIV non-EU DS CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	14 non EU	BLI	BOTTOM TRAWLS	3	3	12			0	32	1	3	2
		GHL	BOTTOM TRAWLS	1925	1767	2963	3442	2887	2777	2115	2559	2203	2351
		RHG	BOTTOM TRAWLS										345
			PELAGIC TRAWLS										11966
		RNG	BOTTOM TRAWLS	23	11	8	14	12	10	11	18	13	375
			PELAGIC TRAWLS										7127

5.9.3.15 CPUE in CECAF area 34.1.1 by fisheries and Member States

Deepwater 34.1.1 EU

CPUE data from this area has been provided by Portugal, all for longlines, with no data reported for 2011. CPUEs for Conger eel were quite stable between 2006 and 2009, before peaking in 2010. There was a big reduction reported in 2012. CPUEs for Wreckfish peaked in 2007 and have been in decline since. Data for Greater forkbeard have fluctuated throughout the time series.

Table 5.9.3.15.1 CECAF Area 34.1.1 EU DS CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	34.1.1 EU	COE	LONGLINE	851		107	569	546	588	567	1083		266
		FOX	LONGLINE	426			107	218	196	76	181		89
		WRF	LONGLINE			107	569	655	549	416	271		266

Western Waters 34.1.1 EU

No information available.

Western waters CECAF 34.1.1 non-EU

Table 5.9.3.15.3 CECAF Area 34.1.1 non-EU WW CPUE (g/(kW*days)), 2003-2012.

No information available. All available information is presented in the table for deep sea species.

5.9.3.16 CPUE in CECAF area 34.1.2 by fisheries and Member States

Deepwater CECAF 34.1.2 EU

All the data is reported by Portugal.

CPUE data for Conger eel and Wreckfish peaked in the mid 2000s and have declined sharply in the last three years. CPUE data was first reported for Beryx spp in 2009, but values are decreasing since.

CPUE data have been reported for Black scabbard and Leafscale gulper shark for the last three years. Both datasets are quite stable.

Table 5.9.3.16.1 CECAF Area 34.1.2 EU DS CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	34.1.2 EU	ALF	LONGLINE							83	2	14	11
		BSF	LONGLINE		228						2838	2819	3124
		COE	LONGLINE		570	574	1175	604	674	579	8	2	15
		GUQ	LONGLINE								294	256	224
		WRF	LONGLINE		456	164	734	738	363	414	3	0	11

Western Waters CECAF 34.1.2 EU

No information available. All available information is presented in the table for deep sea species.

5.9.3.17 CPUE in CECAF area 34.1.3 by fisheries and Member States

Deepwater CECAF 34.1.3 non-EU

Data is only available from Spain for this area, and only for 2012.

Table 5.9.3.17.1 CECAF Area 34.1.3 non-EU DS CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	34.1.3 non EU	BRF	BOTTOM TRAWLS										1
		BSF	BOTTOM TRAWLS										46
		FOX	BOTTOM TRAWLS										1
		ORY	BOTTOM TRAWLS										0
		SFS	BOTTOM TRAWLS										17

5.9.3.18 CPUE in CECAF area 34.2 by fisheries and Member States

Deepwater CECAF 34.2.0 EU

Spanish data is lacking for this area for 2010 and 2011 which causes difficulties analysing the data. The data for the last three years has been provided by Portugal.

Table 5.9.3.18.1 CECAF Area 34.2.0 non-EU DS CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	34.2.0 EU	SBR	LONGLINE								75	4	8644
		SFS	LONGLINE										8654
		WRF	LONGLINE								1066	480	2559

Western Waters CECAF 34.2.0 EU

No data available.

Deepwater CECAF 34.2.0 non-EU

Spanish data is lacking for this area for 2010 and 2011 which causes difficulties analysing the data.

Data is only available for 2012.

Table 5.9.3.18.2 CECAF Area 34.2.0 non-EU DS CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
DS	34.2.0 non EU	BRF	LONGLINE										375
		COE	LONGLINE										643
		FOX	LONGLINE										54
		SCK	LONGLINE										54
		WRF	LONGLINE										375

Western waters CECAF 34.2.0 non-EU

Spanish data is lacking for this area for 2010 and 2011 which causes difficulties analysing the data.

Only limited data is available for this area

Table 5.9.3.18.3 CECAF Area 34.2.0 non-EU WW CPUE (g/(kW*days)), 2003-2012.

ANNEX	REG_AREA	SPECIES	REG_GEAR	CPUE 2003	CPUE 2004	CPUE 2005	CPUE 2006	CPUE 2007	CPUE 2008	CPUE 2009	CPUE 2010	CPUE 2011	CPUE 2012
WW	34.2.0 non EU	RAJ	LONGLINE								169		5

5.9.4 ToR 2 Potential requirement, provision, process, and evaluation of VMS data to Deep Sea fisheries management

Additional data on fishing depth and VMS position could be useful to the deepwater data analysis. The Group feel that VMS data would be highly valuable in improving the analysis and interpretation of deep sea fisheries through the identification of individual fisheries at a fine scale.

Since fishing depth data may not be regularly recorded by vessel logbooks it could be possible to estimate depth from VMS data. If VMS were to be used it should be limited to aggregated data identified as fishing effort, such as a grid basis of 0.1 x 0.1 degree, and linked to logbooks for associated catches.

Data should be processed into grid format within member state to a predetermined standard methodology and submitted in a grid format for aggregation at an international level.

This aggregated data could subsequently be presented in map format.

ICES currently have a working group, WGSFD, looking at VMS issues. EWG believes that some guidance could be sought from them regarding methodology and processing this type of data and that in the future, a combined approach to accessing; collating and analysing these data would be beneficial and make better use of available scientific resources.

5.9.5 ToR 3 Recent effort trends in pelagic fisheries, with emphasis on ICES areas XI, X and CECAF areas

STECF EWG 13-13 has not addressed this ToR due to time constraints. Respective data on effort trends in pelagic fisheries are available on the website: http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

5.9.6 ToR 5 Comments on data quality and unexpected effects in Deep Sea and Western Waters fisheries data

STECF EWG 13-13 has no specific comments.

5.10 Bay of Biscay effort regime evaluation in the context of Council Regulation (EC) No 388/2006)

5.10.1 ToR 1.a Fishing effort in kWdays, GTdays and number of vessels by Member State and fisheries

Catch and effort data have been provided by all Member States. Spanish data have been provided only for 2012. Spanish data provided the previous years on the period before 2012 are now under revision, effort and catch time series need to be reconsidered before further complete analysis of the activity in this area.

<u>All analyses consider the 2012 Spanish data, the only year for which Spanish data are available.</u>

As data problems were discovered with the French effort information for 2002, STECF-EWG-13-13 decided only to provide effort trends graphically starting from 2003 onwards.

Following the ToRs, all analyses were made this year for 8a and 8b separately.

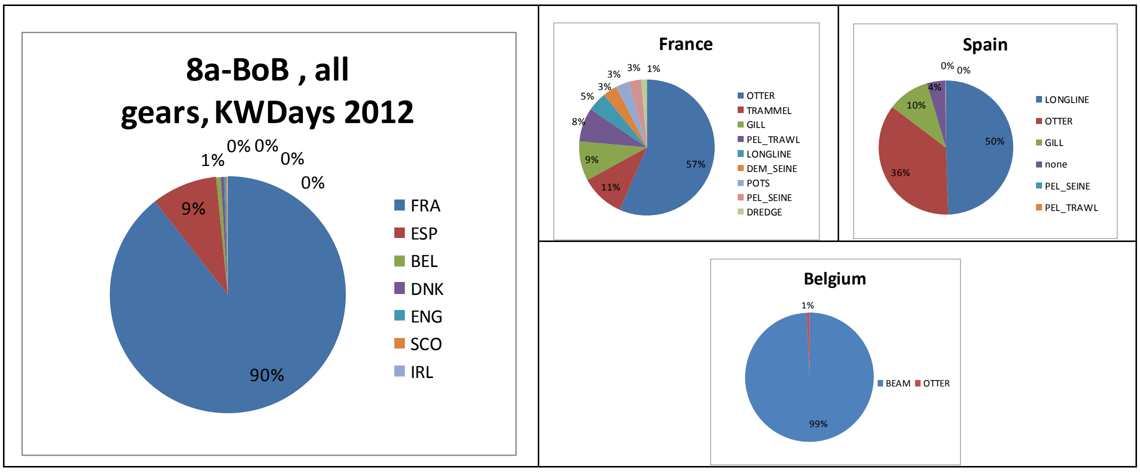


Figure 5.10.1.1: 8a-BoB, Distribution per country (and gear) of the nominal effort (kWdays).

In 8a-BoB, 90% of 2012 effort is French, 9% Spain and 1% Belgium. The main French fisheries are otter trawl, trammel and gill net and pelagic trawl. The main Spain fisheries are longline, otter trawl and gill net. Only Belgium beam trawl fleet (except 1% otter) are operational in quarter 3 in 8a-BoB (Figure 5.10.1.1).

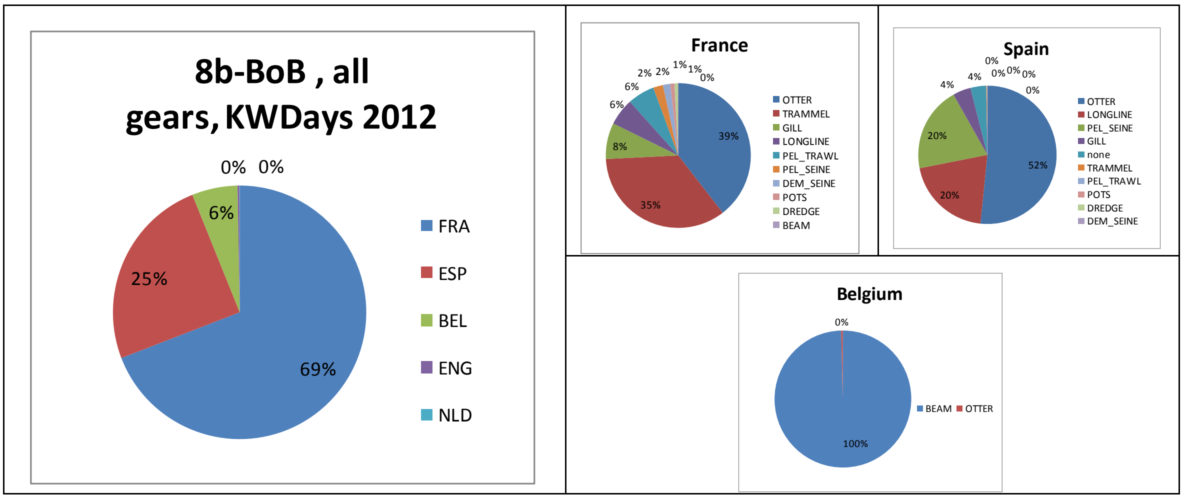


Figure 5.10.1.2: 8b-BoB, Distribution per country (and gear) of the nominal effort (KWDays).

In 8b-BoB, 69% of effort in 2012 is French, 25% Spain and 6% Belgium. The main French fisheries are otter trawl, trammel and gill net, longline and pelagic trawl. The main Spain fisheries are otter trawl, longline and pelagic seine. Only Belgium beam trawl fleet (except less than 1% otter) are operational in quarter 3 in 8b-BoB (Figure 5.10.1.2).

All 2012 figures presented below take into account the Spanish data (only provided for this year). This issue must be kept in mind before any firm conclusions are drawn.

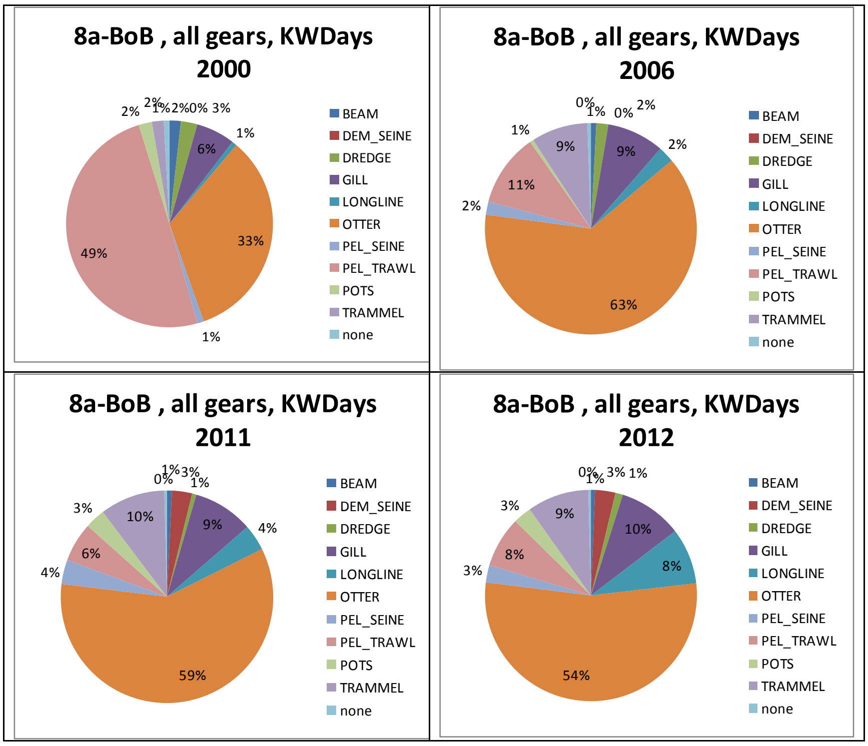


Figure 5.10.1.3: 8a-BoB, Trend in the distribution per gear of the nominal effort (KWDays).

The French otter trawl fleet being by far the dominating fleet with percentages around 60% of the effort deployed in the last 8 years in 8a-BoB (Table 5.10.1.1 and Figures 5.10.1.3).

The other fleets involved are the French trammel and gill nets with increasing trends from about 5% in 2000 up to 10% in the last few years.

The predominantly French Pelagic trawl effort went down from about 50% in the beginning of the series to around 7% in the last few years following a large decommissioning due to the anchovy crisis.

The Belgian beam trawl fleet accounts only for about 4% of the effort.

The Spanish and French longline fleet represent together 8% of the effort in 2012.

Demersal seine is a new gear which appears the last three years.

Information on the nominal effort of the specific condition SBCIIIART5 is given in Tables 5.10.1.1 5.10.1.5 and 5.10.1.6. Data broken down following this specific condition were only provided for 2010-2012 period for French vessels and since 2006 for Belgian vessels, introducing a shift for the main gear type from the “none” category to the specon “SBCIIIART5”. The specon “SBCIIART5” was not provided for Spanish data. **Following these considerations, no firm conclusion could be drawn based on the figures 5.10.1.5 presented below.**

As a quality check, STECF routinely compares the data currently submitted with the data submitted during the previous year, as is displayed in Table 5.10.1.3. Compared to the data submitted in 2011, effort of Belgium beam trawlers was underestimated for 2011. After the resubmission of this year, this effort finds again a value in the trend of the other years available. No other great differences appear between the two data sets except some small differences which appear for 2011 English otter trawl and for 2000&2001 Danish pelagic trawl and 2009 Danish otter trawl.

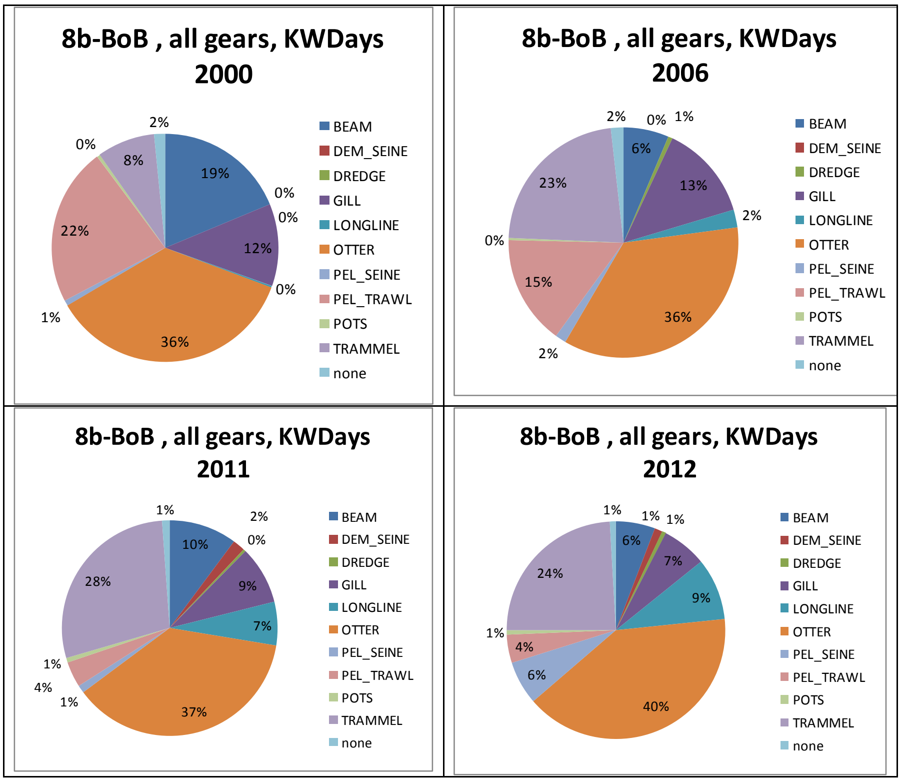


Figure 5.10.1.4: 8b-BoB, Trend in the distribution per gear of the nominal effort (kWdays).

The French otter trawl fleet being by far the dominating fleet with percentages around 38% of the effort deployed in all the period in 8b-BoB (Table 5.10.1.2 and Figures 5.10.1.4). The percentage increase a little in 2012 adding the Spanish otter trawl.

The other fleets involved are the French trammel nets with increasing trends from about 8% in 2000 up to 27% in the last five years and French gill nets with stable trends from about 10% in all the period.

The French Pelagic trawl effort went down from about 20% in the beginning of the series to less than 5% in the last few years following a large decommissioning due to the anchovy crisis.

The Belgian beam trawl fleet accounts for about 8% of the effort in the last eight years.

The French longline fleet increase the last few years from less than 1% up to 7% in 2011 and 9% in 2012 adding the Spanish longline fleet.

Demersal seine is a new gear which appears the last three years.

The Spanish pelagic seine fleet is 6% of the effort in 2012.

Information on the nominal effort of the specific condition SBCIIIART5 is given in Tables 5.10.1.2, 5.10.1.7 and 5.10.1.8. As mentioned above, data broken down following this specific condition were only provided for 2010-2012 period for French vessels and since 2006 for Belgian vessels, introducing a shift for the main gear type from the “none” category to the specon “SBCIIIART5”. The specon “SBCIIART5” was not provided for Spanish data. **Following these considerations, no firm conclusion could be drawn based on the figures 5.10.1.6 presented below.**

As a quality check, STECF routinely compares the data currently submitted with the data submitted during the previous year, as is displayed in Table 5.10.1.4. Compared to the data submitted in 2011, no differences appear between the two data sets except some small differences which appear for 2010&2011 Belgium beam trawl fleet.

Table 5.10.1.1 – Bay of Biscay – 8a - Trend in nominal effort (kW*days at sea) by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2000-2012. Derogations are sorted by gear, special condition (SPECON), and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8a-BoB	BEAM	none	BEL	178 657	45 799	60 384	41 337	105 779	123 376							
8a-BoB			ENG									880				
8a-BoB			FRA				15 860	26 032	35 522	4 104					1 111	
8a-BoB			NLD		17 652											
8a-BoB	**BEAM**	**none**	**Total**	**178 657**	**63 451**	**60 384**	**57 197**	**131 811**	**158 898**	**4 104**	**-**	**880**	**-**	**-**	**1 111**	**-**
8a-BoB	BEAM	SBcIIIart5	BEL							241 716	226 017	91 076	108 412	152 261	150 812	136 302
8a-BoB			FRA											588		
8a-BoB	**BEAM**	**SBcIIIart5**	**Total**							**241 716**	**226 017**	**91 076**	**108 412**	**152 849**	**150 812**	**136 302**
8a-BoB	DEM_SEINE	NONE	FRA											331 067	612 472	99 372
8a-BoB			NLD										6 152			
8a-BoB	**DEM_SEINE**	**none**	**Total**										**6 152**	**331 067**	**612 472**	**99 372**
8a-BoB	DEM_SEINE	SBCIIIART5	FRA												215	542 371
8a-BoB	**DEM_SEINE**	**SBCIIIART5**	**Total**												**215**	**542 371**
8a-BoB	DREDGE	none	FRA	260 467	331 633	1 341 184	395 354	414 407	420 148	533 612	468 381	377 579	366 074	90 026	122 145	176 601
8a-BoB			IRL				14 754									
8a-BoB			SCO		25 124											
8a-BoB	**DREDGE**	**none**	**Total**	**260 467**	**356 757**	**1 341 184**	**410 108**	**414 407**	**420 148**	**533 612**	**468 381**	**377 579**	**366 074**	**90 026**	**122 145**	**176 601**
8a-BoB	DREDGE	SBcIIIart5	FRA											22 677	8 443	70 603
8a-BoB	**DREDGE**	**SBcIIIart5**	**Total**											**22 677**	**8 443**	**70 603**
8a-BoB	GILL	none	ENG					48 409	32 606	121 744	39 301	18 347	44 662	60 023	63 140	52 447
8a-BoB			ESP													189 434
8a-BoB			FRA	614 761	875 674	4 272 016	1 254 706	1 420 988	2 128 437	2 396 764	1 821 041	1 790 230	1 765 262	1 534 146	1 274 483	981 798
8a-BoB			SCO				7 163	58 729	78 826	33 150	54 702	93 152	29 681	49 473	21 850	28 060
8a-BoB	**GILL**	**none**	**Total**	**614 761**	**875 674**	**4 272 016**	**1 261 869**	**1 528 126**	**2 239 869**	**2 551 658**	**1 915 044**	**1 901 729**	**1 839 605**	**1 643 642**	**1 359 473**	**1 251 739**
8a-BoB	GILL	SBcIIIart5	FRA											575 670	471 754	776 035
8a-BoB	**GILL**	**SBcIIIart5**	**Total**											**575 670**	**471 754**	**776 035**
8a-BoB	LONGLINE	none	ENG				84 319	97 728	69 064	57 542	33 853	14 941				
8a-BoB			ESP													**928 283**
8a-BoB			FRA	78 659	105 092	693 116	183 650	241 134	365 723	656 098	621 551	546 023	546 023	603 895	701 468	710 982
8a-BoB			IRL						842	2 105						
8a-BoB			SCO		3 001					6 797	1 378	20 726		9 337	58 942	2 024
8a-BoB	**LONGLINE**	**none**	**Total**	**78 659**	**108 093**	**693 116**	**267 969**	**338 862**	**435 629**	**722 542**	**656 782**	**581 690**	**546 023**	**613 232**	**760 410**	**1 641 289**
8a-BoB	LONGLINE	SBcIIIart5	FRA											72 918	43 375	151 567
8a-BoB	**LONGLINE**	**SBcIIIart5**	**Total**											**72 918**	**43 375**	**151 567**
8a-BoB	OTTER	none	DNK	20 896							11 850		42 920			
8a-BoB			ENG				29 899	11 033		41 472			7 920	3 240	26 490	
8a-BoB			ESP													675 020
8a-BoB			FRA	3 359 620	6 600 024	32 577 912	9 749 134	11 645 225	14 681 996	18 526 531	20 544 828	17 065 302	16 945 895	6 396 041	6 287 764	4 506 741
8a-BoB			IRL		242			985		1 209						
8a-BoB			NIR										1 624			
8a-BoB			SCO			4 634										10 723
8a-BoB	**OTTER**	**none**	**Total**	**3 380 516**	**6 600 266**	**32 582 546**	**9 779 033**	**11 657 243**	**14 681 996**	**18 569 212**	**20 556 678**	**17 065 302**	**16 998 359**	**6 399 281**	**6 314 254**	**5 192 484**
8a-BoB	OTTER	SBcIIIart5	BEL													950
			FRA											5 344 311	5 556 913	6 068 276
8a-BoB	**OTTER**	**SBcIIIart5**	**Total**											**5 344 311**	**5 556 913**	**6 068 276**
8a-BoB	PEL_SEINE	none	ESP													2 202
8a-BoB			FRA	100 552	368 955	1 796 023	395 906	459 144	447 532	591 583	611 037	637 343	637 028	684 055	744 393	556 022
8a-BoB	**PEL_SEINE**	**none**	**Total**	**100 552**	**368 955**	**1 796 023**	**395 906**	**459 144**	**447 532**	**591 583**	**611 037**	**637 343**	**637 028**	**684 055**	**744 393**	**558 224**
8a-BoB	PEL_SEINE	SBcIIIart5	FRA											828		588
8a-BoB	**PEL_SEINE**	**SBcIIIart5**	**Total**											**828**		**588**
8a-BoB	PEL_TRAWL	none	DEU	246 685	323 841	191 411	30 222	122 593	263 370	169 488		85 325	20 800	41 237	11 025	
8a-BoB			DNK	73 875	21 385					38 027	181 719	146 452	181 440	29 240	7 123	89 296
8a-BoB			ENG				166 043	139 716	119 686	92 445	36 288	155 677	170 025	44 490	24 501	
8a-BoB			ESP													1 323
8a-BoB			FRA	2 176 395	1 762 788	8 455 429	2 221 241	768 951	2 022 315	2 499 642	2 148 883	482 127	441 705	1 203 385	1 033 030	1 178 408
8a-BoB			IRL	320 050	64 970	90 412	39 676	65 951	52 942	37 511	27 652		4 028	15 000		13 439
8a-BoB			NIR										541			
8a-BoB			NLD	2 173 932	3 365 216	1 393 278	652 927	114 007	512 294	428 503	94 666	367 306	166 742	99 986	11 880	
8a-BoB			SCO	14 662			3 972						19 496			
8a-BoB	**PEL_TRAWL**	**none**	**Total**	**5 005 599**	**5 538 200**	**10 130 530**	**3 114 081**	**1 211 218**	**2 970 607**	**3 265 616**	**2 489 208**	**1 236 887**	**1 004 777**	**1 433 338**	**1 087 559**	**1 282 466**
8a-BoB	PEL_TRAWL	SBcIIIart5	FRA											101 972	108 910	337 915
8a-BoB	**PEL_TRAWL**	**SBcIIIart5**	**Total**											**101 972**	**108 910**	**337 915**
8a-BoB	POTS	none	DEU				14 112	21 168		13 631	11 500	7 056				
8a-BoB			ENG					10 185								
8a-BoB			FRA	211 486	151 440	606 445	203 191	312 543	173 870	153 118	126 862	22 195	22 195	619 138	551 436	451 463
8a-BoB	**POTS**	**none**	**Total**	**211 486**	**151 440**	**606 445**	**217 303**	**343 896**	**173 870**	**166 749**	**138 362**	**29 251**	**22 195**	**619 138**	**551 436**	**451 463**
8a-BoB	POTS	SBcIIIart5	FRA											20 990	71 587	134 265
8a-BoB	**POTS**	**SBcIIIart5**	**Total**											**20 990**	**71 587**	**134 265**
8a-BoB	TRAMMEL	none	ENG									547				
8a-BoB			FRA	184 958	337 411	2 061 054	575 096	965 787	1 615 492	2 530 660	2 961 192	2 471 064	2 471 064	355 544	307 538	249 151
8a-BoB	**TRAMMEL**	**none**	**Total**	**184 958**	**337 411**	**2 061 054**	**575 096**	**965 787**	**1 615 492**	**2 530 660**	**2 961 192**	**2 471 611**	**2 471 064**	**355 544**	**307 538**	**249 151**
8a-BoB	TRAMMEL	SBcIIIart5	FRA											1 703 794	1 677 072	1 721 983
8a-BoB	**TRAMMEL**	**SBcIIIart5**	**Total**											**1 703 794**	**1 677 072**	**1 721 983**
8a-BoB	none	none	ESP													82 250
8a-BoB			FRA	92 650	122 044	629 641	110 276	103 586	74 578	155 533	172 530	268 115	268 115		70 220	
8a-BoB	**none**	**none**	**Total**	**92 650**	**122 044**	**629 641**	**110 276**	**103 586**	**74 578**	**155 533**	**172 530**	**268 115**	**268 115**		**70 220**	**82 250**
8a-BoB	none	SBCIIIART5	FRA												4 324	
8a-BoB	**none**	**SBCIIIART5**	**Total**												**4 324**	

Table 5.10.1.2 – Bay of Biscay – 8b - Trend in nominal effort (kW*days at sea) by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2000-2012. Derogations are sorted by gear, special condition (SPECON), and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8b-BoB	BEAM	none	BEL	734 538	774 784	711 429	577 330	550 314	712 933							
8b-BoB			FRA								438				147	440
8b-BoB			NLD		917 156											
8b-BoB	**BEAM**	**none**	**Total**	**734 538**	**1 691 940**	**711 429**	**577 330**	**550 314**	**712 933**		**438**				**147**	**440**
8b-BoB	BEAM	SBcIIIart5	BEL							701 274	754 024	684 939	815 860	760 585	747 810	586 698
8b-BoB	**BEAM**	**SBcIIIart5**	**Total**							**701 274**	**754 024**	**684 939**	**815 860**	**760 585**	**747 810**	**586 698**
8b-BoB	DEM_SEINE	none	ESP													368
8b-BoB			FRA											52 079	137 008	51 302
8b-BoB			NLD										6 624	8 936		1 472
8b-BoB	**DEM_SEINE**	**none**	**Total**										**6 624**	**61 015**	**137 008**	**53 142**
8b-BoB	DEM_SEINE	SBcIIIart5	FRA													64 490
8b-BoB	**DEM_SEINE**	**SBcIIIart5**	**Total**													**64 490**
8b-BoB	DREDGE	none	ESP													441
8b-BoB			FRA		263	10 982	2 511	7 536	52 315	64 803	36 614	33 423	33 423	29 311	18 220	47 724
8b-BoB	**DREDGE**	**none**	**Total**		**263**	**10 982**	**2 511**	**7 536**	**52 315**	**64 803**	**36 614**	**33 423**	**33 423**	**29 311**	**18 220**	**48 165**
8b-BoB	DREDGE	SBcIIIart5	FRA											3 598	7 395	12 098
8b-BoB	**DREDGE**	**SBcIIIart5**	**Total**											**3 598**	**7 395**	**12 098**
8b-BoB	GILL	none	ENG						2 893	40 108	15 076					
8b-BoB			ESP													104 564
8b-BoB			FRA	458 112	564 724	1 566 592	352 927	394 579	1 217 137	1 429 468	1 173 159	1 044 466	1 044 466	550 893	388 953	199 981
8b-BoB			SCO					3 306				3 270		6 789	836	
8b-BoB	**GILL**	**none**	**Total**	**458 112**	**564 724**	**1 566 592**	**352 927**	**397 885**	**1 220 030**	**1 469 576**	**1 188 235**	**1 047 736**	**1 044 466**	**557 682**	**389 789**	**304 545**
8b-BoB	GILL	SBcIIIart5	FRA											199 718	249 443	364 334
8b-BoB	**GILL**	**SBcIIIart5**	**Total**											**199 718**	**249 443**	**364 334**
8b-BoB	LONGLINE	none	ENG					12 428	2 582	9 426	20 748	5 296				
8b-BoB			ESP													**507 639**
8b-BoB			FRA	9 595	71 037	198 859	51 483	59 324	235 437	260 702	236 924	194 503	194 503	460 343	424 089	301 524
8b-BoB			IRL								1 263					
8b-BoB			SCO									1 434				
8b-BoB	**LONGLINE**	**none**	**Total**	**9 595**	**71 037**	**198 859**	**51 483**	**71 752**	**238 019**	**270 128**	**258 935**	**201 233**	**194 503**	**460 343**	**424 089**	**809 163**
8b-BoB	LONGLINE	SBcIIIart5	FRA											37 755	56 927	121 611
8b-BoB	**LONGLINE**	**SBcIIIart5**	**Total**											**37 755**	**56 927**	**121 611**
8b-BoB	OTTER	none	ENG				37 585	118 061	78 252	62 964					10 967	24 444
8b-BoB			ESP													**1 293 234**
8b-BoB			FRA	1 403 129	1 370 925	5 728 872	1 254 536	1 413 043	3 780 100	3 828 101	4 114 702	3 789 258	3 781 816	640 861	985 186	626 927
8b-BoB			IRL			11 050				3 645						
8b-BoB	**OTTER**	**none**	**Total**	**1 403 129**	**1 370 925**	**5 739 922**	**1 292 121**	**1 531 104**	**3 858 352**	**3 894 710**	**4 114 702**	**3 789 258**	**3 781 816**	**640 861**	**996 153**	**1 944 605**
8b-BoB	OTTER	SBcIIIart5	BEL													2 499
			FRA											1 976 798	1 745 826	2 130 614
8b-BoB	**OTTER**	**SBcIIIart5**	**Total**											**1 976 798**	**1 745 826**	**2 130 614**
8b-BoB	PEL_SEINE	none	ESP													**500 912**
8b-BoB			FRA	31 016	80 049	230 590	70 740	81 363	121 441	165 202	134 820	132 961	132 961	124 892	85 470	151 911
8b-BoB	**PEL_SEINE**	**none**	**Total**	**31 016**	**80 049**	**230 590**	**70 740**	**81 363**	**121 441**	**165 202**	**134 820**	**132 961**	**132 961**	**124 892**	**85 470**	**652 823**
8b-BoB	PEL_TRAWL	none	DEU							12 065						
8b-BoB			ENG					67 346	8 055				47 280			
8b-BoB			ESP													2 132
8b-BoB			FRA	881 049	709 729	5 947 672	814 501	367 024	1 126 082	1 576 779	975 175	406 269	386 776	361 874	195 840	293 078
8b-BoB			IRL		35 538	52 577	53 538	92 485	72 948	62 235	39 547	20 000				
8b-BoB			NLD		39 982	40 722	2 648			32 360		11 452			7 920	
8b-BoB	**PEL_TRAWL**	**none**	**Total**	**881 049**	**785 249**	**6 040 971**	**870 687**	**526 855**	**1 207 085**	**1 683 439**	**1 014 722**	**437 721**	**434 056**	**361 874**	**203 760**	**295 210**
8b-BoB	PEL_TRAWL	SBcIIIart5	FRA											45 250	75 157	128 099
8b-BoB	**PEL_TRAWL**	**SBcIIIart5**	**Total**											**45 250**	**75 157**	**128 099**
8b-BoB	POTS	none	ESP													1 124
8b-BoB			FRA	18 226	10 288	12 319	26 482	35 213	2 981	34 432	38 021	2 716	2 716	28 349	28 015	13 444
8b-BoB	**POTS**	**none**	**Total**	**18 226**	**10 288**	**12 319**	**26 482**	**35 213**	**2 981**	**34 432**	**38 021**	**2 716**	**2 716**	**28 349**	**28 015**	**14 568**
8b-BoB	POTS	SBcIIIart5	FRA											24 946	24 870	52 304
8b-BoB	**POTS**	**SBcIIIart5**	**Total**											**24 946**	**24 870**	**52 304**
8b-BoB	TRAMMEL	none	ESP													3 792
8b-BoB			FRA	321 889	403 795	1 539 166	702 655	623 795	1 943 385	2 474 068	2 293 981	2 398 241	2 396 111	124 925	87 703	147 220
8b-BoB	**TRAMMEL**	**none**	**Total**	**321 889**	**403 795**	**1 539 166**	**702 655**	**623 795**	**1 943 385**	**2 474 068**	**2 293 981**	**2 398 241**	**2 396 111**	**124 925**	**87 703**	**151 012**
8b-BoB	TRAMMEL	SBcIIIart5	FRA											2 077 736	1 996 776	2 286 383
8b-BoB	**TRAMMEL**	**SBcIIIart5**	**Total**											**2 077 736**	**1 996 776**	**2 286 383**
8b-BoB	none	none	ESP													91 180
8b-BoB			FRA	59 997	92 742	398 353	73 154	75 689	116 764	192 933	106 136	181 700	181 700		76 984	
8b-BoB			IRL						25 000							
8b-BoB	**none**	**none**	**Total**	**59 997**	**92 742**	**398 353**	**73 154**	**75 689**	**141 764**	**192 933**	**106 136**	**181 700**	**181 700**		**76 984**	**91 180**
8b-BoB	none	SBcIIIart5	FRA												8 615	
8b-BoB	**none**	**SBcIIIart5**	**Total**												**8 615**	

