

WORKING GROUP ON BYCATCH OF PROTECTED SPECIES (WGBYC)

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Annex 6: Supplementary Table 1 (ToR C)

Supplementary Table 1. List of ecoregion x species x métier level 4 for which a BPUE estimate can be derived, or multiple BPUE estimates are needed and those can be estimated, and the resulting total bycatch estimate for 2023. total bycatch estimates are provided only when it is possible to derive them. If there is interannual variability in BPUE (interannual is “present”) or a constant BPUE is not representative (key variability in BPUE), then the BPUE estimate is not representative of the scenario considered.

Ecoregion	metier L4	Taxon	Species	Common name	# individuals 2017-2023	monitoring effort (DaS) 2017-2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by-catch 2023	TB lower	TB upper	inter-annual	key variability in BPUE
Adriatic Sea	PTM	Mammals	tursiops truncatus	Bottlenose Dolphin	5	1,010	8,446	n_ind ~ 1	0.0056	0.0014	0.0233	47	11.4	196.6	none	a constant BPUE appears to be representative
Adriatic Sea	GTR	Seabirds	phalacrocorax aristotelis	European Shag	1	180	66,287	n_ind ~ 1	0.0056	0.0008	0.0394				none	a constant BPUE appears to be representative
Adriatic Sea	LLD	Seabirds	larus michahellis	Yellow-legged Gull	1	33	2,725	n_ind ~ 1	0.0303	0.0043	0.2151	83	11.6	586.2	none	a constant BPUE appears to be representative
Adriatic Sea	OTB	Seabirds	phalacrocorax aristotelis	European Shag	3	591	121,072	n_ind ~ 1	0.0109	0.0014	0.0850	1,314	167.6	10,296.3	none	a constant BPUE appears to be representative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Adriatic Sea	GTR	Turtles	caretta caretta	Loggerhead	1	180	66,287	n_ind ~ 1	0.0056	0.000 8	0.0397				non e	a constant BPUE appears to be rep- resentative
Adriatic Sea	LLD	Turtles	caretta caretta	Loggerhead	22	200	2,725	n_ind ~ 1	0.1137	0.004 3	2.9770				non e	a constant BPUE appears to be rep- resentative
Adriatic Sea	OTB	Turtles	caretta caretta	Loggerhead	32	591	95,011	n_ind ~ 1 + (1 vessel- Length_gro up)	0.0339	0.010 4	0.1109	2,887	530.9	15,825.6	non e	there is between- vessel length cat- egory variability in BPUE
Adriatic Sea	PS	Turtles	caretta caretta	Loggerhead	20	450	18,758	n_ind ~ 1	0.0175	0.001 4	0.2134				non e	a constant BPUE appears to be rep- resentative
Adriatic Sea	PTM	Turtles	caretta caretta	Loggerhead	59	1,010	8,446	n_ind ~ 1	0.0581	0.040 0	0.0843	491	338.1	711.9	non e	a constant BPUE appears to be rep- resentative
Aegean- Levantine Sea	LLS	Mammals	mona- chus mona- chus	Mediterra- nean Monk Seal	1	1,105	206,226	n_ind ~ 1	0.0009	0.000 1	0.0064				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Aegean- Levantine Sea	GTR	Seabirds	pha- lacrocora x aristo- telis	European Shag	1	2,100	484,732	n_ind ~ 1	0.0086	0.000 1	0.5002				non e	a constant BPUE appears to be rep- resentative
Aegean- Levantine Sea	LLS	Seabirds	larus micha- hellis	Yellow-leg- ged Gull	3	1,105	206,226	n_ind ~ 1	0.0027	0.000 3	0.0275				non e	a constant BPUE appears to be rep- resentative
Aegean- Levantine Sea	LLS	Seabirds	pha- lacrocora x carbo	Great Cor- morant	1	1,105	206,226	n_ind ~ 1	0.0009	0.000 1	0.0064				non e	a constant BPUE appears to be rep- resentative
Aegean- Levantine Sea	LLS	Seabirds	puffinus yelkouan	Yelkouan Shearwater	1	1,105	206,226	n_ind ~ 1	0.0009	0.000 1	0.0064				non e	a constant BPUE appears to be rep- resentative
Aegean- Levantine Sea	GTR	Turtles	caretta caretta	Loggerhead	1	2,100	484,732	n_ind ~ 1	0.0014	0.000 1	0.0329				non e	a constant BPUE appears to be rep- resentative
Aegean- Levantine Sea	LLD	Turtles	caretta caretta	Loggerhead	1	99	1,569	n_ind ~ 1	0.0101	0.001 4	0.0717	16	2.2	112.5	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Aegean- Levantine Sea	LLD	Turtles	chelonia mydas	Green Sea Turtle	6	99	1,569	n_ind ~ 1	0.0797	0.012 9	0.4933	125	20.2	773.9	non e	a constant BPUE appears to be rep- resentative
Aegean- Levantine Sea	LLS	Turtles	caretta caretta	Loggerhead	1	1,105	206,226	n_ind ~ 1	0.0077	0.000 2	0.2805				non e	a constant BPUE appears to be rep- resentative
Aegean- Levantine Sea	OTB	Turtles	caretta caretta	Loggerhead	8	927	38,259	n_ind ~ 1	0.0087	0.004 1	0.0186	333	155.3	712.3	non e	a constant BPUE appears to be rep- resentative
Aegean- Levantine Sea	OTB	Turtles	chelonia mydas	Green Sea Turtle	1	927	38,259	n_ind ~ 1	0.0068	0.000 2	0.2073				non e	a constant BPUE appears to be rep- resentative
Aegean- Levantine Sea	GNS	Fish	gymnura altavela	spiny butter- fly ray	2	1,315	294,834	n_ind ~ 1	0.0015	0.000 4	0.0061				non e	a constant BPUE appears to be rep- resentative
Aegean- Levantine Sea	GTR	Fish	gymnura altavela	spiny butter- fly ray	2	2,100	484,732	n_ind ~ 1	0.0010	0.000 2	0.0038				non e	a constant BPUE appears to be rep- resentative
Aegean- Levantine Sea	LLS	Fish	gymnura altavela	spiny butter- fly ray	4	1,105	206,226	n_ind ~ 1 + (1 country)	0.0036	0.001 4	0.0096				non e	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Aegean- Levantine Sea	OTB	Fish	dipturus batis	blue skate	2	937	38,259	n_ind ~ 1	0.0026	0.000 2	0.0278				non e	a constant BPUE appears to be rep- resentative
Azores	LHM	Mammals	delphinus delphis	Short- beaked Common Dolphin	3	2,868		n_ind ~ 1	0.0010	0.000 3	0.0032				non e	a constant BPUE appears to be rep- resentative
Azores	GNS	Turtles	caretta caretta	Loggerhead	3	89	2,188	n_ind ~ 1	0.0337	0.010 9	0.1045	74	23.8	228.7	non e	a constant BPUE appears to be rep- resentative
Azores	GNS	Turtles	chelonina mydas	Green Sea Turtle	1	89	2,188	n_ind ~ 1	0.0112	0.001 6	0.0798	25	3.5	174.5	non e	a constant BPUE appears to be rep- resentative
Azores	LLD	Turtles	caretta caretta	Loggerhead	29	475	2,392	n_ind ~ 1	0.0520	0.011 8	0.2294	124	28.2	548.8	non e	a constant BPUE appears to be rep- resentative
Azores	LLD	Turtles	dermo- chelys coriacea	leatherback turtle	6	475	2,392	n_ind ~ 1	0.0125	0.004 5	0.0348	30	10.8	83.2	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Azores	FPO	Fish	conger conger	conger eel	9	50	1,276	n_ind ~ 1	0.5409	0.084 6	3.4575	690	108.0	4,413.2	non e	a constant BPUE appears to be rep- resentative
Azores	GNS	Fish	bodianus scrofa	barred hog- fish	3	89	2,188	n_ind ~ 1	0.0289	0.005 5	0.1517	63	12.0	331.8	non e	a constant BPUE appears to be rep- resentative
Azores	GNS	Fish	dasyatis pastinaca	blue sting- ray	2	89	2,188	n_ind ~ 1 + (1 metierL5)	0.0225	0.005 6	0.0899	49	12.3	196.6	non e	there is between- metier level 5 var- iability in BPUE
Azores	GNS	Fish	epineph- elus mar- ginatus	dusky grouper	5	89	2,188	n_ind ~ 1	0.0562	0.023 4	0.1350	123	51.2	295.3	non e	a constant BPUE appears to be rep- resentative
Azores	GNS	Fish	labrus bergylta	ballan wrasse	61	89	2,188	n_ind ~ 1	0.5242	0.147 5	1.8625	1,147	322.7	4,074.8	non e	a constant BPUE appears to be rep- resentative
Azores	GNS	Fish	mycte- roperca fusca	island grouper	4	89	2,188	n_ind ~ 1	0.0449	0.016 9	0.1198	98	36.9	262.0	non e	a constant BPUE appears to be rep- resentative
Azores	GNS	Fish	mylioba- tis aquila	spotted ea- gle ray	9	89	2,188	n_ind ~ 1	0.0947	0.037 0	0.2422	207	81.0	529.9	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Azores	GNS	Fish	pomato- mus sal- tatrix	bluefish	7	89	2,188	n_ind ~ 1	0.0475	0.005 8	0.3909	104	12.6	855.3	non e	a constant BPUE appears to be rep- resentative
Azores	GNS	Fish	sphyrna zygaena	smooth hammer- head	1	89	2,188	n_ind ~ 1	0.0112	0.001 6	0.0798	25	3.5	174.5	non e	a constant BPUE appears to be rep- resentative
Azores	LHM	Fish	bodianus scrofa	barred hog- fish	1	183		n_ind ~ 1 + (1 metierL5)	0.0055						non e	there is between- metier level 5 var- iability in BPUE
Azores	LHM	Fish	conger conger	conger eel	17	183		n_ind ~ 1	0.0459	0.007 2	0.2929				non e	a constant BPUE appears to be rep- resentative
Azores	LHM	Fish	dasyatis pastinaca	blue sting- ray	1	183		n_ind ~ 1 + (1 metierL5)	0.0055						non e	there is between- metier level 5 var- iability in BPUE
Azores	LHM	Fish	etmopter us pusil- lus	smooth lan- ternshark	17	183		n_ind ~ 1	0.1595	0.003 3	7.6908				non e	a constant BPUE appears to be rep- resentative
Azores	LHM	Fish	etmopter us spinax	velvet belly	18	183		n_ind ~ 1	0.1688	0.003 4	8.3919				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Azores	LHM	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	20	183	n_ind ~ 1	0.0265	0.002 3	0.3004					non e	a constant BPUE appears to be rep- resentative
Azores	LHM	Fish	hexan- chus griseus	bluntnose sixgill shark	1	183	n_ind ~ 1	0.0130	0.000 6	0.2729					non e	a constant BPUE appears to be rep- resentative
Azores	LHM	Fish	labrus bergylta	ballan wrasse	4	183	n_ind ~ 1	0.0131	0.002 0	0.0859					non e	a constant BPUE appears to be rep- resentative
Azores	LHM	Fish	lepidopus caudatus	scabbard- fish	36	183	n_ind ~ 1 + (1 year)	0.0002	0.000 0	7.6815					pre- sent	a constant BPUE appears to be rep- resentative
Azores	LHM	Fish	pomato- mus sal- tatrix	bluefish	2	183	n_ind ~ 1	0.0109	0.002 7	0.0437					non e	a constant BPUE appears to be rep- resentative
Azores	LHM	Fish	scor- paena scrofa	bigscale scorpionfish	13	183	n_ind ~ 1	0.0200	0.002 2	0.1787					non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE	
Azores	LHM	Fish	sphyrna zygaena	smooth hammer- head	1	183		n_ind ~ 1 + (1 metierL5)	0.0055							non e	there is between- metier level 5 vari- ability in BPUE
Azores	LHP	Fish	conger conger	conger eel	10	62	28,003	n_ind ~ 1	0.1632	0.024 3	1.0977	4,569	679.2	30,740.3		non e	a constant BPUE appears to be rep- resentative
Azores	LHP	Fish	etmopter us pusil- lus	smooth lan- ternshark	1	62	0	n_ind ~ 1 + (1 vessel- Length_gro up)	0.0161			0	0.0	0.0		non e	there is between- vessel length cat- egory variability in BPUE
Azores	LHP	Fish	etmopter us spinax	velvet belly	1	62	0	n_ind ~ 1 + (1 vessel- Length_gro up)	0.0161			0	0.0	0.0		non e	there is between- vessel length cat- egory variability in BPUE
Azores	LHP	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	8	62	28,003	n_ind ~ 1	0.1203	0.040 8	0.3542	3,368	1,143. 6	9,917.6		non e	a constant BPUE appears to be rep- resentative
Azores	LHP	Fish	labrus bergylta	ballan wrasse	4	62	28,003	n_ind ~ 1	0.0523	0.009 9	0.2757	1,466	278.2	7,721.7		non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Azores	LHP	Fish	lepidopus caudatus	scabbard- fish	36	62	28,003	n_ind ~ 1	0.5440	0.331 2	0.8937	15,23 4	9,273. 9	25,025.8	non e	a constant BPUE appears to be rep- resentative
Azores	LHP	Fish	scor- paena scrofa	bigscale scorpionfish	1	62	0	n_ind ~ 1 + (1 vessel- Length_gro up)	0.0161			0	0.0	0.0	non e	there is between- vessel length cat- egory variability in BPUE
Azores	LLD	Fish	sphyrna zygaena	smooth hammer- head	1	12	2,392	n_ind ~ 1	0.0833	0.011 7	0.5916	199	28.1	1,415.0	non e	a constant BPUE appears to be rep- resentative
Azores	LLS	Fish	conger conger	conger eel	1,429	564	4,965	n_ind ~ 1 + (1 year)	0.0000	0.000 0	0.0321	46,73 8	33,28 0.7	65,638.1	pre- sent	a constant BPUE appears to be rep- resentative
Azores	LLS	Fish	deania calceus	Birdbeak dogfish	217	564	4,965	n_ind ~ 1 + (1 year)	0.0000	0.000 0	0.0119				pre- sent	a constant BPUE appears to be rep- resentative
Azores	LLS	Fish	dipturus oxyrin- chus	longnosed skate	12	564	4,965	n_ind ~ 1	0.0289	0.005 4	0.1530	143	27.1	759.7	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Azores	LLS	Fish	etmopter us spinax	velvet belly	4,224	564	4,965	n_ind ~ 1 + (1 year)	1.0851	0.051 4	22.9168	66,56 2	16,96 7.8	261,112. 4	pre- sent	a constant BPUE appears to be rep- resentative
Azores	LLS	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	8,204	564	4,965	n_ind ~ 1 + (1 year)	0.0000	0.000 0	0.0096	185,8 79	82,79 2.3	417,323. 4	pre- sent	a constant BPUE appears to be rep- resentative
Azores	LLS	Fish	hexan- chus griseus	bluntnose sixgill shark	7	564	4,965	n_ind ~ 1	0.0138	0.003 6	0.0538	69	17.7	267.1	non e	a constant BPUE appears to be rep- resentative
Azores	LLS	Fish	lepidopus caudatus	scabbard- fish	1,095	564	4,965	n_ind ~ 1 + (1 year)	0.0000	0.000 0	0.0388	68,95 8	41,76 8.7	113,847. 7	pre- sent	a constant BPUE appears to be rep- resentative
Azores	LLS	Fish	lepi- dorhom- bus whiffiago- nis	megrim	2	564	4,965	n_ind ~ 1	0.0046	0.000 3	0.0616				non e	a constant BPUE appears to be rep- resentative
Azores	LLS	Fish	leucoraja fullonica	shagreen ray	5	564	4,965	n_ind ~ 1	0.0109	0.001 8	0.0662	54	8.9	328.7	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# individuals 2017-2023	monitoring effort (DaS) 2017-2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by-catch 2023	TB lower	TB upper	inter-annual	key variability in BPUE
Azores	LLS	Fish	lophius piscatorius	anglerfish	3	564	4,965	$n_{ind} \sim 1$	0.0053	0.0017	0.0165	26	8.5	81.9	none	a constant BPUE appears to be representative
Azores	LLS	Fish	molva macrophthalma	Mediterranean ling	55	564	4,965	$n_{ind} \sim 1 + (1 \text{year})$	0.0036	0.0000	0.4431	160	35.8	718.2	present	a constant BPUE appears to be representative
Azores	LLS	Fish	mora moro	googly-eyed cod	73	564	4,965	$n_{ind} \sim 1 + (1 \text{year})$	0.0000	0.0000	0.0999	788	184.0	3,375.0	present	a constant BPUE appears to be representative
Azores	LLS	Fish	polyprion americanus	wreckfish	1	564	4,965	$n_{ind} \sim 1$	0.0018	0.0002	0.0126	9	1.2	62.5	none	a constant BPUE appears to be representative
Azores	LLS	Fish	scorpaena scrofa	bigscale scorpionfish	2	564	4,965	$n_{ind} \sim 1$	0.0042	0.0003	0.0509				none	a constant BPUE appears to be representative
Azores	LLS	Fish	zeus faber	European john dory	4	564	4,965	$n_{ind} \sim 1$	0.0088	0.0005	0.1697				none	a constant BPUE appears to be representative
Baltic Sea	FPO	Mammals	halichoerus grypus	Gray Seal	9	143		$n_{ind} \sim 1 + (1 \text{country})$	0.0150	0.0001	3.0408				none	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Baltic Sea	FPO	Mammals	pusa his- pida	Ringed Seal	1	143	3,181	$n_{ind} \sim 1$	0.0070	0.001 0	0.0496	22	3.1	157.9	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	GNS	Mammals	halicho- erus grypus	Gray Seal	23	2,411		$n_{ind} \sim 1 +$ (1 area- Code) + (1 metierL5) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0907				non e	there is variability in BPUE depend- ing on monitoring protocols
Baltic Sea	GNS	Mammals	phoca vi- tulina	Harbor Seal	64	2,411		$n_{ind} \sim 1 +$ (1 country) + (1 area- Code) + (1 metierL5)	0.0002	0.000 0	0.3289				non e	there is spatial variability in BPUE
Baltic Sea	GNS	Mammals	pho- coena pho- coena	Harbor Por- poise	110	2,411		$n_{ind} \sim 1 +$ (1 country) + (1 area- Code) + (1 metierL5)	0.0000	0.000 0	0.2109				non e	there is spatial variability in BPUE
Baltic Sea	GTR	Mammals	halicho- erus grypus	Gray Seal	2	383	4,235	$n_{ind} \sim 1 +$ (1 area- Code)	0.0000	0.000 0	0.0706				non e	there is spatial variability in BPUE

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Baltic Sea	GTR	Mammals	phoca vi- tulina	Harbor Seal	4	383	4,235	n_ind ~ 1	0.0104	0.003 9	0.0278	44	16.6	117.8	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	GTR	Mammals	pho- coena pho- coena	Harbor Por- poise	8	383	4,235	n_ind ~ 1 + (1 area- Code)	0.0095	0.000 6	0.1480	45	9.8	624.5	non e	there is spatial variability in BPUE
Baltic Sea	FPN	Seabirds	pha- lacrocora x carbo	Great Cor- morant	1	102	8,420	n_ind ~ 1	0.0269	0.001 3	0.5771				non e	a constant BPUE appears to be rep- resentative
Baltic Sea	FPN	Seabirds	so- materia mollis- sima	Common Eider	1	102	8,420	n_ind ~ 1	0.0098	0.001 4	0.0696	83	11.6	586.0	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	FYK	Seabirds	larus marinus	Great Black- backed Gull	2	69	59,264	n_ind ~ 1	0.1145	0.011 5	1.1364				non e	a constant BPUE appears to be rep- resentative
Baltic Sea	FYK	Seabirds	podiceps cristatus	Great Crested Grebe	1	69	59,264	n_ind ~ 1	0.0165	0.001 5	0.1828				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Baltic Sea	GNS	Seabirds	alca torda	Razorbill	14	2,411		n_ind ~ 1 + (1 country)	0.0038	0.000 7	0.0206				non e	there is spatial variability in BPUE
Baltic Sea	GNS	Seabirds	aythya fu- ligula	Tufted Duck	1	2,411	134,998	n_ind ~ 1	0.0008	0.000 1	0.0101				non e	a constant BPUE appears to be rep- resentative
Baltic Sea	GNS	Seabirds	aythya marila	Greater Scaup	8	2,411	134,998	n_ind ~ 1	0.0140	0.000 3	0.6204				non e	a constant BPUE appears to be rep- resentative
Baltic Sea	GNS	Seabirds	cepphus grylle	Black Guil- lemot	2	2,411	134,998	n_ind ~ 1	0.0006	0.000 1	0.0048	83	10.6	643.7	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	GNS	Seabirds	clangula hyemalis	Long-tailed Duck	3	2,411	134,998	n_ind ~ 1	0.0046	0.000 6	0.0359	623	80.1	4,843.0	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	GNS	Seabirds	gavia arc- tica	Arctic Loon	3	2,411	134,998	n_ind ~ 1	0.0011	0.000 3	0.0041	142	36.7	552.1	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	GNS	Seabirds	gavia stellata	Red- throated Loon	1	2,411		n_ind ~ 1 + (1 area- Code)	0.0000	0.000 0	0.0397				non e	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Baltic Sea	GNS	Seabirds	larus ar- gentatus	Herring Gull	2	2,411	134,998	$n_{ind} \sim 1$	0.0006	0.0001	0.0048	83	10.6	653.2	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	GNS	Seabirds	melanitta fusca	Velvet Sco- ter	190	2,411		$n_{ind} \sim 1 + (1 \text{area-Code}) + (1 \text{metierL5})$	0.0000	0.0000	0.0000				non e	there is spatial variability in BPUE
Baltic Sea	GNS	Seabirds	melanitta nigra	Black Sco- ter	17	2,411	134,998	$n_{ind} \sim 1$	0.0022	0.0005	0.0102	295	63.3	1,376.5	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	GNS	Seabirds	pha- lacrocora x carbo	Great Cor- morant	109	2,411		$n_{ind} \sim 1 + (1 \text{area-Code})$	0.0088	0.0018	0.0432				non e	there is spatial variability in BPUE
Baltic Sea	GNS	Seabirds	podiceps cristatus	Great Crested Grebe	1	2,411	134,998	$n_{ind} \sim 1$	0.0004	0.0001	0.0029	56	7.9	397.6	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	GNS	Seabirds	podiceps grise- gena	Red-necked Grebe	1	2,411		$n_{ind} \sim 1 + (1 \text{metierL5})$	0.0004	0.0001	0.0029				non e	there is between- metier level 5 var- iability in BPUE
