



EUROPEAN UNION REPORT FOR THE SCIENTIFIC COMMITTEE OF THE INDIAN OCEAN TUNA COMMISSION, 2025 (2024 DATA)

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In accordance with IOTC Resolution 15/02 (and other data related CMMs as noted below), final scientific data for the previous year were provided to the IOTC Secretariat by 30 June of the current year, for all fleets other than longline (e.g., for a National Report submitted to the IOTC Secretariat in 2023, final data for the 2022 calendar year must be provided to the Secretariat by 30 June 2023)	YES
In accordance with IOTC Resolution 15/02, provisional longline data for the previous year was provided to the IOTC Secretariat by 30 June of the current year (e.g., for a National Report submitted to the IOTC Secretariat in 2023, preliminary data for the 2022 calendar year were provided to the IOTC Secretariat by 30 June 2023). REMEMBER: Final data for the past year on longliners are expected at the IOTC Secretariat before 30 December of the current year (e.g., for a national report submitted to the IOTC Secretariat in 2022, the final data for calendar year 2021 must have been provided to the Secretariat by 30 December 2022).	YES

SUMMARY

The EU fleet fishing in the waters of the Indian Ocean is composed of two main segments.

The first is an offshore segment including:

- Purse seiners treating the three species of tropical tunas:
 - 25 active vessels
 - 158,944 t of catch of tropical tunas
 - YFT 44 %
 - SKJ 47 %
 - BET 9 %
- Longliners swordfish with significant associated catches of some pelagic shark species:
 - 20 active vessels
 - 4,529 * 10³ Hooks
 - 10,147 t of catch
 - SWO 48 %
 - BSH 45 %
 - SMA 5 %
- Longliners swordfish with significant associated catches of tunas (La Réunion):
 - 21 active vessels (≥ 12 m)
 - 4 * 10⁶ Hooks
 - 2,178.2 t of catch
 - SWO 47 %
 - YFT & BET 31 %
 - ALB 15 %

The second is a coastal segment, understanding vessels of less than 12 m fishing for and testing broad pelagic species and associated species, some of which use anchored fish aggregating devices (AFADs) over Mayotte and La Réunion Islands, the two outermost regions of the European Union of the Indian Ocean.

This coastal segment corresponds to the following:

- Longliners:
 - 20 vessels in La Réunion (< 12m)
 - 0.45 * 10⁶ Hooks
 - 433.6 t of catch
 - SWO 30 %
 - YFT & BET 32 %

- ALB 16 %
 - 2 vessels in Mayotte
 - 48.9 t of catch
 - YFT 42 %
 - SWO 39 %
- Trolling line and handlines:
 - La Réunion: 125 vessels
 - 244.8 t of catch
 - Mayotte: 132 vessels
 - 85.8 t of catch

The fishing capacity of the EU fleet authorised to deploy a fishing activity for large pelagic species in the IOTC Convention Area is managed by provisions on capacity limits set out in the IOTC Resolution and by European Union legislation.

Furthermore, the conditions of access to certain fishing areas in waters under the jurisdiction of coastal states of the South West Indian Ocean are subject to specific provisions defined in public agreements engaging the European Union and named Sustainable Fisheries Partnership Agreements (SFPA).

In accordance with IOTC Resolution 15/02, flag EU Member States (France, Italy, Portugal and Spain) have undertaken scientific data characterising the activity of the EU fleet fishing in 2024 in the IOTC area of competence and enabling the IOTC Scientific Committee to conduct its work.

Detailed national reports for each EU Member States are available as annexes of this report.



NATIONAL REPORTS

ANNEX 1 EU-FRANCE: NATIONAL REPORT TO THE SCIENTIFIC COMMITTEE OF THE INDIAN OCEAN TUNA COMMISSION, 2024

ANNEX 2 EU-ITALY NATIONAL REPORT TO THE SCIENTIFIC COMMITTEE OF THE INDIAN OCEAN TUNA COMMISSION, 2024

ANNEX 3 EU-PORTUGAL NATIONAL REPORT TO THE SCIENTIFIC COMMITTEE OF THE INDIAN OCEAN TUNA COMMISSION, 2024

ANNEX 4 EU-SPAIN NATIONAL REPORT TO THE SCIENTIFIC COMMITTEE OF THE INDIAN OCEAN TUNA COMMISSION, 2024



ANNEX 1

UE-France Rapport national destiné au Comité Scientifique de la Commission des Thons de l'Océan Indien, 2025

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INFORMATIONS SUR LES PÊCHERIES, LES RECHERCHES ET LES STATISTIQUES

Conformément à la Résolution 15/02 de la CTOI (et aux autres MCG en lien avec les données comme indiqué ci-après), les données scientifiques finales de l'année écoulée concernant toutes les flottilles, sauf celles des palangriers , ont été soumises au Secrétariat de la CTOI avant le 30 juin de l'année en cours (p. ex. : pour un Rapport national soumis au Secrétariat de la CTOI en 2025, les données finales de l'année calendaire 2024 doivent avoir été fournies au Secrétariat avant le 30 juin 2025).	OUI
Conformément à la Résolution CTOI 15/02, les données provisoires de l'année écoulée concernant les palangriers ont été soumises au Secrétariat de la CTOI avant le 30 juin de l'année en cours (p. ex. : pour un Rapport national soumis au Secrétariat de la CTOI en 2025, les données provisoires de l'année calendaire 2024 doivent avoir été fournies au Secrétariat avant le 30 juin 2025). RAPPEL : Les données finales de l'année écoulée concernant les palangriers sont attendues au Secrétariat de la CTOI avant le 30 décembre de l'année en cours (p. ex. : pour un Rapport national soumis au Secrétariat de la CTOI en 2025, les données finales de l'année calendaire 2024 doivent avoir été fournies au Secrétariat avant le 30 décembre 2025).	OUI
Si vous avez répondu NON à l'une des questions, merci d'en indiquer les raisons et les actions prévues : /	

Résumé exécutif

Cinq flottilles françaises ont été actives dans l'océan Indien en 2024 :

1 - La flottille thonière pratiquant la senne tournante comporte senneurs et bateaux d'assistance représentant une CC totale de 11 380 tonnes. Les captures débarquées se sont élevées à 70 897 tonnes, représentant une augmentation de 5,7% par rapport à la moyenne 66 878,6 de la période de référence 2019-2023, avec une proportion respective des espèces majeures YFT, SKJ et BET de 38,93%, 52,25% et 7,32%. L'effort de pêche atteint 2 383 jours durant lesquels 3 059 opérations de pêche ont été réalisées avec 2 157 (70,51%) sur FOB et 902 (29,49%) sur bancs libres. Le nombre de DCP déployés par les 11 navires s'élève à 4 131 (soit 317 DCP/bateau). Les programmes observateurs embarqués contribuent à une couverture de l'effort de pêche de 39% en 2024.

2 – La flottille palangrière basée à La Réunion avec 41 navires actifs. Les débarquements totaux de la flottille s'élèvent à 2 178 tonnes pour un effort total estimé de 4 millions d'hameçons. L'espadon représentent 43% des débarquements et la contribution des thons (albacore, patudo et germon) s'élève à 37%. Le programme observateur, auto-échantillonnage inclus, a couvert 13,4% de l'effort de pêche.

3 – La petite pêche côtière réunionnaise concerne une flottille de 125 unités qui a débarqué 346,6 tonnes de grands pélagiques.

4 – La flottille palangrière mahoraise comprend 2 unités et a débarqué 48,9 tonnes. Il est à noter que pour l'un des deux bateaux, les captures ne sont pas disponibles dans le flux de données déclaratif.

5 – La petite pêche mahoraise représente 66 unités actives qui ont débarqué 85,8 tonnes de grands pélagiques. De la même manière, le nombre de navire et les captures ne sont pas disponibles dans le flux de données déclaratif (problème d'inscription des navires aux FPC – fichier flotte).

La France en lien avec les priorités de recherche de la CTOI mène divers projets à des niveaux national, européen et international. La France a participé activement à tous les groupes de travail organisés par la CTOI en 2024 et a présenté 15 contributions scientifiques.



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1 CONTEXTE/INFORMATIONS GÉNÉRALES SUR LES PÊCHERIES

Au niveau français, on distingue cinq pêcheries dites thonières (en fait ciblant les grands pélagiques) dans l'Océan indien en référence au type d'activités de pêche et aux ports d'attache des unités :

1. des senneurs tropicaux opérant pour l'essentiel à partir des Seychelles et de l'île Maurice,
2. des palangriers basés à La Réunion,
3. de la petite pêche réunionnaise,
4. des palangriers mahorais et
5. de la petite pêche mahoraise.

Elles seront traitées séparément dans ce rapport.

Les senneurs tropicaux sont des navires de grande taille (entre 60 et 90 m de longueur HT) à long rayon d'action opérant au large principalement dans le sud-ouest de l'océan Indien. Cette flottille cible les thons majeurs à savoir le thon albacore (*Thunnus albacares*), le listao (*Katsuwonus pelamis*) et le thon obèse (*Thunnus obesus*) qu'ils encerclent à l'aide d'une senne tournante d'environ 1 500 m de longueur et 250 m de chute munie d'une coulisse dans sa partie inférieure. Depuis le début de la pêche dans cette région en 1981, deux modes de pêche distincts se sont progressivement développés : la pêche sur bancs libres et la pêche sous objets flottants dérivants (DCP = dispositifs de concentration de poissons) pour partie naturels (billes de bois et autres débris) et pour partie artificiels comme des radeaux équipés de balises que les pêcheurs déploient eux-mêmes. Les débarquements récents se font principalement à Victoria (Seychelles). Les produits de cette pêche sont destinés principalement à la conserve mais depuis ces dernières années se développe également une filière du surgelé. Le développement potentiel d'un marché local de thons mineurs dans les ports de débarquements fait l'objet d'une étude par les équipes d'enquêteurs.

Les palangriers hauturiers de La Réunion de plus de 10 m et de moins de 24 m représentent 41 unités de pêches organisées en 2 flottilles : l'une artisanale (20 unités inférieures à 15 m) et l'autre semi-industrielle (9 unités de longueur inférieure à 15 m, 11 unités comprise entre 15 m et 24 m et 1 unité dans la classe 24-40 m). Les unités du segment semi-industriel opèrent au-delà des 20 milles marins, et potentiellement sur l'ensemble du sud-ouest de l'océan Indien (SOOI). Cette flottille active depuis le début des années 1990 cible l'espadon en utilisant la technique de la palangre dérivante de surface. La palangre est constituée d'une ligne mère en nylon monofilament sur laquelle des avançons d'une longueur de 12 à 20 mètres sont fixés au moyen d'attaches rapides. Les avançons espacés de plusieurs dizaines de mètres portent un hameçon à leur extrémité (hameçons de types thon, droit et/ou circulaire en règle générale mélangés sur une même ligne) qui est appâté avec du calamar ou maquereau. Des flotteurs répartis régulièrement sur la palangre (généralement tous les 6/8 hameçons) assurent sa flottabilité. La distribution de la profondeur des hameçons dans la colonne d'eau dépend du mode de filage de la ligne mais aussi des conditions d'hydrodynamisme. La profondeur de pêche maximum est généralement comprise entre 30 et 150 mètres. Suivant la taille du navire, la longueur de la ligne mère varie de 20 à 100 km.

La flottille côtière réunionnaise de moins de 12 m est composée d'une part des palangriers côtiers du segment artisanal, et d'autre part des navires de la petite pêche côtière. Les palangriers côtiers (20 unités) opérant dans une zone comprise entre les 12 et les 20 milles de la côte ont une technique de pêche similaire aux palangriers hauturiers. La petite pêche côtière (125 unités) opère à l'intérieur des 12 milles. La plupart de ces navires pratiquent les métiers de la ligne (lignes de traîne, lignes à main, lignes mécanisées, palangres dérivantes ou calées).

Les palangriers mahorais sont tous des unités de moins de 12 m, opérant dans la zone côtière et la zone contiguë de Mayotte. Cette flottille comprenant 2 bateaux cible l'espadon (*Xyphias gladius*) mais capture également une proportion équivalente de thons, albacore, thon obèse et thon germon. La technique utilisée est la palangre horizontale dérivante. Les navires effectuent des marées de deux à trois jours, pendant lesquels ils effectuent deux à

trois filages d'une palangre grée d'environ 300 à 600 hameçons. Les lignes sont filées de manière à pêcher entre 30 et 120 m de profondeur.

Cette flottille est suivie par l'analyse des notes de vente des coopératives de pêche et intégrée au Système d'Information Halieutique (SIH).

La flottille côtière mahoraise est composée en 2024 de 132 barques essentiellement de type « Yamaha », homologuées en pêche professionnelle par dérogation. Un effort est en train d'être fait pour sa modernisation. Ces navires cohabitent avec plus de 300 à 400 barques non-homologuées en pêche professionnelle mais exerçant une activité de pêche à stratégie similaire (même métiers, mêmes espèces cibles, mêmes zones de pêche, activité légèrement réduite). L'ensemble de ces navires non-professionnels exerce une activité qualifiée de vivrière, bien qu'une proportion difficile à quantifier fasse l'objet d'une commercialisation informelle. Les navires ciblant les espèces pélagiques pratiquent majoritairement la pêche à la traîne, sur des zones assez larges en dehors du lagon, dans la zone côtière et la zone contigüe (jusqu'à 24 milles des côtes environ). On observe également des pratiques de pêche à la palangrotte à grands pélagiques sur DCP fixe, parfois également en pleine eau à l'aide d'amorce. Les espèces principalement ciblées sont la bonite à ventre rayé ou listao (*Katsuwonus pelamis*), l'albacore (*Thunnus albacares*) et le thon obèse (*Thunnus obesus*). On observe également régulièrement des débarquements de thon germon (*Thunnus alalunga*), d'autres scombridés comme le thazard (*Scomberomorus commerson*) ou le wahoo (*Acanthocybium solandrii*). Cette flottille est suivie depuis 2012 par la mise en place du SIH (Système d'Informations Halieutiques) par le Parc naturel marin de Mayotte. Les obligations de déclaration de captures ne sont en vigueur à Mayotte que depuis 2013.

Le suivi de l'activité de ces flottilles et la collecte des données de pêche et d'observations humaines sont réalisées dans le cadre du programme de collecte des données européennes de la pêche tel que défini par le règlement du conseil n°199/2008.

2 STRUCTURE DES FLOTTILLES

2.1 Les senneurs tropicaux

Le nombre de navires composant la flottille des senneurs français dans l'océan Indien a globalement diminué sur la période 1990-2020 avec maximum de 21 en 1990 et un minimum de 10 en 2020, et malgré une augmentation temporaire à 18 et 19 navires sur la période 2005-2008 liée au passage de 5 senneurs pêchant habituellement dans l'océan Atlantique (Tableau 1a). A l'inverse, la taille des navires a progressivement augmenté sur les 30 dernières années. Le nombre de petits navires (capacité < 600 GRT) a diminué tout au long des années 1990s pour disparaître totalement au début des années 2000s. Les navires de taille moyenne (capacité comprise entre 601-800 GRT) ont également disparu progressivement de la pêcherie à la fin des années 2000s. Depuis 2009, les senneurs français ont tous des capacités comprises entre 800 et 2000 GRT.

En support de la flottille de senneurs de 11 unités, il y a deux navires d'assistance qui sont actifs sur les trois déclarés à la CTOI pour l'année 2024.

2.2 Les palangriers hauturiers de plus de 12 m basés à La Réunion

Les palangriers hauturiers actifs de la flottille semi-industrielle de plus de 12 m représentaient une flottille de 28 unités en 2009 (Tableau 1b). En 2024, il ne reste plus que 21 unités actives représentant 13 % du nombre de navires réunionnais actifs ayant des grands pélagiques (espadon, thonidés, marlins, dorade coryphène et wahoo) comme espèces commerciales (cibles et prises accessoires).

2.3 La flottille côtière réunionnaise

La flottille côtière représente en 2024, 87 % du nombre de bateaux de pêche actifs à La Réunion (Tableau 1b). Elle est composée de deux segments :

- Les palangriers côtiers à espadons (palangres de surface) de moins de 12 mètres (limite de taille de segment considérée à partir de 2015), au nombre de 20 navires actifs, ils représentent 16 % de la flottille côtière active.
- Les 125 navires de la petite pêche côtière (de moins de 12 m), avec :



- 48 barques faiblement motorisées (moteurs hors-bord de moins de 20 KW) et d'une longueur inférieure à 6 mètres (36 % de l'ensemble de la flottille côtière active),
- 77 vedettes, plus puissantes (50 à 200 KW) d'une longueur comprise entre 6 et 12 m. Elles représentent 47 % de l'ensemble de la flottille côtière active.

Plus de 97% de ces navires pratiquent les métiers de la ligne (traîne et palangre verticale).

On peut noter une forte diminution du nombre de navires actifs appartenant à la petite pêche côtière : de 206 bateaux en 2006 à 125 en 2024 (réduction de 39%). En revanche, le nombre de palangriers côtiers a augmenté de 11 bateaux en 2004 à 20 en 2024 (augmentation de 81%).

2.4 La flottille palangrière basée à Mayotte

Des six palangriers ciblant l'espadon actifs en 2014 à partir de la palangre dérivante monofilament, seuls deux étaient en activité en 2024 (Tableau 1c).

2.5 La flottille artisanale mahoraise

L'essentiel de la flottille de pêche artisanale côtière mahoraise est composé de 132 barques non-pontées faiblement motorisées (de 20 à 40 CV, parfois 2x150 CV pour les navires allant pêcher sur les bancs éloignés) caractérisant le segment de la flottille des barques professionnelles (Tableau 1c). Les autres sont immatriculées en plaisance et ne peuvent pas exercer une activité professionnelle. Les stratégies et techniques de pêche entre ces deux catégories de navires sont très similaires, ce qui permet d'y appliquer les mêmes méthodes de suivi et de disposer de données sur l'ensemble de la pêche artisanale mahoraise. Une partie des pêcheurs en barque cible les ressources de grands pélagiques à proximité des côtes : bonite à ventre rayé (*Katsuwonus pelamis*), albacore (*Thunnus albacares*), patudo (*Thunnus obesus*), thons mineurs et istiophoridés. Ces espèces sont majoritairement capturées en pêche à la traîne, mais parfois également à la palangrotte autour des DCP ancrés autour de l'île. Mais cette pratique n'est pas nécessairement exclusive et est souvent associée à de la pêche récifale. L'évolution du nombre total de barques entre 2014 et 2024 reflète plus une stabilisation progressive du référentiel « navires » que d'une réelle évolution de la flottille sur ces années.



Tableau 1a. Nombre de senneurs par catégories de capacité de charge (CC en m3) et navires assistance français dans la zone de compétence de la (période 1990 – 2024).

Année	N. senneurs (400 < CC < 1200)	N senneurs (1200 < CC < 2000)	Total senneurs	N. navires assistance	Total CC senneurs (m3)
1990	21	0	21	0	12788
1991	17	1	18	0	12828
1992	15	2	17	0	14101
1993	15	2	17	0	14061
1994	15	2	17	0	13624
1995	15	2	17	0	14080
1996	15	2	17	0	13223
1997	16	3	19	0	13932
1998	13	3	16	0	13105
1999	12	3	15	0	12554
2000	12	3	15	0	12767
2001	15	4	19	0	13276
2002	11	5	16	0	14323
2003	9	5	14	0	13697
2004	10	5	15	0	14123
2005	11	5	16	0	13851
2006	13	5	18	0	17268
2007	14	5	19	0	19098
2008	14	5	19	0	18176
2009	15	3	18	0	13253
2010	11	2	13	0	12416
2011	11	2	13	0	14123
2012	13	2	15	0	13697
2013	11	2	13	0	14973
2014	11	2	13	0	14795
2015	11	1	12	0	13751
2016	11	1	12	0	13596
2017	11	1	12	0	13754
2018	11	1	12	1	13346
2019	11	1	12	3	12118
2020	7	3	10	3	10626
2021	8	3	11	2	10874
2022	7	3	10	2	10648
2023	8	3	11	2	10329
2024	9	2	11	2	11380



Tableau 1b. Nombre d'unités par segment (LHT = longueur hors tout) pratiquant la pêche à la palangre pélagique et le métier de l'hameçon à La Réunion dans la zone de compétence de la CTOI (période 2000 – 2024).

Année	Métier de l'hameçon			Pêche palangrière pélagique		
	Barques (LHT < 6 m)	Vedettes (6 < LHT < 12 m)	Total petite pêche côtière	Palangriers côtiers (LHT < 12m)	Palangriers (LHT > 12 m)	Total palangrier
2004	101	59	160	11	22	33
2005	119	66	185	13	24	37
2006	119	73	192	15	25	40
2007	126	71	197	16	29	45
2008	120	72	192	16	28	44
2009	96	78	174	15	28	43
2010	86	67	153	13	26	39
2011	85	73	158	13	26	39
2012	81	71	152	13	21	34
2013	85	76	161	15	17	32
2014	71	68	139	19	18	37
2015	52	68	120	20	19	39
2016	61	70	131	22	19	41
2017	78	74	152	24	17	41
2018	60	71	131	21	19	40
2019	61	64	125	22	19	41
2020	62	62	124	20	17	37
2021	47	62	109	21	19	40
2022	44	63	107	22	21	43
2023	46	72	118	23	20	43
2024	48	77	125	20	21	41



Tableau 1c. Nombre d'unités de pêche mahoraises par segment (LHT = longueur hors tout) pratiquant la pêche à la palangre pélagique et le métier de l'hameçon dans la zone de compétence de la CTOI (période 2012 – 2024).

Années	Pirogues	Barques non-professionnelles	Barques professionnelles	Palangriers
2012	754	284	160	4
2013	732	324	165	5
2014	696*	396	137	6
2015	735	393	144	4
2016	729	369	145	3
2017	791	n/a	141	3
2018	794	n/a	141	3
2019	794	n/a	143	4
2020	762	n/a	140	4
2021	n/a	n/a	142	2
2022	n/a	n/a	132	2
2023	631**	n/a	142	2
2024	630**	n/a	132	2***

* problèmes pendant le recensement des pirogues en 2014 qui explique la diminution subite du nombre de pirogues par rapport aux années antérieures et postérieures

** Recensement effectué au niveau des points de débarquements par les observateurs du SIH mais probablement sous-estimée car certaines peuvent-être stockées chez les pêcheurs eux-mêmes. Pas d'information concernant le nombre de ces pirogues ayant une activité de pêche régulière.

*** le passage du cyclone CHIDO le 14 décembre 2024 a détruit les deux derniers palangriers restant

3 PRISES ET EFFORT (PAR ESPÈCE ET PÊCHERIE)

3.1 Les débarquements des différentes flottilles

3.1.1 La pêche tropicale à la senne

Les débarquements totaux (toutes espèces) des senneurs tropicaux français en 2024 se sont élevés à 70 897 tonnes (Figure 1a) représentant une augmentation de 5,67% par rapport à la moyenne de 66 878,6 tonnes de la période de référence 2019-2023. Les captures par espèces de la flottille en 2024 sont présentées pour les deux modes de pêche rassemblées ainsi que par type de bancs objets et libres (Tableau 2a, Figure 1b). L'estimation de la composition spécifique des débarquements est basée sur la réalisation d'échantillons de taille et de composition spécifique à l'échelle des cuves des senneurs (cf. Partie 6 du rapport) et les calculs ont conduit à une estimation de la composition spécifique avec 38,93% de thon albacore, 52,25% de listao et 7,32% de thon obèse correspondant à un volume respectif en tonnes de 27 602, 37 046 et 5 188.

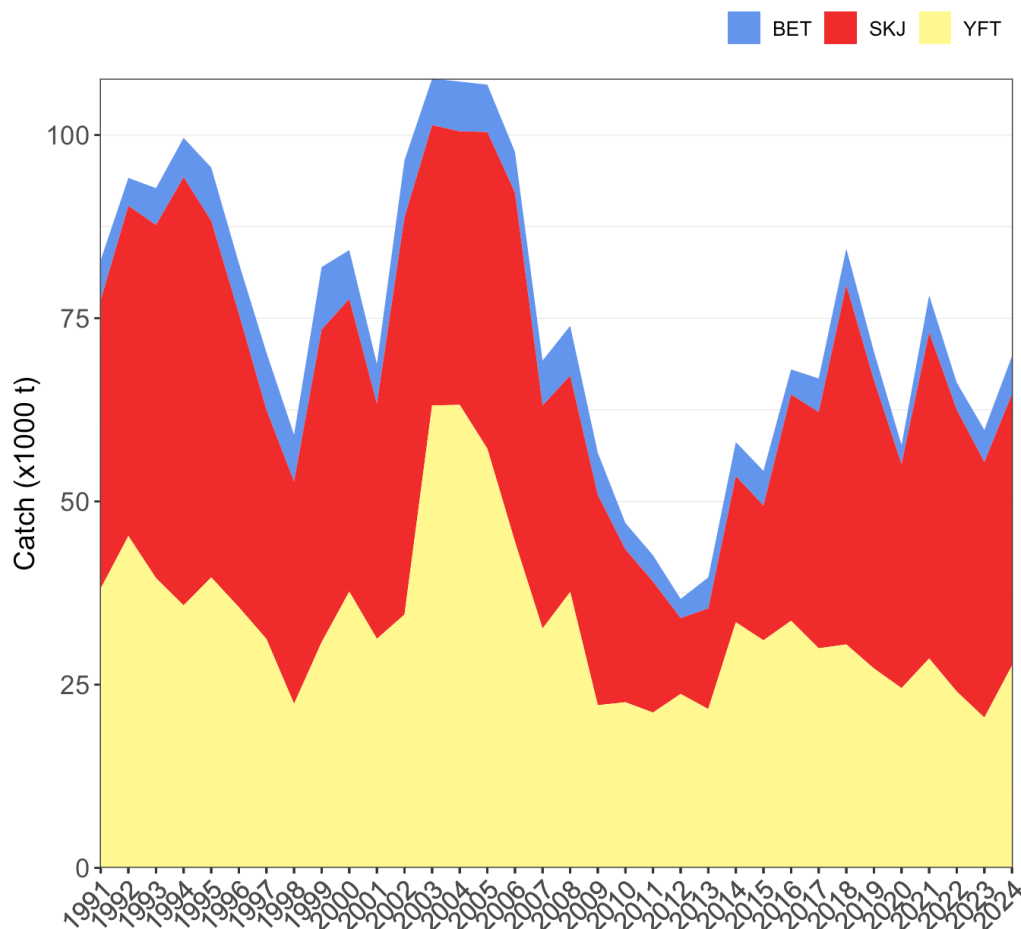


Figure 1a. Prises annuelles historiques par espèce de la flottille à la senne dans la zone de compétence de la CTOI.

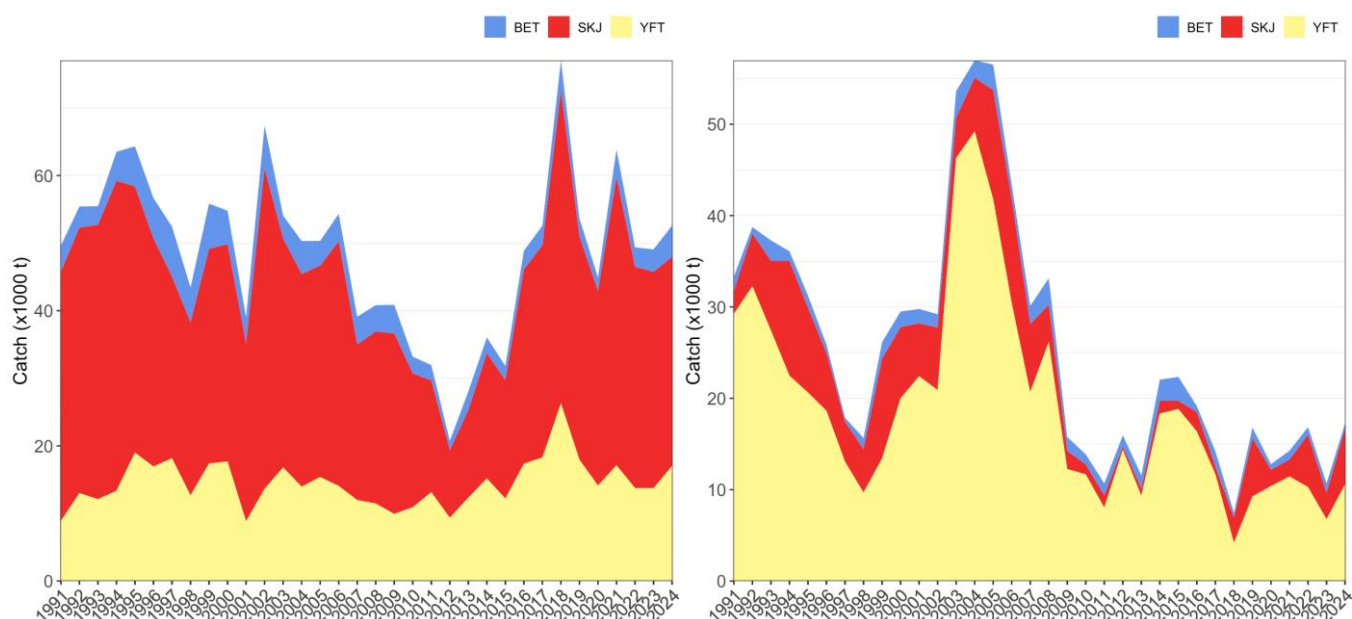


Figure 1b. Prises annuelles historiques par espèce et par mode de pêche (A gauche - Objet flottants = FOB, A droite - banc libre = FSC) de la flottille à la senne dans la zone de compétence de la CTOI.

Tableau 2a. Débarquements par espèce et effort annuels de la flottille de senneurs (2019 – 2024) dans la zone de compétence de la CTOI.

	Année	Nombre de coups de pêche	YFT	SKJ	BET	ALB	NCA (*)	TOTAL
Total	2019	2561 (2186)	27208	39357	3890	56	111	70622
	2020	2414 (2102)	24525	30569	2621	101	332	58149
	2021	2561 (2234)	28572	44484	5067	61	123	78307
	2022	2316 (1973)	24052	38454	3711	23	431	66671
	2023	2560 (2240)	20512	34872	4374	11	874	60644
	2024	3059 (2508)	27602	37046	5188	26	1036	70897
Bancs objets	2019	1919 (1802)	17949	33007	2698	41	110	53805
	2020	1895 (1805)	14135	28768	2017	14	331	45265
	2021	2012 (1894)	17128	42645	4080	43	123	64020
	2022	1629 (1573)	13766	32734	2874	12	415	49802
	2023	2079 (1980)	13747	32004	3324	6	847	49928
	2024	2157 (2053)	17028	30936	4628	13	957	53561
Bancs libres	2019	642 (384)	9259	6350	1192	15	1	16817
	2020	516 (297)	10391	1801	604	88	1	12884
	2021	549 (340)	11444	1839	987	18	0	14287
	2022	687 (400)	10285	5719	836	11	16	16869
	2023	481 (260)	6765	2868	1051	5	27	10716
	2024	902 (455)	10574	6110	560	14	79	17336

(*) Catégorie « non comprises ailleurs - NCA » pour toutes les autres captures combinées

3.1.2 La pêche palangrière réunionnaise

Les débarquements des palangriers de la flottille semi-industrielle pour la période 2000-2024 sont présentés sur la Figure 1c et le Tableau 2b présente un extrait des données de débarquements pour les 5 dernières années (2018 – 2024). Mis à part un léger pic observable en 2005, on peut noter une diminution progressive des captures (3 300 tonnes en 2007 à 2 032 tonnes en 2023) pour des efforts variables compris entre environ 3 et 4,2 millions d'hameçons. La composition spécifique des captures pour les espèces commerciales principales en 2023 est de 43 % d'espadon, 16% de thon albacore, 7 % de thon obèse et 14 % de thon germon (Tableau 2b, Figure 1c).

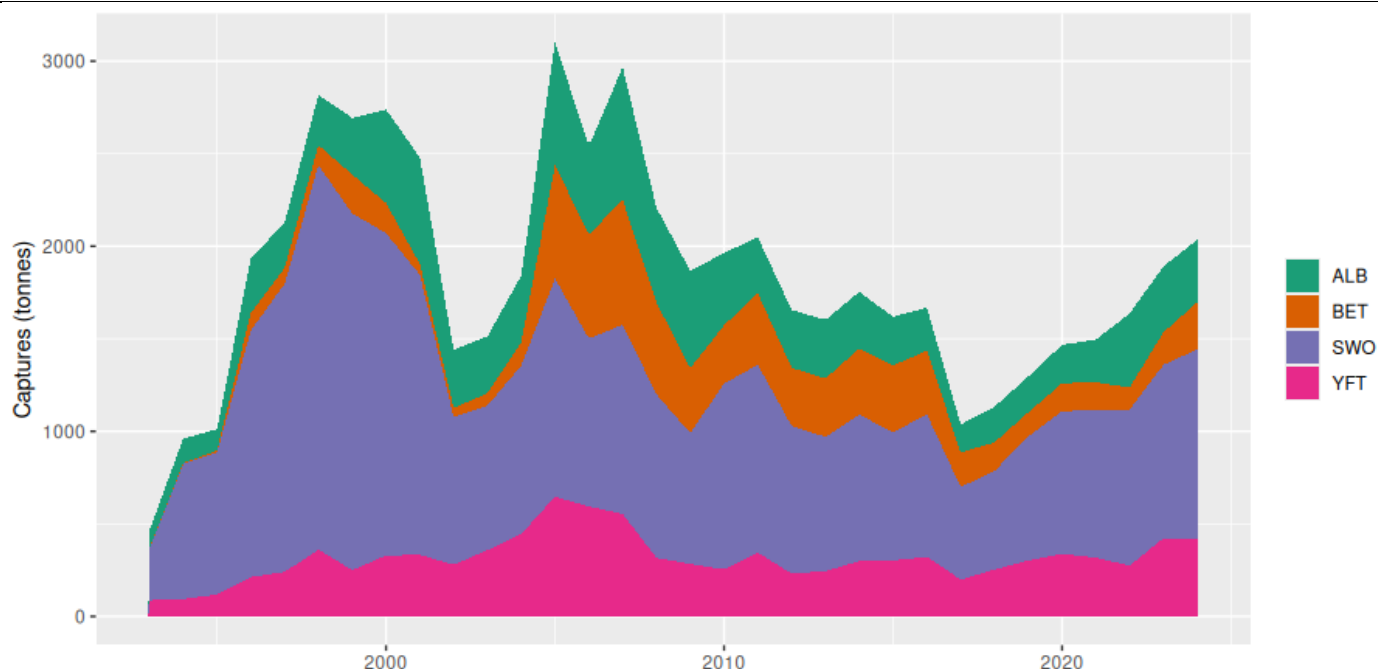


Figure 1c. Prises annuelles historiques par espèce de la flottille palangrière hauturière réunionnaise (LHT > 12 m) dans la zone de compétence de la CTOI.

Tableau 2b. Débarquements (en tonne) par espèce (ou groupe d'espèces) et effort de pêche (millions d'hameçons) annuels de la flottille des palangriers hauturiers réunionnais (LHT > 12 m) pour la période 2015 – 2024 dans la zone de compétence de la CTOI.

Année	Espadon	Albacore	Thon germon	Thon obèse	Autres	Total	Effort (*10 ⁶)
2015	692	302	263	362	193	1812	3.53
2016	771	322	232	343	217	1885	4
2017	500	199	151	187	134	1171	3.1
2018	533	253	193	154	149	1282	3.3
2019	668.5	302.4	193.3	132	123.7	1419.9	4.05
2020	771.3	338.9	207.6	149.5	145.0	1613.0	3.69
2021	793.9	316.6	230.6	154.2	168.4	1663.6	3.42
2022	843.8	275.1	400.1	117.8	139.3	1776.1	3.61
2023	937.5	422.1	356.0	175.9	140.6	2032.1	3.67
2024	1023.3	419.7	337.1	254.4	143.8	2178.2	4.00

3.1.3 La flottille côtière réunionnaise

Les palangriers côtiers de moins de 12 m

Pour cette flottille, les estimations sont réalisées à partir de fiches déclaratives considérées comme fiables. On note que les captures sont relativement stables avec une baisse en 2017. En 2024, l'effort de pêche s'est élevé à 0,45 millions hameçons pour une production débarquée estimée de 433,6 t, chiffre relativement par rapport à 2018 (Tableau 2c). L'espadon, espèce cible de la flottille, représente 30% des débarquements.



Tableau 2c. Débarquements (en tonne) par espèce (ou groupe d'espèces et effort de pêche (millions d'hameçons) annuels de la flottille des palangriers réunionnais côtiers (LHT < 12 m) pour la période 2015 – 2024 dans la zone de compétence de la CTOI.

Année	Espadon	Albacore	Thon germon	Thon obèse	Autres	Total	Effort (*10 ⁶)
2015	145.1	102.7	75.2	29.2	76.1	428.3	0.662
2016	161.4	94.5	73.7	19.8	93.5	442.9	0.614
2017	116	61	53	12	63	305	0.733
2018	144	95	65	19	84	407	0.688
2019	159.9	85.3	55	14.6	61.9	376.7	0.521
2020	125.4	102.2	60.4	14.5	86.2	388.6	0.488
2021	120.4	110.0	90.1	22.1	100.4	443.0	0.454
2022	157.4	118.6	111.8	22.5	91.6	501.9	0.601
2023	161.0	150.7	98.8	22.8	106.5	539.8	0.42
2024	131.2	113.8	70.2	26.3	92.1	433.6	0.45

La petite pêche côtière des unités de moins de 12 m

Les données de débarquements présentées pour la petite pêche côtière réunionnaise (Tableau 2d) sont issues d'estimations basées sur des enquêtes aux débarquements et sur l'activité des unités de pêche enquêtées.

Tableau 2d. Débarquements (en tonne) par espèce de la petite pêche côtière à La Réunion pour la période 2015 – 2024 dans la zone de compétence de la CTOI (estimations Obsdeb en 2022).

Année	Albacore	Thon germon	Listao	Marlins	Dorade	Wahoo	Autres	Total
2015	222.4	30.3	8.2	62.1	108.1	41.4	22	494.5
2016	310.7	13.3	17.5	67	154.4	68.8	2.9	634.6
2017	277.1	67.2	28.3	86.1	158.2	55.3	4.4	676.6
2018	275.5	18.7	34.5	186.7	157.5	104.1	4.1	781.1
2019	166.3	20.6	15.3	75.5	104.2	81.1	4.75	467.75
2020	208.1	17.8	23.5	189.7	52.8	45.1	2.1	539.4
2021	235.2	16.5	30.3	82.7	101.7	38.0	11.2	515.6
2022	114.7	21.0	8.9	32.7	78.1	14.6		274.1
2023	171.0	36.0	20.1	60.1	83.1	30.4	2.5	403.2
2024	97.0	29.4	14.6	31.8	54.5	11.8	4.7	244.8



3.1.4 La flottille côtière mahoraise

Les palangriers côtiers Mahorais

La quantification des captures se fait sur la base des déclarations de l'armement et des notes de ventes lorsqu'elles existent. En 2024, 2 navires étaient en activité, ils avaient réalisé une capture totale de 48,9 tonnes (Tableau 2e). En 2020, aucune vente a été réalisée à la coopérative et l'armement, ayant deux navires actifs, n'a pas désiré partager ses données de captures et d'efforts.

Tableau 2e. Débarquements en tonnes des palangriers de Mayotte dans la période 2015-2024 dans la zone de la CTOI (source notes de vente et déclaration des armements)

Année	TUN	YFT	ALB	BET	BIL	BLM	BUM	SFA	SWO	DOL	NCA	TOTAL
2015	20.7				1.7			1.5	16.3	1.0	0.5	41.7
2016	32.8				1.6			2.6	21.9	0.4	0.4	59.7
2018		6.8	2.3	7.9		0.5	0.2	1.2	19.6	0.7	0.1	39.3
2019		26.6	0.4	9.9		0.1	1.2	0.9	21.1	0.1	0.1	60.4
2020												
2021		9.0	0.1	0.9		0.3	0.1	0.4	6.4	0.1		17.3
2022		39.1	0.7	5.1		1.5		1.6	22.9	0.6		71.5
2023		37.6	0.3	1.9		2.6		1.3	23.5	0.3		67.5
2024		20.712	0.372	5.888		1.325		1.198	19.126	0.320	0.0368	48.9

La petite pêche côtière mahoraise

Les données d'estimation de cette flottille sont issues des observations aux débarquements dans le cadre du programme OBSDEB. En 2024, les données présentées ne concernent que les navires professionnels (Tableau 2f). Un échantillon de 655 marées pour 53 navires professionnels (18 % des marées échantillonnées).

Tableau 2f. Débarquements (en tonnes) par espèce de la petite pêche côtière mahoraise et effort de pêche en nombre de marées pour la période 2015-2024 dans la zone de compétence de la CTOI (estimations obsdeb 2022).

Année	YFT	DOL	SWO	ALB	SKJ	BIL	BET	Autre	Nombre de marées
2015	56.6	1.3	0.6	0.9	37.8	0.2	11.8	21.2	2566
2016	38.5	2.9			82.7	61.7	4.1	56.9	2654
2017	108.2	8.6	11.0		127.2	7.2	7.6	18.4	3179
2018	50.3	2.7	1.5	0.6	146.9	0.2	0.3	22.9	2894
2019	57.6	1.9	8.2	9.8	53.7			15.3	4111
2020	57.9	2.3	1.4		61.4	0.1	28.2	41.0	2673
2021	151.4	0.9	0.7	0.2	112.4	13.4	2.5	50.1	6264
2022	145.3	1.2		0.3	95.5	15.0	0.2	24.1	5772
2023	220.0	6.3	0.0	8.9	29.3	0.0	5.74	22.5	5220
2024	47.5	0.8	0.0	1.8	9.6	0.0	3.3	22.8	3625



3.2 L'effort de pêche des différentes flottilles

3.2.1 La flottille des senneurs

Le nombre de jours de pêche a été de 2 383 en 2024, en comparaison avec la moyenne de la période 2019-2023 (1 934,8 jours), on constate une évolution de 23,17%. Le temps des calées en jour est estimé à 490 jours soit 20,56% des jours de pêche.

En 2024, 4 131 DCPd ont été déployés par les senneurs et les navires d'assistance, soit une moyenne de 317 par navires, en comparaison avec la période 2020 – 2023 où il y a eu une moyenne de 4 137 DCPd de déployé par an. On ne constate pas d'évolution majeure par rapport à notre période de référence (2020 – 2023). Les 2 navires d'assistances ont contribué à 28,37% de l'effectif des DCPd déployés en 2024.

Le nombre total de calées réalisées en 2024 par la flottille française est de 3 059 dont 2 508 positives et 551 dites nulles. On constate une évolution de 23,23% du nombre total de calées, en comparaison avec la moyenne (2 482,4) de la période 2019-2023.