Table 5.10.1.3 – Bay of Biscay – 8a – Percentage difference in effort (kW*days at sea) by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2000-2011 between the data provided in 2012 and 2013. Derogations are sorted by gear, special condition (SPECON), and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	VESSEL_LENGTH	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
8a-BoB	BEAM	none	BEL	O15M	0%	0%	0%	0%	0%	0%						
8a-BoB	BEAM	none	ENG	O15M									0%			
8a-BoB	BEAM	none	FRA	O10T15M				0%	0%	0%	0%					0%
8a-BoB	BEAM	none	FRA	O15M					0%							
8a-BoB	BEAM	none	NLD	O15M		0%										
8a-BoB	BEAM	SBcIIIart5	BEL	O15M							0%	0%	0%	0%	0%	**153**%
8a-BoB	BEAM	SBcIIIart5	FRA	O10T15M											0%	
8a-BoB	DEM_SEINE	none	FRA	O10T15M												0%
8a-BoB	DEM_SEINE	none	FRA	O15M											0%	0%
8a-BoB	DEM_SEINE	none	NLD	O15M										0%		
8a-BoB	DEM_SEINE	SBcIIIart5	FRA	O10T15M												0%
8a-BoB	DREDGE	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8a-BoB	DREDGE	none	FRA	O15M	0%	0%	0%	0%	0%			0%			0%	0%
8a-BoB	DREDGE	none	IRL	O15M				0%								
8a-BoB	DREDGE	none	SCO	O15M		0%										
8a-BoB	DREDGE	SBcIIIart5	FRA	O10T15M											0%	0%
8a-BoB	DREDGE	SBcIIIart5	FRA	O15M											0%	
8a-BoB	GILL	none	ENG	O10T15M							0%		0%	0%	0%	
8a-BoB	GILL	none	ENG	O15M					0%	0%	0%	0%	0%	7%	0%	0%
8a-BoB	GILL	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8a-BoB	GILL	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8a-BoB	GILL	none	SCO	O15M				0%	0%	0%	0%	0%	0%	0%	4%	0%
8a-BoB	GILL	SBcIIIart5	FRA	O10T15M											0%	0%
8a-BoB	GILL	SBcIIIart5	FRA	O15M											0%	0%
8a-BoB	LONGLINE	none	ENG	O15M				0%	0%	0%	0%	0%	0%			
8a-BoB	LONGLINE	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8a-BoB	LONGLINE	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8a-BoB	LONGLINE	none	IRL	O15M						0%	0%					
8a-BoB	LONGLINE	none	SCO	O15M		0%					0%	0%	0%		0%	0%
8a-BoB	LONGLINE	SBcIIIart5	FRA	O10T15M											0%	0%
8a-BoB	LONGLINE	SBcIIIart5	FRA	O15M											0%	0%
8a-BoB	OTTER	none	DNK	O15M	-4%							0%		**-27**%		
8a-BoB	OTTER	none	ENG	O15M				0%	0%		0%			0%	0%	**16**%
8a-BoB	OTTER	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8a-BoB	OTTER	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8a-BoB	OTTER	none	IRL	NONE												
8a-BoB	OTTER	none	IRL	O15M		0%			0%		0%					
8a-BoB	OTTER	none	NIR	O15M										0%		
8a-BoB	OTTER	none	SCO	O15M			0%									
8a-BoB	OTTER	SBcIIIart5	FRA	O10T15M											0%	0%
8a-BoB	OTTER	SBcIIIart5	FRA	O15M											0%	0%
8a-BoB	PEL_SEINE	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8a-BoB	PEL_SEINE	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8a-BoB	PEL_SEINE	SBcIIIart5	FRA	O10T15M											0%	
8a-BoB	PEL_TRAWL	none	DEU	O15M	0%	0%	0%	0%	0%	0%	0%		0%	0%	0%	0%
8a-BoB	PEL_TRAWL	none	DNK	O15M	**-14**%	**-20**%					0%	4%	3%	1%	0%	0%
8a-BoB	PEL_TRAWL	none	ENG	O15M				0%	0%	0%	0%	0%	0%	0%	0%	0%
8a-BoB	PEL_TRAWL	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8a-BoB	PEL_TRAWL	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8a-BoB	PEL_TRAWL	none	IRL	O15M	0%	0%	0%	0%	0%	0%	0%	0%		0%	0%	
8a-BoB	PEL_TRAWL	none	NIR	O15M										0%		
8a-BoB	PEL_TRAWL	none	NLD	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8a-BoB	PEL_TRAWL	none	SCO	O15M	0%			0%						0%		
8a-BoB	PEL_TRAWL	SBcIIIart5	FRA	O10T15M											0%	0%
8a-BoB	PEL_TRAWL	SBcIIIart5	FRA	O15M											0%	0%
8a-BoB	POTS	none	DEU	O15M				0%	0%		0%	0%	0%			
8a-BoB	POTS	none	ENG	O15M					0%							
8a-BoB	POTS	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8a-BoB	POTS	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8a-BoB	POTS	SBcIIIart5	FRA	O10T15M											0%	0%
8a-BoB	TRAMMEL	none	ENG	O10T15M									0%			
8a-BoB	TRAMMEL	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8a-BoB	TRAMMEL	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8a-BoB	TRAMMEL	SBcIIIart5	FRA	O10T15M											0%	0%
8a-BoB	TRAMMEL	SBcIIIart5	FRA	O15M											0%	0%
8a-BoB	none	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%
8a-BoB	none	none	FRA	O15M				0%		0%		0%	0%	0%		0%
8a-BoB	none	SBcIIIart5	FRA	O10T15M												0%

Table 5.10.1.4 – Bay of Biscay – 8b – Percentage difference in effort (kW*days at sea) by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2000-2011 between the data provided in 2012 and 2013. Derogations are sorted by gear, special condition (SPECON), and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	VESSEL_LENGTH	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
8b-BoB	BEAM	none	BEL	O15M	0%	0%	0%	0%	0%	0%						
8b-BoB	BEAM	none	FRA	O10T15M								0%				0%
8b-BoB	BEAM	none	NLD	O15M		0%										
8b-BoB	BEAM	SBcIIIart5	BEL	O15M							0%	0%	0%	0%	**1%**	**11%**
8b-BoB	DEM_SEINE	none	FRA	O10T15M											0%	0%
8b-BoB	DEM_SEINE	none	FRA	O15M											0%	0%
8b-BoB	DEM_SEINE	none	NLD	O15M										0%	0%	
8b-BoB	DREDGE	none	FRA	O10T15M		0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8b-BoB	DREDGE	none	FRA	O15M											0%	0%
8b-BoB	DREDGE	SBcIIIart5	FRA	O10T15M											0%	0%
8b-BoB	DREDGE	SBcIIIart5	FRA	O15M											0%	
8b-BoB	GILL	none	ENG	O15M						0%	0%	0%				
8b-BoB	GILL	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8b-BoB	GILL	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8b-BoB	GILL	none	SCO	O15M					0%				0%		0%	0%
8b-BoB	GILL	SBcIIIart5	FRA	O10T15M											0%	0%
8b-BoB	GILL	SBcIIIart5	FRA	O15M											0%	0%
8b-BoB	LONGLINE	none	ENG	O15M					0%	0%	0%	0%	0%			
8b-BoB	LONGLINE	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8b-BoB	LONGLINE	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8b-BoB	LONGLINE	none	IRL	O15M								0%				
8b-BoB	LONGLINE	none	SCO	O15M									0%			
8b-BoB	LONGLINE	SBcIIIart5	FRA	O10T15M											0%	0%
8b-BoB	LONGLINE	SBcIIIart5	FRA	O15M											0%	0%
8b-BoB	OTTER	none	ENG	O15M				0%	0%	0%	0%					
8b-BoB	OTTER	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8b-BoB	OTTER	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8b-BoB	OTTER	none	IRL	NONE												
8b-BoB	OTTER	none	IRL	O15M			0%				0%					
8b-BoB	OTTER	SBcIIIart5	FRA	O10T15M											0%	0%
8b-BoB	OTTER	SBcIIIart5	FRA	O15M											0%	0%
8b-BoB	PEL_SEINE	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8b-BoB	PEL_SEINE	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8b-BoB	PEL_TRAWL	none	DEU	O15M							0%					
8b-BoB	PEL_TRAWL	none	ENG	O15M					0%	0%				0%		
8b-BoB	PEL_TRAWL	none	FRA	O10T15M	0%	0%	0%	0%		0%	0%	0%	0%	0%	0%	0%
8b-BoB	PEL_TRAWL	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8b-BoB	PEL_TRAWL	none	IRL	NONE												
8b-BoB	PEL_TRAWL	none	IRL	O10T15M		0%	0%									
8b-BoB	PEL_TRAWL	none	IRL	O15M		0%	0%	0%	0%	0%	0%	0%	0%			
8b-BoB	PEL_TRAWL	none	NLD	O15M		0%	0%	0%			0%		0%			0%
8b-BoB	PEL_TRAWL	SBcIIIart5	FRA	O10T15M											0%	0%
8b-BoB	PEL_TRAWL	SBcIIIart5	FRA	O15M											0%	0%
8b-BoB	POTS	none	FRA	O10T15M	0%	0%		0%	0%	0%	0%	0%	0%	0%	0%	0%
8b-BoB	POTS	none	FRA	O15M	0%	0%	0%	0%	0%		0%	0%				
8b-BoB	POTS	SBcIIIart5	FRA	O10T15M											0%	0%
8b-BoB	POTS	SBcIIIart5	FRA	O15M											0%	0%
8b-BoB	TRAMMEL	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8b-BoB	TRAMMEL	none	FRA	O15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
8b-BoB	TRAMMEL	SBcIIIart5	FRA	O10T15M											0%	0%
8b-BoB	TRAMMEL	SBcIIIart5	FRA	O15M											0%	0%
8b-BoB	none	none	FRA	O10T15M	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%		0%
8b-BoB	none	none	FRA	O15M	0%			0%		0%		0%	0%	0%		0%
8b-BoB	none	none	IRL	O15M						0%						
8b-BoB	none	SBcIIIart5	FRA	O10T15M												0%
8b-BoB	none	SBcIIIart5	FRA	O15M												0%

Table 5.10.1.5 – Bay of Biscay – 8a - Trend in nominal effort (kW*days at sea) by derogations stated in article 5 of Coun. Reg. 388/2006, 2000-11. Derogations are sorted by gear and special condition (SPECON) (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8a-BoB	BEAM	none	178 657	63 451	60 384	57 197	131 811	158 898	4 104		880			1 111	
8a-BoB	BEAM	SBcIIIart5							241 716	226 017	91 076	108 412	152 849	150 812	136 302
8a-BoB	DEM_SEINE	NONE										6 152	331 067	612 472	99 372
8a-BoB	DEM_SEINE	SBCIIIART5												215	542 371
8a-BoB	DREDGE	none	260 467	356 757	1 341 184	410 108	414 407	420 148	533 612	468 381	377 579	366 074	90 026	122 145	176 601
8a-BoB	DREDGE	SBcIIIart5											22 677	8 443	70 603
8a-BoB	GILL	none	614 761	875 674	4 272 016	1 261 869	1 528 126	2 239 869	2 551 658	1 915 044	1 901 729	1 839 605	1 643 642	1 359 473	1 251 739
8a-BoB	GILL	SBcIIIart5											575 670	471 754	776 035
8a-BoB	LONGLINE	none	78 659	108 093	693 116	267 969	338 862	435 629	722 542	656 782	581 690	546 023	613 232	760 410	1 641 289
8a-BoB	LONGLINE	SBcIIIart5											72 918	43 375	151 567
8a-BoB	OTTER	none	3 380 516	6 600 266	32 582 546	9 779 033	11 657 243	14 681 996	18 569 212	20 556 678	17 065 302	16 998 359	6 399 281	6 314 254	5 192 484
8a-BoB	OTTER	SBCIIIart5											5 344 311	5 556 913	6 069 226
8a-BoB	PEL_SEINE	none	100 552	368 955	1 796 023	395 906	459 144	447 532	591 583	611 037	637 343	637 028	684 055	744 393	558 224
8a-BoB	PEL_SEINE	SBcIIIart5											828		588
8a-BoB	PEL_TRAWL	none	5 005 599	5 538 200	10 130 530	3 114 081	1 211 218	2 970 607	3 265 616	2 489 208	1 236 887	1 004 777	1 433 338	1 087 559	1 282 466
8a-BoB	PEL_TRAWL	SBcIIIart5											101 972	108 910	337 915
8a-BoB	POTS	none	211 486	151 440	606 445	217 303	343 896	173 870	166 749	138 362	29 251	22 195	619 138	551 436	451 463
8a-BoB	POTS	SBcIIIart5											20 990	71 587	134 265
8a-BoB	TRAMMEL	none	184 958	337 411	2 061 054	575 096	965 787	1 615 492	2 530 660	2 961 192	2 471 611	2 471 064	355 544	307 538	249 151
8a-BoB	TRAMMEL	SBcIIIart5											1 703 794	1 677 072	1 721 983
8a-BoB	none	none	92 650	122 044	629 641	110 276	103 586	74 578	155 533	172 530	268 115	268 115		70 220	82 250
8a-BoB	none	SBCIIIART5												4 324	
Sum			**10 108 305**	**14 522 291**	**54 172 939**	**16 188 838**	**17 154 080**	**23 218 619**	**29 332 985**	**30 195 231**	**24 661 463**	**24 267 804**	**20 165 332**	**20 024 416**	**20 925 894**

Table 5.10.1.6 – Bay of Biscay – 8a - Trend in nominal effort (kW*days at sea) by derogations stated in article 5 of Coun. Reg. 388/2006, 2003-11. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

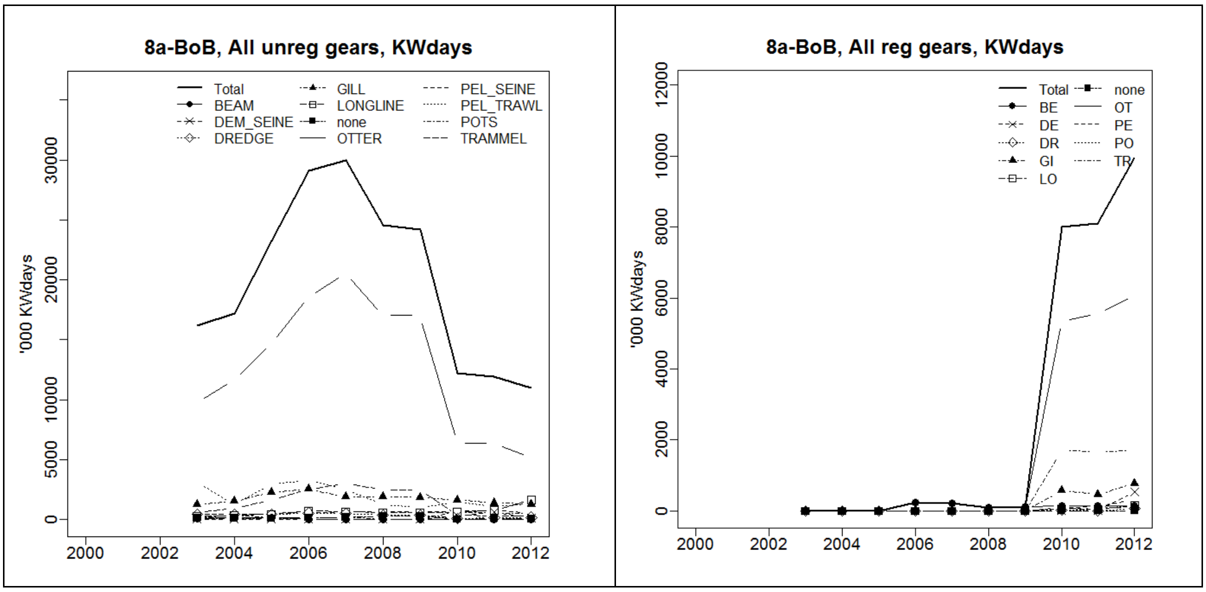
Length Class	REG AREA COD	REG GEAR COD	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
o. 10m.	8a-BoB	BEAM	178 657	63 451	60 384	57 197	131 811	158 898	245 820	226 017	91 956	108 412	152 849	151 923	136 302
	8a-BoB	DEM_SEINE										6 152	331 067	612 687	641 743
	8a-BoB	DREDGE	260 467	356 757	1 341 184	410 108	414 407	420 148	533 612	468 381	377 579	366 074	112 703	130 588	247 204
	8a-BoB	GILL	614 761	875 674	4 272 016	1 261 869	1 528 126	2 239 869	2 551 658	1 915 044	1 901 729	1 839 605	2 219 312	1 831 227	2 027 774
	8a-BoB	LONGLINE	78 659	108 093	693 116	267 969	338 862	435 629	722 542	656 782	581 690	546 023	686 150	803 785	**1 792 856**
	8a-BoB	OTTER	3 380 516	6 600 266	32 582 546	9 779 033	11 657 243	14 681 996	18 569 212	20 556 678	17 065 302	16 998 359	11 743 592	11 871 167	11 261 710
	8a-BoB	PEL_SEINE	100 552	368 955	1 796 023	395 906	459 144	447 532	591 583	611 037	637 343	637 028	684 883	744 393	558 812
	8a-BoB	PEL_TRAWL	5 005 599	5 538 200	10 130 530	3 114 081	1 211 218	2 970 607	3 265 616	2 489 208	1 236 887	1 004 777	1 535 310	1 196 469	1 620 381
	8a-BoB	POTS	211 486	151 440	606 445	217 303	343 896	173 870	166 749	138 362	29 251	22 195	640 128	623 023	585 728
	8a-BoB	TRAMMEL	184 958	337 411	2 061 054	575 096	965 787	1 615 492	2 530 660	2 961 192	2 471 611	2 471 064	2 059 338	1 984 610	1 971 134
	8a-BoB	none	92 650	122 044	629 641	110 276	103 586	74 578	155 533	172 530	268 115	268 115		74 544	82 250
	Sum o. 10m.		**10 108 305**	**14 522 291**	**54 172 939**	**16 188 838**	**17 154 080**	**23 218 619**	**29 332 985**	**30 195 231**	**24 661 463**	**24 267 804**	**20 165 332**	**20 024 416**	**20 925 894**

Table 5.10.1.7 – Bay of Biscay – 8b - Trend in nominal effort (kW*days at sea) by derogations stated in article 5 of Coun. Reg. 388/2006, 2000-11. Derogations are sorted by gear and special condition (SPECON) (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

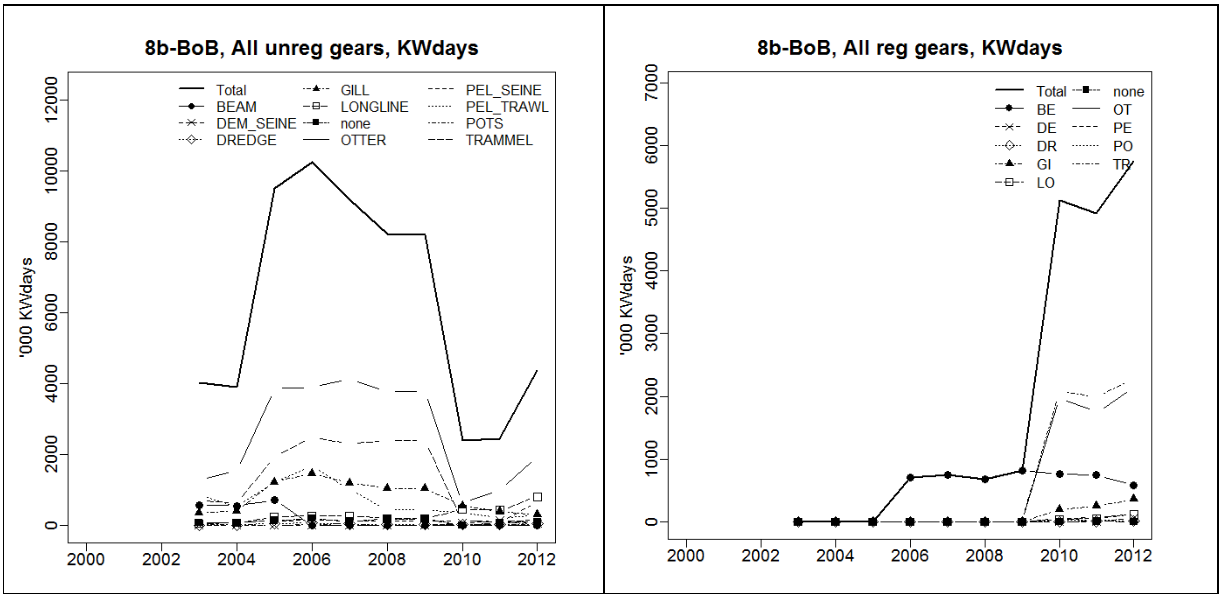
REG AREA COD	REG GEAR COD	SPECON	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8b-BoB	BEAM	none	734 538	1 691 940	711 429	577 330	550 314	712 933		438				147	440
8b-BoB	BEAM	SBcIIIart5							701 274	754 024	684 939	815 860	760 585	747 810	586 698
8b-BoB	DEM_SEINE	none										6 624	61 015	137 008	53 142
8b-BoB	DEM_SEINE	SBcIIIart5													64 490
8b-BoB	DREDGE	none		263	10 982	2 511	7 536	52 315	64 803	36 614	33 423	33 423	29 311	18 220	48 165
8b-BoB	DREDGE	SBcIIIart5											3 598	7 395	12 098
8b-BoB	GILL	none	458 112	564 724	1 566 592	352 927	397 885	1 220 030	1 469 576	1 188 235	1 047 736	1 044 466	557 682	389 789	304 545
8b-BoB	GILL	SBcIIIart5											199 718	249 443	364 334
8b-BoB	LONGLINE	none	9 595	71 037	198 859	51 483	71 752	238 019	270 128	258 935	201 233	194 503	460 343	424 089	809 163
8b-BoB	LONGLINE	SBcIIIart5											37 755	56 927	121 611
8b-BoB	OTTER	none	1 403 129	1 370 925	5 739 922	1 292 121	1 531 104	3 858 352	3 894 710	4 114 702	3 789 258	3 781 816	640 861	996 153	1 944 605
8b-BoB	OTTER	SBCIIIart5											1 976 798	1 745 826	2 133 113
8b-BoB	PEL_SEINE	none	31 016	80 049	230 590	70 740	81 363	121 441	165 202	134 820	132 961	132 961	124 892	85 470	652 823
8b-BoB	PEL_TRAWL	none	881 049	785 249	6 040 971	870 687	526 855	1 207 085	1 683 439	1 014 722	437 721	434 056	361 874	203 760	295 210
8b-BoB	PEL_TRAWL	SBcIIIart5											45 250	75 157	128 099
8b-BoB	POTS	none	18 226	10 288	12 319	26 482	35 213	2 981	34 432	38 021	2 716	2 716	28 349	28 015	14 568
8b-BoB	POTS	SBcIIIart5											24 946	24 870	52 304
8b-BoB	TRAMMEL	none	321 889	403 795	1 539 166	702 655	623 795	1 943 385	2 474 068	2 293 981	2 398 241	2 396 111	124 925	87 703	151 012
8b-BoB	TRAMMEL	SBcIIIart5											2 077 736	1 996 776	2 286 383
8b-BoB	none	none	59 997	92 742	398 353	73 154	75 689	141 764	192 933	106 136	181 700	181 700		76 984	91 180
8b-BoB	none	SBCIIIART5												8 615	
Sum			**3 917 551**	**5 071 012**	**16 449 183**	**4 020 090**	**3 901 506**	**9 498 305**	**10 950 565**	**9 940 628**	**8 909 928**	**9 024 236**	**7 515 638**	**7 360 157**	**10 113 983**

Table 5.10.1.8 – Bay of Biscay – 8b - Trend in nominal effort (kW*days at sea) by derogations stated in article 5 of Coun. Reg. 388/2006, 2003-11. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

Length Class	REG AREA COD	REG GEAR COD	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
o. 10m.	8b-BoB	BEAM	734 538	1 691 940	711 429	577 330	550 314	712 933	701 274	754 462	684 939	815 860	760 585	747 957	587 138
	8b-BoB	DEM_SEINE										6 624	61 015	137 008	117 632
	8b-BoB	DREDGE		263	10 982	2 511	7 536	52 315	64 803	36 614	33 423	33 423	32 909	25 615	60 263
	8b-BoB	GILL	458 112	564 724	1 566 592	352 927	397 885	1 220 030	1 469 576	1 188 235	1 047 736	1 044 466	757 400	639 232	668 879
	8b-BoB	LONGLINE	9 595	71 037	198 859	51 483	71 752	238 019	270 128	258 935	201 233	194 503	498 098	481 016	930 774
	8b-BoB	OTTER	1 403 129	1 370 925	5 739 922	1 292 121	1 531 104	3 858 352	3 894 710	4 114 702	3 789 258	3 781 816	2 617 659	2 741 979	4 077 718
	8b-BoB	PEL_SEINE	31 016	80 049	230 590	70 740	81 363	121 441	165 202	134 820	132 961	132 961	124 892	85 470	652 823
	8b-BoB	PEL_TRAWL	881 049	785 249	6 040 971	870 687	526 855	1 207 085	1 683 439	1 014 722	437 721	434 056	407 124	278 917	423 309
	8b-BoB	POTS	18 226	10 288	12 319	26 482	35 213	2 981	34 432	38 021	2 716	2 716	53 295	52 885	66 872
	8b-BoB	TRAMMEL	321 889	403 795	1 539 166	702 655	623 795	1 943 385	2 474 068	2 293 981	2 398 241	2 396 111	2 202 661	2 084 479	2 437 395
	8b-BoB	none	59 997	92 742	398 353	73 154	75 689	141 764	192 933	106 136	181 700	181 700		85 599	91 180
	Sum o. 10m.		**3 917 551**	**5 071 012**	**16 449 183**	**4 020 090**	**3 901 506**	**9 498 305**	**10 950 565**	**9 940 628**	**8 909 928**	**9 024 236**	**7 515 638**	**7 360 157**	**10 113 983**



Figures 5.10.1.5 – Bay of Biscay – 8a -Trend in nominal effort (kW*days at sea) sorted by gear for unregulated (without special condition SBcIIIart5) and regulated gears (with special condition SBcIIIart5) by derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2012 (o. 10m length vessels). Data qualities are summarised in section 4 of the report.



Figures 5.10.1.6 – Bay of Biscay – 8b -Trend in nominal effort (kW*days at sea) sorted by gear for unregulated (without special condition SBcIIIart5) and regulated gears (with special condition SBcIIIart5) by derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2012 (o. 10m length vessels). Data qualities are summarised in section 4 of the report.

Information on trend in GT*days at sea and in the number of vessels active in the Bay of Biscay are also presented below in this report by ICES division 8a and 8b.

Table 5.10.1.9 – Bay of Biscay – 8a - Trend in GT*days at sea by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2000-2012. Derogations are sorted by gear, special condition (SPECON), and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8a-BoB	BEAM	none	BEL	65 494	15 381	21 746	15 598	41 119	47 383							
8a-BoB			ENG									548				
8a-BoB			FRA				1 740	4 067	4 350	1 044					146	
8a-BoB			NLD		5 584											
8a-BoB	**BEAM**	**none**	**Total**	**65 494**	**20 965**	**21 746**	**17 338**	**45 186**	**51 733**	**1 044**		**548**			**146**	
8a-BoB	BEAM	SBcIIIart5	BEL							84 980	78 171	30 580	37 476	51 580	51 331	45 998
8a-BoB			FRA											96		
8a-BoB	**BEAM**	**SBcIIIart5**	**Total**							**84 980**	**78 171**	**30 580**	**37 476**	**51 676**	**51 331**	**45 998**
8a-BoB	DEM_SEINE	none	FRA											121 045	192 333	46 306
8a-BoB			NLD										2 480			
8a-BoB	**DEM_SEINE**	**none**	**Total**										**2 480**	**121 045**	**192 333**	**46 306**
8a-BoB	DEM_SEINE	SBcIIIart5	FRA												12	151 467
8a-BoB	**DEM_SEINE**	**SBcIIIart5**	**Total**												**12**	**151 467**
8a-BoB	DREDGE	none	FRA	32 808	45 883	216 704	56 639	47 879	60 998	63 565	52 729	39 468	38 281	9 016	12 977	16 524
8a-BoB			IRL				4 156									
8a-BoB			SCO													
8a-BoB	**DREDGE**	**none**	**Total**	**32 808**	**45 883**	**216 704**	**60 795**	**47 879**	**60 998**	**63 565**	**52 729**	**39 468**	**38 281**	**9 016**	**12 977**	**16 524**
8a-BoB	DREDGE	SBcIIIart5	FRA											1 944	952	7 271
8a-BoB	**DREDGE**	**SBcIIIart5**	**Total**											**1 944**	**952**	**7 271**
8a-BoB	GILL	none	ENG					22 584	15 212	58 807	19 279	7 817	23 963	37 567	39 130	34 343
8a-BoB			ESP													103 797
8a-BoB			FRA	168 294	202 072	1 018 492	275 154	297 024	458 835	531 454	371 124	402 673	398 498	587 038	463 989	368 113
8a-BoB			SCO				3 302	30 895	43 990	22 249	36 714	54 169	19 920	25 475	11 785	15 134
8a-BoB	**GILL**	**none**	**Total**	**168 294**	**202 072**	**1 018 492**	**278 456**	**350 503**	**518 037**	**612 510**	**427 117**	**464 659**	**442 381**	**650 080**	**514 904**	**521 387**
8a-BoB	GILL	SBcIIIart5	FRA											151 266	120 581	192 041
8a-BoB	**GILL**	**SBcIIIart5**	**Total**											**151 266**	**120 581**	**192 041**
8a-BoB	LONGLINE	none	ENG				35 327	37 943	27 567	22 450	12 957	5 661				
8a-BoB			ESP													**570 862**
8a-BoB			FRA	20 605	24 460	172 976	46 079	44 383	54 037	90 504	87 531	81 705	81 705	85 398	122 373	157 138
8a-BoB			IRL						356	890						
8a-BoB			SCO							3 198	636	7 929		4 171	26 339	958
8a-BoB	**LONGLINE**	**none**	**Total**	**20 605**	**24 460**	**172 976**	**81 406**	**82 326**	**81 960**	**117 042**	**101 124**	**95 295**	**81 705**	**89 569**	**148 712**	**728 958**
8a-BoB	LONGLINE	SBcIIIart5	FRA											8 554	5 809	15 733
8a-BoB	**LONGLINE**	**SBcIIIart5**	**Total**											**8 554**	**5 809**	**15 733**
8a-BoB	OTTER	none	DNK	10 623							6 160		17 864			
8a-BoB			ENG				10 755	4 036		20 419			3 900	1 602	12 863	
8a-BoB			ESP													556 724
8a-BoB			FRA	863 613	1 254 087	6 026 404	1 709 504	2 124 410	2 751 523	3 539 780	3 937 325	3 319 519	3 298 580	1 308 360	1 303 437	906 942
8a-BoB			IRL		81			396		477						
8a-BoB			NIR										624			
8a-BoB			SCO													3 113
8a-BoB	**OTTER**	**none**	**Total**	**874 236**	**1 254 168**	**6 026 404**	**1 720 259**	**2 128 842**	**2 751 523**	**3 560 676**	**3 943 485**	**3 319 519**	**3 320 968**	**1 309 962**	**1 316 300**	**1 466 779**
8a-BoB	OTTER	SBcIIIart5	BEL													284
8a-BoB	OTTER	SBcIIIart5	FRA											1 049 209	1 071 172	1 194 394
8a-BoB	**OTTER**	**SBcIIIart5**	**Total**											**1 049 209**	**1 071 172**	**1 194 394**
8a-BoB	PEL_SEINE	none	ESP													831
8a-BoB			FRA	24 075	68 240	353 076	72 972	81 644	79 879	132 720	126 012	135 533	135 533	112 289	127 523	99 753
8a-BoB	**PEL_SEINE**	**none**	**Total**	**24 075**	**68 240**	**353 076**	**72 972**	**81 644**	**79 879**	**132 720**	**126 012**	**135 533**	**135 533**	**112 289**	**127 523**	**100 584**
8a-BoB	PEL_SEINE	SBcIIIart5	FRA											96		128
8a-BoB	**PEL_SEINE**	**SBcIIIart5**	**Total**											**96**	-	**128**
8a-BoB	PEL_TRAWL	none	DEU			267 960	39 360	166 460	327 390	203 520		102 668	25 448	46 031	12 112	
8a-BoB			DNK	40 472	12 163					17 148	87 669	65 290	80 888	13 036	3 175	39 809
8a-BoB			ENG				86 974	83 912	71 904	61 750	17 867	85 125	109 659	23 130	14 193	
8a-BoB			ESP													1 314
8a-BoB			FRA	543 361	474 705	2 653 380	511 234	170 849	490 569	622 968	445 413	161 027	153 527	250 029	203 482	308 445
8a-BoB			IRL	280 146	49 048	9 013	17 502	41 571	28 516	15 056	11 858		4 372	6 564		5 899
8a-BoB			NIR										208			
8a-BoB			NLD	2 022 856	2 912 592	1 152 015	543 843	89 502	423 345	377 857	74 323	301 717	138 260	75 620	9 822	
8a-BoB			SCO				999						5 660			
8a-BoB	**PEL_TRAWL**	**none**	**Total**	**2 886 835**	**3 448 508**	**4 082 368**	**1 199 912**	**552 294**	**1 341 724**	**1 298 299**	**637 130**	**715 827**	**518 022**	**414 410**	**242 784**	**355 467**
8a-BoB	PEL_TRAWL	SBcIIIart5	FRA											20 694	16 214	64 715
8a-BoB	**PEL_TRAWL**	**SBcIIIart5**	**Total**											**20 694**	**16 214**	**64 715**
8a-BoB	POTS	none	DEU				6 360	9 540		6 150	5 190	3 184				
8a-BoB			ENG					7 423								
8a-BoB			FRA	66 990	45 975	198 560	53 719	67 891	47 060	45 699	32 605	5 260	5 260	133 328	111 089	104 635
8a-BoB	**POTS**	**none**	**Total**	**66 990**	**45 975**	**198 560**	**60 079**	**84 854**	**47 060**	**51 849**	**37 795**	**8 444**	**5 260**	**133 328**	**111 089**	**104 635**
8a-BoB	POTS	SBcIIIart5	FRA											2 581	7 844	13 901
8a-BoB	**POTS**	**SBcIIIart5**	**Total**											**2 581**	**7 844**	**13 901**
8a-BoB	TRAMMEL	none	ENG									108				
8a-BoB			FRA	52 478	89 723	479 552	120 903	175 397	290 396	436 957	531 259	435 546	435 546	40 030	34 867	26 100
8a-BoB	**TRAMMEL**	**none**	**Total**	**52 478**	**89 723**	**479 552**	**120 903**	**175 397**	**290 396**	**436 957**	**531 259**	**435 654**	**435 546**	**40 030**	**34 867**	**26 100**
8a-BoB	TRAMMEL	SBcIIIart5	FRA											388 781	368 905	377 620
8a-BoB	**TRAMMEL**	**SBcIIIart5**	**Total**											**388 781**	**368 905**	**377 620**
8a-BoB	none	none	ESP													44 652
8a-BoB			FRA	20 692	30 219	123 400	24 068	19 301	16 958	23 034	23 268	30 893	30 893		8 473	
8a-BoB	**none**	**none**	**Total**	**20 692**	**30 219**	**123 400**	**24 068**	**19 301**	**16 958**	**23 034**	**23 268**	**30 893**	**30 893**		**8 473**	**44 652**
8a-BoB	none	SBCIIIART5	FRA												575	
8a-BoB	**none**	**SBCIIIART5**	**Total**												**575**	

Table 5.10.1.10 – Bay of Biscay – 8b - Trend in GT*days at sea by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2000-2012. Derogations are sorted by gear, special condition (SPECON), and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8b-BoB	BEAM	none	BEL	304 008	321 475	294 929	236 748	219 108	278 855							
8b-BoB			FRA								24				25	70
8b-BoB			NLD		243 369											
8b-BoB	**BEAM**	**none**	**Total**	**304 008**	**564 844**	**294 929**	**236 748**	**219 108**	**278 855**	-	**24**	-	-	-	**25**	**70**
8b-BoB	BEAM	SBcIIIart5	BEL							261 668	266 987	229 616	266 078	246 721	251 746	194 669
8b-BoB	**BEAM**	**SBcIIIart5**	**Total**	-	-	-	-	-	-	**261 668**	**266 987**	**229 616**	**266 078**	**246 721**	**251 746**	**194 669**
8b-BoB	DEM_SEINE	none	ESP													104
8b-BoB			FRA											21 909	43 928	23 852
8b-BoB			NLD										2 016	3 116		448
8b-BoB	**DEM_SEINE**	**none**	**Total**	-	-	-	-	-	-	-	-	-	**2 016**	**25 025**	**43 928**	**24 404**
8b-BoB	DEM_SEINE	SBcIIIart5	FRA													20 995
8b-BoB	**DEM_SEINE**	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	**20 995**
8b-BoB	DREDGE	none	ESP													262
8b-BoB			FRA		24	2 444	279	977	7 562	7 898	3 831	4 195	4 195	3 405	1 550	4 474
8b-BoB	**DREDGE**	**none**	**Total**	-	**24**	**2 444**	**279**	**977**	**7 562**	**7 898**	**3 831**	**4 195**	**4 195**	**3 405**	**1 550**	**4 736**
8b-BoB	DREDGE	SBcIIIart5	FRA											513	809	1 781
8b-BoB	**DREDGE**	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	**513**	**809**	**1 781**
8b-BoB	GILL	none	ENG						1 350	21 684	8 151					
8b-BoB			ESP													58 914
8b-BoB			FRA	76 138	94 196	378 328	73 564	76 740	199 742	209 516	181 784	182 323	182 323	162 668	93 898	62 761
8b-BoB			SCO					1 524				1 456		3 662	451	
8b-BoB	**GILL**	**none**	**Total**	**76 138**	**94 196**	**378 328**	**73 564**	**78 264**	**201 092**	**231 200**	**189 935**	**183 779**	**182 323**	**166 330**	**94 349**	**121 675**
8b-BoB	GILL	SBcIIIart5	FRA											28 799	34 174	45 208
8b-BoB	**GILL**	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	**28 799**	**34 174**	**45 208**
8b-BoB	LONGLINE	none	ENG					4 768	991	3 617	7 960	2 032				
8b-BoB			ESP													**191 071**
8b-BoB			FRA	1 943	11 901	60 892	11 163	11 176	30 294	34 170	35 334	24 677	24 677	89 333	90 663	63 770
8b-BoB			IRL								534					
8b-BoB			SCO									550				
8b-BoB	**LONGLINE**	**none**	**Total**	**1 943**	**11 901**	**60 892**	**11 163**	**15 944**	**31 285**	**37 787**	**43 828**	**27 259**	**24 677**	**89 333**	**90 663**	**254 841**
8b-BoB	LONGLINE	SBcIIIart5	FRA											4 439	6 705	12 110
8b-BoB	**LONGLINE**	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	**4 439**	**6 705**	**12 110**
8b-BoB	OTTER	none	ENG				13 549	42 681	28 110	31 001					4 786	10 668
8b-BoB			ESP													**1 132 888**
8b-BoB			FRA	350 727	302 879	1 368 396	295 996	321 613	729 816	729 838	814 028	772 189	770 900	142 103	249 768	180 412
8b-BoB			IRL			2 520				1 450						
8b-BoB	**OTTER**	**none**	**Total**	**350 727**	**302 879**	**1 370 916**	**309 545**	**364 294**	**757 926**	**762 289**	**814 028**	**772 189**	**770 900**	**142 103**	**254 554**	**1 323 968**
8b-BoB	OTTER	SBcIIIart5	BEL													747
			FRA											378 130	296 298	395 077
8b-BoB	**OTTER**	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	**378 130**	**296 298**	**395 077**
8b-BoB	PEL_SEINE	none	ESP													**197 401**
8b-BoB			FRA	5 799	26 459	68 080	23 108	41 802	34 345	56 725	28 751	26 699	26 699	23 314	14 786	30 027
8b-BoB	**PEL_SEINE**	**none**	**Total**	**5 799**	**26 459**	**68 080**	**23 108**	**41 802**	**34 345**	**56 725**	**28 751**	**26 699**	**26 699**	**23 314**	**14 786**	**227 428**
8b-BoB	PEL_TRAWL	none	DEU							12 080						
8b-BoB			ENG					33 162	6 093				23 279			
8b-BoB			ESP													1 982
8b-BoB			FRA	200 327	184 181	1 542 444	182 704	85 132	251 242	383 614	247 545	112 229	108 524	88 266	59 344	96 555
8b-BoB			IRL		18 343	16 186	26 140	53 739	45 144	26 261	16 751	8 752				
8b-BoB			NLD		35 892	34 126	2 180			26 250		9 668			6 548	
8b-BoB	**PEL_TRAWL**	**none**	**Total**	**200 327**	**238 416**	**1 592 756**	**211 024**	**172 033**	**302 479**	**448 205**	**264 296**	**130 649**	**131 803**	**88 266**	**65 892**	**98 537**
8b-BoB	PEL_TRAWL	SBcIIIart5	FRA											9 008	11 120	19 838
8b-BoB	**PEL_TRAWL**	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	**9 008**	**11 120**	**19 838**
8b-BoB	POTS	none	ESP													246
8b-BoB			FRA	3 761	1 731	5 920	5 913	5 910	2 106	3 877	5 674	306	306	2 208	2 630	1 451
8b-BoB	**POTS**	**none**	**Total**	**3 761**	**1 731**	**5 920**	**5 913**	**5 910**	**2 106**	**3 877**	**5 674**	**306**	**306**	**2 208**	**2 630**	**1 697**
8b-BoB	POTS	SBcIIIart5	FRA											3 383	2 478	6 415
8b-BoB	**POTS**	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	**3 383**	**2 478**	**6 415**
8b-BoB	TRAMMEL	none	ESP													785
8b-BoB			FRA	70 964	86 134	436 524	157 116	156 696	363 199	402 465	375 874	373 502	373 038	23 479	20 151	49 844
8b-BoB	**TRAMMEL**	**none**	**Total**	**70 964**	**86 134**	**436 524**	**157 116**	**156 696**	**363 199**	**402 465**	**375 874**	**373 502**	**373 038**	**23 479**	**20 151**	**50 629**
8b-BoB	TRAMMEL	SBcIIIart5	FRA											367 288	373 075	436 472
8b-BoB	**TRAMMEL**	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	**367 288**	**373 075**	**436 472**
8b-BoB	none	none	ESP													40 841
8b-BoB			FRA	50 707	54 330	205 660	49 925	51 452	69 122	24 471	14 195	21 166	21 166		8 645	
8b-BoB			IRL						15 840							
8b-BoB	**none**	**none**	**Total**	**50 707**	**54 330**	**205 660**	**49 925**	**51 452**	**84 962**	**24 471**	**14 195**	**21 166**	**21 166**	-	**8 645**	**40 841**
8b-BoB	none	SBCIIIART5	FRA												1 110	
8b-BoB	**none**	**SBCIIIART5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	**1 110**	-

