

Supplementary information

Recovery at sea of abandoned, lost or discarded drifting fish aggregating devices

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Supplementary Material

For

Recovery at sea of abandoned, lost or discarded drifting fish aggregating devices

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Additional tables & figures

Table A1: Total number and percentage of dFADs that leave the purse seine fishing grounds of the Indian and Atlantic Oceans and pass close (i.e. within 50 km) to large, medium and small ports over the period 2012-2018. Note that all dFADs are taken into account when performing calculations for individual port size categories even if they pass near several port categories, and that the “all ports” category combines large, medium and small ports into one category (but very small ports are excluded from these and all other calculations in the manuscript). For each ocean, the first set of columns includes only dFADs that definitively leave fishing grounds, whereas the second set of columns also includes dFADs that leave only to later return to fishing grounds.

dFAD trajectories	Indian Ocean				Atlantic Ocean			
	Leave definitively		Leave definitively or leave to later go back		Leave definitively		Leave definitively or leave to later go back	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
All ports	5,007	17.58%	6,028	15.48%	2,088	29.63%	2,461	24.89%
Large ports	1,685	5.92%	2,188	5.62%	273	3.87%	288	2.91%
Medium ports	2,257	7.99%	2,566	6.59%	1,032	14.64%	1,154	11.66%
Small ports	3,247	11.39%	3,853	9.90%	1,359	19.28%	1,621	16.39%

Table A2: Total number of dFADs that leave definitively the purse seine fishing grounds of the Indian and Atlantic Oceans and pass close (i.e. within 20, 50 and 80 km) to large, medium and small ports over the period 2012-2018. Note that all dFADs are taken into account when performing calculations for individual port size categories even if they pass near several port categories, and that the “all ports” category combines large, medium and small ports into one category (but very small ports are excluded from these and all other calculations in the manuscript).

dFAD trajectories	Indian Ocean					Atlantic Ocean				
	10km	20 km	50 km	80km	100 km	10 km	20 km	50 km	80km	100 km
All ports	627	1,832	5,007	7,356	8,008	528	1,035	2,088	2,873	3,227
Large ports	258	601	1,685	3,193	3,606	98	186	273	603	725
Medium ports	213	708	2,257	3,621	4,113	111	283	1,032	1,729	2,082
Small ports	169	810	3,247	4,464	4,860	328	629	1,359	1,916	2,254

Table A3: Numbers of dFADs that definitively leave the purse seine fishing grounds of the Indian and Atlantic oceans and pass within 20 km, 50 km and 80 km of specific large, medium and small ports over the period 2012-2018. The first, shaded part of the table represents the ports located in the Indian Ocean, while the second part with a white background represents those located in the Atlantic Ocean.

Country ^a	Port name ^b	Distance to fishing area (km)	Port size	Total dFAD passes ^c (20km)	Total dFAD passes ^c (50km)	Total dFAD passes ^c (80km)
SO	Mogadishu	290	Large	592	1,641	3,087
KE	Mombasa	128	Medium	606	1,869	2,454
TZ	Dar es salaam	152	Medium	54	276	840
TZ	Chake chake	137	Small	313	1,748	2,321
KE	Malindi	96	Small	206	520	1050
TZ	Zanzibar	201	Small	26	267	562
TZ	Tanga	209	Small	104	231	620
MZ	Mocambique	136	Small	42	108	170
NI	Pennington oil terminal	249	Large	186	275	598
NI	Bonny	300	Medium	34	273	420
GV	Conakry	65	Medium	83	172	221
NI	Lagos	311	Medium	40	136	169
GH	Takoradi	30	Medium	38	134	232
IV	Abidjan	28	Medium	47	98	136
CM	Douala	346	Medium	2	92	221
NI	Antan oil terminal	357	Small	178	287	345
EK	Malabo	304	Small	107	157	214
SL	Freetown	55	Small	42	111	168
LI	Monrovia	20	Small	61	102	140
BN	Cotonou	264	Small	27	93	151

a The country names corresponding to the postal abbreviations cited in the table are: SO= Somalia; NI=Nigeria; KE=Kenya; TZ=Tanzania; GV=Guinea; GH=Ghana; IV=Ivory coast; CM= Cameroon; EK=Equatorial Guinea; SL= Sierra Leone; MZ=Mozambique; LI=Liberia; BN= Benin.

b Only ports for which at least 90 dFADs pass within 50 km are presented in the table.

c All dFADs are taken into account even if they pass close to several port categories.