Entre 2009 et 2011, le pourcentage de calées sous objets flottants (FOB) était devenu dominant et avait atteint 68% en 2010 pour atteindre un maximum de 90% en 2018. En 2024, il est constaté une diminution de 7,55% (71%) par rapport à la moyenne de la période de référence 2019-2023 (76,8%). Le taux de succès des coups de pêche est de 95,18% pour les FOBs et 50,44% pour les bancs libres (FSC).

Les représentations géographiques de l'effort de pêche (en jours de recherche) pour la flottille de senneurs pour 2024 et la période 2019-2023 sont portées sur les figures 2a-1 et 2b-1, respectivement. Les cartes de la distribution géographique des captures pour les espèces cibles (listao, albacore et patudo) sont reportées sur les figures 3a-1 et 3b-1, respectivement.

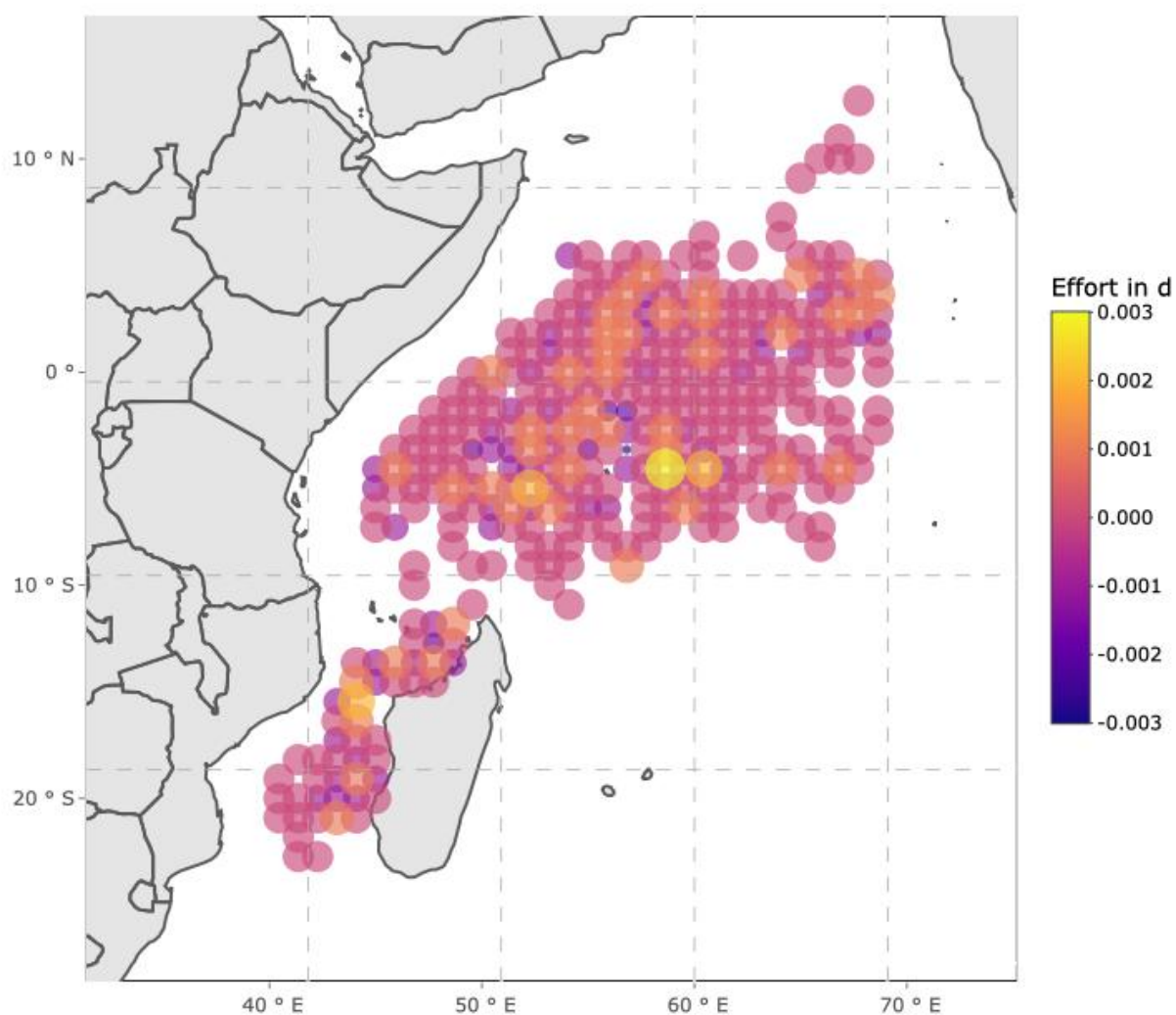


Figure 2a-1. Carte de la répartition de l'effort de pêche (jours de recherche) des senneurs français en 2024 dans la zone de compétence de la CTOI.

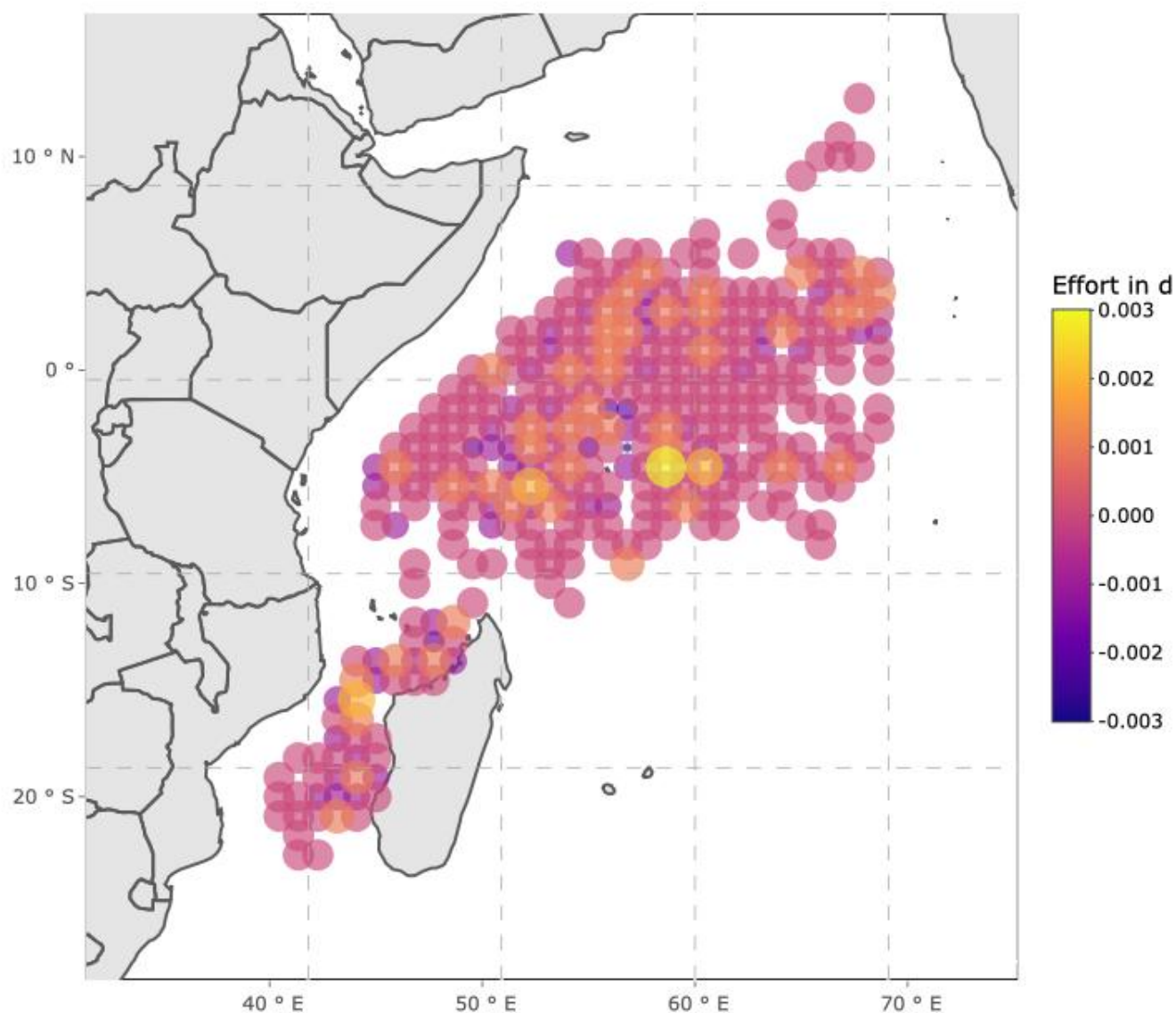


Figure 2b-1. Carte de la répartition de l'effort de pêche moyen (jours de recherche) des senneurs français pour les années 2019 à 2023 dans la zone de compétence de la CTOI.

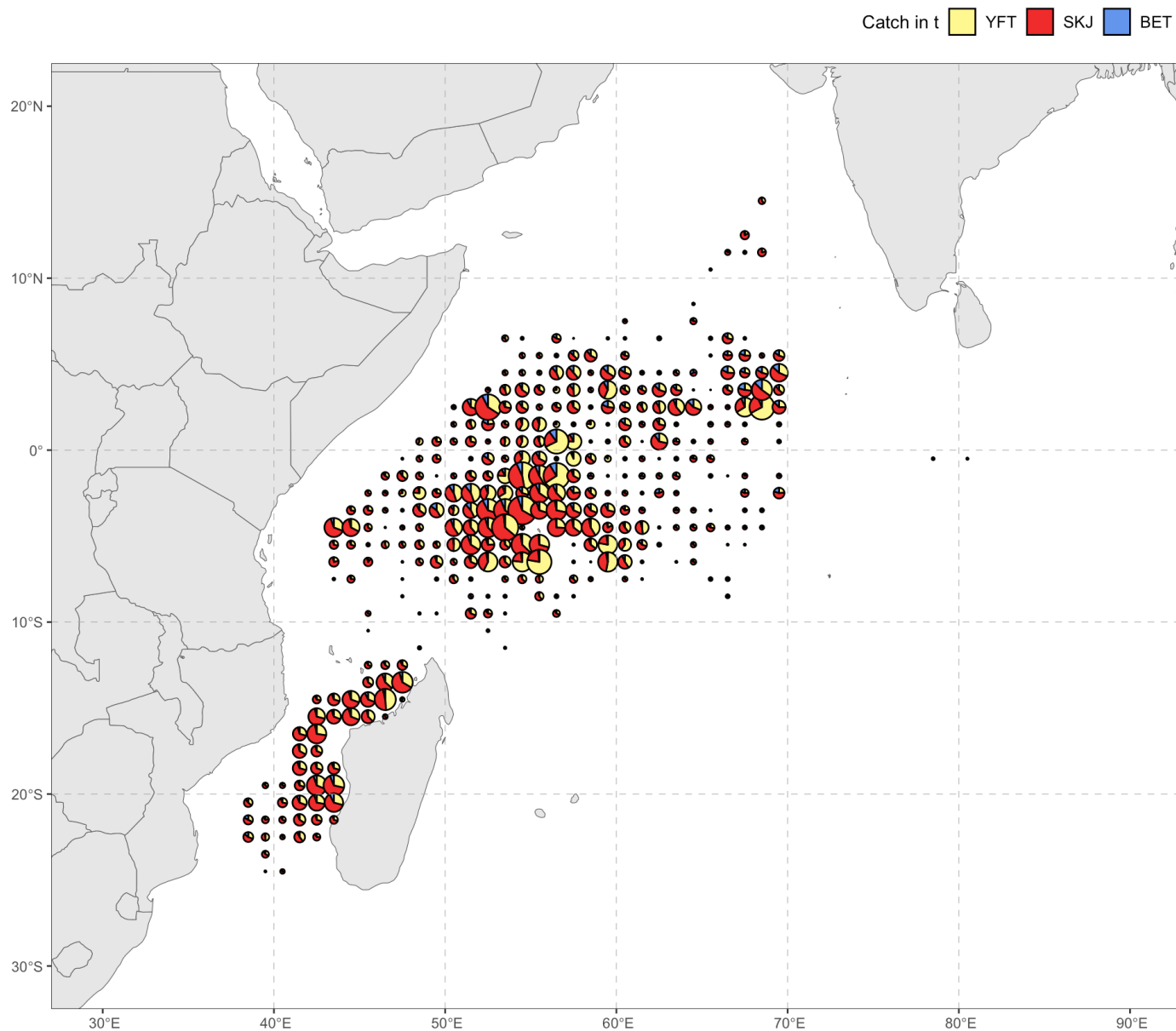


Figure 3a-1. Carte de la répartition des prises par espèces (listao, SKJ ; albacore, YFT ; patudo, BET) en 2024 pour les senneurs français dans la zone de compétence de la CTOI.

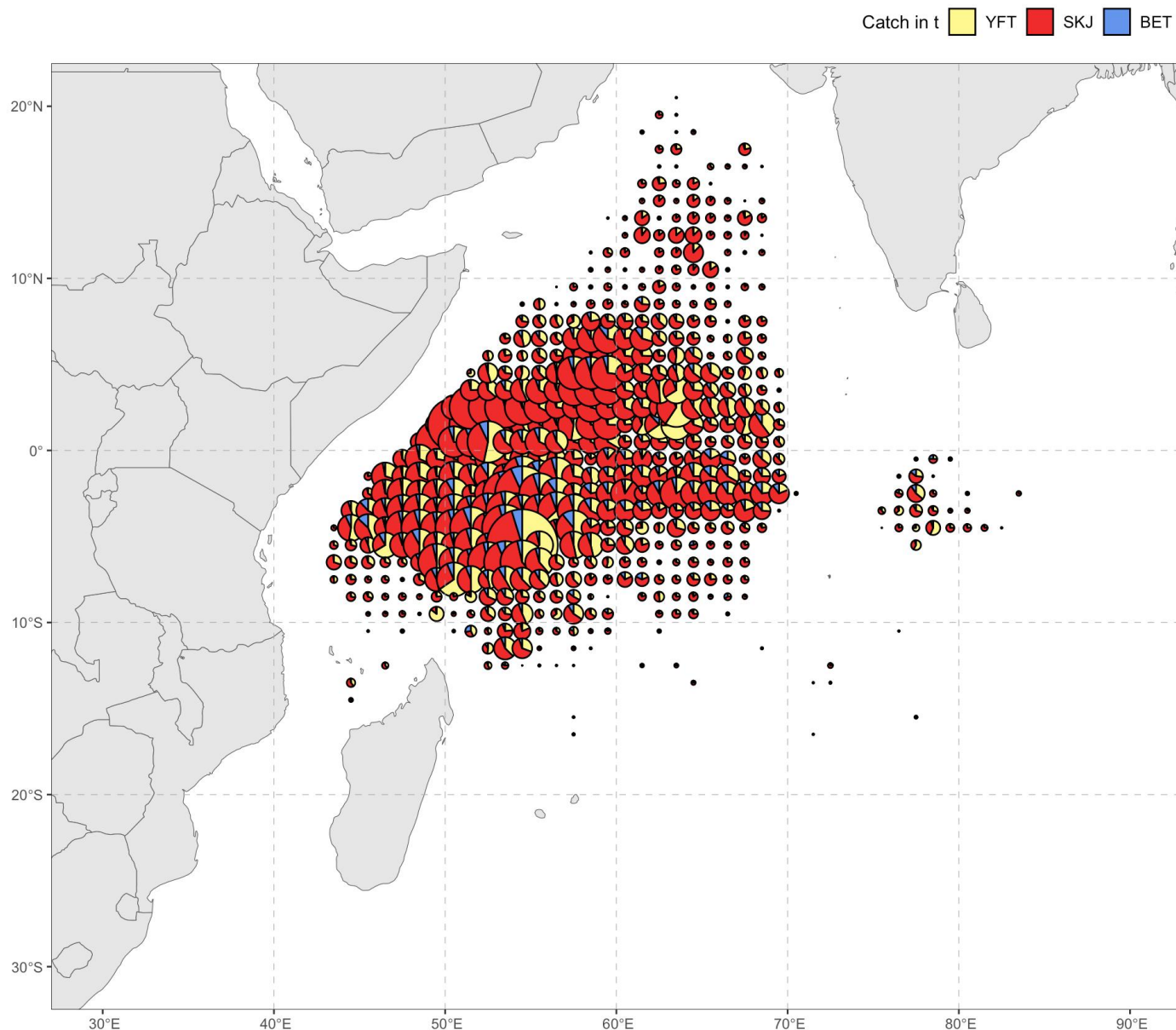


Figure 3b-1. Carte de la répartition moyenne des prises par espèce (listao, SKJ ; albacore, YFT ; patudo, BET) sur la période 2019-2023 pour les senneurs français dans la zone de compétence de la CTOI.

3.2.2 La flottille des palangriers

Pour les palangriers hauturiers de plus de 12 m basés à La Réunion, en 2024, l'effort de pêche atteint 4, millions d'hameçons et le niveau des débarquements s'élève à environ 2 178 tonnes soit une augmentation de l'effort et des captures totales par rapport à 2021 de 17% et 31% respectivement. Les représentations géographiques de l'effort de pêche (en nombre d'hameçons) pour cette flottille de palangriers pour 2024 et la période 2020 – 2024 sont portées sur les figures 2a-2 et 2b-2, respectivement. Les cartes de la distribution géographique des captures pour les espèces

cibles (espadon) et accessoires à valeur commerciale (thon germon, albacore et patudo) sont portées sur les figures 3a-2 et 3b-2, respectivement.

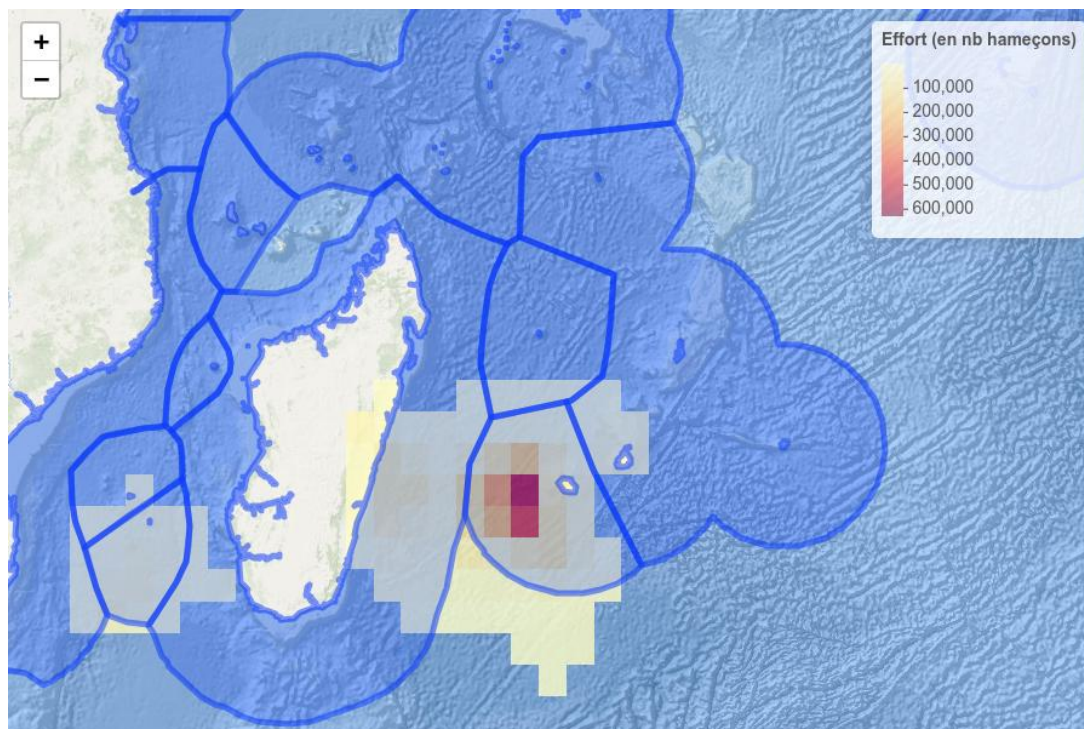


Figure 2a-2. Carte de la répartition de l'effort de pêche (nombre d'hameçons) des palangriers hauturiers français basés à La Réunion en 2024 dans la zone de compétence de la CTOI.

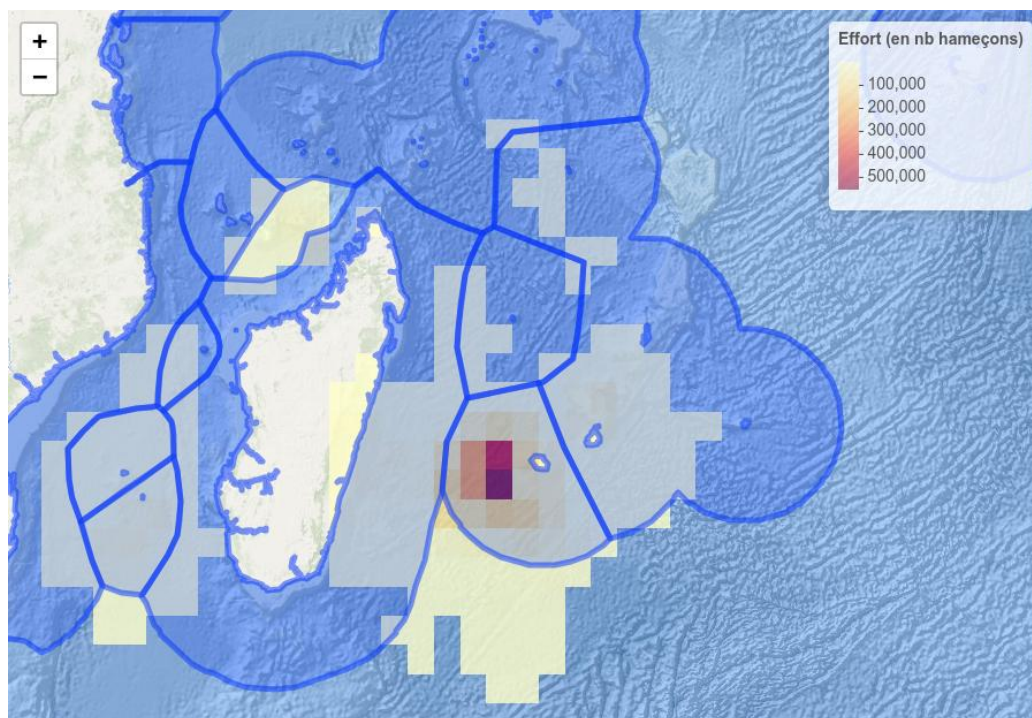


Figure 2b-2. Carte de la répartition de l'effort de pêche moyen (nombre d'hameçons) des palangriers hauturiers français basés à La Réunion pour les années 2020 à 2024 dans la zone de compétence de la CTOI.

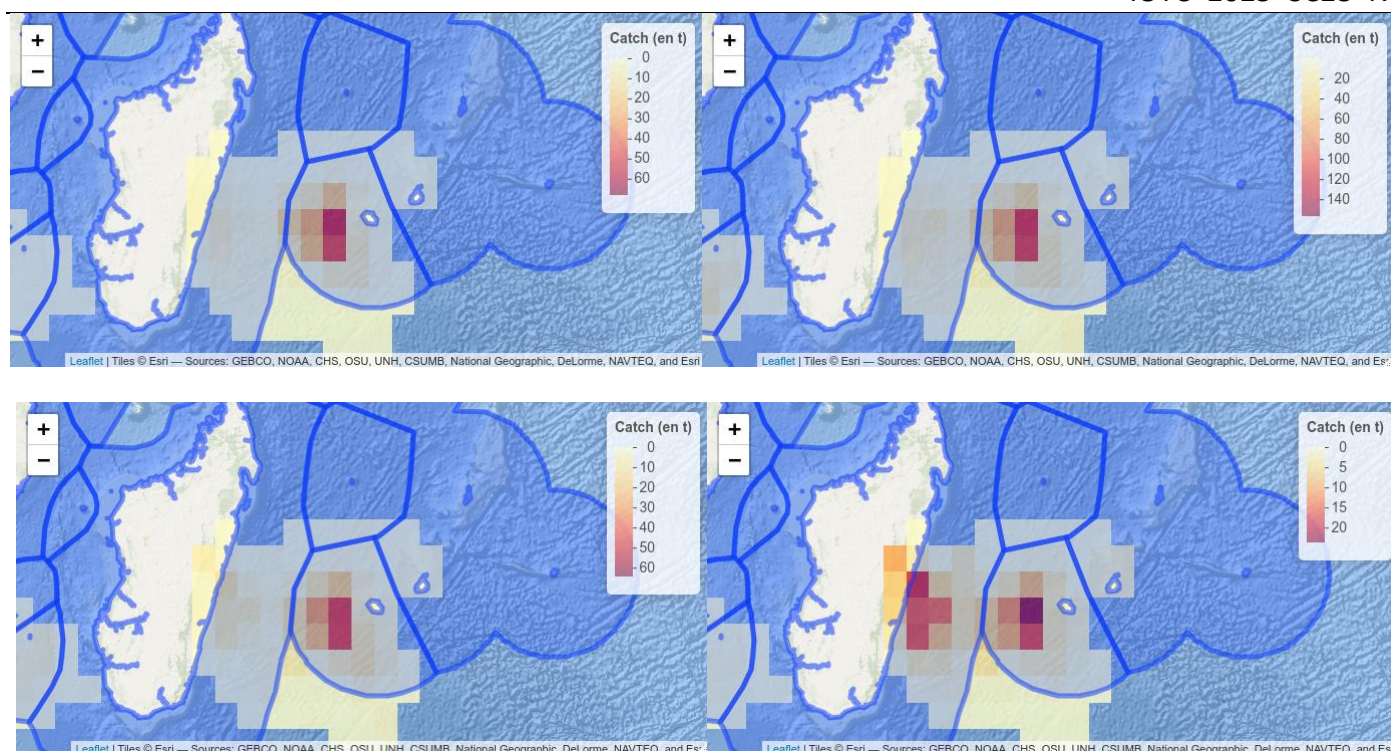


Figure 3b-2. Carte de la répartition des prises par espèce, pour la flottille palangrière dans la zone de compétence de la CTOI (2024) en haut à gauche pour l'espadon, en haut à droite pour le thon germon, en bas à gauche pour l'albacore et en bas à droite pour le thon obèse.

4 PÊCHERIE RÉCRÉATIVE

Il n'y a pas de suivi de la pêche récréative à l'heure actuelle à La Réunion et à Mayotte. Des projets sont en cours avec la Direction de la mer sud océan Indien (DMSOI) à La Réunion et avec le Parc naturel marin à Mayotte afin de suivre cette pêche. Une enquête réalisée par IPSOS a été menée pour estimer les niveaux de captures en lien avec la pêche récréative (rapport de cette enquête disponible [ici](#)).

5 ÉCOSYSTÈMES ET PRISES ACCESSOIRES

Les pêcheries françaises, senne et palangre, capturent des prises accessoires, notamment des espèces sensibles (tortues, requins et raies). L'état du stock de ces espèces sensibles est évalué par la CTOI (*Working Party on Ecosystems and Bycatch* - WPEB) dans la mesure du possible, sachant que peu de données sont disponibles à l'échelle de l'océan Indien. Un certain nombre de projets de recherche portés par la France (voir ci-dessous) visent à améliorer les connaissances en vue d'une meilleure gestion et conservation de ces espèces. Ces travaux sont partagés à la CTOI, notamment au WPEB. Les mesures de gestion et conservation adoptées par la CTOI sont scrupuleusement appliquées par France sur ses pêcheries.

5.1 Requins

5.1.1 PAN-requins

L'Union Européenne a développé en 2009 un PAN-requins (COM(2009) 40 ; SEC(2009) 103 ; SEC(2009) 104 ; SEC(2009) 106).

5.1.2 Requin peau bleue

Les requins peau bleue ne sont pas conservés par les senneurs français (Tableau 3a). Dans cette pêche, les prises de requins peau bleue sont rares et ces derniers sont toujours rejetés en mer, généralement vivants, 100% en 2024 (Tableaux 3a et 4a). En revanche, les captures de requins peau bleue sont fréquentes dans la pêche palangrière réunionnaise ciblant l'espadon (Tableaux 3b et 4b). Les requins peau bleue ne sont généralement pas conservés (Tableau 3b). Ceux qui sont relâchés ne sont généralement pas montés à bord et repartent majoritairement vivants, 85% en 2024 (Tableau 4b).

Dans les deux cas, les programmes d'observation en mer, couvrant une fraction de l'effort de pêche (réglementairement un minimum de 5% selon la Résolution 22/04 de la CTOI et le règlement UE 2022/2343), permettent de vérifier ces pratiques et d'estimer les quantités de requins peau bleue conservées et rejetées. Ce sont par ailleurs ces données "observateur" qui sont utilisées comme source pour la restitution à la CTOI des données concernant les rejets des espèces accessoires.

Tableau 3a. Nombre observé de requins et raies, par espèce, conservés par les senneurs français opérant dans la zone de compétence de la CTOI (2019–2024). Ces données correspondent aux données brutes “observateur” sans élévation à l’effort total de pêche.

Senne			Années	2019	2020	2021	2022	2023	2024
Couverture observateur (%)				44	25	20	27	45	39
Groupe	Espèce	Code FAO	N Conservés						
Requins	<i>Alopias pelagicus</i>	PTH	0	0	0	0	0	0	0
	<i>Alopias spp</i>	THR	0	0	0	0	0	0	0
	<i>Alopias superciliosus</i>	BTH	0	0	0	0	0	0	0
	Carcharhinidae	RSK	0	0	0	0	0	0	0
	<i>Carcharhinus albimarginatus</i>	ALS	0	0	0	0	0	0	0
	<i>Carcharhinus falciformis</i>	FAL	99	0	0	0	0	1	0
	<i>Carcharhinus longimanus</i>	OCS	0	0	0	0	0	0	0
	<i>Carcharhinus spp</i>	CWZ	0	0	0	0	0	0	0
	<i>Galeocerdo cuvier</i>	TIG	0	0	0	0	0	0	0
	<i>Isurus oxyrinchus</i>	SMA	0	0	0	0	0	0	0
	<i>Isurus spp</i>	MAK	0	0	0	0	0	0	0
	<i>Lamna nasus</i>	POR	0	0	0	0	0	0	0
	<i>Prionace glauca</i>	BSH	0	0	0	0	0	0	0
	<i>Pseudocarcharias kamoharai</i>	PSK	0	0	0	0	0	0	0
	<i>Rhincodon typus</i>	RHN	0	0	0	0	0	0	0
	Selachimorpha	SKH	0	0	0	0	0	0	0
	<i>Sphyrna lewini</i>	SPL	0	0	0	0	0	0	0
	<i>Sphyrna mokarran</i>	SPK	0	0	0	0	0	0	0
	<i>Sphyrna spp</i>	SPN	0	0	0	0	0	0	0
	<i>Sphyrna zygaena</i>	SPZ	0	0	0	0	0	0	0
Raies	<i>Manta spp</i>	MNT	0	0	0	0	0	0	0
	<i>Mobula birostris</i>	RMB	0	0	0	0	0	0	0
	<i>Mobula mobular</i>	RMM	0	0	0	0	0	0	0
	<i>Mobula spp</i>	RMV	0	0	0	0	0	0	0
	<i>Mobula tarapacana</i>	RMT	0	0	0	0	0	0	0
	Mobulidae	MAN	0	0	0	0	0	0	0
	<i>Pteroplatytrygon violacea</i>	PLS	0	0	0	2	0	1	
	Rajiformes	SRX	0	0	0	0	0	0	0



Tableau 3b. Nombre observé de requins et raies, par espèce, conservés par les palangriers français opérant dans la zone de compétence de la CTOI (2019–2024). Ces données correspondent aux données brutes “observateur” sans élévation à l’effort total de pêche.

Palangre			Années	2019	2020	2021	2022	2023	2024
Couverture observateur (%)				10,6	13,9	16,4	16,0	15,1	13,4
Groupe	Espèce	Code FAO	N Conservés						
Requins	<i>Alopias pelagicus</i>	PTH	0	0	0	0	0	0	0
	<i>Alopias</i> spp	THR	0	0	0	0	0	0	0
	<i>Alopias superciliosus</i>	BTH	0	0	0	0	0	0	2
	Carcharhinidae	RSK	0	0	0	0	0	0	0
	<i>Carcharhinus albimarginatus</i>	ALS	0	0	0	0	0	0	0
	<i>Carcharhinus falciformis</i>	FAL	12	1	4	3	4	0	0
	<i>Carcharhinus longimanus</i>	OCS	3	1	9	0	1	0	0
	<i>Carcharhinus</i> spp	CWZ	0	0	0	0	0	0	0
	<i>Galeocerdo cuvier</i>	TIG	0	0	0	0	0	0	1
	<i>Isurus oxyrinchus</i>	SMA	8	2	6	6	3	2	2
	<i>Isurus</i> spp	MAK	12	7	9	2	4	4	4
	<i>Lamna nasus</i>	POR	0	0	0	0	0	0	0
	<i>Prionace glauca</i>	BSH	106	185	360	306	291	27	27
	<i>Pseudocarcharias kamoharai</i>	PSK	0	0	0	0	0	0	0
	<i>Rhincodon typus</i>	RHN	0	0	0	0	0	0	0
	Selachimorpha	SKH	0	1	0	0	0	0	2
	<i>Sphyrna lewini</i>	SPL	0	0	0	0	0	0	0
	<i>Sphyrna mokarran</i>	SPK	0	0	0	0	0	0	0
	<i>Sphyrna</i> spp	SPN	0	0	0	0	1	0	0
	<i>Sphyrna zygaena</i>	SPZ	0	0	0	0	0	0	0
Raies	<i>Manta</i> spp	MNT	0	0	0	0	0	0	0
	<i>Mobula birostris</i>	RMB	0	0	0	0	0	0	0
	<i>Mobula mobular</i>	RMM	0	0	0	0	0	0	0
	<i>Mobula</i> spp	RMV	0	0	0	0	0	0	0
	<i>Mobula tarapacana</i>	RMT	0	0	0	0	0	0	0
	Mobulidae	MAN	0	0	0	0	0	0	0
	<i>Pteroplatytrygon violacea</i>	PLS	1	13	20	0	1	0	0
	Rajiformes	SRX	0	0	0	0	0	0	0



Tableau 4a. Nombre observé de requins et raies, par espèce, relâchés ou rejetés par les senneurs français opérant dans la zone de compétence de la CTOI (2019–2024). Inclure l'état des animaux à la remise à l'eau/rejet, si possible. Ces données correspondent aux données brutes "observateur" sans élévation à l'effort total de pêche. "R. viv." : rejetés vivants ; "R. mor." : rejetés morts ; "% viv." : pourcentage rejeté vivant

Senne			Années			2019			2020			2021			2022			2023			2024		
Couverture observateur (%)			44			25			20			27			45			39					
Groupe	Espèce	Code FAO	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.
Requins	<i>Alopias pelagicus</i>	PTH	0	1	0	0	1	0	0	0	-	0	0	-	0	1	0	0	0	-	0	0	-
	<i>Alopias spp</i>	THR	0	0	-	0	0	-	0	0	-	0	0	-	2	0	100	0	0	-	0	0	-
	<i>Alopias superciliosus</i>	BTH	0	0	-	0	1	0	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	Carcharhinidae	RSK	0	0	-	0	0	-	0	0	-	0	0	-	12	7	63	0	0	-	0	0	-
	<i>Carcharhinus albimarginatus</i>	ALS	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	<i>Carcharhinus falciformis</i>	FAL	3125	3627	46	1192	3397	26	1235	1949	39	1987	3014	40	2257	3360	40	2646	2208	55			
	<i>Carcharhinus longimanus</i>	OCS	28	13	68	18	4	82	18	6	75	31	9	78	101	25	80	48	7	87			
	<i>Carcharhinus spp</i>	CWZ	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	<i>Galeocerdo cuvier</i>	TIG	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	<i>Isurus oxyrinchus</i>	SMA	0	0	-	0	1	0	1	0	100	2	1	67	0	0	-	1	0	100			
	<i>Isurus spp</i>	MAK	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	<i>Lamna nasus</i>	POR	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	<i>Prionace glauca</i>	BSH	0	0	-	1	0	100	0	1	0	0	0	-	0	0	-	2	0	100			
	<i>Pseudocarcharias kamoharai</i>	PSK	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	<i>Rhincodon typus</i>	RHN	24	0	100	0	0	-	14	0	100	3	0	100	0	0	-	28	0	100			
	Selachimorpha	SKH	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-



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Raies	<i>Sphyrna lewini</i>	SPL	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	<i>Sphyrna mokarran</i>	SPK	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	<i>Sphyrna spp</i>	SPN	0	1	0	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	<i>Sphyrna zygaena</i>	SPZ	3	0	100	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	<i>Manta spp</i>	MNT	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	<i>Mobula birostris</i>	RMB	5	1	83	2	0	100	0	0	-	0	0	-	3	0	100	5	0	100
	<i>Mobula mobular</i>	RMM	7	1	88	3	2	60	2	0	100	0	0	-	13	2	87	15	3	83
	<i>Mobula spp</i>	RMV	1	0	100	4	1	80	0	0	-	0	0	-	6	0	100	3	1	75
	<i>Mobula tarapacana</i>	RMT	3	1	75	2	3	40	0	3	0	0	0	-	1	1	50	0	0	-
	Mobulidae	MAN	0	0	-	0	0	-	0	0	-	0	0	-	1	0	100	0	0	-
	<i>Pteroplatytrygon violacea</i>	PLS	0	0	-	2	19	10	9	11	45	0	0	-	15	23	39	10	13	43
	Rajiformes	SRX	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-



Tableau 4b. Nombre observé de requins et raies, par espèce, relâchés ou rejetés par les palangriers pélagiques français opérant dans la zone de compétence de la CTOI (2019–2024). Inclure l'état des animaux à la remise à l'eau/rejet, si possible. Ces données correspondent aux données brutes "observateur" sans élévation à l'effort total de pêche. "R. viv." : rejetés vivants ; "R. mor." : rejetés morts ; "% viv." : pourcentage rejeté vivant

Palangre			Années			2019			2020			2021			2022			2023			2024		
Couverture observateur (%)			10,6			13,9			16,4			16,0			15,1			13,4					
Groupe	Espèce	Code FAO	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.
Requins	<i>Alopias pelagicus</i>	PTH	1	0	100	0	0	-	0	0	-	1	0	100	0	0	-	0	0	-	0	0	-
	<i>Alopias</i> spp	THR	6	2	75	15	8	65	3	1	75	8	0	100	21	1	95	1	1	50			
	<i>Alopias superciliosus</i>	BTH	2	1	67	0	1	0	0	1	0	1	0	100	2	0	100	0	0	-	0	0	-
	Carcharhinidae	RSK	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	<i>Carcharhinus albimarginatus</i>	ALS	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	<i>Carcharhinus falciformis</i>	FAL	42	57	42	101	27	79	51	96	35	108	48	69	474	197	71	187	200	48			
	<i>Carcharhinus longimanus</i>	OCS	77	32	71	175	24	88	170	33	84	141	36	80	251	32	89	228	56	80			
	<i>Carcharhinus</i> spp	CWZ	0	0	-	1	1	50	42	3	93	95	82	54	58	16	78	39	3	93			
	<i>Galeocerdo cuvier</i>	TIG	6	1	86	16	1	94	21	1	95	15	1	94	23	2	92	37	2	95			
	<i>Isistius brasiliensis</i>	ISB	0	0	-	0	0	-	0	0	-	1	1	50	4	0	100	0	2	0			
	<i>Isurus oxyrinchus</i>	SMA	4	0	100	3	1	75	19	9	68	6	3	67	25	13	66	16	8	67			
	<i>Isurus</i> spp	MAK	6	8	43	21	1	95	11	3	79	30	5	86	16	6	73	6	4	60			
	<i>Lamna nasus</i>	POR	0	0	-	0	0	-	0	0	-	1	0	100	0	0	-	0	0	-	0	0	-
	<i>Prionace glauca</i>	BSH	857	156	85	877	157	85	1064	165	87	1091	95	92	1391	157	90	1094	196	85			
	<i>Pseudocarcharias kamoharai</i>	PSK	2	0	100	0	3	0	0	0	-	0	0	-	0	0	-	0	1	0			
	<i>Rhincodon typus</i>	RHN	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	Selachimorpha	SKH	64	30	68	189	30	86	35	6	85	6	0	100	4	1	80	15	4	79			



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Raies	<i>Sphyrna lewini</i>	SPL	1	1	50	0	0	-	0	2	0	0	0	-	1	2	33	1	2	33
	<i>Sphyrna mokarran</i>	SPK	0	0	-	0	0	-	0	0	-	0	1	0	0	0	-	0	0	-
	<i>Sphyrna spp</i>	SPN	2	8	20	12	3	80	3	0	100	11	2	85	24	10	71	3	2	60
	<i>Sphyrna zygaena</i>	SPZ	0	1	0	0	2	0	1	1	50	1	0	100	0	0	-	0	0	-
	<i>Zameus squamulosus</i>	SSQ	0	0	-	0	0	-	0	0	-	0	1	0	0	0	-	0	0	-
	<i>Manta spp</i>	MNT	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	<i>Mobula birostris</i>	RMB	0	0	-	0	0	-	0	1	0	0	0	-	1	0	100	1	0	100
	<i>Mobula mobular</i>	RMM	0	0	-	0	0	-	0	0	-	1	0	100	0	0	-	0	0	-
	<i>Mobula spp</i>	RMV	2	2	50	0	0	-	1	1	50	2	0	100	1	0	100	0	0	-
	<i>Mobula tarapacana</i>	RMT	0	0	-	0	0	-	1	0	100	2	0	100	0	0	-	0	0	-
	Mobulidae	MAN	0	2	0	0	8	0	2	3	40	1	0	100	0	0	-	0	0	-
	<i>Pteroplatytrygon violacea</i>	PLS	59	525	10	20	895	2	157	1028	13	0	0	-	127	2	98	111	8	93
	Rajiformes	SRX	0	0	-	0	0	-	0	0	-	0	0	-	1	0	100	0	0	-

5.2 Oiseaux de mer

1. Combien de navires ont opéré au sud de 25°S pendant la période couverte par ce rapport ?
2. Parmi ces navires, combien ont utilisé des lignes d'effarouchement des oiseaux (exprimé en pourcentage de l'effort total) ?
3. Parmi ces navires, combien ont utilisé le lestage des lignes (exprimé en pourcentage de l'effort total) ?
4. Parmi ces navires, combien ont utilisé le filage de nuit (exprimé en pourcentage de l'effort total) ?

La pêche palangrière française du sud-ouest de l'océan Indien (basée à la Réunion ainsi que Mayotte) n'est pas concernée par la Résolution 12/06 car elle opère au-dessus de 25°S. De plus, aucune capture d'oiseaux marins n'est à déplorer pour cette pêche (Tableau 5b). Par ailleurs, la palangre ciblant l'espadon est pratiquée avec des filages le soir ou de nuit, avec des lignes (avançons) généralement lestées à 80 g, sans lignes d'effarouchement des oiseaux.