Table 5.10.1.11 – Bay of Biscay – 8a - Trend in Number of vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2000-2012. Derogations are sorted by gear, special condition (SPECON), and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8a-BoB	BEAM	none	BEL	4	4	7	11	19	20							
8a-BoB			ENG									1				
8a-BoB			FRA				1	4	1	1					2	
8a-BoB			NLD		2											
8a-BoB	**BEAM**	**none**	**Total**	**4**	**6**	**7**	**12**	**23**	**21**	**1**		**1**			**2**	
8a-BoB	BEAM	SBcIIIart5	BEL							18	20	14	18	13	15	14
8a-BoB			FRA											1		
8a-BoB	**BEAM**	**SBcIIIart5**	**Total**							**18**	**20**	**14**	**18**	**14**	**15**	**14**
8a-BoB	DEM_SEINE	NONE	FRA											5	5	2
8a-BoB			NLD										1			
8a-BoB	**DEM_SEINE**	**none**	**Total**										**1**	**5**	**5**	**2**
8a-BoB	DEM_SEINE	SBCIIIART5	FRA												1	5
8a-BoB	**DEM_SEINE**	**SBCIIIART5**	**Total**												**1**	**5**
8a-BoB	DREDGE	none	FRA	166	143	169	193	117	136	80	84	102	92	61	61	56
8a-BoB			IRL				4									
8a-BoB			SCO		3											
8a-BoB	**DREDGE**	**none**	**Total**	**166**	**146**	**169**	**197**	**117**	**136**	**80**	**84**	**102**	**92**	**61**	**61**	**56**
8a-BoB	DREDGE	SBcIIIart5	FRA											9	10	27
8a-BoB	**DREDGE**	**SBcIIIart5**	**Total**											**9**	**10**	**27**
8a-BoB	GILL	none	ENG					1	1	3	3	3	3	3	1	3
8a-BoB			ESP													8
8a-BoB			FRA	67	53	79	48	63	67	92	72	75	74	36	36	23
8a-BoB			SCO				1	2	1	1	1	1	1	1	1	1
8a-BoB	**GILL**	**none**	**Total**	**67**	**53**	**79**	**49**	**66**	**69**	**96**	**76**	**79**	**78**	**40**	**38**	**35**
8a-BoB	GILL	SBcIIIart5	FRA											20	18	23
8a-BoB	**GILL**	**SBcIIIart5**	**Total**											**20**	**18**	**23**
8a-BoB	LONGLINE	none	ENG				2	2	3	2	2	1				
8a-BoB			ESP													**111**
8a-BoB			FRA	16	17	21	18	28	29	55	50	49	33	41	38	34
8a-BoB			IRL						1	1						
8a-BoB			SCO		1					1	1	2		1	2	1
8a-BoB	**LONGLINE**	**none**	**Total**	**16**	**18**	**21**	**20**	**30**	**33**	**59**	**53**	**52**	**33**	**42**	**40**	**146**
8a-BoB	LONGLINE	SBcIIIart5	FRA											8	7	16
8a-BoB	**LONGLINE**	**SBcIIIart5**	**Total**											**8**	**7**	**16**
8a-BoB	OTTER	none	DNK	2							1		2			
8a-BoB			ENG				2	2		2			2	1	2	
8a-BoB			ESP													10
8a-BoB			FRA	202	238	210	230	276	326	470	457	334	276	128	117	94
8a-BoB			IRL		1	1		1		1						
8a-BoB			NIR										1			
8a-BoB			SCO			1										1
8a-BoB	**OTTER**	**none**	**Total**	**204**	**239**	**212**	**232**	**279**	**326**	**473**	**458**	**334**	**281**	**129**	**119**	**105**
8a-BoB	OTTER	SBcIIIart5	BEL													1
			FRA											85	77	95
8a-BoB	**OTTER**	**SBcIIIart5**	**Total**											**85**	**77**	**95**
8a-BoB	PEL_SEINE	none	ESP													2
8a-BoB			FRA	10	14	20	17	26	18	18	18	14	14	13	21	21
8a-BoB	**PEL_SEINE**	**none**	**Total**	**10**	**14**	**20**	**17**	**26**	**18**	**18**	**18**	**14**	**14**	**13**	**21**	**23**
8a-BoB	PEL_SEINE	SBcIIIart5	FRA											1		1
8a-BoB	**PEL_SEINE**	**SBcIIIart5**	**Total**											**1**	-	**1**
8a-BoB	PEL_TRAWL	none	DEU	4	2	3	3	3	4	4		2	1	2	2	
8a-BoB			DNK	4	3					1	9	1	1	1	1	1
8a-BoB			ENG				3	4	3	2	2	3	4	3	2	
8a-BoB			ESP													1
8a-BoB			FRA	244	128	63	100	103	104	77	76	21	27	35	38	38
8a-BoB			IRL	2	2	8	3	1	2	2	1		1	1		2
8a-BoB			NIR										1			
8a-BoB			NLD	12	13	11	10	4	6	8	2	3	2	2	1	
8a-BoB			SCO	2			1						1			
8a-BoB	**PEL_TRAWL**	**none**	**Total**	**268**	**148**	**85**	**120**	**115**	**119**	**94**	**90**	**30**	**38**	**44**	**44**	**42**
8a-BoB	PEL_TRAWL	SBcIIIart5	FRA											12	8	15
8a-BoB	**PEL_TRAWL**	**SBcIIIart5**	**Total**											**12**	**8**	**15**
8a-BoB	POTS	none	DEU				1	1		2	2	1				
8a-BoB			ENG					1								
8a-BoB			FRA	13	16	15	19	16	12	16	11	4	4	40	39	27
8a-BoB	**POTS**	**none**	**Total**	**13**	**16**	**15**	**20**	**18**	**12**	**18**	**13**	**5**	**4**	**40**	**39**	**27**
8a-BoB	POTS	SBcIIIart5	FRA											4	9	13
8a-BoB	**POTS**	**SBcIIIart5**	**Total**											**4**	**9**	**13**
8a-BoB	TRAMMEL	none	ENG									1				
8a-BoB			FRA	32	37	43	42	62	67	87	109	116	131	23	21	15
8a-BoB	**TRAMMEL**	**none**	**Total**	**32**	**37**	**43**	**42**	**62**	**67**	**87**	**109**	**117**	**131**	**23**	**21**	**15**
8a-BoB	TRAMMEL	SBcIIIart5	FRA											72	70	70
8a-BoB	**TRAMMEL**	**SBcIIIart5**	**Total**											**72**	**70**	**70**
8a-BoB	none	none	ESP													11
8a-BoB			FRA	59	65	61	52	41	41	41	41	59	59		38	
8a-BoB	**none**	**none**	**Total**	**59**	**65**	**61**	**52**	**41**	**41**	**41**	**41**	**59**	**59**	-	**38**	**11**
8a-BoB	none	SBCIIIART5	FRA												5	
8a-BoB	**none**	**SBCIIIART5**	**Total**												**5**	

Table 5.10.1.12 – Bay of Biscay – 8b - Trend in Number of vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2000-2012. Derogations are sorted by gear, special condition (SPECON), and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8b-BoB	BEAM	none	BEL	14	19	20	17	19	23							
8b-BoB			FRA								1				1	1
8b-BoB			NLD		8											
8b-BoB	**BEAM**	**none**	**Total**	**14**	**27**	**20**	**17**	**19**	**23**		**1**				**1**	**1**
8b-BoB	BEAM	SBcIIIart5	BEL							16	19	14	18	13	15	13
8b-BoB	**BEAM**	**SBcIIIart5**	**Total**							**16**	**19**	**14**	**18**	**13**	**15**	**13**
8b-BoB	DEM_SEINE	none	ESP													1
8b-BoB			FRA											4	5	3
8b-BoB			NLD										1	1		1
8b-BoB	**DEM_SEINE**	**none**	**Total**										**1**	**5**	**5**	**5**
8b-BoB	DEM_SEINE	SBcIIIart5	FRA													4
8b-BoB	**DEM_SEINE**	**SBcIIIart5**	**Total**													**4**
8b-BoB	DREDGE	none	ESP													1
8b-BoB			FRA		1	2	1	8	28	19	24	31	31	17	23	20
8b-BoB	**DREDGE**	**none**	**Total**		**1**	**2**	**1**	**8**	**28**	**19**	**24**	**31**	**31**	**17**	**23**	**21**
8b-BoB	DREDGE	SBcIIIart5	FRA											5	8	10
8b-BoB	**DREDGE**	**SBcIIIart5**	**Total**											**5**	**8**	**10**
8b-BoB	GILL	none	ENG						1	1	1					
8b-BoB			ESP													9
8b-BoB			FRA	25	45	39	32	31	56	60	55	55	56	28	20	16
8b-BoB			SCO					1				1		1	1	
8b-BoB	**GILL**	**none**	**Total**	**25**	**45**	**39**	**32**	**32**	**57**	**61**	**56**	**56**	**56**	**29**	**21**	**25**
8b-BoB	GILL	SBcIIIart5	FRA											19	17	23
8b-BoB	**GILL**	**SBcIIIart5**	**Total**											**19**	**17**	**23**
8b-BoB	LONGLINE	none	ENG					1	1	1	1	1				
8b-BoB			ESP													**106**
8b-BoB			FRA	4	8	17	12	11	26	35	25	24	15	31	27	21
8b-BoB			IRL								1					
8b-BoB			SCO									1				
8b-BoB	**LONGLINE**	**none**	**Total**	**4**	**8**	**17**	**12**	**12**	**27**	**36**	**27**	**26**	**15**	**31**	**27**	**127**
8b-BoB	LONGLINE	SBcIIIart5	FRA											7	9	17
8b-BoB	**LONGLINE**	**SBcIIIart5**	**Total**											**7**	**9**	**17**
8b-BoB	OTTER	none	ENG				2	2	2	2					1	1
8b-BoB			ESP													**15**
8b-BoB			FRA	86	62	68	64	74	123	155	138	135	158	44	39	33
8b-BoB			IRL			2				1						
8b-BoB	**OTTER**	**NONE**	**Total**	**86**	**62**	**70**	**66**	**76**	**125**	**158**	**138**	**135**	**158**	**44**	**40**	**49**
8b-BoB	OTTER	SBcIIIart5	BEL													1
			FRA											45	48	62
8b-BoB	**OTTER**	**SBcIIIart5**	**Total**											**45**	**48**	**62**
8b-BoB	PEL_SEINE	none	ESP													**83**
8b-BoB			FRA	4	14	10	9	10	8	13	7	7	7	6	6	6
8b-BoB	**PEL_SEINE**	**none**	**Total**	**4**	**14**	**10**	**9**	**10**	**8**	**13**	**7**	**7**	**7**	**6**	**6**	**89**
8b-BoB	PEL_TRAWL	none	DEU							1						
8b-BoB			ENG					2	1				2			
8b-BoB			ESP													1
8b-BoB			FRA	106	82	91	94	93	158	178	80	32	44	22	23	16
8b-BoB			IRL		3	10	2	2	3	2	2	1				
8b-BoB			NLD		2	3	1			1		1			1	
8b-BoB	**PEL_TRAWL**	**none**	**Total**	**106**	**87**	**104**	**97**	**97**	**162**	**182**	**82**	**34**	**46**	**22**	**24**	**17**
8b-BoB	PEL_TRAWL	SBcIIIart5	FRA											7	9	11
8b-BoB	**PEL_TRAWL**	**SBcIIIart5**	**Total**											**7**	**9**	**11**
8b-BoB	POTS	none	ESP													3
8b-BoB			FRA	2	2	1	3	5	2	11	5	2	2	11	11	5
8b-BoB	**POTS**	**none**	**Total**	**2**	**2**	**1**	**3**	**5**	**2**	**11**	**5**	**2**	**2**	**11**	**11**	**8**
8b-BoB	POTS	SBcIIIart5	FRA											4	6	6
8b-BoB	**POTS**	**SBcIIIart5**	**Total**											**4**	**6**	**6**
8b-BoB	TRAMMEL	none	ESP													3
8b-BoB			FRA	38	36	46	46	54	66	90	103	111	104	12	13	7
8b-BoB	**TRAMMEL**	**none**	**Total**	**38**	**36**	**46**	**46**	**54**	**66**	**90**	**103**	**111**	**104**	**12**	**13**	**10**
8b-BoB	TRAMMEL	SBcIIIart5	FRA											61	67	77
8b-BoB	**TRAMMEL**	**SBcIIIart5**	**Total**											**61**	**67**	**77**
8b-BoB	none	none	ESP													30
8b-BoB			FRA	93	81	98	79	76	95	81	47	61	61		29	
8b-BoB			IRL						1							
8b-BoB	**none**	**NONE**	**Total**	**93**	**81**	**98**	**79**	**76**	**96**	**81**	**47**	**61**	**61**		**29**	**30**
8b-BoB	none	SBCIIIART5	FRA												4	
8b-BoB	**none**	**SBCIIIART5**	**Total**												**4**	

5.10.2 ToR 1.b Fishing capacity in GT of relevant vessels by Member State and fisheries

Fishing capacity in GT is only available for Belgian vessels since 2003 consequently trend in fishing capacity GT is only represented for the Belgium beam trawl fleet. STECF 13-13 observed a relative stability of Fishing capacity on the period for these fleet in the two ICES division 8a and 8b.

STECF 13-13 noted that fishing capacity was provided by Spain in 2012 in GT and for French in 2012 but in kW as this field is asked as kW or GT depending of the area and then has difficulties to be filled in.

Table 5.10.2.1 – Bay of Biscay 8a - Trend in Fishing capacity (GT) concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2000-2012. Derogations are sorted by gear, special condition (SPECON), and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8a-BoB	BEAM	none	BEL				3 955	6 945	7 526							
8a-BoB	BEAM	SBcIIIart5	BEL							6 611	7 237	5 118	6 957	4 946	5 661	5 197
8a-BoB	OTTER	SBCIIIart5	BEL													284

Table 5.10.2.2 – Bay of Biscay – 8b - Trend in Fishing capacity (GT) concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2000-2012. Derogations are sorted by gear, special condition (SPECON), and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8b-BoB	BEAM	none	BEL				6 295	6 944	8 226							
8b-BoB	BEAM	SBcIIIart5	BEL							5 781	6 871	5 118	6 591	4 946	5 661	4 913
8b-BoB	OTTER	SBCIIIart5	BEL													284

5.10.3 ToR 1.c Catches (landings and discards) of common sole in weight and numbers at age by fisheries

The following section provides quantities of common sole landings by fisheries for the ICES division 8a and 8b. Discard estimates are scarce. Discards estimates available are presented below with their coverage index. They have been most calculated only for Belgium beam trawl fleet since 2009 until 2011. No sole discards estimates are available in 2012. Some discards estimates have been calculated for 2010 and 2011 for other fleets but presented commonly bad coverage index and are, as well, dubious in some cases. **So care is required in the use of these data to draw firm conclusions about catch composition. STECF 13-13 notes that information collected on discards is incomplete, so the apparent absence of discards in the figures for a given species/gear does not necessarily mean zero discards.**

Apart from the Belgium beam trawl fleet (2% of the catches in 8a and 20% in 8b) almost all sole landings are French. Spanish fleets have few sole landings. The main French fleets involve in common sole catches in 8a are the trammel net fleet (62%, increasing on the period), the otter trawl fleet (34% in 2012, stable on the period), and the gill net fleet (2%, decreasing on the period). The main French fleets involve in common sole catches in 8b are the trammel net fleet (60%, increasing on the period), the otter trawl fleet (16%, stable on the period) and the gill net fleet (2%, decreasing on the period).

The catches (landings and discards) of sole in weight and numbers at age by fisheries are scarce and are almost available only for Belgium beam trawl fleet on the period. This information could be finding in the appendixes.

Table 5.10.3.1 – Bay of Biscay – 8a - Trend in total landings (t) for common sole for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2003-2012. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

Length Class	SPECIES	REG_AREA	REG_GEAR	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
o. 10m.	SOL	8a-BoB	BEAM	23	27	33	67	73	16	38	36	20	35
			DEM_SEINE								0	1	1
			DREDGE	2	2	2	2	3	2	2	0	1	0
			GILL	142	185	222	189	119	127	127	95	56	31
			LONGLINE		4	10	8	0	0	0	2	0	0
			OTTER	522	567	592	693	712	564	561	491	551	513
			PEL_SEINE				0						
			PEL_TRAWL	2	0	0	0	1	5	5	1	4	2
			POTS	0			0				0	2	0
			TRAMMEL	489	616	787	1 008	932	1 124	1 124	795	1 171	944
			none				5	0	0	0		0	
Sum o.10m.				1 181	1 401	1 647	1 972	1 841	1 839	1 857	1 422	1 805	1 525

Table 5.10.3.2 – Bay of Biscay – 8a – Discards estimates (t) and their coverage index for common sole for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2003-2012. Derogations are sorted by gear and SPECON (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

Length Class	SPECIES	REG_AREA	REG_GEAR	SPECON	2009 L	2009 D	2009 R	2009 DQI	2010 L	2010 D	2010 R	2010 DQI	2011 L	2011 D	2011 R	2011 DQI	2012 L	2012 D	2012 R	2012 DQI
o. 10m.	SOL	8a-BoB	BEAM	none									0							
			BEAM	SBcIIIart5	38	1	0,025	A	36	2	0,060	A	19	0	0,023	A	35			
			GILL	none	127				7	-	0,000	C	6				6			
			GILL	SBcIIIart5					88	0	0,001	C	50				25			
			OTTER	none	561				125	5 877	0,979	C	153				100			
			OTTER	SBcIIIart5					366	210	0,365	C	398				413			
			TRAMMEL	none	1 124				22	0	0,001	B	17	0	0,010	B	6			
			TRAMMEL	SBcIIIart5					773	0	0,000	C	1 154	7	0,006	C	938			

Table 5.10.3.3 – Bay of Biscay – 8b - Trend in total landings (t) for common sole for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2003-2012. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

Length Class	SPECIES	REG_AREA	REG_GEAR	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
o. 10m.	SOL	8b-BoB	BEAM	273	292	316	313	325	271	324	416	365	351
			DEM_SEINE									0	0
			DREDGE	0		0	0	0	0	0	0	1	0
			GILL	102	108	164	81	37	32	32	23	43	34
			LONGLINE	0	5	0	1	0	0	0	1	1	1
			OTTER	194	179	273	197	236	213	212	304	309	262
			PEL_SEINE		0						0	0	
			PEL_TRAWL	0	0	1	0	0	0	0	2	1	5
			POTS				0	0			0	0	3
			TRAMMEL	502	526	862	831	812	956	953	819	1 073	1 049
			none	0	1	0		0	0	0		2	0
Sum o.10m.				1 072	1 112	1 618	1 424	1 411	1 472	1 521	1 565	1 795	1 706

Table 5.10.3.4 – Bay of Biscay – 8b – Discards estimates (t) and their coverage index for common sole for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2003-2012. Derogations are sorted by gear and SPECON (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

Length Class	SPECIES	REG_AREA	REG_GEAR	SPECON	2009 L	2009 D	2009 R	2009 DQI	2010 L	2010 D	2010 R	2010 DQI	2011 L	2011 D	2011 R	2011 DQI	2012 L	2012 D	2012 R	2012 DQI
o. 10m.	SOL	8b-BoB	BEAM	none									0				0			
			BEAM	SBcIIIart5	324	8	0,025	A	416	26	0,060	A	364	8	0,023	A	351			
			GILL	none	32				3	5	0,618	C	2				1			
			GILL	SBcIIIart5					20	3	0,112	C	41				33			
			OTTER	none	212				24				32				16			
			OTTER	SBcIIIart5					280	177	0,388	C	278				246			
			TRAMMEL	none	953				13	0	0,002	A	7	0	0,062	A	2			
			TRAMMEL	SBcIIIart5					806	1	0,001	A	1 066	39	0,035	B	1 047			

Table 5.10.3.5 – Bay of Biscay – 8a - Trend in total landings (t) and discards (t) for common sole (SOL) for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2003-2012. Derogations are sorted by gear, special conditions (SPECON) and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

SPECIES	REG_AREA	REG_GEAR	SPECON	COUNTRY	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
SOL	8a-BoB	BEAM	none	BEL	23		27		32															
				ENG											0									
				FRA	0		1		1		0										0			
		BEAM	**none**	**Total**	23	-	27	-	33	-	0	-	-	-	0	-	-	-	-	-	0	-	-	-
		BEAM	SBcIIIart5	BEL							67		73		16		38	1	36	2	19	0	35	
				FRA															0	0				
		BEAM	**SBcIIIart5**	**Total**	-	-	-	-	-	-	67	-	73	-	16	-	38	1	36	2	19	0	35	-
		DEM_SEINE	none	FRA															0		1			
		DEM_SEINE	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	1	-	-	-
		DEM_SEINE	SBcIIIart5	FRA																			1	
		DEM_SEINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
		DREDGE	none	FRA	2		2		2		2		3		2		2		0		0		0	
		DREDGE	**none**	**Total**	2	-	2	-	2	-	2	-	3	-	2	-	2	-	0	-	0	-	0	-
		DREDGE	SBcIIIart5	FRA															0		0		0	
		DREDGE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	0	-
		GILL	none	ENG									0		0		0							
				FRA	142		185		222		189		119		127		127		7	-	6		6	
		GILL	**none**	**Total**	142	-	185	-	222	-	189	-	119	-	127	-	127	-	7	-	6	-	6	-
		GILL	SBcIIIart5	FRA															88	0	50		25	
		GILL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	88	0	50	-	25	-
		LONGLINE	none	FRA			4		10		8		0		0		0		0		0		0	
		LONGLINE	**none**	**Total**	-	-	4	-	10	-	8	-	0	-	0	-	0	-	0	-	0	-	0	-
		LONGLINE	SBcIIIart5	FRA															2					
		LONGLINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-
		OTTER	none	ESP																			0	
				FRA	522		567		592		693		712		564		561		125	5 877	153		100	
		OTTER	**none**	**Total**	522	-	567	-	592	-	693	-	712	-	564	-	561	-	125	5 877	153	-	100	-
		OTTER	SBcIIIart5	FRA															366	210	398		413	
		OTTER	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	366	210	398	-	413	-
		PEL_SEINE	none	FRA							0													
		PEL_SEINE	**none**	**Total**	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-
		PEL_TRAWL	none	FRA	2		0		0		0		1		5		5		0		2		0	
		PEL_TRAWL	**none**	**Total**	2	-	0	-	0	-	0	-	1	-	5	-	5	-	0	-	2	-	0	-
		PEL_TRAWL	SBcIIIart5	FRA															1		2		2	
		PEL_TRAWL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-	2	-
		POTS	none	FRA	0						0								0		2		0	
		POTS	**none**	**Total**	0	-	-	-	-	-	0	-	-	-	-	-	-	-	0	-	2	-	0	-
		POTS	SBcIIIart5	FRA															0		0		0	
		POTS	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	0	-
		TRAMMEL	none	FRA	489		616		787		1 008		932		1 124		1 124		22	0	17	0	6	
		TRAMMEL	**none**	**Total**	489	-	616	-	787	-	1 008	-	932	-	1 124	-	1 124	-	22	0	17	0	6	-
		TRAMMEL	SBcIIIart5	FRA															773	0	1 154	7	938	
		TRAMMEL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	773	0	1 154	7	938	-
		none	none	FRA							5		0		0		0				0			
		none	**none**	**Total**	-	-	-	-	-	-	5	-	0	-	0	-	0	-	-	-	0	-	-	-
		none	SBcIIIart5	FRA																	0			
		none	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-
	8a-BoB	**Total (all)**			**1 181**	-	**1 401**	-	**1 647**	-	**1 972**	-	**1 841**	-	**1 839**	-	**1 857**	**1**	**1 422**	**6 090**	**1 805**	**7**	**1 525**	-

Table 5.10.3.6 – Bay of Biscay – 8b - Trend in total landings (t) and discards (t) for common sole (SOL) for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2003-2012. Derogations are sorted by gear, special conditions (SPECON) and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

SPECIES	REG_AREA	REG_GEAR	SPECON	COUNTRY	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
SOL	8b-BoB	BEAM	none	BEL	273		292		316															
				FRA																	0		0	
		BEAM	**none**	**Total**	273	-	292	-	316	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-
		BEAM	SBcIIIart5	BEL							313		325		271		324	8	416	26	364	8	351	
		BEAM	**SBcIIIart5**	**Total**	-	-	-	-	-	-	313	-	325	-	271	-	324	8	416	26	364	8	351	-
		DEM_SEINE	none	FRA																	0			
		DEM_SEINE	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-
		DEM_SEINE	SBcIIIart5	FRA																			0	
		DEM_SEINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
		DREDGE	none	FRA	0				0		0		0		0		0		0		0		0	
		DREDGE	**none**	**Total**	0	-	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
		DREDGE	SBcIIIart5	FRA															0		1		0	
		DREDGE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	1	-	0	-
		GILL	none	ESP																			0	
				FRA	102		108		164		81		37		32		32		3	5	2		1	
		GILL	**none**	**Total**	102	-	108	-	164	-	81	-	37	-	32	-	32	-	3	5	2	-	1	-
		GILL	SBcIIIart5	FRA															20	3	41		33	
		GILL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	3	41	-	33	-
		LONGLINE	none	FRA	0		5		0		1		0		0		0		0		0		1	
		LONGLINE	**none**	**Total**	0	-	5	-	0	-	1	-	0	-	0	-	0	-	0	-	0	-	1	-
		LONGLINE	SBcIIIart5	FRA															0		1		1	
		LONGLINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	1	-	1	-
		OTTER	none	ESP																			2	
				FRA	194		179		273		197		236		213		212		24		32		13	
		OTTER	**none**	**Total**	194	-	179	-	273	-	197	-	236	-	213	-	212	-	24	-	32	-	16	-
		OTTER	SBcIIIart5	FRA															280	177	278		246	
		OTTER	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	280	177	278	-	246	-
		PEL_SEINE	none	FRA			0												0		0			
		PEL_SEINE	**none**	**Total**	-	-	0	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	-	-
		PEL_TRAWL	none	FRA	0		0		1		0		0		0		0		0		0		0	
		PEL_TRAWL	**none**	**Total**	0	-	0	-	1	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
		PEL_TRAWL	SBcIIIart5	FRA															2		1		5	
		PEL_TRAWL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1	-	5	-
		POTS	none	FRA							0		0						0		0			
		POTS	**none**	**Total**	-	-	-	-	-	-	0	-	0	-	-	-	-	-	0	-	0	-	-	-
		POTS	SBcIIIart5	FRA															0		0		3	
		POTS	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	3	-
		TRAMMEL	none	ESP																			0	
				FRA	502		526		862		831		812		956		953		13	0	7	0	2	
		TRAMMEL	**none**	**Total**	502	-	526	-	862	-	831	-	812	-	956	-	953	-	13	0	7	0	2	-
		TRAMMEL	SBcIIIart5	FRA															806	1	1 066	39	1 047	
		TRAMMEL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	806	1	1 066	39	1 047	-
		none	none	ESP																			0	
				FRA	0		1		0				0		0		0							
		none	**none**	**Total**	0	-	1	-	0	-	-	-	0	-	0	-	0	-	-	-	-	-	0	-
		none	SBcIIIart5	FRA																	2			
		none	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-
	8b-BoB	**Total (all)**			**1 072**	-	**1 112**	-	**1 618**	-	**1 424**	-	**1 411**	-	**1 472**	-	**1 521**	**8**	**1 565**	**212**	**1 795**	**47**	**1 706**	-

5.10.4 ToR 1.c Catches (landings and discards) of non-sole species in weight and numbers at age by fisheries

The following section provides quantities of associated species of common sole landings by fisheries for the ICES division 8a and 8b. Discard estimates are scarce. Discards estimates available are presented below with their coverage index. They have been most calculated only for Belgium beam trawl fleet since 2009 until 2012. Some discards estimates have been calculated for 2010 and 2011 for other fleets but presented commonly bad coverage index and are, as well, dubious in some cases. **So care is required in the use of these data to draw firm conclusions about catch composition. STECF 13-13 notes that information collected on discards is incomplete, so the apparent absence of discards in the figures for a given species/gear does not necessarily mean zero discards.**

Table 5.10.4.1 – Bay of Biscay – 8a - Trend in total landings (t) for major associated species of common sole for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2003-2012. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

Length Class	SPECIES	REG_AREA	REG_GEAR	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
o. 10m.	ANF	8a-BoB	BEAM	4	3	8	18	8	2	7	7	4	5
			DEM_SEINE								0	1	0
			DREDGE	1	1	1	0	0	1	1		0	
			GILL	209	304	314	281	305	276	293	135	198	286
			LONGLINE	0	1	0	2	0	0	0	0	0	2
			OTTER	3 090	3 386	3 265	3 316	3 673	3 074	3 061	563	1 766	1 538
			PEL_TRAWL	40	37	0	1	2	4	4	6	10	2
			POTS	0		0	0	0			0	0	0
			TRAMMEL	166	245	207	302	222	293	293	10	90	70
			none				3	0	0	0			5
Sum o.10m.				3 510	3 977	3 796	3 921	4 211	3 651	3 660	721	2 069	1 909

Length Class	SPECIES	REG_AREA	REG_GEAR	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
o. 10m.	HKE	8a-BoB	BEAM	2	2	6	2	1	0	0	0	0	0
			DEM_SEINE								30	28	47
			DREDGE	3	0	2	3	1	1	1	1	0	0
			GILL	1 464	1 404	2 207	1 115	698	1 871	1 843	5 059	5 983	6 745
			LONGLINE	3	2	0	1	1	2	2	63	340	1 573
			OTTER	1 150	1 095	1 274	1 048	1 413	1 850	1 838	1 241	1 227	2 128
			PEL_SEINE	0	0	0	0					1	0
			PEL_TRAWL	280	47	176	151	238	14	14	114	463	854
			POTS								1	1	0
			TRAMMEL	81	98	52	42	107	67	67	40	27	28
			none				1	2	0	0		0	288
Sum o.10m.				2 983	2 647	3 718	2 363	2 462	3 805	3 765	6 549	8 071	11 663

Length Class	SPECIES	REG_AREA	REG_GEAR	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
o. 10m.	NEP	8a-BoB	BEAM	2	4	7	1	1		0		0	
			DREDGE	0	0	2	0	0	1	1	2		
			GILL	1	2	0	1	1	3	3	0	1	0
			OTTER	2 139	2 346	2 846	2 579	2 578	2 455	2 446	2 393	2 744	1 675
			PEL_TRAWL	5		0	2	3	34	34	2	18	5
			POTS	1	2	0					3	4	3
			TRAMMEL	0	1	1	5	0	0	0	3	1	1
			none				0	0	0	0			
			none				0	0	0	0			
Sum o.10m.				2 148	2 355	2 856	2 589	2 584	2 494	2 485	2 402	2 769	1 685

Length Class	SPECIES	REG_AREA	REG_GEAR	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
o. 10m.	WHG	8a-BoB	BEAM	0	0	0	0	1		0	0	0	0
			DEM_SEINE								66	111	116
			DREDGE	2	2	1	1	0	0	0	0	0	0
			GILL	51	33	43	54	42	34	34	36	30	44
			LONGLINE	8	63	69	148	294	167	167	142	182	186
			OTTER	284	331	430	308	265	167	166	347	432	379
			PEL_SEINE				0					0	
			PEL_TRAWL	219	75	108	57	66	25	23	121	72	72
			POTS								1	27	8
			TRAMMEL	17	24	25	51	36	41	41	26	45	45
			none				0	1	0	0		1	0
Sum o.10m.				582	528	675	620	705	435	432	740	901	851

Table 5.10.4.2 – Bay of Biscay – 8a – Discards estimates (t) and their coverage index for major associated species of common sole for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2003-2012. Derogations are sorted by gear and SPECON (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

Length Class	SPECIES	REG_AREA	REG_GEAR	SPECON	2009 L	2009 D	2009 R	2009 DQI	2010 L	2010 D	2010 R	2010 DQI	2011 L	2011 D	2011 R	2011 DQI	2012 L	2012 D	2012 R	2012 DQI
o. 10m.	ANF	8a-BoB	BEAM	none																
			BEAM	SBcIIIart5	7	3	0,262	A	7	2	0,210	A	4	1	0,131	A	5	1	0,141	A
			OTTER	none	3 061				435	5	0,012	B	1 376	41	0,029	C	1 147			
			OTTER	SBcIIIart5					128	92	0,419	C	390	1	0,003	C	391			
			TRAMMEL	none	293				5	1	0,170	C	59	1	0,013	B	22			
			TRAMMEL	SBcIIIart5					4	1	0,221	C	31	5	0,150	B	48			

Length Class	SPECIES	REG_AREA	REG_GEAR	SPECON	2009 L	2009 D	2009 R	2009 DQI	2010 L	2010 D	2010 R	2010 DQI	2011 L	2011 D	2011 R	2011 DQI	2012 L	2012 D	2012 R	2012 DQI
o. 10m.	HKE	8a-BoB	BEAM	none																
			BEAM	SBcIIIart5	0	0	0,498	A	0	0	0,453	A	0	1	0,832	A	0	1	0,874	A
			GILL	none	1 843				4 421	704	0,137	C	5 433	49	0,009	C	5 415			
			GILL	SBcIIIart5					639	14	0,022	C	550				1 329			
			OTTER	none	1 838				575	58	0,092	C	708	446	0,386	C	1 473			
			OTTER	SBcIIIart5					666	4 841	0,879	C	519	139	0,211	C	655			
			PEL_TRAWL	none	14				110	7	0,062	C	405				744			
			PEL_TRAWL	SBcIIIart5					4	1	0,206	C	58				109			
			TRAMMEL	none	67				4	53	0,929	C	1	0	0,112	C	2			
			TRAMMEL	SBcIIIart5					36	22	0,377	C	25	1	0,041	C	26			

Length Class	SPECIES	REG_AREA	REG_GEAR	SPECON	2009 L	2009 D	2009 R	2009 DQI	2010 L	2010 D	2010 R	2010 DQI	2011 L	2011 D	2011 R	2011 DQI	2012 L	2012 D	2012 R	2012 DQI
o. 10m.	NEP	8a-BoB	OTTER	none	2 446				1 220	12 361	0,910	C	1 420				666			
			OTTER	SBcIIIart5					1 173				1 325				1 010			

Length Class	SPECIES	REG_AREA	REG_GEAR	SPECON	2009 L	2009 D	2009 R	2009 DQI	2010 L	2010 D	2010 R	2010 DQI	2011 L	2011 D	2011 R	2011 DQI	2012 L	2012 D	2012 R	2012 DQI
o. 10m.	WHG	8a-BoB	BEAM	none																
			BEAM	SBcIIIart5	0	0	0,500	A	0	0	0,322	A	0	0	0,667	A	0	1	0,765	A
			GILL	none	34				16	685	0,977	C	13				16			
			GILL	SBcIIIart5					20	4	0,180	C	17				28			
			OTTER	none	166				125	535	0,811	C	177				145			
			OTTER	SBcIIIart5					223	955	0,811	C	255				234			
			TRAMMEL	none	41				6	5	0,474	C	3	10	0,780	B	4			
			TRAMMEL	SBcIIIart5					21	29	0,582	C	42	179	0,809	C	41			

Table 5.10.4.3 – Bay of Biscay – 8b - Trend in total landings (t) for major associated species of common sole for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2003-2012. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