Baltic Sea	GNS	Seabirds	so- materia	Common Eider	539	2,411		$n_{ind} \sim 1 + (1 \text{area-Code}) + (1 $	0.0033	0.0002	0.0495				pre- sent	there is variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
			mollis- sima					year) + (1 metierL5) + (1 moni- toring- Method)								depending on monitoring proto- cols
Baltic Sea	GNS	Seabirds	uria aalge	Common Guillemot	193	2,411		n_ind ~ 1 + (1 area- Code)	0.0084	0.000 7	0.1020				non e	there is spatial variability in BPUE
Baltic Sea	GTR	Seabirds	alca torda	Razorbill	1	383	4,235	n_ind ~ 1	0.0026	0.000 4	0.0186	11	1.6	78.6	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	GTR	Seabirds	aythya fu- ligula	Tufted Duck	4	383	4,235	n_ind ~ 1	0.0129	0.002 3	0.0728	55	9.7	308.4	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	GTR	Seabirds	aythya marila	Greater Scaup	1	383	4,235	n_ind ~ 1	0.0055	0.000 4	0.0845				non e	a constant BPUE appears to be rep- resentative
Baltic Sea	GTR	Seabirds	melanitta fusca	Velvet Sco- ter	2	383	4,235	n_ind ~ 1	0.0166	0.000 8	0.3444				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Baltic Sea	GTR	Seabirds	mergus serrator	Red- breasted Merganser	1	383	4,235	n_ind ~ 1	0.0067	0.000 4	0.1175				non e	a constant BPUE appears to be rep- resentative
Baltic Sea	GTR	Seabirds	pha- lacrocora x carbo	Great Cor- morant	73	383	4,235	n_ind ~ 1 + (1 country)	0.1081	0.028 5	0.4092	333	145.9	885.2	non e	there is spatial variability in BPUE
Baltic Sea	GTR	Seabirds	so- materia mollis- sima	Common Eider	22	383	4,235	n_ind ~ 1	0.0532	0.031 2	0.0907	225	132.1	384.2	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	GTR	Seabirds	uria aalge	Common Guillemot	6	383	4,235	n_ind ~ 1	0.0157	0.007 0	0.0349	66	29.8	147.6	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	LLD	Seabirds	gavia arc- tica	Arctic Loon	1	74	44	n_ind ~ 1	0.0135	0.001 9	0.0959	1	0.1	4.2	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	LLD	Seabirds	uria aalge	Common Guillemot	5	74	44	n_ind ~ 1	0.0672	0.012 2	0.3707	3	0.5	16.3	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Baltic Sea	FPO	Fish	alosa fallax	Twaite shad	157	145		n_ind ~ 1 + (1 area- Code) + (1 year)	0.0194	0.000 1	3.9436				pre- sent	there is spatial variability in BPUE
Baltic Sea	FPO	Fish	cy- clopterus lumpus	lumpfish	4	145	3,181	n_ind ~ 1	0.0290	0.007 5	0.1125	92	23.8	357.9	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	FPO	Fish	lampetra fluviatilis	European river lam- prey	2	145	3,181	n_ind ~ 1	0.0109	0.001 4	0.0872	35	4.4	277.4	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	FYK	Fish	alosa fallax	Twaite shad	3	69	59,264	n_ind ~ 1	0.0835	0.005 0	1.3843				non e	a constant BPUE appears to be rep- resentative
Baltic Sea	GNS	Fish	acipenser oxyrin- chus	Atlantic sturgeon	22	2,462		n_ind ~ 1 + (1 area- Code)	0.0002	0.000 0	0.7351				non e	there is spatial variability in BPUE
Baltic Sea	GNS	Fish	alosa fallax	Twaite shad	605	2,462		n_ind ~ 1 + (1 country) + (1 year) + (1 moni- toring- Method)	0.0000	0.000 0	0.0009				pre- sent	there is variability in BPUE depend- ing on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE	
Baltic Sea	GNS	Fish	cy- clopterus lumpus	lumpfish	335	2,462		n_ind ~ 1 + (1 area- Code) + (1 year) + (1 metierL5) + (1 moni- toring- Method)	0.0000	0.000 0	0.1791					pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Baltic Sea	GNS	Fish	lampetra fluviatilis	European river lam- prey	2	2,462	134,998	n_ind ~ 1	0.0008	0.000 1	0.0078	113	12.2	1,047.5	non e	a constant BPUE appears to be rep- resentative	
Baltic Sea	GNS	Fish	merlan- gius mer- langus	whiting	209	2,462		n_ind ~ 1 + (1 country) + (1 area- Code) + (1 year) + (1 sam- plingProto- col) + (1 monitoring- Method)	0.0000	0.000 0	0.0000					pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Baltic Sea	GTR	Fish	alosa fallax	Twaite shad	9	399	4,235	n_ind ~ 1	0.0294	0.001 2	0.7481					non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Baltic Sea	GTR	Fish	cy- clopterus lumpus	lumpfish	38	399	4,235	n_ind ~ 1	0.1274	0.049 4	0.3285	540	209.4	1,391.1	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	GTR	Fish	merlan- gius mer- langus	whiting	72	399	4,235	n_ind ~ 1	0.1447	0.045 4	0.4619	613	192.1	1,956.1	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	GTR	Fish	raja clav- ata	thornback ray	4	399	4,235	n_ind ~ 1	0.0183	0.002 9	0.1162	78	12.2	492.0	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	OTB	Fish	alosa fallax	Twaite shad	8	527		n_ind ~ 1 + (1 country) + (1 area- Code)	0.0015	0.000 0	0.0473				non e	there is spatial variability in BPUE
Baltic Sea	OTB	Fish	cy- clopterus lumpus	lumpfish	25	527	4,973	n_ind ~ 1 + (1 country)	0.0016	0.000 0	1.8825				non e	there is spatial variability in BPUE
Baltic Sea	OTB	Fish	merlan- gius mer- langus	whiting	197	527	4,973	n_ind ~ 1 + (1 country) + (1 year)	0.0000	0.000 0	0.0146				pre- sent	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Baltic Sea	OTM	Fish	alosa fallax	Twaite shad	5	2,881	18,828	n_ind ~ 1	0.0019	0.000 7	0.0053	35	12.5	100.0	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	OTM	Fish	cy- clopterus lumpus	lumpfish	7	2,881	18,828	n_ind ~ 1	0.0091	0.001 1	0.0752	171	20.7	1,415.0	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	OTM	Fish	lampetra fluviatilis	European river lam- prey	56	2,881		n_ind ~ 1 + (1 area- Code)	0.0000	0.000 0	0.0093				non e	there is spatial variability in BPUE
Baltic Sea	SDN	Fish	cy- clopterus lumpus	lumpfish	7	8	129	n_ind ~ 1	0.5152	0.061 8	4.2926	66	8.0	553.7	non e	a constant BPUE appears to be rep- resentative
Baltic Sea	SDN	Fish	merlan- gius mer- langus	whiting	1	8	129	n_ind ~ 1	0.1250	0.017 6	0.8874	16	2.3	114.5	non e	a constant BPUE appears to be rep- resentative
Barents Sea	GNS	Mammals	halicho- erus grypus	Gray Seal	1	194	6,309	n_ind ~ 1	0.0159	0.000 5	0.4700				non e	a constant BPUE appears to be rep- resentative
Barents Sea	GNS	Mammals	phoca vi- tulina	Harbor Seal	3	194	6,309	n_ind ~ 1	0.0630	0.001 8	2.2377				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Barents Sea	GNS	Mammals	pho- coena pho- coena	Harbor Por- poise	2	194	6,309	n_ind ~ 1	0.0401	0.001 3	1.2218				non e	a constant BPUE appears to be rep- resentative
Barents Sea	OTB	Fish	amblyraja hyperbo- rea	Arctic skate	450	1,687	1,933	n_ind ~ 1	0.2196	0.001 2	39.4922				non e	a constant BPUE appears to be rep- resentative
Barents Sea	OTB	Fish	hippo- glossus hippo- glossus	Atlantic hali- but	106	1,687	1,933	n_ind ~ 1	0.1156	0.004 5	2.9607				non e	a constant BPUE appears to be rep- resentative
Barents Sea	OTB	Fish	lycodes esmarkii	Esmark's eelpout	99	1,687	1,933	n_ind ~ 1	0.0486	0.000 5	4.4262				non e	a constant BPUE appears to be rep- resentative
Barents Sea	OTB	Fish	rajella fyl- lae	round skate	863	1,687	1,933	n_ind ~ 1	0.8880	0.002 8	277.569 6				non e	a constant BPUE appears to be rep- resentative
Barents Sea	OTB	Fish	sebastes viviparus	Norway haddock	62	1,687	1,933	n_ind ~ 1	0.0640	0.000 6	6.7838				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Barents Sea	OTT	Fish	hippo- glossus hippo- glossus	Atlantic hali- but	116	37	272	n_ind ~ 1	1.7423	0.193 1	15.7222	473	52.4	4,270.8	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	FPO	Mammals	delphinus delphis	Short- beaked Common Dolphin	1	145	117,570	n_ind ~ 1	0.0069	0.001 0	0.0489				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GNS	Mammals	delphinus delphis	Short- beaked Common Dolphin	29	3,384	148,174	n_ind ~ 1	0.0124	0.006 2	0.0249	1,834	912.1	3,688.8	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GNS	Mammals	halicho- erus grypus	Gray Seal	2	3,384		n_ind ~ 1 + (1 area- Code) + (1 vessel- Length_gro up)	0.0000	0.000 0	6.7620				non e	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	GNS	Mammals	pho- coena pho- coena	Harbor Por- poise	4	3,384	148,174	n_ind ~ 1	0.0008	0.000 2	0.0035	123	29.5	514.8	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	GNS	Mammals	stenella coeruleo- alba	Striped Dol- phin	1	3,384	148,174	n_ind ~ 1	0.0003	0.000 0	0.0021	44	6.2	310.8	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GNS	Mammals	tursiops truncatus	Bottlenose Dolphin	6	3,384	148,174	n_ind ~ 1	0.0021	0.000 8	0.0059	315	112.9	879.7	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GTR	Mammals	delphinus delphis	Short- beaked Common Dolphin	49	1,964	55,930	n_ind ~ 1	0.0221	0.013 2	0.0370	1,236	738.3	2,069.7	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GTR	Mammals	halicho- erus grypus	Gray Seal	7	1,964	55,930	n_ind ~ 1	0.0026	0.000 5	0.0145	144	25.7	811.4	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GTR	Mammals	pho- coena pho- coena	Harbor Por- poise	14	1,964	55,930	n_ind ~ 1	0.0067	0.003 6	0.0126	377	200.6	707.3	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	LLS	Mammals	delphinus delphis	Short- beaked Common Dolphin	1	447	51,089	n_ind ~ 1	0.0044	0.000 2	0.1076				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	OTB	Mammals	delphinus delphis	Short- beaked Common Dolphin	11	2,177	71,910	n_ind ~ 1	0.0043	0.001 8	0.0105	312	128.4	758.6	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	OTB	Mammals	pho- coena pho- coena	Harbor Por- poise	1	2,177	71,910	n_ind ~ 1	0.0013	0.000 1	0.0291				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	OTM	Mammals	delphinus delphis	Short- beaked Common Dolphin	2	40	340	n_ind ~ 1	0.2031	0.019 7	2.0923				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PS	Mammals	delphinus delphis	Short- beaked Common Dolphin	16	1,117	61,453	n_ind ~ 1	0.0124	0.006 0	0.0257	765	370.5	1,579.2	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	PTB	Mammals	delphinus delphis	Short- beaked Common Dolphin	197	1,074	8,058	$n_{ind} \sim 1 + (1 \text{country}) + (1 \text{metierL5})$	0.0057	0.000 0	38.3937	744	240.9	4,907.5	non e	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	PTB	Mammals	globi- cephala melas	Long-finned Pilot Whale	3	1,074	8,058	$n_{ind} \sim 1$	0.0026	0.000 7	0.0095	21	5.6	76.7	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PTB	Mammals	tursiops truncatus	Bottlenose Dolphin	7	1,074	8,058	$n_{ind} \sim 1$	0.0058	0.002 1	0.0158	47	17.2	127.0	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PTM	Mammals	globi- cephala melas	Long-finned Pilot Whale	5	1,041	6,291	$n_{ind} \sim 1$	0.0021	0.000 2	0.0187	13	1.4	117.7	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PTM	Mammals	pho- coena pho- coena	Harbor Por- poise	1	1,041	6,291	$n_{ind} \sim 1$	0.0020	0.000 1	0.0378				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	GND	Seabirds	alca torda	Razorbill	1	29	6,028	n_ind ~ 1	0.0405	0.002 8	0.5798				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GND	Seabirds	uria aalge	Common Guillemot	4	29	6,028	n_ind ~ 1	0.1280	0.038 8	0.4222				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GNS	Seabirds	alca torda	Razorbill	8	3,186	148,174	n_ind ~ 1	0.0060	0.001 5	0.0239	884	220.5	3,546.0	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GNS	Seabirds	gavia im- mer	Common Loon	1	3,186	148,174	n_ind ~ 1	0.0003	0.000 0	0.0022	47	6.6	330.2	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GNS	Seabirds	gavia stellata	Red- throated Loon	1	3,186	148,174	n_ind ~ 1	0.0004	0.000 0	0.0061				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	GNS	Seabirds	larus marinus	Great Black- backed Gull	2	3,186	148,174	n_ind ~ 1	0.0004	0.000 1	0.0029	60	8.3	434.0	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GNS	Seabirds	larus micha- hellis	Yellow-leg- ged Gull	7	3,186		n_ind ~ 1 + (1 country)	0.0000	0.000 0	2,982.9 759				non e	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	GNS	Seabirds	morus bassanus	Northern Gannet	34	3,186	148,174	n_ind ~ 1	0.0114	0.005 5	0.0234	1,687	818.8	3,473.9	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GNS	Seabirds	pha- lacrocora x aristo- telis	European Shag	5	3,186	148,174	n_ind ~ 1	0.0017	0.000 5	0.0065	259	69.2	969.7	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GNS	Seabirds	pha- lacrocora x carbo	Great Cor- morant	4	3,186	148,174	n_ind ~ 1	0.0013	0.000 4	0.0043	190	56.7	635.1	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	GNS	Seabirds	puffinus maure- tanicus	Balearic Shearwater	5	3,186	148,174	n_ind ~ 1	0.0059	0.000 6	0.0617				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GNS	Seabirds	uria aalge	Common Guillemot	227	3,186		n_ind ~ 1 + (1 country) + (1 metierL5) + (1 vessel- Length_gro up)	0.0000	0.000 0	0.0131				non e	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	GTN	Seabirds	uria aalge	Common Guillemot	1	11	280	n_ind ~ 1	0.0931	0.013 1	0.6610	26	3.7	185.1	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GTR	Seabirds	alca torda	Razorbill	7	1,889	55,930	n_ind ~ 1	0.0036	0.001 5	0.0086	201	83.5	483.7	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GTR	Seabirds	gavia stellata	Red- throated Loon	3	1,889	55,930	n_ind ~ 1	0.0016	0.000 5	0.0049	89	28.6	275.4	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# individuals 2017-2023	monitoring effort (DaS) 2017-2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by-catch 2023	TB lower	TB upper	inter-annual	key variability in BPUE
Bay of Biscay and the Iberian Coast	GTR	Seabirds	larus argentatus	Herring Gull	1	1,889	55,930	n_ind ~ 1	0.0005	0.0001	0.0038	30	4.2	210.2	none	a constant BPUE appears to be representative
Bay of Biscay and the Iberian Coast	GTR	Seabirds	larus fuscus	Lesser Black-backed Gull	5	1,889	55,930	n_ind ~ 1 + (1 country)	0.0002	0.0000	17.0109				none	there is spatial variability in BPUE
Bay of Biscay and the Iberian Coast	GTR	Seabirds	larus marinus	Great Black-backed Gull	1	1,889		n_ind ~ 1 + (1 country) + (1 area-Code) + (1 metierL5) + (1 monitoringMethod)	0.0005						none	there is variability in BPUE depending on monitoring protocols
Bay of Biscay and the Iberian Coast	GTR	Seabirds	larus michahellis	Yellow-legged Gull	1	1,889	55,930	n_ind ~ 1	0.0005	0.0001	0.0040	30	3.9	224.7	none	a constant BPUE appears to be representative
Bay of Biscay and the Iberian Coast	GTR	Seabirds	melanitta nigra	Black Scoter	9	1,889	55,930	n_ind ~ 1	0.0047	0.0021	0.0106	263	116.6	595.1	none	a constant BPUE appears to be representative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	GTR	Seabirds	morus bassanus	Northern Gannet	188	1,889	55,930	n_ind ~ 1 + (1 country) + (1 ves- sel- Length_gro up)	0.0091	0.000 2	0.3873	308	70.4	5,678.0	non e	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	GTR	Seabirds	pha- lacrocora x carbo	Great Cor- morant	5	1,889	55,930	n_ind ~ 1	0.0048	0.000 9	0.0265	267	48.0	1,481.0	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GTR	Seabirds	puffinus gravis	Greater Shearwater	20	1,889	55,930	n_ind ~ 1	0.0152	0.000 4	0.6476				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GTR	Seabirds	puffinus maure- tanicus	Balearic Shearwater	12	1,889	55,930	n_ind ~ 1	0.0076	0.002 0	0.0287	425	112.6	1,604.4	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GTR	Seabirds	rissa tri- dactyla	Black-leg- ged Kitti- wake	1	1,889	55,930	n_ind ~ 1	0.0005	0.000 1	0.0038	30	4.2	210.2	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	GTR	Seabirds	uria aalge	Common Guillemot	620	1,889	n_ind ~ 1 + (1 area- Code) + (1 year) + (1 metierL5) + (1 ves- sel- Length_gro up)	0.0000	0.000 0	1.4744					pre- sent	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	LHP	Seabirds	morus bassanus	Northern Gannet	1	156	13,795	n_ind ~ 1	0.0063	0.000 5	0.0824				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	LLS	Seabirds	larus ar- gentatus	Herring Gull	1	487	51,089	n_ind ~ 1	0.0021	0.000 3	0.0146	105	14.8	744.5	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	LLS	Seabirds	morus bassanus	Northern Gannet	18	487	51,089	n_ind ~ 1	0.0370	0.013 2	0.1036	1,890	675.1	5,293.0	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	LLS	Seabirds	puffinus maure- tanicus	Balearic Shearwater	1	487		n_ind ~ 1 + (1 area- Code)	0.0021	0.000 3	0.0146				non e	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	LLS	Seabirds	rissa tri- dactyla	Black-leg- ged Kitti- wake	1	487	51,089	n_ind ~ 1	0.0021	0.000 3	0.0146	105	14.8	744.5	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	LTL	Seabirds	morus bassanus	Northern Gannet	11	134	7,077	n_ind ~ 1	0.0611	0.011 7	0.3195	432	82.6	2,261.2	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	OTB	Seabirds	larus ar- gentatus	Herring Gull	2	2,177		n_ind ~ 1 + (1 metierL5)	0.0000	0.000 0	4.5147				non e	there is between- metier level 5 var- iability in BPUE
Bay of Bis- cay and the Iberian Coast	OTB	Seabirds	morus bassanus	Northern Gannet	40	2,177		n_ind ~ 1 + (1 country) + (1 area- Code)	0.0000	0.000 0	0.0864				non e	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	OTB	Seabirds	puffinus maure- tanicus	Balearic Shearwater	2	2,177	71,910	n_ind ~ 1	0.0032	0.000 1	0.0827				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	OTM	Seabirds	larus fuscus	Lesser Black- backed Gull	1	40	340	n_ind ~ 1	0.0830	0.003 5	1.9580				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	OTM	Seabirds	morus bassanus	Northern Gannet	1	40	340	n_ind ~ 1	0.0830	0.003 5	1.9580				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PS	Seabirds	larus micha- hellis	Yellow-leg- ged Gull	6	932	61,453	n_ind ~ 1	0.0047	0.000 9	0.0234	288	57.6	1,435.9	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PTB	Seabirds	morus bassanus	Northern Gannet	20	1,074	8,058	n_ind ~ 1	0.0129	0.006 1	0.0272	104	49.3	219.5	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	PTB	Seabirds	rissa tri- dactyla	Black-leg- ged Kitti- wake	4	1,074	8,058	n_ind ~ 1	0.0032	0.000 2	0.0425				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GNS	Turtles	caretta caretta	Loggerhead	2	3,078	148,174	n_ind ~ 1	0.0006	0.000 1	0.0058	90	9.4	853.5	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	LLD	Turtles	caretta caretta	Loggerhead	8	131	2,626	n_ind ~ 1	0.0634	0.009 7	0.4152	166	25.4	1,090.4	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	LLD	Turtles	dermo- chelys coriacea	leatherback turtle	1	131	2,626	n_ind ~ 1 + (1 area- Code) + (1 vessel- Length_gro up)	0.0002	0.000 0	13.6554				non e	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	GNS	Fish	alosa alosa	Alice shad	76	3,078	148,174	n_ind ~ 1	0.0560	0.002 5	1.2576				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	GNS	Fish	alosa fallax	Twaite shad	22	3,078		$n_{ind} \sim 1 + (1 \text{country}) + (1 \text{samplingProtocol})$	0.0000	0.000 0	0.0001					there is variability in BPUE depending on monitoring protocols