La senne tropicale française n'est pas non plus concernée par la Résolution 12/06 et ne déplore également aucune capture accidentelle d'oiseaux marins (Tableau 5a).

Les programmes d'observation en mer sur les deux pêcheries permettent la récupération d'informations sur les captures d'oiseaux marins, si tant est qu'il y en ait.

5.3 Tortues marines

La Résolution 12/04 de la CTOI sur la conservation des tortues marines est appliquée à l'échelle nationale pour les deux pêcheries tropicales concernées : la senne et la palangre pélagique. Les tortues sont manipulées selon les pratiques recommandées et systématiquement rejetées à la mer (Tableaux 5a et 5b).

Dans le cas de la pêche palangrière réunionnaise, lorsque les tortues sont blessées ou lorsque celles-ci ont avalé l'hameçon et que ce dernier ne peut être retiré à l'aide du kit d'extraction dédié (distribué à tous les pêcheurs), les tortues sont ramenées à terre et remises au centre de soin réunionnais Kelonia.

Les programmes d'observation en mer sur les deux pêcheries permettent la récupération d'informations sur les captures de tortues marines, et c'est cette source de données qui est utilisée pour la fourniture de données annuelle à la CTOI. On retrouvera les rejets de tortues dans les formulaires 1DI ainsi que ROS pour les deux engins de pêche.

5.4 Autres espèces d'intérêt écologique

Les différentes résolutions de la CTOI concernant les requins et raies (Résolutions 19/03 ; 19/02 ; 23/06 ; 12/04 ; 13/05 ; 13/06 ; 17/05 ; 18/02 ; remplacées par les résolutions 25/08 ; 25/09) sont appliquées à l'échelle nationale pour les deux pêcheries tropicales françaises de l'océan Indien : la senne et la palangre pélagique.

Pour la senne, les programmes d'observation à bord couvrant 39 % de couverture de l'effort total de pêche en 2024 indiquent qu'aucun requin et aucune raie n'a été conservé en 2024, à l'exception d'une *Pteroplatytrygon violacea* qui est tombée en cuve par erreur (Tableau 3a). Un certain nombre d'espèces de requins et raies a été capturé (*Carcharhinus falciformis* ; *Carcharhinus longimanus* ; *Isurus oxyrinchus* ; *Prionace glauca* ; *Rhincodon typus* ; *Mobula birostris* ; *Mobula mobular* ; *Mobula spp* ; *Pteroplatytrygon violacea*) mais les individus ont tous été rejetés, vivants ou morts (Tableau 4a).



Pour la palangre réunionnaise, les programmes d'observation couvrant 15 % de l'effort total de pêche en 2024, indiquent que cette-là certains individus des espèces suivantes ont été conservés : *Alopias sparciliosus* (2), *Galeocерdo cuvier* (1), *Isurus oxyrinchus* (2), *Isurus spp* (4), et *Prionace glauca* (27) (Tableau 3b). Autrement, les requins et raies sont rejetés, généralement vivants (Tableau 4b).

La Résolution 23/06 de la CTOI concernant la conservation des mammifères marins a été appliquée à l'échelle nationale pour les deux pêcheries tropicales françaises concernées : la senne et la palangre pélagique.

Pour les senneurs, les coups de pêche sur baleines et autres cétacés sont proscrits mais de très rares interactions arrivent tout de même lorsque ceux-ci n'ont pu être vus avant la calée. En 2024, on notera 2 interactions avec des baleines non identifiées étant reparties vivantes (Tableau 5a).

Pour les palangriers, les interactions avec les cétacés (captures sur la ligne) sont également peu fréquentes et ces derniers sont généralement relâchés vivants (Tableau 5b). En 2024, on notera 4 interactions avec des cétacés à dent parmi lesquels une mortalité pour un dauphin (Tableau 5b).

La Résolution 13/05 remplacée par la résolution 25/08 concernant la conservation des requins, et notamment le requin-baleine interdit d'effectuer un coup de pêche cette pêche si un individu a été repéré avant d'effectuer le coup de pêche. On retrouve cependant parfois des requins-baleines dans les filets des senneurs lorsque ces individus n'ont pu être détectés avant, et ceux-ci sont systématiquement relâchés vivant (Tableau 4a) en suivant le guide des bonnes pratiques de remise à l'eau qui a été développé dans le cadre du projet MADE en 2012 et validé par la CTOI. En 2024, on notera 28 interactions avec des requins-baleines, mais 100% ont pu repartir vivant.



Tableau 5a. Rejets annuels observés d'espèces d'intérêt particulier, par espèce (oiseaux de mer, tortues marines et mammifères marins) des senneurs français opérant dans la zone de compétence de la CTOI (2019–2024).

Senne		Années	2019			2020			2021			2022			2023			2024		
Couverture observateur (%)			44			25			20			27			45			39		
Groupe	Espèce	Code FAO	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.
Tortues	<i>Caretta caretta</i>	TTL	0	0	-	1	0	100	0	0	-	4	0	100	0	0	-	3	0	100
	<i>Chelonia mydas</i>	TUG	7	0	100	8	0	100	5	0	100	6	0	100	9	1	90	2	0	100
	<i>Dermochelys coriacea</i>	DKK	0	0	-	0	0	-	1	0	100	0	0	-	0	0	-	1	0	100
	<i>Eretmochelys imbricata</i>	TTH	4	0	100	1	0	100	0	0	-	0	0	-	0	0	-	1	0	100
	<i>Lepidochelys olivacea</i>	LKV	11	0	100	5	0	100	5	1	83	4	1	80	5	0	100	4	0	100
	Testudinata	TTX	3	0	100	1	0	100	1	0	100	1	2	33	1	0	100	4	0	100
Cétacés	<i>Balaenoptera physalus</i>	FIW	0	0	-	0	0	-	5	0	100	0	0	-	0	0	-	0	0	-
	Delphinidae	DLP	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	<i>Globocephala macrorhynchus</i>	SHW	0	0	-	0	0	-	0	0	-	1	0	100	0	0	-	0	0	-
	<i>Globocephala</i> spp	GLO	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	<i>Grampus griseus</i>	DRR	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	<i>Megaptera novaeangliae</i>	HUW	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	Mystoceti	MYS	0	0	-	1	0	100	0	0	-	0	0	-	0	0	-	2	0	100
	Odontoceti	ODN	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
	<i>Pseudorca crassidens</i>	FAW	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-
Oiseaux	Oiseaux divers	SBD*	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-



Tableau 5b. Rejets annuels observés d'espèces d'intérêt particulier, par espèce (oiseaux de mer, tortues marines et mammifères marins) des palangriers pélagiques français opérant dans la zone de compétence de la CTOI (2019–2024).

Palangre			Années			2019			2020			2021			2022			2023			2024		
Couverture observateur (%)			10,6			13,9			16,4			16,0			15,1			13,4					
Groupe	Espèce	Code FAO	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.	R. viv.	R. mor.	% viv.
Tortues	<i>Caretta caretta</i>	TTL	6	4	60	3	5	38	21	1	95	10	2	83	11	2	85	10	6	62			
	<i>Chelonia mydas</i>	TUG	2	2	50	0	0	-	0	1	0	1	0	100	2	1	67	2	2	50			
	<i>Dermochelys coriacea</i>	DKK	6	0	100	4	0	100	2	0	100	5	0	100	1	1	50	1	0	100			
	<i>Eretmochelys imbricata</i>	TTH	0	0	-	0	1	0	0	1	0	0	0	-	0	0	-	0	0	-			
	<i>Lepidochelys olivacea</i>	LKV	1	2	33	0	0	-	0	0	-	1	1	50	0	0	-	1	0	100			
	Testudinata	TTX	0	0	-	0	1	0	1	0	100	1	1	50	2	0	100	0	0	-			
Cétacés	<i>Balaenoptera physalus</i>	FIW	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-			
	Delphinidae	DLP	0	0	-	0	0	-	1	0	100	0	0	-	1	0	100	1	1	50			
	<i>Globocephala macrorhynchus</i>	SHW	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-			
	<i>Globocephala</i> spp	GLO	0	0	-	1	0	100	0	0	-	0	0	-	1	0	100	1	0	100			
	<i>Grampus griseus</i>	DRR	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-			
	<i>Megaptera novaeangliae</i>	HUW	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-			
	Mystoceti	MYS	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-			
	Odontoceti	ODN	0	0	-	0	0	-	1	0	100	0	0	-	0	0	-	1	0	100			
	<i>Pseudorca crassidens</i>	FAW	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-			
Oiseaux	Oiseaux divers	SBD*	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-	0	0	-			

6 SYSTÈMES NATIONAUX DE COLLECTE ET DE TRAITEMENT DES DONNÉES

6.1 *Collecte et vérification des données issues des fiches de pêche (y compris date de début et état de la mise en œuvre)*

6.1.1 Les senneurs tropicaux

Depuis 2002, les données des flottilles européennes (Espagne et France) sont collectées dans le cadre du « Règlement sur la Collecte des Données » de l'UE (DCR, Reg. 1543/2000 et 1639/2001), remplacé en 2008 par le « Cadre communautaire pour la collecte, la gestion et l'utilisation de données dans le secteur de la pêche et le soutien aux avis scientifiques sur la politique commune de la pêche » (DCF, Reg 2017/1004 and 2016/1251) en collaboration avec la SFA (Seychelles Fishing Authority); l'Unité Statistique Thonière d'Antsiranana (USTA, Madagascar) et Albion Fisheries Research Centre (AFRC, Maurice). L'observatoire des écosystèmes tropicaux exploités (Ob7) de l'IRD coordonne les activités de collecte, analyse, archivage et transmission des données de la pêche thonière tropicale français. Les fiches de pêche font l'objet d'une couverture à 100 % et d'une vérification de cohérence avec les fiches de débarquement et avec les données du système de suivi satellite (VMS = Vessel Monitoring System) qui équipe les navires depuis 2001.

6.1.2 Les palangriers hauturiers réunionnais de plus de 12 m

La mise en place du SIH à La Réunion débuté en 2005 est désormais achevée et le réseau est opérationnel depuis 2007. Néanmoins, suite à la mise en place par la DPMA du Système d'Information des Pêches et de l'Aquaculture (SIPA) et des JBE (journal de bord électronique), de nombreux changements sont intervenus entre 2009 et 2012-2013 sur l'organisation de la collecte et de la saisie des documents déclaratifs. Tout d'abord, une nouvelle application de saisie des documents déclaratifs a été développée par la DPMA en collaboration avec les services informatiques du Ministère de l'Agriculture et de la Pêche (CERIT). L'interface de saisie, nommée « SACAPT », a pris en charge dans sa version initiale à partir de 2009 la saisie du journal de bord européen et de la fiche de pêche nationale. La saisie des documents déclaratifs n'a plus, dans un premier temps, été opérée par l'Ifremer, mais par la société France AgriMer. Dans un second temps, grâce au JBE, les données ont pu être intégrées directement et sans saisie à partir de 2012-2013. Seuls la réalisation des enquêtes d'activité, les observations et les échantillonnages au débarquement, ainsi que les synthèses et avis, à partir des données fournies via « SACROIS » (Figure 9), incombent dorénavant à l'Ifremer.

La mise en place progressive des JBE en 2012-2013 a donc permis une validation des données beaucoup plus rapide à partir de 2014. Les données spatialisées de captures et d'efforts dans les rectangles statistiques CTOI sont obtenues à partir des données VMS.

6.1.3 La petite pêche côtière de la Réunion

Le programme d'observation des marées au débarquement, appelé « ObsDEB », contribue à l'estimation de l'effort de pêche et des captures des flottes de pêche réunionnaises, notamment celles pratiquant les métiers de la ligne de traîne et de la ligne à main.

Seuls les navires de moins de 12 mètres appartenant à la petite pêche côtière sont suivis par enquête au débarquement (OBSDEB).

6.1.4 La flottille palangrière de Mayotte

Comme évoqué précédemment, les flottilles de pêche mahoraises sont suivies depuis 2012 par le SIH, mis en place par le Parc naturel marin de Mayotte (Agence des Aires Marines Protégées, devenue Agence Française pour la Biodiversité en 2017 puis l'Office Française de la Biodiversité en 2020), en partenariat avec l'Ifremer, l'IRD et la DGAMPA, sur fonds propres à l'AAMP. Le SIH bénéficie d'une aide FEAMP (puis FEAMPA) depuis 2017 pour la collecte des données de pêche à Mayotte.

6.1.5 La flottille côtière de Mayotte

L'ensemble des navires de pêche de Mayotte professionnels et « vivriers » est suivi par le SIH Mayotte depuis 2012. L'intégralité des barques de pêche (à l'exception des navires de pêche purement récréative) fait l'objet d'enquêtes annuelles d'activité. Les captures sont estimées grâce à des observations au débarquement quotidiennes, opérées par une équipe d'agents de terrain du Parc dédiés au SIH. Depuis 2012 cette équipe est composée de 4 agents de terrain et d'un coordinateur. L'équipe a été complétée par quatre nouveaux agents en 2015 grâce à l'aide d'un financement Xème FED régional, puis s'est stabilisée à 6 agents de terrain en 2020 sur fonds FEAMP (puis FEAMPA).

L'ensemble des protocoles déployés pour le suivi des activités et des captures des flottilles de pêche artisanales mahoraises est issu du programme SIH de l'Ifremer : calendriers annuels d'activité des navires et action « ObsDeb ». Les enquêtes annuelles d'activité permettent de définir une typologie des flottilles de pêche, ainsi qu'un effort de pêche global en nombre de mois d'activité et de nombre de sorties par métier. Les observations au débarquement permettent de déterminer la composition moyenne, en volume et en espèces, des captures par métier. Ces paniers moyens sont ensuite extrapolés au nombre de sorties estimées par métier.

Ces actions viennent pallier les lacunes dans le système de déclaration des captures par fiches de pêche de navires de moins de 10m. En effet, une minorité d'armateurs répondent à cette obligation de déclaration, et les données déclarées ne sont pas encore versées aux bases de données nationales. En l'absence de systèmes de géolocalisation embarqués, la spatialisation des activités de pêche est permise grâce à l'intégration aux référentiels de la liste des sites de pêche connus et fréquentés par les pêcheurs. Ainsi l'information collectée par les observateurs lors des enquêtes (nom « traditionnel » d'un site de pêche) peut être intégrée dans la base Harmonie de l'Ifremer.

Les données d'activité permettent la production de fiches synthétiques (fiches quartier), qui présentent un certain nombre d'indicateurs sur les navires de pêche et sur les caractéristiques de leurs activités de pêche : ports d'attache, techniques déployées, nombre de marins embarqués... Les données d'observation des débarquements permettent la production de synthèses par métier et à l'échelle du périmètre du Parc, d'estimations des volumes de débarquement et de rendements, flottille par flottille.

6.2 **Mécanisme d'observateurs** (y compris date de début et état ; nombre d'observateurs, inclure le pourcentage de couverture par pêcherie. De même, une description des protocoles soutenant les programmes d'observateurs et les mécanismes d'échantillonnage visés aux paragraphes 3, 4, 6 et 9 de la Rés. 24/04)

6.2.1 Les senneurs tropicaux

Le programme d'observateurs scientifiques embarqués a été mis en place en 2005 sur les senneurs tropicaux avec un objectif de couverture de l'UE de 10-20 % de l'effort de pêche en nombre de calées sachant que le minimum demandé par la CTOI est de 5 % (Rés. 10/04 remplacée par la Rés. 11/04, puis 22/04, 24/04, et finalement 25/06). Mis en suspens mi-2009 en raison d'actes de piraterie dont faisait l'objet la pêcherie, il a repris en 2011 suite à la sécurisation des navires (présence de militaires ou d'agents de sécurité privés à bord) et à une collaboration mise en place avec les TAAF (Terres Australes et Antarctiques Françaises) gérant les ZEE des îles Éparses. Les observateurs embarqués inscrits sur la liste des observateurs nationaux transmise à la CTOI sont formés par Bureau Veritas Living Resources (ex-Oceanic Développement) et les TAAFs.

En 2024, les données "observateur" ont été collectées dans le cadre de 2 programmes :



- le programme européen « Data Collection Framework » piloté par l'IRD dans lequel intervient un maître d'œuvre, Bureau Veritas Living Resources (ex-Oceanic Développement), et qui a contribué à hauteur de 545 calées observées, soit 18 % de couverture des opérations de pêche.
- le programme « Observateur Commun Unique et Permanent » (OCUP) mis en place par l'organisation professionnelle « Orthongel » depuis 2013 a apporté une contribution à la couverture de l'observation des activités de pêche de la flottille avec 643 opérations de pêche observées soit 21 % de l'effort total de pêche.

Ainsi en 2024, 1 188 opérations de pêche ont été observées représentant un taux de couverture de 39 % (Tableau 6a). La Figure 4a-1 présente la distribution géographique des opérations de pêche observées par les 2 programmes DCF et OCUP en 2024. La Figure 4a-2 représente l'historique du taux de couverture des observations des activités de pêche de la pêche française à la senne par des observateurs embarqués dans le cadre du programme européen DCF ainsi que d'OCUP entre 2005 et 2024.

Des données d'observation complémentaires sont collectées à partir d'un suivi électronique réalisé dans le cadre du programme OCUP coordonné par l'organisation professionnelle Orthongel en collaboration avec Bureau Veritas Living Resources et l'IRD. À l'heure actuelle, ces données d'observation électronique ne sont pas fournies à la CTOI ni comptabilisées dans le taux de couverture de l'observation à bord des navires. Ce programme a pour objectif de couvrir l'effort de pêche non couvert par les observateurs embarqués, et cela a représenté 1608 opérations de pêche, soit 53 % de l'effort total en 2024 (Tableau 3a ; Figure 4a-1).

Tableau 3a. Nombre de calées observées et taux de couverture (%) réalisés par les programmes "observateur" de la pêche française à la senne dans l'océan Indien : programme européen DCF et programme Orthongel OCUP en 2024.

Programme	Calées observées	Couverture (%)
DCF Senne (IRD - BVLR)	545	18
OCUP-OB (Orthongel)	643	21
TOTAL	1188	39
OCUP-OE (Orthongel)	1608	53
TOTAL avec OCUP-OE	2796	92

Observer coverage | FRA purse-seiners | Indian Ocean | 2024-2024

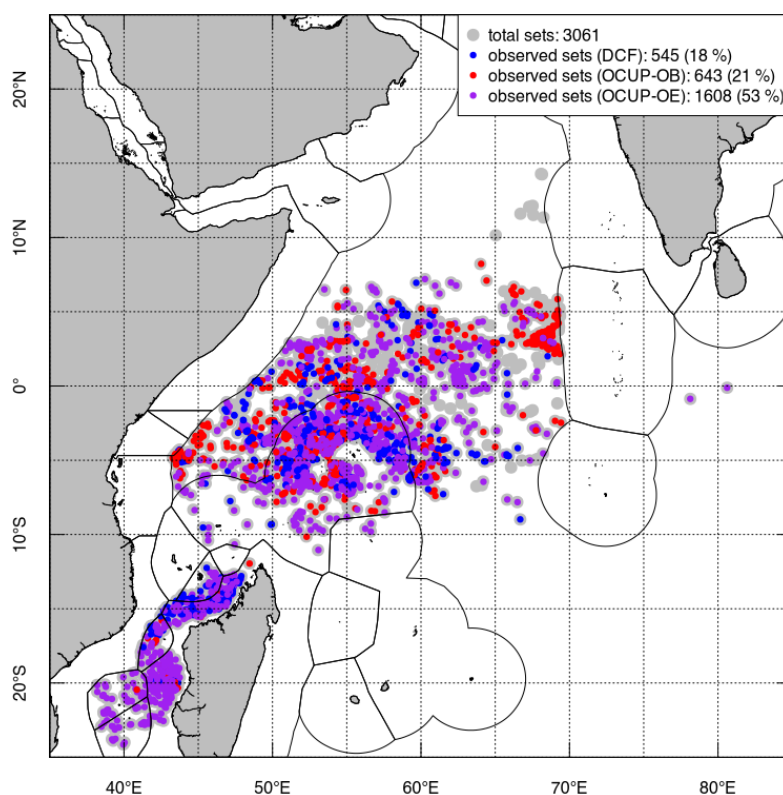


Figure 4a-1. Carte de la répartition spatiale des opérations de pêche observées dans le cadre des programmes "observateur" senne de la DCF (IRD) et d'OCUP (Orthongel) en 2024.

Observer program coverage | FRA purse-seiners | Indian Ocean

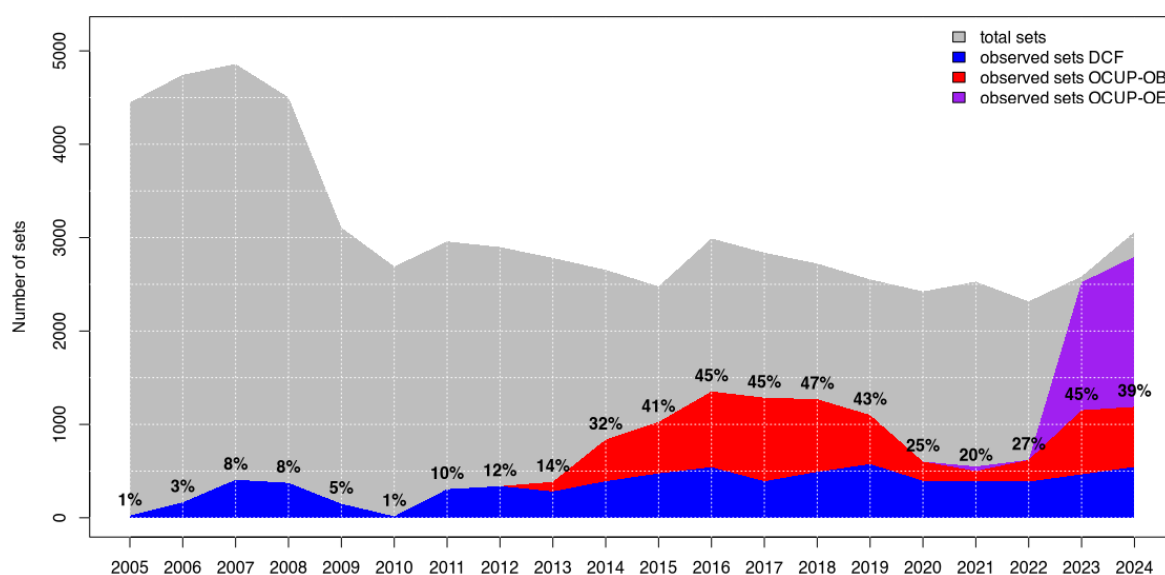




Figure 4a-2 Série temporelle (2005 à 2024) du nombre de calées réalisées et de la couverture “observateur” (%) dans le cadre du programme européen DCF et du programme Orthongel OCUP pour les senneurs tropicaux français dans l’océan Indien.

6.2.2 Les palangriers hauturiers réunionnais de plus de 12 m

Les observations en mer (incluant l’autoéchantillonnage) doivent couvrir à minima 10 % de l’effort de pêche (en nombre d’hameçons déployés) pour satisfaire aux obligations de l’UE sachant que le minimum imposé par la CTOI est de 5% pour les navires de moins de 24 m opérant hors de leur ZEE de pavillonnage.

Les observateurs embarqués et les patrons de pêche impliqués dans l’autoéchantillonnage du programme DCF, coordonné par l’IRD et réalisé par le prestataire CITEB, collectent des informations sur les caractéristiques des opérations de pêche (date, position, gréement de l’engin de pêche), sur les captures et rejets vivants ou morts (toute espèce), ainsi que sur la prédation.

En 2024, les observateurs embarqués ont permis de couvrir 3,9 % de l’effort total de pêche (en nombre d’hameçons déployés) et l’autoéchantillonnage 9,5 % (Figure 4b-1) soit une couverture totale de 13,4 % (Figures 4b-1 et 4b-2).

Tableau 3b. Couverture annuelle des opérations de pêche de palangre observées par des observateurs embarqués et l’auto-échantillonnage (programme DCF) pour la période 2019–2024

	2019		2020		2021		2022		2023		2024	
Type d'observation	N ham.	% couv.	N ham.	% couv.	N ham.	% couv.	N ham.	% couv.	N ham.	% couv.	N ham.	% couv.
Observateurs	146657	3,1	97086	2,7	153676	4,5	129713	3,6	198401	4,6	177212	3,9
Auto-échant.	351974	7,5	399842	11,2	407209	11,9	446221	12,4	458199	10,5	429619	9,5
TOTAL	498631	10,6	496928	13,9	560885	16,4	575934	16	656600	15,1	606831	13,4

Observed and self-reported sets | French longliners | Indian Ocean | 2024-2024

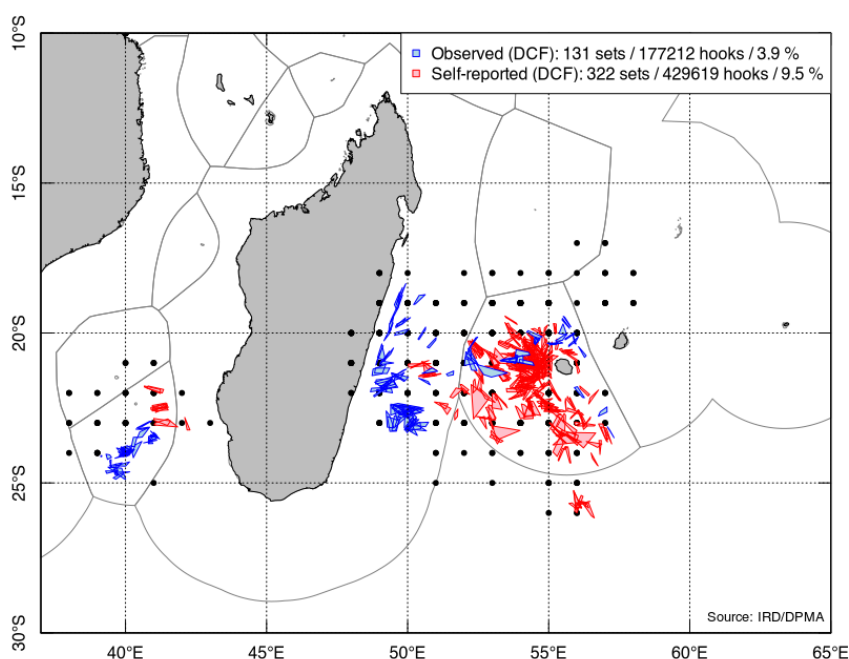


Figure 4b-1. Carte de la répartition spatiale des opérations de pêche de palangre observées par des observateurs embarqués et l'auto-échantillonnage (programme DCF) pour la Réunion en 2024.

Observer + Self-reporting coverage | French longliners | Indian Ocean

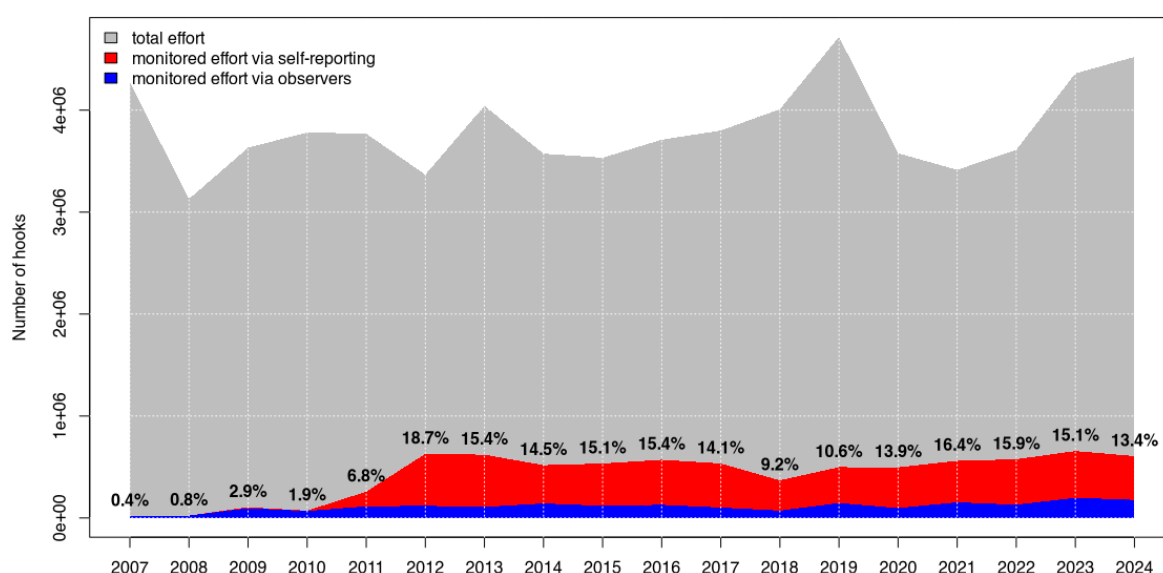


Figure 4b-2. Série temporelle de la couverture de l'effort de pêche par les observateurs embarqués et l'autoéchantillonnage sur les palangriers français entre 2007 et 2024 dans le cadre du programme européen DCF.

Les observateurs embarqués participent également à la collecte de données de taille pour les espèces cibles (Tableau 6b) permettant ainsi de compléter la collecte des données au port réalisée par l'Ifremer.

Tableau 6b. Nombre d'individus mesurés pour les espèces cibles et les prises accessoires par les observateurs embarqués sur les palangriers à La Réunion en 2024.

Groupe	Espèce	Code FAO	N mesurés
Poissons à rostre	<i>Istiompax indica</i>	BLM	2
	<i>Istiophorus platypterus</i>	SFA	34
	<i>Kajikia audax</i>	MLS	7
	<i>Makaira nigricans</i>	BUM	41
	<i>Tetrapturus angustirostris</i>	SSP	26
	<i>Xiphias gladius</i>	SWO	2205
Autre poissons osseux	<i>Acanthocybium solandri</i>	WAH	21
	<i>Alepisaurus ferox</i>	ALX	115
	<i>Brama brama</i>	POA	2
	<i>Caranx sexfasciatus</i>	CXS	1
	<i>Coryphaena hippurus</i>	DOL	151
	<i>Diodontidae</i>	DIO	1
	<i>Gempylus serpens</i>	GES	38
	<i>Lagocephalus lagocephalus</i>	LGH	6
	<i>Lepidocybium flavobrunneum</i>	LEC	107
	<i>Lobotes surinamensis</i>	LOB	1
	<i>Nesiarchus nasutus</i>	NEN	1
	<i>Ruvettus pretiosus</i>	OIL	18
	<i>Seriola dumerili</i>	AMB	1
	<i>Sphyrna barracuda</i>	GBA	18
Raies	<i>Pteroplatytrygon violacea</i>	PLS	123
Requins	<i>Carcharhinus falciformis</i>	FAL	146
	<i>Carcharhinus longimanus</i>	OCS	8
	<i>Isistius brasiliensis</i>	ISB	1
	<i>Isurus oxyrinchus</i>	SMA	5
	<i>Prionace glauca</i>	BSH	23
	<i>Sphyrna lewini</i>	SPL	1
Thons	<i>Katsuwonus pelamis</i>	SKJ	9
	<i>Thunnus alalunga</i>	ALB	786
	<i>Thunnus albacares</i>	YFT	427
	<i>Thunnus obesus</i>	BET	474
Tortues	<i>Caretta caretta</i>	TTL	15
	<i>Chelonia mydas</i>	TUG	4

6.2.3 La petite pêche côtière de la Réunion

Non concerné.



6.2.4 La flottille palangrière de Mayotte

Le programme « observateur » mis en place par l'IRD à La Réunion a été déployé à Mayotte en phase expérimentale en 2015, et est pleinement intégré au programme de collecte de données depuis 2017. Ce programme est opéré en régie par le Parc Naturel Marin, les données sont saisies à l'aide du logiciel Observe développé par l'IRD et bancarisées dans la base de données « Observe » de l'IRD. Entre 2020 et 2023, les suivis ont été arrêtés suite à la crise Covid puis à l'arrivée d'unités trop petites pour accepter un observateur. Un nouveau programme d'échantillonnage en mer a été mis en place en 2024 sur l'unique palangrier de plus de 10m de la flotte mahoraise (OBSPAL). Il a été observé 18523 hameçons (14 marées) en 2024 sur le programme OBSPAL sur un seul des deux navires actifs. Ce navire a fait au total 88 OP en 2024 (avec une moyenne de 629 hameçons déployés par OP, soit 55 352 hameçons). Nous avons pu couvrir 33% de l'effort total.

Ce suivi était initialement programmé pour plusieurs années, mais la destruction de la flotte palangrière mahoraise par le cyclone CHIDO fin 2024 a mis en pause cette initiative.

Tableau 6c. Nombre d'individus mesurés dans le cadre du suivi en mer de la pêche palangrière mahoraise

Groupe	Espèce	Code FAO	N mesurés
Porte-épées	<i>Istiophorus platypterus</i>	SFA	17
	<i>Makaira nigricans</i>	BUM	4
	<i>Tetrapturus angustirostris</i>	SSP	1
	<i>Xiphias gladius</i>	SWO	349
Thons	<i>Thunnus alalunga</i>	ALB	7
	<i>Thunnus obesus</i>	BET	80
	<i>Thunnus albacares</i>	YFT	162
Requins	<i>Carcharhinus falciformis</i>	FAL	20
	<i>Carcharhinus longimanus</i>	OCS	4
Raies	<i>Pteroplatytrygon violacea</i>	PLS	7
Autres poissons osseux	<i>Coryphaena hippurus</i>	DOL	15

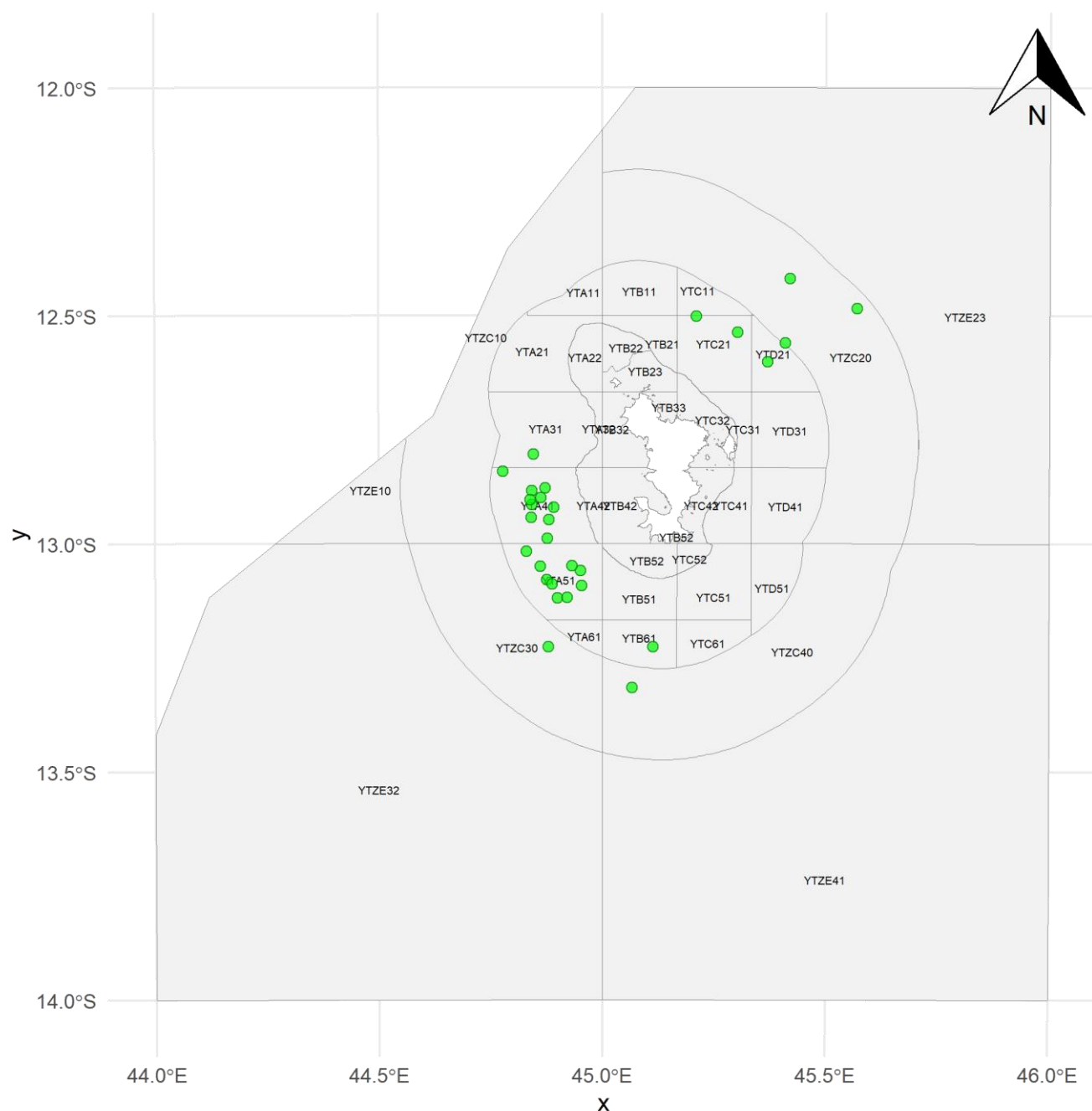


Figure 4c. Carte de la répartition spatiale des opérations de pêche de palangre observées par des observateurs embarqués (programme OBSPAL) pour Mayotte en 2024.

6.3 Programme d'échantillonnage au port

6.3.1 Les senneurs tropicaux

La composition spécifique de la capture des senneurs tropicaux est estimée après correction des fiches de pêche en fonction d'un échantillonnage spécifique au sein de strates prédéfinies selon des procédures décrites ci-après. Les échantillonnages des débarquements ont été régulièrement réalisés depuis le début de la présence des senneurs dans l'océan Indien, avec un double objectif : d'une part estimer la structure démographique des captures des principales



espèces, de l'autre corriger la composition spécifique des débarquements dont les catégories commerciales sont hétérogènes. Il est mené grâce aux fonds européens de la DCF en étroite collaboration entre l'IRD (France) et la SFA (Seychelles). La procédure actuellement mise en œuvre est basée sur un échantillonnage stratifié de l'ensemble des senneurs européens (Espagne, France, Italie) et assimilés (navires d'armements européens battant un pavillon tiers). Pour la composante « pêche française à la senne » en 2024, 90 096 individus ont été identifiés et comptés parmi lesquels 42 581 ont été mesurés aux débarquements. Parmi les échantillons d'individus identifiés et comptés, le listao (SKJ), l'albacore (YFT) et le thon obèse (BET) représentent respectivement 33%, 52% et 10% des individus mesurés (Tableau 5a).

Tableau 4a. Nombre de sorties de navires ou de navires actifs surveillés, par espèce et engin en 2024

	Engin	Nombre de marées
Thons majeurs	PS	139

Tableau 5a. Nombre d'individus mesurés et comptés par espèce dans le cadre du programme UE de collecte des données pour les senneurs français dans l'océan Indien en 2024.

Espèce	Mensurations au port	
	Mesurés	Comptés
<i>Auxis thazard</i> (FRI)	1723	1723
<i>Katsuwonus pelamis</i> (SKJ)	14200	61715
<i>Thunnus albacares</i> (YFT)	22301	22301
<i>Thunnus obesus</i> (BET)	4357	4357
TOTAL	42581	90096

L'effort d'échantillonnage des cuves des senneurs au débarquement est standardisé selon des critères de qualité et de représentativité de la flotte. Les cuves ne contenant qu'une seule calée sont prioritairement échantillonnées. Lorsque plusieurs calées sont mélangées, le mode de pêche (banc libre ou banc objet uniquement), la localisation (<5°) et la date (<15 jours) de capture sont pris en compte pour assurer la cohérence de la composition des captures dans l'échantillon. À plus large échelle, l'effort d'échantillonnage est optimisé en continu et en fonction de l'activité de pêche pour assurer une couverture spatiale (carré de 5°) et temporelle (trimestre) des captures tout au long de l'année. Le nombre d'échantillons minimum et à atteindre est de 15 (BL) et 25 (BO), par strates, respectivement. Dans ce cas une strate est considérée comme homogène dans sa composition spécifique et pour la distribution des tailles spécifiques (Pallarès et Hallier, 1997).

6.3.2 Les palangriers hauturiers réunionnais de plus de 12 m

Depuis 2009, toutes les espèces débarquées par les palangriers hauturiers et côtiers réunionnais sont mesurées. En 2024, 4075 individus ont été mesurés aux débarquements (pour des marées non couvertes par les observateurs embarqués) dont 1605 espadons (SWO), 760 thons germons (ALB), 605 albacores (YFT) et 796 thons obèses pour les espèces dominantes dans les débarquements (Tableau 5b).

Tableau 4b. Nombre de sorties de navires ou de navires actifs surveillés, par espèce et engin

	Engin	Nombre de marées
Thons majeurs	LLSI	29



Tableau 5b. Nombre d'individus mesurés aux débarquements, par espèce pour la flottille palangrière hauturière et côtière réunionnaise en 2024.

Code FAO	Nom scientifique	N. mensurations
ALB	<i>Thunnus alalunga</i>	760
BET	<i>Thunnus obesus</i>	796
SWO	<i>Xiphias gladius</i>	1605
YFT	<i>Thunnus albacares</i>	605
WAH	<i>Acanthocybium solandri</i>	29
DOL	<i>Coryphanena hippurus</i>	125
BLM	<i>Istiompax indica</i>	3
BUM	<i>Makaira nigricans</i>	63
SSP	<i>Tetrapturus angustirostris</i>	27
SFA	<i>Istiophorus platypterus</i>	40
SMA	<i>Isurus oxyrinchus</i>	5
MLS	<i>Tetrapturus audax</i>	17
	TOTAL	4075

Pour le moment, les données de mensurations des poissons collectées par les observateurs embarqués n'ont pu être fusionnées à celles collectées aux débarquements. Ce travail qui permettra une augmentation du taux de couverture des marées pour cette activité de collecte devrait être réalisé prochainement et une nouvelle soumission des données de fréquence de taille au secrétariat de la CTOI sera effectuée pour des espèces telles qu'espadon, albacore, thon obèse, germon, marlin bleu, marlin rayé, marlin noir et marlin voilier.

6.3.3 La petite pêche côtière de la Réunion

Les enquêteurs du SIH présents sur les quais dans le cadre de ce programme « ObsDEB » en profitent pour mesurer des grands pélagiques débarqués par la petite pêche côtière. En 2024, pour le métier de la ligne à main, 328 poissons ont été mesurés par les enquêteurs, dont 100 dorades coryphènes (DOL), 150 albacores (YFT) et 31 wahoo (WAH) pour les espèces les plus abondantes (Tableau 5c).

Tableau 5c. Nombre d'individus mesurés aux débarquements, par espèce pour la petite pêche côtière réunionnaise en 2021.