Length Class	SPECIES	REG_AREA	REG_GEAR	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
o. 10m.	ANF	8b-BoB	BEAM	113	6	172	121	134	186	188	172	191	196
			DEM_SEINE									1	0
			DREDGE			0	0					0	
			GILL	44	100	167	196	267	265	265	21	61	22
			LONGLINE		0	0	0	0	0	0	0	1	0
			OTTER	179	219	327	270	204	332	332	54	188	624
			PEL_SEINE										11
			PEL_TRAWL	2	1	0	0	1	0	0	0	0	1
			POTS				0	0					
			TRAMMEL	60	107	148	135	158	183	183	12	30	35
			none		0	0							5
Sum o.10m.				398	433	815	723	763	967	968	260	471	895

Length Class	SPECIES	REG_AREA	REG_GEAR	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
o. 10m.	HKE	8b-BoB	BEAM	12	10	9	8	1	3	6	5	5	3
			DEM_SEINE								7	12	18
			DREDGE	0		0	0	0	0	0	1	0	0
			GILL	168	201	683	262	328	642	642	1 039	674	1 111
			LONGLINE	32	20	34	56	77	52	52	385	480	418
			OTTER	258	139	442	222	493	636	634	396	239	1 031
			PEL_SEINE	0	0			0	0	0	1	1	0
			PEL_TRAWL	14	1	41	10	33	37	37	34	14	13
			POTS				0	0			5	8	4
			TRAMMEL	37	26	53	43	88	91	90	137	154	137
			none		1	1		2	2	2		1	2
Sum o.10m.				520	399	1 263	600	1 023	1 464	1 464	2 009	1 588	2 737

Length Class	SPECIES	REG_AREA	REG_GEAR	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
o. 10m.	NEP	8b-BoB	BEAM	1		1	5	2	1	1	3	3	1
			DREDGE			0	0	0			0		0
			GILL		0		0		0	0	0		
			OTTER	190	160	276	328	223	204	204	171	221	150
			PEL_TRAWL			0		0			0	1	2
			POTS					0			0		
			TRAMMEL			0	0	0	0	0	1	0	0
Sum o.10m.				191	160	278	334	225	205	205	176	225	153

Length Class	SPECIES	REG_AREA	REG_GEAR	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
o. 10m.	WHG	8b-BoB	BEAM	1	0	2	1	3	1	2	3	1	3
			DEM_SEINE								19	32	39
			DREDGE	0		0	0	0	0	0	0	0	0
			GILL	11	6	11	10	10	20	20	10	4	11
			LONGLINE	1	1	41	4	8	3	3	14	14	18
			OTTER	65	87	180	175	312	163	163	88	134	172
			PEL_TRAWL	18	5	22	30	67	20	20	35	5	2
			POTS					0			0	0	0
			TRAMMEL	17	7	17	23	36	46	46	20	35	37
			none	0	0			2	0	0		1	1
Sum o.10m.				112	106	272	243	438	255	255	190	226	283

Table 5.10.4.4 – Bay of Biscay – 8b – Discards estimates (t) and their coverage index for major associated species of common sole for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2003-2012. Derogations are sorted by gear and SPECON (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

Length Class	SPECIES	REG_AREA	REG_GEAR	SPECON	2009 L	2009 D	2009 R	2009 DQI	2010 L	2010 D	2010 R	2010 DQI	2011 L	2011 D	2011 R	2011 DQI	2012 L	2012 D	2012 R	2012 DQI
o. 10m.	ANF	8b-BoB	BEAM	none																
			BEAM	SBcIIIart5	188	67	0,262	A	172	46	0,210	A	191	29	0,131	A	196	32	0,141	A
			TRAMMEL	none	183				4	0	0,092	A	3	0	0,078	C	3			
			TRAMMEL	SBcIIIart5					8	0	0,046	B	28	1	0,038	C	32			

Length Class	SPECIES	REG_AREA	REG_GEAR	SPECON	2009 L	2009 D	2009 R	2009 DQI	2010 L	2010 D	2010 R	2010 DQI	2011 L	2011 D	2011 R	2011 DQI	2012 L	2012 D	2012 R	2012 DQI
o. 10m.	HKE	8b-BoB	BEAM	none																
			BEAM	SBcIIIart5	6	6	0,499	A	5	4	0,458	A	5	23	0,832	A	3	17	0,874	A
			GILL	none	642				898	100	0,101	C	551	3	0,005	C	982			
			GILL	SBcIIIart5					141	20	0,123	C	122	2	0,014	C	129			
			OTTER	none	634				67	278	0,806	C	54				824			
			OTTER	SBcIIIart5					329	234	0,416	C	185				207			
			TRAMMEL	none	90				5	6	0,533	A	14	4	0,214	C	5			
			TRAMMEL	SBcIIIart5					132	1	0,010	B	140	48	0,256	C	132			

Length Class	SPECIES	REG_AREA	
o. 10m.	NEP	8b-BoB	No discards estimates available

Length Class	SPECIES	REG_AREA	REG_GEAR	SPECON	2009 L	2009 D	2009 R	2009 DQI	2010 L	2010 D	2010 R	2010 DQI	2011 L	2011 D	2011 R	2011 DQI	2012 L	2012 D	2012 R	2012 DQI
o. 10m.	WHG	8b-BoB	BEAM	none																
			BEAM	SBcIIIart5	2	2	0,500	A	3	1	0,323	A	1	3	0,667	A	3	8	0,765	A
			GILL	none	20				9	4	0,338	A	2				4			
			GILL	SBcIIIart5					2	1	0,350	B	1				7			
			OTTER	none	163				24				33				84			
			OTTER	SBcIIIart5					64	366	0,850	C	101				88			
			TRAMMEL	none	46				0	2	0,857	A	1	0	0,308	B	0			
			TRAMMEL	SBcIIIart5					20	179	0,900	A	34	35	0,509	A	37			

The following section provides figures about quantities of sole and other major associated species' landings by fisheries. Discard estimates are scarce. They have been most calculated only for Belgium beam trawl fleet since 2009 until 2012 (2011 for sole). Some discards estimates have been calculated for 2010 and 2011 for other fleets but presented commonly bad coverage index and are, as well, dubious in some cases. **So care is required in the use of these data to draw firm conclusions about catch composition. STECF 13-13 notes that information collected on discards is incomplete, so the apparent absence of discards in the figures for a given species/gear does not necessarily mean zero discards.**

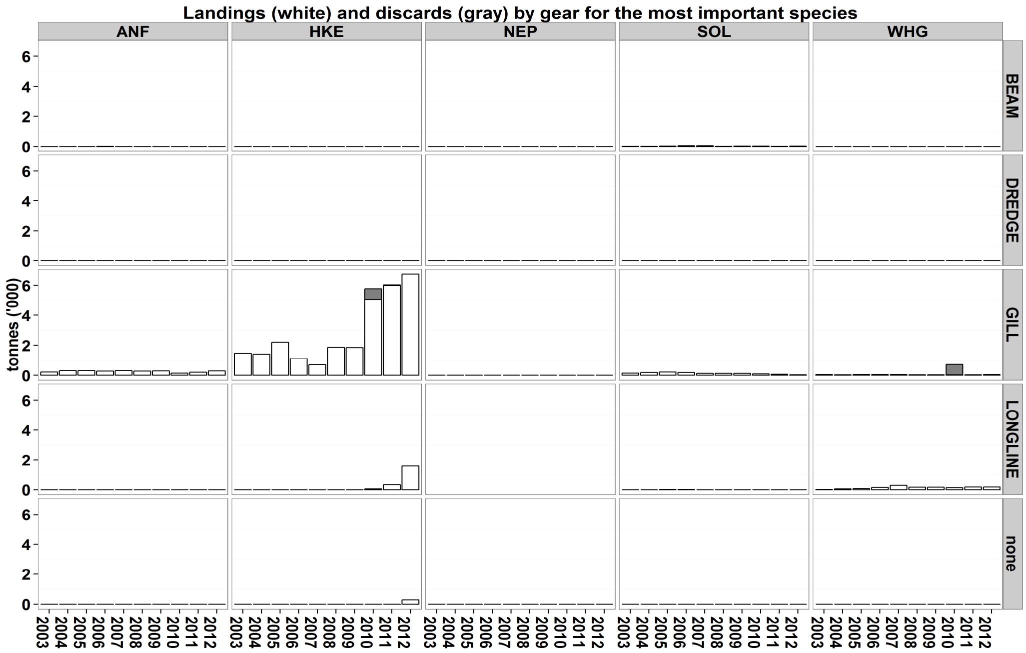


Fig. 5.10.4.1 – Bay of Biscay – 8a - Trend in total landings and discards estimates (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2012. Derogations are sorted by gear (o. 10m length vessels). Note that information collected on discards is incomplete, so the apparent absence of discards in the figures for a given species/gear does not necessarily mean zero discards. Data qualities are summarised in Section 4 of the report.

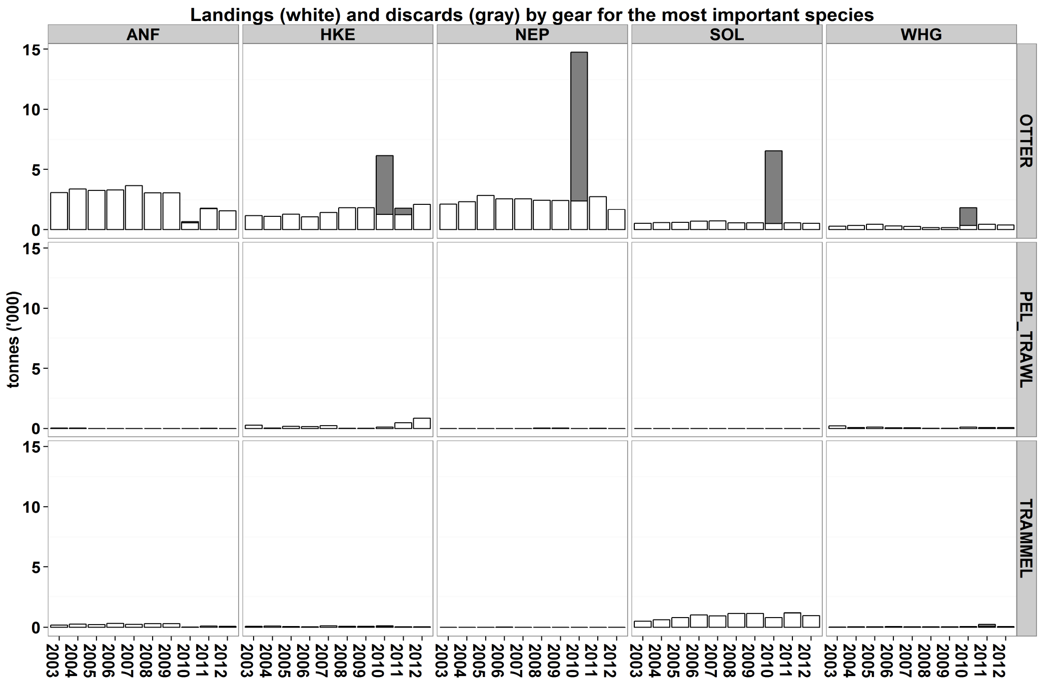


Fig. 5.10.4.1 (continue) – Bay of Biscay – 8a - Trend in total landings and discards estimates (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2012. Derogations are sorted by gear (o. 10m length vessels). Note that information collected on discards is incomplete, so the apparent absence of discards in the figures for a given species/gear does not necessarily mean zero discards. Data qualities are summarised in Section 4 of the report.

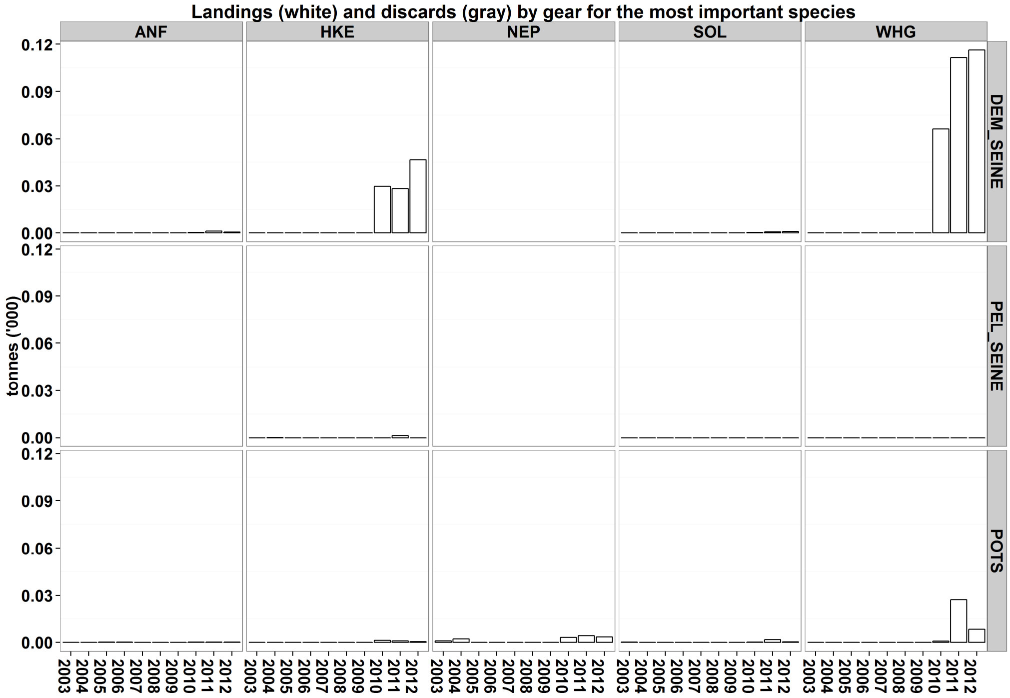


Fig. 5.10.4.1 (continue) – Bay of Biscay – 8a - Trend in total landings and discards estimates (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2012. Derogations are sorted by gear (o. 10m length vessels). Note that information collected on discards is incomplete, so the apparent absence of discards in the figures for a given species/gear does not necessarily mean zero discards. Data qualities are summarised in Section 9 of the report.

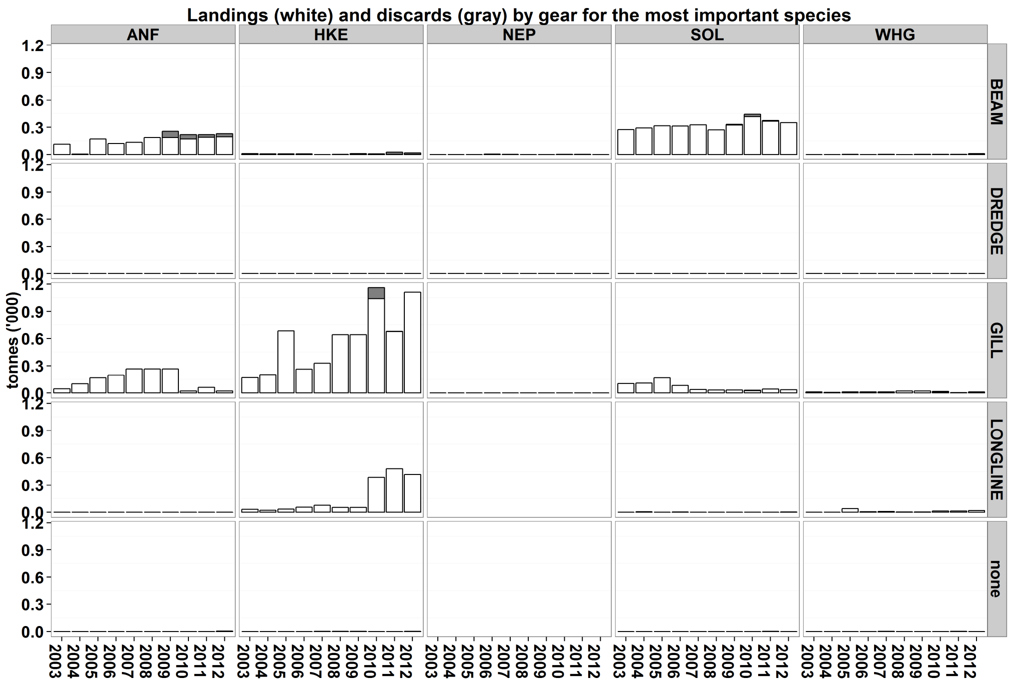


Fig. 5.10.4.2 – Bay of Biscay – 8b - Trend in total landings and discards estimates (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2012. Derogations are sorted by gear (o. 10m length vessels). Note that information collected on discards is incomplete, so the apparent absence of discards in the figures for a given species/gear does not necessarily mean zero discards. Data qualities are summarised in Section 4 of the report.

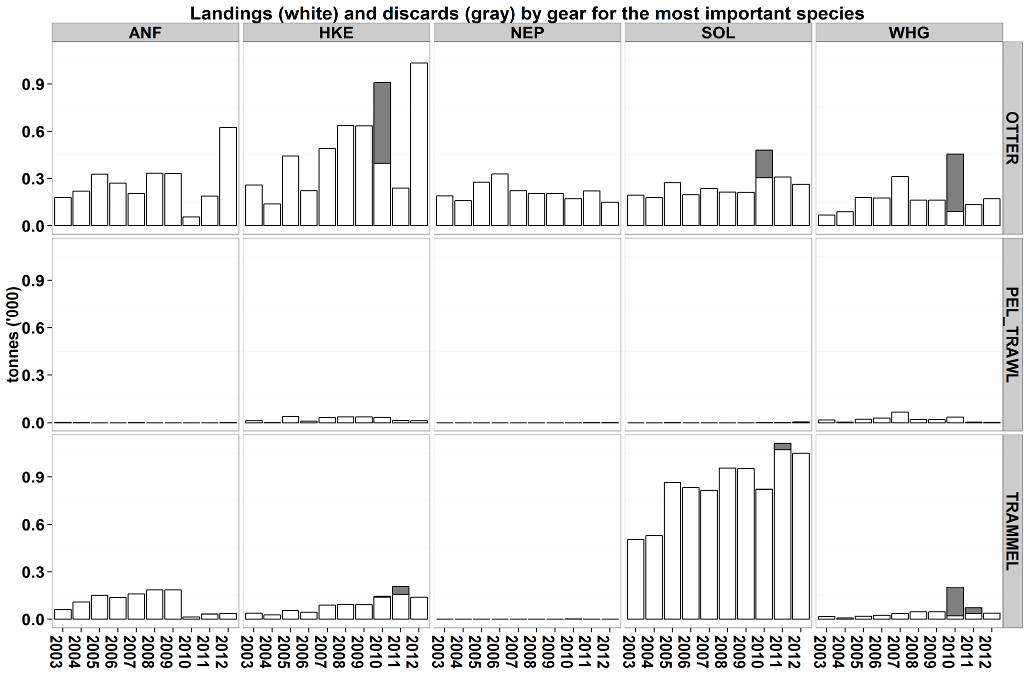
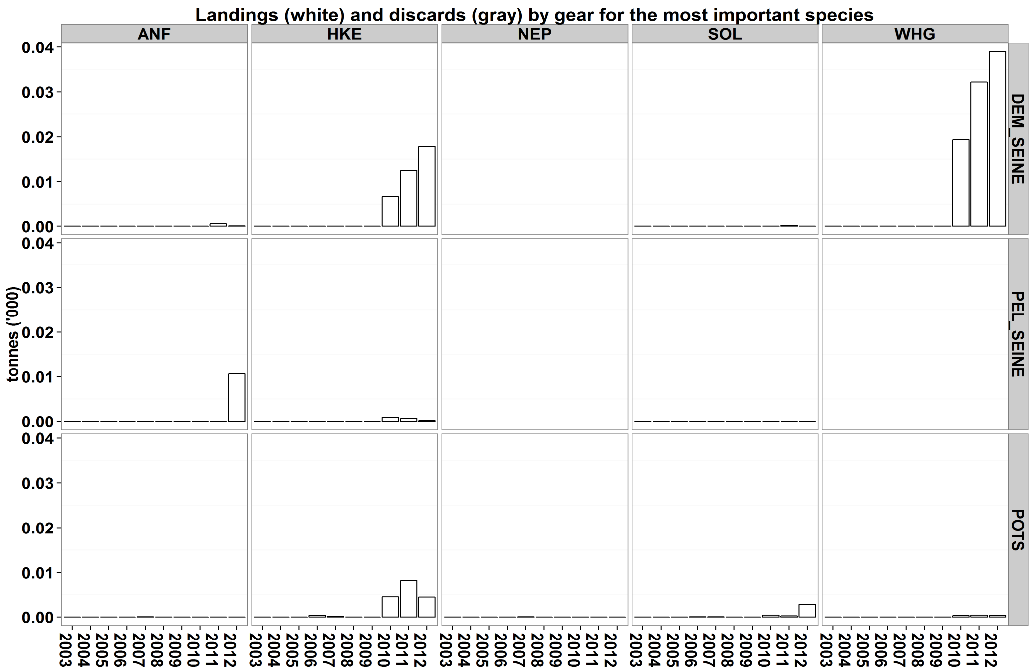


Fig. 5.10.4.2 (continue) – Bay of Biscay – 8b - Trend in total landings and discards estimates (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2012. Derogations are sorted by gear (o. 10m length vessels). Note that information collected on discards is incomplete, so the apparent absence of discards in the figures for a given species/gear does not necessarily mean zero discards. Data qualities are summarised in Section 4 of the report.



5.10.4.2 (continue) – Bay of Biscay – 8b - Trend in total landings and discards estimates (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2012. Derogations are sorted by gear (o. 10m length vessels). Note that information collected on discards is incomplete, so the apparent absence of discards in the figures for a given species/gear does not necessarily mean zero discards. Data qualities are summarised in Section 4 of the report.

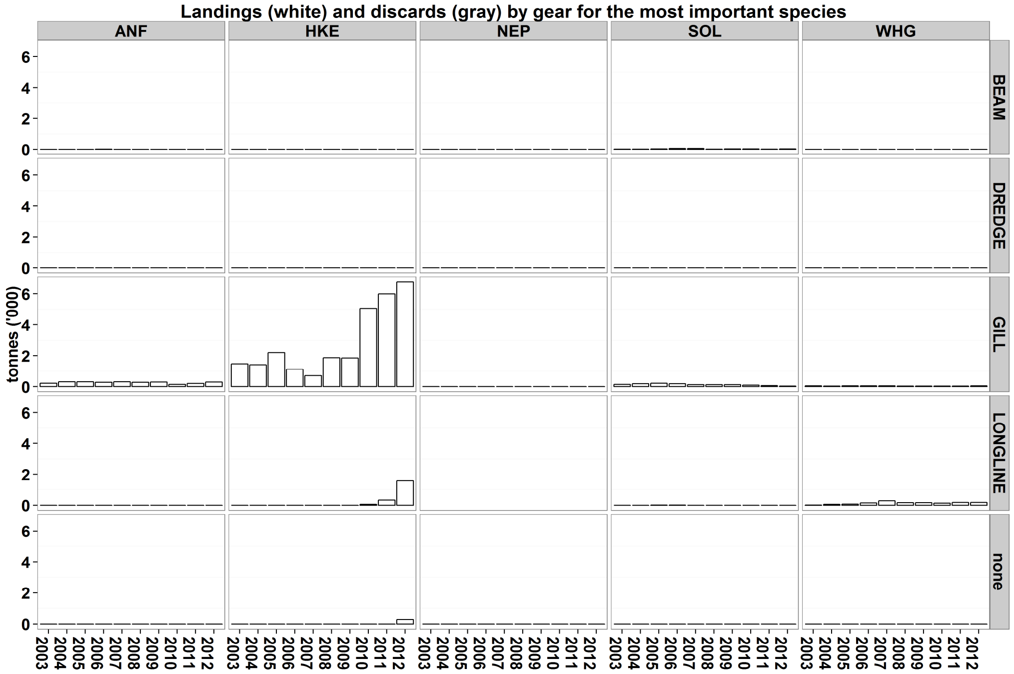


Fig. 5.10.4.3 – Bay of Biscay – 8a - Trend in total landings (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2012. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

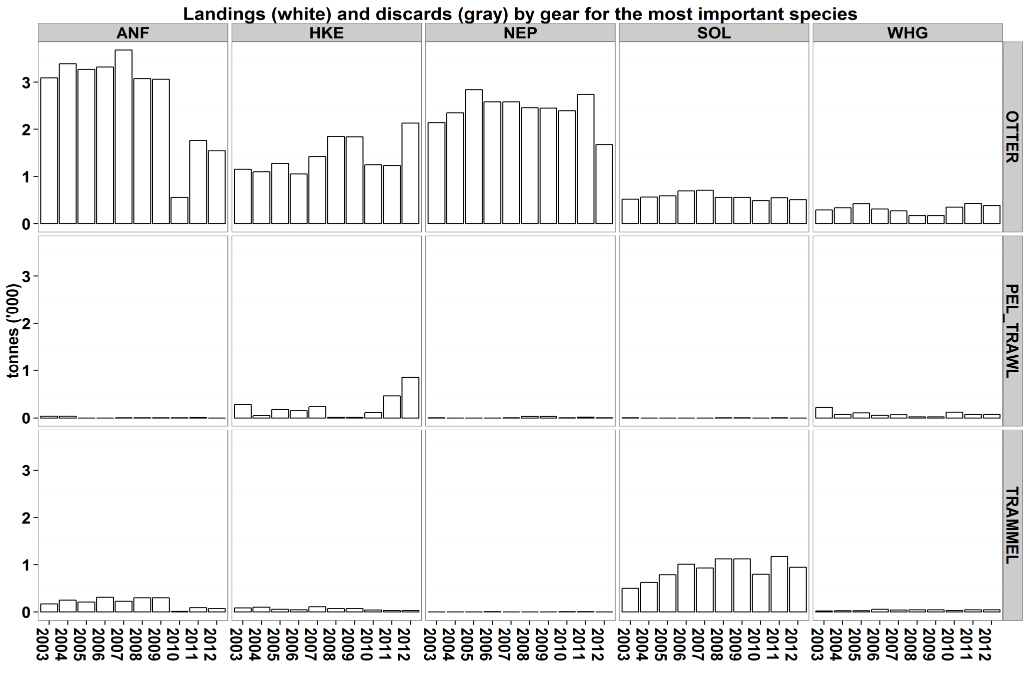


Fig. 5.10.4.3 (continue) – Bay of Biscay – 8a - Trend in total landings (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2012. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

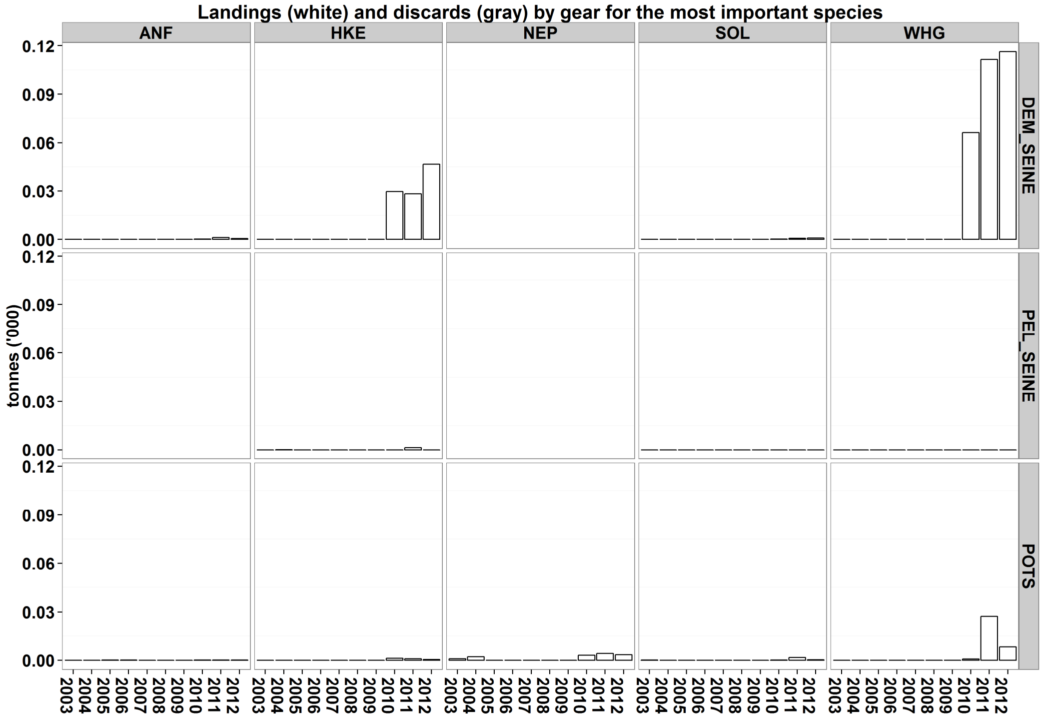


Fig. 5.10.4.3 (continue) – Bay of Biscay – 8a - Trend in total landings (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2012. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

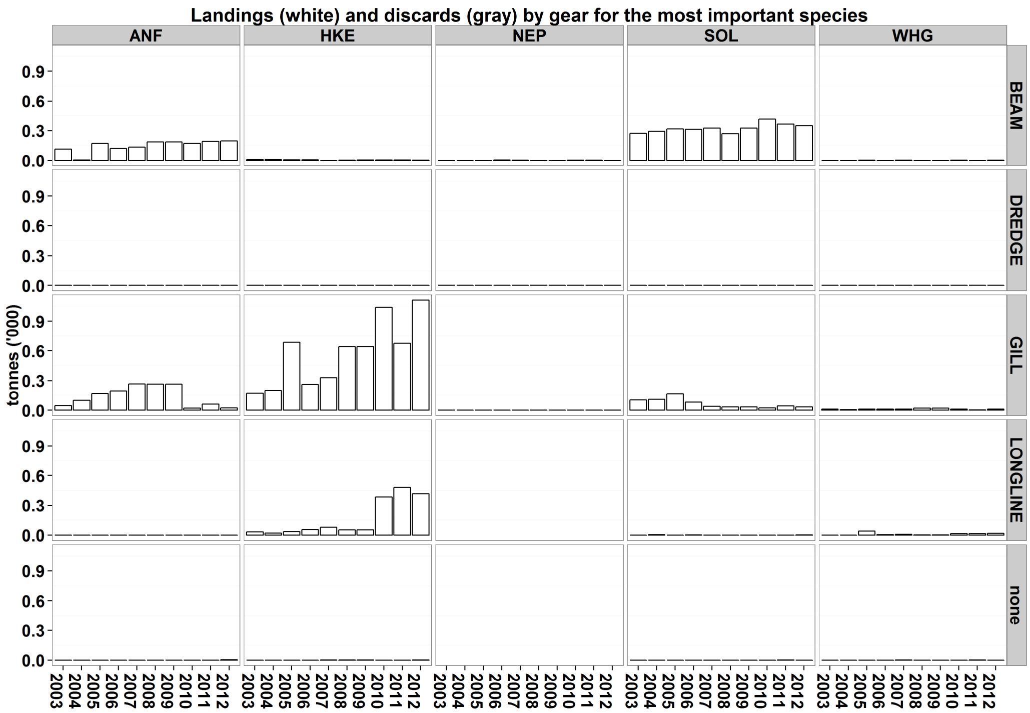


Fig. 5.10.4.4 – Bay of Biscay – 8b - Trend in total landings (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2012. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

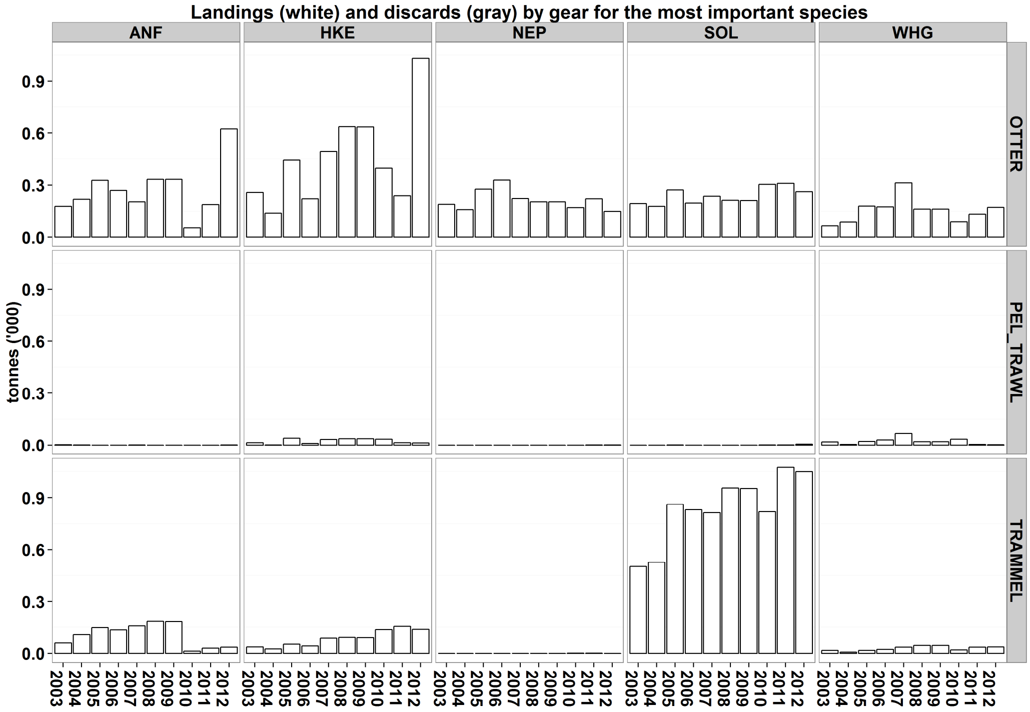


Fig. 5.10.4.4 (continue) – Bay of Biscay – 8b - Trend in total landings (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2012. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

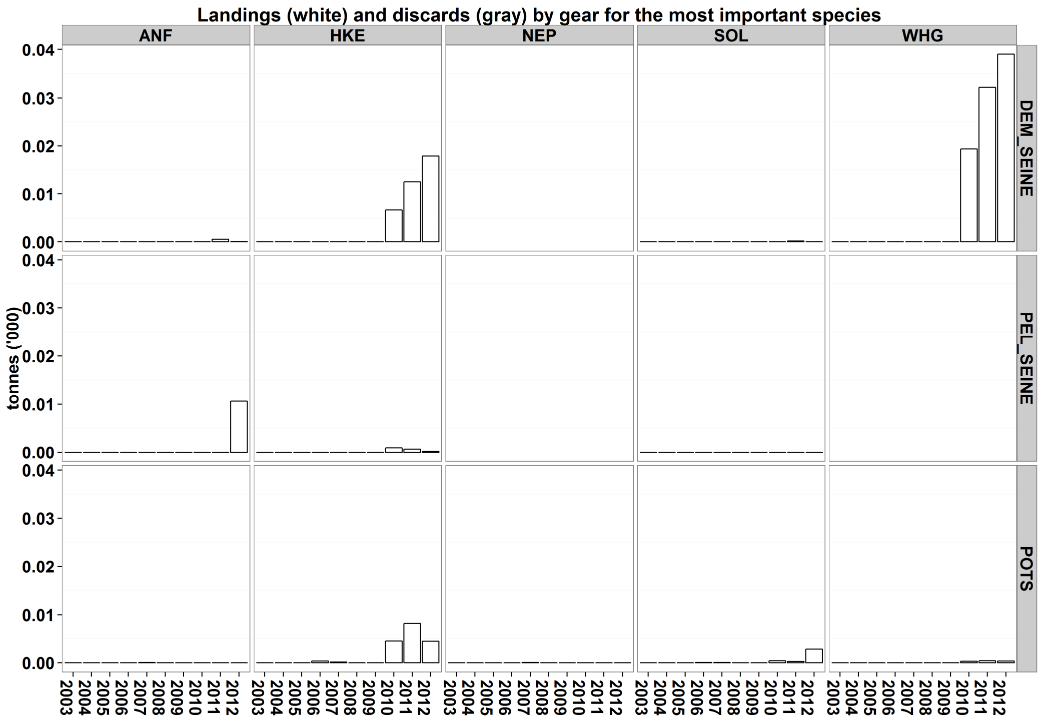


Fig. 5.10.4.4 (continue) – Bay of Biscay – 8b - Trend in total landings (t) for common sole and major associated species for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006, 2003-2012. Derogations are sorted by gear (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

Table 5.10.4.5 Bay of Biscay – 8a- Trend in total landings (t) and discards (t) for AnglerFish (ANF) for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2003-2012. Derogations are sorted by gear, special conditions (SPECON) and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