Bay of Bis- cay and the Iberian Coast	GNS	Fish	argyrosomus regius	atlantic shadefish	15	3,078		$n_{ind} \sim 1 + (1 \text{areaCode}) + (1 \text{year}) + (1 \text{samplingProtocol})$	0.0000	0.000 0	0.0000				present	there is variability in BPUE depending on monitoring protocols
Bay of Bis- cay and the Iberian Coast	GNS	Fish	brama brama	Atlantic pomfret	2	3,078	148,174	$n_{ind} \sim 1$	0.0017	0.000 1	0.0341				none	a constant BPUE appears to be representative
Bay of Bis- cay and the Iberian Coast	GNS	Fish	centrophorus granulosus	gulper shark	1	3,078		$n_{ind} \sim 1 + (1 \text{metierL5})$	0.0003	0.000 0	0.0023				none	there is between-metier level 5 variability in BPUE
Bay of Bis- cay and	GNS	Fish	centroselache	Longnose velvet dog- fish	1	3,078		$n_{ind} \sim 1 + (1 \text{areaCode})$	0.0000	0.000 0	0.0260				none	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
the Iberian Coast			crepi- dater													
Bay of Bis- cay and the Iberian Coast	GNS	Fish	cetorhi- nus maxi- mus	basking shark	2	3,078	148,174	n_ind ~ 1	0.0011	0.000 1	0.0079	159	21.7	1,164.4	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GNS	Fish	cheli- donich- thys lu- cerna	tub gurnard	206	3,078		n_ind ~ 1 + (1 country) + (1 year) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0000				pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	GNS	Fish	chimaera mon- strosa	rabbitfish	612	3,078		n_ind ~ 1 + (1 country) + (1 ves- sel- Length_gro up)	0.0000	0.000 0	0.0005				non e	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	GNS	Fish	conger conger	conger eel	12	3,078		n_ind ~ 1 + (1 country)	0.0000	0.000 0	0.1880				non e	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	GNS	Fish	dasyatis pastinaca	blue sting- ray	1	3,078	148,174	$n_{ind} \sim 1$	0.0011	0.000 0	0.0282				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GNS	Fish	deania calceus	Birdbeak dogfish	49	3,078		$n_{ind} \sim 1 +$ (1 country) + (1 area- Code)	0.0000	0.000 0	0.0129				non e	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	GNS	Fish	dentex dentex	Common dentex	17	3,078		$n_{ind} \sim 1 +$ (1 area- Code) + (1 year) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0000				pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	GNS	Fish	etmopter us prin- ceps	great lan- ternshark	1	3,078	148,174	$n_{ind} \sim 1$	0.0003	0.000 0	0.0023	48	6.8	341.7	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GNS	Fish	etmopter us spinax	velvet belly	98	3,078		$n_{ind} \sim 1 +$ (1 country) + (1	0.0000	0.000 0	0.0226				non e	there is variability in BPUE depend- ing on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
								sam- plingProto- col)								
Bay of Bis- cay and the Iberian Coast	GNS	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	219	3,078		n_ind ~ 1 + (1 country) + (1 ves- sel- Length_gro up) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0001				non e	there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	GNS	Fish	hexan- chus griseus	bluntnose sixgill shark	13	3,078		n_ind ~ 1 + (1 country)	0.0000	0.000 0	1.9121				non e	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	GNS	Fish	hy- drolagus mirabilis	hydrolagus mirabilis	18	3,078	148,174	n_ind ~ 1	0.0014	0.000 1	0.0200				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GNS	Fish	labrus bergylta	ballan wrasse	41	3,078		n_ind ~ 1 + (1 country) + (1 year) + (1	0.0000	0.000 0	0.0000				pre- sent	there is variability in BPUE depend- ing on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
								sam- plingProto- col)								
Bay of Bis- cay and the Iberian Coast	GNS	Fish	lepidopus caudatus	scabbard- fish	21	3,078	148,174	n_ind ~ 1	0.0102	0.000 2	0.4955				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GNS	Fish	mola mola	ocean sun- fish	323	3,078		n_ind ~ 1 + (1 area- Code) + (1 year) + (1 sam- plingProto- col) + (1 monitoring- Method)	0.0000	0.000 0	0.0000				pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	GNS	Fish	molva macroph- thalma	Mediterra- nean ling	185	3,078		n_ind ~ 1 + (1 area- Code)	0.0000	0.000 0	0.0094				non e	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	GNS	Fish	oxynotus centrina	angular roughshark	1	3,078	148,174	n_ind ~ 1	0.0003	0.000 0	0.0023	48	6.8	341.7	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	GNS	Fish	polyprion ameri- canus	wreckfish	6	3,078		n_ind ~ 1 + (1 country) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0014					non e there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	GNS	Fish	scoph- thalmus maximus	turbot	1	3,078	148,174	n_ind ~ 1	0.0013	0.000 0	0.0352					non e a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GNS	Fish	scor- paena scrofa	bigscale scorpionfish	40	3,078		n_ind ~ 1 + (1 area- Code) + (1 year) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0000					pre- sent there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	GNS	Fish	scyliorhi- nus stel- laris	nursehound	3	3,078	148,174	n_ind ~ 1	0.0005	0.000 1	0.0037	72	9.4	546.5	non e a constant BPUE appears to be rep- resentative	
Bay of Bis- cay and	GNS	Fish	scymno- don ringens	knifetooth dogfish	48	3,078		n_ind ~ 1 + (1 area- Code) + (1	0.0000	0.000 0	0.0082					non e there is variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
the Iberian Coast								vessel- Length_gro up) + (1 sam- plingProto- col)								depending on monitoring proto- cols
Bay of Bis- cay and the Iberian Coast	GNS	Fish	sparus aurata	gilthead seabream	6	3,078	148,174	n_ind ~ 1	0.0059	0.000 6	0.0610				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GNS	Fish	torpedo mar- morata	marbled electric ray	22	3,078		n_ind ~ 1 + (1 area- Code) + (1 year) + (1 vessel- Length_gro up)	0.0000	0.000 0	0.0042				pre- sent	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	GNS	Fish	umbrina cirrosa	corb	2	3,078	148,174	n_ind ~ 1	0.0017	0.000 1	0.0341				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and	GNS	Fish	zeus fa- ber	European john dory	51	3,078		n_ind ~ 1 + (1 country) + (1	0.0000	0.000 0	0.0001				non e	there is variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
the Iberian Coast								sam- plingProto- col)								depending on monitoring proto- cols
Bay of Bis- cay and the Iberian Coast	GTR	Fish	argyroso- mus re- gius	atlantic shadefish	2	1,889	55,930	n_ind ~ 1	0.0017	0.000 1	0.0276				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GTR	Fish	centroph- orus granu- losus	gulper shark	2	1,889	55,930	n_ind ~ 1	0.0021	0.000 1	0.0380				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GTR	Fish	cetorhi- nus maxi- mus	basking shark	1	1,889	55,930	n_ind ~ 1	0.0005	0.000 1	0.0038	30	4.2	210.2	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GTR	Fish	cheli- donich- thys lu- cerna	tub gurnard	97	1,889		n_ind ~ 1 + (1 country) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0001				non e	there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and	GTR	Fish	chimaera mon- strosa	rabbitfish	18	1,889	55,930	n_ind ~ 1	0.0153	0.000 4	0.6539				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
the Iberian Coast																
Bay of Bis- cay and the Iberian Coast	GTR	Fish	conger conger	conger eel	9	1,889		$n_{ind} \sim 1 + (1 \text{country}) + (1 \text{samplingProtocol})$	0.0000	0.000 0	0.0061				non e	there is variability in BPUE depending on monitoring protocols
Bay of Bis- cay and the Iberian Coast	GTR	Fish	dasyatis pastinaca	blue sting- ray	1	1,889	55,930	$n_{ind} \sim 1$	0.0039	0.000 1	0.1556				non e	a constant BPUE appears to be representative
Bay of Bis- cay and the Iberian Coast	GTR	Fish	deania calceus	Birdbeak dogfish	1	1,889	55,930	$n_{ind} \sim 1$	0.0008	0.000 0	0.0154				non e	a constant BPUE appears to be representative
Bay of Bis- cay and the Iberian Coast	GTR	Fish	dentex dentex	Common dentex	6	1,889	55,930	$n_{ind} \sim 1$	0.0046	0.000 2	0.1076				non e	a constant BPUE appears to be representative
Bay of Bis- cay and the Iberian Coast	GTR	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	5	1,889	55,930	$n_{ind} \sim 1$	0.0048	0.000 2	0.1186				non e	a constant BPUE appears to be representative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	GTR	Fish	labrus bergylta	ballan wrasse	122	1,889		n_ind ~ 1 + (1 country) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0001					there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	GTR	Fish	mola mola	ocean sun- fish	24	1,889		n_ind ~ 1 + (1 country) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0108					there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	GTR	Fish	scoph- thalmus maximus	turbot	10	1,889	55,930	n_ind ~ 1 + (1 country) + (1 ves- sel- Length_gro up)	0.0000	0.000 0	0.0363				non e	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	GTR	Fish	scoph- thalmus rhombus	brill	13	1,889		n_ind ~ 1 + (1 country) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0029				non e	there is variability in BPUE depend- ing on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	GTR	Fish	scor- paena scrofa	bigscale scorpionfish	98	1,889		$n_{ind} \sim 1 + (1 \text{country}) + (1 \text{samplingProtocol})$	0.0000	0.000 0	0.0001				non e	there is variability in BPUE depending on monitoring protocols
Bay of Bis- cay and the Iberian Coast	GTR	Fish	scyliorhi- nus stel- laris	nursehound	41	1,889	55,930	$n_{ind} \sim 1 + (1 \text{country})$	0.0000	0.000 0	0.0856				non e	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	GTR	Fish	scymno- don ringens	knifetooth dogfish	1	1,889	55,930	$n_{ind} \sim 1$	0.0008	0.000 0	0.0154				non e	a constant BPUE appears to be representative
Bay of Bis- cay and the Iberian Coast	GTR	Fish	sparus aurata	gilthead seabream	2	1,889	55,930	$n_{ind} \sim 1$	0.0017	0.000 1	0.0276				non e	a constant BPUE appears to be representative
Bay of Bis- cay and the Iberian Coast	GTR	Fish	torpedo mar- morata	marbled electric ray	93	1,889		$n_{ind} \sim 1 + (1 \text{country}) + (1 \text{samplingProtocol})$	0.0000	0.000 0	0.0058				non e	there is variability in BPUE depending on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	GTR	Fish	umbrina cirrosa	corb	4	1,889	55,930	n_ind ~ 1	0.0032	0.000 2	0.0653				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	GTR	Fish	zeus fa- ber	European john dory	22	1,889		n_ind ~ 1 + (1 country) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0010				non e	there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	LLS	Fish	chimaera mon- strosa	rabbitfish	16	447		n_ind ~ 1 + (1 sam- plingProto- col)	0.0029	0.000 0	55.1781				non e	there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	LLS	Fish	conger conger	conger eel	5	447		n_ind ~ 1 + (1 area- Code) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0012				non e	there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	LLS	Fish	dasyatis pastinaca	blue sting- ray	1	447		n_ind ~ 1 + (1 metierL5) + (1	0.0019	0.000 1	0.0593				non e	there is variability in BPUE depend- ing on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
								sam- plingProto- col)								
Bay of Bis- cay and the Iberian Coast	LLS	Fish	deania calceus	Birdbeak dogfish	28	447		n_ind ~ 1 + (1 sam- plingProto- col)	0.0029	0.000 0	430.989 1				non e	there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	LLS	Fish	etmopter us pusil- lus	smooth lan- ternshark	2	447	51,089	n_ind ~ 1	0.0044	0.000 4	0.0488				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	LLS	Fish	etmopter us spinax	velvet belly	2	447	51,089	n_ind ~ 1	0.0043	0.000 4	0.0457				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	LLS	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	2	447	51,089	n_ind ~ 1	0.0291	0.000 6	1.5168				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	LLS	Fish	mola mola	ocean sun- fish	2	447	51,089	n_ind ~ 1	0.0045	0.001 1	0.0179	228	57.1	913.6	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	LLS	Fish	scyliorhi- nus stel- laris	nursehound	3	447		$n_{ind} \sim 1 + (1 \text{area-Code})$	0.0000	0.000 0	3.0199				non e	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	LLS	Fish	scymno- don ringens	knifetooth dogfish	12	447		$n_{ind} \sim 1 + (1 \text{samplingProtocol})$	0.0030	0.000 0	24.8982				non e	there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	LLS	Fish	sparus aurata	gilthead seabream	2	447	51,089	$n_{ind} \sim 1$	0.0148	0.000 5	0.4826				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	OTB	Fish	alosa alosa	Alice shad	415	2,177		$n_{ind} \sim 1 + (1 \text{metierL5})$	0.0001	0.000 0	0.7281				non e	there is between- metier level 5 var- iability in BPUE
Bay of Bis- cay and the Iberian Coast	OTB	Fish	alosa fallax	Twaite shad	5,968	2,177		$n_{ind} \sim 1 + (1 \text{country}) + (1 \text{samplingProtocol})$	0.0000	0.000 0	0.0019				non e	there is variability in BPUE depend- ing on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	OTB	Fish	argyroso- mus re- gius	atlantic shadefish	3,291	2,177		n_ind ~ 1 + (1 metierL5)	0.0000	0.000 0	0.0157				non e	there is between- metier level 5 var- iability in BPUE
Bay of Bis- cay and the Iberian Coast	OTB	Fish	brama brama	Atlantic pomfret	38	2,177	71,910	n_ind ~ 1	0.0064	0.002 3	0.0181	460	162.4	1,303.1	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	OTB	Fish	cen- troscyl- lium fab- ricii	black dog- fish	416	2,177	71,910	n_ind ~ 1	0.0630	0.000 6	7.1768				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	OTB	Fish	cheli- donich- thys lu- cerna	tub gurnard	15,961	2,177		n_ind ~ 1 + (1 country) + (1 year) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0000				pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	OTB	Fish	chimaera mon- strosa	rabbitfish	3,959	2,177		n_ind ~ 1 + (1 area- Code) + (1 year) + (1 metierL5)	0.0000	0.000 0	0.0000				pre- sent	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	OTB	Fish	conger conger	conger eel	36,958	2,177	n_ind ~ 1 + (1 country) + (1 year) + (1 metierL5) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0000					pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	OTB	Fish	deania calceus	Birdbeak dogfish	381	2,177	71,910	n_ind ~ 1	0.0636	0.011 5	0.3508	4,570	827.9	25,226.8	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	OTB	Fish	dentex dentex	Common dentex	1	2,177	71,910	n_ind ~ 1	0.0005	0.000 1	0.0033	33	4.7	234.5	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	OTB	Fish	etmopter us pusil- lus	smooth lan- ternshark	148	2,177	71,910	n_ind ~ 1	0.0176	0.000 3	1.0305				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and	OTB	Fish	etmopter us spinax	velvet belly	5,212	2,177		n_ind ~ 1 + (1 country) + (1 area- Code) + (1	0.0000	0.000 0	0.0396				pre- sent	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
the Iberian Coast								year) + (1 metierL5)								
Bay of Bis- cay and the Iberian Coast	OTB	Fish	gymnura altavela	spiny butter- fly ray	1	2,177	71,910	n_ind ~ 1	0.0005	0.000 1	0.0033	33	4.7	234.5	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	OTB	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	153,80 6	2,177		n_ind ~ 1 + (1 country) + (1 area- Code) + (1 year) + (1 metierL5) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0000				pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	OTB	Fish	hexan- chus griseus	bluntnose sixgill shark	338	2,177		n_ind ~ 1 + (1 area- Code) + (1 year)	0.0002	0.000 0	0.4706				pre- sent	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	OTB	Fish	hippo- campus hippo- campus	seahorse	238	2,177		n_ind ~ 1 + (1 metierL5)	0.0000	0.000 0	0.0244				non e	there is between- metier level 5 var- iability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	OTB	Fish	lepidopus caudatus	scabbard- fish	1,155	2,177		n_ind ~ 1 + (1 country) + (1 area- Code)	0.0000	0.000 0	0.0001				non e	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	OTB	Fish	mola mola	ocean sun- fish	20	2,177		n_ind ~ 1 + (1 year) + (1 metierL5)	0.0000	0.000 0	1.0631				pre- sent	there is between- metier level 5 var- iability in BPUE
Bay of Bis- cay and the Iberian Coast	OTB	Fish	molva macroph- thalma	Mediterra- nean ling	9,577	2,177		n_ind ~ 1 + (1 country) + (1 year) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0000				pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	OTB	Fish	mylioba- tis aquila	spotted ea- gle ray	216	2,177		n_ind ~ 1 + (1 metierL5)	0.0000	0.000 0	0.0249				non e	there is between- metier level 5 var- iability in BPUE
Bay of Bis- cay and the Iberian Coast	OTB	Fish	oxynotus centrina	angular roughshark	17	2,177	71,910	n_ind ~ 1	0.0018	0.000 1	0.0250				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	OTB	Fish	polyprion ameri- canus	wreckfish	14	2,177	71,910	n_ind ~ 1	0.0055	0.002 2	0.0137	396	159.1	984.4	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	OTB	Fish	pomato- mus sal- tatrix	bluefish	2,500	2,177		n_ind ~ 1 + (1 metierL5)	0.0000	0.000 0	0.0163				non e	there is between- metier level 5 var- iability in BPUE
Bay of Bis- cay and the Iberian Coast	OTB	Fish	sciaena umbra	sea raven	127	2,177		n_ind ~ 1 + (1 metierL5)	0.0000	0.000 0	0.0263				non e	there is between- metier level 5 var- iability in BPUE
Bay of Bis- cay and the Iberian Coast	OTB	Fish	scoph- thalmus maximus	turbot	517	2,177		n_ind ~ 1 + (1 country) + (1 year) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0001				pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	OTB	Fish	scoph- thalmus rhombus	brill	22	2,177		n_ind ~ 1 + (1 metierL5)	0.0025	0.000 2	0.0255				non e	there is between- metier level 5 var- iability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	OTB	Fish	scor- paena scrofa	bigscale scorpionfish	218	2,177		$n_{ind} \sim 1 + (1 \text{country}) + (1 \text{year}) + (1 \text{samplingProtocol})$	0.0000	0.000 0	0.0003				pre- sent	there is variability in BPUE depending on monitoring protocols