Code FAO	Nom scientifique	N. mensurations
ALB	<i>Thunnus alalunga</i>	5
YFT	<i>Thunnus albacares</i>	150
WAH	<i>Acanthocybium solandri</i>	31
DOL	<i>Coryphaena hippurus</i>	100
BLM	<i>Istiompax indica</i>	1
BUM	<i>Makaira nigricans</i>	13
SFA	<i>Istiophorus platypterus</i>	3
BET	<i>Thunnus obesus</i>	3
SKJ	<i>Katsuwonus pelamis</i>	20



DOT	<i>Gymnosarda unicolor</i>	2
	TOTAL	328

6.3.4 Les palangriers côtiers réunionnais

Depuis 2009, toutes les espèces débarquées par les palangriers hauturiers et côtiers réunionnais sont mesurées. En 2024, 618 individus ont été mesurés aux débarquements (pour des marées non couvertes par les observateurs embarqués) dont 130 espadons (SWO), 177 thons germons (ALB), 133 albacores (YFT) et 40 thons obèses pour les espèces dominantes dans les débarquements (Tableau 5d).

Tableau 4d. Nombre de sorties de navires ou de navires actifs surveillés, par espèce et engin

	Engin	Nombre de marées
Thons majeurs	LLCO	34

Tableau 5d. Nombre d'individus mesurés aux débarquements, par espèce pour la flottille palangrière côtière réunionnaise en 2024.

Code FAO	Nom scientifique	N. mensurations
ALB	<i>Thunnus alalunga</i>	177
BET	<i>Thunnus obesus</i>	40
SWO	<i>Xiphias gladius</i>	130
YFT	<i>Thunnus albacares</i>	133
DOL	<i>Coryphaena hippurus</i>	79
BLM	<i>Makaira indica</i>	1
BUM	<i>Makaira nigricans</i>	22
SSP	<i>Tetrapturus angustirostris</i>	5
SFA	<i>Istiophorus platypterus</i>	13
MLS	<i>Tetrapturus audax</i>	3
SMA	<i>Isurus oxyrinchus</i>	1
WAH	<i>Acanthocybium solandri</i>	14
	TOTAL	618

6.3.5 La flottille palangrière de Mayotte

Comme évoqué précédemment, les flottilles de pêche mahoraises sont suivies depuis 2012 par le SIH, mis en place par le Parc naturel marin de Mayotte (Agence des Aires Marines Protégées, devenue Agence Française pour la Biodiversité en 2017 puis l'Office Française de la Biodiversité en 2020), en partenariat avec l'Ifremer, l'IRD et la DGAMPA, sur fonds propres à l'AAMP. Le SIH bénéficie d'une aide FEAMP (puis FEAMPA) depuis 2017 pour la collecte des données de pêche à Mayotte.

Les données concernant les palangriers sont obtenues grâce aux notes de vente de la coopérative de pêche de Mayotte (COPEMAY) où ces navires débarquaient l'intégralité de leurs captures jusqu'à 2015. À partir de 2015, ces données ont été complétées par les fiches de pêche des navires ne débarquant pas leurs captures à la coopérative. À l'heure actuelle, les palangriers ne débarquant plus à la COPEMAY, les données collectées proviennent des fiches de pêche



des navires et des données de l'armateur d'un des navires. Le faible nombre d'unités permet de connaître précisément le nombre de sorties et les captures débarquées.

Le programme d'échantillonnage des ventes (Obsventes) sur les sites de débarquement permet la prise de mesures sur les captures.

Tableau 4e. Nombre de sorties surveillées, par espèce et pêche

Espece	Engin	Nombre de marées
Espadons et thons	LLD	11
Thunnus alalunga	LHP	5
Thunnus alalunga	LTL	1
Thunnus obesus	LHP	1
Scomberomorus commerson	LHP	26
Scomberomorus commerson	LTL	4
Coryphaena hippurus	LHP	3
Coryphaena hippurus	LTL	6
Gymnosarda unicolor	LHP	26
Gymnosarda unicolor	LTL	1
Euthynnus affinis	LHP	7
Euthynnus affinis	LTL	3
Istiophorus platypterus	LHP	3
Istiophorus platypterus	LTL	1
Katsuwonus pelamis	LHP	6
Katsuwonus pelamis	LTL	58
Acanthocybium solandri	LHP	4
Acanthocybium solandri	LTL	2
Thunnus albacares	LHP	43
Thunnus albacares	LTL	59

Tableau 5e. Nombre de poissons mesurés, par espèce et pêche

Groupe	Espèce	Code FAO	Nombre d'individus mesurés pour les palangriers	Nombre d'individus mesurés pour les barques (HL et TL)
Poissons à rostre	<i>Istiompax indica</i>	BLM	0	0
	<i>Istiophorus platypterus</i>	SFA	12	6
	<i>Kajikia audax</i>	MLS	0	1
	<i>Makaira nigricans</i>	BUM	3	0
	<i>Tetrapturus angustirostris</i>	SSP	1	0
	<i>Xiphias gladius</i>	SWO	228	0
Thonidés	<i>Acanthocybium solandri</i>	WAH	0	16
	<i>Scomberomorus commerson</i>	COM	0	12
	<i>Euthynnus affinis</i>	KAW	0	10
	<i>Thunnus alalunga</i>	ALB	5	8
	<i>Thunnus obesus</i>	BET	66	1
	<i>Thunnus albacares</i>	YFT	130	114
	<i>Katsuwonus pelamis</i>	SKJ	0	74
Autres poissons osseux	<i>Coryphaena hippurus</i>	DOL	7	15
	<i>Sphyraena barracuda</i>	GBA	3	1

6.3.6 La flottille côtière de Mayotte

La flottille côtière mahoraise est suivie par le programme d'observation aux débarquements (ObsDeb) développé par l'Ifremer et opéré par le Parc naturel marin. En 2024, un échantillon de 655 marées a été observées concernant 53 navires de pêche professionnelle.

Le programme d'échantillonnage des ventes (Obsventes) sur les sites de débarquement permet la prise de mesures sur les captures.

6.4 Mesures prises en vue de surveiller les captures et gérer les pêcheries de marlin rayé, marlin noir, marlin bleu et voilier indopacifique

Les captures sont suivies via le flux déclaratif. Des essais de développement d'indice d'abondance à partir de captures par unité d'effort sont en cours.

6.5 Suivi et couverture par les observateurs de la pêche au filet maillant

Non concerné

6.6 Plans d'échantillonnage pour les raies Mobulidae

Les captures accidentelles de Mobulidae dans la senne française et la palangre réunionnaise sont rares (Tableaux 4a et 4b). Les programmes d'observateurs embarqués permettent de suivre ces captures à hauteur de leur taux de couverture respectif. Les données sont soumises à la CTOI dans les formulaires 1DI et ROS.

6.7 Electronic Monitoring Standards [Obligatoire pour les CPC implémentant SSE]

Les informations du résumé au niveau de la flotte des plans de surveillance des navires (non obligatoires) doivent être présentées à l'ANNEXE A.



7 PROGRAMMES NATIONAUX DE RECHERCHE

7.1 Programmes nationaux de recherche sur le requin-peau bleue

Le projet ASUR dédié à l'étude de la survie après libération des requins capturés accidentellement par les palangriers réunionnais inclut le requin peau bleue (Tableau 6).

7.2 Programmes nationaux de recherche sur le marlin rayé, le marlin noir, le marlin bleu et le voilier indopacifique

Il n'y a pas de programmes de recherche visant spécifiquement les Istiophoridae mis à part le projet FEAMP FLOPPED qui s'est terminé en 2023.

7.3 Programmes nationaux de recherche sur les requins

Le projet ASUR vise à étudier la survie après libération des requins capturés accidentellement par les palangriers réunionnais (Tableau 6). Le projet POREMO est également dédié à l'étude de la survie après libération du requin océanique capturé accidentellement par les senneurs et palangriers français (Tableau 6).

Le projet BEHAVE visera quant à lui à l'étude de la survie après libération du requin soyeux et des raies de la famille des Mobulidae capturés par les senneurs en lien avec le développement de dispositifs de remise à l'eau (Tableau 6).

7.4 Programmes nationaux de recherche sur les requins océaniques

Il n'y a actuellement pas de programmes de recherche visant spécifiquement à identifier les zones de reproduction potentielles des requins océaniques.

7.5 Programmes nationaux de recherche sur les tortues marines

Le projet SaveTurtleRun (STR), lancé en 2023 pour une durée de 2 ans à La Réunion, vise à réduire les captures accidentelles de tortues marines dans les pêcheries palangrières du sud-ouest de l'océan Indien. Porté par Kelonia, ARIPA, CITEB et le Comité des Pêches, il s'appuie sur plus de 20 ans de données et une forte collaboration avec les pêcheurs. En combinant suivi scientifique, sensibilisation et bonnes pratiques de manipulation, STR a permis d'améliorer la survie des tortues capturées (de 45 % à plus de 70 %) et de renforcer la base de connaissances pour la conservation régionale.

Le projet ACTIVE (*Atténuation des Captures accidentelles de Tortues marines et Initiatives de Valorisation d'une pêche Écoresponsable*), lancé en 2025 pour 3 ans avec le soutien du FEAMPA, vise à réduire les captures accidentelles de tortues marines par la flotte palangrière de La Réunion tout en promouvant une pêche durable. Sur trois ans, il renforcera la coopération entre pêcheurs et scientifiques, améliorera les pratiques de manipulation et de soins des tortues, développera les connaissances sur leur écologie grâce à la génétique et à la télémétrie, et diffusera largement les résultats. En impliquant les 43 navires réunionnais, ACTIVE consolide deux décennies de partenariat et contribue aux objectifs de conservation et de durabilité régionaux et internationaux.

7.6 Programmes nationaux de recherche sur les requins-renards

Il n'y a actuellement pas de programmes de recherche portant sur les requins-renards portés par la France. En revanche, les scientifiques français de l'IRD participent au projet de recherche IOTC BTH PRM, porté par la CTOI, dédié à l'étude de la survie après libération du requin-renard à gros yeux capturés accidentellement par les palangriers réunionnais.



Tableau 6. Tableau résumant les programmes de recherche nationaux, y compris leurs dates.

Nom du projet	Période	Pays impliqués	Budget total	Origine des fonds	Objectifs	Brève description
Programme régional de marquage de thons	2020–2024	UE – France et Espagne		ED-DG FISH	Programme d'observateurs : collecte de données sur les prises accessoires	
SIH Mayotte	2012 – pérenne	France	300 K€ / an environ	FEAMPA	Suivi de l'activité halieutique dans la ZEE de Mayotte	Coopération Ifremer / IRD / DPMA / OFB pour la mise en place d'un suivi pérenne des activités de pêche dans la ZEE de Mayotte. Compile les données de pêche thonière et les données de la pêche artisanale mahoraise collectées localement par le Parc Naturel Marin de Mayotte.
OBSPAL	2024	France Mayotte	25 K€ effectif	PNMM	Suivi de l'activité halieutique des palangriers mahorais	Observation embarquée sur les palangriers mahorais. Suivi des captures et l'effort de pêche. Protocole de l'IRD et bancarisation sur le logiciel Observe.
Ob7 - Collecte des données Pêche Thons Tropicaux	1981 - pérenne	France	Environ 1 M€/an pour l'océan Indien	IRD, DGAMPA, FEAMPA (UE)	Suivi activité de pêche des senneurs tropicaux français des océans Indien et Atlantique. Coordination des programmes Observateurs embarqués pour la	Acquisition des journaux de bord, échantillonnage au Port, acquisition des données Observateurs. Archivage de l'ensemble des données dans des



					senne (OI et OA) et des palangriers à La Réunion.	bases de données dédiées.
SIH (Système d'information Halieutique)	2005- pérenne	France	Variable de l'ordre de 150 K€/an sur La Réunion	IFREMER, DGAMPA, FEAMPA (UE)	Réseau de suivi de l'activité halieutique française (hors thoniers senneurs et palangriers pêche australe).	Acquisition, stockage, gestion et synthèse des données halieutiques nationales
COEXISTENCE	2024- 2028	France (Réunion, Mayotte), Comores, Mozambique, Afrique du Sud	750 K€	SIOMPA	Interactions entre pêcheries et méga-faune marine dans le sud-Ouest de l'océan Indien	COEXISTENCE
BRIDGES	2024- 2033	France (Réunion, Mayotte), Comores, Madagascar, Mozambique	28 M€	ANR (PEPR Océan- Climat)	Gestion spatialisée des ressources halieutiques dans le sud-Ouest de l'océan Indien	BRIDGES
SaveTurtleRUN	2023- 2025	France (Réunion)	57 K€	MSC - Science & Research Fund	Réduire les captures accidentelles de tortues marines en renforçant la collaboration avec les pêcheurs, en collectant des données scientifiques, en étudiant les facteurs environnementaux et en développant un guide de bonnes pratiques	Initiative collaborative lancée à la Réunion pour réduire les captures accidentelles de tortues dans la pêcherie palangrière réunionnaise, en combinant suivi scientifique, sensibilisation des pêcheurs, et bonnes pratiques de manipulation
ACTIVE	2025- 2028	France (Réunion)	458 K€	FEAMPA	Renforcer la collaboration avec les pêcheurs, améliorer les pratiques de manipulation et de soins des tortues, approfondir les	Réduction des captures accidentelles de tortues marines par la flotte palangrière réunionnaise, grâce à une



					connaissances scientifiques et diffuser les résultats pour une pêche plus durable	pêche plus durable, collaborative et scientifiquement appuyée.
AFICHE	2024- 2027	UE-FRA	770 k€	FEAMPA	Déterminer la connectivité et la fréquentation des espèces présentes sur les DCP ancrés de La Réunion	Partenariat scientifique- pêcheur impliquant du marquage acoustique et satellite de l'albacore, du germon, du wahoo et de la dorade coryphène



8 MISE EN PLACE DES RECOMMANDATIONS DU COMITÉ SCIENTIFIQUE ET DES RÉOLUTIONS DE LA CTOI CONCERNANT LE CS

Tableau 9. Exigences scientifiques contenues dans les Résolutions de la Commission, adoptées entre 2012 et 2024.

Rés. n°	Résolution	Exigence scientifique	Progrès de la CPC
12/04	Sur la conservation des tortues marines	Paragraphe 3, 4, 6–10	Des kits d'extraction d'hameçons ont été distribués à l'ensemble des palangriers réunionnais en novembre 2014, permettant à la France (La Réunion) de répondre à la Résolution CTOI 12/04 (paragraphe 6), qui stipule que les pays contractant exigeront des équipages à bord des navires qui pêchent des espèces sous mandat de la CTOI qu'ils amènent à bord dans les meilleurs délais, lorsque c'est possible, toute tortue marine capturée et inanimée ou inactive et fassent tout ce qui est possible (y compris la ranimer) pour la remettre à l'eau vivante. 1- l'élaboration des fiches d'identification des tortues marines en collaboration avec la CTOI. Ces fiches ont été distribuées aux pêcheurs réunionnais, mais seront également distribuées par la CTOI à l'ensemble des flottilles palangrières et thonières en activité dans la zone de compétence de la CTOI 2- l'existence d'un centre de soin à la Réunion (Kelonia) permet de prendre en charge les tortues marines capturées accidentellement par la pêche palangrière réunionnaise. 3- la réalisation d'un guide des bonnes pratiques visant à réduire la mortalité des requins et des raies capturées accidentellement par la pêche thonière tropicale (IOTC-2012-WPEB08-INF08) et incluant une partie sur les tortues marines.
12/09	Sur la conservation des requins-renards (famille des <i>Alopiidae</i>) capturés par les pêcheries dans la zone de compétence de la CTOI	Paragraphe 4–8	Les individus de cette espèce sont très rarement capturés et sont systématiquement remis à l'eau le plus rapidement possible selon le guide de bonnes pratiques.



Rés. n°	Résolution	Exigence scientifique	Progrès de la CPC
			Les données des observateurs embarqués concernant les captures accidentelles des pêcheries à la senne et à la palangre sont transmises pour l'année N en juin de l'année N+1 à la CTOI dans les formulaires ROS.
13/05	Sur la conservation des requins-baleines (<i>Rhincodon typus</i>)	Paragraphes 7–9	Études des interactions de la pêche à la senne avec les requins-baleines sur la base des données historiques disponibles des logbooks et des programmes observateurs. Thèse de L. Escalle (2016). Établissement d'un guide de bonnes pratiques pour relâcher les requins-baleines capturés accidentellement et formation des équipages
13/06	Sur un cadre scientifique et de gestion pour la conservation des requins capturés en association avec des pêcheries gérées par la CTOI	Paragraphes 5–6	Données scientifiques collectées par les programmes d'observation en mer pour la senne et la palangre et transmises à la CTOI. Programme de marquage pour l'étude de la mortalité après rejet du requin-pointe blanche océanique (POREMO) financé par un projet pilote FEAMP Mesure 77 dans le cadre de la DCF lancé en 2018 (acquisition des marques en cours). Présentation des déploiements à bord de senneurs et palangriers d'individus marqués lors des WPs Prises accessoires et Écosystèmes en 2018 et 2019. UE-FR coordonne le projet ASUR d'étude et d'amélioration de la survie des requins après rejets.
15/01	Concernant l'enregistrement des captures et de l'effort par les navires de pêche dans la zone de compétence de la CTOI	Paragraphes 1–10	Les livres de bord (papier et/ou électroniques) sont en place dans les pêcheries de senneurs depuis 1981 en océan Indien, et depuis 2004 sur les palangriers réunionnais de plus de 24 m, avec un taux de remplissage de 100%.
15/02	Statistiques exigibles des Parties contractantes et Parties coopérantes non contractantes (CPC) de la CTOI	Paragraphes 1–7	Prises totales : estimations réalistes de tous les segments de flottilles (industriel, semi-industriel, artisanal) et remises avant la date butoir à la CTOI. Données à jour. Captures et effort : données des senneurs remises à la CTOI par carré de 1° depuis 1981 ; données des palangriers remises à la CTOI par carré de 5° de 1994 à 2008 et par carré de 1° depuis 2009. Données de la flottille côtière disponible par 5°.



Rés. n°	Résolution	Exigence scientifique	Progrès de la CPC
			Données de taille : échantillonnages au débarquement suivant un protocole statistique et échantillonnage à bord, pour senneurs et palangriers, sont à jours. Mensurations pour ces 2 engins par carré de 5°. DCP : Les nombres de DCP déployés par trimestre et type de DCP ont été fournis à la CTOI pour la période 2010-2015. Livres de bord des senneurs français ont été étendus dès janvier 2013 puis fin 2015 pour incorporer la typologie des FADs et les activités liées à la pêche sous FAD. Les formulaires Observateurs ont aussi été modifiés pour une harmonisation de la collecte des données.
17/05	Sur la conservation des requins capturés en association avec les pêcheries gérées par la CTOI	Paragraphe 6, 9, 11	Pour certains aspects de cette mesure, voir les commentaires apportés pour les Rés. 12/01, 12/09, 13/06 et 15/02. En référence au point 4, la libération des requins vivants est encouragée pour les pêcheries à la senne et à la palangre. Le taux de rejet vivant est relativement élevé et la phase de rejet respecte la mise en œuvre de bonnes pratiques notamment pour la pêche à la senne. Pour la pêche à la palangre, les individus sont relâchés alors qu'ils se trouvent encore dans l'eau. Parag. 2 – Débarqués frais, les requins doivent être munis de leurs nageoires. Parag. 8 – Les individus de requin-pointe blanche océanique capturés vivants dans la ZEE de La Réunion sont la plupart du temps rejetés vivants. Parag. 11 – UE-FR coordonne le projet POREMO (cf. paragraphe 8.5) et participe au projet IOTC-BTH d'étude de la mortalité après rejets des pêcheries à la senne et à la palangre du requin-pointe blanche océanique et du requin-renard à gros yeux. UE-FR coordonne le projet ASUR d'étude et d'amélioration de la survie des requins après rejets.
18/02	Sur des mesures de gestion pour la conservation des requins peau bleue capturés en association avec les pêcheries de la CTOI	Paragraphe 2 - 5	UE-FR concernée pour sa flottille de palangriers en activité à La Réunion et à Mayotte.



Rés. n°	Résolution	Exigence scientifique	Progrès de la CPC
			Collecte des données de capture dans les journaux de bord des palangriers pour les individus (carcasses et ailerons) débarqués. Pour les rejets, suivi par les observateurs et l'autoéchantillonnage. Etat du poisson lors de la remise à l'eau enregistré lorsque l'information peut être collecté. Collecte de données de taille par les observateurs scientifiques. Informations sur la collecte des données de captures et rejets précisées dans ce rapport. Travail sur l'âge et la croissance en cours de valorisation.
18/05	Sur des mesures de gestion pour la conservation des poissons porte-épées : marlin rayé, marlin noir, marlin bleu et voilier indopacifique	Paragraphes 7 - 11	UE-FR est concernée pour ses flottilles de senneurs et de palangriers. Suivi des captures par espèce aux débarquements des palangriers et des senneurs (marché local à Victoria). Collecte de données de captures par espèce et de taille par les observateurs embarqués. Déclaration des données à la CTOI en conformité avec la Résolution 15/02 sur les déclarations statistiques.
18/07	Sur les mesures applicables en cas de non-respect des obligations de déclarations à la CTOI	Paragraphes 1, 4	
19/03	Sur la conservation des raies Mobulidae capturées en association avec les pêcheries dans la zone de compétence de la CTOI	Paragraphe 11	Interdiction de coups de pêche sur des bancs associés avec des Mobulidés lorsque la raie a pu être détectée. Mise en œuvre de DCP non maillants depuis plusieurs années. Mise en place de bonnes pratiques pour maximiser la survie des Mobulidés capturés accidentellement par la senne. Forte couverture de l'observation des activités de pêche (notamment pour la pêche à la senne à partir d'observateurs humains et de l'observation électronique) pour le suivi de l'occurrence et l'abondance des captures de Mobulidés.
21/01	Sur un plan provisoire pour reconstituer le stock d'albacore de l'océan Indien dans la zone de	Paragraphe 23	UE-FR concernée pour sa flottille de senneurs et navires auxiliaires. Collecte de données détaillées sur les DCP et leur déploiement suivant les recommandations du programme européen CECOFAD1.



Rés. n°	Résolution	Exigence scientifique	Progrès de la CPC
	compétence de la CTOI (<i>si non prévues en vertu de la Rés. 19-01 ci-dessus</i>)		Réduction du nombre de DCP déployés par navire. Augmentation des échantillons aux débarquements et développement d'une nouvelle version de l'analyse de la composition spécifique des captures (T3) permettant d'améliorer la précision des estimations des captures par espèce.
23/06	Sur la conservation des cétacés	Paragraphes 11–12	Études des interactions de la pêche à la senne avec les mammifères marins sur la base des données historiques disponibles des logbooks et des programmes observateurs (Thèse de L. Escalle (2016)). Projet national PARADEP en cours (2018 – 2020) de développement d'un dispositif de protection physique des captures sur les palangres pélagiques. Proposition de mesures de conservation : Thèse de Brianna Elliott (2024; Elliott et al. 2023, Elliott et al. 2024).
23/07	Sur la réduction des captures accidentelles d'oiseaux de mer dans les pêcheries palangrières	Paragraphe 3–7	La CTOI requiert l'observation d'un minimum de 5% de l'effort de pêche pour les navires > 24 m ainsi que tous les navires opérant hors de leur ZEE. Senneurs tropicaux Un programme d'observateurs scientifiques embarqués financé par l'UE (DCF IRD) a été mis en place en 2005 sur les senneurs tropicaux. Ce programme vise entre 10 et 20% de couverture de l'effort de pêche. Stoppé en 2009 pour motif de manque de sécurité liée à la piraterie, ce programme a repris ses activités en 2011 et a atteint en 2013 un taux de couverture supérieur à la cible de 10 %. Depuis 2014, un programme observateur financé par l'industrie (programme OCUP = Observateur Commun Unique et Permanent) complète le programme observateur susmentionné. La liste des observateurs habilités ainsi que les données collectées par ces derniers sont envoyées annuellement au Secrétariat de la CTOI. En 2024, les programmes d'observation embarquée financés par l'UE (DCF IRD) et par l'industrie (OCUP) ont contribué à un taux de couverture de l'effort total de pêcheurs de 29 %.



Rés. n°	Résolution	Exigence scientifique	Progrès de la CPC
			Le suivi électronique par vidéo (<i>Electronic Monitoring System</i>) à titre expérimental a débuté en 2014 et se fait sur plusieurs navires français à l'initiative de l'industrie dans le cadre du projet ORTHONGEL OCUP. Les résultats issus de cette étude pilote ont été présentés à divers groupes de travail (WPEB et WPDCS) de la CTOI. Les données issues de ce programme seront transmises à la CTOI une fois les normes minimales pour l'EMS finalisées. Palangriers Un programme d'observateurs embarqués financé par l'UE (DCF IRD) a été mis en place en 2007 sur les palangriers de plus de 16 mètres pouvant prendre à bord des observateurs. Pour les navires de moins de 16 m (ne pouvant embarquer d'observateurs), les observations des prises accessoires et les rejets se font par le biais de l'autoéchantillonnage. La liste des observateurs habilités est transmise à la CTOI. En 2024, le taux de couverture de l'effort de pêche par les observateurs et l'autoéchantillonnage est de 13,4 %. L'envoi des données sous la forme des rapports observateurs et plus récemment selon le modèle ST09 (v2017) de l'ICCAT a désormais été remplacé par l'envoi des données sous forme électronique selon le modèle ROS (PS et LL) récemment développés par le Secrétariat de la CTOI (2022). Cet envoi des données est effectué au 30/06 de l'année N+1.
23/08	Sur les normes de surveillance électronique pour les pêcheries de la CTOI	Paragraphe 3c	Le SSE est présenté dans l'annexe A.
24/04	Sur un Mécanisme régional d'observateurs	Paragraphe 12	La réglementation de la CTOI est suivie dans le cadre des programmes observateurs. La couverture pour les senneurs est de 92% tout programme confondue et pour les palangriers, il est de 13,4% .



Organisation des Nations Unies
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Indian Ocean Tuna Commission
Commission des Thons de l'Océan Indien

IOTC-2025-SC28-NR

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Annexe A:

Un résumé au niveau de la flotte des plans de surveillance des navires [Obligatoire pour les CPC implémentant SSE]

A.1 Le nombre de navires battant pavillon de la CPC qui mettent en œuvre le SSE par type d'engin/de pêche [Obligatoire pour les CPC implémentant SSE].

Il y a, en 2024, 5 senneurs français sur les 11 opérant dans l'océan Indien qui sont équipés d'un système de surveillance électronique. Ces navires font partie du programme volontaire OCUP (Observateur Commun Unique et Permanent) implémenté par ORTHONGEL en 2013. L'objectif principal est d'augmenter la couverture *observateur* sur les senneurs et de compléter la collecte de données d'observation en mer.

A.2 L'éventail des configurations de SSE mises en œuvre au sein de la flotte (y compris le nombre et l'emplacement des caméras pour chaque configuration) [Obligatoire pour les CPC implémentant SSE].

La configuration actuelle du système d'observation électronique installé sur les senneurs français par [Thalos](#) comprend 7 caméras HD adaptées à l'observation en mer (voir Tableau A1 et Figure A1). L'installation et le nombre de caméras suivent la configuration minimale proposée par la CTOI pour les grands senneurs pour couvrir l'ensemble des opérations de pêche sur le pont supérieur, le pont avant et le pont inférieur, ainsi que les opérations sur objets flottants. Certaines caméras enregistrent en continu, d'autres sont reliées à des capteurs liés à la vitesse du navire et ne se déclenchent qu'en cas d'opération de pêche. Les caractéristiques des caméras ont récemment été améliorées pour offrir une résolution plus élevée (1440x1080), une fréquence d'images supérieure (12 images/s) ainsi qu'une nouvelle technologie de détection d'événements basée sur l'intelligence artificielle.

Tableau A1. Caractéristiques des caméras pour la configuration actuelle du système de surveillance électronique installé sur les senneurs français.

Caméra	GPS	Angle	Images/s	Résolution (px)	Enregistrement
1 – Nid de pie 1	Oui	103°	12	1440x1080	Continu
2 – Nid de pie 2	Non	103°	12	1440x1080	Capteur vitesse navire
3 – Pupitre	Oui	103°	12	1440x1080	Capteur vitesse navire
4 – Cheminée	Oui	103°	12	1440x1080	Capteur vitesse navire
5 – Pont avant	Non	103°	12	1440x1080	Continu/Capteur mouvement IA
6 – Convoyeur	Non	103°	12	1440x1080	Capteur vitesse navire
7 – Rejet	Non	103°	12	1440x1080	Capteur vitesse navire

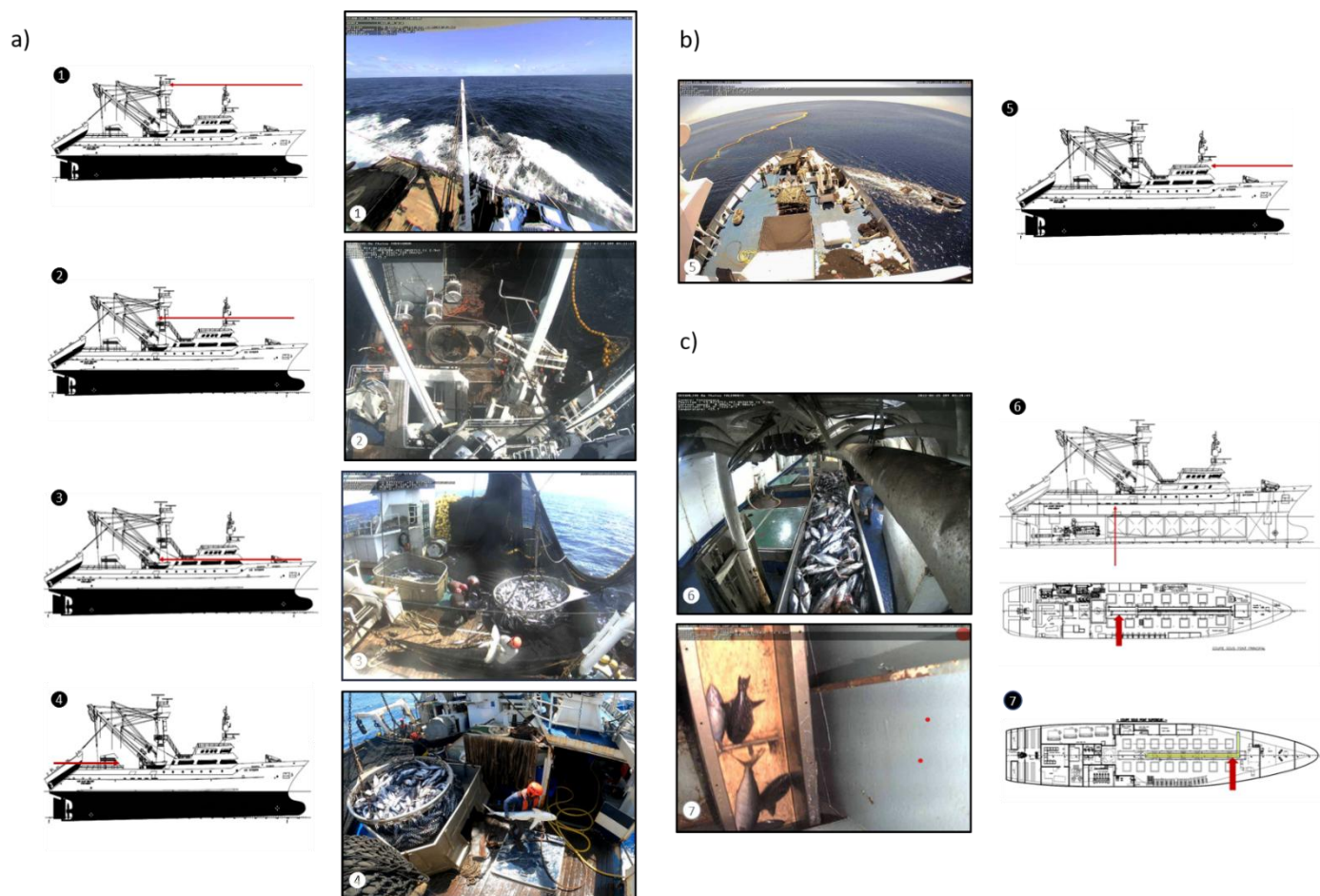


Figure A1. Description du système d'observation électronique installé sur les senneurs français, avec les emplacements de montage et vues associées : a) sur le pont supérieur, b) sur le pont avant et c) sur le pont inférieur.

A.3 La description générale des exigences en matière de SSE imposées aux capitaines/équipes de navires par le gouvernement de la CPC [Obligatoire pour les CPC implémentant SSE].

Le plan de surveillance des navires mis en place par l'armement est conforme à la configuration minimale proposée par la CTOI pour couvrir l'ensemble des opérations de pêche sur les grands senneurs.

Ainsi sur le pont supérieur, la caméra *Nid-de-pie 1* installée en hauteur enregistre en continu le côté bâbord du navire et suit les activités générales de pêche, notamment la mise à l'eau, la fermeture du filet, le halage et le démaillage (Figure A2). La *Nid-de-pie 2* fixée plus bas sur le mât surveille en contre-plongée les activités de rejet et les bonnes pratiques sur le pont, en particulier du côté tribord du navire, où la plupart des espèces sensibles sont relâchées. La *Pupitre*, installée côté tribord sur le pont enregistre les opérations de salabardage ainsi que les activités de rejet. La caméra *Cheminée* installée récemment, facilite quant à elle le suivi et l'identification des espèces sensibles (notamment les requins) sur le côté bâbord, ainsi que les pratiques de remise à l'eau. La caméra *Pont avant* positionnée à la proue enregistre le déploiement des DCP (Dispositifs de Concentration de Poissons) sur l'ensemble de la marée. Sur le pont inférieur, la caméra *Convoyeur* suit l'entrée des espèces cible en cuve ainsi que le tri des espèces accessoires dans le faux pont et la caméra *Rejet* positionnée en fin de tapis permet de comptabiliser les rejets et d'identifier les espèces.

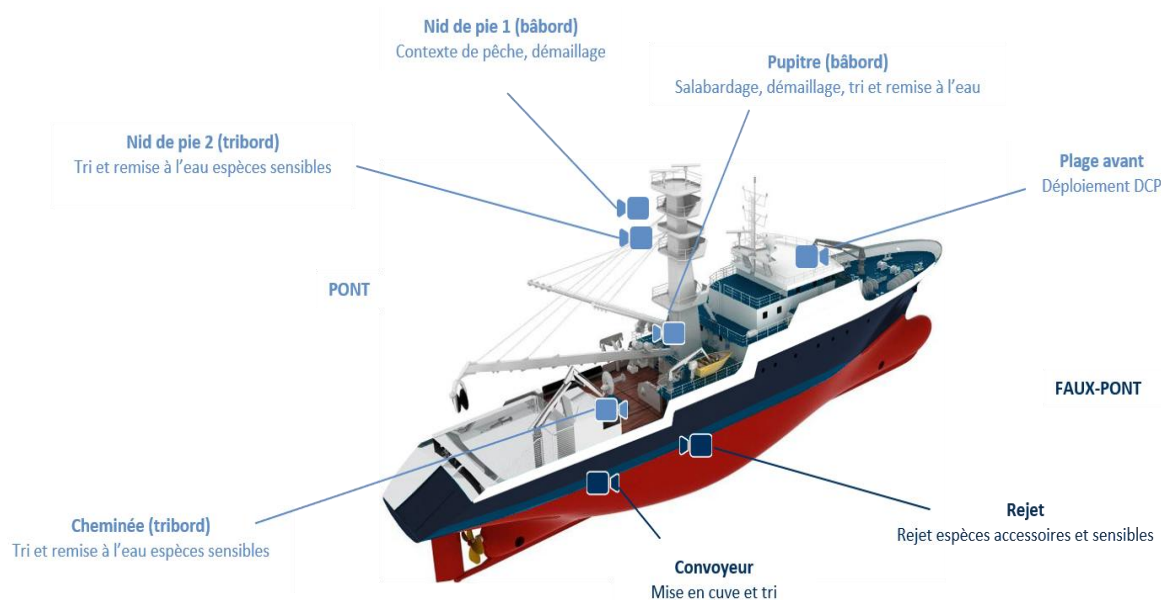


Figure A2. Vue d'ensemble des différentes caméras installées sur les senneurs équipés et leur rôle associé dans l'observation des opérations de pêche.

ANNEX 2

EU-Italy National Report to the Scientific Committee of the Indian Ocean Tuna Commission, 2025

Directorate-General for Maritime Fisheries and Aquaculture

INFORMATION ON FISHERIES, RESEARCH AND STATISTICS

In accordance with IOTC Resolution 15/02 (and other data related CMMs as noted below), final scientific data for the previous year were provided to the IOTC Secretariat by 30 June of the current year, for all fleets other than longline [e.g., for a National Report submitted to the IOTC Secretariat in 2025, final data for the 2024 calendar year must be provided to the Secretariat by 30 June 2025)	YES
In accordance with IOTC Resolution 15/02, provisional longline data for the previous year was provided to the IOTC Secretariat by 30 June of the current year [e.g., for a National Report submitted to the IOTC Secretariat in 2025, preliminary data for the 2024 calendar year were provided to the IOTC Secretariat by 30 June 2025). REMINDER: Final longline data for the previous year are due to the IOTC Secretariat by 30 Dec of the current year [e.g., for a National Report submitted to the IOTC Secretariat in 2025, final data for the 2024 calendar year must be provided to the Secretariat by 30 December 2025).	Not applicable for Italy
If no, please indicate the reason(s) and intended actions:	

Executive Summary [Mandatory]

The report regards the fishing activities of "Torre Italia", the single vessel belonging to the Italian fishing fleet which operates in the IOTC area, during the 2024 fishing campaign. Data comes either from the reports issued by onboard scientific observers or by analysing the video footages recorded during a fishing trip, in the framework of a scientific programme developed by ORTHONGEL and under the technical responsibility of the BUREAU VERITAS LIVING RESOURCES based in Rennes – France

1. BACKGROUND/GENERAL FISHERY INFORMATION [MANDATORY]

The Italian fleet operating in the Indian Ocean includes a single fishing vessel named "**Torre Italia**", registered as "Torre Giulia" until September 2019. During the whole fishing season, the vessel was equipped with a purse seine and, in 2024, it operated within both the IOTC area, International waters and the EEZs, mainly close to the Seychelles islands Mauritius Islands and Madagascar.

2. FLEET STRUCTURE [MANDATORY]

The F/V has a length of 81,90 meters and a width of 13,70 meters. The gear equipped on board is a purse seine (PS). The capacity of the hold is 1.794 m³ and the boat is able to freeze about 1.280 tons of fish. The boat was built in 1997 at the PIRIOU shipyard. During the year up to 30 crew members from different nationalities have been employed on board.

Technical characteristics:

- Construction year: 1997
- Length overall: 81,90 mt
- Length between perpendiculars: 70 m
- Width: 13,70 m Draft: 6,60 m
- Number of fish holds: 17 (16 deck offsets + one big (1-2 on bow)
- Storage capacity: 1794 m³ (1280 t)
- Capacity of fuel tanks: 620 m³
- Main engine power: 3690 KW
- Peak speed: 14 knots
- Cruising speed: 12 knots

A total of n° 11 fishing trips have been monitored by both an observer on board and the electronic monitoring system CCVT during the fishing activities. The average duration of the fishing trip is 30 days, with a minimum of 15 days at sea and a maximum of 49 days at sea. The average number of the fishing days is 22 for a total of n° 345 fishing operations. Some details as follow:

- 1) TRIP I: 12/12/2023 - 30/01/2024 - (observer on board) departure and arrival port **Victoria (Seychelles)**;
- 2) TRIP II: 04/02/2024 - 10/02/2024 - (observer on board) departure and arrival port **Victoria (Seychelles)**;
- 3) TRIP III: 11/02/2024 - 20/03/2024 - (observer on board) departure and arrival port **Victoria (Seychelles)**;
- 4) TRIP IV: 29/03/2024 - 28/04/2024 - (observer on board) departure and arrival port **Victoria (Seychelles)**;
- 5) TRIP V: 03/05/2024 - 21/05/2024 - (observer on board) departure and arrival port **Victoria (Seychelles)**;
- 6) TRIP VI: 23/05/2024 - 20/06/2024 - (observer on board) departure port **Victoria (Seychelles)** and arrival port **Diego Suarez (Madagascar)**;
- 7) TRIP VII: 22/06/2024 - 14/07/2024 - (observer on board) departure port **Diego Suarez (Madagascar)** and arrival port **Victoria (Seychelles)**;
- 8) TRIP VIII: 21/07/2024 - 15/08/2024 - (observer on board) departure and arrival port **Victoria (Seychelles)**;
- 9) TRIP IX: 17/08/2024 – 09/09/2024 - (observer on board) departure and arrival port **Victoria (Seychelles)**;
- 10) TRIP X: 14/09/2024 - 10/10/2024 - (observer on board) departure and arrival port **Victoria (Seychelles)**;

11) TRIP XI: 15/10/2024 - 29/10/2024 - (observer on board) departure port **Victoria (Seychelles)** and arrival port **Port-Louis (Mauritius)**;

Table 1: Number of vessels operating in the IOTC area of competence, by gear type and size class

	2020	2021	2022	2023	2024
PS > 25mt	1	1	1	1	1

3. CATCH AND EFFORT (BY SPECIES AND FISHERY) [Mandatory]

The fishing activities have been carried out between the northern Madagascar area, the Seychelles islands and the Eastern coasts of the Africa. The fishing operations were fully conducted with the “purse seine” fishing gear (PS) and the caught species were mainly: *Katsuwonus pelamis* (SKJ), *Thunnus albacares* (YFT) and *Thunnus obesus* (BET), representing around 99% of the total catches. The majority of the catches were collected using the FADs gear for a total of 75,8% of the fishing operations.