SPECIES	REG_AREA	REG_GEAR	SPECON	COUNTRY	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
ANF	8a-BoB	BEAM	none	BEL	3		0		7															
				ENG											1									
				FRA	1		2		2		0													
		BEAM	**none**	**Total**	4	-	3	-	8	-	0	-	-	-	1	-	-	-	-	-	-	-	-	-
		BEAM	SBcIIIart5	BEL							18		8		1		7	3	7	2	4	1	5	1
		BEAM	**SBcIIIart5**	**Total**	-	-	-	-	-	-	18	-	8	-	1	-	7	3	7	2	4	1	5	1
		DEM_SEINE	none	FRA															0		1		0	
		DEM_SEINE	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	1	-	0	-
		DEM_SEINE	SBcIIIart5	FRA																			0	
		DEM_SEINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
		DREDGE	none	FRA	1		1		1		0		0		1		1				0			
				IRL	0																			
		DREDGE	**none**	**Total**	1	-	1	-	1	-	0	-	0	-	1	-	1	-	-	-	0	-	-	-
		GILL	none	ENG							31		11		0		32		81		99		142	
				ESP																			5	
				FRA	209		304		314		222		227		194		193		51		94		46	
				SCO							27		67		82		67		2				0	
		GILL	**none**	**Total**	209	-	304	-	314	-	281	-	305	-	276	-	293	-	134	-	193	-	193	-
		GILL	SBcIIIart5	FRA															1		5		93	
		GILL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	5	-	93	-
		LONGLINE	none	ENG	0																			
				ESP																			1	
				FRA	0		1		0		2		0		0		0		0		0		1	
		LONGLINE	**none**	**Total**	0	-	1	-	0	-	2	-	0	-	0	-	0	-	0	-	0	-	2	-
		LONGLINE	SBcIIIart5	FRA															0		0			
		LONGLINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	-	-
		OTTER	none	ENG																	2	-		
				ESP																			93	
				FRA	3 090		3 386		3 265		3 316		3 673		3 074		3 061		435	5	1 374	41	1 055	
		OTTER	**none**	**Total**	3 090	-	3 386	-	3 265	-	3 316	-	3 673	-	3 074	-	3 061	-	435	5	1 376	41	1 147	-
		OTTER	SBcIIIart5	FRA															128	92	390	1	391	
		OTTER	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	128	92	390	1	391	-
		PEL_TRAWL	none	ESP																			1	
				FRA	40		37		0		1		2		4		4		6		10		0	
		PEL_TRAWL	**none**	**Total**	40	-	37	-	0	-	1	-	2	-	4	-	4	-	6	-	10	-	2	-
		PEL_TRAWL	SBcIIIart5	FRA																	0		0	
		PEL_TRAWL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-
		POTS	none	FRA	0				0		0		0						0		0		0	
		POTS	**none**	**Total**	0	-	-	-	0	-	0	-	0	-	-	-	-	-	0	-	0	-	0	-
		POTS	SBcIIIart5	FRA																			0	
		POTS	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
		TRAMMEL	none	FRA	166		245		207		302		222		293		293		5	1	59	1	22	
		TRAMMEL	**none**	**Total**	166	-	245	-	207	-	302	-	222	-	293	-	293	-	5	1	59	1	22	-
		TRAMMEL	SBcIIIart5	FRA															4	1	31	5	48	
		TRAMMEL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	1	31	5	48	-
		none	none	ESP																			5	
				FRA							3		0		0		0							
		none	**none**	**Total**	-	-	-	-	-	-	3	-	0	-	0	-	0	-	-	-	-	-	5	-
	8a-BoB	**Total (all)**			**3 510**	-	**3 977**	-	**3 796**	-	**3 921**	-	**4 211**	-	**3 651**	-	**3 660**	**3**	**721**	**102**	**2 069**	**49**	**1 909**	**1**

Table 5.10.4.6 Bay of Biscay – 8b- Trend in total landings (t) and discards (t) for AnglerFish (ANF) for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2003-2012. Derogations are sorted by gear, special conditions (SPECON) and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

SPECIES	REG_AREA	REG_GEAR	SPECON	COUNTRY	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
ANF	8b-BoB	BEAM	none	BEL	113		6		172															
		BEAM	**none**	**Total**	113	-	6	-	172	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BEAM	SBcIIIart5	BEL							121		134		186		188	67	172	46	191	29	196	32
		BEAM	**SBcIIIart5**	**Total**	-	-	-	-	-	-	121	-	134	-	186	-	188	67	172	46	191	29	196	32
		DEM_SEINE	none	ESP																			0	
				FRA																	1			
		DEM_SEINE	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	0	-
		DREDGE	none	FRA					0		0													
		DREDGE	**none**	**Total**	-	-	-	-	0	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-
		DREDGE	SBcIIIart5	FRA																	0			
		DREDGE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-
		GILL	none	ENG							16		7											
				ESP																			3	
				FRA	44		100		167		180		260		265		265		20		60		13	
				SCO															0					
		GILL	**none**	**Total**	44	-	100	-	167	-	196	-	267	-	265	-	265	-	20	-	60	-	16	-
		GILL	SBcIIIart5	FRA															1		1		7	
		GILL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	7	-
		LONGLINE	none	ESP																			0	
				FRA			0		0		0		0		0		0		0		1			
		LONGLINE	**none**	**Total**	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	1	-	0	-
		OTTER	none	ENG																	5		4	
				ESP																			363	
				FRA	179		219		327		270		204		332		332		18		100		85	
				IRL																	0			
		OTTER	**none**	**Total**	179	-	219	-	327	-	270	-	204	-	332	-	332	-	18	-	106	-	452	-
		OTTER	SBcIIIart5	FRA															36		82		172	
		OTTER	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	-	82	-	172	-
		PEL_SEINE	none	ESP																			10	
				FRA																			0	
		PEL_SEINE	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-
		PEL_TRAWL	none	ESP																			1	
				FRA	2		1		0		0		1		0		0		0		0		0	
		PEL_TRAWL	**none**	**Total**	2	-	1	-	0	-	0	-	1	-	0	-	0	-	0	-	0	-	1	-
		PEL_TRAWL	SBcIIIart5	FRA																			1	
		PEL_TRAWL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-
		POTS	none	FRA							0		0											
		POTS	**none**	**Total**	-	-	-	-	-	-	0	-	0	-	-	-	-	-	-	-	-	-	-	-
		TRAMMEL	none	ESP																			1	
				FRA	60		107		148		135		158		183		183		4	0	3	0	2	
		TRAMMEL	**none**	**Total**	60	-	107	-	148	-	135	-	158	-	183	-	183	-	4	0	3	0	3	-
		TRAMMEL	SBcIIIart5	FRA															8	0	28	1	32	
		TRAMMEL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	0	28	1	32	-
		none	none	ESP																			5	
				FRA			0		0															
		none	**none**	**Total**	-	-	0	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-
	8b-BoB	**Total (all)**			**398**	**-**	**433**	**-**	**815**	**-**	**723**	**-**	**763**	**-**	**967**	**-**	**968**	**67**	**260**	**47**	**471**	**30**	**895**	**32**

Table 5.10.4.7 Bay of Biscay – 8a- Trend in total landings (t) and discards (t) for European Hake (HKE) for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2003-2012. Derogations are sorted by gear, special conditions (SPECON) and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

SPECIES	REG_AREA	REG_GEAR	SPECON	COUNTRY	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
HKE	8a-BoB	BEAM	none	BEL	0		0		0															
				ENG											0									
				FRA	2		1		6		0													
		BEAM	none	Total	2	-	2	-	6	-	0	-	-	-	0	-	-	-	-	-	-	-	-	-
		BEAM	SBcIIIart5	BEL							2		1		0		0	0	0	0	0	1	0	1
				FRA															0	-				
		BEAM	SBcIIIart5	Total	-	-	-	-	-	-	2	-	1	-	0	-	0	0	0	0	0	1	0	1
		DEM_SEINE	none	FRA															30		28		10	
		DEM_SEINE	none	Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	-	28	-	10	-
		DEM_SEINE	SBcIIIart5	FRA																	0		36	
		DEM_SEINE	SBcIIIart5	Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	36	-
		DREDGE	none	FRA	3		0		2		3		1		1		1		1		0		0	
		DREDGE	none	Total	3	-	0	-	2	-	3	-	1	-	1	-	1	-	1	-	0	-	0	-
		DREDGE	SBcIIIart5	FRA																			0	
		DREDGE	SBcIIIart5	Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
		GILL	none	ENG			29		33		11		0		0		0		0	0	0	0	0	
				ESP																			730	
				FRA	1 460		1 356		2 105		1 098		698		1 851		1 843		4 378	701	5 359	49	4 583	
				SCO	4		19		69		6		0		20		0		43	3	73	-	102	
		GILL	none	Total	1 464	-	1 404	-	2 207	-	1 115	-	698	-	1 871	-	1 843	-	4 421	704	5 433	49	5 415	-
		GILL	SBcIIIart5	FRA															639	14	550		1 329	
		GILL	SBcIIIart5	Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	639	14	550	-	1 329	-
		LONGLINE	none	ENG									0											
				ESP																			908	
				FRA	3		2		0		0		1		2		2		53		302		665	
				SCO							1		0		0				10		39			
		LONGLINE	none	Total	3	-	2	-	0	-	1	-	1	-	2	-	2	-	62	-	340	-	1 572	-
		LONGLINE	SBcIIIart5	FRA															1		0		1	
		LONGLINE	SBcIIIart5	Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	0	-	1	-
		OTTER	none	ENG																	2	6		
				ESP																			836	
				FRA	1 150		1 095		1 274		1 048		1 413		1 850		1 838		575	58	705	440	637	
		OTTER	none	Total	1 150	-	1 095	-	1 274	-	1 048	-	1 413	-	1 850	-	1 838	-	575	58	708	446	1 473	-
		OTTER	SBcIIIart5	FRA															666	4 841	519	139	655	
		OTTER	SBcIIIart5	Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	666	4 841	519	139	655	-
		PEL_SEINE	none	FRA	0		0		0		0										1			
		PEL_SEINE	none	Total	0	-	0	-	0	-	0	-	-	-	-	-	-	-	-	-	1	-	-	-
		PEL_SEINE	SBcIIIart5	FRA																			0	
		PEL_SEINE	SBcIIIart5	Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-
		PEL_TRAWL	none	ENG													0		27	-	3			
				FRA	280		47		176		151		238		14		13		80	7	385		742	
				NLD															2	-	17		2	
		PEL_TRAWL	none	Total	280	-	47	-	176	-	151	-	238	-	14	-	14	-	110	7	405	-	744	-
		PEL_TRAWL	SBcIIIart5	FRA															4	1	58		109	
		PEL_TRAWL	SBcIIIart5	Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	1	58	-	109	-
		POTS	none	FRA															1		1		0	
		POTS	none	Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	0	-
		POTS	SBcIIIart5	FRA															0		0		0	
		POTS	SBcIIIart5	Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	0	-
		TRAMMEL	none	ENG											0									
				FRA	81		98		52		42		107		67		67		4	53	1	0	2	
		TRAMMEL	none	Total	81	-	98	-	52	-	42	-	107	-	67	-	67	-	4	53	1	0	2	-
		TRAMMEL	SBcIIIart5	FRA															36	22	25	1	26	
		TRAMMEL	SBcIIIart5	Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	36	22	25	1	26	-
		none	none	ESP																			288	
				FRA							1		2		0		0				0			
		none	none	Total	-	-	-	-	-	-	1	-	2	-	0	-	0	-	-	-	0	-	288	-
		none	SBcIIIart5	FRA																	0			
		none	SBcIIIart5	Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-
	8a-BoB	Total (all)			2 983	-	2 647	-	3 718	-	2 363	-	2 462	-	3 805	-	3 765	0	6 549	5 700	8 071	636	11 663	1

Table 5.10.4.8 Bay of Biscay – 8b- Trend in total landings (t) and discards (t) for European Hake (HKE) for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2003-2012. Derogations are sorted by gear, special conditions (SPECON) and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

SPECIES	REG_AREA	REG_GEAR	SPECON	COUNTRY	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
HKE	8b-BoB	BEAM	none	BEL	12		10		9															
		BEAM	**none**	**Total**	12	-	10	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BEAM	SBcIIIart5	BEL							8		1		3		6	6	5	4	5	23	3	17
		BEAM	**SBcIIIart5**	**Total**	-	-	-	-	-	-	8	-	1	-	3	-	6	6	5	4	5	23	3	17
		DEM_SEINE	none	ESP																			0	
				FRA															7		12		9	
		DEM_SEINE	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	12	-	9	-
		DEM_SEINE	SBcIIIart5	FRA																			8	
		DEM_SEINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-
		DREDGE	none	FRA	0				0		0		0		0		0		0		0		0	
		DREDGE	**none**	**Total**	0	-	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
		DREDGE	SBcIIIart5	FRA															0		0		0	
		DREDGE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	0	-
		GILL	none	ENG					4		0													
				ESP																			285	
				FRA	168		201		679		262		328		642		642		889	99	551	3	697	
				SCO			0												10	1				
		GILL	**none**	**Total**	168	-	201	-	683	-	262	-	328	-	642	-	642	-	898	100	551	3	982	-
		GILL	SBcIIIart5	FRA															141	20	122	2	129	
		GILL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	141	20	122	2	129	-
		LONGLINE	none	ESP																			72	
				FRA	32		20		34		56		77		52		52		364		473		284	
		LONGLINE	**none**	**Total**	32	-	20	-	34	-	56	-	77	-	52	-	52	-	364	-	473	-	356	-
		LONGLINE	SBcIIIart5	FRA															21		7		62	
		LONGLINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-	7	-	62	-
		OTTER	none	ENG																			1	
				ESP																			788	
				FRA	258		139		442		222		493		636		634		67	278	54		34	
		OTTER	**none**	**Total**	258	-	139	-	442	-	222	-	493	-	636	-	634	-	67	278	54	-	824	-
		OTTER	SBcIIIart5	FRA															329	234	185		207	
		OTTER	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	329	234	185	-	207	-
		PEL_SEINE	none	ESP																			0	
				FRA	0		0						0		0		0		1		1			
		PEL_SEINE	**none**	**Total**	0	-	0	-	-	-	-	-	0	-	0	-	0	-	1	-	1	-	0	-
		PEL_TRAWL	none	FRA	14		1		41		10		33		37		37		30		13		9	
		PEL_TRAWL	**none**	**Total**	14	-	1	-	41	-	10	-	33	-	37	-	37	-	30	-	13	-	9	-
		PEL_TRAWL	SBcIIIart5	FRA															5		2		4	
		PEL_TRAWL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	2	-	4	-
		POTS	none	FRA							0		0						4		6		4	
		POTS	**none**	**Total**	-	-	-	-	-	-	0	-	0	-	-	-	-	-	4	-	6	-	4	-
		POTS	SBcIIIart5	FRA															1		2		1	
		POTS	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-	1	-
		TRAMMEL	none	ESP																			0	
				FRA	37		26		53		43		88		91		90		5	6	14	4	4	
		TRAMMEL	**none**	**Total**	37	-	26	-	53	-	43	-	88	-	91	-	90	-	5	6	14	4	5	-
		TRAMMEL	SBcIIIart5	FRA															132	1	140	48	132	
		TRAMMEL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	132	1	140	48	132	-
		none	none	ESP																			2	
				FRA			1		1				2		2		2				1			
		none	**none**	**Total**	-	-	1	-	1	-	-	-	2	-	2	-	2	-	-	-	1	-	2	-
		none	SBcIIIart5	FRA																	0			
		none	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-
	8b-BoB	**Total (all)**			**520**	**-**	**399**	**-**	**1 263**	**-**	**600**	**-**	**1 023**	**-**	**1 464**	**-**	**1 464**	**6**	**2 009**	**643**	**1 588**	**79**	**2 737**	**17**

Table 5.10.4.9 Bay of Biscay – 8a- Trend in total landings (t) and discards (t) for Norway Lobster (NEP) for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2003-2012. Derogations are sorted by gear, special conditions (SPECON) and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

SPECIES	REG_AREA	REG_GEAR	SPECON	COUNTRY	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
NEP	8a-BoB	BEAM	none	BEL					0															
				FRA	2		4		7															
		BEAM	**none**	**Total**	2	-	4	-	7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BEAM	SBcIIIart5	BEL							1		1				0				0			
		BEAM	**SBcIIIart5**	**Total**	-	-	-	-	-	-	1	-	1	-	-	-	0	-	-	-	0	-	-	-
		DREDGE	none	FRA	0		0		2		0		0		1		1		2					
		DREDGE	**none**	**Total**	0	-	0	-	2	-	0	-	0	-	1	-	1	-	2	-	-	-	-	-
		GILL	none	FRA	1		2		0		1		1		3		3		0		0		0	
		GILL	**none**	**Total**	1	-	2	-	0	-	1	-	1	-	3	-	3	-	0	-	0	-	0	-
		GILL	SBcIIIart5	FRA															0		1		0	
		GILL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	1	-	0	-
		OTTER	none	FRA	2 139		2 346		2 846		2 579		2 578		2 455		2 446		1 220	12 361	1 420		663	
				IRL																			2	
		OTTER	**none**	**Total**	2 139	-	2 346	-	2 846	-	2 579	-	2 578	-	2 455	-	2 446	-	1 220	12 361	1 420	-	666	-
		OTTER	SBcIIIart5	FRA															1 173		1 325		1 010	
		OTTER	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1 173	-	1 325	-	1 010	-
		PEL_TRAWL	none	FRA	5				0		2		3		34		34		1		17		0	
		PEL_TRAWL	**none**	**Total**	5	-	-	-	0	-	2	-	3	-	34	-	34	-	1	-	17	-	0	-
		PEL_TRAWL	SBcIIIart5	FRA															1		1		5	
		PEL_TRAWL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	5	-
		POTS	none	FRA	1		2		0										3		4		3	
		POTS	**none**	**Total**	1	-	2	-	0	-	-	-	-	-	-	-	-	-	3	-	4	-	3	-
		POTS	SBcIIIart5	FRA															0					
		POTS	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-
		TRAMMEL	none	FRA	0		1		1		5		0		0		0		2		1		1	
		TRAMMEL	**none**	**Total**	0	-	1	-	1	-	5	-	0	-	0	-	0	-	2	-	1	-	1	-
		TRAMMEL	SBcIIIart5	FRA															0		0		0	
		TRAMMEL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	0	-
		none	none	FRA							0		0		0		0							
		none	**none**	**Total**	-	-	-	-	-	-	0	-	0	-	0	-	0	-	-	-	-	-	-	-
	8a-BoB	**Total (all)**			**2 148**	-	**2 355**	-	**2 856**	-	**2 588**	-	**2 584**	-	**2 494**	-	**2 485**	-	**2 402**	**12 361**	**2 769**	-	**1 685**	-

Table 5.10.4.10 Bay of Biscay – 8b- Trend in total landings (t) and discards (t) for Norway Lobster (NEP) for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2003-2012. Derogations are sorted by gear, special conditions (SPECON) and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

SPECIES	REG_AREA	REG_GEAR	SPECON	COUNTRY	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
NEP	8b-BoB	BEAM	none	BEL	1				1															
		BEAM	**none**	**Total**	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BEAM	SBcIIIart5	BEL							5		2		1		1		3		3		1	
		BEAM	**SBcIIIart5**	**Total**	-	-	-	-	-	-	5	-	2	-	1	-	1	-	3	-	3	-	1	-
		DREDGE	none	FRA					0		0		0										0	
		DREDGE	**none**	**Total**	-	-	-	-	0	-	0	-	0	-	-	-	-	-	-	-	-	-	0	-
		DREDGE	SBcIIIart5	FRA															0					
		DREDGE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-
		GILL	none	FRA			0				0				0		0							
		GILL	**none**	**Total**	-	-	0	-	-	-	0	-	-	-	0	-	0	-	-	-	-	-	-	-
		GILL	SBcIIIart5	FRA															0					
		GILL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-
		OTTER	none	ENG																	0			
				ESP																			0	
				FRA	190		160		276		328		223		204		204		3		15		4	
				IRL																	4		4	
		OTTER	**none**	**Total**	190	-	160	-	276	-	328	-	223	-	204	-	204	-	3	-	19	-	8	-
		OTTER	SBcIIIart5	FRA															169		202		141	
		OTTER	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	169	-	202	-	141	-
		PEL_TRAWL	none	FRA					0				0								0			
		PEL_TRAWL	**none**	**Total**	-	-	-	-	0	-	-	-	0	-	-	-	-	-	-	-	0	-	-	-
		PEL_TRAWL	SBcIIIart5	FRA															0		1		2	
		PEL_TRAWL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	1	-	2	-
		POTS	none	FRA									0						0					
		POTS	**none**	**Total**	-	-	-	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-
		TRAMMEL	none	FRA					0		0		0		0		0		0		0			
		TRAMMEL	**none**	**Total**	-	-	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	-	-
		TRAMMEL	SBcIIIart5	FRA															1		0		0	
		TRAMMEL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	0	-	0	-
	8b-BoB	**Total (all)**			**191**	-	**160**	-	**278**	-	**334**	-	**225**	-	**205**	-	**205**	-	**176**	-	**225**	-	**153**	-

Table 5.10.4.11 Bay of Biscay – 8a- Trend in total landings (t) and discards (t) for Whiting (WHG) for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2003-2012. Derogations are sorted by gear, special conditions (SPECON) and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

SPECIES	REG_AREA	REG_GEAR	SPECON	COUNTRY	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
WHG	**8a-BoB**	BEAM	none	BEL	0		0		0															
				FRA	0		0		0															
		BEAM	**none**	**Total**	0	-	0	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BEAM	SBcIIIart5	BEL							0		1				0	0	0	0	0	0	0	1
		BEAM	**SBcIIIart5**	**Total**	-	-	-	-	-	-	0	-	1	-	-	-	0	0	0	0	0	0	0	1
		DEM_SEINE	none	FRA															66		111		15	
		DEM_SEINE	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	66	-	111	-	15	-
		DEM_SEINE	SBcIIIart5	FRA																	0		101	
		DEM_SEINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	101	-
		DREDGE	none	FRA	2		2		1		1		0		0		0		0		0		0	
		DREDGE	**none**	**Total**	2	-	2	-	1	-	1	-	0	-	0	-	0	-	0	-	0	-	0	-
		DREDGE	SBcIIIart5	FRA															0				0	
		DREDGE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	0	-
		GILL	none	ESP																			0	
				FRA	51		33		43		54		42		34		34		16	685	13		15	
		GILL	**none**	**Total**	51	-	33	-	43	-	54	-	42	-	34	-	34	-	16	685	13	-	16	-
		GILL	SBcIIIart5	FRA															20	4	17		28	
		GILL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	4	17	-	28	-
		LONGLINE	none	FRA	8		63		69		148		294		167		167		140		181		176	
		LONGLINE	**none**	**Total**	8	-	63	-	69	-	148	-	294	-	167	-	167	-	140	-	181	-	176	-
		LONGLINE	SBcIIIart5	FRA															2		0		10	
		LONGLINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	0	-	10	-
		OTTER	none	ESP																			14	
				FRA	284		331		430		308		265		167		166		125	535	177		131	
		OTTER	**none**	**Total**	284	-	331	-	430	-	308	-	265	-	167	-	166	-	125	535	177	-	145	-
		OTTER	SBcIIIart5	FRA															223	955	255		234	
		OTTER	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	223	955	255	-	234	-
		PEL_SEINE	none	FRA							0										0			
		PEL_SEINE	**none**	**Total**	-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	0	-	-	-
		PEL_TRAWL	none	FRA	219		75		108		57		66		25		23		119		68		29	
		PEL_TRAWL	**none**	**Total**	219	-	75	-	108	-	57	-	66	-	25	-	23	-	119	-	68	-	29	-
		PEL_TRAWL	SBcIIIart5	FRA															2		4		42	
		PEL_TRAWL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	4	-	42	-
		POTS	none	FRA															1		27		8	
		POTS	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	27	-	8	-
		POTS	SBcIIIart5	FRA															0		0		0	
		POTS	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	0	-
		TRAMMEL	none	FRA	17		24		25		51		36		41		41		6	5	3	10	4	
		TRAMMEL	**none**	**Total**	17	-	24	-	25	-	51	-	36	-	41	-	41	-	6	5	3	10	4	-
		TRAMMEL	SBcIIIart5	FRA															21	29	42	179	41	
		TRAMMEL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	29	42	179	41	-
		none	none	ESP																			0	
				FRA							0		1		0		0				1			
		none	**none**	**Total**	-	-	-	-	-	-	0	-	1	-	0	-	0	-	-	-	1	-	0	-
		none	SBcIIIart5	FRA																	0			
		none	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-
	8a-BoB	**Total (all)**			**582**	-	**528**	-	**675**	-	**620**	-	**705**	-	**435**	-	**432**	**0**	**740**	**2 214**	**901**	**189**	**851**	**1**

Table 5.10.4.12 Bay of Biscay – 8b- Trend in total landings (t) and discards (t) for Whiting (WHG) for vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2003-2012. Derogations are sorted by gear, special conditions (SPECON) and country (o. 10m length vessels). Data qualities are summarised in Section 4 of the report.

SPECIES	REG_AREA	REG_GEAR	SPECON	COUNTRY	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
WHG	8b-BoB	BEAM	none	BEL	1		0		2															
		BEAM	**none**	**Total**	1	-	0	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		BEAM	SBcIIIart5	BEL							1		3		1		2	2	3	1	1	3	3	8
		BEAM	**SBcIIIart5**	**Total**	-	-	-	-	-	-	1	-	3	-	1	-	2	2	3	1	1	3	3	8
		DEM_SEINE	none	FRA															14		32		23	
				NLD															5					
		DEM_SEINE	**none**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	-	32	-	23	-
		DEM_SEINE	SBcIIIart5	FRA																			16	
		DEM_SEINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-
		DREDGE	none	FRA	0				0		0		0		0		0		0				0	
		DREDGE	**none**	**Total**	0	-	-	-	0	-	0	-	0	-	0	-	0	-	0	-	-	-	0	-
		DREDGE	SBcIIIart5	FRA															0		0		0	
		DREDGE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	0	-
		GILL	none	FRA	11		6		11		10		10		20		20		9	4	2		4	
		GILL	**none**	**Total**	11	-	6	-	11	-	10	-	10	-	20	-	20	-	9	4	2	-	4	-
		GILL	SBcIIIart5	FRA															2	1	1		7	
		GILL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	1	-	7	-
		LONGLINE	none	FRA	1		1		41		4		8		3		3		13		14		7	
		LONGLINE	**none**	**Total**	1	-	1	-	41	-	4	-	8	-	3	-	3	-	13	-	14	-	7	-
		LONGLINE	SBcIIIart5	FRA															2		0		11	
		LONGLINE	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	0	-	11	-
		OTTER	none	ESP																			72	
				FRA	65		87		180		175		312		163		163		24		33		12	
		OTTER	**none**	**Total**	65	-	87	-	180	-	175	-	312	-	163	-	163	-	24	-	33	-	84	-
		OTTER	SBcIIIart5	FRA															64	366	101		88	
		OTTER	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	64	366	101	-	88	-
		PEL_TRAWL	none	FRA	18		5		22		30		67		20		20		35		3		0	
		PEL_TRAWL	**none**	**Total**	18	-	5	-	22	-	30	-	67	-	20	-	20	-	35	-	3	-	0	-
		PEL_TRAWL	SBcIIIart5	FRA															0		2		2	
		PEL_TRAWL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	2	-	2	-
		POTS	none	FRA									0						0		0			
		POTS	**none**	**Total**	-	-	-	-	-	-	-	-	0	-	-	-	-	-	0	-	0	-	-	-
		POTS	SBcIIIart5	FRA															0		0		0	
		POTS	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	0	-	0	-
		TRAMMEL	none	FRA	17		7		17		23		36		46		46		0	2	1	0	0	
		TRAMMEL	**none**	**Total**	17	-	7	-	17	-	23	-	36	-	46	-	46	-	0	2	1	0	0	-
		TRAMMEL	SBcIIIart5	FRA															20	179	34	35	37	
		TRAMMEL	**SBcIIIart5**	**Total**	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20	179	34	35	37	-
		none	none	ESP																			1	
				FRA	0		0						2		0		0				1			
		none	**none**	**Total**	0	-	0	-	-	-	-	-	2	-	0	-	0	-	-	-	1	-	1	-
	8b-BoB	**Total (all)**			**112**	-	**106**	-	**272**	-	**243**	-	**438**	-	**255**	-	**255**	**2**	**190**	**554**	**226**	**39**	**283**	**8**

5.10.5 ToR 2 Information on small boats (<10m)

5.10.5.1 Fishing effort of small boats by Member State

An overview of the fishing effort of small boats by Member State, gear and SPECON for the ICES division 8a and 8b is presented below. Comparison with the large vessels (>10m) is, as well, proposed.

<u>Almost all effort of small boats is French. No Spanish nor Belgium data are available for small boats.</u>

Small boats represent, the last three years, almost 20% of the effort deployed by the large vessels in 8a and 10% in 8b. Relative stability is observed for the last three years. Main fleets involved in 8a are the longline fleet, the pots fleet, the gill and trammel net fleets and the otter trawl fleet. In 8b, the main fleets are the gill and trammel net fleets, the longline fleet and the pots fleet.

The effort data available for small boats before 2010 seem to be incomplete and the "none" gear category represent a large part of this effort. **So care is required in the use of these data to draw firm conclusions about trends of effort of small boats before 2010.**

Table 5.10.5.1.1 – Bay of Biscay – 8a – Overview of fishing effort in kW*days by fisheries for vessels <10m, comparison with the vessels >=10m, 2003- 2012.

Length Class	REG AREA COD	REG GEAR COD	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
o. 10m.	Sum o. 10m.		**16 188 838**	**17 154 080**	**23 218 619**	**29 332 985**	**30 195 231**	**24 661 463**	**24 267 804**	**20 165 332**	**20 024 416**	**20 925 894**
u. 10m.	8a-BoB	BEAM					2 552			2 376	352	1 320
	8a-BoB	DREDGE	130 847	112 020	151 406	211 597	119 511	87 829	87 829	93 547	84 866	178 770
	8a-BoB	GILL	530 977	477 770	521 942	667 053	673 044	420 628	420 628	1 003 414	847 894	759 362
	8a-BoB	LONGLINE	167 404	215 468	322 477	763 802	879 977	439 161	439 161	1 202 923	1 156 425	1 072 205
	8a-BoB	OTTER	262 946	271 622	286 328	471 349	496 698	274 566	274 566	537 787	534 402	491 967
	8a-BoB	PEL_SEINE	572			990	4 070			1 059	2 507	135
	8a-BoB	PEL_TRAWL	18 611	2 131	4 753	5 254		1 419	1 419	72 779	54 653	164 960
	8a-BoB	POTS	128 570	99 366	122 577	281 297	335 691	244 027	244 027	742 131	786 223	842 154
	8a-BoB	TRAMMEL	264 123	293 150	403 805	653 788	726 655	558 403	558 403	343 896	348 578	322 189
	8a-BoB	none	774 301	711 793	674 676	665 668	830 807	759 604	759 604		158 845	
	Sum u. 10m		**2 278 351**	**2 183 320**	**2 487 964**	**3 720 798**	**4 069 005**	**2 785 637**	**2 785 637**	**3 999 912**	**3 974 745**	**3 833 062**
	% u.10m		**14%**	**13%**	**11%**	**13%**	**13%**	**11%**	**11%**	**20%**	**20%**	**18%**

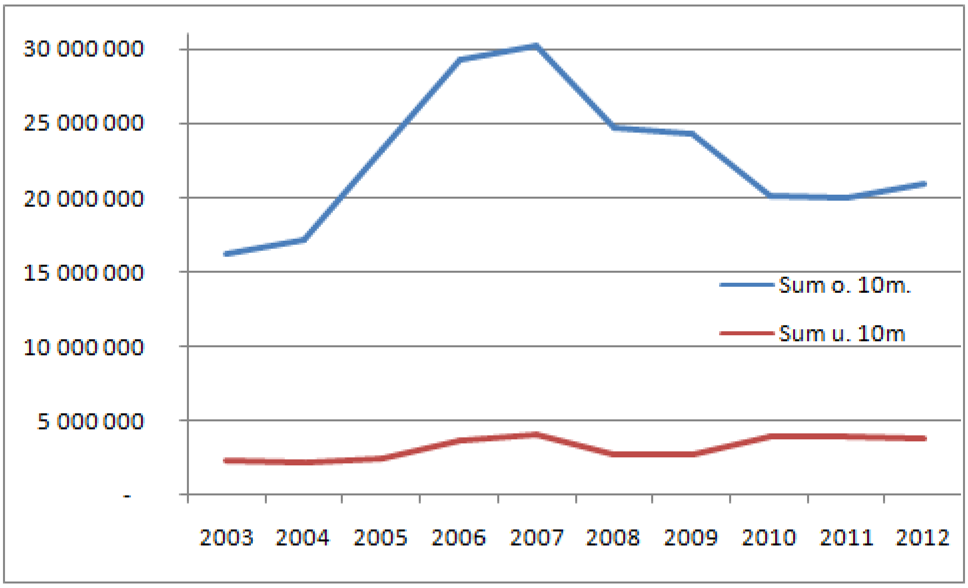


Figure 5.10.5.1.1 – Bay of Biscay – 8a – Overview of fishing effort in kW*days by <10m and >=10m vessels, 2003- 2012.

Table 5.10.5.1.2 – Bay of Biscay – 8b – Overview of fishing effort in kW*days by fisheries for vessels <10m, comparison with the vessels >=10m, 2003- 2012.

Length Class	REG AREA COD	REG GEAR COD	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
o. 10m.	Sum o. 10m.		4 020 090	3 901 506	9 498 305	10 950 565	9 940 628	8 909 928	9 024 236	7 515 638	7 360 157	10 113 983
u. 10m.	8b-BoB	DREDGE		1 804	5 500	6 859	2 741	2 118	2 100	25 048	28 716	14 825
	8b-BoB	GILL	298 567	268 817	352 259	307 297	300 720	301 690	301 690	359 179	310 881	379 396
	8b-BoB	LONGLINE	69 311	77 924	52 621	70 753	73 665	95 834	95 730	88 463	126 485	197 647
	8b-BoB	OTTER	4 568	28 601	31 766	28 532	38 190	15 737	15 737	7 087	3 942	2 096
	8b-BoB	PEL_SEINE								705	4 230	2 585
	8b-BoB	PEL_TRAWL			1 890	2 155	198			10 898	4 172	14 250
	8b-BoB	POTS	7 922	15 057	9 182	24 967	24 376	6 753	6 753	105 023	121 021	117 988
	8b-BoB	TRAMMEL	78 539	82 380	84 760	155 626	149 630	193 300	193 300	263 329	267 340	276 240
	8b-BoB	none	65 912	86 194	87 607	107 822	65 968	71 801	71 801		258 790	
	Sum u. 10m		524 819	560 777	625 585	704 011	655 488	687 233	687 111	859 732	1 125 577	1 005 027
	% u.10m		13%	14%	7%	6%	7%	8%	8%	11%	15%	10%

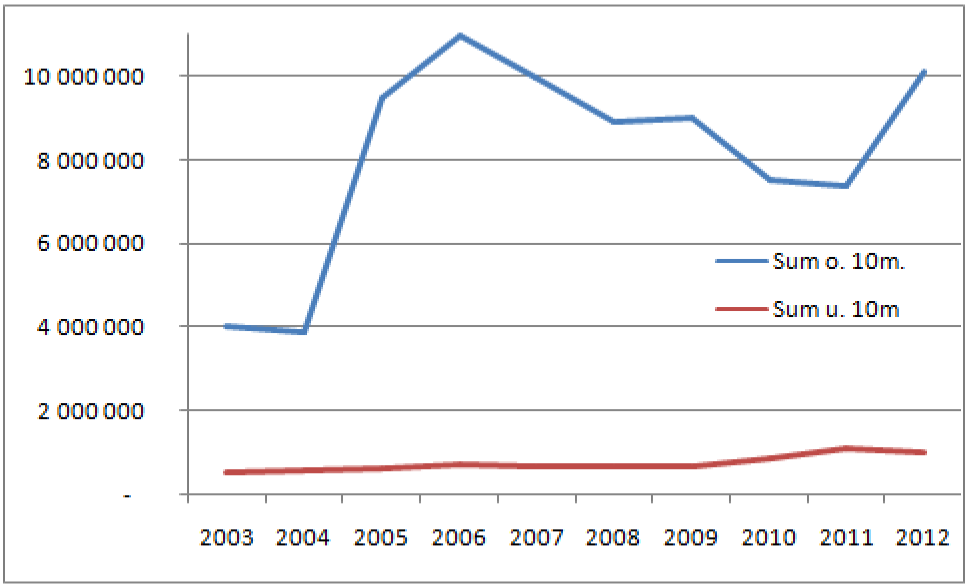


Figure 5.10.5.1.2 – Bay of Biscay – 8b – Overview of fishing effort in kW*days by <10m and >=10m vessels, 2003- 2012.

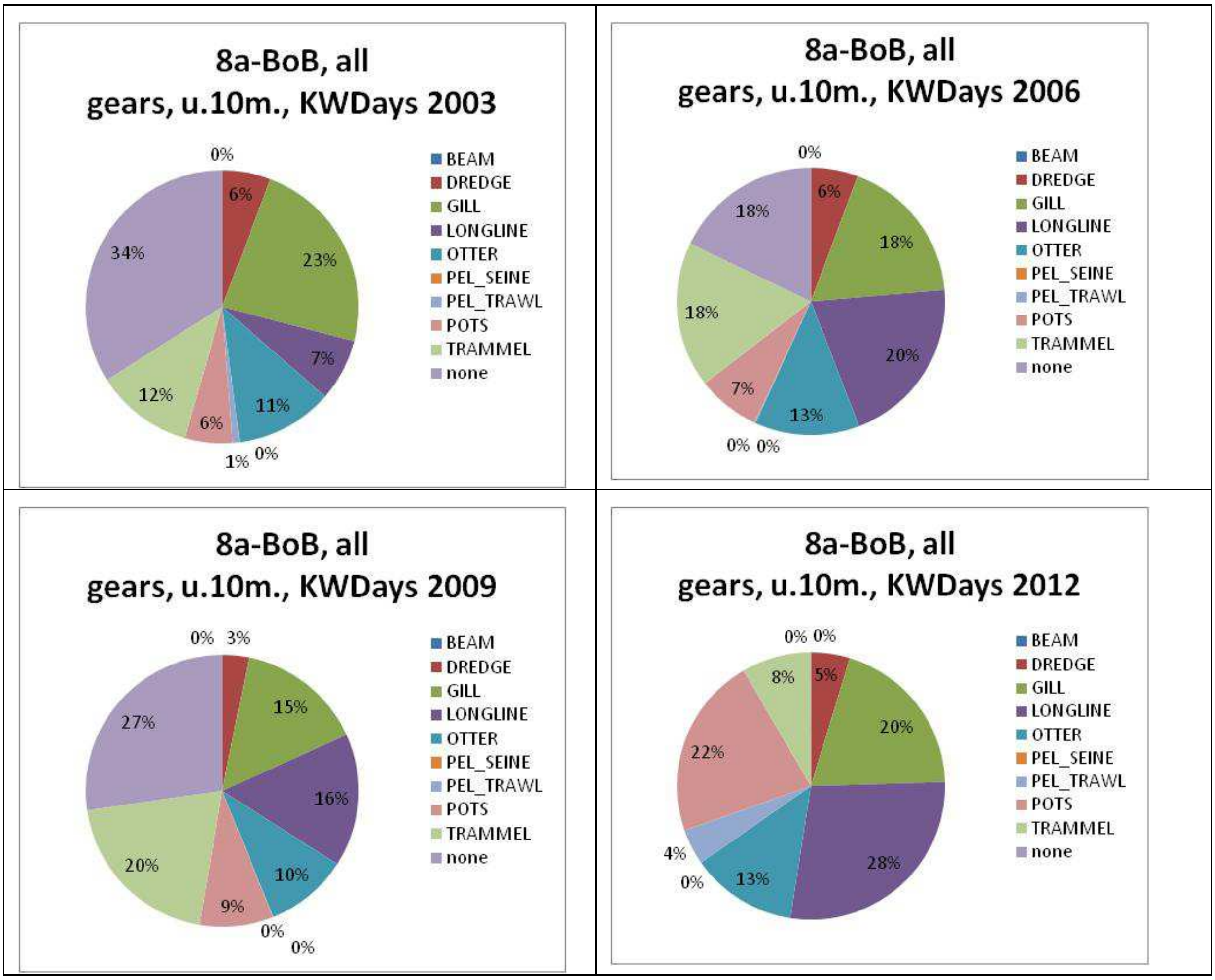


Figure 5.10.5.1.3 Bay of Biscay – 8a, Trend in the distribution per gear of the nominal effort (KWDays) for vessels <10m., 2003, 2006, 2009 and 2012.