Bay of Bis- cay and the Iberian Coast	OTB	Fish	scyliorhi- nus stel- laris	nursehound	5	2,177	71,910	$n_{ind} \sim 1$	0.0011	0.000 1	0.0114				non e	a constant BPUE appears to be representative
Bay of Bis- cay and the Iberian Coast	OTB	Fish	scymno- don ringens	knifetooth dogfish	402	2,177		$n_{ind} \sim 1 + (1 \text{area-Code}) + (1 \text{year}) + (1 \text{metierL5})$	0.0000	0.000 0	0.0038				pre- sent	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	OTB	Fish	sparus aurata	gilthead seabream	217	2,177		$n_{ind} \sim 1 + (1 \text{metierL5})$	0.0000	0.000 0	0.0265				non e	there is between-metier level 5 variability in BPUE
Bay of Bis- cay and the Iberian Coast	OTB	Fish	synapho- branchus kaupii	northern cutthroat eel	6	2,177	71,910	$n_{ind} \sim 1$	0.0014	0.000 1	0.0166				non e	a constant BPUE appears to be representative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE	
Bay of Bis- cay and the Iberian Coast	OTB	Fish	tetronarc e nobili- ana	Atlantic tor- pedo	86	2,177		n_ind ~ 1 + (1 year) + (1 metierL5)	0.0000	0.000 0	0.0008					pre- sent	there is between- metier level 5 vari- ability in BPUE
Bay of Bis- cay and the Iberian Coast	OTB	Fish	torpedo mar- morata	marbled electric ray	5,250	2,177		n_ind ~ 1 + (1 area- Code) + (1 metierL5)	0.0000	0.000 0	0.0318					non e	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	OTB	Fish	torpedo torpedo	eyed elec- tric ray	29	2,177	71,910	n_ind ~ 1	0.0048	0.001 1	0.0203	345	81.9	1,456.7		non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	OTB	Fish	umbrina cirrosa	corb	46	2,177	71,910	n_ind ~ 1	0.0059	0.000 2	0.1752					non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	OTB	Fish	zeus fa- ber	European john dory	7,595	2,177		n_ind ~ 1 + (1 country) + (1 year) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0000					pre- sent	there is variability in BPUE depend- ing on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	OTM	Fish	brama brama	Atlantic pomfret	1	40	340	n_ind ~ 1	0.0248	0.003 5	0.1774				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	OTM	Fish	mola mola	ocean sun- fish	4	40	340	n_ind ~ 1	0.0763	0.008 5	0.6824				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PS	Fish	alosa fallax	Twaite shad	22	932	61,453	n_ind ~ 1	0.0146	0.001 8	0.1163	898	112.7	7,149.8	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PS	Fish	conger conger	conger eel	7	932	61,453	n_ind ~ 1	0.0050	0.000 3	0.0771				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PS	Fish	dasyatis pastinaca	blue sting- ray	22	932		n_ind ~ 1 + (1 area- Code) + (1 sam- plingProto- col)	0.0000	0.000 0	2.8882				non e	there is variability in BPUE depend- ing on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	PS	Fish	lepidopus caudatus	scabbard- fish	38	932	61,453	$n_{ind} \sim 1$	0.0214	0.000 6	0.8106				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PS	Fish	mola mola	ocean sun- fish	86	932	61,453	$n_{ind} \sim 1 +$ (1 country)	0.0000	0.000 0	6.0447				non e	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	PS	Fish	pomato- mus sal- tatrix	bluefish	525	932	61,453	$n_{ind} \sim 1$	0.2798	0.010 6	7.3561				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PS	Fish	sparus aurata	gilthead seabream	1	932	61,453	$n_{ind} \sim 1$	0.0011	0.000 2	0.0076	66	9.3	468.0	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PS	Fish	torpedo mar- morata	marbled electric ray	12	932	61,453	$n_{ind} \sim 1$	0.0089	0.001 4	0.0576	548	84.8	3,536.7	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	PTB	Fish	alosa fallax	Twaite shad	1	1,074	8,058	n_ind ~ 1	0.0009	0.000 1	0.0066	8	1.1	53.2	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PTB	Fish	brama brama	Atlantic pomfret	18	1,074	8,058	n_ind ~ 1	0.0157	0.003 2	0.0766	127	25.9	617.2	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PTB	Fish	centroph- orus granu- losus	gulper shark	14	1,074	8,058	n_ind ~ 1	0.0040	0.000 3	0.0535				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PTB	Fish	cetorhi- nus maxi- mus	basking shark	1	1,074		n_ind ~ 1 + (1 country) + (1 area- Code) + (1 year) + (1 sam- plingProto- col)	0.0007	0.000 0	0.0233				pre- sent	there is variability in BPUE depend- ing on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	PTB	Fish	cheli- donich- thys lu- cerna	tub gurnard	2,598	1,074	n_ind ~ 1 + (1 country) + (1 year) + (1 metierL5) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0004					pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	PTB	Fish	chimaera mon- strosa	rabbitfish	205	1,074	8,058	n_ind ~ 1 + (1 metierL5)	0.0029	0.000 0	22.7517	1,136	407.2	15,567.5	non e	there is between- metier level 5 var- iability in BPUE
Bay of Bis- cay and the Iberian Coast	PTB	Fish	conger conger	conger eel	21	1,074	n_ind ~ 1 + (1 year) + (1 sam- plingProto- col)	0.0023	0.000 0	0.1406					pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	PTB	Fish	deania calceus	Birdbeak dogfish	562	1,074	8,058	n_ind ~ 1 + (1 area- Code) + (1 year)	0.0009	0.000 0	0.4156				pre- sent	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	PTB	Fish	epigonus telesco- pus	telescope cardinal	28	1,074	8,058	$n_{ind} \sim 1$	0.0186	0.000 5	0.6378				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PTB	Fish	etmopter us prin- ceps	great lan- ternshark	76	1,074	8,058	$n_{ind} \sim 1$	0.0180	0.000 6	0.5906				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PTB	Fish	etmopter us spinax	velvet belly	527	1,074	8,058	$n_{ind} \sim 1 +$ (1 area- Code) + (1 year) + (1 metierL5)	0.0000	0.000 0	28.7287				pre- sent	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	PTB	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	7,322	1,074	8,058	$n_{ind} \sim 1 +$ (1 year)	0.7768	0.009 0	66.8323	185,2 50	23,56 1.7	1,456,50 0.1	pre- sent	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PTB	Fish	lepidopus caudatus	scabbard- fish	51	1,074	8,058	$n_{ind} \sim 1$	0.0192	0.005 3	0.0693	154	42.7	558.5	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE	
Bay of Bis- cay and the Iberian Coast	PTB	Fish	mola mola	ocean sun- fish	416	1,074		n_ind ~ 1 + (1 year) + (1 sam- plingProto- col)	0.0152	0.000 3	0.8591					pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	PTB	Fish	molva macroph- thalma	Mediterra- nean ling	8,310	1,074		n_ind ~ 1 + (1 metierL5) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0057					non e	there is variability in BPUE depend- ing on monitoring protocols
Bay of Bis- cay and the Iberian Coast	PTB	Fish	mora moro	googly-eyed cod	1	1,074	8,058	n_ind ~ 1	0.0009	0.000 1	0.0066	8	1.1	53.2		non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PTB	Fish	mylioba- tis aquila	spotted ea- gle ray	1	1,074	8,058	n_ind ~ 1	0.0018	0.000 1	0.0336					non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PTB	Fish	scor- paena scrofa	bigscale scorpionfish	1	1,074	8,058	n_ind ~ 1	0.0009	0.000 1	0.0066	8	1.1	53.2		non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Bay of Bis- cay and the Iberian Coast	PTB	Fish	scyliorhi- nus stel- laris	nursehound	2	1,074	8,058	n_ind ~ 1	0.0013	0.000 2	0.0098	11	1.5	79.1	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PTB	Fish	scymno- don ringens	knifetooth dogfish	29	1,074	8,058	n_ind ~ 1	0.0083	0.001 4	0.0508	67	11.0	409.3	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PTB	Fish	somnio- sus mi- croceph- alus	Greenland shark	1	1,074	8,058	n_ind ~ 1	0.0009	0.000 1	0.0066	8	1.1	53.2	non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PTB	Fish	torpedo mar- morata	marbled electric ray	3	1,074	8,058	n_ind ~ 1	0.0026	0.000 2	0.0308				non e	a constant BPUE appears to be rep- resentative
Bay of Bis- cay and the Iberian Coast	PTB	Fish	zeus fa- ber	European john dory	534	1,074		n_ind ~ 1 + (1 country) + (1 year) + (1 metierL5) + (1	0.0000	0.000 0	0.0000				pre- sent	there is variability in BPUE depend- ing on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE	
								sam- plingProto- col)									
Bay of Bis- cay and the Iberian Coast	PTM	Fish	cetorhi- nus maxi- mus	basking shark	3	1,087		n_ind ~ 1 + (1 country)	0.0028	0.000 9	0.0086					non e	there is spatial variability in BPUE
Bay of Bis- cay and the Iberian Coast	TBB	Fish	torpedo mar- morata	marbled electric ray	8	145	10,283	n_ind ~ 1	0.1041	0.002 6	4.1775					non e	a constant BPUE appears to be rep- resentative
Black Sea	GNS	Mammals	pho- coena pho- coena	Harbor Por- poise	3	124	6,377	n_ind ~ 1	0.0198	0.002 2	0.1824	126	13.7	1,163.0		non e	a constant BPUE appears to be rep- resentative
Black Sea	OTM	Fish	acipenser stellatus	stellate stur- geon	2	160	3,682	n_ind ~ 1	0.0188	0.001 3	0.2793					non e	a constant BPUE appears to be rep- resentative
Black Sea	OTM	Fish	huso huso	European sturgeon	2	160	3,682	n_ind ~ 1	0.0112	0.001 9	0.0659	41	7.0	242.6		non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Black Sea	TBB	Fish	acipenser stellatus	stellate stur- geon	10	107	1,321	n_ind ~ 1	0.0661	0.003 1	1.4276				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	GNS	Mammals	delphinus delphis	Short- beaked Common Dolphin	12	1,264		n_ind ~ 1 + (1 sam- plingProto- col)	0.0072	0.000 4	0.1187				non e	there is variability in BPUE depend- ing on monitoring protocols
Celtic Seas	GNS	Mammals	halicho- erus grypus	Gray Seal	216	1,264		n_ind ~ 1 + (1 country) + (1 ves- sel- Length_gro up)	0.0226	0.001 3	0.3818				non e	there is spatial variability in BPUE
Celtic Seas	GNS	Mammals	phoca vi- tulina	Harbor Seal	45	1,264		n_ind ~ 1 + (1 country) + (1 year)	0.0000	0.000 0	0.0070				pre- sent	there is spatial variability in BPUE
Celtic Seas	GNS	Mammals	pho- coena pho- coena	Harbor Por- poise	11	1,264		n_ind ~ 1 + (1 sam- plingProto- col)	0.0014	0.000 0	1.0768				non e	there is variability in BPUE depend- ing on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Celtic Seas	GTR	Mammals	delphinus delphis	Short- beaked Common Dolphin	1	351	2,001	n_ind ~ 1	0.0049	0.000 4	0.0555				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	GTR	Mammals	grampus griseus	Risso's Dol- phin	1	351	2,001	n_ind ~ 1	0.0029	0.000 4	0.0202	6	0.8	40.5	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	GTR	Mammals	halicho- erus grypus	Gray Seal	150	351		n_ind ~ 1 + (1 area- Code) + (1 year)	0.0770	0.010 0	0.5936				pre- sent	there is spatial variability in BPUE
Celtic Seas	GTR	Mammals	pho- coena pho- coena	Harbor Por- poise	2	351	2,001	n_ind ~ 1	0.0137	0.002 0	0.0915	27	4.1	183.0	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTB	Mammals	delphinus delphis	Short- beaked Common Dolphin	12	4,042		n_ind ~ 1 + (1 country) + (1 area- Code)	0.0007	0.000 0	0.0144				non e	there is spatial variability in BPUE
Celtic Seas	OTB	Mammals	phoca vi- tulina	Harbor Seal	1	4,042	56,825	n_ind ~ 1	0.0002	0.000 0	0.0018	14	2.0	99.8	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Celtic Seas	OTB	Mammals	pho- coena pho- coena	Harbor Por- poise	2	4,042	56,825	n_ind ~ 1	0.0005	0.000 1	0.0032	31	5.2	180.7	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTM	Mammals	globi- cephala melas	Long-finned Pilot Whale	3	841	1,931	n_ind ~ 1	0.0041	0.000 3	0.0616				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTM	Mammals	halicho- erus grypus	Gray Seal	18	841	1,931	n_ind ~ 1	0.0177	0.007 7	0.0403	34	14.9	77.8	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTT	Mammals	delphinus delphis	Short- beaked Common Dolphin	2	1,249	10,729	n_ind ~ 1	0.0018	0.000 3	0.0116	19	3.0	124.6	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTT	Mammals	pho- coena pho- coena	Harbor Por- poise	2	1,249	10,729	n_ind ~ 1	0.0016	0.000 4	0.0064	17	4.3	68.7	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	PS	Mammals	delphinus delphis	Short- beaked Common Dolphin	1	70	122	n_ind ~ 1	0.0143	0.002 0	0.1014	2	0.2	12.4	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Celtic Seas	PTM	Mammals	delphinus delphis	Short- beaked Common Dolphin	3	355		$n_{ind} \sim 1 + (1 \text{metierL5})$	0.0035	0.000 0	0.3719				non e	there is between- metier level 5 var- iability in BPUE
Celtic Seas	GNS	Seabirds	fulmarus glacialis	Northern Fulmar	38	1,264		$n_{ind} \sim 1 + (1 \text{area-Code}) + (1 \text{year})$	0.0000	0.000 0	0.0180				pre- sent	there is spatial variability in BPUE
Celtic Seas	GNS	Seabirds	pha- lacrocora x carbo	Great Cor- morant	3	1,264	15,232	$n_{ind} \sim 1$	0.0027	0.000 6	0.0132	41	8.5	201.6	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	GNS	Seabirds	uria aalge	Common Guillemot	42	1,264	15,232	$n_{ind} \sim 1$	0.0484	0.017 4	0.1346	737	265.3	2,050.1	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	LLS	Seabirds	larus marinus	Great Black- backed Gull	2	224	10,725	$n_{ind} \sim 1$	0.0075	0.001 1	0.0521	81	11.7	559.0	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	LLS	Seabirds	morus bassanus	Northern Gannet	14	224	10,725	$n_{ind} \sim 1$	0.0555	0.016 2	0.1902	596	174.0	2,039.7	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Celtic Seas	LLS	Seabirds	puffinus gravis	Greater Shearwater	2	224	10,725	$n_{ind} \sim 1$	0.0095	0.000 9	0.1004				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTB	Seabirds	morus bassanus	Northern Gannet	27	4,042		$n_{ind} \sim 1 + (1 \text{country})$	0.0059	0.000 6	0.0546				non e	there is spatial variability in BPUE
Celtic Seas	OTT	Seabirds	larus ar- gentatus	Herring Gull	1	1,249	10,729	$n_{ind} \sim 1$	0.0008	0.000 1	0.0057	9	1.2	61.0	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	PS	Seabirds	larus ar- gentatus	Herring Gull	9	70	122	$n_{ind} \sim 1$	0.1065	0.033 0	0.3436	13	4.0	41.9	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	PTB	Seabirds	morus bassanus	Northern Gannet	2	29	33	$n_{ind} \sim 1$	0.0600	0.009 3	0.3870	2	0.3	12.9	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	PTM	Seabirds	morus bassanus	Northern Gannet	1	355	1,968	$n_{ind} \sim 1$	0.0028	0.000 4	0.0200				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	FPO	Fish	conger conger	conger eel	1	3	62,314	$n_{ind} \sim 1$	0.3529	0.049 7	2.5056				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Celtic Seas	GND	Fish	hexan- chus griseus	bluntnose sixgill shark	6	69	4	n_ind ~ 1	0.0867	0.003 9	1.9469				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	GND	Fish	scoph- thalmus rhombus	brill	3	69	4	n_ind ~ 1	0.0473	0.010 0	0.2247				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	GND	Fish	zeus fa- ber	European john dory	7	69	4	n_ind ~ 1	0.1304	0.028 8	0.5911				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	GNS	Fish	alosa alosa	Alice shad	9	1,479	15,232	n_ind ~ 1	0.0080	0.001 0	0.0621	121	15.5	945.3	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	GNS	Fish	cetorhi- nus maxi- mus	basking shark	1	1,479	15,232	n_ind ~ 1	0.0010	0.000 1	0.0136				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	GNS	Fish	cheli- donich- thys lu- cerna	tub gurnard	3	1,479		n_ind ~ 1 + (1 year) + (1 monitor- ingMethod)	0.0000	0.000 0	0.0281				pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Celtic Seas	GNS	Fish	conger conger	conger eel	4	1,479		n_ind ~ 1 + (1 year) +	0.0003	0.000 0	0.2665				pre- sent	there is variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
								(1 monitor- ingMethod)								depending on monitoring proto- cols
Celtic Seas	GNS	Fish	dipturus interme- dius	flapper skate	3	1,479	15,232	n_ind ~ 1	0.0035	0.000 6	0.0222	54	8.6	338.0	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	GNS	Fish	hexan- chus griseus	bluntnose sixgill shark	1	1,479	15,232	n_ind ~ 1	0.0012	0.000 1	0.0178				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	GNS	Fish	labrus bergylta	ballan wrasse	523	1,479	15,232	n_ind ~ 1	0.3798	0.038 1	3.7819	5,785	581.0	57,606.0	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	GNS	Fish	polyprion ameri- canus	wreckfish	1	1,479	15,232	n_ind ~ 1	0.0016	0.000 1	0.0293				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	GNS	Fish	scoph- thalmus maximus	turbot	229	1,479	15,232	n_ind ~ 1 + (1 year)	0.0010	0.000 0	113,986 .2661	602	91.5	3,960.1	pre- sent	a constant BPUE appears to be rep- resentative
Celtic Seas	GNS	Fish	scoph- thalmus rhombus	brill	7	1,479	15,232	n_ind ~ 1	0.0352	0.004 0	0.3106	537	60.9	4,731.4	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Celtic Seas	GNS	Fish	squatina squatina	angelfish	3	1,479	15,232	n_ind ~ 1	0.0010	0.000 1	0.0069	15	2.0	104.5	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	GNS	Fish	zeus fa- ber	European john dory	116	1,479		n_ind ~ 1 + (1 area- Code) + (1 year) + (1 metierL5) + (1 ves- sel- Length_gro up)	0.0000	0.000 0	0.0000				pre- sent	there is spatial variability in BPUE
Celtic Seas	GTR	Fish	cetorhi- nus maxi- mus	basking shark	1	366	2,001	n_ind ~ 1	0.0067	0.000 5	0.0912				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	GTR	Fish	dasyatis pastinaca	blue sting- ray	27	366	2,001	n_ind ~ 1 + (1 country)	0.0014	0.000 0	3,559.2 251				non e	there is spatial variability in BPUE
Celtic Seas	GTR	Fish	dipturus interme- dius	flapper skate	64	366		n_ind ~ 1 + (1 monitor- ingMethod)	0.0490	0.002 7	0.8907				non e	there is variability in BPUE depend- ing on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Celtic Seas	GTR	Fish	scoph- thalmus maximus	turbot	218	366	2,001	$n_{ind} \sim 1 + (1 \text{country}) + (1 \text{year})$	0.0001	0.000 0	784.777 2				pre- sent	there is spatial variability in BPUE
Celtic Seas	GTR	Fish	squatina squatina	angelfish	16	366	2,001	$n_{ind} \sim 1$	0.0298	0.011 5	0.0775	60	23.0	155.0	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	GTR	Fish	torpedo mar- morata	marbled electric ray	1	366	2,001	$n_{ind} \sim 1$	0.0044	0.000 4	0.0484				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	GTR	Fish	zeus fa- ber	European john dory	9	366	2,001	$n_{ind} \sim 1$	0.4131	0.003 8	44.3829				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	LLS	Fish	conger conger	conger eel	9	224	10,725	$n_{ind} \sim 1$	0.0655	0.012 8	0.3363	703	136.9	3,606.6	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	LLS	Fish	scoph- thalmus maximus	turbot	1	224	10,725	$n_{ind} \sim 1$	0.0045	0.000 6	0.0317	48	6.8	340.3	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTB	Fish	alosa fallax	Twaite shad	4	4,505	56,825	$n_{ind} \sim 1 + (1 \text{year})$	0.0000	0.000 0	0.0264				pre- sent	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# individuals 2017-2023	monitoring effort (DaS) 2017-2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by-catch 2023	TB lower	TB upper	inter-annual	key variability in BPUE	