Table 2. Annual catch and effort by fishery and primary species in the IOTC area of competence [Mandatory]

Tab. 2a - Annual catches by gear, primary species and type of fish distribution (2020-2024) in tons

Year	Gear	Primary Species									
		YFT		SKJ		BET		ALB		Others	
		FAD	Free School	FAD	Free School	FAD	Free School	FAD	Free School	FAD	Free School
2020	PS	734	461	759	1.134	79	105	5	0	10	5,25
2021	PS	1.927	1.001	4.889	157	810	40	5	0	26	0
2022	PS	1.419	767	2.677	158	325	18	2	0	61	0
2023	PS	1.362,5	546,5	3.809,8	355,2	431,34	5,66	1	0	211,83	7,52
2024	PS	1.440	1.024	3.683	649	424	48	1	1	37,5	0
TOTAL		10.682		18.271		2.420		15		359,1	

Tab 2a.1 - Annual catches by gear and type of association (2020-2024) in tons

Haul	Gear	Year				
		2020	2021	2022	2023	2024
Free school	Purse seine	1575	1.198	943	915	1.722
FADs	Purse seine	4683	7.657	4.484	5.816,5	5.585,5
Whale sharks	Purse seine	19	0	10	0	30

Tab. 2b - Annual effort by days at sea (2020-2024)

Year	Gear	Fishing Effort (days at sea)
2020	Purse seine	165
2021	Purse seine	208
2022	Purse seine	166
2023	Purse seine	246
2024	Purse seine	265

Figure 1. Historical annual catch for the national fisheries by primary species, for the IOTC area of competence for the entire history of the fisheries. **[Mandatory]**

Fishing Gear: PS

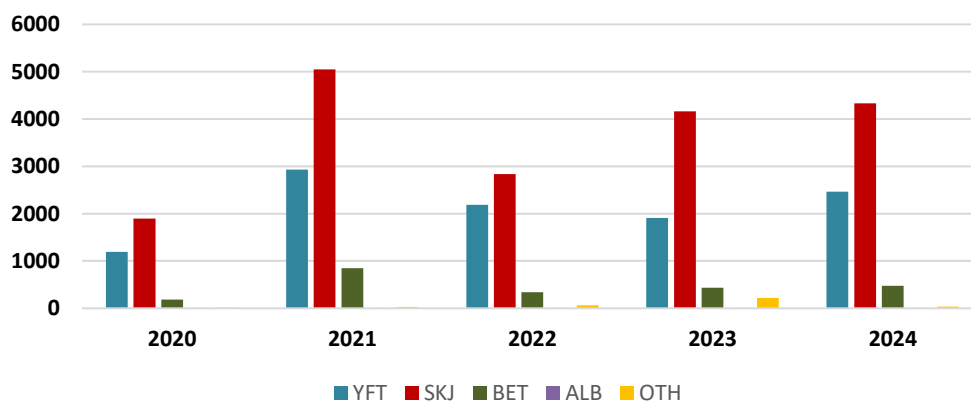
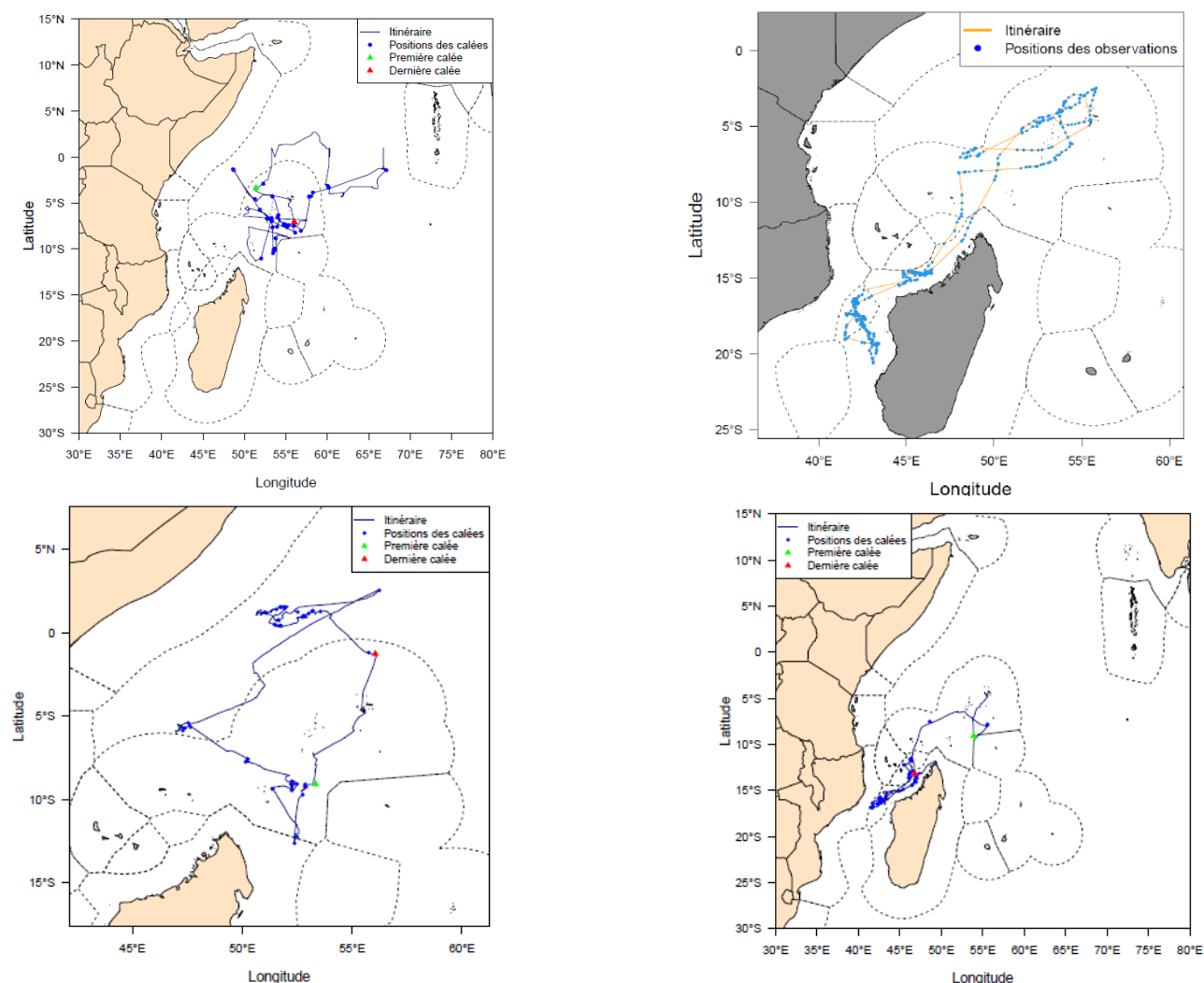


Figure 2a. Map of the distribution of fishing effort, by national fishery in the IOTC area of competence (most recent year e.g., 2024). **[Mandatory]**



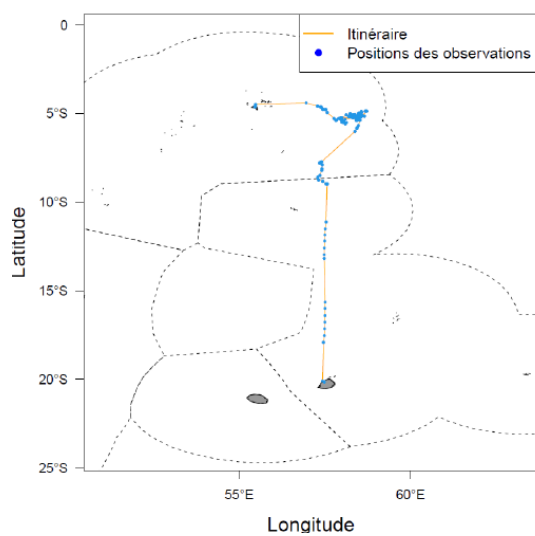
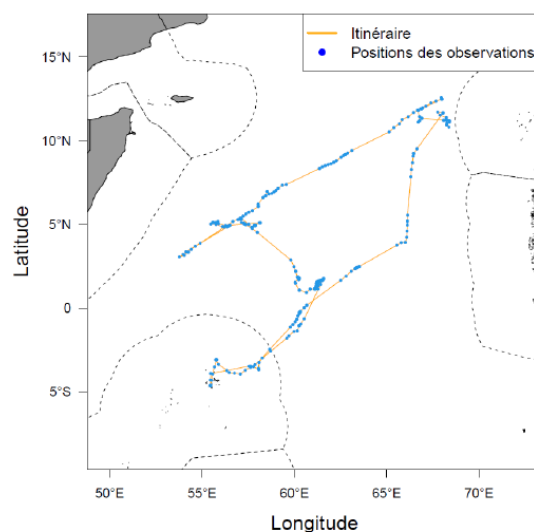
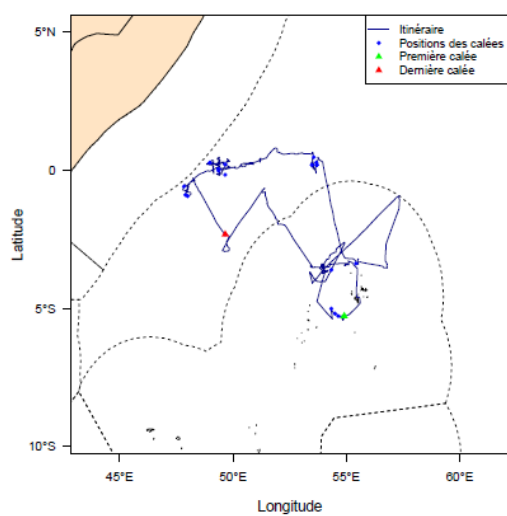
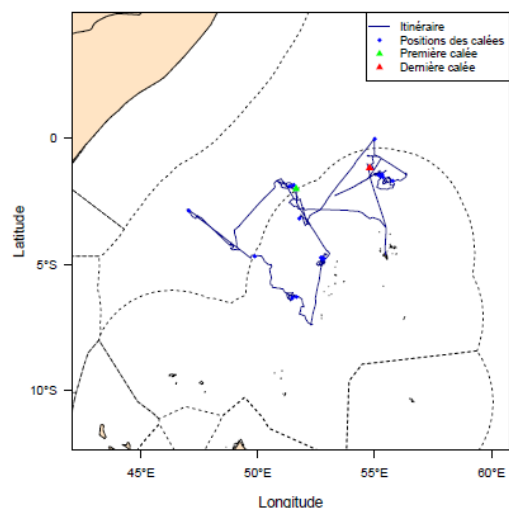
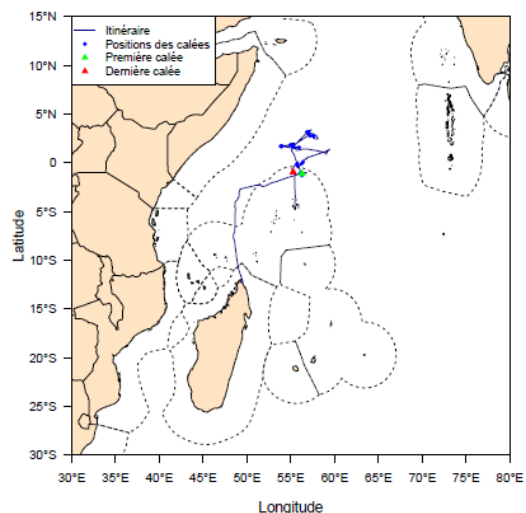
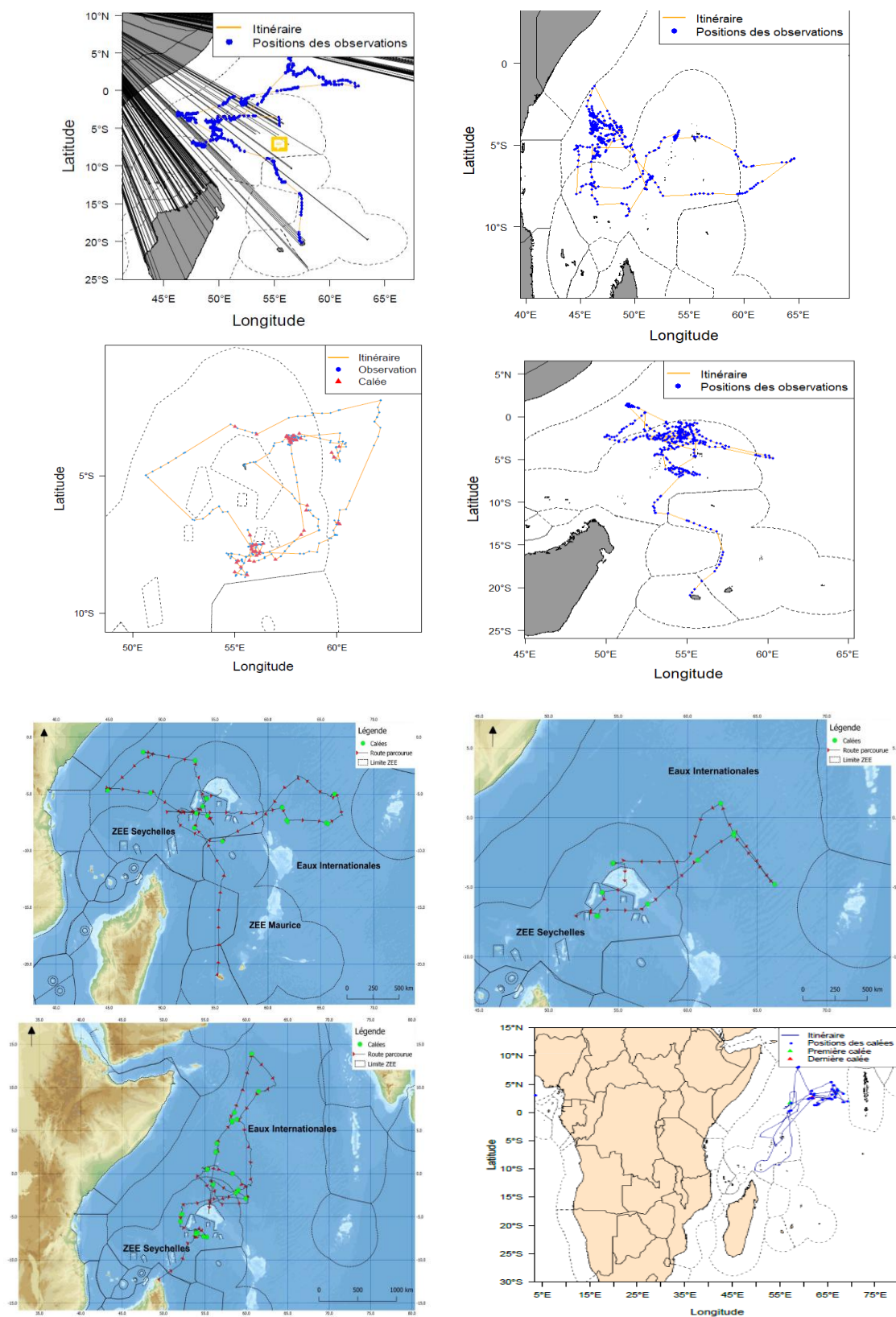


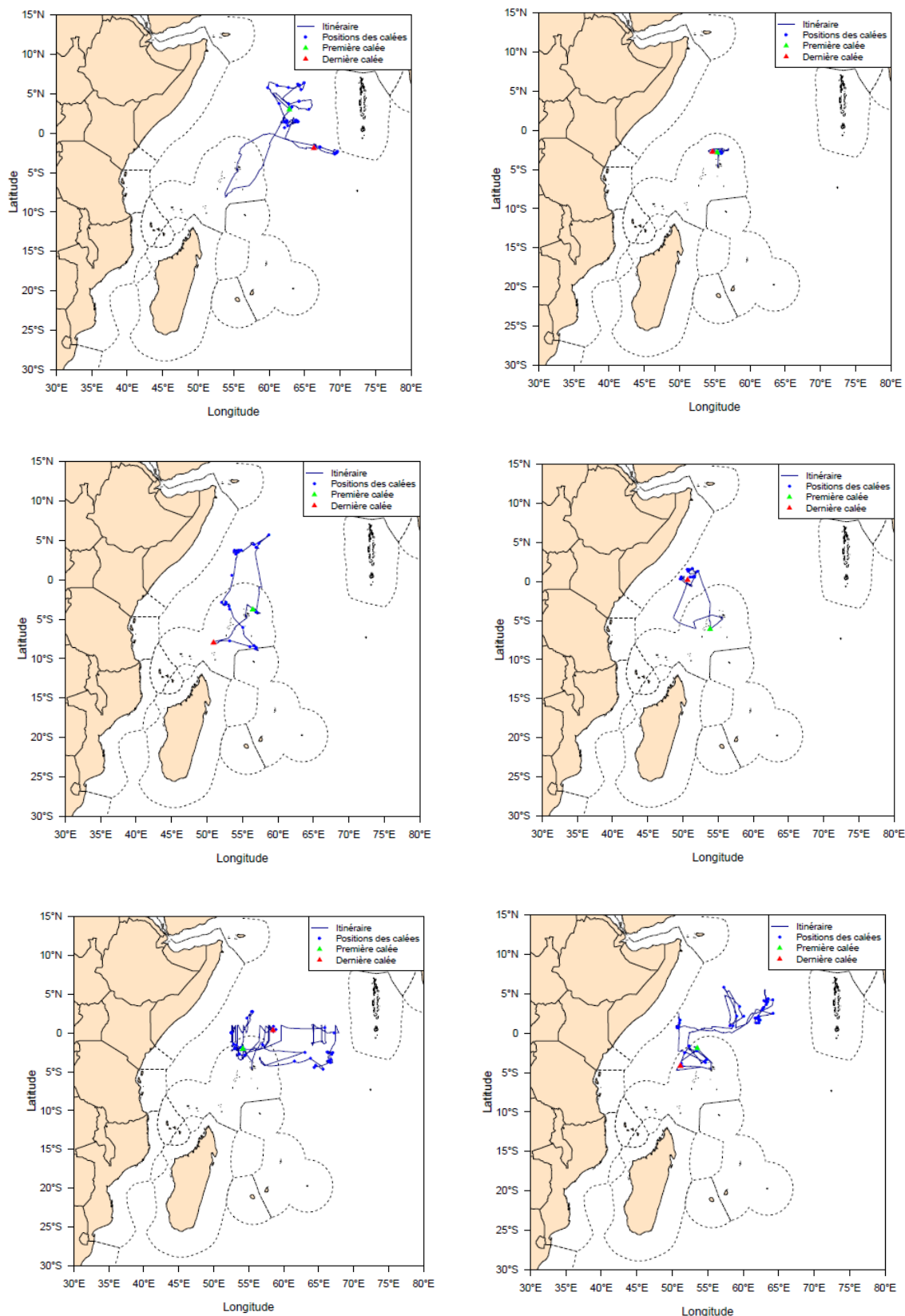
Figure 2b. Map of the distribution of fishing effort, by national fishery in the IOTC area of competence (average of the 5 previous years e.g., 2020–2024). **[Mandatory]**

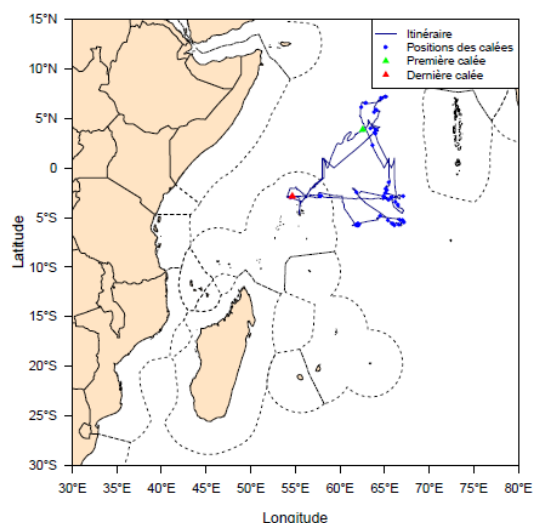
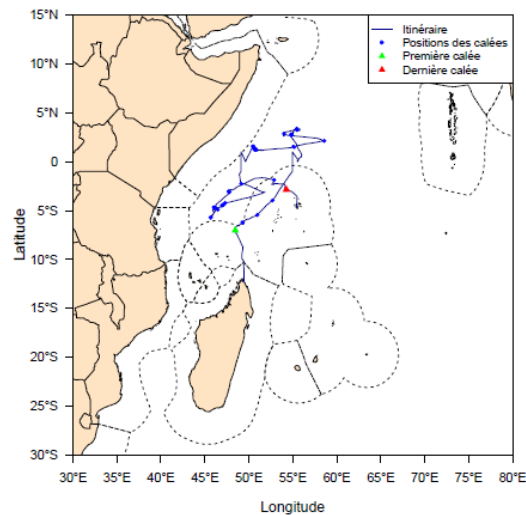
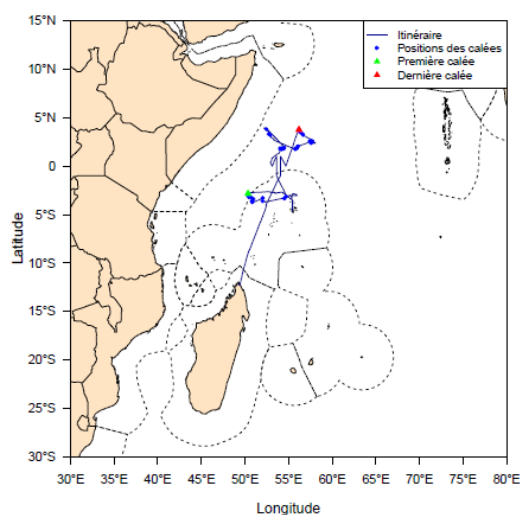
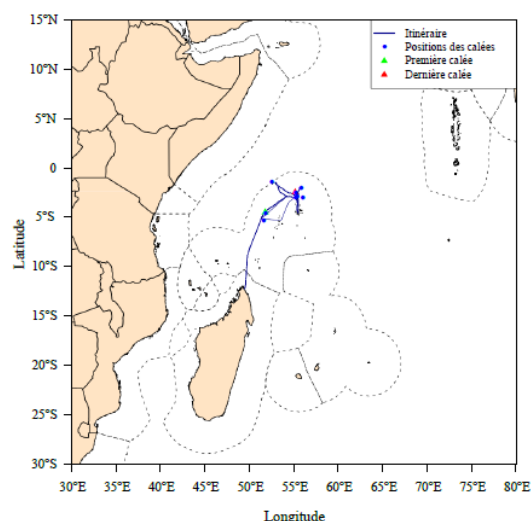
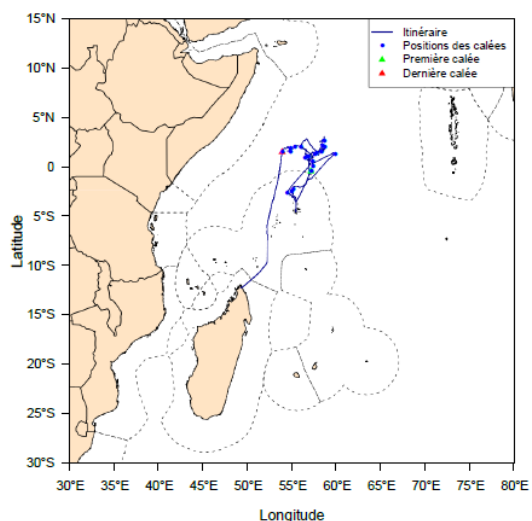
2020 - (A total of VIII Fishing Trips was carried out in 2020)



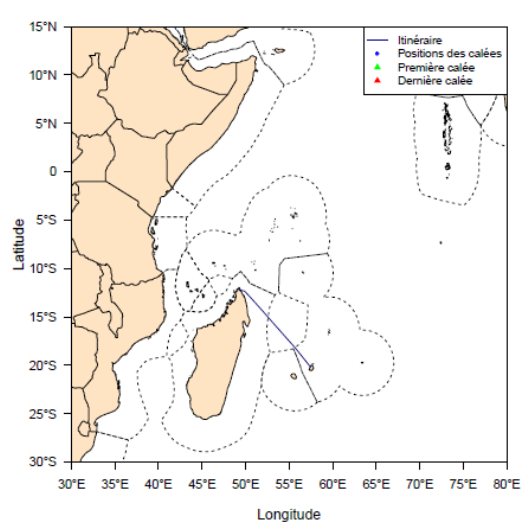
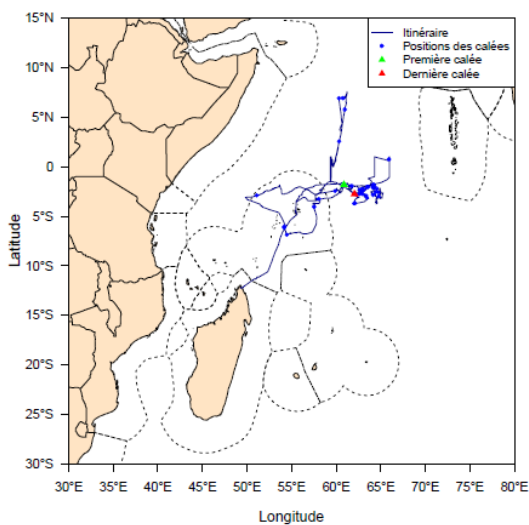
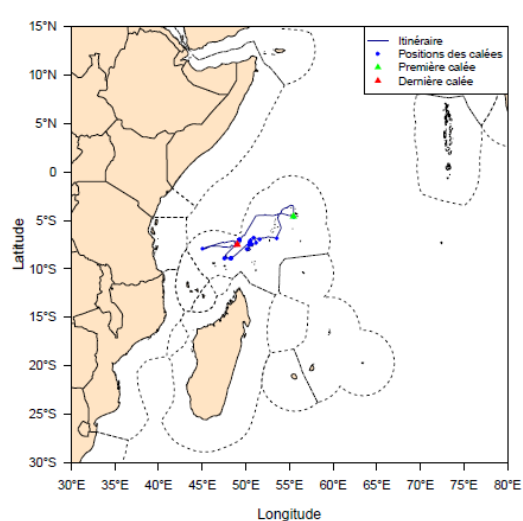
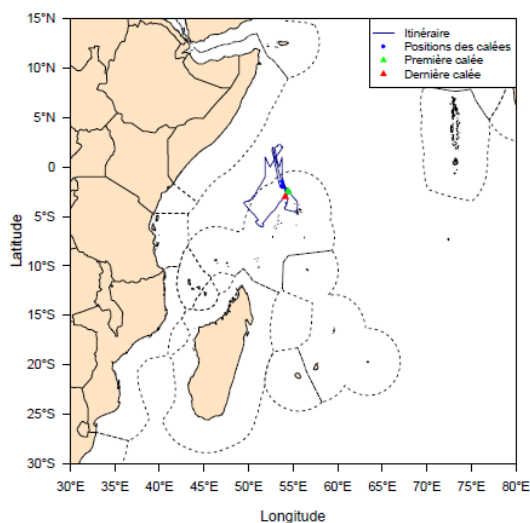
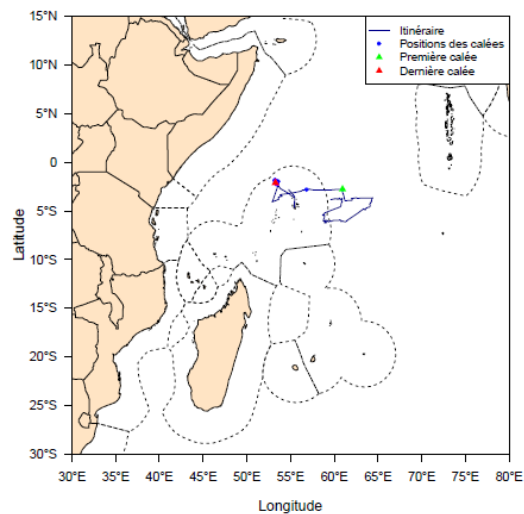
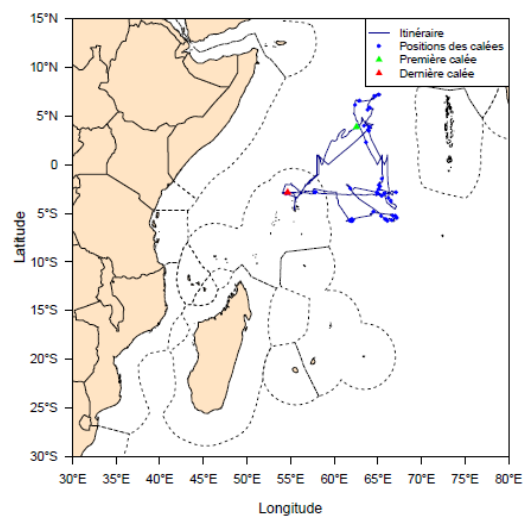
From July to December 2020, the distribution of the fishing effort is not available through maps, since data have been recorded through CCTV system onboard the vessel.

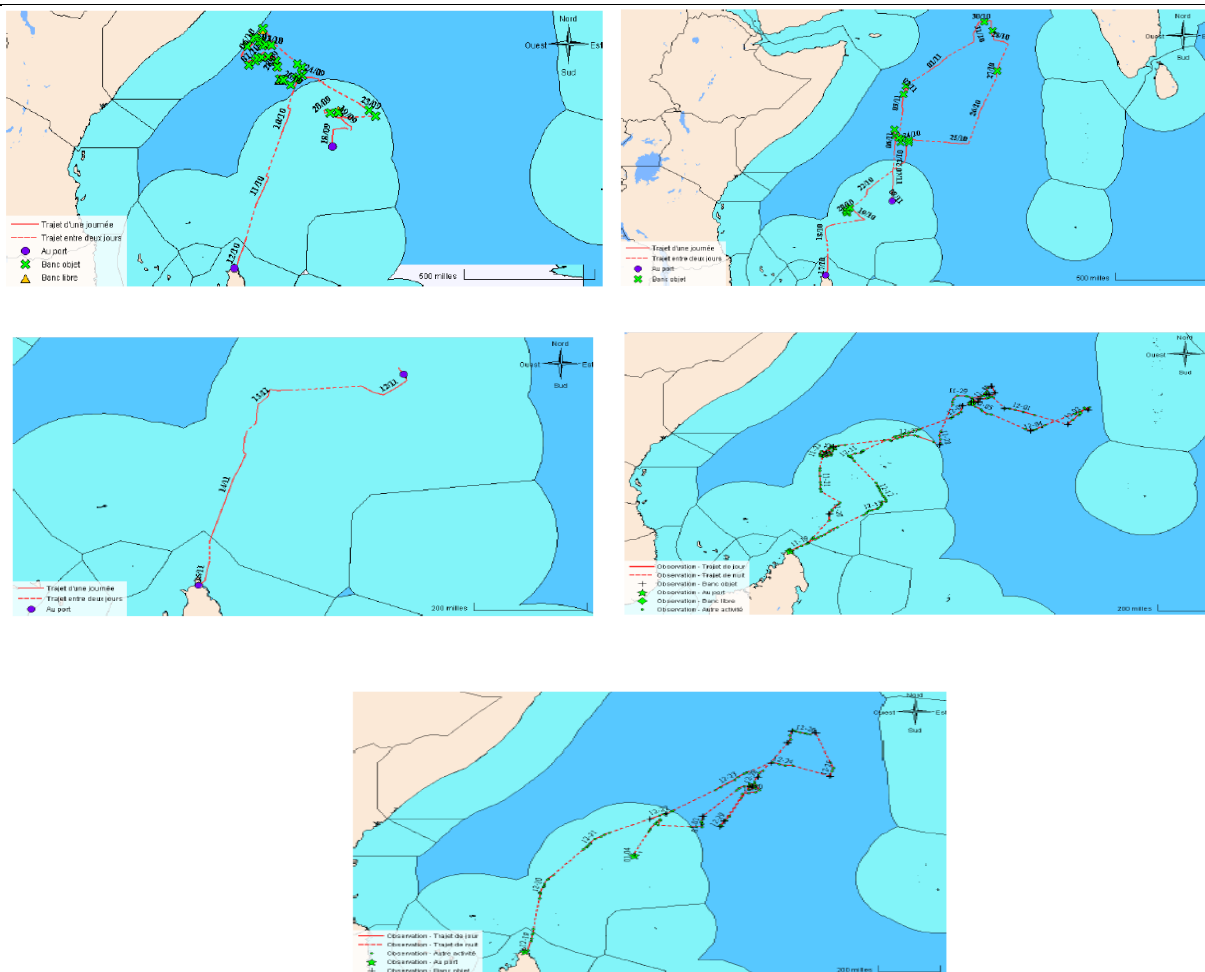
2021 - (A total of XI Fishing Trips was carried out in 2021)



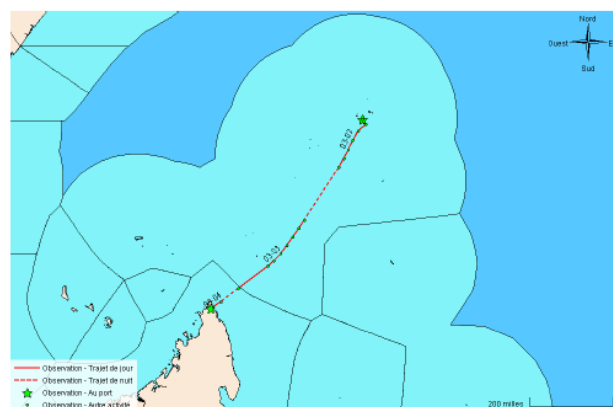
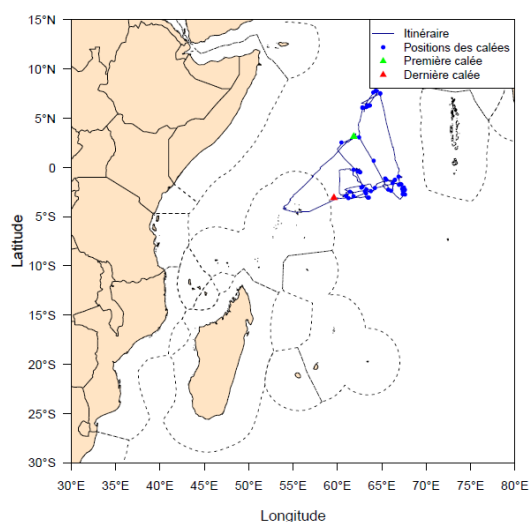


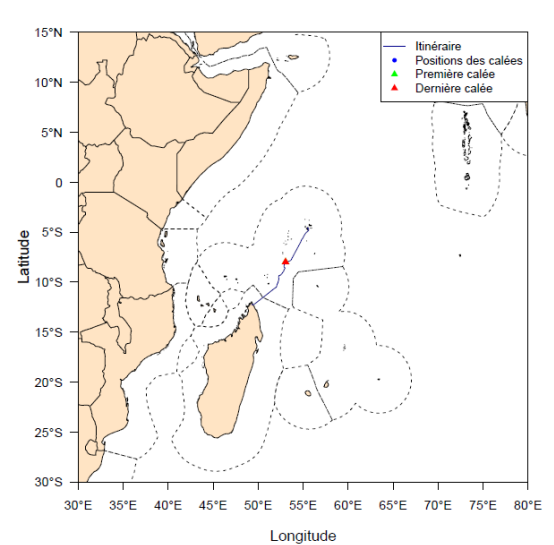
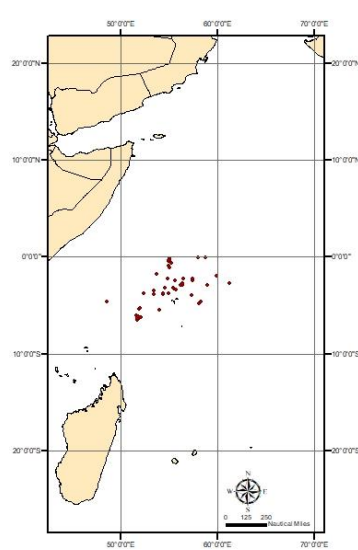
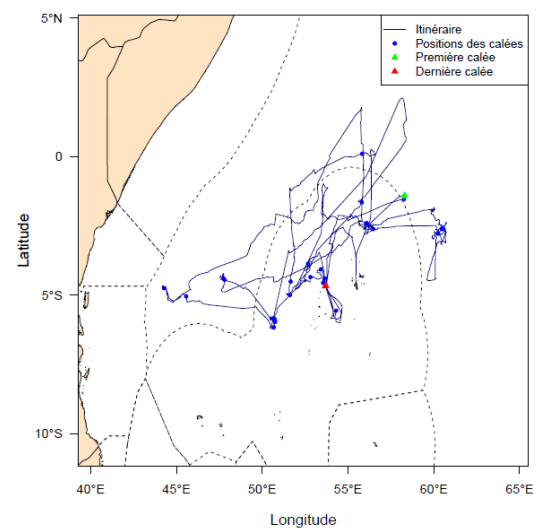
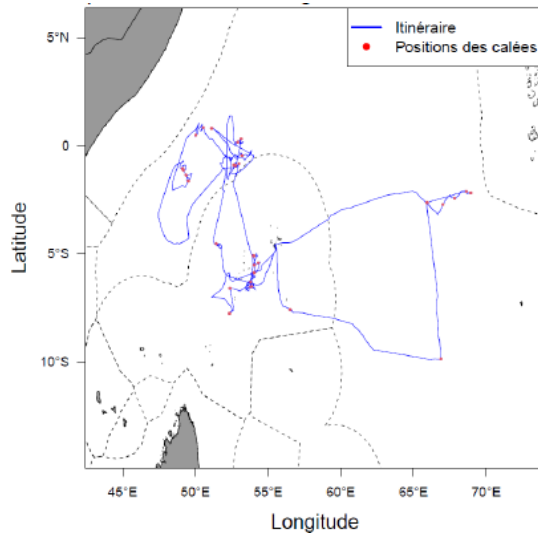
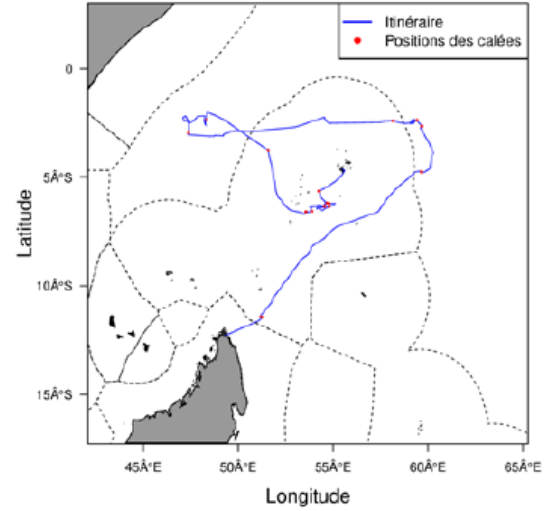
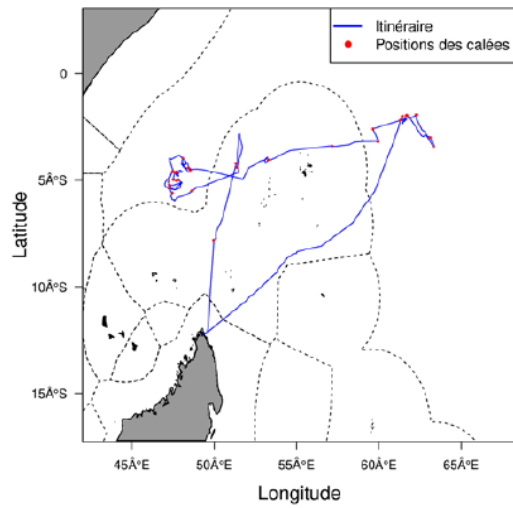
2022 - (A total of XI Fishing Trips was carried out in 2022)





2023 - (A total of X Fishing Trips was carried out in 2023)