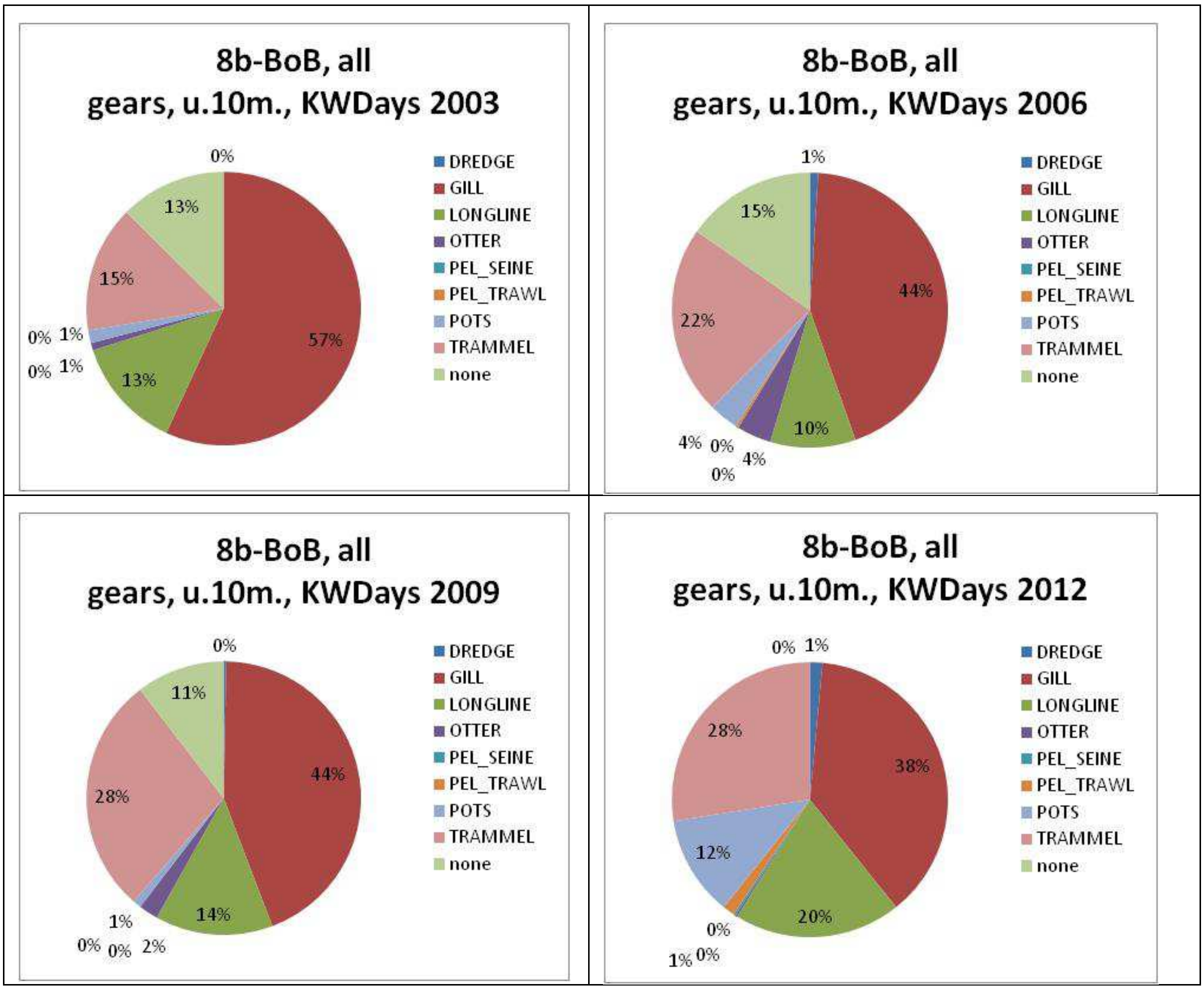


Figure 5.10.5.1.4 Bay of Biscay – 8b, Trend in the distribution per gear of the nominal effort (KWDays) for vessels <10m., 2003, 2006, 2009 and 2012.

Table 5.10.5.1.3 – Bay of Biscay – 8a - Trend in nominal effort (kW*days at sea) by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2000-2012. Derogations are sorted by gear, special condition (SPECON), and country (u. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8a-BoB	BEAM	none	FRA								2 552			2 376	352	1 320
8a-BoB	**Total**	**none**									**2 552**			**2 376**	**352**	**1 320**
8a-BoB	DREDGE	none	FRA	109 502	102 903	326 739	130 847	112 020	151 406	211 597	119 511	87 829	87 829	90 477	84 206	168 998
8a-BoB	**Total**	**none**		**109 502**	**102 903**	**326 739**	**130 847**	**112 020**	**151 406**	**211 597**	**119 511**	**87 829**	**87 829**	**90 477**	**84 206**	**168 998**
8a-BoB	DREDGE	SBcIIIart5	FRA											3 070	660	9 772
8a-BoB	**Total**	**SBcIIIart5**												**3 070**	**660**	**9 772**
8a-BoB	GILL	none	FRA	270 237	325 359	1 394 120	530 977	477 770	521 942	667 053	673 044	420 628	420 628	897 110	690 117	722 851
8a-BoB	**Total**	**none**		**270 237**	**325 359**	**1 394 120**	**530 977**	**477 770**	**521 942**	**667 053**	**673 044**	**420 628**	**420 628**	**897 110**	**690 117**	**722 851**
8a-BoB	GILL	SBcIIIart5	FRA											106 304	157 777	36 511
8a-BoB	**Total**	**SBcIIIart5**												**106 304**	**157 777**	**36 511**
8a-BoB	LONGLINE	none	FRA	95 673	89 129	436 609	167 404	215 468	322 477	763 802	879 977	439 161	439 161	1 179 563	1 098 648	1 011 852
8a-BoB	**Total**	**none**		**95 673**	**89 129**	**436 609**	**167 404**	**215 468**	**322 477**	**763 802**	**879 977**	**439 161**	**439 161**	**1 179 563**	**1 098 648**	**1 011 852**
8a-BoB	LONGLINE	SBcIIIart5	FRA											23 360	57 777	60 353
8a-BoB	**Total**	**SBcIIIart5**												**23 360**	**57 777**	**60 353**
8a-BoB	OTTER	none	FRA	234 456	292 644	1 168 369	262 946	271 622	286 328	471 349	496 698	274 566	274 566	396 595	388 428	469 747
8a-BoB	**Total**	**none**		**234 456**	**292 644**	**1 168 369**	**262 946**	**271 622**	**286 328**	**471 349**	**496 698**	**274 566**	**274 566**	**396 595**	**388 428**	**469 747**
8a-BoB	OTTER	SBcIIIart5	FRA											141 192	145 974	22 220
8a-BoB	**Total**	**SBcIIIart5**												**141 192**	**145 974**	**22 220**
8a-BoB	PEL_SEINE	none	FRA				572			990	4 070			1 059	2 507	135
8a-BoB	**Total**	**none**		-	-		**572**			**990**	**4 070**			**1 059**	**2 507**	**135**
8a-BoB	PEL_TRAWL	none	FRA	3 234	16 084	170 025	18 611	2 131	4 753	5 254		1 419	1 419	70 283	53 964	136 696
8a-BoB	**Total**	**none**		**3 234**	**16 084**	**170 025**	**18 611**	**2 131**	**4 753**	**5 254**		**1 419**	**1 419**	**70 283**	**53 964**	**136 696**
8a-BoB	PEL_TRAWL	SBcIIIart5	FRA											2 496	689	28 264
8a-BoB	**Total**	**SBcIIIart5**												**2 496**	**689**	**28 264**
8a-BoB	POTS	none	FRA	88 512	83 130	403 162	128 570	99 366	122 577	281 297	335 691	244 027	244 027	734 696	757 161	828 204
8a-BoB	**Total**	**none**		**88 512**	**83 130**	**403 162**	**128 570**	**99 366**	**122 577**	**281 297**	**335 691**	**244 027**	**244 027**	**734 696**	**757 161**	**828 204**
8a-BoB	POTS	SBcIIIart5	FRA											7 435	29 062	13 950
8a-BoB	**Total**	**SBcIIIart5**												**7 435**	**29 062**	**13 950**
8a-BoB	TRAMMEL	none	FRA	127 754	143 299	896 535	264 123	293 150	403 805	653 788	726 655	558 403	558 403	304 466	275 906	290 364
8a-BoB	**Total**	**none**		**127 754**	**143 299**	**896 535**	**264 123**	**293 150**	**403 805**	**653 788**	**726 655**	**558 403**	**558 403**	**304 466**	**275 906**	**290 364**
8a-BoB	TRAMMEL	SBcIIIart5	FRA											39 430	72 672	31 825
8a-BoB	**Total**	**SBcIIIart5**												**39 430**	**72 672**	**31 825**
8a-BoB	none	none	FRA	825 608	898 857	4 063 327	774 301	711 793	674 676	665 668	830 807	759 604	759 604		152 175	
8a-BoB	**Total**	**none**		**825 608**	**898 857**	**4 063 327**	**774 301**	**711 793**	**674 676**	**665 668**	**830 807**	**759 604**	**759 604**		**152 175**	
8a-BoB	none	SBcIIIart5	FRA												6 670	
8a-BoB	**Total**	**SBcIIIart5**													**6 670**	

Table 5.10.5.1.4 – Bay of Biscay – 8b - Trend in nominal effort (kW*days at sea) by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2000-2012. Derogations are sorted by gear, special condition (SPECON), and country (u. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8b-BoB	DREDGE	none	ENG									18				
		none	FRA	16 580	11 365	59 193		1 804	5 500	6 859	2 741	2 100	2 100	24 196	28 716	13 476
8b-BoB	**Total**	**none**		**16 580**	**11 365**	**59 193**		**1 804**	**5 500**	**6 859**	**2 741**	**2 118**	**2 100**	**24 196**	**28 716**	**13 476**
8b-BoB	DREDGE	SBcIIIart5	FRA											852		1 349
8b-BoB	**Total**	**SBcIIIart5**												**852**		**1 349**
8b-BoB	GILL	none	ENG							76	50					
		none	FRA	210 461	278 995	865 295	298 567	268 817	352 259	307 221	300 670	301 690	301 690	294 270	289 009	327 223
8b-BoB	**Total**	**none**		**210 461**	**278 995**	**865 295**	**298 567**	**268 817**	**352 259**	**307 297**	**300 720**	**301 690**	**301 690**	**294 270**	**289 009**	**327 223**
8b-BoB	GILL	SBcIIIart5	FRA											64 909	21 872	52 173
8b-BoB	**Total**	**SBcIIIart5**												**64 909**	**21 872**	**52 173**
8b-BoB	LONGLINE	none	ENG									104				
		none	FRA	42 176	62 071	95 124	69 311	77 924	52 621	70 753	73 665	95 730	95 730	88 463	126 485	188 146
8b-BoB	**Total**	**none**		**42 176**	**62 071**	**95 124**	**69 311**	**77 924**	**52 621**	**70 753**	**73 665**	**95 834**	**95 730**	**88 463**	**126 485**	**188 146**
8b-BoB	LONGLINE	SBcIIIart5	FRA													9 501
8b-BoB	**Total**	**SBcIIIart5**														**9 501**
8b-BoB	OTTER	none	FRA	6 787			4 568	28 601	31 766	28 532	38 190	15 737	15 737	7 087	3 942	2 096
8b-BoB	**Total**	**none**		**6 787**			**4 568**	**28 601**	**31 766**	**28 532**	**38 190**	**15 737**	**15 737**	**7 087**	**3 942**	**2 096**
8b-BoB	PEL_SEINE	none	FRA	5 028	10 816									705	4 230	
8b-BoB	**Total**	**none**		**5 028**	**10 816**									**705**	**4 230**	
8b-BoB	PEL_SEINE	SBcIIIart5	FRA													2 585
8b-BoB	**Total**	**SBcIIIart5**														**2 585**
8b-BoB	PEL_TRAWL	none	FRA	545					1 890	2 155	198			10 898	4 172	14 250
8b-BoB	**Total**	**none**		**545**					**1 890**	**2 155**	**198**			**10 898**	**4 172**	**14 250**
8b-BoB	POTS	none	ENG							592				59		
		none	FRA		4 212		7 922	15 057	9 182	24 375	24 376	6 753	6 753	104 964	121 021	107 936
8b-BoB	**Total**	**none**		-	**4 212**	-	**7 922**	**15 057**	**9 182**	**24 967**	**24 376**	**6 753**	**6 753**	**105 023**	**121 021**	**107 936**
8b-BoB	POTS	SBcIIIart5	FRA													10 052
8b-BoB	**Total**	**SBcIIIart5**														**10 052**
8b-BoB	TRAMMEL	none	FRA	41 999	55 099	198 972	78 539	82 380	84 760	155 626	149 630	193 300	193 300	156 110	184 901	169 929
8b-BoB	**Total**	**none**		**41 999**	**55 099**	**198 972**	**78 539**	**82 380**	**84 760**	**155 626**	**149 630**	**193 300**	**193 300**	**156 110**	**184 901**	**169 929**
8b-BoB	TRAMMEL	SBcIIIart5	FRA											107 219	82 439	106 311
8b-BoB	**Total**	**SBcIIIart5**												**107 219**	**82 439**	**106 311**
8b-BoB	none	none	FRA	87 067	86 816	254 769	65 912	86 194	87 607	107 822	65 968	71 801	71 801		258 636	
8b-BoB	**Total**	**none**		**87 067**	**86 816**	**254 769**	**65 912**	**86 194**	**87 607**	**107 822**	**65 968**	**71 801**	**71 801**		**258 636**	
8b-BoB	none	SBcIIIart5	FRA												154	
8b-BoB	**Total**	**SBcIIIart5**													**154**	

Table 5.10.5.1.5 – Bay of Biscay – 8a - Trend in Number of vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2000-2012. Derogations are sorted by gear, special condition (SPECON), and country (u. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8a-BoB	BEAM	none	FRA								1			1	1	1
8a-BoB	**Total**	**none**									**1**			**1**	**1**	**1**
8a-BoB	DREDGE	none	FRA	43	36	44	52	27	32	38	25	15	15	23	14	40
8a-BoB	**Total**	**none**		**43**	**36**	**44**	**52**	**27**	**32**	**38**	**25**	**15**	**15**	**23**	**14**	**40**
8a-BoB	DREDGE	SBcIIIart5	FRA											2	1	2
8a-BoB	**Total**	**SBcIIIart5**												**2**	**1**	**2**
8a-BoB	GILL	none	FRA	15	22	23	24	30	29	49	48	35	35	58	57	48
8a-BoB	**Total**	**none**		**15**	**22**	**23**	**24**	**30**	**29**	**49**	**48**	**35**	**35**	**58**	**57**	**48**
8a-BoB	GILL	SBcIIIart5	FRA											5	7	2
8a-BoB	**Total**	**SBcIIIart5**												**5**	**7**	**2**
8a-BoB	LONGLINE	none	FRA	23	20	36	52	55	62	150	153	91	90	171	168	161
8a-BoB	**Total**	**none**		**23**	**20**	**36**	**52**	**55**	**62**	**150**	**153**	**91**	**90**	**171**	**168**	**161**
8a-BoB	LONGLINE	SBcIIIart5	FRA											3	7	5
8a-BoB	**Total**	**SBcIIIart5**												**3**	**7**	**5**
8a-BoB	OTTER	none	FRA	24	18	23	16	19	14	36	50	27	27	28	31	37
8a-BoB	**Total**	**none**		**24**	**18**	**23**	**16**	**19**	**14**	**36**	**50**	**27**	**27**	**28**	**31**	**37**
8a-BoB	OTTER	SBcIIIart5	FRA											9	10	3
8a-BoB	**Total**	**SBcIIIart5**												**9**	**10**	**3**
8a-BoB	PEL_SEINE	none	FRA				1			2	1			1	2	1
8a-BoB	**Total**	**none**		-	-		**1**			**2**	**1**			**1**	**2**	**1**
8a-BoB	PEL_TRAWL	none	FRA	4	2	2	2	1	1	4		1	1	123	50	85
8a-BoB	**Total**	**none**		**4**	**2**	**2**	**2**	**1**	**1**	**4**		**1**	**1**	**123**	**50**	**85**
8a-BoB	PEL_TRAWL	SBcIIIart5	FRA											5	2	2
8a-BoB	**Total**	**SBcIIIart5**												**5**	**2**	**2**
8a-BoB	POTS	none	FRA	14	15	20	22	25	26	58	66	49	49	130	135	129
8a-BoB	**Total**	**none**		**14**	**15**	**20**	**22**	**25**	**26**	**58**	**66**	**49**	**49**	**130**	**135**	**129**
8a-BoB	POTS	SBcIIIart5	FRA											3	5	2
8a-BoB	**Total**	**SBcIIIart5**												**3**	**5**	**2**
8a-BoB	TRAMMEL	none	FRA	14	18	20	23	31	29	56	78	68	65	32	29	31
8a-BoB	**Total**	**none**		**14**	**18**	**20**	**23**	**31**	**29**	**56**	**78**	**68**	**65**	**32**	**29**	**31**
8a-BoB	TRAMMEL	SBcIIIart5	FRA											2	4	3
8a-BoB	**Total**	**SBcIIIart5**												**2**	**4**	**3**
8a-BoB	none	none	FRA	408	383	415	383	345	367	320	364	311	311		149	
8a-BoB	**Total**	**none**		**408**	**383**	**415**	**383**	**345**	**367**	**320**	**364**	**311**	**311**		**149**	
8a-BoB	none	SBcIIIart5	FRA												7	
8a-BoB	**Total**	**SBcIIIart5**													**7**	

Table 5.10.5.1.6 – Bay of Biscay – 8b - Trend in Number of vessels concerned by existing derogations stated in article 5 of Coun. Reg. 388/2006 and Member State, 2000-2012. Derogations are sorted by gear, special condition (SPECON), and country (u. 10m length vessels). Data qualities are summarised in Section 4 of the report.

REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
8b-BoB	DREDGE	none	ENG									1				
		none	FRA	3	4	2		1	3	2	2	1	1	3	7	7
8b-BoB	**Total**	**none**		**3**	**4**	**2**		**1**	**3**	**2**	**2**	**2**	**1**	**3**	**7**	**7**
8b-BoB	DREDGE	SBcIIIart5	FRA											1		1
8b-BoB	**Total**	**SBcIIIart5**												**1**		**1**
8b-BoB	GILL	none	ENG							2	1					
		none	FRA	49	37	33	32	34	27	28	33	21	21	28	24	20
8b-BoB	**Total**	**none**		**49**	**37**	**33**	**32**	**34**	**27**	**30**	**34**	**21**	**21**	**28**	**24**	**20**
8b-BoB	GILL	SBcIIIart5	FRA											2	2	4
8b-BoB	**Total**	**SBcIIIart5**												**2**	**2**	**4**
8b-BoB	LONGLINE	none	ENG									1				
		none	FRA	21	16	14	16	20	15	18	17	19	18	27	31	30
8b-BoB	**Total**	**none**		**21**	**16**	**14**	**16**	**20**	**15**	**18**	**17**	**20**	**18**	**27**	**31**	**30**
8b-BoB	LONGLINE	SBcIIIart5	FRA													2
8b-BoB	**Total**	**SBcIIIart5**														**2**
8b-BoB	OTTER	none	FRA	1			1	2	3	3	3	2	2	3	1	2
8b-BoB	**Total**	**none**		**1**			**1**	**2**	**3**	**3**	**3**	**2**	**2**	**3**	**1**	**2**
8b-BoB	PEL_SEINE	none	FRA	3	1									1	1	
8b-BoB	**Total**	**none**		**3**	**1**									**1**	**1**	
8b-BoB	PEL_SEINE	SBcIIIart5	FRA													1
8b-BoB	**Total**	**SBcIIIart5**														**1**
8b-BoB	PEL_TRAWL	none	FRA	2					1	7	1			14	8	12
8b-BoB	**Total**	**none**		**2**					**1**	**7**	**1**			**14**	**8**	**12**
8b-BoB	POTS	none	ENG							1				1		
		none	FRA		1		2	2	1	2	2	4	4	37	45	46
8b-BoB	**Total**	**none**		-	**1**	-	**2**	**2**	**1**	**3**	**2**	**4**	**4**	**38**	**45**	**46**
8b-BoB	POTS	SBcIIIart5	FRA													2
8b-BoB	**Total**	**SBcIIIart5**														**2**
8b-BoB	TRAMMEL	none	FRA	19	15	13	12	10	7	13	13	14	14	15	32	21
8b-BoB	**Total**	**none**		**19**	**15**	**13**	**12**	**10**	**7**	**13**	**13**	**14**	**14**	**15**	**32**	**21**
8b-BoB	TRAMMEL	SBcIIIart5	FRA											4	3	6
8b-BoB	**Total**	**SBcIIIart5**												**4**	**3**	**6**
8b-BoB	none	none	FRA	133	111	99	75	59	81	64	40	42	42		65	
8b-BoB	**Total**	**none**		**133**	**111**	**99**	**75**	**59**	**81**	**64**	**40**	**42**	**42**		**65**	
8b-BoB	none	SBcIIIart5	FRA												1	
8b-BoB	**Total**	**SBcIIIart5**													**1**	

5.10.5.2 Catches (landings and discards) of common sole and associated species by small boats by Member State

An overview of the landings of common sole and associated species of small boats by Member State and gear for the ICES division 8a and 8b is presented below. Comparison with the large vessels (>10m) is, as well, proposed.

<u>Almost all landings of common sole of small boats are French. No Spanish nor Belgium data are available for small boats.</u>

Small boats represent the last three years almost 15% of the total landings of sole of the large vessels in 8a and 2% in 8b. Main fleets contributing to these catches in 8a are the gill and trammel net fleets and the otter trawl fleet. In 8b, the main fleets are the gill and trammel net fleets.

The landings data available for small boats before 2010 seem to be incomplete and the “none” gear category represent a large part of this effort. **So care is required in the use of these data to draw firm conclusions about trends of landings of small boats before 2010.**

Table 5.10.5.2.1 – Bay of Biscay – 8a– Overview of landings (t) of sole and associated species sorted by gear, for vessels <10m, compare with vessels >=10m, 2003- 2012.

Length Class	REG AREA COD	REG GEAR COD	SPECIES	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
o. 10m.	Sum_o10m		SOL	1 181	1 401	1 647	1 972	1 841	1 839	1 857	1 422	1 805	1 525
u. 10m.	8a-BoB	DREDGE	SOL				0	0	0	0	0	0	0
	8a-BoB	GILL	SOL	23	22	24	23	30	5	5	142	81	85
	8a-BoB	LONGLINE	SOL	0	0		0	0	0	0	2	5	1
	8a-BoB	OTTER	SOL	33	37	26	58	71	22	22	72	69	102
	8a-BoB	PEL_SEINE	SOL									0	
	8a-BoB	PEL_TRAWL	SOL				0				0	0	12
	8a-BoB	POTS	SOL	0			0	0	0	0	5	2	2
	8a-BoB	TRAMMEL	SOL	26	45	49	96	117	88	88	33	93	44
	8a-BoB	none	SOL		1							0	
	Sum_u10m			83	105	99	176	219	115	115	254	250	246
	% u.10m			7%	7%	6%	9%	12%	6%	6%	18%	14%	16%
o. 10m.	Sum_o10m		ANF	3 510	3 977	3 796	3 921	4 211	3 651	3 660	721	2 069	1 909
u. 10m.	8a-BoB	DREDGE	ANF				0	0	0	0			
	8a-BoB	GILL	ANF	24	32	10	8	3	2	2	12	11	4
	8a-BoB	LONGLINE	ANF	0			0		0	0	1	1	0
	8a-BoB	OTTER	ANF	0	1	1	2	0	0	0	2	1	0
	8a-BoB	PEL_SEINE	ANF				0						
	8a-BoB	POTS	ANF		0	0	0	0	0	0	0	0	0
	8a-BoB	TRAMMEL	ANF	10	12	53	45	29	17	17	4	6	2
	Sum_u10m			34	45	64	55	32	19	19	19	20	6
	% u.10m			1%	1%	2%	1%	1%	1%	1%	3%	1%	0%
o. 10m.	Sum_o10m		HKE	2 983	2 647	3 718	2 363	2 462	3 805	3 765	6 549	8 071	11 663
u. 10m.	8a-BoB	DREDGE	HKE								0	0	
	8a-BoB	GILL	HKE	56	53	38	74	58	51	51	86	30	33
	8a-BoB	LONGLINE	HKE	0	0	0	0	0	0	0	4	2	4
	8a-BoB	OTTER	HKE	9	5	7	12	56	27	27	27	17	10
	8a-BoB	PEL_TRAWL	HKE	0			0				0		1
	8a-BoB	POTS	HKE			0		0			1	1	1
	8a-BoB	TRAMMEL	HKE	11	9	7	6	10	18	18	10	2	2
	Sum_u10m			77	67	52	92	124	95	95	129	52	50
	% u.10m			3%	3%	1%	4%	5%	3%	3%	2%	1%	0%
o. 10m.	Sum_o10m		NEP	2 148	2 355	2 856	2 589	2 584	2 494	2 485	2 402	2 769	1 685
u. 10m.	8a-BoB	DREDGE	NEP								0		
	8a-BoB	GILL	NEP	0		0	0				0	1	0
	8a-BoB	OTTER	NEP	4	7	21	14	9			17	19	12
	8a-BoB	POTS	NEP				1				0	2	2
	8a-BoB	TRAMMEL	NEP								3	0	1
	Sum_u10m			4	7	21	15	9	0	0	20	22	15
	% u.10m			0%	0%	1%	1%	0%	0%	0%	1%	1%	1%
o. 10m.	Sum_o10m		WHG	582	528	675	620	705	435	432	740	901	851
u. 10m.	8a-BoB	DREDGE	WHG					0			0	0	
	8a-BoB	GILL	WHG	9	10	16	25	9	8	8	31	36	37
	8a-BoB	LONGLINE	WHG	3	30	32	33	38	10	10	69	67	106
	8a-BoB	OTTER	WHG	1	2	2	5	3	1	1	14	19	23
	8a-BoB	PEL_SEINE	WHG								0		
	8a-BoB	PEL_TRAWL	WHG	1			0				0	0	2
	8a-BoB	POTS	WHG			0		0			1	3	4
	8a-BoB	TRAMMEL	WHG	2	3	6	11	5	1	1	5	5	3
	8a-BoB	none	WHG		0								
	Sum_u10m			16	45	56	75	55	21	21	120	131	174
	% u.10m			3%	9%	8%	12%	8%	5%	5%	16%	14%	21%

Table 5.10.5.2.2 – Bay of Biscay – 8b– Overview of landings (t) of sole and associated species sorted by gear, for vessels <10m, compare with vessels >=10m, 2003- 2012.

Length Class	REG AREA COD	REG GEAR COD	SPECIES	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
o.10m.	**Sum_o10m**		**SOL**	**1 072**	**1 112**	**1 618**	**1 424**	**1 411**	**1 472**	**1 521**	**1 565**	**1 795**	**1 706**
u.10m.	8b-BoB	DREDGE	SOL									0	
	8b-BoB	GILL	SOL	3	7	4	5	2	2	2	12	6	10
	8b-BoB	LONGLINE	SOL	0		0	0				0	0	0
	8b-BoB	OTTER	SOL		1	1	1	2	1	1	0	0	0
	8b-BoB	PEL_TRAWL	SOL				0						
	8b-BoB	POTS	SOL					0			0	0	0
	8b-BoB	TRAMMEL	SOL	9	6	1	7	3	14	14	29	22	19
	8b-BoB	none	SOL						0	0		0	
	Sum_u10m			**12**	**14**	**7**	**12**	**6**	**18**	**18**	**42**	**29**	**29**
	% u.10m			**1%**	**1%**	**0%**	**1%**	**0%**	**1%**	**1%**	**3%**	**2%**	**2%**
o.10m.	**Sum_o10m**		**ANF**	**398**	**433**	**815**	**723**	**763**	**967**	**968**	**260**	**471**	**895**
u.10m.	8b-BoB	GILL	ANF	0	0	0	0	0	0	0	0	0	0
	8b-BoB	LONGLINE	ANF	0				0					
	8b-BoB	OTTER	ANF		0								
	8b-BoB	TRAMMEL	ANF	0		0	0		0	0	1	1	4
	Sum_u10m			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**2**	**4**
	% u.10m			**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
o.10m.	**Sum_o10m**		**HKE**	**520**	**399**	**1 263**	**600**	**1 023**	**1 464**	**1 464**	**2 009**	**1 588**	**2 737**
u.10m.	8b-BoB	GILL	HKE	3	2	1	2	2	7	7	20	7	14
	8b-BoB	LONGLINE	HKE	17	20	8	12	27	30	30	41	83	79
	8b-BoB	OTTER	HKE		0	1	0	2	3	3	0	0	0
	8b-BoB	PEL_TRAWL	HKE								0		
	8b-BoB	POTS	HKE									1	0
	8b-BoB	TRAMMEL	HKE	1	0	0	1	0	2	2	5	5	5
	8b-BoB	none	HKE									0	
	Sum_u10m			**21**	**23**	**10**	**16**	**31**	**43**	**43**	**67**	**96**	**98**
	% u.10m			**4%**	**6%**	**1%**	**3%**	**3%**	**3%**	**3%**	**3%**	**6%**	**4%**
o.10m.	**Sum_o10m**		**NEP**	**191**	**160**	**278**	**334**	**225**	**205**	**205**	**176**	**225**	**153**
u.10m.	8b-BoB	GILL	NEP								0	0	
	8b-BoB	POTS	NEP										0
	8b-BoB	TRAMMEL	NEP								0		
	Sum_u10m			**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
	% u.10m			**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
o.10m.	**Sum_o10m**		**WHG**	**112**	**106**	**272**	**243**	**438**	**255**	**255**	**190**	**226**	**283**
u.10m.	8b-BoB	DREDGE	WHG					0					
	8b-BoB	GILL	WHG	0	0	0	0	0	0	0	1	0	1
	8b-BoB	LONGLINE	WHG	0	0	0	5	17	16	16	0	1	1
	8b-BoB	OTTER	WHG		0	0	0	1	0	0	0		
	8b-BoB	TRAMMEL	WHG	0	0	0	0	0	1	1	1	1	1
	Sum_u10m			**0**	**0**	**0**	**5**	**18**	**17**	**17**	**2**	**1**	**3**
	% u.10m			**0%**	**0%**	**0%**	**2%**	**4%**	**7%**	**7%**	**1%**	**1%**	**1%**

Table 5.10.5.2.3 Bay of Biscay – 8a - Trend in total landings (t) and discards (t) for SOL for vessels <10m. sorted by gear, special condition (SPECON) and country (u. 10m length vessels), 2000-2012. Data qualities are summarised in Section 4 of the report.

SPECIES	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
SOL	8a-BoB	DREDGE	none	FRA							0	-	0	-	0	-	0	-	0	-	0	-	0	-
	8a-BoB	**Total**	**none**		-	-	-	-	-	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-
	8a-BoB	DREDGE	SBcIIIart5	FRA															0	-				
	8a-BoB	**Total**	**SBcIIIart5**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-
	8a-BoB	GILL	none	FRA	23	-	22	-	24	-	23	-	30	-	5	-	5	-	29	78	28	-	80	-
	8a-BoB	**Total**	**none**		23	-	22	-	24	-	23	-	30	-	5	-	5	-	29	78	28	-	80	-
	8a-BoB	GILL	SBcIIIart5	FRA															113	0	53	-	6	-
	8a-BoB	**Total**	**SBcIIIart5**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	113	0	53	-	6	-
	8a-BoB	LONGLINE	none	FRA	0	-	0	-			0	-	0	-	0	-	0	-	1	-	1	-	1	-
	8a-BoB	**Total**	**none**		0	-	0	-	-	-	0	-	0	-	0	-	0	-	1	-	1	-	1	-
	8a-BoB	LONGLINE	SBcIIIart5	FRA															1	-	3	-		
	8a-BoB	**Total**	**SBcIIIart5**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	3	-	-	-
	8a-BoB	OTTER	none	FRA	33	-	37	-	26	-	58	-	71	-	22	-	22	-	19	-	22	-	99	-
	8a-BoB	**Total**	**none**		33	-	37	-	26	-	58	-	71	-	22	-	22	-	19	-	22	-	99	-
	8a-BoB	OTTER	SBcIIIart5	FRA															53	-	47	-	4	-
	8a-BoB	**Total**	**SBcIIIart5**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	53	-	47	-	4	-
	8a-BoB	PEL_SEINE	none	FRA																	0	-		
	8a-BoB	**Total**	**none**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-
	8a-BoB	PEL_TRAWL	none	FRA							0	-							0	-	0	-	2	-
	8a-BoB	**Total**	**none**		-	-	-	-	-	-	0	-	-	-	-	-	-	-	0	-	0	-	2	-
	8a-BoB	PEL_TRAWL	SBcIIIart5	FRA																			10	-
	8a-BoB	**Total**	**SBcIIIart5**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-
	8a-BoB	POTS	none	FRA	0	-					0	-	0	-	0	-	0	-	3	-	1	-	2	-
	8a-BoB	**Total**	**none**		0	-	-	-	-	-	0	-	0	-	0	-	0	-	3	-	1	-	2	-
	8a-BoB	POTS	SBcIIIart5	FRA															2	-	0	-		
	8a-BoB	**Total**	**SBcIIIart5**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	0	-	-	-
	8a-BoB	TRAMMEL	none	FRA	26	-	45	-	49	-	96	-	117	-	88	-	88	-	25	-	26	-	35	-
	8a-BoB	**Total**	**none**		26	-	45	-	49	-	96	-	117	-	88	-	88	-	25	-	26	-	35	-
	8a-BoB	TRAMMEL	SBcIIIart5	FRA															8	-	67	-	9	-
	8a-BoB	**Total**	**SBcIIIart5**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	67	-	9	-
	8a-BoB	none	none	FRA			1	-													0	-		
	8a-BoB	**Total**	**SBcIIIart5**		-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-
	8a-BoB	**Total (all)**			**83**	-	**105**	-	**99**	-	**176**	-	**219**	-	**115**	-	**115**	-	**254**	**78**	**250**	-	**246**	-

Table 5.10.5.2.4 Bay of Biscay – 8b - Trend in total landings (t) and discards (t) for SOL for vessels <10m. sorted by gear, special condition (SPECON) and country (u. 10m length vessels), 2000-2012. Data qualities are summarised in Section 4 of the report.

SPECIES	REG AREA COD	REG GEAR COD	SPECON	COUNTRY	2003		2004		2005		2006		2007		2008		2009		2010		2011		2012	
					L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D	L	D
SOL	8b-BoB	DREDGE	none	FRA																	0	-		
	8b-BoB	**Total**	**none**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	-	-	-
	8b-BoB	GILL	none	FRA	3	-	7	-	4	-	5	-	2	-	2	-	2	-	6	-	5	-	6	-
	8b-BoB	**Total**	**none**		3	-	7	-	4	-	5	-	2	-	2	-	2	-	6	-	5	-	6	-
	8b-BoB	GILL	SBcIIIart5	FRA															7	-	1	-	4	-
	8b-BoB	**Total**	**SBcIIIart5**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	1	-	4	-
	8b-BoB	LONGLINE	none	FRA	0	-			0	-	0	-							0	-	0	-	0	-
	8b-BoB	**Total**	**none**		0	-	-	-	0	-	0	-	-	-	-	-	-	-	0	-	0	-	0	-
	8b-BoB	OTTER	none	FRA			1	-	1	-	1	-	2	-	1	-	1	-	0	-	0	-	0	-
	8b-BoB	**Total**	**none**		-	-	1	-	1	-	1	-	2	-	1	-	1	-	0	-	0	-	0	-
	8b-BoB	PEL_TRAWL	none	FRA							0	-												
	8b-BoB	**Total**	**none**		-	-	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	-	-	-
	8b-BoB	POTS	none	FRA									0	-					0	-	0	-	0	-
	8b-BoB	**Total**	**none**		-	-	-	-	-	-	-	-	0	-	-	-	-	-	0	-	0	-	0	-
	8b-BoB	TRAMMEL	none	FRA	9	-	6	-	1	-	7	-	3	-	14	-	14	-	10	5	8	0	8	-
	8b-BoB	**Total**	**none**		9	-	6	-	1	-	7	-	3	-	14	-	14	-	10	5	8	0	8	-
	8b-BoB	TRAMMEL	SBcIIIart5	FRA															19	1	13	0	10	-
	8b-BoB	**Total**	**SBcIIIart5**		-	-	-	-	-	-	-	-	-	-	-	-	-	-	19	1	13	0	10	-
	8b-BoB	none	none	FRA											0	-	0	-			0	-		
	8b-BoB	**Total**	**SBcIIIart5**		-	-	-	-	-	-	-	-	-	-	0	-	0	-	-	-	0	-	-	-
	8b-BoB	**Total (all)**			**12**	**-**	**14**	**-**	**7**	**-**	**12**	**-**	**6**	**-**	**18**	**-**	**18**	**-**	**42**	**6**	**29**	**0**	**29**	**-**

5.10.6 ToR 3 Spatio-temporal patterns in effective effort by fisheries

Figures 5.10.6.1 to 5.10.6.11 show the spatial distribution of the effective fishing effort for all the different fisheries operating in the Bay of Biscay during the period 2003 to 2012. The pattern seems similar for the whole period for most of the fleets.