Table A4: Total number and percentage of dFAD trajectories that remain, leave and return, and definitively leave the fishing grounds of the purse seine fisheries of the Indian Ocean over the period 2012-2018. Analyses include in-water dFAD trajectories spanning more than 2 days, more than 3 days and more than 5 days.

dFAD trajectories	Indian Ocean					
	>2 days		>3 days		> 5 days	
	Number	Percentage	Number	Percentage	Number	Percentage
In the fishing grounds	67,412	-	66,222	-	64,089	-
Definitively leave	28,478	42.24%	28,464	42.98%	28,423	44.35%
Remain	27,628	40.98%	26,454	39.94%	24,368	38.02%
Leave and return	11,306	16.78%	11,304	17.08%	11,298	17.63%

Table A5: Total number and percentage of dFAD trajectories that remain, leave and return, and definitively leave the fishing grounds of the purse seine fisheries of the Atlantic Ocean over the period 2012-2018. Analyses include in-water dFAD trajectories spanning more than 2 days, more than 3 days and more than 5 days.

dFAD trajectories	Atlantic Ocean					
	>2 days		>3 days		> 5 days	
	Number	Percentage	Number	Percentage	Number	Percentage
In the fishing grounds	16,940	-	16,506	-	15,887	-
Definitively leave	7,047	41.60%	7,040	42.65%	7,022	44.20%
Remain	7,721	45.58%	7,295	44.20%	6,701	42.18%
Leave and return	2,172	12.82%	2,171	13.15%	2,164	13.62%