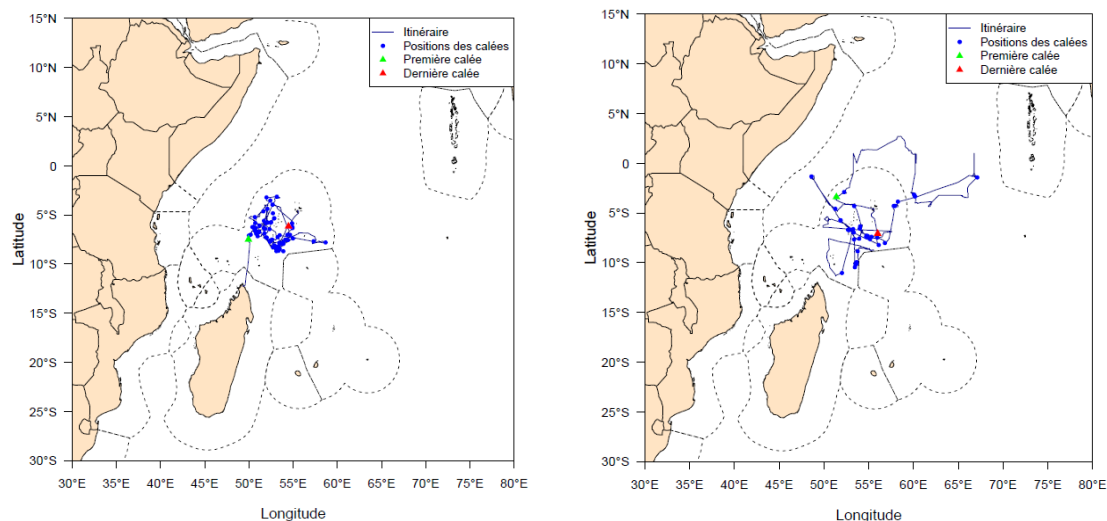
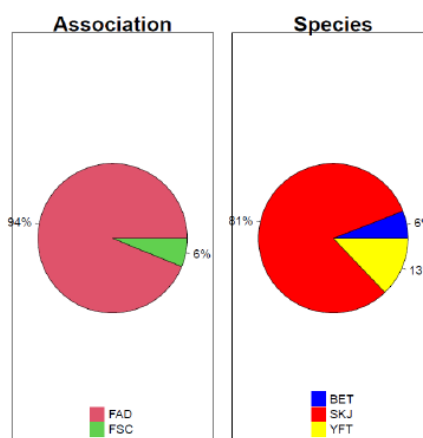
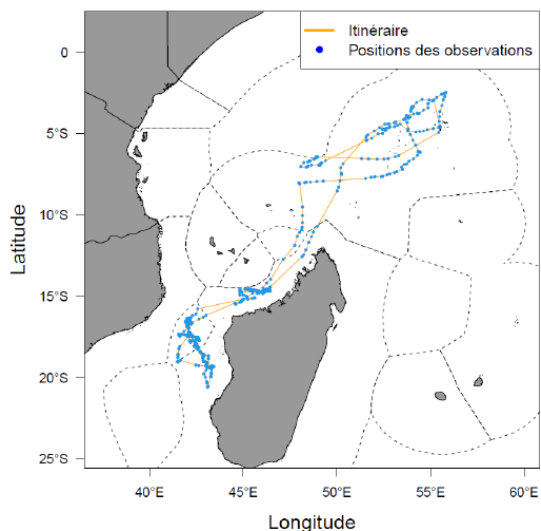
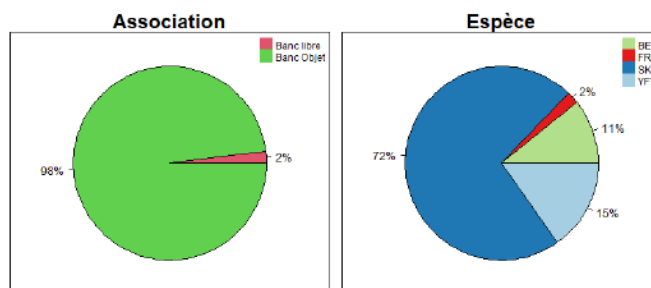
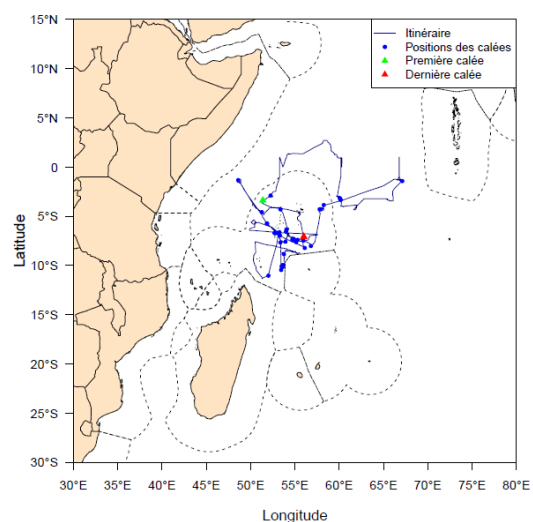
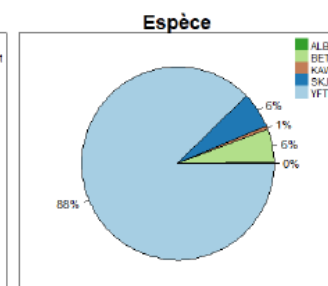
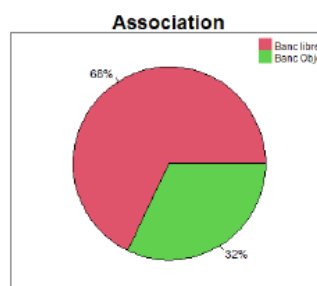
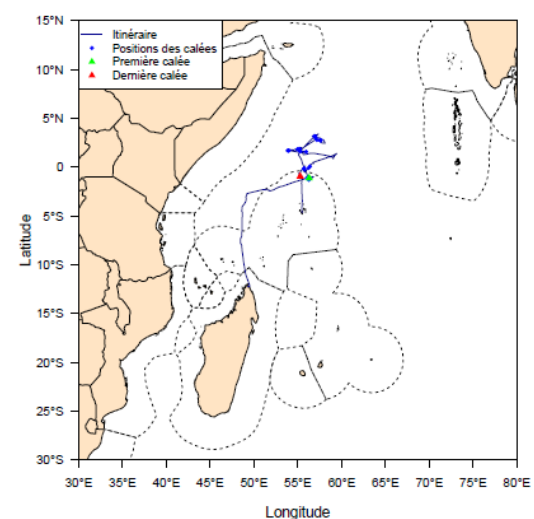
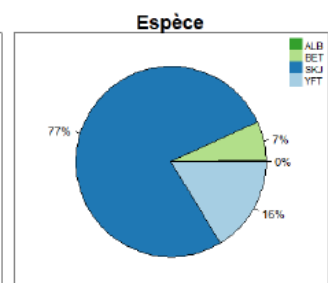
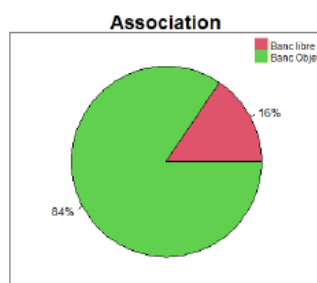
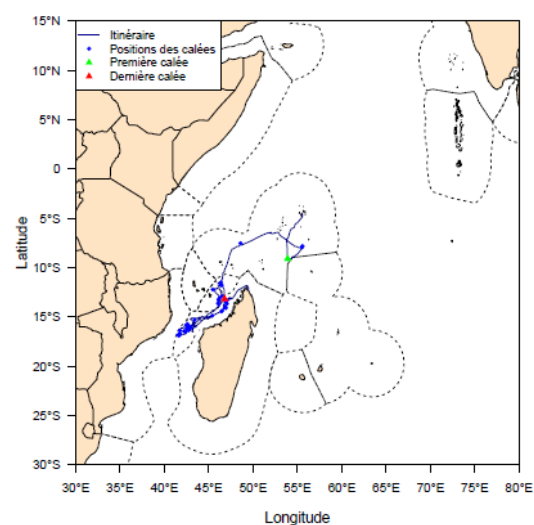
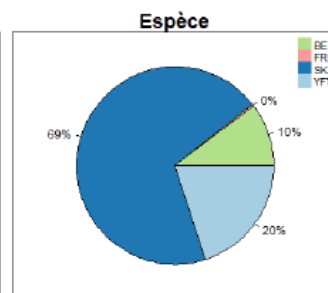
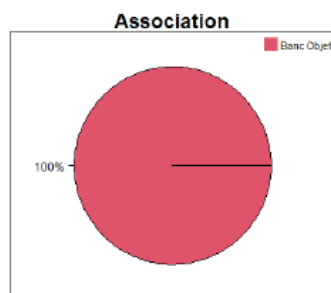
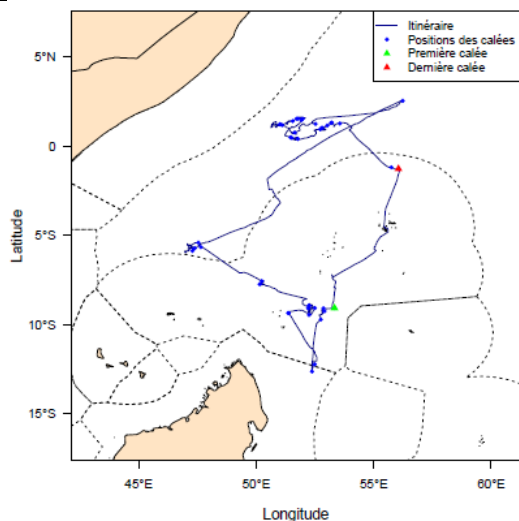
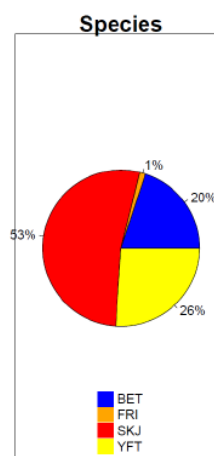
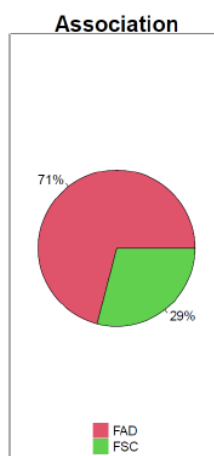
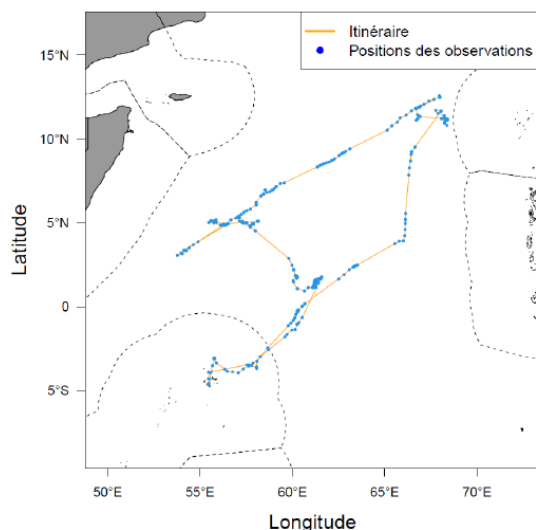
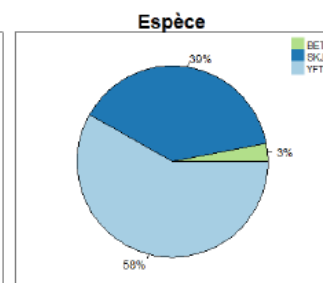
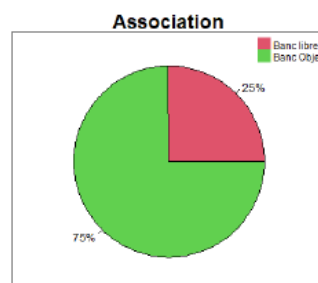
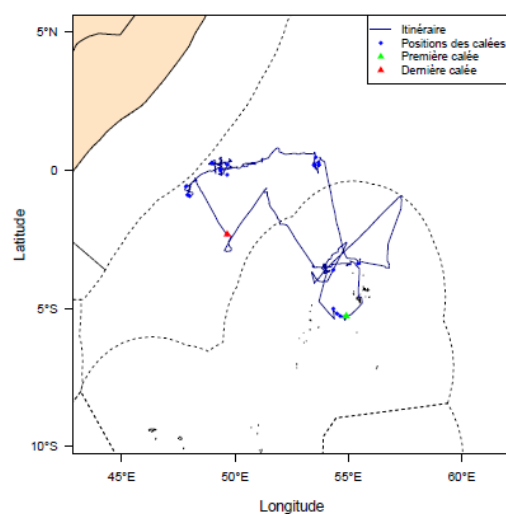
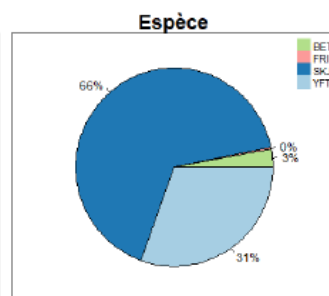
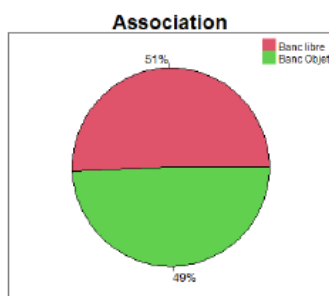
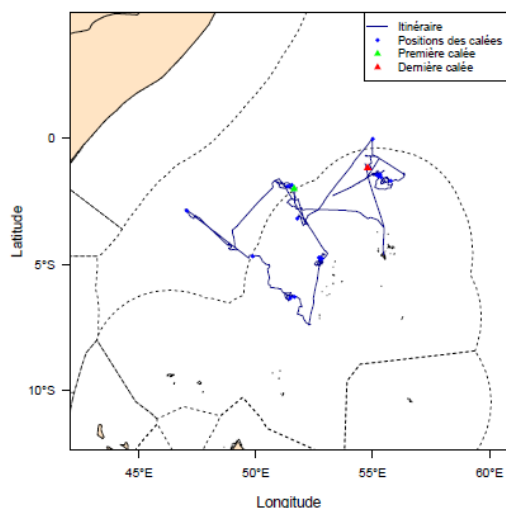


Figure 3a. Map of distribution of fishing catch, by species for the national fisheries, in the IOTC area of competence (most recent year e.g., 2024). **[Mandatory]**







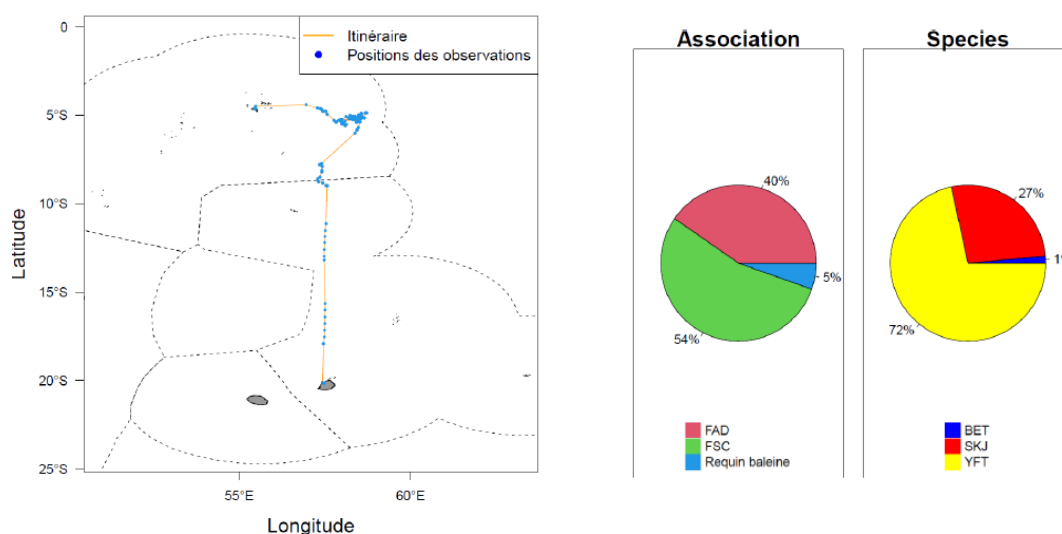
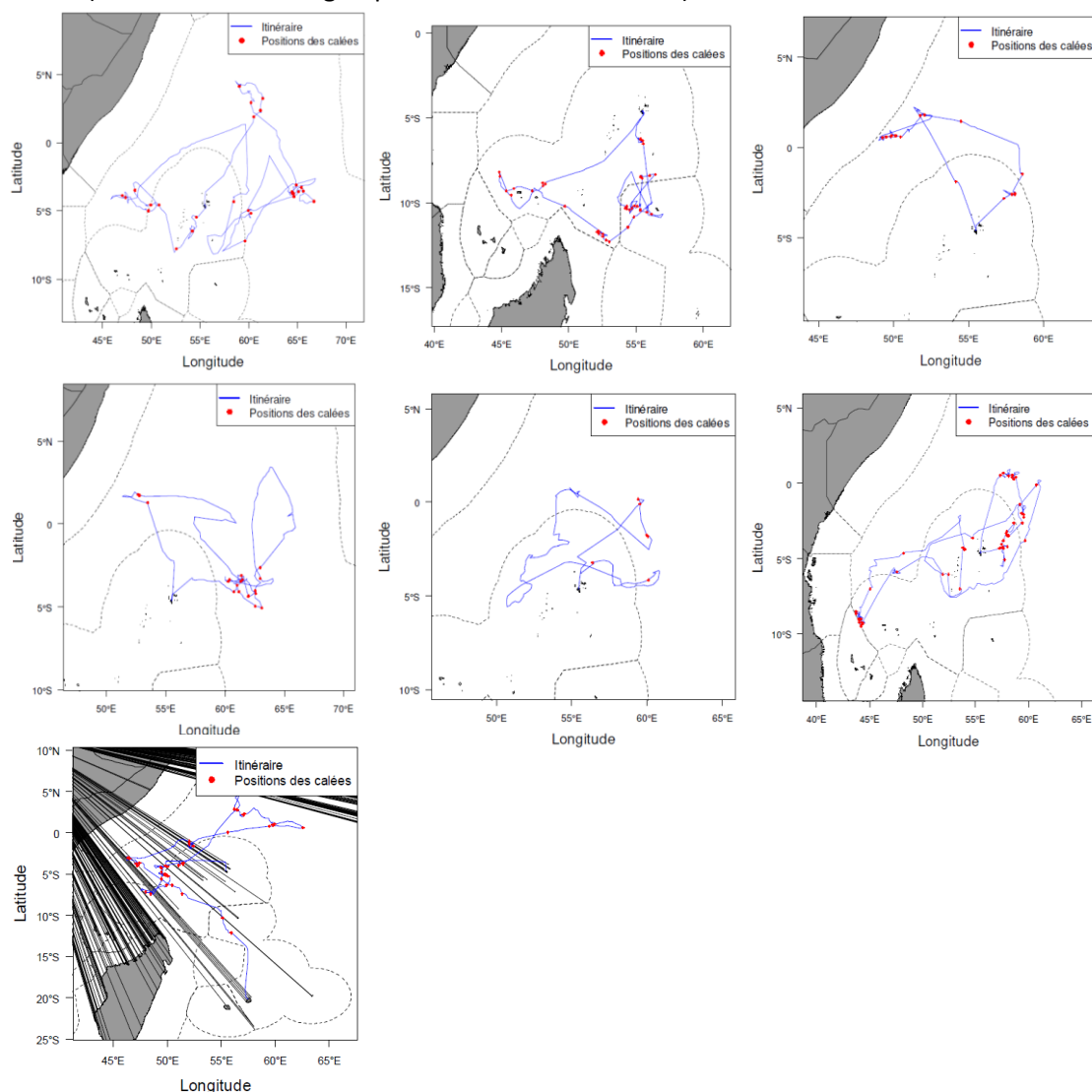
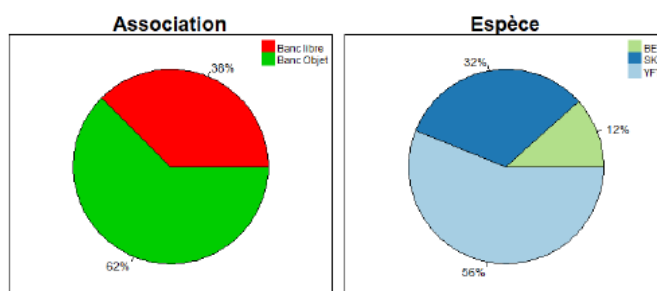
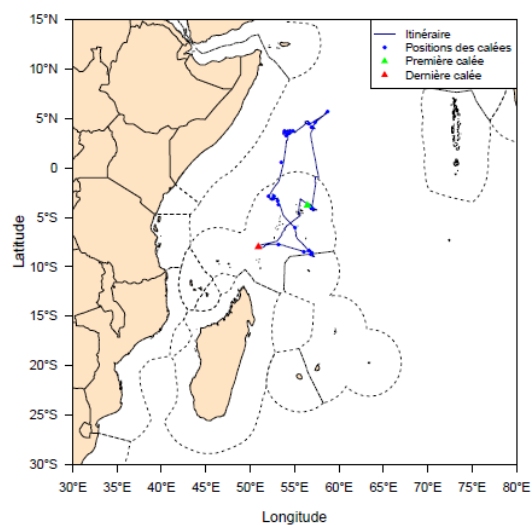
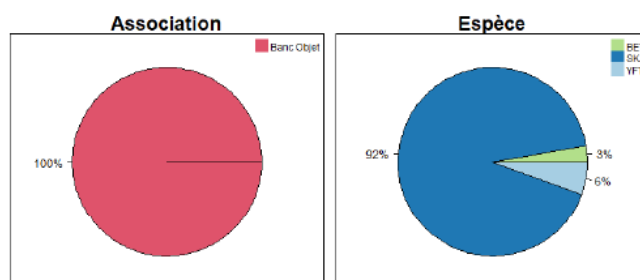
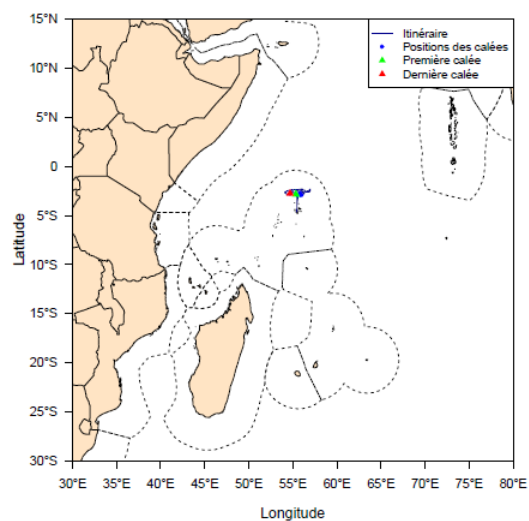
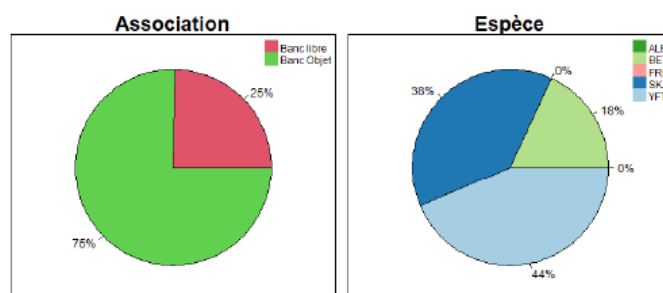
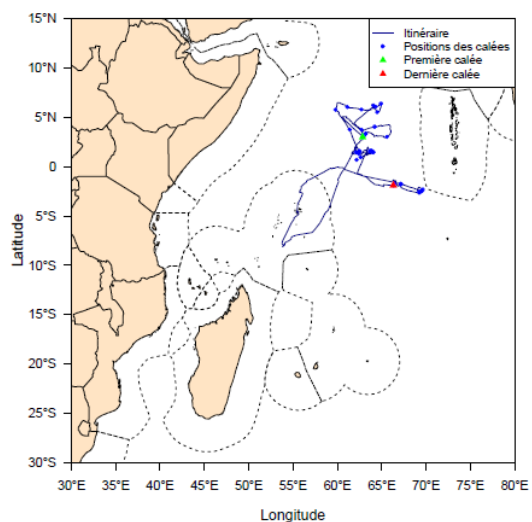


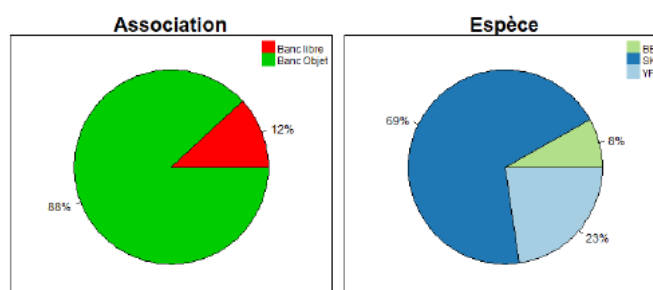
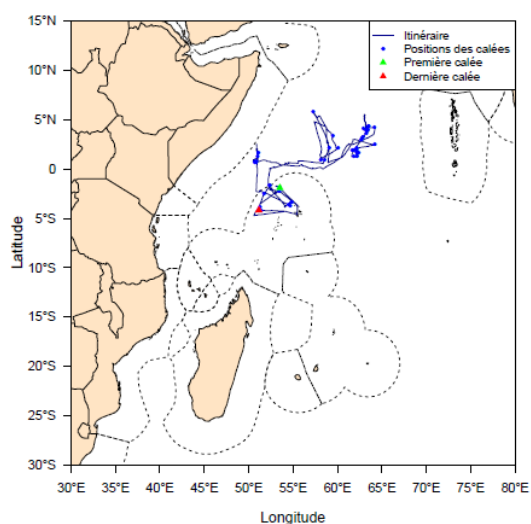
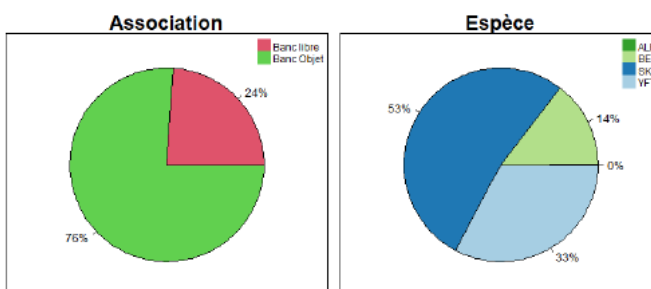
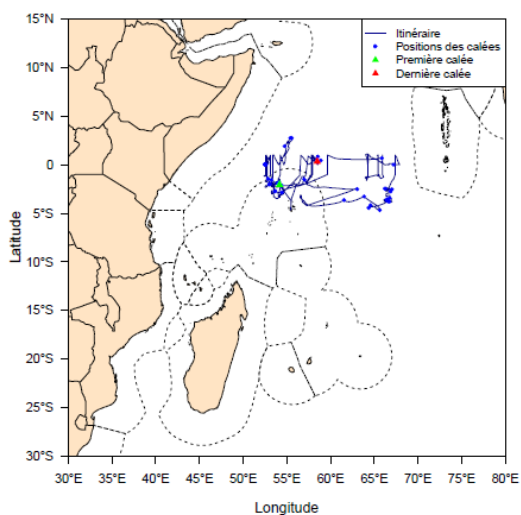
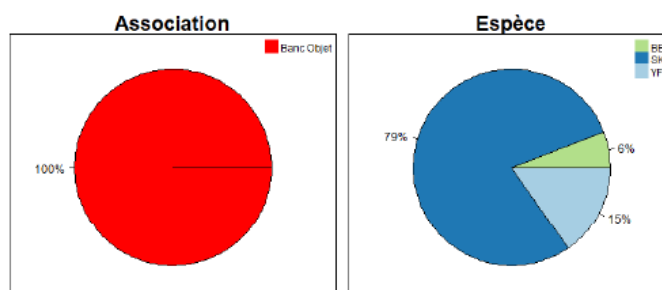
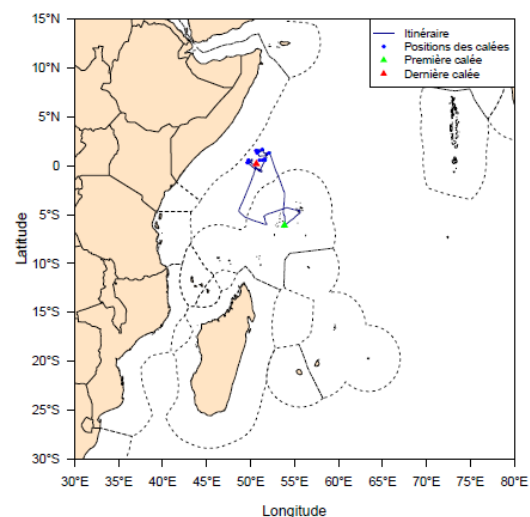
Figure 3b. Map of distribution of fishing catch, by species for the national fisheries, in the IOTC area of competence (average of the 5 previous years e.g., 2020–2024). **[Mandatory]**

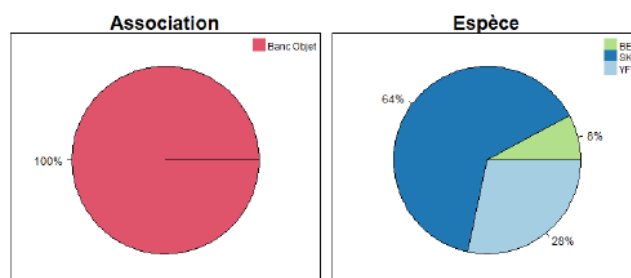
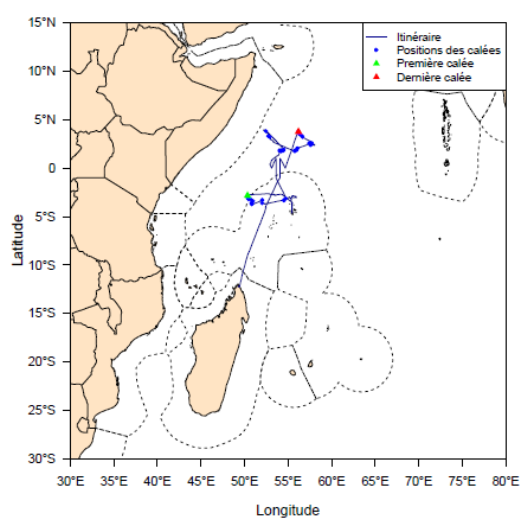
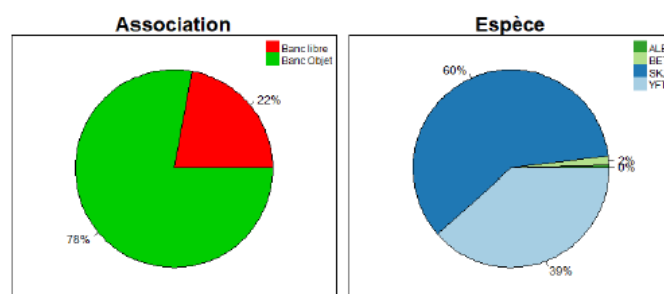
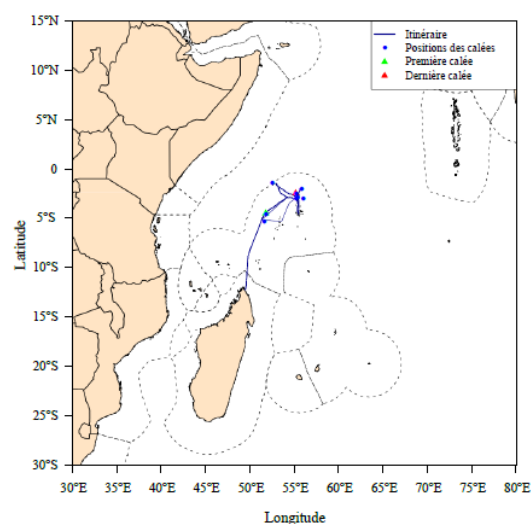
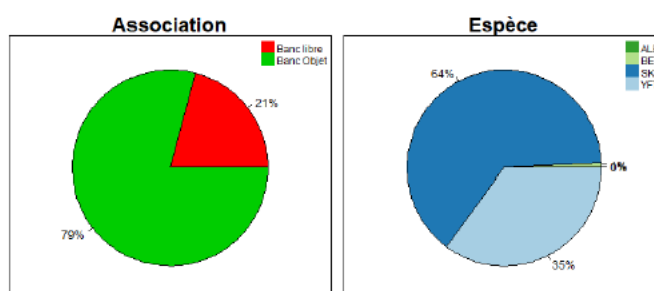
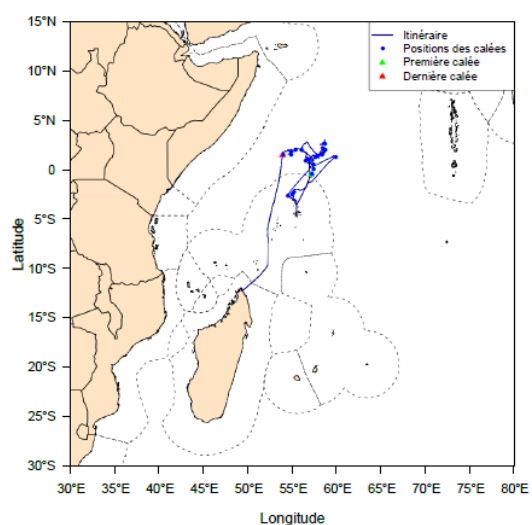
2020 – (A total of VIII Fishing Trips was carried out in 2020)

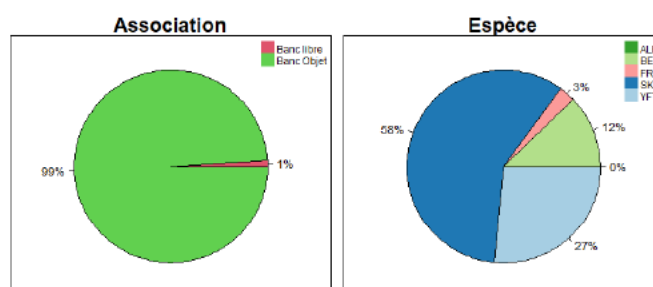
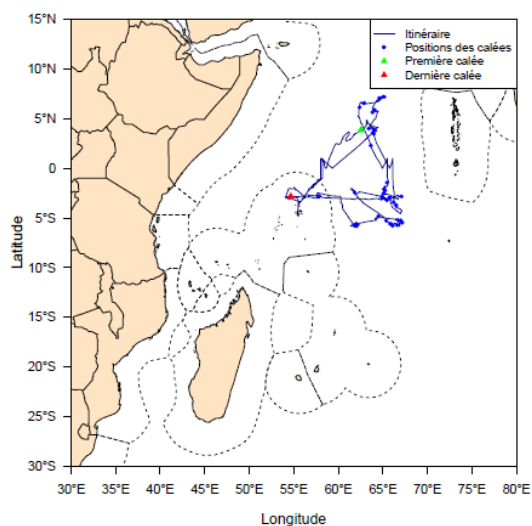
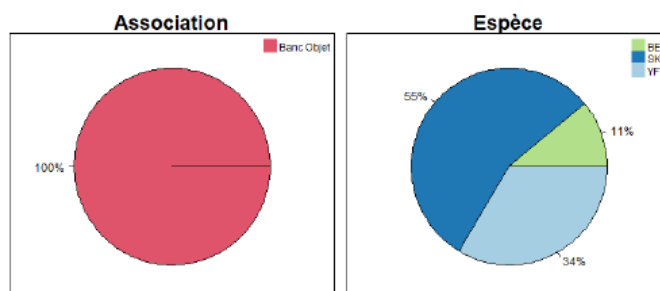
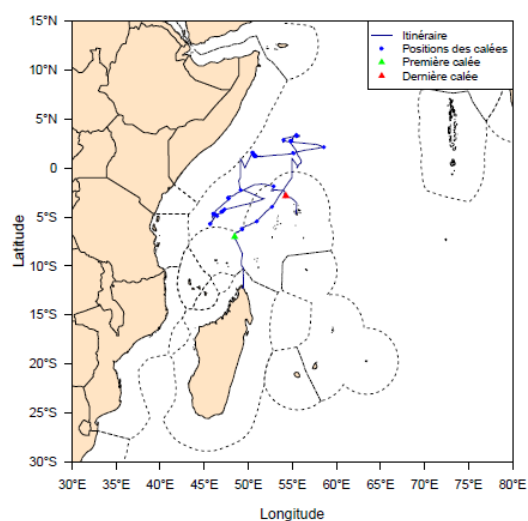


2021 - (A total of XI Fishing Trips was carried out in 2021)

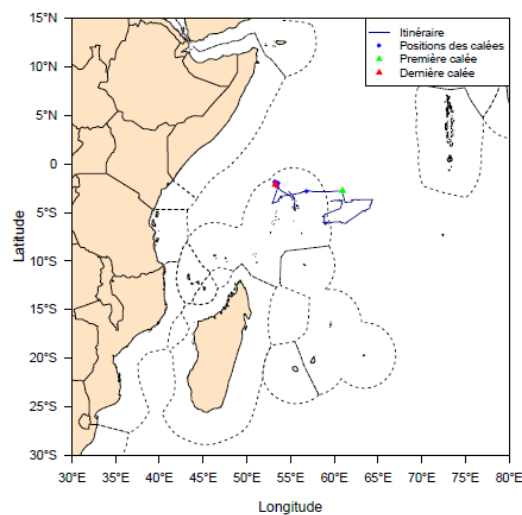
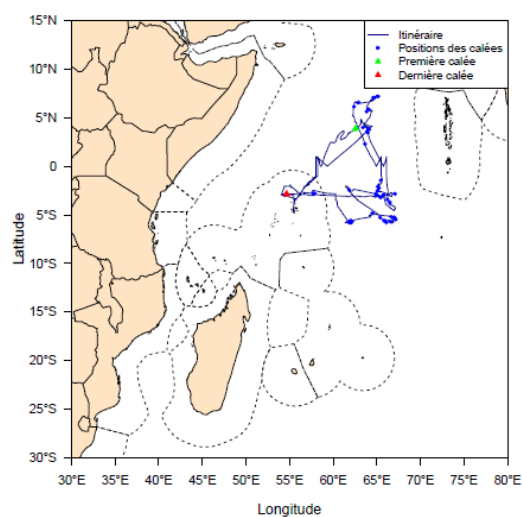


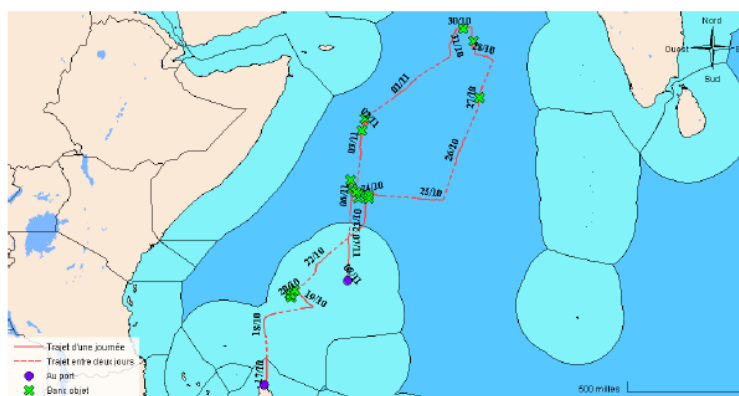
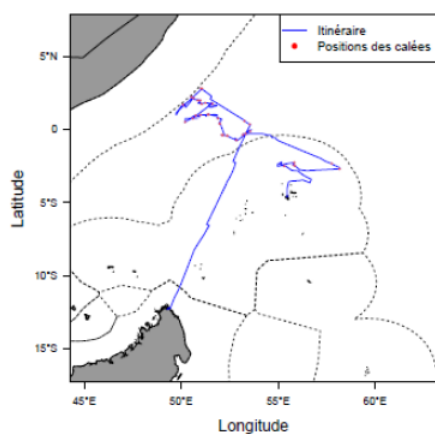
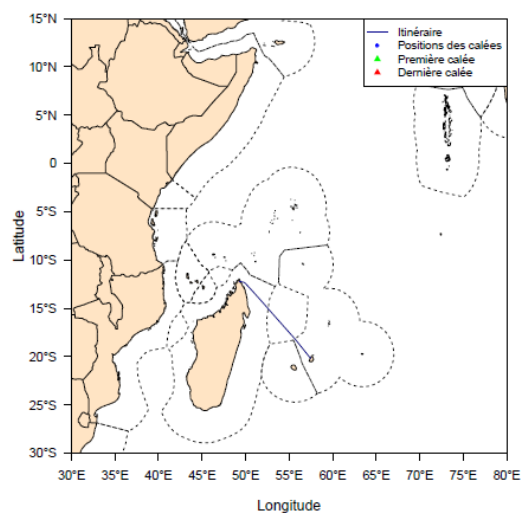
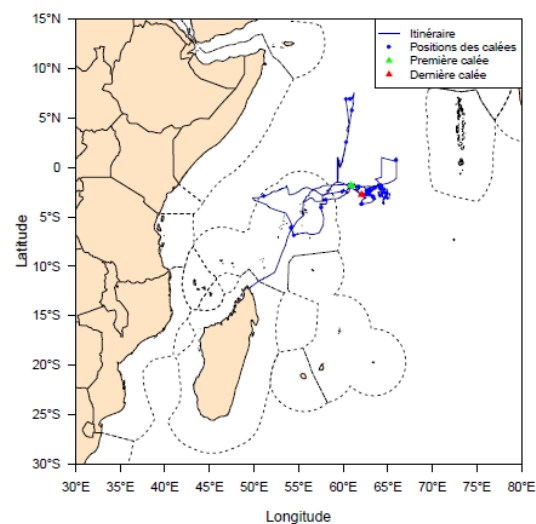
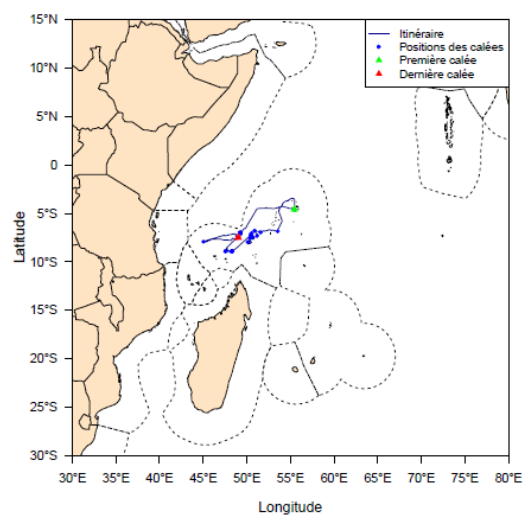
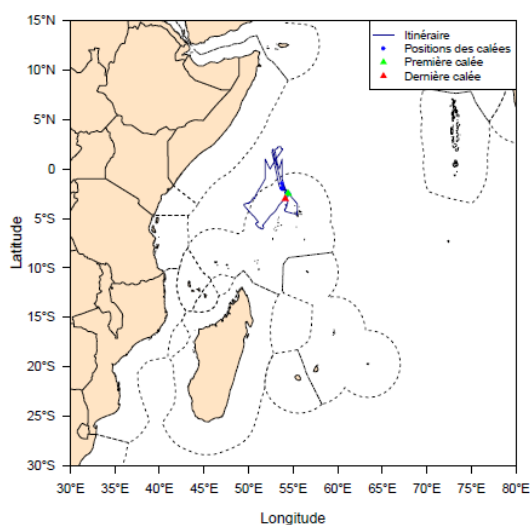


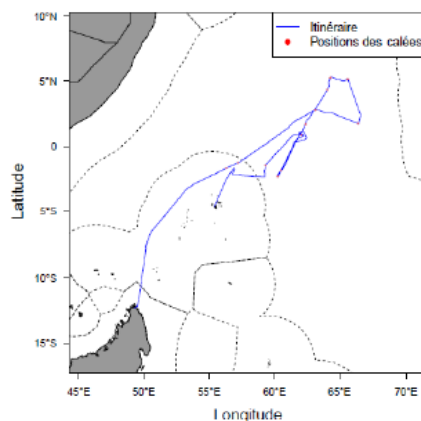
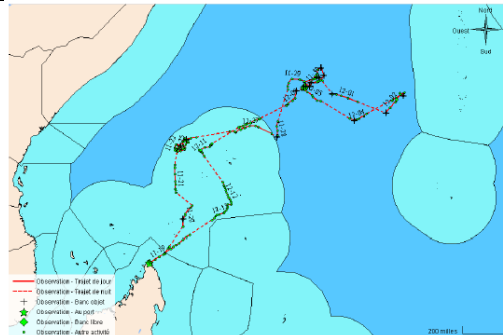
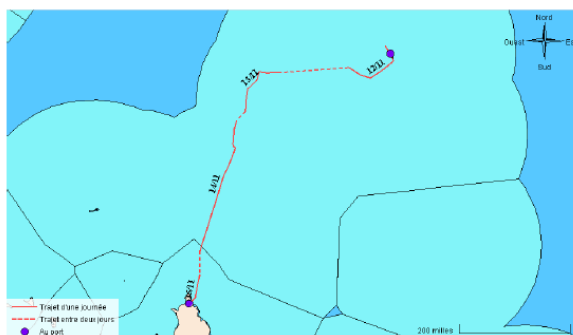




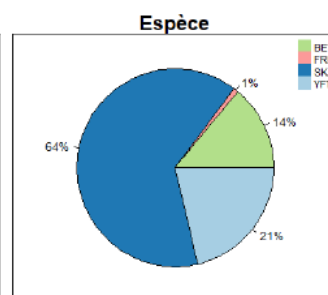
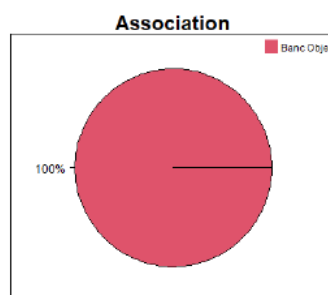
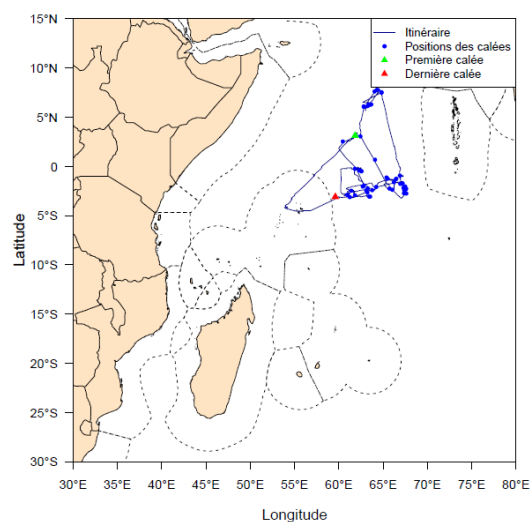
2022 – (A total of XI Fishing Trips was carried out in 2022)