The effort is mostly distributed all across the gulf with somewhat higher values close to the estuaries (Gironde, baie de vilaine).

For trammel and otter, that are the two fisheries for which the effort increased between 2003 and 2007, the spatial effort allocation seems to follow the same trends, starting mainly in south Brittany and increasing in all the area in the following years.

The demersal seine fishery started in 2009 and increased since 2010.

Spanish fleets, included in the 2012 figures, operate mainly in the >12milles' ICES rectangles.

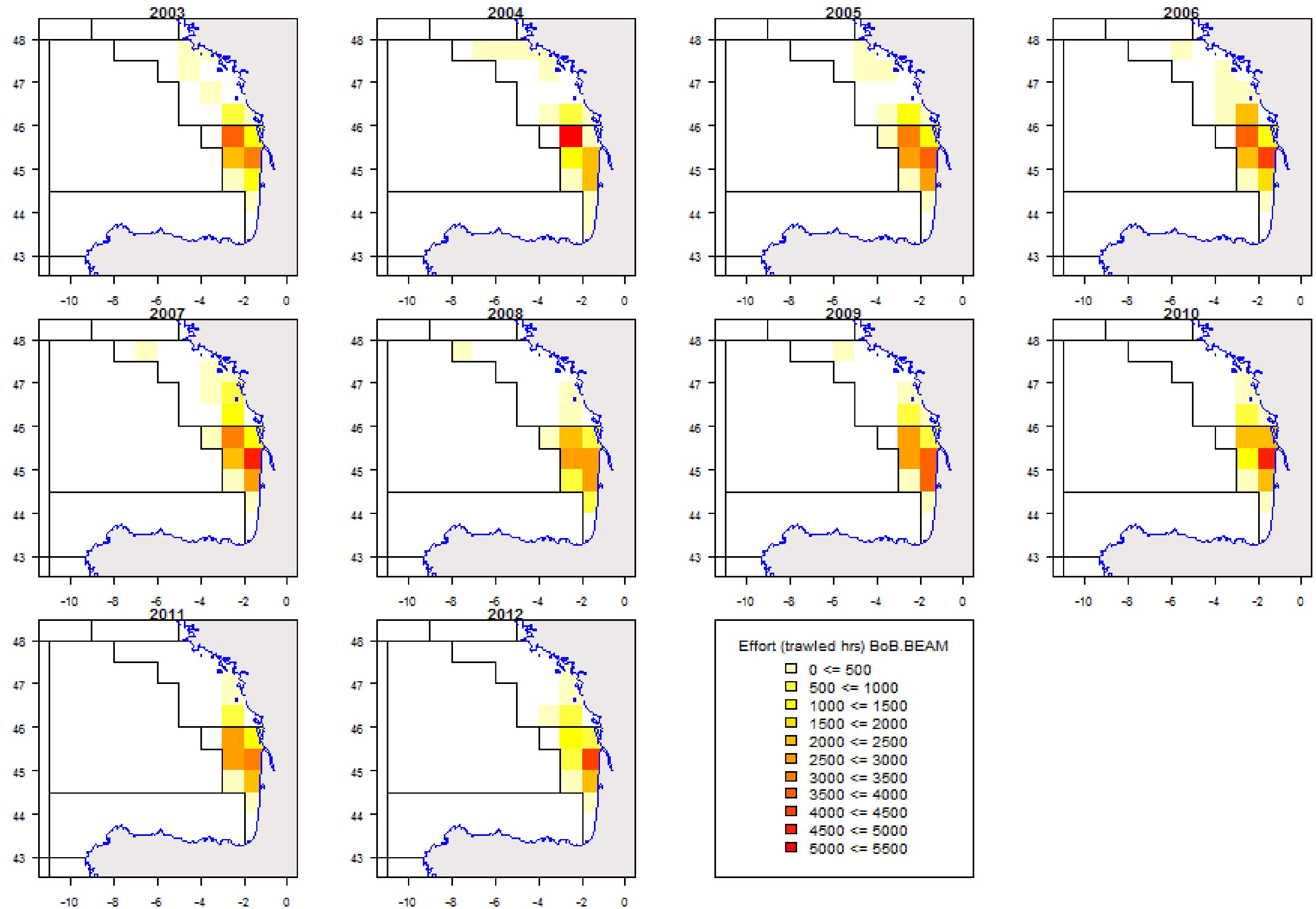


Figure 5.10.6.1. Bay of Biscay. Spatial distribution of effective fishing effort (fished hours) by ICES statistical rectangle for the Beam trawl gear, 2003-2012.

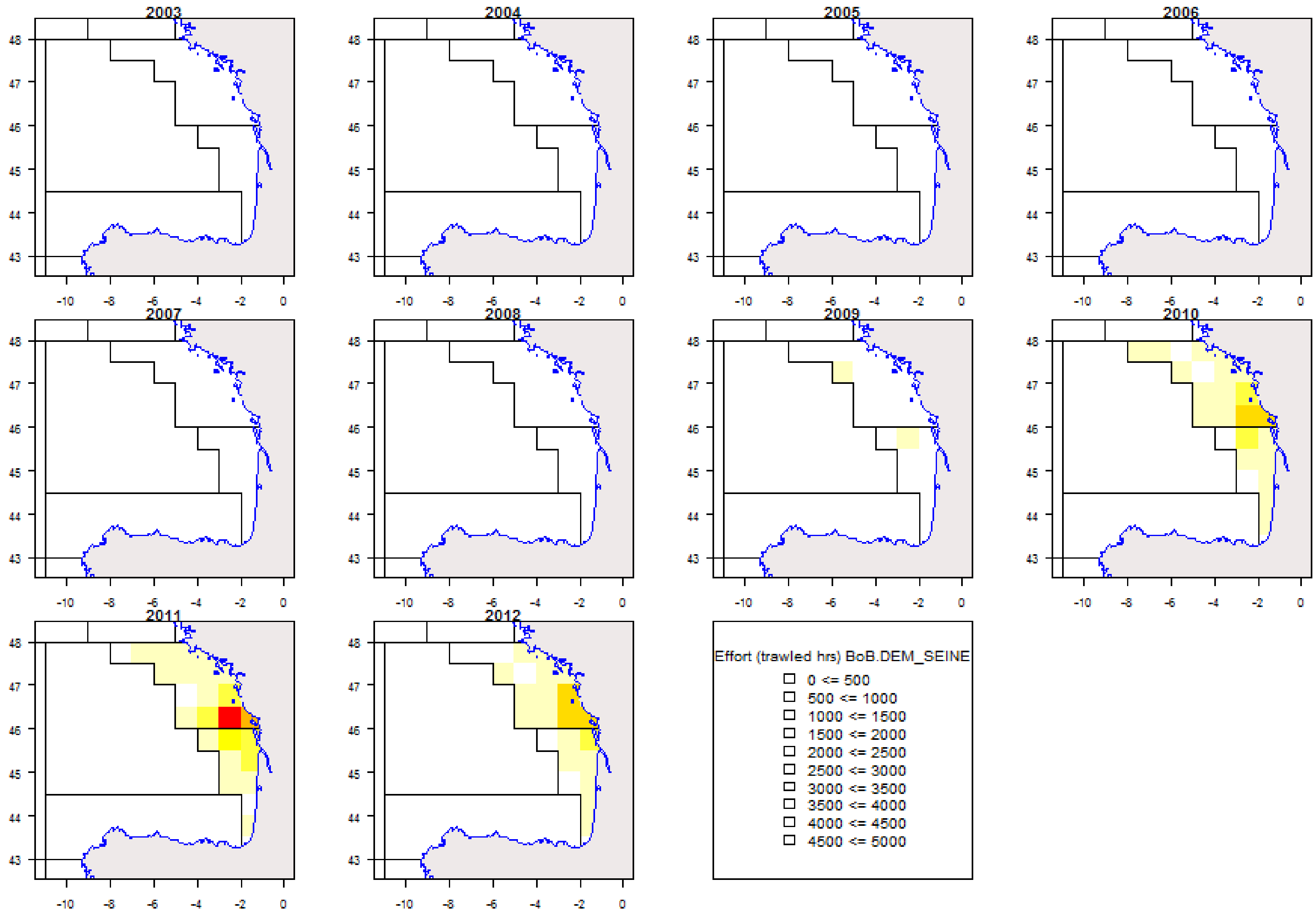


Figure 5.10.6.2. Bay of Biscay. Spatial distribution of effective fishing effort (fished hours) by ICES statistical rectangle for Demersal Seine gear, 2003-2012.

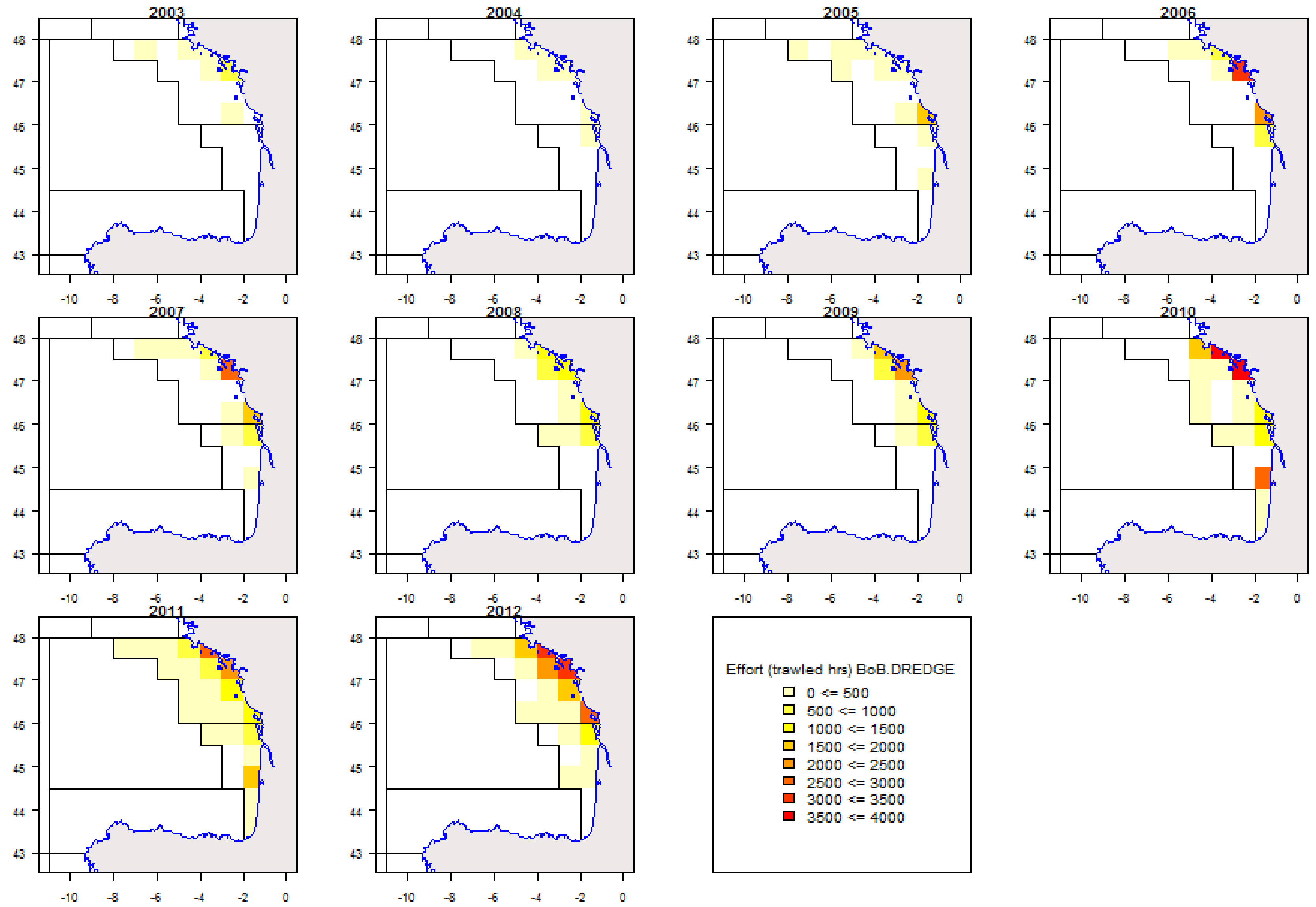


Figure 5.10.6.3. Bay of Biscay. Spatial distribution of effective fishing effort (fished hours) by ICES statistical rectangle for Dredge gear, 2003-2012.

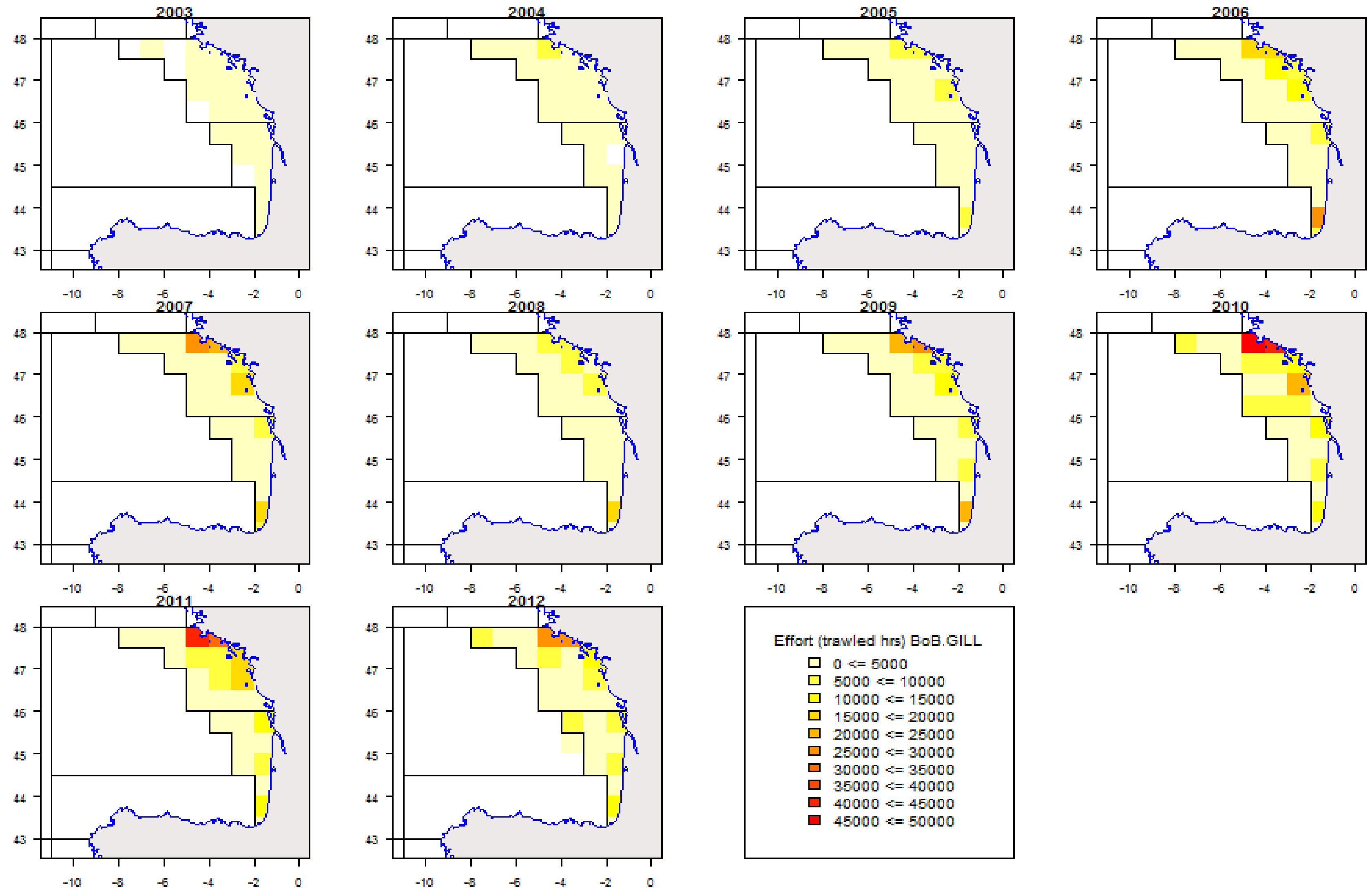


Figure 5.10.6.4. Bay of Biscay. Spatial distribution of effective fishing effort (fished hours) by ICES statistical rectangle for Gill net gear, 2003-2012.

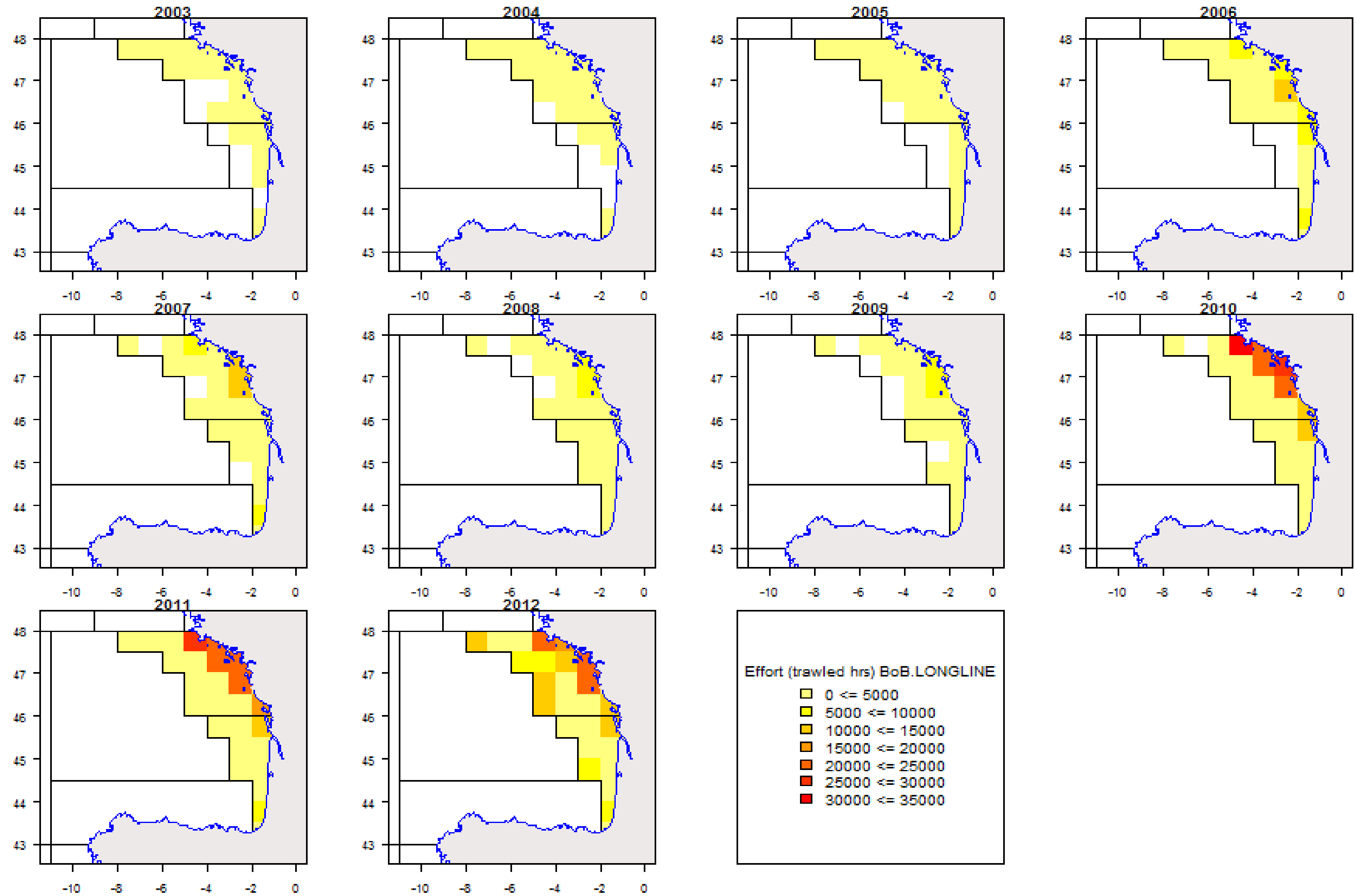


Figure 5.10.6.5. Bay of Biscay. Spatial distribution of effective fishing effort (fished hours) by ICES statistical rectangle for Longline gear, 2003-2012.

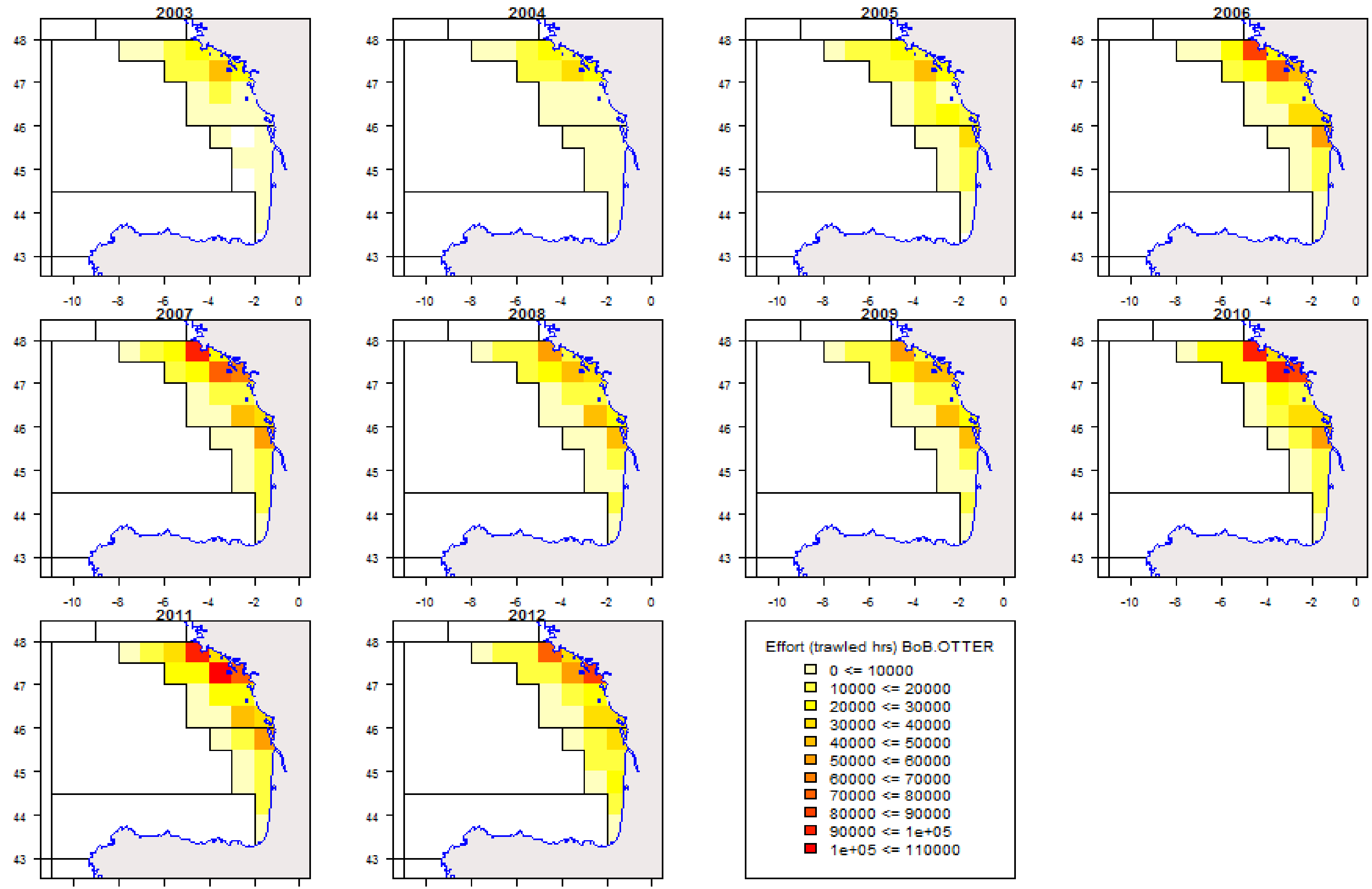


Figure 5.10.6.6. Bay of Biscay. Spatial distribution of effective fishing effort (fished hours) by ICES statistical rectangle for Otter Trawl gear, 2003-2012.

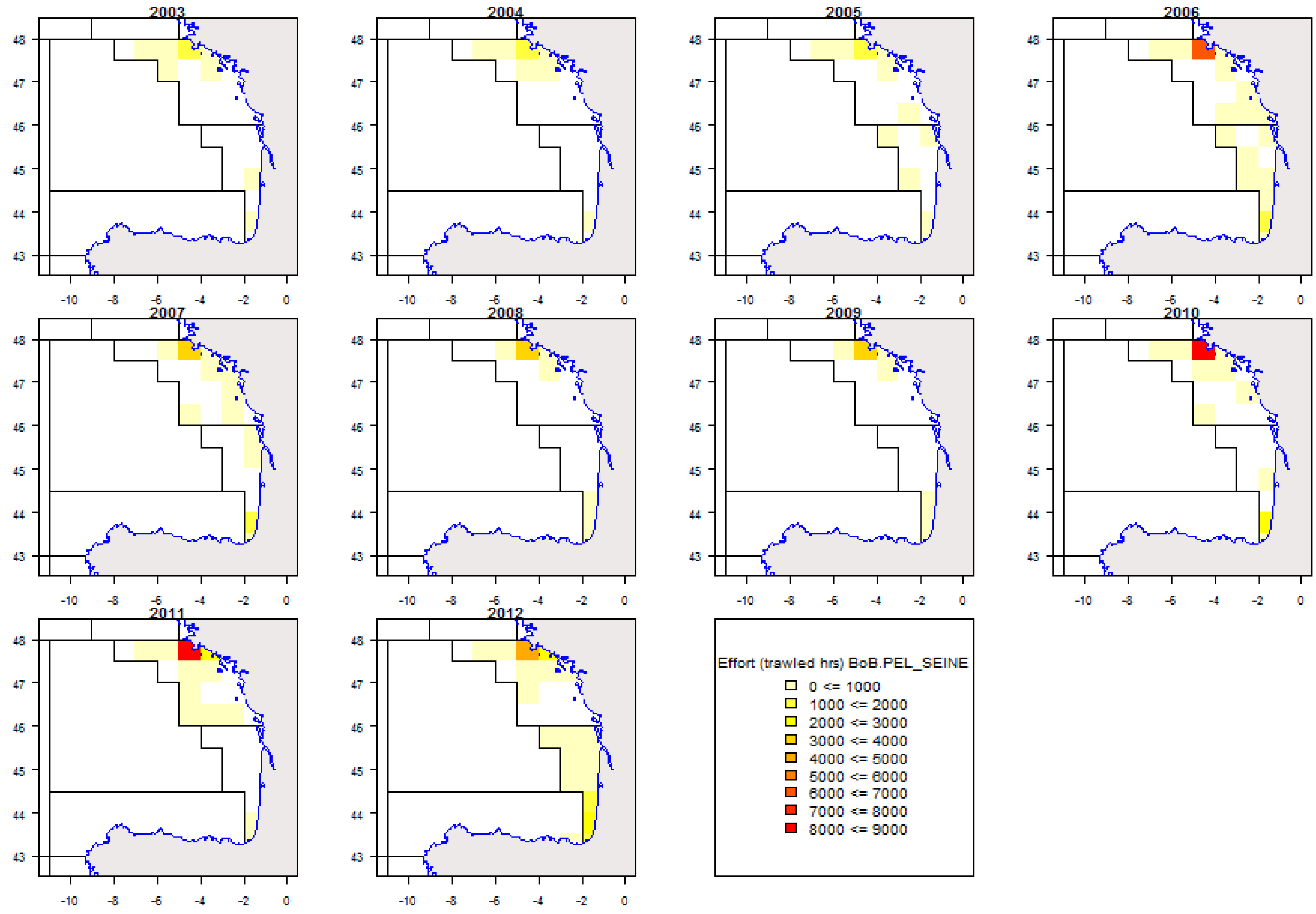


Figure 5.10.6.7. Bay of Biscay. Spatial distribution of effective fishing effort (fished hours) by ICES statistical rectangle for Pelagic Seine gear, 2003-2012.

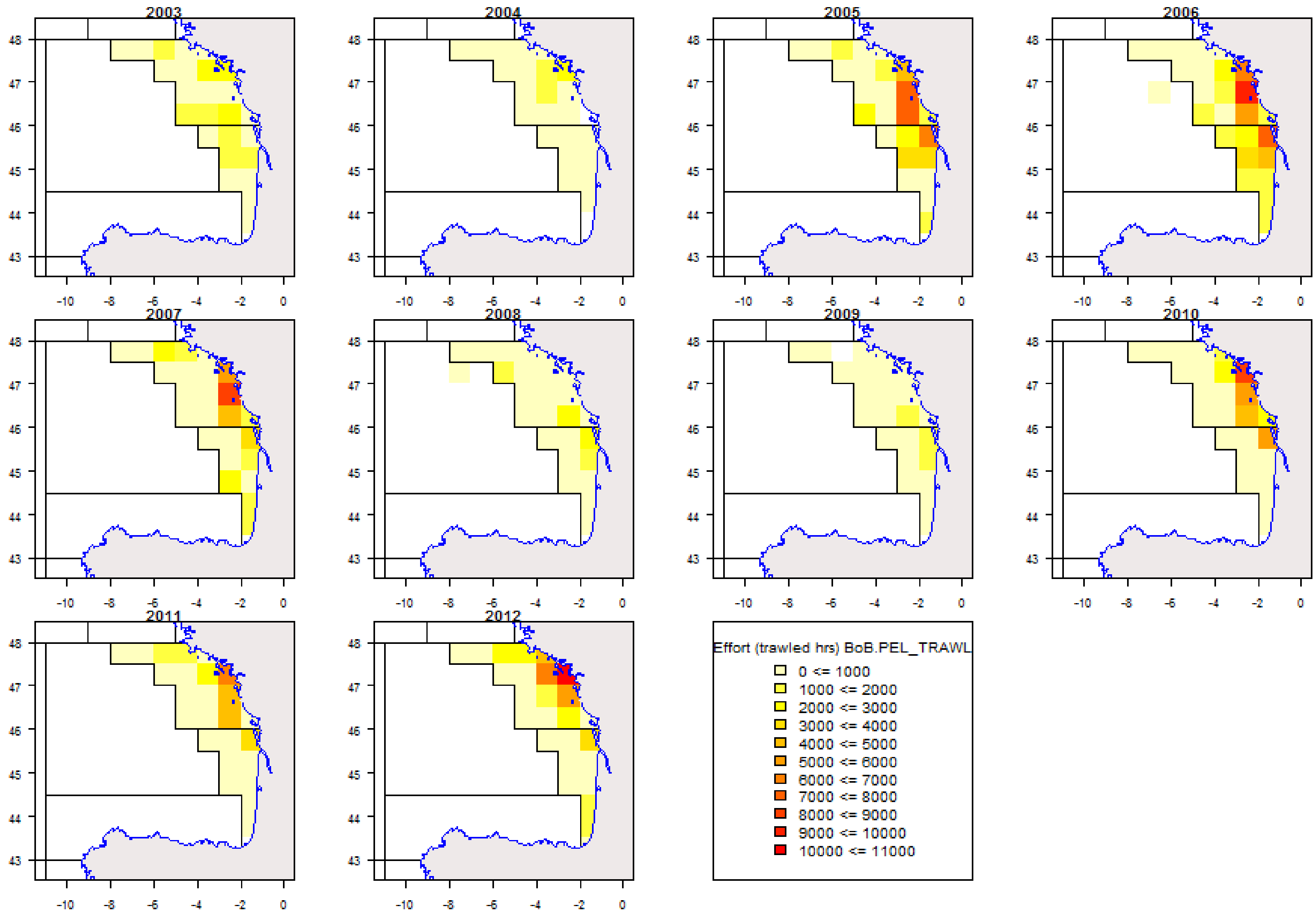


Figure 5.10.6.8. Bay of Biscay. Spatial distribution of effective fishing effort (fished hours) by ICES statistical rectangle for Pelagic Trawl gear, 2003-2012.

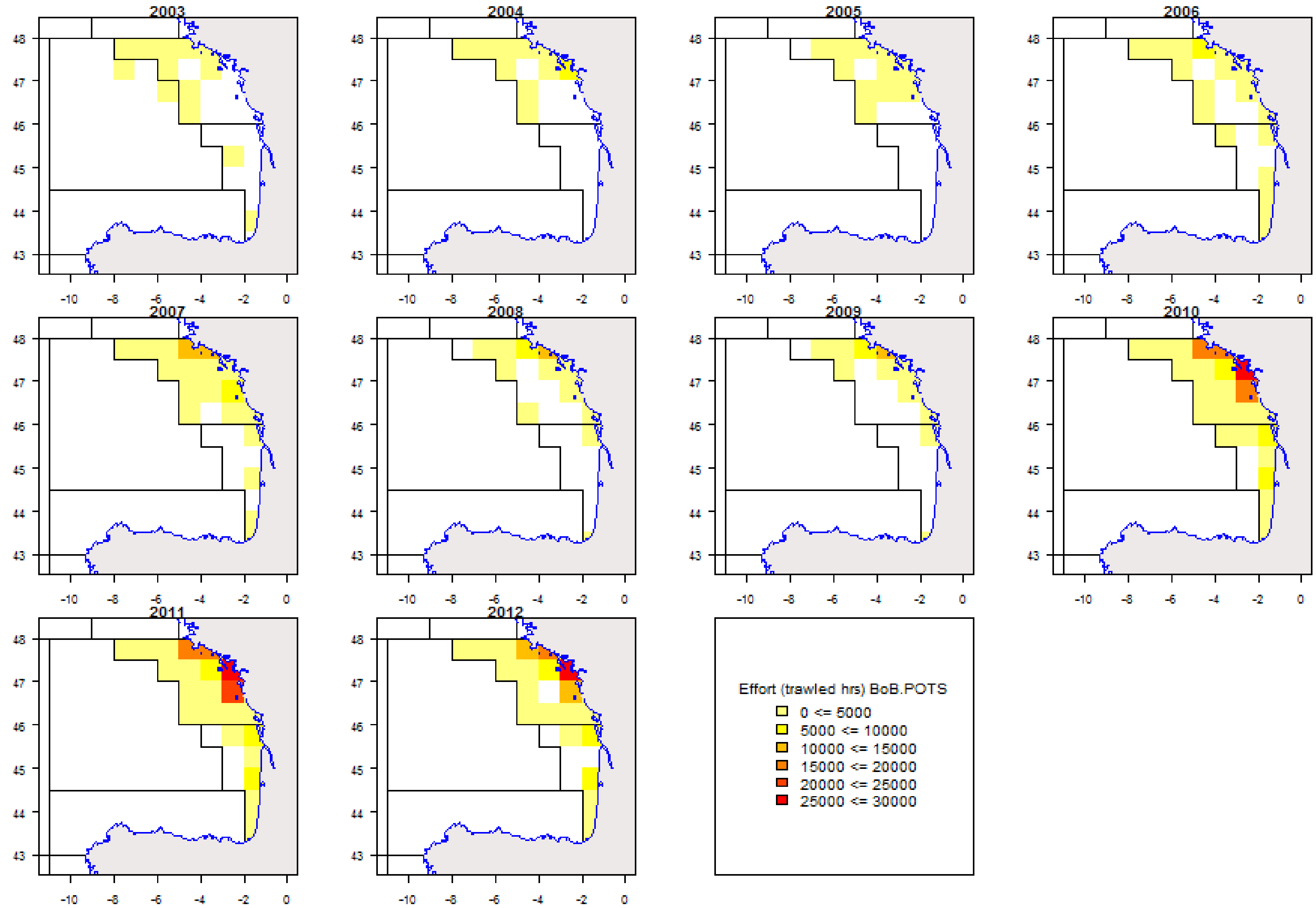


Figure 5.10.6.9. Bay of Biscay. Spatial distribution of effective fishing effort (fished hours) by ICES statistical rectangle for Pot gear, 2003-2012.

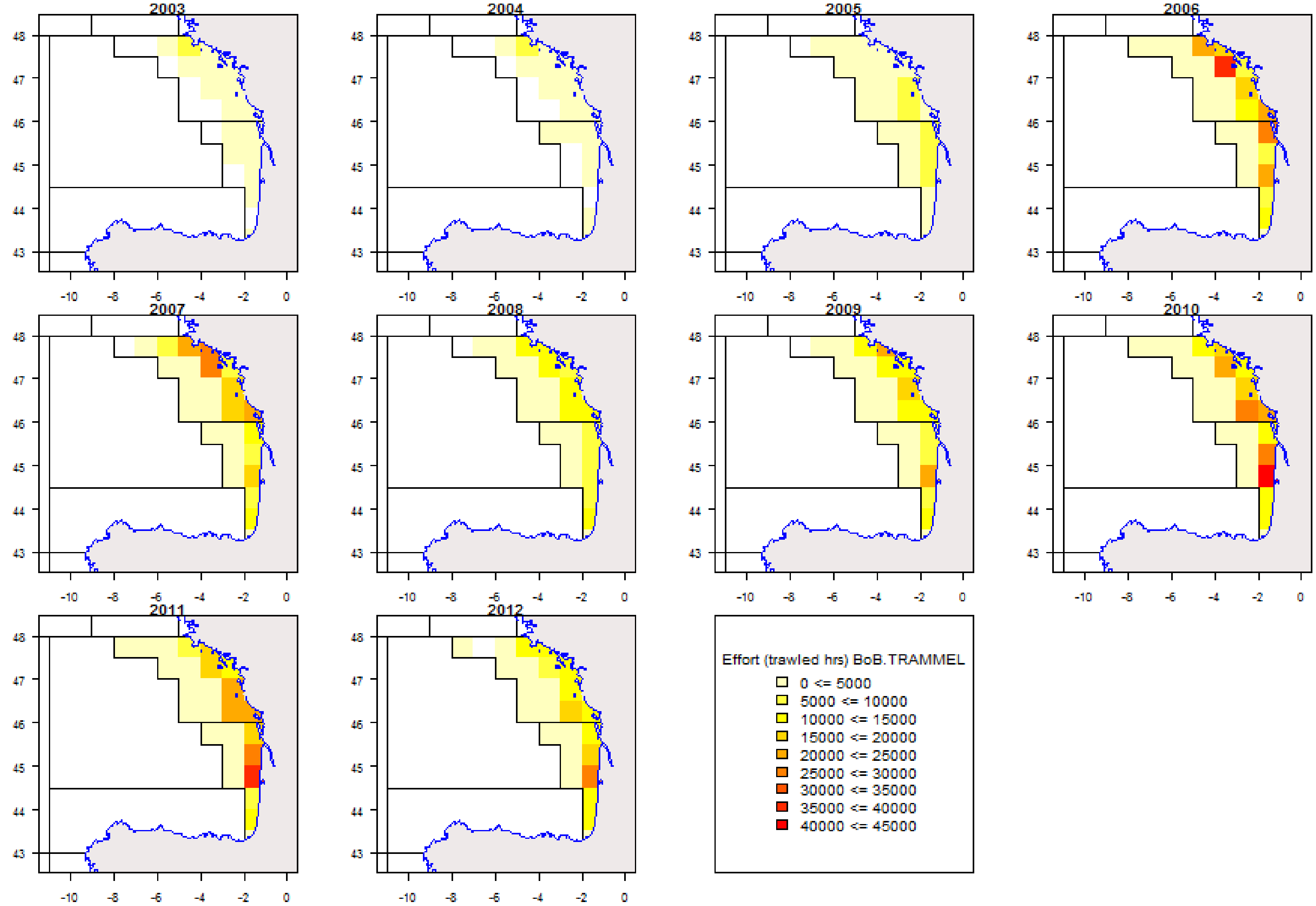


Figure 5.10.6.10. Bay of Biscay. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for Trammel net gear, 2003-2012.