Celtic Seas	OTB	Fish	amblyraja radiata	thorny skate	241	4,505		n_ind ~ 1 + (1 country) + (1 samplingProtocol)	0.0000	0.0000	0.0000					none	there is variability in BPUE depending on monitoring protocols
Celtic Seas	OTB	Fish	anarhichas lupus	Atlantic wolffish	24	4,505	56,825	n_ind ~ 1	0.0834	0.0004	16.1581					none	a constant BPUE appears to be representative
Celtic Seas	OTB	Fish	centroscyllium fabricii	black dogfish	25	4,505	56,825	n_ind ~ 1 + (1 year)	0.0000	0.0000	0.0051	2,522	311.0	20,451.7	present	a constant BPUE appears to be representative	
Celtic Seas	OTB	Fish	centroselachus crepidater	Longnose velvet dogfish	1	4,505	56,825	n_ind ~ 1	0.0002	0.0000	0.0016	13	1.8	89.6	none	a constant BPUE appears to be representative	
Celtic Seas	OTB	Fish	cheliodonichthys lucerna	tub gurnard	8,686	4,505		n_ind ~ 1 + (1 country) + (1 year)	0.0000	0.0000	0.0000					present	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Celtic Seas	OTB	Fish	chimaera mon- strosa	rabbitfish	1,339	4,505	60,148	n_ind ~ 1 + (1 area- Code) + (1 year)	0.0000	0.000 0	0.0000				pre- sent	there is spatial variability in BPUE
Celtic Seas	OTB	Fish	conger conger	conger eel	1,351	4,505		n_ind ~ 1 + (1 country) + (1 year)	0.0000	0.000 0	0.0002				pre- sent	there is spatial variability in BPUE
Celtic Seas	OTB	Fish	cy- clopterus lumpus	lumpfish	1	4,505	56,825	n_ind ~ 1	0.0003	0.000 0	0.0034				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTB	Fish	deania calceus	Birdbeak dogfish	3	4,505	56,825	n_ind ~ 1	0.0006	0.000 1	0.0031	36	7.5	175.4	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTB	Fish	dipturus interme- dius	flapper skate	259	4,505		n_ind ~ 1 + (1 year) + (1 metierL5) + (1 moni- toringMethod)	0.0000	0.000 0	0.0000				pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Celtic Seas	OTB	Fish	dipturus nidaro- siensis	Norwegian skate	36	4,505	56,825	n_ind ~ 1	0.0072	0.000 6	0.0924				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Celtic Seas	OTB	Fish	epigonus telesco- pus	telescope cardinal	1	4,505	56,825	n_ind ~ 1	0.0006	0.000 0	0.0150				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTB	Fish	etmopter us prin- ceps	great lan- ternshark	11	4,505	56,825	n_ind ~ 1	0.0025	0.000 8	0.0077	145	47.6	440.3	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTB	Fish	etmopter us spinax	velvet belly	337	4,505		n_ind ~ 1 + (1 country) + (1 area- Code) + (1 year)	0.0001	0.000 0	0.0355				pre- sent	there is spatial variability in BPUE
Celtic Seas	OTB	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	170,05 3	4,505		n_ind ~ 1 + (1 country) + (1 area- Code) + (1 year)	0.0000	0.000 0	0.0031				pre- sent	there is spatial variability in BPUE
Celtic Seas	OTB	Fish	hexan- chus griseus	bluntnose sixgill shark	23	4,505	60,148	n_ind ~ 1 + (1 area- Code) + (1 year)	0.0004	0.000 0	0.0103	339	63.7	3,197.7	pre- sent	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Celtic Seas	OTB	Fish	hippo- glossus hippo- glossus	Atlantic hali- but	9	4,505	56,825	n_ind ~ 1	0.0016	0.000 2	0.0110	93	14.0	624.9	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTB	Fish	molva macroph- thalma	Mediterra- nean ling	57	4,505		n_ind ~ 1 + (1 country)	0.0000	0.000 0	0.0091				non e	there is spatial variability in BPUE
Celtic Seas	OTB	Fish	pomato- schistus microps	common goby	2	4,505	56,825	n_ind ~ 1	0.0006	0.000 0	0.0091				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTB	Fish	pomato- schistus minutus	freckled goby	4	4,505	56,825	n_ind ~ 1	0.0012	0.000 1	0.0232				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTB	Fish	scoph- thalmus maximus	turbot	221	4,505		n_ind ~ 1 + (1 area- Code) + (1 year) + (1 monitoring- Method)	0.0000	0.000 0	0.0001				pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Celtic Seas	OTB	Fish	sebastes viviparus	Norway haddock	1,161	4,505	56,825	n_ind ~ 1	0.6750	0.001 6	286.980 5				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Celtic Seas	OTB	Fish	tetronarc e nobili- ana	Atlantic tor- pedo	10	4,505	60,148	n_ind ~ 1 + (1 area- Code) + (1 year)	0.0000	0.000 0	0.0001				pre- sent	there is spatial variability in BPUE
Celtic Seas	OTB	Fish	torpedo mar- morata	marbled electric ray	177	4,505	56,825	n_ind ~ 1	0.0213	0.000 2	2.1606				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTB	Fish	zeus fa- ber	European john dory	3,243	4,505		n_ind ~ 1 + (1 country) + (1 area- Code) + (1 year) + (1 metierL5) + (1 sam- plingProto- col) + (1 monitoring- Method)	0.0000	0.000 0	0.0000				pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Celtic Seas	OTM	Fish	alosa fallax	Twaite shad	1	1,002	1,931	n_ind ~ 1	0.0025	0.000 1	0.0552				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Celtic Seas	OTM	Fish	brama brama	Atlantic pomfret	26	1,002	1,931	$n_{ind} \sim 1 + (1 \text{year})$	0.0000	0.000 0	0.0238				pre- sent	a constant BPUE appears to be rep- resentative
Celtic Seas	OTM	Fish	cen- troscyl- lium fab- ricii	black dog- fish	3	1,002	1,931	$n_{ind} \sim 1$	0.0025	0.000 2	0.0288				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTM	Fish	cetorhi- nus maxi- mus	basking shark	4	1,002	1,931	$n_{ind} \sim 1$	0.0081	0.001 0	0.0640	16	2.0	123.6	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTM	Fish	cheli- donich- thys lu- cerna	tub gurnard	4	1,002	1,931	$n_{ind} \sim 1$	0.0061	0.000 3	0.1257				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTM	Fish	chimaera mon- strosa	rabbitfish	13	1,002	1,931	$n_{ind} \sim 1 + (1 \text{year})$	0.0000	0.000 0	0.0334				pre- sent	a constant BPUE appears to be rep- resentative
Celtic Seas	OTM	Fish	chlamyd- osela- chus an- guineus	frill shark	5	1,002	1,931	$n_{ind} \sim 1$	0.0039	0.000 8	0.0190	8	1.6	36.7	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Celtic Seas	OTM	Fish	conger conger	conger eel	4	1,002	1,931	n_ind ~ 1	0.0050	0.000 8	0.0318	10	1.5	61.3	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTM	Fish	cy- clopterus lumpus	lumpfish	4	1,002	1,931	n_ind ~ 1	0.0037	0.001 2	0.0111	7	2.4	21.5	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTM	Fish	deania calceus	Birdbeak dogfish	24	1,002	1,931	n_ind ~ 1	0.0203	0.005 1	0.0810	39	9.9	156.4	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTM	Fish	epigonus telesco- pus	telescope cardinal	6	1,002	1,931	n_ind ~ 1	0.0036	0.000 8	0.0163	7	1.5	31.5	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTM	Fish	etmopter us prin- ceps	great lan- ternshark	7	1,002	1,931	n_ind ~ 1 + (1 area- Code)	0.0025	0.000 1	0.0700	41	6.0	322.4	non e	there is spatial variability in BPUE
Celtic Seas	OTM	Fish	etmopter us spinax	velvet belly	38	1,002		n_ind ~ 1 + (1 country) + (1 area- Code)	0.0000	0.000 0	0.0009				non e	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE	
Celtic Seas	OTM	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	560	1,002		n_ind ~ 1 + (1 country) + (1 area- Code)	0.0000	0.000 0	0.0000					non e	there is spatial variability in BPUE
Celtic Seas	OTM	Fish	hexan- chus griseus	bluntnose sixgill shark	1	1,002	1,931	n_ind ~ 1	0.0010	0.000 1	0.0071	2	0.3	13.7	non e	a constant BPUE appears to be rep- resentative	
Celtic Seas	OTM	Fish	mola mola	ocean sun- fish	49	1,002		n_ind ~ 1 + (1 country) + (1 area- Code) + (1 year)	0.0000	0.000 0	0.0487					pre- sent	there is spatial variability in BPUE
Celtic Seas	OTM	Fish	petromyz on mari- nus	sea lamprey	1	1,002	1,931	n_ind ~ 1	0.0010	0.000 1	0.0071	2	0.3	13.7	non e	a constant BPUE appears to be rep- resentative	
Celtic Seas	OTM	Fish	scymno- don ringens	knifetooth dogfish	1	1,002	1,931	n_ind ~ 1	0.0010	0.000 1	0.0075	2	0.3	14.4	non e	a constant BPUE appears to be rep- resentative	
Celtic Seas	OTM	Fish	sebastes mentella	deepwater redfish	1	1,002	1,931	n_ind ~ 1	0.0010	0.000 1	0.0075	2	0.3	14.4	non e	a constant BPUE appears to be rep- resentative	

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Celtic Seas	OTM	Fish	somnio- sus mi- croceph- alus	Greenland shark	3	1,002	1,931	$n_{ind} \sim 1$	0.0026	0.0006	0.0109	5	1.2	21.0	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTM	Fish	zeus fa- ber	European john dory	28	1,002	1,931	$n_{ind} \sim 1$	0.0589	0.0069	0.5042	114	13.3	973.3	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTT	Fish	amblyraja radiata	thorny skate	17	1,329	10,729	$n_{ind} \sim 1 +$ (1 country) + (1 year)	0.0000	0.0000	0.0138				pre- sent	there is spatial variability in BPUE
Celtic Seas	OTT	Fish	conger conger	conger eel	2	1,329	10,729	$n_{ind} \sim 1$	0.0044	0.0002	0.0989				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	OTT	Fish	dipturus interme- dius	flapper skate	58	1,329	10,729	$n_{ind} \sim 1 +$ (1 country) + (1 year)	0.0000	0.0000	0.0013				pre- sent	there is spatial variability in BPUE
Celtic Seas	OTT	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	3	1,329	10,729	$n_{ind} \sim 1 +$ (1 year)	0.0000	0.0000	0.0240	1,208	379.5	3,848.8	pre- sent	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Celtic Seas	OTT	Fish	zeus fa- ber	European john dory	14	1,329	10,729	$n_{ind} \sim 1 + (1 year)$	0.0000	0.000 0	0.0141	4,779	757.1	30,165.7	pre- sent	a constant BPUE appears to be rep- resentative
Celtic Seas	SSC	Fish	alosa fallax	Twaite shad	1	245	2,511	$n_{ind} \sim 1$	0.0035	0.000 1	0.1143				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	SSC	Fish	cheli- donich- thys lu- cerna	tub gurnard	184	245	2,511	$n_{ind} \sim 1 + (1 year)$	0.0214	0.000 0	220.148 2	1,555	225.3	10,736.9	pre- sent	a constant BPUE appears to be rep- resentative
Celtic Seas	SSC	Fish	conger conger	conger eel	1	245	2,511	$n_{ind} \sim 1$	0.0041	0.000 6	0.0290	10	1.4	72.8	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	SSC	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	2	245	2,511	$n_{ind} \sim 1$	0.0060	0.000 8	0.0437	15	2.0	109.8	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	SSC	Fish	scoph- thalmus maximus	turbot	2	245	2,511	$n_{ind} \sim 1$	0.0104	0.000 8	0.1428				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Celtic Seas	SSC	Fish	scoph- thalmus rhombus	brill	2	245	2,511	n_ind ~ 1	0.0225	0.000 7	0.6858				non e	a constant BPUE appears to be rep- resentative
Celtic Seas	SSC	Fish	tetronarc e nobili- ana	Atlantic tor- pedo	3	245	2,511	n_ind ~ 1	0.0112	0.002 8	0.0440	28	7.2	110.4	non e	a constant BPUE appears to be rep- resentative
Celtic Seas	SSC	Fish	zeus fa- ber	European john dory	98	245	2,511	n_ind ~ 1 + (1 year)	0.0452	0.000 2	11.1419				pre- sent	a constant BPUE appears to be rep- resentative
Celtic Seas	TBB	Fish	cheli- donich- thys lu- cerna	tub gurnard	28	1,446		n_ind ~ 1 + (1 metierL5) + (1 monitor- ingMethod)	0.0000	0.000 0	10.5177				non e	there is variability in BPUE depend- ing on monitoring protocols
Celtic Seas	TBB	Fish	conger conger	conger eel	141	1,446	7,172	n_ind ~ 1 + (1 country) + (1 year)	0.0003	0.000 0	1.3461	1,751	276.3	19,907.8	pre- sent	there is spatial variability in BPUE
Celtic Seas	TBB	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	1	1,446	7,574	n_ind ~ 1	0.0007	0.000 1	0.0049	5	0.7	37.2	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE	
Celtic Seas	TBB	Fish	scoph- thalmus maximus	turbot	171	1,446		n_ind ~ 1 + (1 year) + (1 sam- plingProto- col)	0.0000	0.000 0	1.3229					pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Celtic Seas	TBB	Fish	tetronarc e nobili- ana	Atlantic tor- pedo	13	1,446	7,574	n_ind ~ 1 + (1 year)	0.0004	0.000 0	0.2413					pre- sent	a constant BPUE appears to be rep- resentative
Celtic Seas	TBB	Fish	torpedo mar- morata	marbled electric ray	2	1,446	7,574	n_ind ~ 1	0.0011	0.000 1	0.0111	9	0.9	83.7	non e	a constant BPUE appears to be rep- resentative	
Celtic Seas	TBB	Fish	zeus fa- ber	European john dory	352	1,446	7,172	n_ind ~ 1 + (1 country) + (1 year)	0.0001	0.000 0	6.0490	2,932	1,215. 7	7,985.5	pre- sent	there is spatial variability in BPUE	
Faroes	OTB	Fish	rajella fyl- lae	round skate	1	11	309	n_ind ~ 1	0.0909	0.012 8	0.6454	28	4.0	199.6	non e	a constant BPUE appears to be rep- resentative	
Greater North Sea	FYK	Mammals	phoca vi- tulina	Harbor Seal	3	10	1,018	n_ind ~ 1	0.2186	0.036 2	1.3188	222	36.9	1,342.3	non e	a constant BPUE appears to be rep- resentative	

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	GNS	Mammals	delphinus delphis	Short- beaked Common Dolphin	4	5,930		$n_{ind} \sim 1 + (1 \text{country})$	0.0000	0.000 0	0.0648				non e	there is spatial variability in BPUE
Greater North Sea	GNS	Mammals	halicho- erus grypus	Gray Seal	22	5,930		$n_{ind} \sim 1 + (1 \text{area-Code}) + (1 \text{vessel-Length_group}) + (1 \text{monitoring-Method})$	0.0002						non e	there is variability in BPUE depend- ing on monitoring protocols
Greater North Sea	GNS	Mammals	lagen- orhyn- chus al- birostris	White- beaked Dol- phin	2	5,930	38,325	$n_{ind} \sim 1$	0.0006	0.000 0	0.0073				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GNS	Mammals	phoca vi- tulina	Harbor Seal	109	5,930		$n_{ind} \sim 1 + (1 \text{country})$	0.0134	0.002 0	0.0904				non e	there is spatial variability in BPUE
Greater North Sea	GNS	Mammals	pho- coena pho- coena	Harbor Por- poise	838	5,930		$n_{ind} \sim 1 + (1 \text{area-Code}) + (1 $	0.0257	0.003 5	0.1861				non e	there is variability in BPUE depend- ing on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
								monitoring- Method)								
Greater North Sea	GTR	Mammals	delphinus delphis	Short- beaked Common Dolphin	5	638		n_ind ~ 1 + (1 area- Code) + (1 vessel- Length_gro up)	0.0003	0.000 0	174.164 5				non e	there is spatial variability in BPUE
Greater North Sea	GTR	Mammals	halicho- erus grypus	Gray Seal	8	638		n_ind ~ 1 + (1 area- Code) + (1 sam- plingProto- col)	0.0001	0.000 0	13.6954				non e	there is variability in BPUE depend- ing on monitoring protocols
Greater North Sea	GTR	Mammals	phoca vi- tulina	Harbor Seal	1	638	10,554	n_ind ~ 1	0.0059	0.000 2	0.1481				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GTR	Mammals	pho- coena pho- coena	Harbor Por- poise	13	638	10,554	n_ind ~ 1	0.0368	0.006 1	0.2237	389	63.9	2,361.5	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	OTB	Mammals	delphinus delphis	Short- beaked Common Dolphin	7	4,701	121,152	$n_{ind} \sim 1 + (1 \text{area-Code})$	0.0000	0.0000	0.0144				none	there is spatial variability in BPUE
Greater North Sea	OTB	Mammals	halicho- erus grypus	Gray Seal	2	4,701		$n_{ind} \sim 1 + (1 \text{area-Code}) + (1 \text{metierL5})$	0.0004						none	there is spatial variability in BPUE
Greater North Sea	OTB	Mammals	phoca vi- tulina	Harbor Seal	1	4,701	110,959	$n_{ind} \sim 1$	0.0005	0.0000	0.0104				none	a constant BPUE appears to be representative
Greater North Sea	OTB	Mammals	pho- coena pho- coena	Harbor Por- poise	1	4,701	110,959	$n_{ind} \sim 1$	0.0002	0.0000	0.0015	24	3.3	167.5	none	a constant BPUE appears to be representative
Greater North Sea	OTM	Mammals	halicho- erus grypus	Gray Seal	23	924		$n_{ind} \sim 1 + (1 \text{area-Code})$	0.0000	0.0000	0.0688				none	there is spatial variability in BPUE
Greater North Sea	OTM	Mammals	phoca vi- tulina	Harbor Seal	1	924	8,471	$n_{ind} \sim 1$	0.0015	0.0001	0.0227				none	a constant BPUE appears to be representative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	PS	Mammals	delphinus delphis	Short- beaked Common Dolphin	7	83	2,481	n_ind ~ 1	0.0759	0.026 4	0.2181	188	65.5	541.1	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	SDN	Mammals	pho- coena pho- coena	Harbor Por- poise	1	136	3,279	n_ind ~ 1	0.0075	0.000 6	0.0998				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	TBB	Mammals	halicho- erus grypus	Gray Seal	2	1,211	61,988	n_ind ~ 1	0.0017	0.000 4	0.0066	102	25.6	409.3	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GNS	Seabirds	alca torda	Razorbill	64	3,730	38,325	n_ind ~ 1 + (1 area- Code)	0.0051	0.000 2	0.1077				non e	there is spatial variability in BPUE
Greater North Sea	GNS	Seabirds	fulmarus glacialis	Northern Fulmar	6	3,730	38,325	n_ind ~ 1	0.0017	0.000 1	0.0268				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GNS	Seabirds	gavia arc- tica	Arctic Loon	5	3,730	38,325	n_ind ~ 1	0.0028	0.000 6	0.0140	109	22.0	534.9	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	GNS	Seabirds	melanitta fusca	Velvet Sco- ter	30	3,730	38,325	n_ind ~ 1 + (1 area- Code) + (1 vessel- Length_gro up)	0.0000	0.000 0	0.0007				non e	there is spatial variability in BPUE
Greater North Sea	GNS	Seabirds	melanitta nigra	Black Sco- ter	6	3,730	38,325	n_ind ~ 1	0.0060	0.001 0	0.0351	230	39.5	1,344.0	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GNS	Seabirds	morus bassanus	Northern Gannet	16	3,730	38,325	n_ind ~ 1 + (1 area- Code)	0.0000	0.000 0	0.0144				non e	there is spatial variability in BPUE
Greater North Sea	GNS	Seabirds	pha- lacrocora x aristo- telis	European Shag	1	3,730	38,325	n_ind ~ 1	0.0005	0.000 0	0.0076				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GNS	Seabirds	pha- lacrocora x carbo	Great Cor- morant	12	3,730	38,325	n_ind ~ 1	0.0056	0.002 3	0.0136	216	89.2	521.1	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GNS	Seabirds	puffinus griseus	Sooty Shearwater	1	3,730	38,325	n_ind ~ 1 + (1 area- Code)	0.0001	0.000 0	0.0095				non e	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	GNS	Seabirds	so- materia mollis- sima	Common Eider	35	3,730		$n_ind \sim 1 + (1 \text{area-Code}) + (1 \text{monitoring-Method})$	0.0000	0.000 0	0.0371					there is variability in BPUE depending on monitoring protocols
Greater North Sea	GNS	Seabirds	uria aalge	Common Guillemot	373	3,730		$n_ind \sim 1 + (1 \text{area-Code}) + (1 \text{metierL5}) + (1 \text{monitoringMethod})$	0.0005	0.000 0	12.6146					there is variability in BPUE depending on monitoring protocols