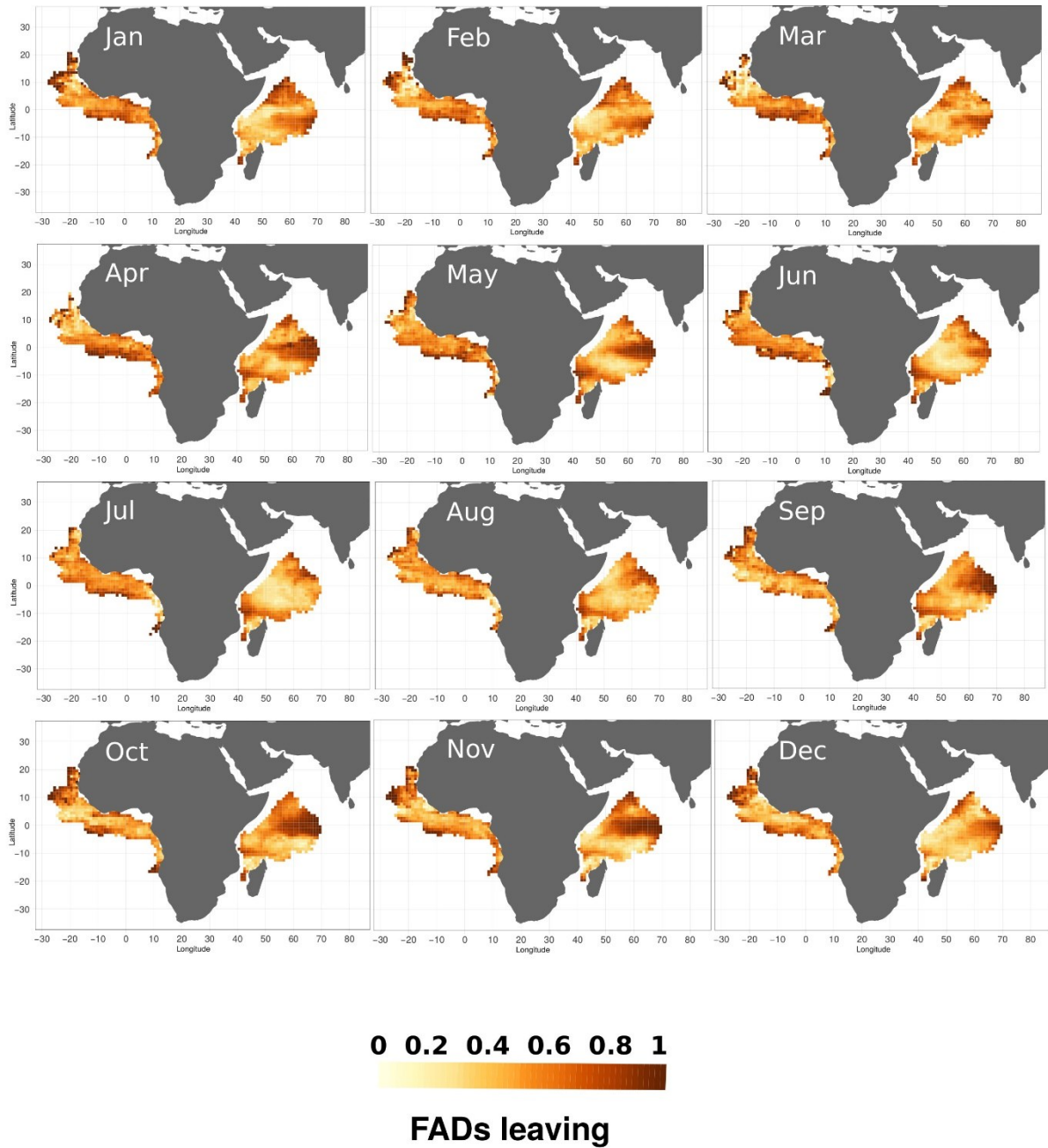


Figure A1: Monthly maps of the proportion of dFADs that definitively leave the fishing grounds after passing through each 1°x1° grid cell over the period 2012-2018. Months advance by rows from January in the top-left to December in the bottom-right panel.

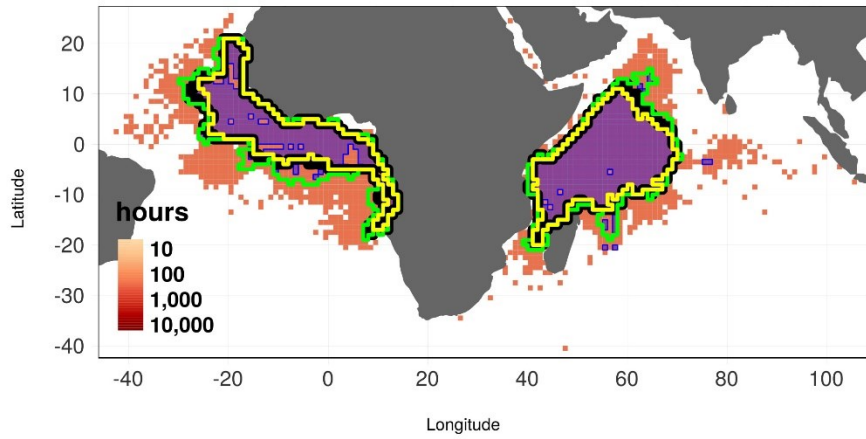


Figure A2: Total number of EU purse seine fishing hours in each 1°x1° grid cell for the period 2012-2018. The thick, black solid curves delimit our definitions of core fishing grounds (primarily consisting of cells with more than 200 fishing hours over the study period). The purple colors represent exactly the cells with more than 200 hours of fishing. The green and yellow solid curves delimit areas having more than 100 and 300 fishing hours, respectively, per grid cell.