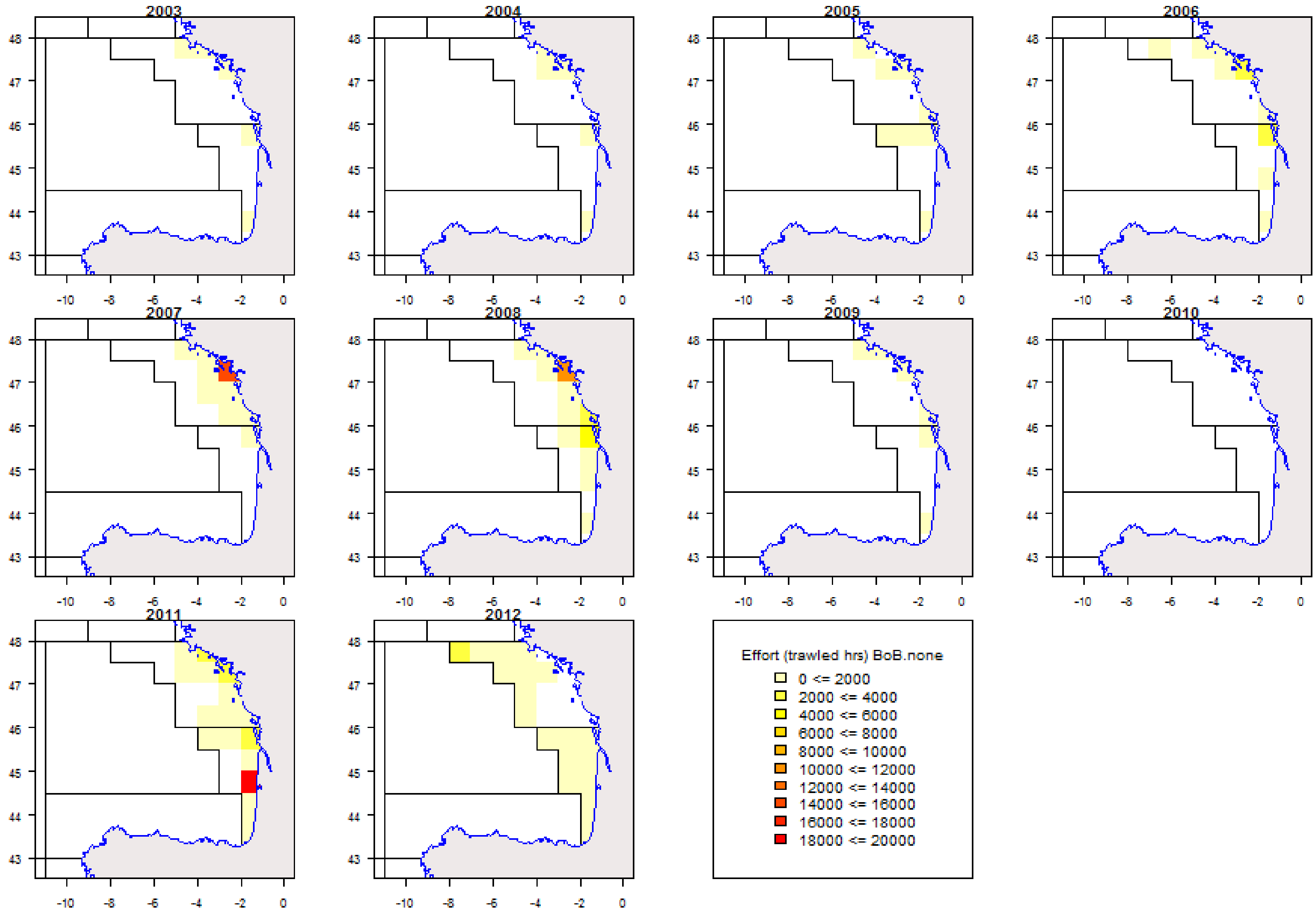


Figure 5.10.6.11. Bay of Biscay. Spatial distribution of effective fishing effort (trawled hours) by ICES statistical rectangle for none gear, 2003-2012.

5.10.7 ToR 4 Comments on data quality and any unexpected evolutions of the trends in catches and effort by Member State and fisheries

No further comment, see sections before where comments on data quality and any unexpected evolutions of the trends in catches and effort by Member State and fisheries have been made.

5.10.8 ToR 5 Correlation between partial sole mortality and fishing effort by Member State and fisheries

Fisheries specific data are broken down considering the specific condition SBCIIIART5 which is only provided for 2010 -2012 for French vessels and since 2006 for Belgian vessels, introducing a shift for the main gear type from the “none” category to the SPECON “SBCIIIART5” (Tables 5.10.8.1-2).

Discard estimates are scarce (information collected on discards is incomplete) and have been dubious in certain cases. Therefore, only landings are correlated against the fisheries specific fishing effort. Results are presented in the tables and figures below.

Note that only ~40% of the total F in Div. 8a and 8b is represented in the tables and figures below. So care is required in the use of these data to draw firm conclusions.

The STECF EWG 13-13 has estimated partial fishing mortalities of stock of Bay of Biscay sole for all identified regulated and non-regulated gear groups by Member States and correlated them against fishing effort. The major fisheries are presented below (Tables 5.10.8.1-2). The presented parameters r (value of Pearson’s coefficient of correlation) as well as a p value to quantify the statistical significance (≤0.05) allows conclusions about the quality of the correlation between the partial F and fisheries specific fishing effort.

Recently the listed fisheries in areas 8a and 8b together do contribute by more than 75% to the total fishing mortality. The relevant fisheries are the beam trawl fishery by Belgium and the trammel net, gill net and otter trawl fisheries by France.

STECF EWG 13-13 notes that the correlations between the summed partial Fs for landings of the major fisheries and their estimated fishing efforts are significant in area 8a but most of them are insignificant in area 8b except trammel net fishery by France. **As the analyses do not include discards and the time series lack Spanish fisheries, STECF EWG 13-13 does not further interpret the fisheries specific correlations between partial F and fishing effort.**

Table 5.10.8.1 Bay of Biscay sole area ICES Div. 8a. The upper left part of the table lists estimated F trajectories from the management plan and the ICES 2013 sole assessment, while the lower left part lists partial Fs for landings of fisheries using major gears (o. 10m length vessels), specon assigns the licensed part of the fisheries. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock. Note that Spanish data are only available for 2012.

2007 F reduction by 20 percent, 2010 F reduction by 15%, until F<0.27, Fmsy=0.26														Effort kW days running previous year baseline													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012		2003	2004	2005	2006	2007	2008	2009	2010	2011	2012			
F plan					0,363	0,452	0,422	0,330	0,330	0,330	0,281	0,281	0,281														
reduction F plan										0,00	-0,15	-0,15	-0,15														
F estimated				0,479	0,363	0,452	0,422	0,431	0,456	0,416	0,369	0,373	0,463	Effort estimatec	15145751	16511985	22121595	28411105	29741623	23770281	23616435	19872501	19862605	19577322			
reduction F estimated								-0,05	0	-0,09	-0,19	-0,18	0,02								-0,01	-0,16	0,00	-0,01			
														EFFORT												2003-2012	
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n
BEL	BEAM	none	landings	0,00271	0,00241	0,00323									41337	105779	123376								0,351	0,772	3
BEL	BEAM	SBcIIIart5	landings				0,00589	0,00720	0,00170	0,00438	0,00333	0,00155	0,00370					241716	226017	91076	108412	152261	150812	136302	0,768	0,044	7
ENG	BEAM	none	landings						0,00000											880							
ENG	GILL	none	landings					0,00000	0,00000	0,00000						48409	32606	121744	39301	18347	44662	60023	63140	52447			
ESP	OTTER	none	landings										0,00005											675020			
FRA	BEAM	none	landings	0,00002	0,00006	0,00007	0,00003					0,00003			15860	26032	35522	4104					1111				
FRA	BEAM	SBcIIIart5	landings								0,00001											588					
FRA	DEM_SEINE	none	landings								0,00001	0,00005										331067	612472	99372			
FRA	DEM_SEINE	SBcIIIart5	landings										0,00009										215	542371			
FRA	DREDGE	none	landings	0,00023	0,00014	0,00024	0,00020	0,00034	0,00023	0,00021	0,00001	0,00002	0,00001		395354	414407	420148	533612	468381	377579	366074	90026	122145	176601			
FRA	DREDGE	SBcIIIart5	landings								0,00001	0,00002	0,00003									22677	8443	70603			
FRA	GILL	none	landings	0,01659	0,01678	0,02213	0,01661	0,01179	0,01346	0,01443	0,00066	0,00046	0,00065		1254706	1420988	2128437	2396764	1821041	1790230	1765262	1534146	1274483	981798	0,622	0,055	10
FRA	GILL	SBcIIIart5	landings								0,00819	0,00404	0,00270									575670	471754	776035	-0,405	0,735	3
FRA	LONGLINE	none	landings		0,00041	0,00098	0,00071	0,00000	0,00001	0,00001	0,00001	0,00003	0,00001		183650	241134	365723	656098	621551	546023	546023	603895	701468	710982	-0,503	0,138	10
FRA	LONGLINE	SBcIIIart5	landings								0,00020											72918	43375	151567			
FRA	none	none	landings				0,00043	0,00001	0,00002	0,00003		0,00000			110276	103586	74578	155533	172530	268115	268115		70220				
FRA	none	SBcIIIart5	landings									0,00001											4324				
FRA	OTTER	none	landings	0,06083	0,05140	0,05896	0,06102	0,07036	0,05982	0,06394	0,01167	0,01233	0,01071		9749134	11645225	14681996	18526531	20544828	17065302	16945895	6396041	6287764	4506741	0,891	0,001	10
FRA	OTTER	SBcIIIart5	landings								0,03404	0,03207	0,04424									5344311	5556913	6068276	0,904	0,281	3
FRA	PEL_SEINE	none	landings				0,00000								395906	459144	447532	591583	611037	637343	637028	684055	744393	556022			
FRA	PEL_TRAWL	none	landings	0,00024	0,00000	0,00002	0,00004	0,00011	0,00052	0,00055	0,00002	0,00017	0,00001		2221241	768951	2022315	2499642	2148883	482127	441705	1203385	1033030	1178408	-0,516	0,127	10
FRA	PEL_TRAWL	SBcIIIart5	landings								0,00011	0,00015	0,00016									101972	108910	337915			
FRA	POTS	none	landings	0,00002			0,00000				0,00000	0,00013	0,00000		203191	312543	173870	153118	126862	22195	22195	619138	551436	451463			
FRA	POTS	SBcIIIart5	landings								0,00001	0,00001	0,00003									20990	71587	134265			
FRA	TRAMMEL	none	landings	0,05703	0,05592	0,07839	0,08872	0,09205	0,11927	0,12815	0,00205	0,00138	0,00064		575096	965787	1615492	2530660	2961192	2471064	2471064	355544	307538	249151	0,899	0,000	10
FRA	TRAMMEL	SBcIIIart5	landings								0,07191	0,09291	0,10055									1703794	1677072	1721983	0,151	0,903	3
Sum				0,13767	0,12712	0,16402	0,17365	0,18186	0,19503	0,21170	0,13224	0,14536	0,16358		15145751	16511985	22121595	28411105	29741623	23770281	23616435	19872501	19862605	19577322	0,695	0,026	10
check sum Fpar/F				0,29	0,35	0,36	0,41	0,42	0,43	0,51	0,36	0,39	0,35														

Table 5.10.8.2 Bay of Biscay sole area ICES Div. 8b. The upper left part of the table lists estimated F trajectories from the management plan and the ICES 2013 sole assessment, while the lower left part lists partial Fs for landings of fisheries using major gears (o. 10m length vessels), specon assigns the licensed part of the fisheries. The right part of the table lists the respective trends in fishing effort (kW days at sea) as well as the correlation parameters between the partial Fs and the fisheries specific fishing effort. A complete set of all partial Fs of fisheries is downloadable from the meeting's internet site. The ratio of the sum of Fpar/F indicates the relative contribution of the partial Fs of all effort regulated gears to the overall F estimate of the stock. Note that Spanish data are only available for 2012.

2007 F reduction by 20 percent, 2010 F reduction by 15%, until F<0.27, Fmsy=0.26													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
F plan					0,363	0,452	0,422	0,330	0,330	0,330	0,281	0,281	0,281
reduction F plan										0,00	-0,15	-0,15	-0,15
F estimated				0,479	0,363	0,452	0,422	0,431	0,456	0,416	0,369	0,373	0,463
reduction F estimated								-0,05	0	-0,09	-0,19	-0,18	0,02
Fpar				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
BEL	BEAM	none	landings	0,03178	0,02653	0,03151							
BEL	BEAM	SBcIIIart5	landings				0,02760	0,03212	0,02872	0,03693	0,03866	0,02935	0,03761
ESP	GILL	none	landings										0,00004
ESP	none	none	landings										0,00000
ESP	OTTER	none	landings										0,00024
ESP	TRAMMEL	none	landings										0,00002
FRA	BEAM	none	landings									0,00002	0,00000
FRA	DEM_SEINE	none	landings									0,00001	
FRA	DEM_SEINE	SBcIIIart5	landings										0,00000
FRA	DREDGE	none	landings	0,00002		0,00003	0,00001	0,00000	0,00000	0,00000	0,00001	0,00001	0,00001
FRA	DREDGE	SBcIIIart5	landings								0,00001	0,00005	0,00001
FRA	GILL	none	landings	0,01195	0,00980	0,01637	0,00712	0,00363	0,00338	0,00363	0,00027	0,00015	0,00010
FRA	GILL	SBcIIIart5	landings								0,00185	0,00331	0,00350
FRA	LONGLINE	none	landings	0,00000	0,00049	0,00001	0,00012	0,00001	0,00000	0,00000	0,00003	0,00003	0,00006
FRA	LONGLINE	SBcIIIart5	landings								0,00002	0,00004	0,00009
FRA	none	none	landings	0,00000	0,00008	0,00003		0,00000	0,00000	0,00000			
FRA	none	SBcIIIart5	landings									0,00016	
FRA	OTTER	none	landings	0,02260	0,01621	0,02715	0,01735	0,02328	0,02262	0,02419	0,00224	0,00256	0,00143
FRA	OTTER	SBcIIIart5	landings								0,02605	0,02236	0,02644
FRA	PEL_SEINE	none	landings		0,00000						0,00000	0,00000	
FRA	PEL_TRAWL	none	landings	0,00001	0,00000	0,00014	0,00002	0,00005	0,00003	0,00003	0,00001	0,00000	0,00001
FRA	PEL_TRAWL	SBcIIIart5	landings								0,00017	0,00010	0,00058
FRA	POTS	none	landings				0,00000	0,00000			0,00000	0,00000	
FRA	POTS	SBcIIIart5	landings								0,00003	0,00002	0,00030
FRA	TRAMMEL	none	landings	0,05858	0,04775	0,08588	0,07315	0,08025	0,10138	0,10856	0,00123	0,00057	0,00025
FRA	TRAMMEL	SBcIIIart5	landings								0,07499	0,08581	0,11227
Sum				0,12494	0,10086	0,16112	0,12537	0,13934	0,15613	0,17334	0,14557	0,14455	0,18296
check sum Fpar/F				0,26	0,28	0,36	0,30	0,32	0,34	0,42	0,39	0,39	0,40

			Effort kW days running previous year baseline													
				2003	2004	2005	2006	2007	2008	2009	2010	2011	2012			
F plan																
reduction F plan																
F estimated			Effort estimated	3926319	3607880	9308575	10727762	9863994	8868476	8970332	7499913	7340434	9072952			
reduction F estimated										0,01	-0,16	-0,02	0,24			
			EFFORT												2003-2012	
Fpar			kW days at sea	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	r	p	n
BEL	BEAM	none		577330	550314	712933								0,592	0,596	3
BEL	BEAM	SBcIIIart5					701274	754024	684939	815860	760585	747810	586698	0,055	0,907	7
ESP	GILL	none											104564			
ESP	none	none											91180			
ESP	OTTER	none											1293234			
ESP	TRAMMEL	none											3792			
FRA	BEAM	none						438				147	440			
FRA	DEM_SEINE	none									52079	137008	51302			
FRA	DEM_SEINE	SBcIIIart5											64490			
FRA	DREDGE	none		2511	7536	52315	64803	36614	33423	33423	29311	18220	47724			
FRA	DREDGE	SBcIIIart5									3598	7395	12098			
FRA	GILL	none		352927	394579	1217137	1429468	1173159	1044466	1044466	550893	388953	199981			
FRA	GILL	SBcIIIart5									199718	249443	364334	0,800	0,410	3
FRA	LONGLINE	none		51483	59324	235437	260702	236924	194503	194503	460343	424089	301524	-0,398	0,255	10
FRA	LONGLINE	SBcIIIart5									37755	56927	121611			
FRA	none	none		73154	75689	116764	192933	106136	181700	181700		76984				
FRA	none	SBcIIIart5										8615				
FRA	OTTER	none		1254536	1413043	3780100	3828101	4114702	3789258	3781816	640861	985186	626927			
FRA	OTTER	SBcIIIart5									1976798	1745826	2130614	0,949	0,204	3
FRA	PEL_SEINE	none		70740	81363	121441	165202	134820	132961	132961	124892	85470	151911			
FRA	PEL_TRAWL	none		814501	367024	1126082	1576779	975175	406269	386776	361874	195840	293078			
FRA	PEL_TRAWL	SBcIIIart5									45250	75157	128099			
FRA	POTS	none		26482	35213	2981	34432	38021	2716	2716	28349	28015	13444			
FRA	POTS	SBcIIIart5									24946	24870	52304			
FRA	TRAMMEL	none		702655	623795	1943385	2474068	2293981	2398241	2396111	124925	87703	147220			
FRA	TRAMMEL	SBcIIIart5									2077736	1996776	2286383	0,847	0,357	3
Sum				3926319	3607880	9308575	10727762	9863994	8868476	8970332	7499913	7340434	9072952	0,587	0,074	10
check sum Fpar/F																

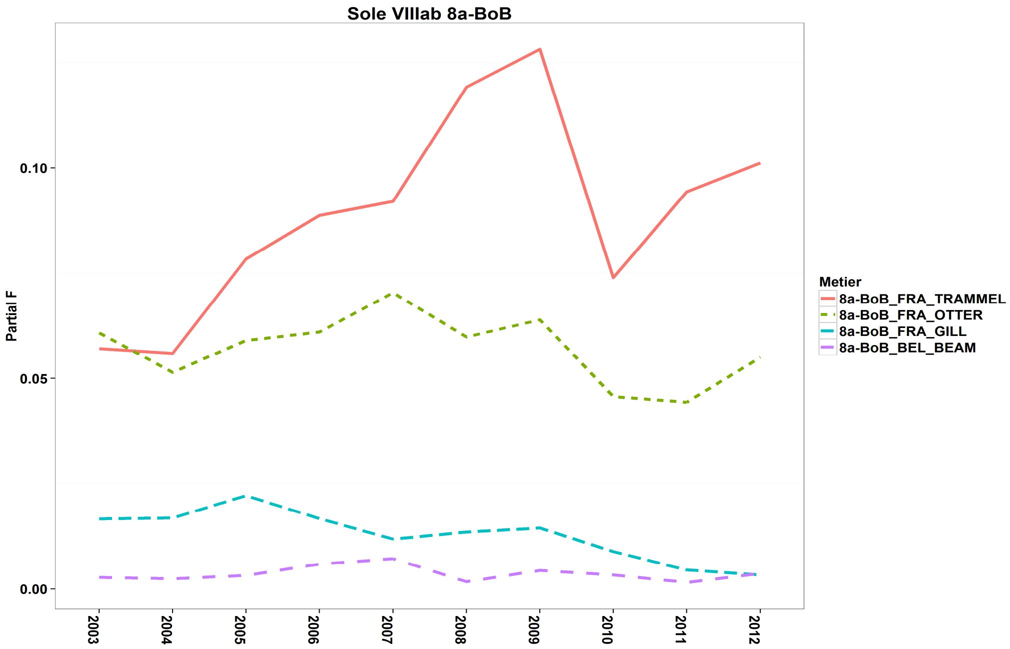


Fig. 5.10.8.1. Time series of sole partial fishing mortalities (based on partitioning the F from ICES assessment (ICES, 2013)) by the major fisheries in the Bay of Biscay sole area ICES Div. 8a 2003-2012 (o. 10m length vessels). **Discard estimates are scarce (information collected on discards is incomplete) and have been dubious in certain cases. Therefore, only sole partial fishing mortalities based on landings are represented below. Note that Spanish data are only available for 2012.**

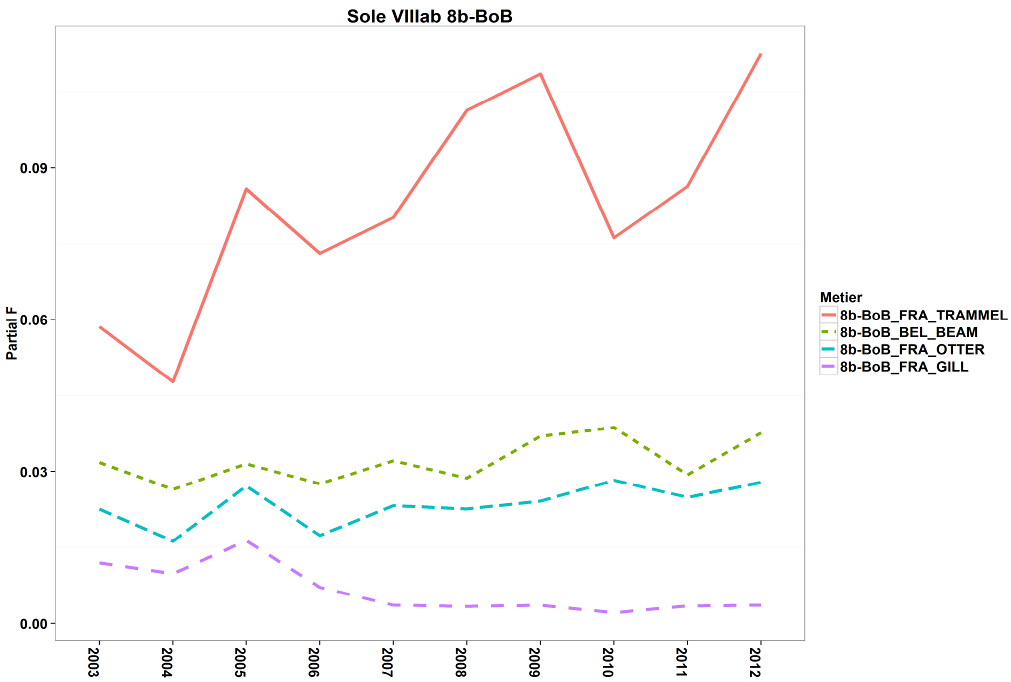


Fig. 5.10.8.2. Time series of sole partial fishing mortalities (based on partitioning the F from ICES assessment (ICES, 2013)) by the major fisheries in the Bay of Biscay sole area ICES Div. 8b 2003-2012 (o. 10m length vessels). **Discard estimates are scarce (information collected on discards is incomplete) and have been dubious in certain cases. Therefore, only sole partial fishing mortalities based on landings are represented below. Note that Spanish data are only available for 2012.**

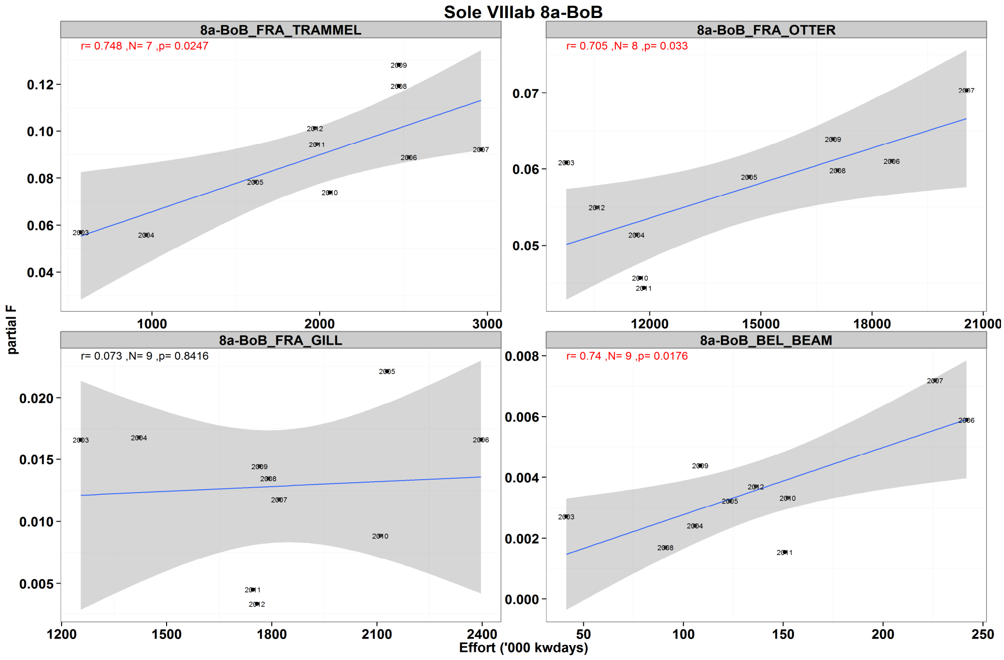


Fig. 5.10.8.3. Sole partial fishing mortality (based on partitioning the F from ICES assessment (ICES, 2013)) over effort ('000 kWd) in the Bay of Biscay sole area ICES Div. 8a of major fisheries, 2003-2012 (o. 10m length vessels). The years represent data points, the line a linear fit through the points and the grey the confidence bounds on the linear fit (+-2SE, 95%). **Discard estimates are scarce (information collected on discards is incomplete) and have been dubious in certain cases. Therefore, only landings are correlated against the fisheries specific fishing effort. Note that Spanish data are only available for 2012.**

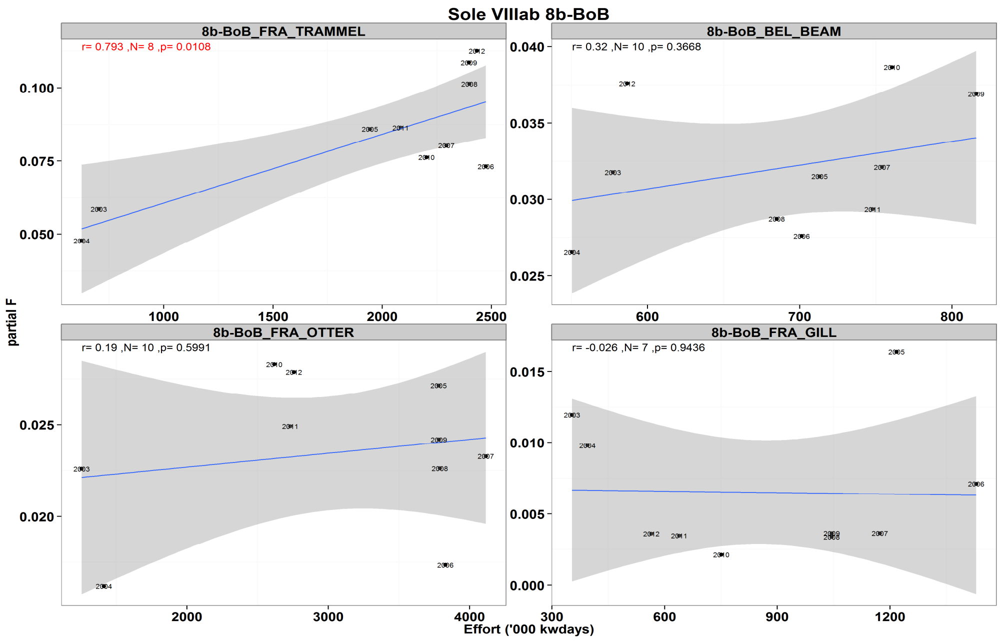


Fig. 5.10.8.4. Sole partial fishing mortality (based on partitioning the F from ICES assessment (ICES, 2013)) over effort ('000 kWd) in the Bay of Biscay sole area ICES Div. 8b of major fisheries, 2003-2012 (o. 10m length vessels). The years represent data points, the line a linear fit through the points and the grey the confidence bounds on the linear fit (+-2SE, 95%). **Discard estimates are scarce (information collected on discards is incomplete) and have been dubious in certain cases. Therefore, only landings are correlated against the fisheries specific fishing effort. Note that Spanish data are only available for 2012.**

6 REFERENCES

Castro, J., Marín, M., Costas, G., Abad, E., Punzón, A., Pereiro, J. and Vázquez, A. 2011. Atlas de las flotas de pesca españolas de aguas europeas atlánticas. Temas de Oceanografía, nº 4. Instituto Español de Oceanografía. Ministerio de Ciencia e Innovación. 215 pp.

Castro, J., Punzón, A., Pierce, G.J., Marín, M. and Abad, E. 2010. Identification of métiers of the Northern Spanish coastal bottom pair trawl fleet by using the partitioning method CLARA. Fisheries Research 102: 184-190.

Eero M., Köster F.W. and Vinther M. 2012. Why is the Eastern Baltic cod recovering? Marine Policy 36 (2012): 235–240

Fernandes, A., Jardim, E., Pestana, G., 2010. Discards raising procedures for Portuguese trawl fleet - revision of methodologies applied in previous years. Working document presented at Benchmark Workshop on Roundfish (WKROUND), 9 - 16 February 2010, Copenhagen, Denmark. ICES CM 2010/ACOM:36, 183 pp.

Gerritsen, H.D., McGrath, D. and Lordan, C., 2006. A simple method for comparing age-length keys reveals significant regional differences within a single stock of haddock (Melanogrammus aeglefinus). ICES J. Mar. Sci., 63(3): 1096-1100.

Houghton R. G. and Flatman S. 1981. The exploitation pattern, density-dependent catchability, and growth of cod (Gadus morhua) in the west-central North Sea. J. Cons. int. Explor. Mer (1981) 39 (3): 271-287

Houghton R. G. and Flatman S. 1981. The exploitation pattern, density-dependent catchability, and growth of cod (Gadus morhua) in the west-central North Sea. J. Cons. int. Explor. Mer (1981) 39 (3): 271-287

ICES CM 2006/ACFM:24

ICES CM 2012/ACOM:10.

ICES. 2000. Report of the Study Group on Baltic Cod Age Reading (SGBCAR). ICES CM 2000/H:01

ICES. 2006. Report of the Baltic Fisheries Assessment Working Group (WGBFAS).

ICES. 2009. Report of the Working Group on the Assessment of Southern Shelf Stocks of Hake, Monk and Megrim (WGHMM) , 5 - 11 May 2009, ICES Headquarters, Copenhagen. ICES CM 2009/ACOM:08. 537 pp.

ICES. 2010a. Report of the Benchmark Workshop on Roundfish (WKROUND), 9–16 February 2010, Copenhagen, Denmark. ICES CM 2010/ACOM:36. 183 pp.

ICES. 2010b. Report of the Working Group on the Assessment of Southern Shelf stocks of Hake, Monk and Megrim (WGHMM), 5 - 11 May 2010, Bilbao, Spain. ICES CM 2010/ACOM:11. 571 pp.

ICES. 2011. Report of the Working Group on the Assessment of Southern Shelf stocks of Hake, Monk and Megrim (WGHMM), 5 - 11 May 2011, ICES Headquarters, Copenhagen. ICES CM 2011/ACOM:11.625 pp.

ICES. 2012. Report of the Baltic Fisheries Assessment Working Group 2012 (WGBFAS).

ICES. 2012. Report of the Working Group on the Assessment of Southern Shelf Stocks of Hake, Monk and Megrim (WGHMM), 10-16 May 2012, ICES Headquarters, Copenhagen. ICES CM 2012/ACOM:11. 599 pp.

ICES. 2013. Report of the Baltic Fisheries Assessment Working Group (WGBFAS). ICES CM 2013/ACOM:10

Jardim, E., Alpoim, R., Silva, C., Fernandes, A. C., Chaves, C., Dias, M., Prista, N., Costa, A. M., 2011. Portuguese data provided to WGHMM for stock assessment in 2011. Working Document presented at the ICES Working Group on the Assessment of Southern Shelf Stocks of Hake, Monk and Megrim (WGHMM), 5-11 May 2011, ICES Headquarters, Copenhagen, Denmark. ICES CM 2011/ACOM: 11, 625 pp.

Jul-Larsen E., Kolding J., Overå R., Nielsen J. R., van Zwieten P. A. M. 2003. Management, Co-Management or No Management? Major Dilemmas in Southern African Freshwater Fisheries, 1. Synthesis Report. FAO Fisheries Technical Paper 426/1, FAO 2003, ISBN 92-5-104919-X, 127p.

Marchal P., Nielsen J. R., Hovgård H. and Lassen H. 2001. Time changes in fishing power in the Danish cod fisheries of the Baltic Sea. ICES J. Mar. Sci. 58 (1): 298-310

Neis B., Felt L., Scheider D. C., Haedrich R. L., Fischer J. and Hutchings J. A. 1999. Fisheries assessment: what can be learned from interviewing resource users? Can. J. Fish. Aquat. Sci. 56: 1949-1963

Prista, N., Jardim, E., Fernandes, A. C., 2011. Portuguese onboard sampling protocols: contribution to the standardization of bottom otter trawl and set gears. Presentation to the Study Group on Practical Implementation of Discard Sampling Plans (SGPIDS) , 27 June - 1 July 2011, ICES Headquarters, Copenhagen, Denmark. ICES CM 2011/ACOM: 50, 116 pp.

Punzon, A., Hernández, C., Abad, E., Castro, J., Perez, N., and Trujillo, V. 2010. Spanish otter trawl fisheries in the Cantabrian Sea. ICES Journal of Marine Science 67: 1604–1616.

7 EWG 13-06 PART 1 AND EWG 13-13 PART 2 : LIST OF PARTICIPANTS

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[1] - Information on STECF members and invited experts' affiliations is displayed for information only. In some instances the details given below for STECF members may differ from that provided in Commission COMMISSION DECISION of 27 October 2010 on the appointment of members of the STECF (2010/C 292/04) as some members' employment details may have changed or have been subject to organisational changes in their main place of employment. In any case, as outlined in Article 13 of the Commission Decision (2005/629/EU and 2010/74/EU) on STECF, Members of the STECF, invited experts, and JRC experts shall act independently of Member States or stakeholders. In the context of the STECF work, the committee members and other experts do not represent the institutions/bodies they are affiliated to in their daily jobs. STECF members and invited experts make declarations of commitment (yearly for STECF members) to act independently in the public interest of the European Union. STECF members and experts also declare at each meeting of the STECF and of its Expert Working Groups any specific interest which might be considered prejudicial to their independence in relation to specific items on the agenda. These declarations are displayed on the public meeting's website if experts explicitly authorized the JRC to do so in accordance with EU legislation on the protection of personnel data. For more information: https://stecf.jrc.ec.europa.eu/adm-declarations and http://stecf.jrc.ec.europa.eu/web/stecf/about-stecf/cv .

8 LIST OF BACKGROUND DOCUMENTS

Background documents are published on the meeting's web site on:

http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313

List of background documents:

1. EWG-13-13 – Doc 1 - Declarations of invited and JRC experts.
2. EWG-13-13 – Doc 2 – Digital appendixes (EXCEL spreadsheets) to the present report: Fisheries specific parameters (fishing effort, landings, discards, landings and discards at age, catch per unit of effort, spatial effective effort, ranking by catch and landings, partial fishing mortality by fisheries and correlations with fishing effort).

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Abstract

STECF notes that it has extensively addressed the ToR regarding the requested fishing effort regime evaluations in the

1. Eastern and Western Baltic,
2. the Kattegat,
3. the Skagerrak, North Sea, European waters in ICES Div.2 and the Eastern Channel,
4. to the West of Scotland,
5. Irish Sea,
6. Celtic Sea,
7. Atlantic waters off the Iberian Peninsula,
8. Western Channel,
9. Western Waters and Deep Sea
10. and the Bay of Biscay,

i.e. updated estimates of trends in fishing effort, landings and discards by species, CPUE and LPUE by fisheries and species, and partial fishing mortalities for effort regulated and non-regulated fisheries by Member States. Few ToR could not be accomplished due to time constraints and/or data deficiencies. It is noted that compilations of fisheries specific data by fishing effort management regime and Member State are provided as electronic appendixes and can be downloaded at http://stecf.jrc.ec.europa.eu/web/stecf/ewg1313 in order to facilitate transparent dissemination of the information and further use.

Due to the complexity of the fisheries information provided, interested users are advised to consult the data quality notes and data notations provided in the present report.

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The Scientific, Technical and Economic Committee for Fisheries (STECF) has been established by the European Commission. The STECF is being consulted at regular intervals on matters pertaining to the conservation and management of living aquatic resources, including biological, economic, environmental, social and technical considerations.

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