Greater North Sea	GTR	Seabirds	gavia im- mer	Common Loon	2	638	10,554	$n_ind \sim 1$	0.0029	0.000 3	0.0267	30	3.2	281.7	non e	a constant BPUE appears to be representative
Greater North Sea	GTR	Seabirds	gavia stellata	Red- throated Loon	1	638		$n_ind \sim 1 + (1 \text{vessel-Length_gro up}) + (1 \text{monitoring-Method})$	0.0016	0.000 2	0.0111					there is variability in BPUE depending on monitoring protocols
Greater North Sea	GTR	Seabirds	melanitta fusca	Velvet Sco- ter	1	638	10,554	$n_ind \sim 1$	0.0016	0.000 2	0.0111	17	2.3	117.4	non e	a constant BPUE appears to be representative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	GTR	Seabirds	pha- lacrocora x aristo- telis	European Shag	2	638	10,554	n_ind ~ 1	0.0031	0.000 8	0.0125	33	8.3	132.2	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GTR	Seabirds	pha- lacrocora x carbo	Great Cor- morant	5	638	10,554	n_ind ~ 1	0.0089	0.002 9	0.0270	94	30.8	284.8	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GTR	Seabirds	so- materia mollis- sima	Common Eider	1	638	10,554	n_ind ~ 1	0.0016	0.000 2	0.0111	17	2.3	117.4	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GTR	Seabirds	uria aalge	Common Guillemot	17	638		n_ind ~ 1 + (1 country)	0.0342	0.006 8	0.1730				non e	there is spatial variability in BPUE
Greater North Sea	LHM	Seabirds	morus bassanus	Northern Gannet	1	8	1,123	n_ind ~ 1	0.1176	0.016 6	0.8352				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	LLS	Seabirds	fulmarus glacialis	Northern Fulmar	222	257		n_ind ~ 1 + (1 sam- plingProto- col)	0.0084	0.000 0	15,799. 6549				non e	there is variability in BPUE depend- ing on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	LLS	Seabirds	larus ar- gentatus	Herring Gull	2	257	3,824	n_ind ~ 1	0.0182	0.000 8	0.4060				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	LLS	Seabirds	morus bassanus	Northern Gannet	10	257	3,824	n_ind ~ 1	0.0511	0.018 8	0.1383	195	72.1	528.9	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	LLS	Seabirds	pha- lacrocora x aristo- telis	European Shag	1	257	3,824	n_ind ~ 1	0.0069	0.000 3	0.1462				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	LLS	Seabirds	rissa tri- dactyla	Black-leg- ged Kitti- wake	1	257	3,824	n_ind ~ 1	0.0039	0.000 5	0.0276	15	2.1	105.7	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	LLS	Seabirds	stercorar- ius skua	Great Skua	1	257	3,824	n_ind ~ 1	0.0039	0.000 5	0.0277	15	2.1	105.8	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	LLS	Seabirds	uria aalge	Common Guillemot	1	257	3,824	n_ind ~ 1	0.0069	0.000 3	0.1462				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	OTB	Seabirds	morus bassanus	Northern Gannet	8	4,701	110,959	n_ind ~ 1	0.0011	0.000 3	0.0037	119	34.7	407.6	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTB	Seabirds	pha- lacrocora x carbo	Great Cor- morant	2	4,701	110,959	n_ind ~ 1	0.0004	0.000 0	0.0031	39	4.4	344.8	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTM	Seabirds	larus ar- gentatus	Herring Gull	1	924	8,471	n_ind ~ 1	0.0015	0.000 1	0.0225				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	PS	Seabirds	larus ar- gentatus	Herring Gull	8	83	2,481	n_ind ~ 1	0.0750	0.017 4	0.3227	186	43.3	800.4	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	PS	Seabirds	larus marinus	Great Black- backed Gull	1	83		n_ind ~ 1 + (1 sam- plingProto- col)	0.0121						non e	there is variability in BPUE depend- ing on monitoring protocols
Greater North Sea	PTB	Seabirds	morus bassanus	Northern Gannet	11	703	4,719	n_ind ~ 1	0.0206	0.002 4	0.1795	97	11.2	846.8	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	TBB	Seabirds	morus bassanus	Northern Gannet	11	1,211	61,988	n_ind ~ 1	0.0073	0.001 0	0.0536	453	61.6	3,324.5	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	DRB	Fish	raja un- dulata	undulate ray	2	62	61,067	n_ind ~ 1	0.0325	0.008 1	0.1300				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	DRB	Fish	zeus fa- ber	European john dory	1	62	61,067	n_ind ~ 1	0.0245	0.001 5	0.4121				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	FPO	Fish	anarhi- chas lu- pus	Atlantic wolffish	44	89		n_ind ~ 1 + (1 area- Code)	0.0002	0.000 0	4.9290				non e	there is spatial variability in BPUE
Greater North Sea	FPO	Fish	conger conger	conger eel	3	89	120,338	n_ind ~ 1	0.0919	0.003 2	2.6504				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	FPO	Fish	labrus bergylta	ballan wrasse	7	89	120,338	n_ind ~ 1	0.0617	0.019 1	0.1991				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	FPO	Fish	sebastes viviparus	Norway haddock	1	89	120,338	n_ind ~ 1	0.0112	0.001 6	0.0798				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	FPO	Fish	zoarces viviparus	viviporous blenny	1	89	120,338	n_ind ~ 1	0.0112	0.0016	0.0798				non e	a constant BPUE appears to be representative
Greater North Sea	FYK	Fish	zoarces viviparus	viviporous blenny	1	10	1,018	n_ind ~ 1	0.1135	0.0080	1.6010				non e	a constant BPUE appears to be representative
Greater North Sea	GND	Fish	alosa fallax	Twaite shad	2	113	660	n_ind ~ 1	0.0149	0.0018	0.1257	10	1.2	82.9	non e	a constant BPUE appears to be representative
Greater North Sea	GND	Fish	conger conger	conger eel	2	113		n_ind ~ 1 + (1 metierL5)	0.0177	0.0044	0.0707				non e	there is between-metier level 5 variability in BPUE
Greater North Sea	GND	Fish	labrus bergylta	ballan wrasse	73	113	660	n_ind ~ 1	0.2901	0.0247	3.3999				non e	a constant BPUE appears to be representative
Greater North Sea	GND	Fish	raja microcelata	painted ray	55	113	660	n_ind ~ 1	0.2913	0.0864	0.9823	192	57.0	648.0	non e	a constant BPUE appears to be representative
Greater North Sea	GND	Fish	raja undulata	undulate ray	76	113		n_ind ~ 1 + (1 country) + (1 year)	0.0000	0.0000	0.0023				pre-sent	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
								+ (1 metierL5)								
Greater North Sea	GND	Fish	scyliorhi- nus stel- laris	nursehound	13	113	660	n_ind ~ 1	0.0631	0.003 1	1.2766				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GND	Fish	zeus fa- ber	European john dory	1	113	660	n_ind ~ 1	0.0088	0.001 2	0.0628	6	0.8	41.4	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GNS	Fish	alosa alosa	Alice shad	20	3,902	38,325	n_ind ~ 1	0.0228	0.000 3	1.6627				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GNS	Fish	alosa fallax	Twaite shad	2	3,902	38,325	n_ind ~ 1	0.0018	0.000 2	0.0188				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GNS	Fish	anarhi- chas lu- pus	Atlantic wolffish	1	3,902	38,325	n_ind ~ 1	0.0019	0.000 1	0.0625				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GNS	Fish	cheli- donich- thys lu- cerna	tub gurnard	3	3,902	38,325	n_ind ~ 1	0.0033	0.000 3	0.0329	126	12.7	1,260.1	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	GNS	Fish	conger conger	conger eel	4	3,902		n_ind ~ 1 + (1 sam- plingProto- col)	0.0000	0.000 0	1.1492				non e	there is variability in BPUE depend- ing on monitoring protocols
Greater North Sea	GNS	Fish	cy- clopterus lumpus	lumpfish	8	3,902		n_ind ~ 1 + (1 area- Code) + (1 monitoring- Method)	0.0000	0.000 0	0.0001				non e	there is variability in BPUE depend- ing on monitoring protocols
Greater North Sea	GNS	Fish	dasyatis pastinaca	blue sting- ray	5	3,902		n_ind ~ 1 + (1 country)	0.0000	0.000 0	0.1000				non e	there is spatial variability in BPUE
Greater North Sea	GNS	Fish	dipturus oxyrin- chus	longnosed skate	53	3,902		n_ind ~ 1 + (1 monitor- ingMethod)	0.0000	0.000 0	0.0067				non e	there is variability in BPUE depend- ing on monitoring protocols
Greater North Sea	GNS	Fish	galeus melasto- mus	blackmouth catshark	43	3,902		n_ind ~ 1 + (1 area- Code) + (1 vessel- Length_gro up) + (1	0.0000	0.000 0	0.0007				non e	there is variability in BPUE depend- ing on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
								monitoring- Method)								
Greater North Sea	GNS	Fish	hippo- glossus hippo- glossus	Atlantic hali- but	8	3,902		n_ind ~ 1 + (1 area- Code) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0002					there is variability in BPUE depend- ing on monitoring protocols
Greater North Sea	GNS	Fish	labrus bergylta	ballan wrasse	80	3,902	38,325	n_ind ~ 1	0.0690	0.008 8	0.5396	2,645	338.2	20,679.3	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GNS	Fish	leucoraja fullonica	shagreen ray	1	3,902	38,325	n_ind ~ 1	0.0003	0.000 0	0.0018	10	1.4	69.7	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GNS	Fish	mola mola	ocean sun- fish	1	3,902	38,325	n_ind ~ 1	0.0003	0.000 0	0.0018	10	1.4	69.7	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GNS	Fish	raja mi- croocel- lata	painted ray	47	3,902		n_ind ~ 1 + (1 country) + (1 ves- sel- Length_gro up)	0.0000	0.000 0	0.0008				non e	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	GNS	Fish	raja un- dulata	undulate ray	250	3,902		$n_{ind} \sim 1 + (1 \text{country})$	0.0000	0.000 0	0.0066				non e	there is spatial variability in BPUE
Greater North Sea	GNS	Fish	scyliorhi- nus stel- laris	nursehound	30	3,902		$n_{ind} \sim 1 + (1 \text{country}) + (1 \text{year})$	0.0000	0.000 0	0.0006				pre- sent	there is spatial variability in BPUE
Greater North Sea	GNS	Fish	sparus aurata	gilthead seabream	4	3,902	38,325	$n_{ind} \sim 1$	0.0048	0.000 1	0.1568				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GNS	Fish	zeus fa- ber	European john dory	29	3,902		$n_{ind} \sim 1 + (1 \text{country}) + (1 \text{area-Code}) + (1 \text{year})$	0.0000	0.000 0	0.0003				pre- sent	there is spatial variability in BPUE
Greater North Sea	GTR	Fish	anarhi- chas lu- pus	Atlantic wolffish	1	682	10,554	$n_{ind} \sim 1$	0.0056	0.000 2	0.1421				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GTR	Fish	cheli- donich- thys lu- cerna	tub gurnard	4	682	10,554	$n_{ind} \sim 1$	0.0075	0.000 5	0.1223				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	GTR	Fish	cy- clopterus lumpus	lumpfish	2	682	10,554	n_ind ~ 1	0.0130	0.000 5	0.3594				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GTR	Fish	dasyatis pastinaca	blue sting- ray	2	682	10,554	n_ind ~ 1	0.0030	0.000 5	0.0172	32	5.6	182.0	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GTR	Fish	hippo- campus guttulatus	long- snouted seahorse	3	682	10,554	n_ind ~ 1	0.0044	0.000 4	0.0539				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GTR	Fish	labrus bergylta	ballan wrasse	65	682	10,554	n_ind ~ 1	0.0937	0.001 4	6.4381				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GTR	Fish	leucoraja fullonica	shagreen ray	4	682	10,554	n_ind ~ 1	0.0282	0.000 7	1.1020				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	GTR	Fish	raja mi- croocel- lata	paintred ray	490	682		n_ind ~ 1 + (1 sam- plingProto- col)	0.0000	0.000 0	0.1781				non e	there is variability in BPUE depend- ing on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	GTR	Fish	raja un- dulata	undulate ray	223	682	n_ind ~ 1 + (1 country) + (1 area- Code)	0.0000	0.000 0	0.2697					non e	there is spatial variability in BPUE
Greater North Sea	GTR	Fish	zeus fa- ber	European john dory	4	682	10,554 n_ind ~ 1	0.0069	0.000 4	0.1078					non e	a constant BPUE appears to be rep- resentative
Greater North Sea	LHM	Fish	alosa alosa	Alice shad	5	86	1,123 n_ind ~ 1	0.0559	0.004 1	0.7644					non e	a constant BPUE appears to be rep- resentative
Greater North Sea	LHM	Fish	labrus bergylta	ballan wrasse	6	86	1,123 n_ind ~ 1	0.0648	0.004 3	0.9709					non e	a constant BPUE appears to be rep- resentative
Greater North Sea	LHM	Fish	zeus fa- ber	European john dory	2	86	1,123 n_ind ~ 1	0.0274	0.002 8	0.2645	31	3.2	297.1		non e	a constant BPUE appears to be rep- resentative
Greater North Sea	LLS	Fish	chimaera mon- strosa	rabbitfish	41	264	3,824 n_ind ~ 1	0.1306	0.002 8	6.0109					non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	LLS	Fish	conger conger	conger eel	1	264	3,824	n_ind ~ 1	0.0038	0.000 5	0.0269	14	2.0	102.9	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	LLS	Fish	galeus melasto- mus	blackmouth catshark	140	264	3,824	n_ind ~ 1	0.1464	0.003 2	6.7709				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	LLS	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	140	264	3,824	n_ind ~ 1	0.1464	0.003 2	6.7709				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTB	Fish	alosa alosa	Alice shad	9	5,291	110,959	n_ind ~ 1	0.0014	0.000 4	0.0057	160	40.4	631.6	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTB	Fish	alosa fallax	Twaite shad	59	5,291		n_ind ~ 1 + (1 country)	0.0054	0.000 6	0.0480				non e	there is spatial variability in BPUE
Greater North Sea	OTB	Fish	anarhi- chas lu- pus	Atlantic wolffish	725	5,291		n_ind ~ 1 + (1 country) + (1 year)	0.0000	0.000 0	0.0192				pre- sent	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	OTB	Fish	brama brama	Atlantic pomfret	43	5,291	110,959	$n_{ind} \sim 1$	0.0027	0.000 3	0.0214	300	37.8	2,374.5	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTB	Fish	cetorhi- nus maxi- mus	basking shark	3	5,291	110,959	$n_{ind} \sim 1$	0.0005	0.000 1	0.0020	52	12.5	217.3	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTB	Fish	cheli- donich- thys lu- cerna	tub gurnard	636	5,291		$n_{ind} \sim 1 +$ (1 country) + (1 year) + (1 metierL5)	0.0001	0.000 0	0.3676				pre- sent	there is spatial variability in BPUE
Greater North Sea	OTB	Fish	chimaera mon- strosa	rabbitfish	1,100	5,291		$n_{ind} \sim 1 +$ (1 country) + (1 area- Code) + (1 year) + (1 metierL5)	0.0000	0.000 0	0.0000				pre- sent	there is spatial variability in BPUE
Greater North Sea	OTB	Fish	conger conger	conger eel	360	5,291		$n_{ind} \sim 1 +$ (1 country) + (1 area- Code) + (1 year)	0.0000	0.000 0	0.0001				pre- sent	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	OTB	Fish	cy- clopterus lumpus	lumpfish	294	5,291		$n_ind \sim 1 + (1 \text{country}) + (1 \text{year}) + (1 \text{metierL5})$	0.0000	0.000 0	0.0002				pre- sent	there is spatial variability in BPUE
Greater North Sea	OTB	Fish	dasyatis pastinaca	blue sting- ray	14	5,291		$n_ind \sim 1 + (1 \text{metierL5}) + (1 \text{samplingProtocol})$	0.0000	0.000 0	0.0011				non e	there is variability in BPUE depend- ing on monitoring protocols
Greater North Sea	OTB	Fish	dipturus interme- dius	flapper skate	155	5,291		$n_ind \sim 1 + (1 \text{country}) + (1 \text{area-Code})$	0.0000	0.000 0	0.0017				non e	there is spatial variability in BPUE
Greater North Sea	OTB	Fish	dipturus nidaro- siensis	Norwegian skate	12	5,291	110,959	$n_ind \sim 1$	0.0007	0.000 1	0.0082				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTB	Fish	dipturus oxyrin- chus	longnosed skate	52	5,291	110,959	$n_ind \sim 1$	0.0033	0.001 3	0.0085	362	139.9	939.1	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	OTB	Fish	etmopter us spinax	velvet belly	1,661	5,291		n_ind ~ 1 + (1 country) + (1 area- Code) + (1 year) + (1 vessel- Length_gro up) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0000					there is variability in BPUE depend- ing on monitoring protocols
Greater North Sea	OTB	Fish	galeus melasto- mus	blackmouth catshark	101	5,291	121,152	n_ind ~ 1 + (1 area- Code) + (1 year)	0.0000	0.000 0	0.0020				pre- sent	there is spatial variability in BPUE
Greater North Sea	OTB	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	1,133	5,291		n_ind ~ 1 + (1 country) + (1 area- Code) + (1 year)	0.0000	0.000 0	0.0158				pre- sent	there is spatial variability in BPUE
Greater North Sea	OTB	Fish	hippo- campus hippo- campus	seahorse	1	5,291	110,959	n_ind ~ 1	0.0002	0.000 0	0.0013	21	3.0	148.9	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	OTB	Fish	labrus bergylta	ballan wrasse	12	5,291		$n_{ind} \sim 1 + (1 \text{metierL5}) + (1 \text{samplingProtocol})$	0.0000	0.0000	0.0080				none	there is variability in BPUE depending on monitoring protocols
Greater North Sea	OTB	Fish	leucoraja circularis	cuckoo ray	5	5,291	110,959	$n_{ind} \sim 1$	0.0003	0.0000	0.0029	38	4.4	318.8	none	a constant BPUE appears to be representative
Greater North Sea	OTB	Fish	leucoraja fullonica	shagreen ray	14	5,291	110,959	$n_{ind} \sim 1$	0.0018	0.0005	0.0059	195	58.1	657.4	none	a constant BPUE appears to be representative
Greater North Sea	OTB	Fish	lycodes esmarkii	Esmark's eelpout	232	5,291	110,959	$n_{ind} \sim 1$	0.0054	0.0001	0.2450				none	a constant BPUE appears to be representative
Greater North Sea	OTB	Fish	pomato- schistus minutus	freckled goby	2	5,291	110,959	$n_{ind} \sim 1$	0.0004	0.0000	0.0041				none	a constant BPUE appears to be representative
Greater North Sea	OTB	Fish	raja mi- croocel- lata	painted ray	590	5,291		$n_{ind} \sim 1 + (1 \text{area-Code}) + (1 \text{year}) + (1 \text{metierL5}) +$	0.0000	0.0000	0.0000				present	there is variability in BPUE depending on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
								(1 ves- sel- Length_gro up) + (1 sam- plingProto- col)								
Greater North Sea	OTB	Fish	raja un- dulata	undulate ray	462	5,291		n_ind ~ 1 + (1 area- Code) + (1 year) + (1 metierL5) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0000				pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Greater North Sea	OTB	Fish	rajella fyl- lae	round skate	104	5,291	110,959	n_ind ~ 1	0.0026	0.000 1	0.0744				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTB	Fish	rajella lintea	sailray	11	5,291		n_ind ~ 1 + (1 country)	0.0012	0.000 0	0.0389				non e	there is spatial variability in BPUE
Greater North Sea	OTB	Fish	scyliorhi- nus stel- laris	nursehound	77	5,291		n_ind ~ 1 + (1 country) + (1 year)	0.0000	0.000 0	0.0019				pre- sent	there is variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
								+ (1 sam- plingProto- col)								depending on monitoring proto- cols
Greater North Sea	OTB	Fish	sebastes norvegi- cus	golden red- fish	20	5,291	110,959	n_ind ~ 1	0.0044	0.001 5	0.0132	491	164.7	1,465.4	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTB	Fish	sebastes viviparus	Norway haddock	372	5,291		n_ind ~ 1 + (1 country) + (1 area- Code) + (1 year)	0.0000	0.000 0	0.0002				pre- sent	there is spatial variability in BPUE