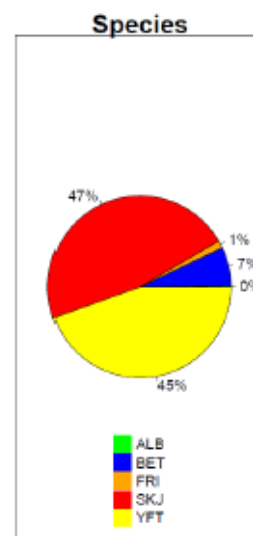
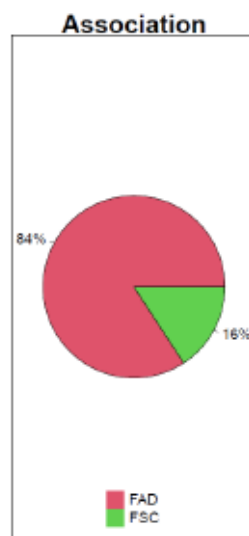
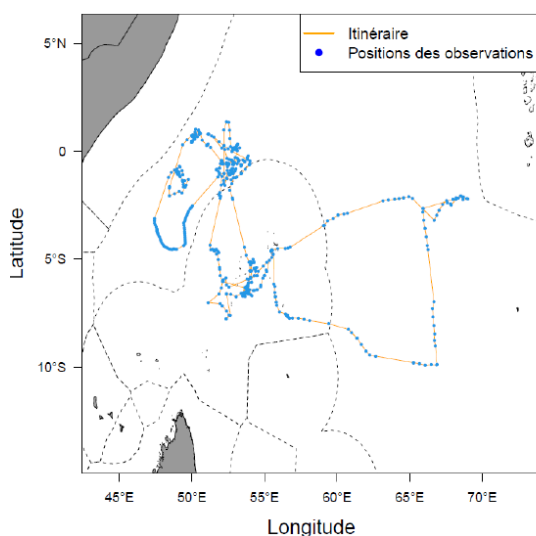
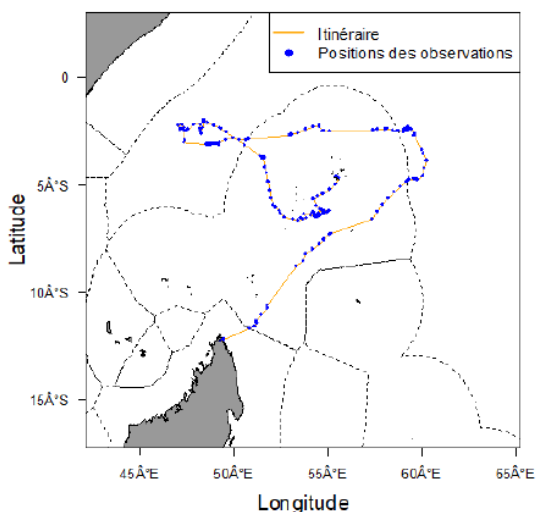
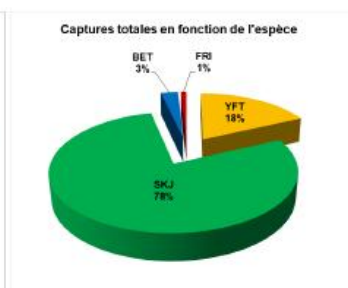
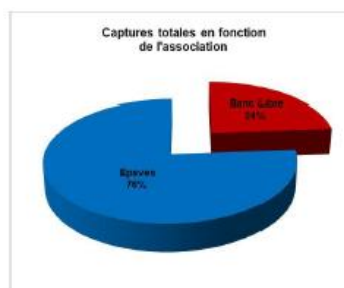
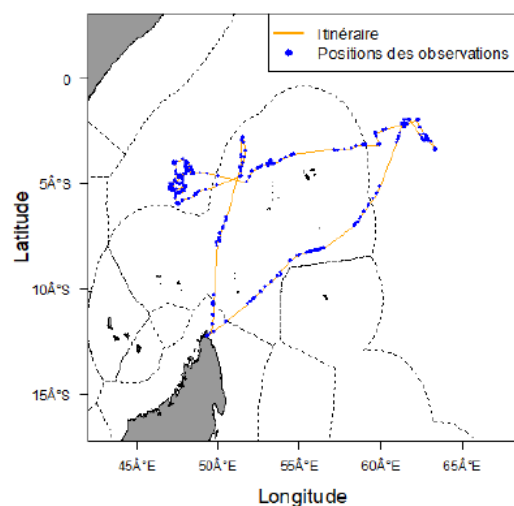


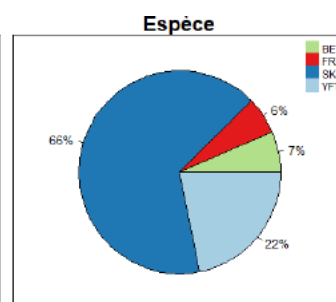
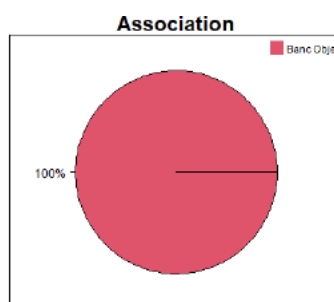
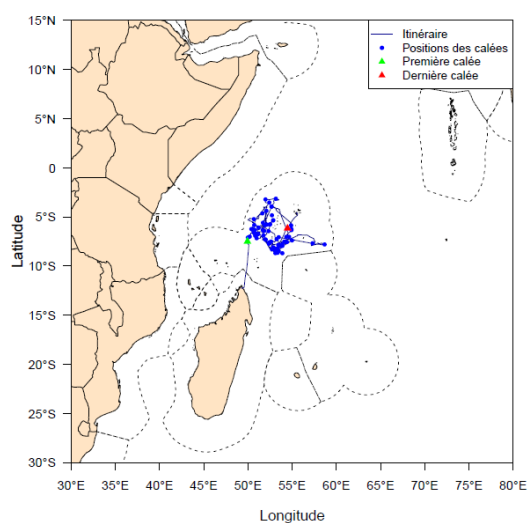
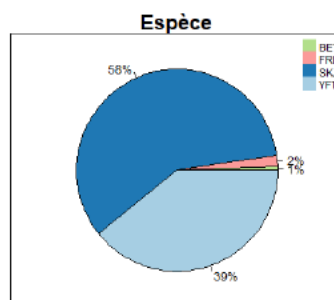
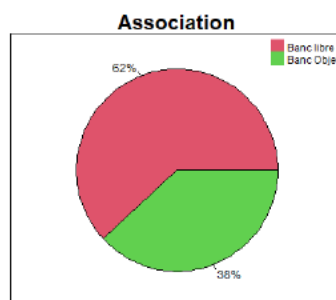
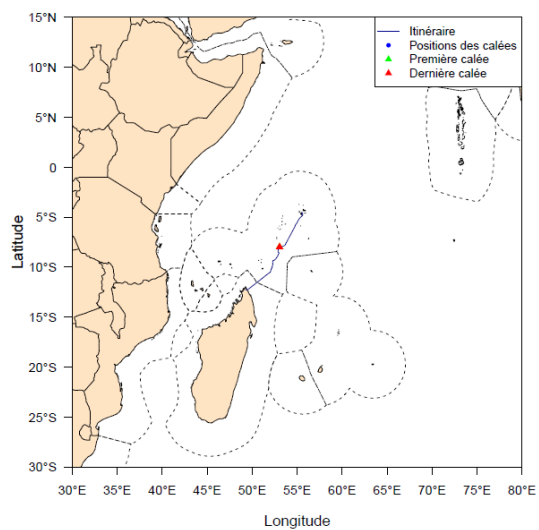
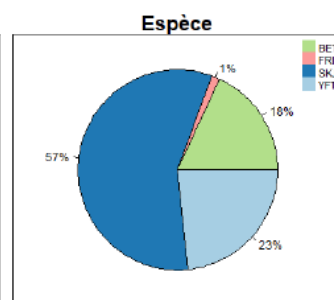
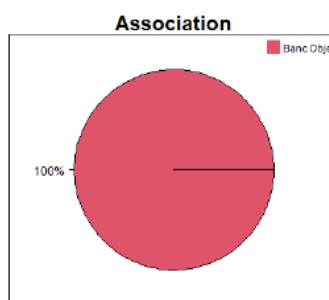
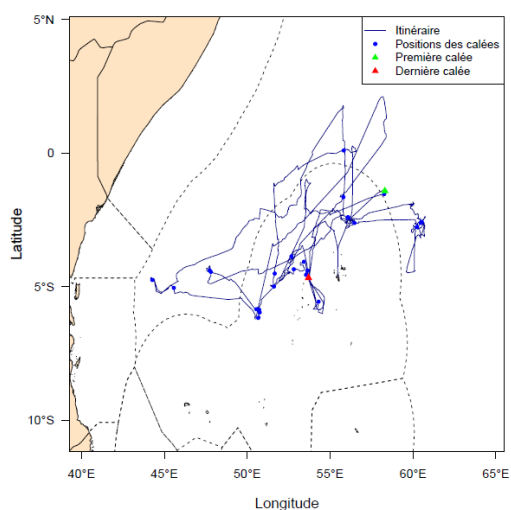


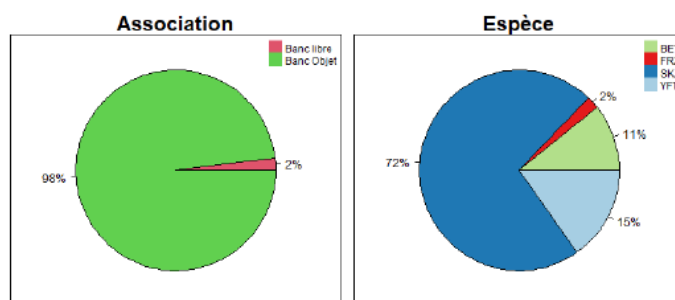
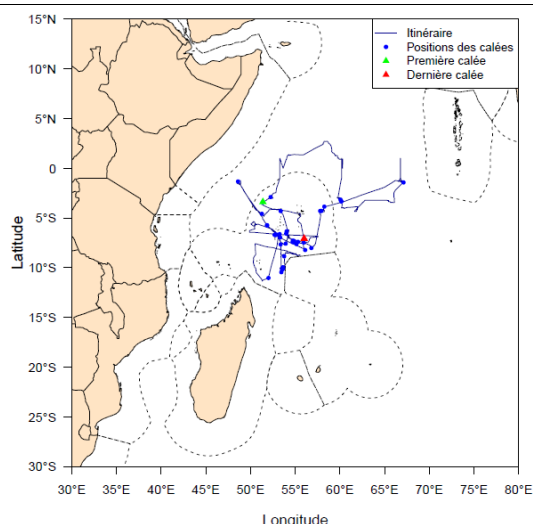


2023 – (A total of VIII Fishing Trips was carried out in 2023)









4. RECREATIONAL FISHERY [Mandatory]

Not Applicable. Italian recreational fishing fleet is not operational in the IOTC area.

5. ECOSYSTEM AND BYCATCH ISSUES [Mandatory]

Within the IOTC area, the Agreement Tuna Future "Sharks" aims at implementing the responsible and sustainable fishing practices by reducing or even eliminating the mortality of by-catch species (sharks, rays and turtles) caught accidentally by purse seiners. The crew has been trained in good practices, consisting for example in: i) how to handle sharks; ii) how to release rays using accurate tools. This Agreement is part of the implementation of responsible and sustainable fishing practices.

5.1 Sharks [Mandatory]

According to the International Union for the Conservation of Nature (IUCN) Red List, around 20% of cartilaginous fish are threatened species. Since 2006, a monitoring programme of by-catches of cetaceans, sea turtles, and elasmobranchs by Italian pelagic trawlers has been conducted in the northern central Adriatic Sea. The Adriatic Sea is the most heavily impacted area by fishing activities. Several elasmobranch species are particularly vulnerable to the effects of bycatch due to their biological characteristics (long lifespan, late age at maturity, large size at birth, and low reproductive rates). In European waters, elasmobranchs are generally considered commercial species, except for *Cetorhinus maximus* and *Carcharodon carcharias*.

The monitoring programme consists in survey campaigns which are carried out by observers on board of pelagic trawlers (mostly). For each haul, they record operational parameters including the following parameters: haul duration, time of net setting, hauling, trawling speed (nm), geographical coordinates (latitude and longitude) and water depth.

Incidental bycatch of sensitive species (Protected, Endangered and Threatened – PET) are usually recorded through the SciObsAtSea sampling scheme, and additional information are collected through i) dedicated onshore interviews as part of the SciObsOnShore sampling scheme and ii) Logbooks. For both SciObsOnShore data collection (interviews and logbooks), fishers are asked to provide information about quantitative and qualitative structure of the bycatch.

In addition, a dedicated scientific observation at sea sampling scheme has been planned. This out-of-frame sampling scheme guarantees more accurate data on commercial population structure and biological information because it is conducted specifically in the collection of incidental bycatch of sensitive species such as cetaceans, birds, reptiles and protected fish during pelagic trawl fisheries in Adriatic, in order to fulfil the

EU obligations set out in the Habitats Directive (92/43/EEC), Regulation (EU) 2019/1241 of 20 June 2019 (repealing Regulation (EC) 812/2004) on the conservation of fishery resources and the protection of marine ecosystems.

A complete assessment of the relative risk of bycatch for the different gear types/metiers was not realised yet. According to Recommendation 4 of RCG Med&BS 2021, a joint workshop of RCG Med&BS and STREAMLINE on data needed to assess the impact of fisheries on the marine ecosystem took place in April 2022. The outcomes are considered. A PSA-based risk analysis was conducted for the Mediterranean (Li Veli et al., 2024) at sub-regional level, but not at the metier and GSA level. However, the outputs of this study were also considered.

Tab. 2.c – Total number of sharks by species (2023)

Fish species			Destination			
Year	Code	Scientific name	Discarded alive	Discarded dead	Indeterminate	Retained onboard
2024	RSK	<i>Carcharhinidae</i>	52	//	698	//
2024	FAL	<i>Carcharhinus falciformis</i>	73	165	379	//
2024	OCS	<i>Carcharhinus longimanus</i>	2	//	7	//
2024	PLS	<i>Pteroplatytrygon violacea</i>	//	//	1	//
2024	RMT	<i>Mobula tarapacana</i>	1	//	//	//
2023	RMM	<i>Mobula mobular</i>	//	//	1	//
2024	RHN	<i>Rhincodon typus</i>	3	//	//	//

5.1.1. NPOA sharks [Desirable]

Not Applicable

5.1.2. Blue shark [Mandatory]

The observers were well trained in how to collect accurate data e report adequately in the correct forms. Moreover the crew also were trained in good practices, consisting for example in: i) how to handle sharks; ii) how to collect data. This Agreement is part of the implementation of responsible and sustainable fishing practices.

5.2 Seabirds [Mandatory]

This section is not applicable since the Italian vessel operates in Indian Ocean with purse seine gear only.

5.3 Marine Turtles [Mandatory]

This section is not applicable since the Italian vessel operates in Indian Ocean with purse seine gear only. A total of n° 2 specimens of sea turtle (*Dermochelys coriacea* – DKK), n° 2 specimens of Testudinata not identified and n° 1 specimen of *Eretmochelys imbricata* TTH, were caught by the PS and immediately release safety at sea.

5.4 Other ecologically related species (e.g., cetaceans, mobulid rays, whale sharks) [Desirable]

Not applicable

6. NATIONAL DATA COLLECTION AND PROCESSING SYSTEMS [Mandatory]

6.1. Logsheet data collection and verification (including date commenced and status of implementation)

Currently in Italy, all fishing vessels with LOA > 15 meters are equipped with an electronic recording system of the catch data (e-log book). In the segment of LOA fishing units between 12 and 15 meters, the derogation system provided for by art. 9 paragraph 5 of EU Regulation 1224/2009 "*.. operate exclusively in the territorial waters of the flag Member State; o never spend more than 24 hours at sea from departure to return to port*". Specifically, Torre Italia uses the e-log book software provided by Italy to electronically record catches and landings from 10/10/2016.

The data arrives directly to the Italian databases, which processes and uses them for control and subsequent communications to the European Commission.

6.2. Observer scheme (including date commenced and status; number of observer, include percentage of coverage by fishery. Also, a description of the protocols supporting the observer programs and sampling schemes mentioned in paragraphs 3, 4, 6 and 9 of Res [24-04])

The purse seine is the only gear in use. Each fishing trip is covered by the deployment of an observer or with the CCTV. Therefore the percentage coverage is 100%.

Table 3. Annual observer coverage by operation, e.g., longline hooks, purse seine sets (for the most recent five years at a minimum, e.g., 2020–2024 or to the extent available). [Mandatory]

100% of fishing operations (2020-2024) is subject to observer coverage or is monitored using CCTVs.

Figure 4. Map showing the spatial distribution of observer coverage. [Mandatory]

The spatial distribution match with the fishing effort as report in Fig 2A.

6.3. Port sampling programme [Mandatory]

Not Applicable.

Table 4. Number of vessel trips or vessels active monitored, by species and fishery] [Mandatory]

2024 n. 11 vessel trips gear: PS species: BET, SKJ, YFT

Table 5. Number of fish measured, by species and fishery] [Mandatory]

Not Applicable

6.4. Actions taken to monitor catches & manage fisheries for Striped Marlin, Black Marlin, Blue Marlin and Indo-pacific Sailfish [Mandatory]

Not Applicable

6.5. Gillnet observer coverage and monitoring [Desirable]

Not Applicable

6.6 Sampling plans for mobulid rays [Mandatory]

Not Applicable

6.7 Electronic Monitoring Standards [Mandatory for CPC implementing EMS]

Not Applicable

7. NATIONAL RESEARCH PROGRAMS [Desirable]

Not Applicable

7.1. National research programs on blue shark

Not Applicable

7.2. National research programs on Striped Marlin, Black Marlin, Blue Marlin and Indo-pacific Sailfish

Not Applicable

7.3. National research programs on sharks

Not Applicable

7.4. National research programs on oceanic whitetip sharks

Not Applicable

7.5. National research programs on marine turtles

Not Applicable

7.6. National research programs on thresher sharks

Not Applicable

Table 6. Summary table of national research programs, including dates.

Not Applicable

**8. IMPLEMENTATION OF SCIENTIFIC COMMITTEE RECOMMENDATIONS AND RESOLUTIONS OF THE IOTC RELEVANT TO THE SC.
[Mandatory]**

Respond with progress made to recommendations of the SC and specific Resolutions relevant to the work of the Scientific Committee [to be updated annually to include most recent Conservation and Management Measures adopted by the Commission].

Table 9. Scientific requirements contained in Resolutions of the Commission, adopted between 2012 and 2024.

Res. No.	Resolution	Scientific requirement	CPC progress
12/04	On the conservation of marine turtles	Paragraphs 3, 4, 6–10	
12/09	On the conservation of thresher sharks (family alopiidae) caught in association with fisheries in the IOTC area of competence	Paragraphs 4–8	
13/04	On the conservation of cetaceans	Paragraphs 7–9	
13/05	On the conservation of whale sharks (<i>Rhincodon typus</i>)	Paragraphs 7–9	
13/06	On a scientific and management framework on the conservation of shark species caught in association with IOTC managed fisheries	Paragraph 5–6	
15/01	On the recording of catch and effort by fishing vessels in the IOTC area of competence	Paragraphs 1–10	
15/02	Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs)	Paragraphs 1–7	
17/05	On the conservation of sharks caught in association with fisheries managed by IOTC	Paragraphs 6, 9, 11	
18/02	On management measures for the conservation of blue shark caught in association with IOTC fisheries	Paragraphs 2-5	
18/05	On management measures for the conservation of the Billfishes: Striped marlin, black marlin, blue marlin and Indo-Pacific sailfish	Paragraphs 7 – 11	Not applicable for Italy. The only one vessel operating in IOTC area is a Purse Seiner (PS) not targeting those species.
18/07	On measures applicable in case of non-fulfilment of reporting obligations in the IOTC	Paragraphs 1, 4	
19/01	On an Interim Plan for Rebuilding the Indian Ocean Yellowfin Tuna Stock in the IOTC Area of Competence (<i>If not provided under Res 21/01 below</i>)	Paragraph 22	
19/03	On the Conservation of Mobulid Rays Caught in Association with Fisheries in the IOTC Area of Competence	Paragraph 11	
21/01	On an Interim Plan for Rebuilding the Indian Ocean Yellowfin Tuna Stock in the IOTC Area of Competence (<i>If not provided under Res 19/01 above</i>)	Paragraph 23	
23/07	On reducing the incidental bycatch of seabirds in longline fisheries.	Paragraphs 3–7	Not Applicable for Italy. The only one vessel operating in IOTC area is a Purse Seiner (PS).



Res. No.	Resolution	Scientific requirement	CPC progress
23/08	On electronic monitoring standards for IOTC fisheries	Paragraphs 3c	
24/04	On a regional observer scheme	Paragraph 12	Italy is involved in carrying out the activities approved within the Regional Working Plan 2025-2027. On large pelagic species, Italy is actively cooperating as regard the drafting of management measures in the RCG groups with the other two major countries (Spain and France) who are mainly active in the IOTC area. The effort is on going in order to improve and harmonize the sampling scheme for the observer's programs.

9. LITERATURE CITED [Mandatory]



Annex A:

A fleet level summary of the Vessel Monitoring Plans [Mandatory for CPC implementing EMS]

- A.1 The number of CPC flagged vessels implementing EM by gear/fishery type [Mandatory for CPC implementing EMS].**
- A.2 The range of EMS configurations implemented within the fleet (including the numbers and placements of cameras for each configuration) [Mandatory for CPC implementing EMS].**
- A.3 A general description of EMS requirements placed upon vessel skippers/crews by the CPC government [Mandatory for CPC implementing EMS].**

ANNEX 3

EU-Portugal National Report to the Scientific Committee of the Indian Ocean Tuna Commission, 2025

Rui Coelho

IPMA - Portuguese Institute for the Ocean and Atmosphere, I.P.

INFORMATION ON FISHERIES, RESEARCH AND STATISTICS

In accordance with IOTC Resolution 15/02 (and other data related CMMs as noted below), final scientific data for the previous year were provided to the IOTC Secretariat by 30 June of the current year, for all fleets other than longline [e.g., for a National Report submitted to the IOTC Secretariat in 2025, final data for the 2024 calendar year must be provided to the Secretariat by 30 June 2025)	NO EU.Portugal does not have any fleets (other than LL) operating in the IOTC area
In accordance with IOTC Resolution 15/02, provisional longline data for the previous year was provided to the IOTC Secretariat by 30 June of the current year [e.g., for a National Report submitted to the IOTC Secretariat in 2025, preliminary data for the 2024 calendar year were provided to the IOTC Secretariat by 30 June 2025). REMINDER: Final longline data for the previous year are due to the IOTC Secretariat by 30 Dec of the current year [e.g., for a National Report submitted to the IOTC Secretariat in 2025, final data for the 2024 calendar year must be provided to the Secretariat by 30 December 2025).	YES/PARTIAL Nominal catch and effort: 26/06/2025 Size data: Not submitted
If no, please indicate the reason(s) and intended actions: Size data was not submitted for the year 2024, as in 2024 there were no observer trips covered in the IOTC area. The program has been resumed in 2025, so the 2025 data will be submitted in 2026.	

Executive Summary [Mandatory]

During 2024, the active fishing fleet of EU-Portugal operating in the IOTC convention area consisted of 3 active pelagic longliners targeting swordfish and blue shark, mostly in the temperate southwest Indian Ocean. Overall, a total of 1,618 MT was caught, of which 798 MT corresponded to swordfish, 669 MT to blue shark and the remaining to other species. In 2024, EU-Portugal kept implementing the data collection program based on electronic logbooks, but in 2024 there were no observer trips covered. In 2024, and within the EU data collection framework, EU-Portugal continued the collection and revision of fisheries and biological data, including catch, effort, and size data, which were provided to IOTC Secretariat. EU-Portugal scientists produced and participated in several relevant working documents to several IOTC Working Parties, which are described in this report, including some stock assessments.

1. BACKGROUND/GENERAL FISHERY INFORMATION [MANDATORY]

The Portuguese fishing fleet operating in the IOTC area of competence consist only of pelagic longline vessels, which started their activities in 1998. Since then, there have been some changes and variability on the fleet composition, as after a sharp increase on the number of active vessels, after 2007 the active fleet was substantially reduced. Currently, the fleet uses semi-automatic pelagic longlines (Florida style gear), using J-hooks baited with squid and/or mackerel, depending on abundance of the target species as well as availability and price of the baits. Moreover, wire traces are sometimes used, particularly in areas and/or seasons with higher abundance of blue shark. More recently the number of active fishing vessels has been substantially reduced, with only 2 or 3 active vessels operating in recent years.

2. FLEET STRUCTURE [MANDATORY]

The Portuguese fishing vessels operating in the IOTC area of competence consist only of pelagic longline vessels targeting mainly swordfish. The number of vessels licensed increased from the beginning of the fishery in 1998 (5 vessels) until 2009 (24 vessels). The number of active vessels followed a similar trend, with a peak in 2006 (17 vessels). However, during the last years, the active vessels in the convention area decreased to as low as three (in 2009 and 2012), and now also more recently to only 2 active vessels. One of the main reasons for some of the previous decreasing trends on the number of active vessels, specifically the drop seen between 2008 and 2012, was piracy in the Mozambique Channel, which traditionally was a major fishing area for the Portuguese fleet operating in the IOTC Convention area. Then, for several years, specifically in 2013 and 2014, the number of active vessels increased again to 7. But since then and to the present date it has continued to decrease and in recent years there have been only 2 or 3 active vessels (**Table 1**). The fishing operations are surface pelagic drifting longlines, set in shallow waters with night setting and targeting mainly swordfish and blue shark.

Table 1: Number of vessels operating in the IOTC area of competence. The only fleet currently operating in the IOTC area are pelagic longlines.

Year	No. licensed vessels	No. active vessels
1998	5	1
1999	8	3
2000	9	3
2001	9	6
2002	11	7
2003	12	6
2004	14	5
2005	16	7
2006	18	17
2007	17	15
2008	21	4
2009	24	3
2010	18	4
2011	16	4
2012	16	3
2013	16	7

2014	18	7
2015	18	6
2016	18	6
2017	18	6
2018	18	3
2019	18	3
2020	20	3
2021	20	2
2022	20	2
2023	20	2
2024	16	3

3. CATCH AND EFFORT (BY SPECIES AND FISHERY) [Mandatory]

The overall catch had a peak in 2006 (3,646 MT), followed by a sharp decrease in 2008. In recent years an increasing trend has been observed until 2017, followed by reductions in the most recent years of 2018 and 2019. The 2024 overall production was 1,618 MT.

The Portuguese fleet has swordfish and blue shark as the main target species. The peak of the catches of swordfish was in 2006 with 1,857 MT. In 2024, a total of 683 MT of swordfish were caught (**Table 2** and **Figure 1**). After a sharp decrease on the catches in 2008, most species groups followed an increasing trend up to 2017, which are followed by decreases in the most recent years. Among the pelagic sharks, the blue shark is the main species, and in 2024 the catch was 669 MT (**Table 2** and **Figure 1**).

Table 2. Total EU-Portugal longline annual catch (MT - metric tons) and effort ($\times 10^3$ hooks) and catch for the primary species (or group of species) in the IOTC area of competence, for the period over the last 5 years. SWO – swordfish; BSH – blue shark; TUS – tuna; BIL – other billfishes; NEI – not elsewhere included, category for all other species combined.

Year	Total effort	Total catch	SWO	BSH	SMA	TUS	BIL	NEI
2020	594	1107	446	502	104	26	20	114
2021	648	1386	459	744	112	42	21	120
2022	591	1458	555	749	96	28	18	106
2023	655	1655	731	776	105	16	21	110
2024	683	1618	798	669	122	12	12	128

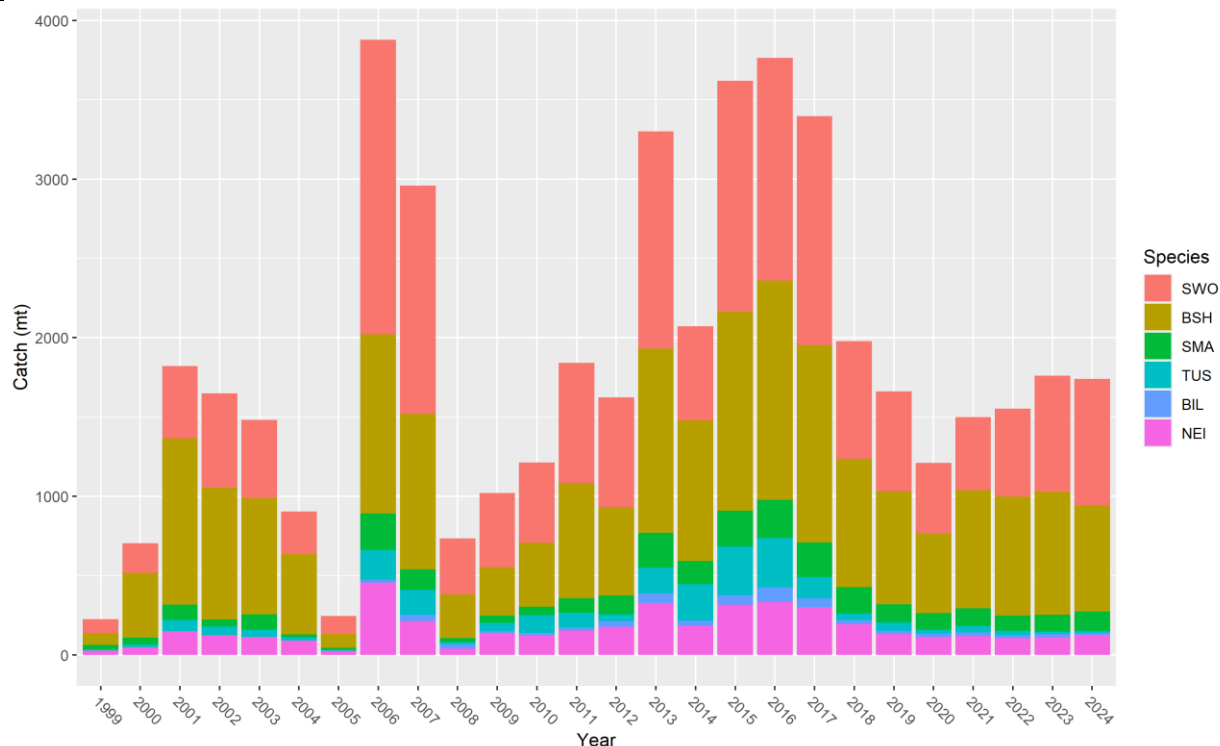


Figure 1. Historical annual catch for the Portuguese longline fleet, by primary species (or groups of species), for the IOTC area of competence for the entire history of the fishery (1999-2024). SWO – swordfish; BSH – blue shark; TUS – tuna; BIL – billfishes; NEI - category for all other species combined.

During 2024, the SW Indian Ocean area was the area most heavily fished by the fleet (**Figure 2a**). During the first years of the fishery the fishing effort was concentrated in the SW Indian Ocean, but then developed towards the Central and Eastern regions of the convention area (**Figure 2b**). However, in recent years due to several reasons (including piracy, increasing oil price and costs, and the decreased number of active boats), most of the fishing activity occurred in the SW area of the Indian Ocean. **Figure 3a** shows the spatial distribution of the catch for the main species (swordfish and blue shark) in 2024. **Figure 3b** shows the geographical distribution of the catch (MT) for the two most important species during the period 2020-2024.

Total Hooks - 2024

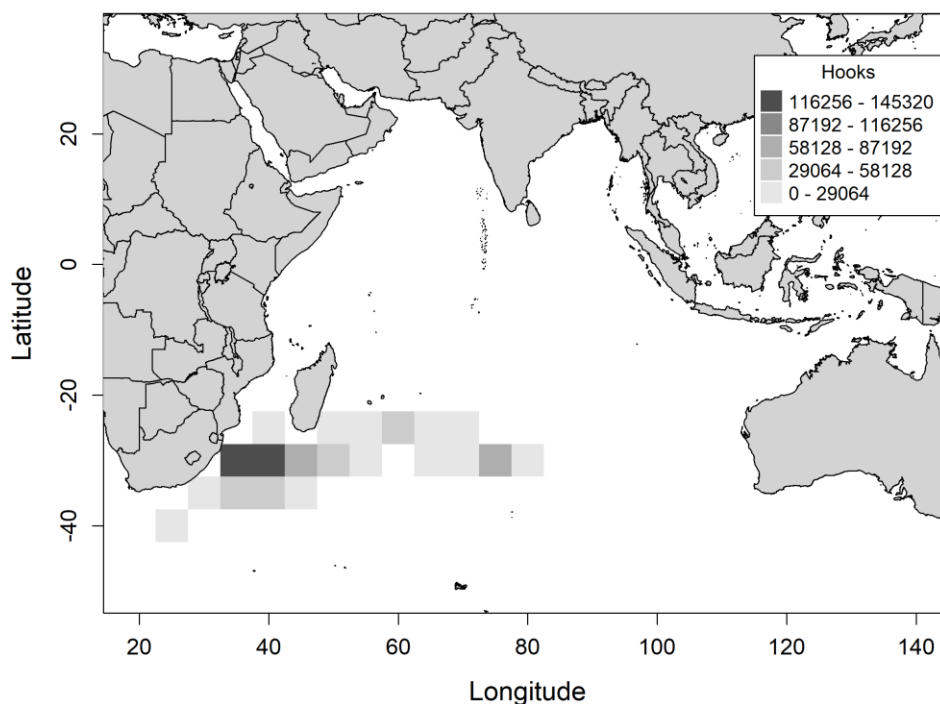


Figure 2a. Map of the distribution of fishing effort (number of hooks deployed), by the Portuguese longline fleet operating in the IOTC area of competence during 2024.

Mean Hooks - 2020-2024

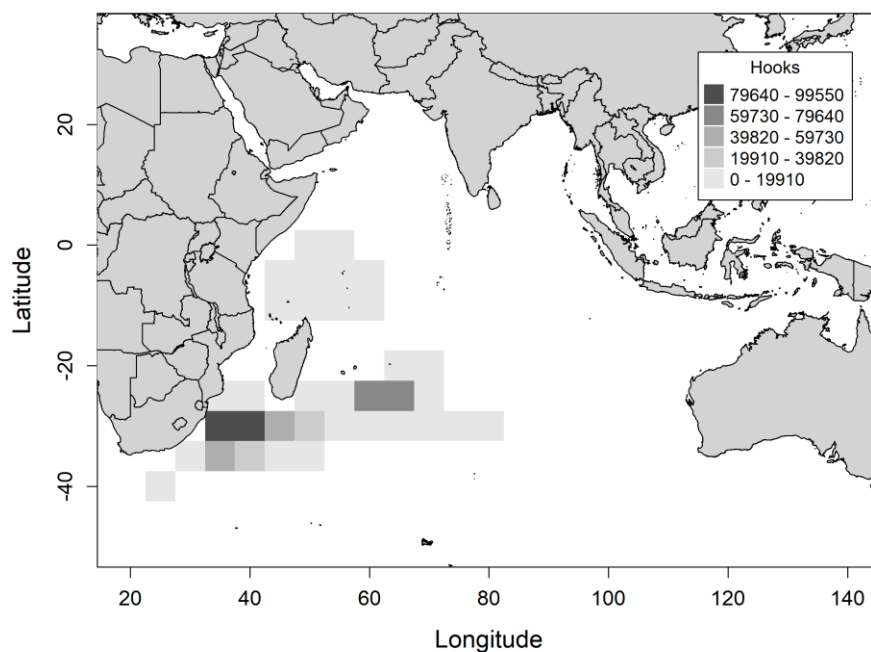


Figure 2b. Map of the distribution of mean fishing effort (number of hooks deployed), by the Portuguese longline fleet operating in the IOTC area of competence during the last 5 years.

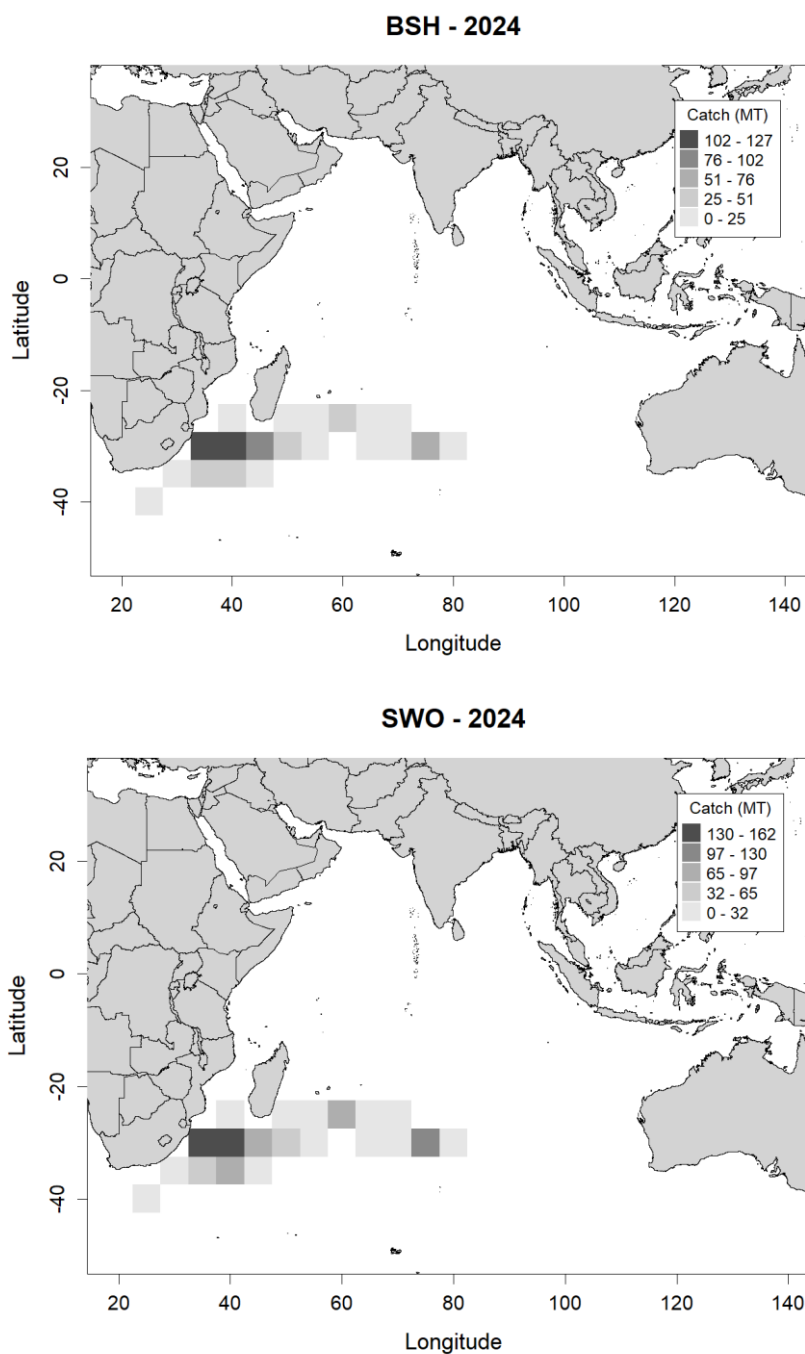


Figure 3a. Map of distribution of the catches (MT) by major species in the IOTC area of competence in 2024: SWO (swordfish) – *Xiphias gladius*; BSH (blue shark) – *Prionace glauca*. Note: different catch scales

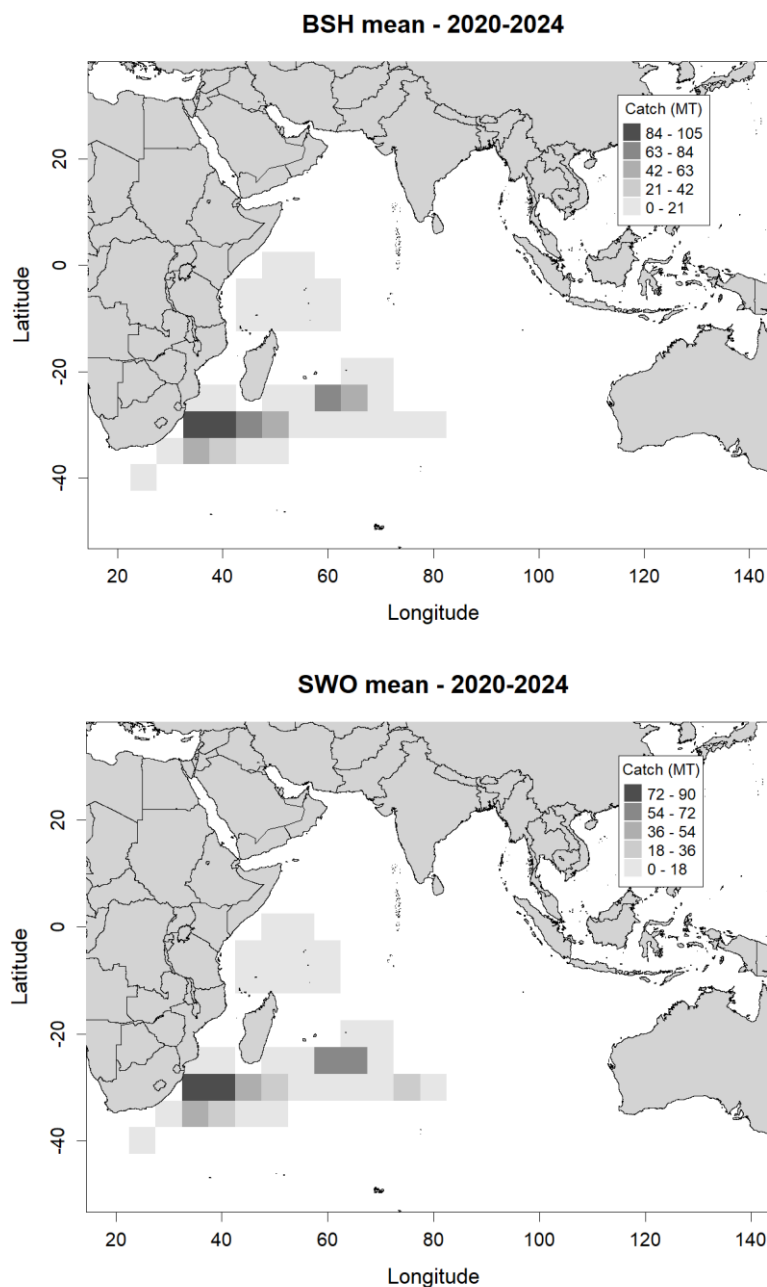


Figure 3b. Map of distribution of mean catches (MT) by major species in the IOTC area of competence during the last 5 years: SWO (swordfish) – *Xiphias gladius*; BSH (blue shark) – *Prionace glauca*. Note: different scales in the colour codes.