Greater North Sea	OTB	Fish	sparus aurata	gilthead seabream	35	5,291	110,959	n_ind ~ 1	0.0245	0.001 2	0.5145				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTB	Fish	tetronarc e nobili- ana	Atlantic tor- pedo	2	5,291	110,959	n_ind ~ 1	0.0005	0.000 0	0.0052				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTB	Fish	zeus fa- ber	European john dory	1,678	5,291		n_ind ~ 1 + (1 country) + (1 area- Code) + (1 year)	0.0000	0.000 0	0.0000				pre- sent	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	OTB	Fish	zoarces viviparus	viviporous blenny	1	5,291	110,959	n_ind ~ 1	0.0002	0.000 0	0.0013	21	2.9	149.1	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTM	Fish	alosa fallax	Twaite shad	4	936	8,471	n_ind ~ 1	0.0069	0.001 5	0.0321	58	12.5	271.5	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTM	Fish	cheli- donich- thys lu- cerna	tub gurnard	33	936	8,471	n_ind ~ 1	0.0400	0.010 2	0.1559	339	86.8	1,320.4	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTM	Fish	conger conger	conger eel	1	936	8,471	n_ind ~ 1	0.0011	0.000 2	0.0076	9	1.3	64.3	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTM	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	2	936		n_ind ~ 1 + (1 area- Code) + (1 vessel- Length_gro up)	0.0021	0.000 5	0.0085				non e	there is spatial variability in BPUE
Greater North Sea	OTM	Fish	hippo- glossus	Atlantic hali- but	1	936	8,471	n_ind ~ 1	0.0011	0.000 2	0.0076	9	1.3	64.3	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
			hippo- glossus													
Greater North Sea	OTM	Fish	lampetra fluviatilis	European river lam- prey	1	936	8,471	n_ind ~ 1	0.0024	0.000 1	0.0487				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTM	Fish	zeus fa- ber	European john dory	30	936	8,471	n_ind ~ 1	0.0879	0.009 7	0.7994	745	82.0	6,771.6	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTT	Fish	alosa fallax	Twaite shad	18	1,641	14,241	n_ind ~ 1 + (1 year)	0.0036	0.000 2	0.0604	1,190	253.2	5,589.4	pre- sent	a constant BPUE appears to be rep- resentative
Greater North Sea	OTT	Fish	anarhi- chas lu- pus	Atlantic wolffish	11	1,641	14,241	n_ind ~ 1	0.0070	0.002 4	0.0202	100	34.6	287.7	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTT	Fish	cheli- donich- thys lu- cerna	tub gurnard	320	1,641		n_ind ~ 1 + (1 country) + (1 area- Code) + (1 year) + (1 metierL5) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0028				pre- sent	there is variability in BPUE depend- ing on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# individuals 2017-2023	monitoring effort (DaS) 2017-2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by-catch 2023	TB lower	TB upper	inter-annual	key variability in BPUE
Greater North Sea	OTT	Fish	chimaera mon-strosa	rabbitfish	6,233	1,641		n_ind ~ 1 + (1 country) + (1 area-Code) + (1 year) + (1 metierL5) + (1 vessel-Length_group)	0.0000	0.0000	0.0000					presentthere is spatial variability in BPUE
Greater North Sea	OTT	Fish	conger conger	conger eel	44	1,641		n_ind ~ 1 + (1 area-Code) + (1 samplingProtocol)	0.0000	0.0000	0.0007					nonethere is variability in BPUE depending on monitoring protocols
Greater North Sea	OTT	Fish	cy-clopterus lumpus	lumpfish	257	1,641		n_ind ~ 1 + (1 country) + (1 area-Code) + (1 samplingProtocol)	0.0000	0.0000	0.0000					nonethere is variability in BPUE depending on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	OTT	Fish	dasyatis pastinaca	blue sting- ray	4	1,641		n_ind ~ 1 + (1 country) + (1 metierL5) + (1 vessel- Length_group)	0.0000	0.000 0	0.0120				non e	there is spatial variability in BPUE
Greater North Sea	OTT	Fish	dipturus interme- dius	flapper skate	4	1,641	14,241	n_ind ~ 1 + (1 year)	0.0000	0.000 0	0.1127	182	65.8	501.0	pre- sent	a constant BPUE appears to be rep- resentative
Greater North Sea	OTT	Fish	dipturus oxyrin- chus	longnosed skate	2	1,641	14,241	n_ind ~ 1	0.0020	0.000 2	0.0237				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTT	Fish	etmopter us spinax	velvet belly	3,991	1,641		n_ind ~ 1 + (1 country) + (1 area- Code) + (1 year) + (1 vessel- Length_group)	0.0000	0.000 0	0.0000				pre- sent	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	OTT	Fish	galeus melasto- mus	blackmouth catshark	208	1,641		n_ind ~ 1 + (1 country) + (1 area- Code)	0.0000	0.000 0	0.0002				non e	there is spatial variability in BPUE
Greater North Sea	OTT	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	664	1,641		n_ind ~ 1 + (1 vessel- Length_gro up) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0096				non e	there is variability in BPUE depend- ing on monitoring protocols
Greater North Sea	OTT	Fish	hippo- glossus hippo- glossus	Atlantic hali- but	94	1,641	14,241	n_ind ~ 1	0.0627	0.027 5	0.1428	893	391.9	2,033.1	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTT	Fish	petromyz on mari- nus	sea lamprey	2	1,641	14,241	n_ind ~ 1	0.0025	0.000 2	0.0363				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTT	Fish	raja mi- croocel- lata	paintred ray	21	1,641		n_ind ~ 1 + (1 year) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0000				pre- sent	there is variability in BPUE depend- ing on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE	
Greater North Sea	OTT	Fish	raja un- dulata	undulate ray	38	1,641		n_ind ~ 1 + (1 year) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0000					pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Greater North Sea	OTT	Fish	rajella fyl- lae	round skate	1	1,641	14,241	n_ind ~ 1	0.0016	0.000 1	0.0265					non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTT	Fish	rajella lintea	sailray	5	1,641	14,241	n_ind ~ 1	0.0026	0.000 2	0.0322					non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTT	Fish	scyliorhi- nus stel- laris	nursehound	9	1,641		n_ind ~ 1 + (1 metierL5)	0.0000	0.000 0	17.1669					non e	there is between- metier level 5 var- iability in BPUE
Greater North Sea	OTT	Fish	sebastes viviparus	Norway haddock	2	1,641	14,241	n_ind ~ 1	0.0012	0.000 1	0.0103	17	1.9	147.1		non e	a constant BPUE appears to be rep- resentative
Greater North Sea	OTT	Fish	sparus aurata	gilthead seabream	148	1,641		n_ind ~ 1 + (1 area- Code) + (1	0.0000	0.000 0	0.0000					non e	there is variability in BPUE depend- ing on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
								sam- plingProto- col)								
Greater North Sea	OTT	Fish	zeus fa- ber	European john dory	276	1,641		n_ind ~ 1 + (1 area- Code) + (1 year) + (1 vessel- Length_gro up) + (1 sam- plingProto- col)	0.0000	0.000 0	0.0000				pre- sent	there is variability in BPUE depend- ing on monitoring protocols
Greater North Sea	OTT	Fish	zoarces viviparus	viviporous blenny	1	1,641	14,241	n_ind ~ 1	0.0006	0.000 1	0.0061				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	PTB	Fish	alosa alosa	Alice shad	1	704		n_ind ~ 1 + (1 area- Code)	0.0000	0.000 0	265.021 5				non e	there is spatial variability in BPUE
Greater North Sea	PTB	Fish	alosa fallax	Twaite shad	1	704	4,719	n_ind ~ 1	0.0015	0.000 1	0.0217				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	PTB	Fish	anarhi- chas lu- pus	Atlantic wolffish	2	704	4,719	n_ind ~ 1	0.0028	0.000 3	0.0266	13	1.4	125.4	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	PTB	Fish	cetorhi- nus maxi- mus	basking shark	2	704	4,719	n_ind ~ 1	0.0023	0.000 3	0.0160	11	1.6	75.6	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	PTB	Fish	conger conger	conger eel	1	704	4,719	n_ind ~ 1	0.0014	0.000 2	0.0101	7	0.9	47.6	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	PTB	Fish	dipturus interme- dius	flapper skate	1	704	4,719	n_ind ~ 1	0.0014	0.000 2	0.0101	7	0.9	47.6	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	PTB	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	3	704	4,719	n_ind ~ 1	0.0039	0.000 3	0.0445				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	PTB	Fish	raja un- dulata	undulate ray	28	704	4,719	n_ind ~ 1	1.8606	0.007 0	493.447 2				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	PTB	Fish	sebastes norvegi- cus	golden red- fish	1	704	4,719	n_ind ~ 1	0.0014	0.000 2	0.0101	7	0.9	47.6	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	PTB	Fish	sebastes viviparus	Norway haddock	15	704	4,719	n_ind ~ 1	0.0154	0.000 6	0.3815				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	SDN	Fish	cheli- donich- thys lu- cerna	tub gurnard	1	136	3,279	n_ind ~ 1	0.0073	0.001 0	0.0521	24	3.4	170.7	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	SDN	Fish	cy- clopterus lumpus	lumpfish	1	136	3,279	n_ind ~ 1	0.0073	0.001 0	0.0521	24	3.4	170.7	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	SDN	Fish	petromyz on mari- nus	sea lamprey	2	136	3,279	n_ind ~ 1	0.0147	0.003 7	0.0587	48	12.0	192.3	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	SDN	Fish	sebastes viviparus	Norway haddock	1	136	3,279	n_ind ~ 1	0.0073	0.001 0	0.0521	24	3.4	170.7	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	SSC	Fish	dipturus interme- dius	flapper skate	2	235	7,621	n_ind ~ 1	0.0094	0.000 8	0.1048				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	SSC	Fish	etmopter us spinax	velvet belly	24	235	7,621	n_ind ~ 1	0.0409	0.001 6	1.0497				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	SSC	Fish	galeus melasto- mus	blackmouth catshark	3	235	7,621	n_ind ~ 1	0.0124	0.003 0	0.0514	94	22.7	391.5	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	SSC	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	18	235	7,621	n_ind ~ 1	0.0470	0.006 7	0.3307	358	51.0	2,520.2	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	SSC	Fish	sebastes norvegi- cus	golden red- fish	3	235	7,621	n_ind ~ 1	0.0227	0.001 1	0.4796				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	SSC	Fish	sebastes viviparus	Norway haddock	1	235		n_ind ~ 1 + (1 country)	0.0042	0.000 6	0.0302				non e	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	TBB	Fish	alosa fallax	Twaite shad	43	1,997	61,988	$n_{ind} \sim 1$	0.0413	0.004 4	0.3904	2,563	271.5	24,198.4	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	TBB	Fish	cheli- donich- thys lu- cerna	tub gurnard	8,667	1,997	61,988	$n_{ind} \sim 1 +$ (1 country) + (1 year)	0.0000	0.000 0	0.0000				pre- sent	there is spatial variability in BPUE
Greater North Sea	TBB	Fish	conger conger	conger eel	440	1,997	61,988	$n_{ind} \sim 1$	0.0465	0.009 7	0.2243	2,884	598.2	13,906.8	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	TBB	Fish	cy- clopterus lumpus	lumpfish	101	1,997	61,988	$n_{ind} \sim 1$	0.2920	0.026 7	3.1903				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	TBB	Fish	dasyatis pastinaca	blue sting- ray	10	1,997	61,988	$n_{ind} \sim 1 +$ (1 year)	0.0018	0.000 2	0.0172	456	103.7	2,005.9	pre- sent	a constant BPUE appears to be rep- resentative
Greater North Sea	TBB	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	87	1,997	61,988	$n_{ind} \sim 1$	0.0645	0.008 9	0.4662	4,001	553.9	28,900.6	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	TBB	Fish	hippo- campus hippo- campus	seahorse	64	1,997	61,988	$n_{ind} \sim 1$	0.0469	0.012 9	0.1706	2,909	800.1	10,573.3	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	TBB	Fish	labrus bergylta	ballan wrasse	7	1,997	61,988	$n_{ind} \sim 1$	0.0017	0.000 4	0.0071	104	24.6	440.3	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	TBB	Fish	lampetra fluviatilis	European river lam- prey	61	1,997		$n_{ind} \sim 1 +$ (1 country) + (1 metierL5)	0.0000	0.000 0	0.0008				non e	there is spatial variability in BPUE
Greater North Sea	TBB	Fish	leucoraja circularis	cuckoo ray	1	1,997	61,988	$n_{ind} \sim 1$	0.0005	0.000 0	0.0058				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	TBB	Fish	leucoraja fullonica	shagreen ray	17	1,997	61,988	$n_{ind} \sim 1$	0.0030	0.000 6	0.0162	187	34.9	1,001.5	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	TBB	Fish	pomato- schistus minutus	freckled goby	229	1,997	61,988	$n_{ind} \sim 1$	0.2183	0.006 6	7.1820				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	TBB	Fish	raja mi- croocel- lata	painted ray	126	1,997	61,988	n_ind ~ 1	0.0159	0.003 6	0.0706	988	223.1	4,373.4	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	TBB	Fish	rajella fyl- lae	round skate	10	1,997	61,988	n_ind ~ 1	0.0325	0.000 4	2.6750				non e	a constant BPUE appears to be rep- resentative
Greater North Sea	TBB	Fish	scyliorhi- nus stel- laris	nursehound	52	1,997	61,988	n_ind ~ 1	0.0051	0.000 8	0.0340	314	46.9	2,106.4	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	TBB	Fish	tetronarc e nobili- ana	Atlantic tor- pedo	2	1,997	61,988	n_ind ~ 1	0.0007	0.000 1	0.0051	42	5.6	314.9	non e	a constant BPUE appears to be rep- resentative
Greater North Sea	TBB	Fish	torpedo mar- morata	marbled electric ray	83	1,997		n_ind ~ 1 + (1 area- Code) + (1 sam- plingProto- col)	0.0000	0.000 0	21.8138				non e	there is variability in BPUE depend- ing on monitoring protocols
Greater North Sea	TBB	Fish	zeus fa- ber	European john dory	788	1,997	61,988	n_ind ~ 1 + (1 country) + (1 year)	0.0001	0.000 0	5.8068				pre- sent	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greater North Sea	TBB	Fish	zoarces viviparus	viviporous blenny	291	1,997		$n_{ind} \sim 1 + (1 \text{area-Code}) + (1 \text{metierL5})$	0.0000	0.000 0	0.0005					non e there is spatial variability in BPUE
Greenland Sea	OTB	Fish	alepo- cephalus bairdii	Baird's smooth- head	34	358	753	$n_{ind} \sim 1$	0.0955	0.001 6	5.5738					non e a constant BPUE appears to be rep- resentative
Greenland Sea	OTB	Fish	amblyraja hyperbo- rea	Arctic skate	8	358	753	$n_{ind} \sim 1$	0.0228	0.000 9	0.5885					non e a constant BPUE appears to be rep- resentative
Greenland Sea	OTB	Fish	chimaera mon- strosa	rabbitfish	2	358	753	$n_{ind} \sim 1$	0.0056	0.001 4	0.0223	4	1.1	16.8		non e a constant BPUE appears to be rep- resentative
Greenland Sea	OTB	Fish	lycodes esmarkii	Esmark's eelpout	3	358	753	$n_{ind} \sim 1$	0.0104	0.002 0	0.0553	8	1.5	41.6		non e a constant BPUE appears to be rep- resentative
Greenland Sea	OTB	Fish	rajella lintea	sailray	4	358	753	$n_{ind} \sim 1$	0.0111	0.002 5	0.0486	8	1.9	36.6		non e a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Greenland Sea	OTB	Fish	rhi- nochimae raatlan- tica	knifenose chimaera	30	358	753	n_ind ~ 1	0.0970	0.008 7	1.0835				non e	a constant BPUE appears to be rep- resentative
Greenland Sea	OTB	Fish	somnio- sus mi- croceph- alus	Greenland shark	42	358	753	n_ind ~ 1	0.1558	0.025 8	0.9418	117	19.4	709.1	non e	a constant BPUE appears to be rep- resentative
Greenland Sea	OTT	Fish	amblyraja radiata	thorny skate	3	1		only one	3.0000	- 0.394 8	6.3948				non e	a constant BPUE appears to be rep- resentative
Icelandic Waters	GNS	Mammals	halicho- erus grypus	Gray Seal	44	1,045	1,974	n_ind ~ 1 + (1 vessel- Length_gro up)	0.0209	0.001 7	0.2602	15	6.5	42.9	non e	there is between- vessel length cat- egory variability in BPUE
Icelandic Waters	GNS	Mammals	lagen- orhyn- chus al- birostris	White- beaked Dol- phin	4	1,045	1,974	n_ind ~ 1	0.0037	0.000 8	0.0176	7	1.5	34.7	non e	a constant BPUE appears to be rep- resentative
Icelandic Waters	GNS	Mammals	meg- aptera	Humpback Whale	2	1,045	1,974	n_ind ~ 1	0.0021	0.000 2	0.0274				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
			novaean- gliae													
Icelandic Waters	GNS	Mammals	pagophi- lus groen- landicus	Harp Seal	31	1,045	1,974	n_ind ~ 1 + (1 vessel- Length_gro up)	0.0363	0.015 0	0.0877	61	24.3	153.0	non e	there is between- vessel length cat- egory variability in BPUE
Icelandic Waters	GNS	Mammals	phoca vi- tulina	Harbor Seal	151	1,045	1,974	n_ind ~ 1 + (1 vessel- Length_gro up)	0.1082	0.021 0	0.5579	82	36.6	184.9	non e	there is between- vessel length cat- egory variability in BPUE
Icelandic Waters	GNS	Mammals	pho- coena pho- coena	Harbor Por- poise	254	1,045	1,974	n_ind ~ 1 + (1 area- Code) + (1 vessel- Length_gro up)	0.2074	0.062 8	0.6847	559	311.9	1,033.5	non e	there is spatial variability in BPUE
Icelandic Waters	GNS	Mammals	pusa his- pida	Ringed Seal	3	1,045	1,974	n_ind ~ 1	0.0027	0.000 7	0.0107	5	1.4	21.2	non e	a constant BPUE appears to be rep- resentative
Icelandic Waters	OTB	Mammals	pagophi- lus groen- landicus	Harp Seal	1	2,137	5,463	n_ind ~ 1 + (1 metierL5)	0.0005	0.000 1	0.0033	3	0.4	18.1	non e	there is between- metier level 5 var- iability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Icelandic Waters	GNS	Seabirds	alca torda	Razorbill	9	1,045	1,974	n_ind ~ 1	0.0086	0.0045	0.0166	17	8.8	32.7	non e	a constant BPUE appears to be representative
Icelandic Waters	GNS	Seabirds	cepphus grylle	Black Guillemot	239	1,045	1,974	n_ind ~ 1 + (1 vessel-Length_gro up)	0.1242	0.0077	2.0071	89	37.5	211.1	non e	there is between-vessel length category variability in BPUE
Icelandic Waters	GNS	Seabirds	clangula hyemalis	Long-tailed Duck	9	1,045	1,974	n_ind ~ 1	0.0079	0.0030	0.0208	16	5.9	41.1	non e	a constant BPUE appears to be representative
Icelandic Waters	GNS	Seabirds	fratercula arctica	Atlantic Puffin	3	1,045	1,974	n_ind ~ 1	0.0027	0.0007	0.0107	5	1.4	21.1	non e	a constant BPUE appears to be representative
Icelandic Waters	GNS	Seabirds	fulmarus glacialis	Northern Fulmar	14	1,045	1,974	n_ind ~ 1	0.0126	0.0055	0.0289	25	10.9	57.1	non e	a constant BPUE appears to be representative
Icelandic Waters	GNS	Seabirds	gavia immer	Common Loon	3	1,045	1,974	n_ind ~ 1 + (1 year) + (1 vessel-Length_gro up)	0.0020	0.0001	0.0377				pre-sent	there is between-vessel length category variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Icelandic Waters	GNS	Seabirds	gavia stellata	Red-throated Loon	1	1,045	1,974	n_ind ~ 1 + (1 year)	0.0010	0.0001	0.0068	2	0.3	13.4	pre- sent	a constant BPUE appears to be representative
Icelandic Waters	GNS	Seabirds	morus bassanus	Northern Gannet	6	1,045	1,974	n_ind ~ 1	0.0057	0.0026	0.0128	11	5.1	25.2	non e	a constant BPUE appears to be representative
Icelandic Waters	GNS	Seabirds	pha-lacrocorax aristotelis	European Shag	2	1,045	1,974	n_ind ~ 1	0.0015	0.0002	0.0120	3	0.4	23.6	non e	a constant BPUE appears to be representative
Icelandic Waters	GNS	Seabirds	pha-lacrocorax carbo	Great Cor-morant	5	1,045	1,974	n_ind ~ 1	0.0038	0.0009	0.0167	8	1.7	33.1	non e	a constant BPUE appears to be representative
Icelandic Waters	GNS	Seabirds	so-materia mollissima	Common Eider	401	1,045	1,974	n_ind ~ 1 + (1 vessel-Length_gro up)	0.3817	0.0499	2.9166				non e	there is between-vessel length category variability in BPUE
Icelandic Waters	GNS	Seabirds	uria aalge	Common Guillemot	643	1,045	1,974	n_ind ~ 1 + (1 vessel-Length_gro up)	0.5576	0.3181	0.9773	984	587.4	1,647.0	non e	there is between-vessel length category variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Icelandic Waters	GNS	Seabirds	urialomvia	Thick-billed Murre	10	1,045	1,974	n_ind ~ 1	0.0091	0.0030	0.0281	18	5.9	55.5	none	a constant BPUE appears to be representative
Icelandic Waters	LLS	Seabirds	fulmarus glacialis	Northern Fulmar	146	284	13,596	n_ind ~ 1 + (1 vessel-Length_gro up)	0.0561	0.0085	0.3707	763	115.3	5,040.6	none	there is between-vessel length category variability in BPUE
Icelandic Waters	LLS	Seabirds	larus argentatus	Herring Gull	35	284	13,596	n_ind ~ 1	0.0378	0.0028	0.5050				none	a constant BPUE appears to be representative
Icelandic Waters	LLS	Seabirds	larus fuscus	Lesser Black-backed Gull	5	284	13,596	n_ind ~ 1	0.0112	0.0017	0.0730	152	23.4	992.1	none	a constant BPUE appears to be representative
Icelandic Waters	LLS	Seabirds	morus bassanus	Northern Gannet	25	284	13,596	n_ind ~ 1	0.0393	0.0091	0.1704	534	123.1	2,316.4	none	a constant BPUE appears to be representative
Icelandic Waters	OTM	Seabirds	urialaalge	Common Guillemot	2	285	20,358	n_ind ~ 1	0.0065	0.0009	0.0496	133	17.6	1,009.4	none	a constant BPUE appears to be representative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Icelandic Waters	GNS	Fish	centroscyllium fabricii	black dogfish	59	1,045	1,974	n_ind ~ 1	0.0414	0.0025	0.6870				none	a constant BPUE appears to be representative
Icelandic Waters	GNS	Fish	dipturus batis	blue skate	53	1,045	1,974	n_ind ~ 1	0.0352	0.0054	0.2314	70	10.6	456.8	none	a constant BPUE appears to be representative
Icelandic Waters	GNS	Fish	etmopterus spinax	velvet belly	33	1,045	1,974	n_ind ~ 1	0.0223	0.0040	0.1242	44	7.9	245.1	none	a constant BPUE appears to be representative
Icelandic Waters	GNS	Fish	helicolenus dactylopterus	blackbelly rosefish	3	1,045	1,974	n_ind ~ 1	0.0027	0.0007	0.0100	5	1.4	19.8	none	a constant BPUE appears to be representative
Icelandic Waters	GNS	Fish	lycodes esmarkii	Esmark's eelpout	1	1,045	1,974	n_ind ~ 1	0.0010	0.0001	0.0068	2	0.3	13.4	none	a constant BPUE appears to be representative
Icelandic Waters	GNS	Fish	pollachius pollachius	pollack	33	1,045	1,974	n_ind ~ 1	0.0220	0.0040	0.1206	43	7.9	238.1	none	a constant BPUE appears to be representative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Icelandic Waters	LLS	Fish	anarhi- chas den- ticulatus	northern wolffish	3	284	13,596	n_ind ~ 1	0.1066	0.002 4	4.8224				non e	a constant BPUE appears to be rep- resentative
Icelandic Waters	OTB	Fish	amblyraja hyperbo- rea	Arctic skate	153	2,137	5,463	n_ind ~ 1	0.0478	0.007 6	0.3012	261	41.5	1,645.4	non e	a constant BPUE appears to be rep- resentative
Icelandic Waters	OTB	Fish	anarhi- chas den- ticulatus	northern wolffish	420	2,137	5,463	n_ind ~ 1	0.1261	0.015 1	1.0515	689	82.6	5,744.4	non e	a constant BPUE appears to be rep- resentative
Icelandic Waters	OTB	Fish	apristuru s laurus- sonii	Iceland cat- shark	86	2,137	5,463	n_ind ~ 1	0.0265	0.005 0	0.1406	145	27.3	768.3	non e	a constant BPUE appears to be rep- resentative
Icelandic Waters	OTB	Fish	cen- troscyl- lium fab- ricii	black dog- fish	2,771	2,137	5,463	n_ind ~ 1	0.7866	0.060 0	10.3165				non e	a constant BPUE appears to be rep- resentative
Icelandic Waters	OTB	Fish	centrose- lachus crepi- dater	Longnose velvet dog- fish	464	2,137	5,463	n_ind ~ 1	0.1500	0.007 3	3.0916				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Icelandic Waters	OTB	Fish	conger conger	conger eel	1	2,137	5,463	$n_{ind} \sim 1$	0.0005	0.0001	0.0033	3	0.4	18.1	non e	a constant BPUE appears to be representative
Icelandic Waters	OTB	Fish	etmopter us prin- ceps	great lan- ternshark	1,094	2,137	5,463	$n_{ind} \sim 1$	0.3099	0.0294	3.2681				non e	a constant BPUE appears to be representative
Icelandic Waters	OTB	Fish	galeus murinus	Mouse cat- shark	892	4,274	5,463	$n_{ind} \sim 1 + (1 \text{year})$	0.0000	0.0000	0.0087	1,577	452.6	5,493.0	pre- sent	a constant BPUE appears to be representative
Icelandic Waters	OTB	Fish	hy- drolagus mirabilis	hydrolagus mirabilis	7	2,137	5,463	$n_{ind} \sim 1$	0.0031	0.0006	0.0167	17	3.1	91.1	non e	a constant BPUE appears to be representative
Icelandic Waters	OTB	Fish	petromyz on mari- nus	sea lamprey	2	2,137	5,463	$n_{ind} \sim 1 + (1 \text{year}) + (1 \text{metierL5})$	0.0009	0.0002	0.0037	5	1.3	20.5	pre- sent	there is between-metier level 5 variability in BPUE
Icelandic Waters	OTB	Fish	rajella bath- yphila	deepwater ray	3	2,137	5,463	$n_{ind} \sim 1$	0.0014	0.0004	0.0047	8	2.2	25.9	non e	a constant BPUE appears to be representative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Icelandic Waters	OTB	Fish	rajella lintea	sailray	29	2,137	5,463	n_ind ~ 1	0.0112	0.0026	0.0475	61	14.4	259.5	none	a constant BPUE appears to be representative
Icelandic Waters	OTB	Fish	somniosus microcephalus	Greenland shark	4	2,137	5,463	n_ind ~ 1	0.0019	0.0007	0.0050	10	3.8	27.2	none	a constant BPUE appears to be representative
Icelandic Waters	SDN	Fish	dipturus batis	blue skate	1	64	10,832	n_ind ~ 1	0.0156	0.0022	0.1109	169	23.8	1,201.6	none	a constant BPUE appears to be representative
Ionian Sea and the Central Mediterranean Sea	GTR	Turtles	caretta caretta	Loggerhead	1	879	273,398	n_ind ~ 1	0.0067	0.0002	0.2002				none	a constant BPUE appears to be representative
Ionian Sea and the Central Mediterranean Sea	GTR	Fish	gymnura altavela	spiny butterfly ray	1	879	273,398	n_ind ~ 1	0.0011	0.0002	0.0081				none	a constant BPUE appears to be representative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Ionian Sea and the Central Mediterra- nean Sea	GTR	Fish	squatina aculeata	sawback angelshark	1	879	273,398	n_ind ~ 1	0.0014	0.000 1	0.0215				non e	a constant BPUE appears to be rep- resentative
Ionian Sea and the Central Mediterra- nean Sea	LLS	Fish	gymnura altavela	spiny butter- fly ray	1	295	118,550	n_ind ~ 1	0.0034	0.000 5	0.0241				non e	a constant BPUE appears to be rep- resentative
Ionian Sea and the Central Mediterra- nean Sea	OTB	Fish	acipenser naccarii	Adriatic sturgeon	1	417	63,691	n_ind ~ 1	0.0024	0.000 3	0.0170	153	21.5	1,084.3	non e	a constant BPUE appears to be rep- resentative
Ionian Sea and the Central Mediterra- nean Sea	OTB	Fish	gymnura altavela	spiny butter- fly ray	2	417	63,691	n_ind ~ 1	0.0035	0.000 5	0.0249	221	30.9	1,584.2	non e	a constant BPUE appears to be rep- resentative
Ionian Sea and the Central	OTB	Fish	leucoraja melitensi s	Maltese skate	7	417		n_ind ~ 1 + (1 area- Code) + (1 metierL5) +	0.0000						non e	there is variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Mediterra- nean Sea								(1 sam- plingProto- col)								depending on monitoring proto- cols
Norwegian Sea	GNS	Mammals	halicho- erus grypus	Gray Seal	3	10,118		n_ind ~ 1 + (1 monitor- ingMethod)	0.0003	0.000 1	0.0009					there is variability in BPUE depend- ing on monitoring protocols
Norwegian Sea	GNS	Mammals	phoca vi- tulina	Harbor Seal	77	10,118	58,830	n_ind ~ 1	0.0077	0.003 6	0.0164	455	214.1	965.6	non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	GNS	Mammals	pho- coena pho- coena	Harbor Por- poise	356	10,118	58,830	n_ind ~ 1 + (1 vessel- Length_gro up)	0.0395	0.017 4	0.0897	2,267	1,323. 1	3,905.3	non e	there is between- vessel length cat- egory variability in BPUE
Norwegian Sea	GNS	Seabirds	alca torda	Razorbill	5	7,001	58,830	n_ind ~ 1	0.0009	0.000 0	0.0183				non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	GNS	Seabirds	fulmarus glacialis	Northern Fulmar	46	7,001	58,830	n_ind ~ 1	0.0078	0.000 1	0.5455				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Norwegian Sea	GNS	Seabirds	larus ar- gentatus	Herring Gull	1	7,001	58,830	n_ind ~ 1	0.0001	0.000 0	0.0010	8	1.2	59.7	non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	GNS	Seabirds	rissa tri- dactyla	Black-leg- ged Kitti- wake	2	7,001	58,830	n_ind ~ 1	0.0003	0.000 0	0.0042				non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	GNS	Seabirds	uria aalge	Common Guillemot	7	7,001	58,830	n_ind ~ 1	0.0049	0.000 1	0.3334				non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	GNS	Fish	dipturus oxyrin- chus	longnosed skate	81	7,001		n_ind ~ 1 + (1 monitor- ingMethod)	0.0000	0.000 0	3.3152				non e	there is variability in BPUE depend- ing on monitoring protocols
Norwegian Sea	GNS	Fish	galeus melasto- mus	blackmouth catshark	356	7,001		n_ind ~ 1 + (1 monitor- ingMethod)	0.0000	0.000 0	0.3924				non e	there is variability in BPUE depend- ing on monitoring protocols
Norwegian Sea	GNS	Fish	leucoraja circularis	cuckoo ray	3	7,001	58,830	n_ind ~ 1	0.0020	0.000 0	0.0964				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Norwegian Sea	GNS	Fish	raja clav- ata	thornback ray	23	7,001		n_ind ~ 1 + (1 monitor- ingMethod)	0.0002	0.000 0	53.3124				non e	there is variability in BPUE depend- ing on monitoring protocols
Norwegian Sea	GNS	Fish	rajella fyl- lae	round skate	4	7,001	58,830	n_ind ~ 1	0.0007	0.000 0	0.0128				non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	GNS	Fish	rajella lintea	sailray	5	7,001	58,830	n_ind ~ 1	0.0009	0.000 0	0.0183				non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	GNS	Fish	scyliorhi- nus can- nicula	small-spot- ted catshark	188	7,001	58,830	n_ind ~ 1	0.0319	0.000 3	4.0479				non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	GNS	Fish	somnio- sus mi- croceph- alus	Greenland shark	3	7,001	58,830	n_ind ~ 1	0.0012	0.000 1	0.0140				non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	OTB	Fish	anarhi- chas den- ticulatus	northern wolffish	6	314	122	n_ind ~ 1	0.0289	0.004 2	0.2007	4	0.5	24.5	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Norwegian Sea	OTB	Fish	anarhi- chas lu- pus	Atlantic wolffish	78	314	122	n_ind ~ 1	0.2973	0.017 1	5.1584				non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	OTB	Fish	anarhi- chas mi- nor	spotted wolffish	23	314	122	n_ind ~ 1	0.0917	0.008 2	1.0247				non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	OTB	Fish	chimaera mon- strosa	rabbitfish	24	314	122	n_ind ~ 1	0.0914	0.002 0	4.2812				non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	OTB	Fish	cy- clopterus lumpus	lumpfish	11	314	122	n_ind ~ 1	0.0501	0.006 1	0.4147	6	0.7	50.7	non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	OTB	Fish	dipturus nidaro- siensis	Norwegian skate	29	314	122	n_ind ~ 1	0.8034	0.005 4	118.507 2				non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	OTB	Fish	hippo- glossus hippo- glossus	Atlantic hali- but	232	314	184	n_ind ~ 1 + (1 country)	0.0000	0.000 0	0.1680				non e	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Norwegian Sea	OTB	Fish	raja clav- ata	thornback ray	6	314	122	n_ind ~ 1	0.0137	0.003 5	0.0537	2	0.4	6.6	non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	OTB	Fish	rajella fyl- lae	round skate	127	314	122	n_ind ~ 1	0.4754	0.022 1	10.2410				non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	OTB	Fish	sebastes viviparus	Norway haddock	144	314	122	n_ind ~ 1	0.5351	0.004 6	61.8676				non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	OTM	Fish	brama brama	Atlantic pomfret	1	634	202	n_ind ~ 1	0.0027	0.000 1	0.0470				non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	OTM	Fish	cy- clopterus lumpus	lumpfish	27	634		n_ind ~ 1 + (1 country)	0.0000	0.000 0	0.0434				non e	there is spatial variability in BPUE
Norwegian Sea	OTT	Fish	anarhi- chas den- ticulatus	northern wolffish	31	181	94	n_ind ~ 1	0.1326	0.003 2	5.5612				non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	OTT	Fish	anarhi- chas lu- pus	Atlantic wolffish	146	181	94	n_ind ~ 1	0.6217	0.007 2	54.0194				non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Norwegian Sea	OTT	Fish	anarhi- chas mi- nor	spotted wolffish	71	181	94	n_ind ~ 1	0.3027	0.004 8	19.1357				non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	OTT	Fish	chimaera mon- strosa	rabbitfish	1	181	94	n_ind ~ 1	0.0055	0.000 8	0.0392				non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	OTT	Fish	cy- clopterus lumpus	lumpfish	24	181	94	n_ind ~ 1	0.1028	0.002 8	3.7546				non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	OTT	Fish	raja clav- ata	thornback ray	11	181	94	n_ind ~ 1	0.0822	0.009 3	0.7296				non e	a constant BPUE appears to be rep- resentative
Norwegian Sea	OTT	Fish	rajella fyl- lae	round skate	41	181	94	n_ind ~ 1	0.1751	0.003 6	8.4873				non e	a constant BPUE appears to be rep- resentative
Oceanic Northeast Atlantic	LLD	Turtles	caretta caretta	Loggerhead	3	45	4,533	n_ind ~ 1	0.0667	0.020 9	0.2124	302	94.9	962.8	non e	a constant BPUE appears to be rep- resentative
Oceanic Northeast Atlantic	LLD	Turtles	dermo- chelys coriacea	leatherback turtle	1	45		n_ind ~ 1 + (1 country) + (1	0.0222	0.003 1	0.1578				pre- sent	there is spatial variability in BPUE

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
								areaCode) + (1 year)								
Oceanic Northeast Atlantic	OTB	Fish	chimaera mon- strosa	rabbitfish	1	197	113	n_ind ~ 1	0.0093	0.000 4	0.2305				non e	a constant BPUE appears to be rep- resentative
Oceanic Northeast Atlantic	OTB	Fish	heli- colenus dacty- lopterus	blackbelly rosefish	364	197	113	n_ind ~ 1	5.1991	0.021 0	1,284.8 432				non e	a constant BPUE appears to be rep- resentative
Oceanic Northeast Atlantic	OTB	Fish	sebastes viviparus	Norway haddock	160	197	113	n_ind ~ 1	2.2847	0.012 4	422.670 6				non e	a constant BPUE appears to be rep- resentative
Oceanic Northeast Atlantic	OTM	Fish	etmopter us prin- ceps	great lan- ternshark	1	144	100	n_ind ~ 1	0.0202	0.000 8	0.5170				non e	a constant BPUE appears to be rep- resentative
Western Mediterra- nean Sea	LLD	Mammals	globi- cephala melas	Long-finned Pilot Whale	1	2,113	32,551	n_ind ~ 1	0.0005	0.000 0	0.0063				non e	a constant BPUE appears to be rep- resentative
Western Mediterra- nean Sea	LLD	Mammals	grampus griseus	Risso's Dol- phin	2	2,113	32,551	n_ind ~ 1	0.0009	0.000 2	0.0038	31	7.7	123.2	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Western Mediterra- nean Sea	LLD	Mammals	stenella coeruleo- alba	Striped Dol- phin	2	2,113	32,551	n_ind ~ 1	0.0011	0.000 2	0.0067	35	5.7	219.1	non e	a constant BPUE appears to be rep- resentative
Western Mediterra- nean Sea	OTB	Mammals	stenella coeruleo- alba	Striped Dol- phin	1	5,599	159,484	n_ind ~ 1	0.0002	0.000 0	0.0013	28	4.0	202.2	non e	a constant BPUE appears to be rep- resentative
Western Mediterra- nean Sea	OTB	Mammals	tursiops truncatus	Bottlenose Dolphin	2	5,599		n_ind ~ 1 + (1 country) + (1 ves- sel- Length_gro up) + (1 sam- plingProto- col) + (1 monitoring- Method)	0.0004						non e	there is variability in BPUE depend- ing on monitoring protocols
Western Mediterra- nean Sea	OTM	Mammals	stenella coeruleo- alba	Striped Dol- phin	2	40	1,173	n_ind ~ 1	0.0473	0.005 4	0.4175	55	6.3	489.8	non e	a constant BPUE appears to be rep- resentative
Western Mediterra- nean Sea	OTT	Mammals	tursiops truncatus	Bottlenose Dolphin	1	543	4,645	n_ind ~ 1	0.0018	0.000 3	0.0131	9	1.2	60.8	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Western Mediterra- nean Sea	LLD	Seabirds	calonectri s diome- dea	Cory's Shearwater	185	2,113		n_ind ~ 1 + (1 area- Code) + (1 vessel- Length_gro up)	0.0000	0.000 0	0.1410				non e	there is spatial variability in BPUE
Western Mediterra- nean Sea	LLD	Seabirds	larus micha- hellis	Yellow-leg- ged Gull	43	2,113		n_ind ~ 1 + (1 area- Code)	0.0038	0.000 2	0.0701				non e	there is spatial variability in BPUE
Western Mediterra- nean Sea	LLD	Seabirds	puffinus yelkouan	Yelkouan Shearwater	11	2,113	32,551	n_ind ~ 1 + (1 year)	0.0003	0.000 0	0.3132	1,025	279.1	3,765.6	pre- sent	a constant BPUE appears to be rep- resentative
Western Mediterra- nean Sea	OTB	Seabirds	ichthyaе- tus mela- noceph- alus	Mediterra- nean Gull	1	5,599		n_ind ~ 1 + (1 metierL5) + (1 monitor- ingMethod)	0.0001						non e	there is variability in BPUE depend- ing on monitoring protocols
Western Mediterra- nean Sea	OTB	Seabirds	puffinus yelkouan	Yelkouan Shearwater	1	5,599		n_ind ~ 1 + (1 area- Code) + (1 sam- plingProto- col)	0.0002	0.000 0	0.0013				non e	there is variability in BPUE depend- ing on monitoring protocols

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Western Mediterra- nean Sea	LLD	Turtles	caretta caretta	Loggerhead	99	2,268		n_ind ~ 1 + (1 area- Code)	0.0014	0.000 0	0.7589				non e	there is spatial variability in BPUE
Western Mediterra- nean Sea	LLD	Turtles	dermo- chelys coriacea	leatherback turtle	1	2,268	32,551	n_ind ~ 1 + (1 vessel- Length_gro up)	0.0004	0.000 1	0.0031	14	2.0	101.9	non e	there is between- vessel length cat- egory variability in BPUE
Western Mediterra- nean Sea	OTB	Turtles	caretta caretta	Loggerhead	8	5,599	159,484	n_ind ~ 1	0.0013	0.000 6	0.0030	208	91.8	473.1	non e	a constant BPUE appears to be rep- resentative
Western Mediterra- nean Sea	OTT	Turtles	caretta caretta	Loggerhead	2	543	4,645	n_ind ~ 1	0.0037	0.001 4	0.0098	17	6.4	45.6	non e	a constant BPUE appears to be rep- resentative
Western Mediterra- nean Sea	GTR	Fish	gymnura altavela	spiny butter- fly ray	1	377	223,271	n_ind ~ 1	0.0119	0.000 4	0.3317				non e	a constant BPUE appears to be rep- resentative
Western Mediterra- nean Sea	OTB	Fish	dipturus batis	blue skate	1	5,599	159,484	n_ind ~ 1	0.0002	0.000 0	0.0013	28	4.0	202.2	non e	a constant BPUE appears to be rep- resentative

Ecoregion	metier L4	Taxon	Species	Common name	# indi- viduals 2017- 2023	moni- toring effort (DaS) 2017- 2023	Fishing effort (DaS) 2023	BPUE model	BPUE	lower	upper	total by- catch 2023	TB lower	TB up- per	in- ter- an- nual	key variabil- ity in BPUE
Western Mediterra- nean Sea	OTB	Fish	gymnura altavela	spiny butter- fly ray	2	5,599	159,484	n_ind ~ 1	0.0004	0.000 1	0.0021	63	12.0	328.5	non e	a constant BPUE appears to be rep- resentative