4. RECREATIONAL FISHERY [Mandatory]

No activity concerning recreational fishery by Portuguese vessels in the IOTC Convention area have been carried out for the last years

5. ECOSYSTEM AND BYCATCH ISSUES [Mandatory]

All IOTC Resolutions and Recommendations concerning Sharks, Seabirds and Marine Turtles are broadly publicized among fishermen operating in the IOTC convention area. The recently IOTC ID guides are being distributed as Portuguese and/or Spanish printed translations are made available when requested by the fleet. IPMA has participated in the Shark Ecological Risk Assessments that were presented and discussed by the WPB in 2015. IPMA also participates regularly in the stock assessments that are carried out for shark species in the IOTC area, including in the latest blue shark and shortfin mako stock assessments.

5.1 Sharks [Mandatory]

Major shark species catches are reported annually. Fishermen are encouraged to release by-catch species that are alive at-haulback, as well as juvenile specimens. The fleet must comply with the EU regulations on shark finning and fins-attached policy. Blue shark belly has been observed as being occasionally used as bait, particularly in areas/seasons when high shark bycatch occurs. Accordingly, wire traces are also sometimes used. Shark catches have increased between 2014 and 2017 but dropped substantially especially after 2017. Currently, only blue shark and shortfin mako is retained by the fleet and commercialized, while the other species are discarded due to International and/or EU regulations. Those other species are therefore not retained nor landed, but are recorded and reported by the onboard observer programs when interactions occur.

5.1.1. NPOA sharks [Desirable]

The EU has presented and implemented a NPOA for sharks, which was approved in 2009.

5.1.2. Blue shark [Mandatory]

All vessels have electronic logbooks and major shark species catches, of which blue shark is the main species followed by shortfin mako, are recorded and reported annually.

5.2 Seabirds [Mandatory]

IOTC recommendations on seabirds have been made available to the fishermen operating longline gear. Skippers are asked to adopt mitigation measures, namely the use of tori lines, line weights and to conduct night gear setting with minimum deck lights, when fishing south of 25° South or whenever interaction with seabirds is foreseen. Moreover, within the scope of the EU data collection framework (EU-Portugal mainland component), skippers are encouraged to report the incidental catches of sea birds. The recently IOTC ID sea-bird guides are distributed to the fleet whenever there are requests.

The EU adopted in 2012 an Action Plan to address the problem of incidental catches of seabirds in fishing gears of its fishing fleets, that also applies to Portuguese vessels operating in the IOTC.

EU-Portugal fully complied with the Data Call for seabirds according to IOTC circular 2016/043 and submitted the requested data within the established deadlines (full datasets from 2011-2015). This full data is more complete than the data requested to be submitted in the tables for the IOTC National Reports. Additionally, EU. Portugal has provided every year the interactions observer by fishery observers, when the fishery observer program is operating.

It is also noted that EU.Portugal scientists have participated in a collaborative work to evaluate the effectiveness of mitigation measures for sea-birds, that included raw detailed data analysis from various longline fleets operating in the southwest Indian Ocean and southern Atlantic (Jiménez et al., 2020).

5.3 Marine Turtles [Mandatory]

Fishermen are encouraged to carefully handle marine turtles accidentally caught, and immediately release them after gear removal. IPMA has provided guidance on how to safely handle and release the turtles, as well as ID guides. Within the scope of the EU data collection framework (EU-Portugal mainland component), skippers are encouraged to report the incidental catches of marine turtles.

The EU Council Regulation (EC) No 520/2007 of 7 May 2007 lay down technical measures for the conservation of migratory species including marine turtles incorporating articles and provisions to reduce marine turtle bycatch on EU member states fisheries. This also applies to EU.Portugal vessels operating in the IOTC area.

In the 2020 SC report, and as requested by the WPEB and SC, we provided a table with detailed data on sea turtle captures and releases, using data from the Portuguese pelagic fishery observer program, that included data between 2016 and 2019.

Additionally, EU.Portugal has provided every year the interactions observer by fishery observers when the fishery observer programs are carried out.

5.4 Other ecologically related species (e.g., cetaceans, mobulid rays, whale sharks) [Desirable]

The accidental catch of other species such as marine mammals are considered extremely rare. Whenever such animals are caught, fishermen are encouraged to immediately and safely release them. The catch of whale sharks does not occur in the EU.Portugal pelagic longline fishery.

EU.Portugal has provided every year the interactions of other ecologically related species observed by fishery observers when the observer program trips scheduled are carried out.

6. NATIONAL DATA COLLECTION AND PROCESSING SYSTEMS [Mandatory]

6.1. Logsheet data collection and verification

All longline vessels operating in the area have records of their catches registered on official logbooks, since the year they have beginning the fisheries operations in the area. In 2012 electronic logbooks became mandatory. All logbooks are transmitted to the Portuguese Fisheries Administration (DGRM), which processes the data and transmit it to IOTC Secretariat through the European Commission.

Since 1998 all Portuguese vessels over 15 meters long are obliged to have VMS equipment on board. Thereby all Portuguese vessels operating in the convention area are monitored by a tracking satellite VMS. The specific national legislation that regulates the use of VMS in EU.Portugal vessels is Decreto-Lei n.º 310/98, from 14 October 1998.

6.2. Observer scheme

Since 2011 an observer program was fully implemented by IPMA. Until 2018 the onboard fishery observers were part of the technical staff of IPMA, but since 2019 the onboard observers are hired through a private company. IPMA provides the training to the observers from the company and those are required to use IPMA protocols and forms for data collections. The program aims to cover a minimum of 5% of the longline fishing effort. **Table 3** provides the coverage of the program by year calculated both in number of hooks and sets since the start of the program in 2011.

Multiple observers have received the necessary training to collect a wide range of fisheries data, to fulfil all fields covered by the IOTC Observer Trip Report. Starting in 2011, the observers started collecting information on all specimens caught, which includes: ID to the most detailed taxonomic possible level; size; sex; the condition at-haulback (alive / dead); fate (retained/discarded); and, condition if discarded (alive/dead). Finally, biological samples were collected for some of the major shark and bony fish species, aiming a number of studies focusing on: life history issues (ages, growth and reproduction); genetics (population structure and paternity; and, morphometrics (weight:length, length:length, weight:weight relationships).

It is noted that the EU.Portugal observer program could not be executed in several years during the program period, namely in 2020, 2021, 2022 and 2024. In 2020 and 2021 it was mostly due to restrictions related with Covid-19, specifically restrictions to place fishery observers onboard and restrictions related with international travelling. In 2022 it was mostly related with administrative issues. In 2024 it was mostly due to a refusal from the fleet to take the observer in the vessel/trip that was scheduled. As such, **Figure 4** is not produced for this report. The program was executed again in 2025, and the corresponding data will be transmitted to IOTC in 2026.

Table 3. Annual observer coverage of the Portuguese pelagic longline fleet since it was established in 2011, measured as a percentage of the total effort in number of hooks and sets.

Year	Gear	Observer coverage		Size data coverage
		Hooks (%)	Sets (%)	
2011	Pelagic longline	17.9	16.3	

2012	Pelagic longline	10.7	10.9	Sizes are taken for all retained specimens and dead discards
2013	Pelagic longline	11.0	9.9	
2014	Pelagic longline	7.3	5.7	
2015	Pelagic longline	11.1	8.2	
2016	Pelagic longline	9.1	7.2	
2017	Pelagic longline	7.9	7.0	
2018	Pelagic longline	15.5	13.9	
2019	Pelagic longline	17.4	16.1	
2020*	Pelagic longline	0	0	
2021*	Pelagic longline	0	0	
2022*	Pelagic longline	0	0	
2023	Pelagic longline	18.2	17.3	
2024*	Pelagic longline	0	0	

*: Impossibility to deploy fishery observers onboard in those years.

Figure 4. Map showing the spatial distribution of observer coverage. This image is not produced for this year report, as there no observer program trips carried out in 2024.

6.3. Port sampling programme

Catches from Portuguese vessels operating in the IOTC convention area are usually moved to containers in ports and shipped to non-Portuguese ports in Europe (mostly Vigo, Spain). Thus, the current port sampling program for the Portuguese longline fleet does not cover those vessels operating in the IOTC conventional area. As such, Tables 4 and 5 do not apply to this fleet and are not reported.

Table 4. Number of vessel trips or vessels active monitored, by species and fishery. Does not apply to EU.Portugal as there is no port-sampling in the IOTC area.

Table 5. Number of fish measured, by species and fishery. Does not apply to EU.Portugal as there is no port-sampling in the IOTC area and no size measurements in 2024 from the observer program.

6.4. Actions taken to monitor catches & manage fisheries for Striped Marlin, Black Marlin, Blue Marlin and Indo-pacific Sailfish [Mandatory]

In terms of species identification, the onboard observers and skippers are distributed with the IOTC Billfish identification cards, as well as material like dichotomic keys prepared by IPMA- Portugal.

In terms of data recording, all catch of all species including marlins, are recorded and reported in the electronic logbooks. Additionally, all catches, including retained species, alive and dead discards, are recorded in the observer program and dully reported in electronic format to the IOTC Secretariat by the established deadlines. This includes all billfish species when those are captured, and in the years when the obsever program is executed, as pointed out before.

6.5. Gillnet observer coverage and monitoring [Desirable]

This point does not apply to EU.Portugal, as EU.Portugal does not have any gillnets fisheries in the IOTC convention area.

6.6 Sampling plans for mobulid rays [Mandatory]

This point is mostly related with subsistence and artisanal fisheries and therefore does not apply to EU.Portugal fleet.

However, we can add that all mobulids rays from the EU.Portugal longline fleet are released. In terms of data recording and reporting, and as mentioned previously, all catch for all species (including retained species, alive and dead discards) are recorded in the observer program and dully reported in electronic format to the IOTC Secretariat by the established deadlines. This includes all mobulid rays when those are captured and discarded.

As stated previously, in some years the observer program was not executed for the reasons pointed out before.

6.7 Electronic Monitoring Standards [Mandatory for CPC implementing EMS]

EU. Portugal does not yet implement EMS in the IOTC area.

7. NATIONAL RESEARCH PROGRAMS [Desirable]

The Portuguese research program carried out by IPMA, I.P., for highly migratory species begun in 2010. The programme covers 3 main research lines: fisheries, fleet dynamics and biological studies. The fisheries research lines involves: i) revisiting historical official logbook data and the collection of skippers logbooks and VMS data; ii) spatial-temporal analysis of fishing effort and catch at size for major species caught; and iii) haulback mortality. The fleet dynamics involves: i) the spatial-temporal analysis of the fishing activity and catches; and ii) investigating the link between gear configuration/characteristics and target vs. by-catch of sharks. Finally, the biological studies focus all major species, but primarily on pelagic sharks, namely in terms of: i) life history parameters (age, growth and reproduction); ii) genetics (population structure and paternity); iii) morphometrics (weight:length, length:length and weight:weight relationships); and iv) movements and habitat use. Among shark species, particular attention is being provided to the two most important species caught (blue shark and shortfin mako), and to a less extent to other species, including threshers, hammerheads, oceanic whitetip and silky sharks. It is also worth noting that IPMA scientists have participated in the technical work for the development of MSE for the Indian Ocean swordfish, and involved in several other EU funded projects that have focused migratory species in the Indian Ocean, such as tagging sea-turtles and swordfish. EU.Portugal scientists have also participated actively and run assessment models for the IOTC shark species.

7.1. National research programs on blue shark

As mentioned before, the biological studies carried out at IPMA focus all major species, but primarily on pelagic sharks, namely in terms of: i) life history parameters (age, growth and reproduction); ii) genetics (population structure and paternity); iii) morphometrics (weight:length, length:length and weight:weight relationships); and iv) movements and habitat use. Among shark species, particular attention is being provided to the two most important species caught (blue shark and shortfin mako), and to a less extent to other species, including threshers, hammerheads, oceanic whitetip and silky sharks.

One recent work specific to blue shark was estimating ages and modelling growth in the SW Indian Ocean. The results from that work have been shown to the WPEB (Andrade et al., 2017) and published in the peer-reviewed literature (Andrade et al., 2019).

Another major contribution was a revision for catch-at-size data for both the Indian Ocean and Atlantic, that has been provided to the WPEB and used in the 2017 stock assessment, to inform the size distribution in the integrated assessment models. This work has in the meanwhile been published in the peer-reviewed literature (Coelho et al., 2018).

In the first blue shark stock assessment (2017), EU.Portugal scientists have worked and provide to the WPEB an alternative catch series based on ratios (Coelho and Rosa, 2017), as well as developing priors for population dynamic parameters (Rosa and Coelho, 2016), that were used in the stock assessment. In 2021, the WPEB carried out a new blue shark stock assessment and EU.Portugal provided updated CPUE series and size data information for informing the new assessment models (Coelho et al., 2021).

Finally, EU.Portugal has lead a EU project (Coelho et al., 2019) that worked with several shark case studies, including a preliminary works for MSE and length-based indicators for blue shark in the Indian Ocean, that were also presented to the WPEB (Ortiz de Urbina et al., 2018; Walker et al., 2018).

7.2. National research programs on Striped Marlin, Black Marlin, Blue Marlin and Indo-pacific Sailfish

All billfish interactions are recorded in the observer program and reported to IOTC. Those interactions are relatively rare, so at this stage EU.Portugal only does some opportunistic, but not systematic, biological sampling on those species. A program has started a few years ago to collect spines and otoliths of swordfish and that could be expanded to other billfishes in the future.

EU.Portugal has in the past provided to the WPB observations on the Indo-Pacific sailfish from the Portuguese fleet in the Indian Ocean, and updates can be further provided if and when requested by the WPB (Rosa et al., 2015). Additionally, EU.Portugal has provided samples to a large scale effort for population genetics on sailfish, that has been accepted in the peer-reviewed literature (Ferrette et al., 2021).

EU.Portugal/IPMA is participating in a EU project lead by Ifremer (EU.France) to tag swordfish and marlins in the Indian Ocean (update provided in Nieblas et al., 2020).

EU.Portugal has also participated in other works related with other billfishes in the IOTC area that are of relevance to the WPB (Romanov et al., 2023)

7.3. National research programs on sharks

As mentioned before, the biological studies carried out at IPMA focus all major species, but primarily on pelagic sharks, namely in terms of: i) life history parameters (age, growth and reproduction); ii) genetics (population structure and paternity); iii) morphometrics (weight:length, length:length and weight:weight relationships); and iv) movements and habitat use. Among shark species, particular attention is being provided to the two most important species caught (blue shark and shortfin mako), and to a less extent to other species, including threshers, hammerheads, oceanic whitetip and silky sharks.

Some experimental work has been done with the use of monofilament versus wire leaders in the pelagic longline configuration, which has been presented to the WPEB (Santos et al., 2014) and published in the peer review literature (Santos et al., 2017).

EU.Portugal recently lead a EU Project on a meta-analysis for the effects of hook, bait and leader type effects on surface pelagic longline retention and mortality rates, comparing target, bycatch and vulnerable fauna interactions. The last update made to the WPEB is provided in Santos et al. (2019). That project final report is available from Coelho et al. (2020).

EU.Portugal scientists are very active in the production of indicators and contribute to the assessment of sharks. Specifically for the shortfin mako shark, the first assessment was done in 2024, contained contributions from the Portuguese fleet (Coelho et al., 2024a) and the stock assessment models used for stock status and management advice were run by a EU.Portugal scientist (Coelho et al., 2024b).

7.4. National research programs on oceanic whitetip sharks

See point 7.3 above for a general description on the research carried out in sharks, with some aspects also applying to oceanic whitetip sharks.

EU.Portugal (IPMA) has participated in some previous studies focusing on oceanic whitetip sharks, including with samples from the Indian ocean (Mendes et al., 2015, Camargo et al., 2016). However, and with regards to biological samples, it is worth noting that since the inclusion of oceanic whitetip shark in CITES in 2014, all biological sampling has stopped (e.g., tissue for genetics and vertebrae). So only samples collected before the CITES listing are now being used.

IPMA has also carried out work focused on the hooking mortality of oceanic whitetip shark, in an attempt to provide information in the effectiveness of the no-retention of that species and at the request of the WPEB. That work has been presented to the WPEB (Coelho, 2016) and updates can be further provided in and when requested by the WPEB.

Finally, EU.Portugal/IPMA participates in a collaborative project on oceanic whitetip shark habitat use and post-release mortality using satellite telemetry (Bach et al., 2021).

7.5. National research programs on marine turtles

All sea turtle interactions are recorded in the observer program and reported to IOTC.

EU.Portugal is currently participating in a collaborative research that includes the Atlantic (ICCAT) and Indian Ocean (IOTC) scientists and data. This work is currently in the final revision stages of a peer-review publication in the scientific literature.

Furthermore, between 2016-2020, IPMA collaborated with projects from Ifremer (EU.France) and NGOs to deploy satellite tags on sea turtles to study their movements and migrations in the Indian Ocean. A scientific paper has been produced with the results of this research (Monsinjon et al., 2023).

7.6. National research programs on thresher sharks

See point 7.3 above for a general description on the research carried out in sharks, with some aspects also applying to thresher sharks.

EU.Portugal/IPMA has participated in a bigeye thresher sharks study on population genetics for the Atlantic and Indian oceans (Morales et al., 2018). With regards to biological samples, it is worth noting that since the inclusion of thresher sharks in CITES in 2017, all biological sampling has stopped (e.g., tissue for genetics and vertebrae), due to complications in sample transportation. As such, only samples collected previous to CITES inclusion are currently being used.

Since 2018, IPMA has been collaborating with IOTC projects to deploy satellite tags on bigeye thresher sharks to study movement patterns and migrations, and determine post-release mortality (Romanov et al., 2020).

Table 6. Summary table of national research programs, including dates.

Project title	Period	Countries involved	Budget total	Funding source	Objectives	Short description
National Program for Biological Sampling (PNAB)	2011-2025	Portugal	~50,000€ (yearly)	EU (DCF – Data Collection Framework) and National funds	Data collection and reporting of data for the Portuguese pelagic longline fleet.	This yearly program involves the collection of data, reporting and scientific work to provide advice in the IOTC area of competence.

Based on the data collected in 2024 and in previous years, 2 working documents was prepared and co-authored by the Portuguese research team during several 2024 IOTC meetings. Those specific to 2024 were more related with the stock assessment of shortfin mako, whose final models used for stock status and management advice were run by EU.Portugal scientists.

The technical papers presented to IOTC in 2023 with EU.Portugal participation:

- Coelho, R., Rosa, D., Mourato, B., 2024. Stock assessment of the shortfin mako shark in the Indian Ocean (IOTC), using Bayesian surplus production models (JABBA): catch reconstruction, demographic analysis, stock assessment models, and projections. 20th Working Party on Ecosystems and Bycatch (WPEB), 9-13 September, Hybrid / Seychelles. IOTC Document: IOTC-2024-WPEB20-10. 43pp.
- Coelho, R., Rosa, D., Lino, P.G., 2024. Updated fishery indicators for the shortfin mako shark (*Isurus oxyrinchus*) caught by the Portuguese pelagic longline fishery in the Indian Ocean, for the period 1998-2022: catch, effort and standardized CPUEs. 20th Working Party on Ecosystems and Bycatch Data Preparatory Meeting (WPEB-DP), 22-26 April 2024, Virtual Online Meeting. IOTC Document: IOTC-2024-WPEB20-20. 19pp.

**8. IMPLEMENTATION OF SCIENTIFIC COMMITTEE RECOMMENDATIONS AND RESOLUTIONS OF THE IOTC RELEVANT TO THE SC.
[Mandatory]**

Table 9. Scientific requirements contained in Resolutions of the Commission, adopted between 2012 and 2024.

Res. No.	Resolution	Scientific requirement	CPC progress
12/04	On the conservation of marine turtles	Paragraphs 3, 4, 6–10	Incidental interaction with marine turtles are recorded by onboard observers. The information is fully submitted and provided to the IOTC Secretariat in the fishery observer reports and datasets. Fishermen are encouraged to carefully handle marine turtles accidentally caught, and immediately release them after gear removal. They are aware of and use proper mitigation, handling and de-hooking techniques and should keep onboard all necessary equipment for the release of marine turtles (including line cutters and de-hookers), in accordance with IOTC and FAO handling guidelines. Furthermore, since 2016 IPMA has been collaborating with projects from Ifremer (EU.France) and NGOs to deploy satellite tags on sea turtles to study their movements and migrations in the Indian Ocean. A peer-review paper has been produced with those results (Monsinjon et al., 2023).
12/09	On the conservation of thresher sharks (family alopiidae) caught in association with fisheries in the IOTC area of competence	Paragraphs 4–8	Fishers are encouraged to release thresher sharks if recognised on the line before bringing them onboard the vessel. Skippers are requested to record and report incidental catches as well as live releases of thresher sharks. Scientific observers from IPMA used to collect biological samples (vertebrae and tissues) from thresher sharks taken in the IOTC area of competence that were dead at haulback, as part of a research project approved by the IOTC Scientific Committee. The information compiled by IPMA has been presented to the WPEB. Given than thresher sharks were listed in CITES in 2016, IPMA had to completely stop all sampling on this species, due to complications in sample transportation. Since 2018, IPMA has been collaborating with IOTC projects to deploy satellite tags on bigeye thresher sharks to study movement patterns and migrations, and determine post-release mortality.
13/04	On the conservation of cetaceans	Paragraphs 7– 9	EU.Portugal does not have purse seiners operating in the IOTC area of competence. For other gears, namely pelagic longlines, interactions with cetaceans are rare. If such animals are caught, fishermen are encouraged to immediately and safely release them. IPMA fishery observers record all interactions with cetaceans, which are reported in the observer trips and electronic data submitted to IOTC in due time.
13/05	On the conservation of whale sharks (<i>Rhincodon typus</i>)	Paragraphs 7– 9	EU.Portugal does not have purse seiners operating in the IOTC area of competence. For other gears, namely pelagic longlines, such interactions are extremely rare (almost non-existent). In the extremely unlikely event of such animals being caught, fishermen are encouraged to immediately and safely release them. IPMA fishery observers would record any possible interaction with whale sharks, which if happened would be reported in the observer trips submitted to IOTC in due time.
13/06	On a scientific and management framework on the conservation of shark species caught in association with IOTC managed fisheries	Paragraph 5–6	Fishers are encouraged to release oceanic whitetip sharks if recognised on the line before bringing them onboard the vessel. Skippers are requested to record and report incidental catches as well as live releases of oceanic whitetip sharks. Scientific observers from IPMA used to

Res. No.	Resolution	Scientific requirement	CPC progress
			collected biological samples (vertebrae and tissues) from oceanic whitetip sharks taken in the IOTC area of competence that were dead at haulback, as part of a research project approved by the IOTC Scientific Committee and before inclusion of this species in CITES in 2014. However, after 2014 all biological sampling on this species stopped after the CITES listings due to complications in sample transportation internationally. Since 2018, IPMA has been collaborating with IOTC projects to deploy satellite tags on oceanic whitetip sharks to study movement patterns and migrations, and determine post-release mortality.
15/01	On the recording of catch and effort by fishing vessels in the IOTC area of competence	Paragraphs 1–10	All operating longline vessels have records of their catches registered on official logbooks, since the year they have begun the fisheries operations in the IOTC convention area. In 2012 electronic logbooks became mandatory. All logbooks are transmitted to the Portuguese Fisheries Administration (DGRM), which processes the data and transmit it to European Commission (EU). EU is responsible for providing the data to the IOTC Secretariat.
15/02	Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs)	Paragraphs 1–7	Since 2009 catch by species in weight and effort in number of hooks deployed has been provided by 5° x 5° grid area.
17/05	On the conservation of sharks caught in association with fisheries managed by IOTC	Paragraphs 6, 9, 11	EU. Portugal reports all data for catches of sharks, in accordance with IOTC data reporting requirements and procedures. Additionally, all data from sharks recorded by the onboard observers is also fully reported and submitted to the IOTC Secretariat in electronic format. Furthermore, IPMA continues several lines of research on sharks, including: • Fishing gear selectivity • Improvement of knowledge on biological parameters • Shark tagging studies aiming to identify habitat use. • Shark tagging studies for post-release mortality. Finally, fishermen, operating in the area, are made aware of practices that should be put in place, namely: • Shark species catches need to be reported annually; • Shark fining is banned on all licensed vessels; commercial sharks that are retained must be landed with the fins attached Bycatch species are released, and should use the best handling practices.
18/02	On management measures for the conservation of blue shark caught in association with IOTC fisheries	Paragraphs 2-5	The EU. Portugal longline fleet is aware that all major sharks, including blue shark catches, have to be fully reported. Portugal has an electronic logbook system and uses VMS data for preparing nominal catches and catch and effort data, respectively, that is fully submitted to the IOTC Secretariat. Additionally, EU. Portugal has an ongoing onboard observer program that records all shark species catches, including blue shark. All detailed data from the observer program is fully submitted to IOTC Secretariat in electronic format. IPMA continues scientific research in all shark species, including blue shark, especially for life history characteristics, and the information is made available to the WPB.

Res. No.	Resolution	Scientific requirement	CPC progress
18/05	On management measures for the conservation of the Billfishes: Striped marlin, black marlin, blue marlin and Indo-Pacific sailfish	Paragraphs 7 – 11	Fishers are encouraged to release any stripped, black or blue marlins that are captured or brought alive alongside the vessel. Skippers are requested to record and report incidental catches as well as live releases of those marlin species. Scientific observers from IPMA record all catches of marlins as well as their status when captured and when released in trips with onboard observers. The information is fully provided to the IOTC Secretariat in the observer trip reports and data.
18/07	On measures applicable in case of non-fulfilment of reporting obligations in the IOTC	Paragraphs 1, 4	EU-Portugal reports annually the catches, catch and effort and size samples of the main IOTC species, including sharks and other bycatch. Besides the official statistics, skippers are encouraged to report data using the self-sampling program, and all data is reported to the IOTC Secretariat. Additionally, EU-Portugal has been fully reporting in due time the observer trip reports, providing full details on the operations and catches (including all bycatch) since the start of the fishery observer program in 2011. These reporting obligations are included in the Portuguese National Data Collection Framework under the EU legislation (article 25, of EU Regulation 1380/2013, of 11 December). Still according to EU rules, the failure by a Member State to collect and /or provide data in a timely manner may result in a proportionate suspension or interruption of relevant Union financial assistance to that Member State. Thus, according to EU Regulation 665/2008, of 14 July the proportion of reduction is 1% of the total Community financial assistance per failure to satisfy a demand.
19/01	On an Interim Plan for Rebuilding the Indian Ocean Yellowfin Tuna Stock in the IOTC Area of Competence (<i>If not provided under Res 21/01 below</i>)	Paragraph 22	Tropical tunas are only an occasional bycatch of the EU.Portugal pelagic longline fleet that is mostly targeting swordfish and blue shark.
19/03	On the Conservation of Mobulid Rays Caught in Association with Fisheries in the IOTC Area of Competence	Paragraph 11	All mobulid rays incidentally captured by the EU.Portugal longline fleet are released. In terms of data recording and reporting, all interactions with those species are recorded in the observer program and dully reported in electronic format to the IOTC Secretariat by the established deadlines, including data on the status at discarding (dead or alive).
21/01	On an Interim Plan for Rebuilding the Indian Ocean Yellowfin Tuna Stock in the IOTC Area of Competence (<i>If not provided under Res 19/01 above</i>)	Paragraph 23	As stated under Res 19/01 above, tropical tunas are only an occasional bycatch of the EU.Portugal pelagic longline fleet that is mostly targeting swordfish and blue shark.
23/07	On reducing the incidental bycatch of seabirds in longline fisheries.	Paragraphs 3–7	IOTC recommendations on seabirds have been made available to the fishermen operating longline gear. Skippers are asked to adopt mitigation measures, namely the use of tori lines, line weights and to conduct night gear setting with minimum deck lights, when fishing south of 25° South or whenever interaction with seabirds is foreseen. Moreover, within the scope of the EU data collection framework (EU-Portugal mainland component), skippers are encouraged to report the incidental catches of sea birds. The recently IOTC ID sea-bird guides are distributed to the fleet whenever there are requests. The EU adopted in 2012 an Action Plan to address the problem of incidental catches of seabirds in fishing gears

Res. No.	Resolution	Scientific requirement	CPC progress
			of its fishing fleets, that also applies to Portuguese vessels operating in the IOTC. It is also noted that EU.Portugal scientists have participated in a collaborative work to evaluate the effectiveness of mitigation measures for sea-birds, that included raw detailed data analysis from various longline fleets operating in the southwest Indian Ocean and southern Atlantic (Jiménez et al., 2020).
23/08	On electronic monitoring standards for IOTC fisheries	Paragraphs 3c	EU.Portugal currently does not have EMS implemented on its fleet in the IOTC area
24/04	On a regional observer scheme	Paragraph 12	In late 2010 a national observer program was approved under the EU data collection framework. The observer program has been fully implemented since 2011 and is currently ongoing. The trip reports have always been submitted in due time to the IOTC Secretariat. Since 2017, all data has been fully transmitted in electronic format. Since 2019 the onboard observers are no longer part of the IPMA staff but hired through a private company. Still, all training and data protocols and forms used are from IPMA, and IPMA is still responsible for the implementation, data compilation and quality check, and data transmission to IOTC. It is noted that in 2020, 2021, 2022 and 2024, it was not possible to have onboard observers in this fleet. In 2020 and 2021 was mostly due to covid-19 related restrictions to have onboard observers and restrictions in international traveling. In 2022 it was mostly due to administrative issues. In 2024 it was mostly due to a refusal from the fleet to take the scheduled observer on the trip planned. In 2025 there were again observer trips covered and the data transmitted to the IOTC Secretariat.

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ANNEX 4

EU-Spain National Report to the Scientific Committee of the Indian Ocean Tuna Commission, 2025

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² Secretaría General de Pesca, Ministerio de Agricultura, Pesca y Alimentación, Spain

INFORMATION ON FISHERIES, RESEARCH AND STATISTICS

In accordance with IOTC Resolution 15/02 (and other data related CMMs as noted below), final scientific data for the previous year were provided to the IOTC Secretariat by 30 June of the current year, for all fleets other than longline [e.g., for a National Report submitted to the IOTC Secretariat in 2025, final data for the 2024 calendar year must be provided to the Secretariat by 30 June 2025)	YES
In accordance with IOTC Resolution 15/02, provisional longline data for the previous year was provided to the IOTC Secretariat by 30 June of the current year [e.g., for a National Report submitted to the IOTC Secretariat in 2025, preliminary data for the 2024 calendar year were provided to the IOTC Secretariat by 30 June 2025). REMINDER: Final longline data for the previous year are due to the IOTC Secretariat by 30 Dec of the current year [e.g., for a National Report submitted to the IOTC Secretariat in 2025, final data for the 2024 calendar year must be provided to the Secretariat by 30 December 2025).	YES
If no, please indicate the reason(s) and intended actions:	

Executive Summary [Mandatory]

In 2024, the Spanish fleets operating in the IOTC area of competence included:

1. Surface longline fisheries: This fleet consisted of 17 active vessels. The technical characteristics of the vessels were 180 TRB, 32 m in length and 557 HP. The total swordfish catch reached 4.057,048 tons, with a total fishing effort of 3.846,107 thousand hooks. Swordfish (SWO-*Xiphias gladius*) accounted for 47,6% of the total catch, sharks (BSH-*Prionace glauca* and SMA-*Isurus oxyrinchus*) for 50,2%, and tunas (YFT-*Thunnus albacares*, BET-*Thunnus obesus*, and ALB-*Thunnus alalunga*) made up 0,8%. Billfish and other species were also minor contributors, representing less than 1,4% of the total catch. The scientific observer programs, run by IEO.CSIC and the General Fisheries Secretariat, monitored 252 thousand hooks, covering a 6,5% of the total fishing effort.
2. Tropical purse seine fisheries: In 2024, this fleet was comprised by 13 active vessels, primarily based in Victoria, Seychelles. The fleet's carrying capacity remained stable, with 11 vessels having capacities between 1.200 m³ and 2.000 m³, while 2 vessels exceeded 2.000 m³. Considering vessels operating under chartering agreements and one change of flag, the Spanish fleet comprised 12 units as of June and 11 units from August onward.

Having 2022 as a reference, the capacity of the PS fleet has decreased by nearly 6.000 m³. In 2024, 4 supply vessels supported the fleet's activities. The current total catch for the three target species -35% YFT, 7% BET, and 58% SKJ (*Katsuwonus pelamis*)- totalled approximately 115.000 tons. This represents a 12,6% decrease compared to 2023, while maintaining nearly the same species composition, with a slight reduction in SKJ and BET catches and a marginal increase in YFT catches. The fleet operated for 3.660 days, conducting 4.404 sets (a slight increase in days and sets than in 2023 despite reduction on capacity) (67% on log-associated schools and 33% on free-swimming schools), so the number of sets on free-swimming schools goes on raising. In total, 6,683 Fishing Aggregating Devices (FADs) were deployed, a number comparable to that recorded in 2023. Observer coverage decreased to 27% of total sets, compared to 28,6% in 2023.

The performance of the 2024 fishing trips, mainly for purse seiners, has been driven by the underlying Ministerial Order APA/1000/2024 (Official State Gazette "BOE" No. 228, of September 20th, 2024), which regulates the exercise of tropical tuna fishing under the Spanish flag during the 2023 campaign in the Indian Ocean. It follows the original order APA/25/2021 (Official State Gazette "BOE" No. 18, of January 19th, 2021).

This new order is issued due to exceptional circumstances affecting the Spanish fleet in the Indian Ocean. In 2022, the yellowfin tuna quota was reduced by 21% compared to 2014, leading to 2,739 tons decrease from 2021. As a result, two purse seine freezer vessels were exported to Mauritius and Seychelles. Additionally, the Russia-Ukraine conflict has caused fluctuations in fuel costs, severely impacting the fishing sector, with some fleets forced to dock due to low profitability. Given these challenges, the 2023 Ministerial Order APA/1137/2023 activated the joint management mechanism for fishing opportunities in order to help to maximize the use of available resources and improving overall fishery management. In 2024, the new regulation establishes a bigeye tuna quota, distributed proportionally to the yellowfin tuna quota assigned to each vessel, given the multispecies nature of purse seine fisheries.



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1. BACKGROUND/GENERAL FISHERY INFORMATION [MANDATORY]

1.1 Purse Seine

A total of 13 Spanish tuna purse seine vessels operated in the area, though 2 of them changed its flag or was under chartering agreements for the last quarter. Ending 2024, the fleet's carrying capacity decreased by 10% since 2022. The average catch over the past five years (2020-2024), approximately 138.000 tons, was about 7% lower than the catch recorded during the 2023 season. This decline primarily affected skipjack tuna and bigeye tuna for the last years.

With a fishing effort of 3.280 days, 67.5% of the sets targeted log-associated schools (79% in 2023). These sets surrounded a floating object and the associated tuna school—mainly SKJ, YFT and BET—with a net approximately 1.500 meters long and 250 meters deep. The remaining sets focused on free-swimming schools of tropical tunas. As in 2023, in 2024 most sets occurred between 50° and 60° East, distributed between 10°S and 10°N. Since 2018, the fleet has been extending the fishing ground to the North, further than 10°N, performing some activity next to Mozambique Channel but following a decrease trend. For 2024, some activity has been recovered next to this area. For free-school sets in particular, the fleet concentrated next to Seychelles, in Mozambique Channel, performing also some sets further North.

All catches are frozen or deep-frozen onboard, and landings are monitored at port by sampling teams coordinated by research centres.

1.2 Longline

The Spanish longline fishery targeting swordfish (SWO – *Xiphias gladius*) and blue shark (BSH – *Prionace glauca*) in the international waters of the Indian Ocean began in 1993. In 2024, a total of 17 longline vessels operated in the Indian Ocean, some of them alternating between the Indian and Atlantic oceans.

2. FLEET STRUCTURE [MANDATORY]

2.1 Purse Seine

Table 1 shows the number of Spanish purse seiners fishing in the Indian Ocean in the period 2008-2024. During 2019, a new vessel has been incorporated into the Spanish freezer purse seine fleet, increasing the carrying capacity by more than 2400 m³, and for 2021 two more movements has decreased it by 1%. In 2022, the number of tuna purse seiners has been the same as 2021. At the end of the third quarter of 2023 two vessels changed their flag, which has supposed a decrease of the national carrying capacity by nearly 4000 m³. The same happened in 2024, one vessel more changed its flag and the other was under chartering agreement for the last quarter of the year. For the second semester a purse seiner changed its flag, so there was one diminish more of 2.000 m³. It is also remarkable that in 2023 and 2024, for the last quarter, one vessel was under chartering agreements with coastal CPCs.

2.2 Longline

Table 1 shows the number of Spanish longliners operating in the Indian Ocean between 2008 and 2024. The technical characteristics of the vessels were 180 TRB, 32 m in length and 557 HP. Since 2000, the traditional Spanish multifilament longline type has been replaced by the American monofilament (Florida style), which uses an average of around 1.200 hooks per set, less than the traditional longline but slightly more than the Florida-style longline.

Table 1: Number of Spanish purse seiners and surface longliners operating in the IOTC area of competence during the period 2008-2024, by gear type (purse seine & longline) and size categories (C.Cap.- carrying capacity in m³). Data of previous years have been already reported.

Year/Class	PURSE SEINE									LONGLINE
	50-400	401-600	601-800	801-1200	1201-2000	>2000	total	# Supply vessels	C.Cap.	# SHIPS
2008	0	0	0	3	10	4	17	11	24212	19
2009	0	0	0	2	9	4	15	11	20805	15
2010	0	0	0	1	8	4	13	6	20677	12
2011	0	0	0	1	8	4	13	7	20458	14
2012	0	0	0	1	9	4	14	6	21657	18
2013	0	0	0	1	9	4	14	4	22056	22
2014	0	0	0	2	9	4	15	7	20761	21
2015	0	0	0	1	11	5	17	10	23251	18
2016	0	0	0	0	10	4	14	11	23507	13
2017	0	0	0	0	10	4	14	10	22811	14
2018	0	0	0	0	10	4	14	6	22811	11
2019	0	0	0	0	10	5	15	6	24061	11
2020	0	0	0	0	10	5	15	5	24061	11
2021	0	0	0	0	12	3	15	5	22716	8
2022	0	0	0	0	12	3	15	4	22716	8
2023	0	0	0	0	11	2	13	4	18816	14
2024	0	0	0	0	11	2	13	4	18816	17

3. CATCH AND EFFORT (BY SPECIES AND FISHERY) [Mandatory]

3.1 Purse Seine

The number of associated school sets (FADs and logs) has steadily increased since the early period (1984–1990), when 31.9% of sets were focused on FOB (floating object)-associated schools, rising to approximately 76% in recent years (2008–2017). A peak was recorded in 2018 with 96% of sets targeting FOB-associated schools (Báez et al., 2020), followed by 83% in 2019. Although the number of sets on FOB-associated schools increased in 2023, in 2024 they returned to the same levels observed in 2022. By contrast, the number of sets on free-swimming schools reached the second highest level since 2008.

Fishing effort, measured in both fishing days and searching days, hit its lowest point in the historical series in 2021 (**Table 2.a**), slightly increasing in 2022 and returning to levels seen during the 2017–2020 period in 2023. In 2024, the levels have decreased again. Although the number of sets in 2022 was lower than in previous years—averaging 4,417 sets between 2011 and 2021 compared to 3,934 sets in 2022, the lowest of the past decade—the fleet performed over 4,000 sets in 2023 and 2024, returning to the average despite a continuous reduction in carrying capacity.

Since 2017, the Indian Ocean yellowfin tuna stock has been subject to an interim Rebuilding Plan (IOTC Resolution 21/01, currently in force for the EU). In 2021, the Spanish General Fisheries Secretariat (SGP) introduced Individual Vessel Quotas for total tropical tuna (Order APA/25/2021; <https://www.boe.es/buscar/act.php?id=BOE-A-2021-885>).

By species, a total of 66323.71 tonnes of skipjack tuna (SKJ), 40583.75 tonnes of yellowfin tuna (YFT), and 7931.52 tonnes of bigeye tuna have been caught (**Table 2.a**). Among these three main tropical tuna species, skipjack tuna has shown the most significant decline in recent years. The 5-year average catch of SKJ between 2018 and 2022 was 103,968 tonnes, compared to 78675 tonnes in 2023 and nearly 70000 in 2024. Since 1984, the highest SKJ catches were recorded in 2018 and 2019, respectively. The sixth-highest catch occurred in 2021, and the eighth-highest in 2020. Notably, over the past 10 years, five new historical peaks have been recorded since 2017.

Figure 1.a illustrates the historical catch quantities by the main tropical tuna species and the corresponding effort (measured in searching days), revealing a declining trend for all species over the past two years, while the number of searching days has increased. **Figure 2.a(i)** shows the spatial distribution of fishing effort (in fishing days) for 2024, broken down by quarter and fishing mode. **Figure 2.b(i)** presents this distribution in 1°x1° grid squares, reflecting the average from 2020 to 2024.

Figures 3.a (i to iii) display the distribution of catches by the main tropical species for 2024, segmented by quarter and fishing mode. Additionally, **Figures 3.b (i to iii)** map the average distribution of catches by species in 5°x5° grid squares over the 2020–2024 period.

3.2 Longline

The historical trend of annual swordfish (*Xiphias gladius*) catches by the Spanish longline fleet within the IOTC area of competence is depicted in **Figure 1.b**. In 2024, a total of 4,057 tonnes of swordfish (round weight) were caught, with an overall nominal catch rate of 1054.8 kg (round weight) per thousand hooks. All species caught are dressed, frozen, and stowed on board.

Table 2.b provides the total annual swordfish catches by year, reported both in the number of fish and in kilograms of round weight (RW), alongside the nominal fishing effort (measured in thousands of hooks) for the 2008–2024 period. **Figure 1.c** illustrates the annual nominal fishing effort since 2008, while **Figure 2.a(ii)** shows the distribution of nominal effort in 2024, represented by 5°x5° grid squares.

Figure 2.b(ii) shows the average of the nominal effort (thousand hooks) by 5°x5° grid squares of the years 2020–2024.

In 2024, a total of 3,846 thousand hooks (**Figure 1.c**) were deployed by 17 longliners. **Figure 3.a(iv)** shows the distribution of swordfish catches (in kg of round weight) by 5°x5° grid squares for the Spanish surface longline fleet in 2024. **Figure 3.a(v)** displays the spatial distribution of the nominal catch (in kg of round weight) of swordfish landed per thousand hooks set (CPUEw) by the Spanish surface longline fleet in the Indian Ocean during 2024.

Additionally, **Figures 3.b(iv)** and **3.b(v)** map the distribution of average of swordfish catches (in kg of round weight) and of the nominal catch per unit effort (CPUE, in round weight per thousand hooks) by 5°x5° grid squares, respectively, for the years 2020–2024.

Table 2.a: Spanish purse seiners total catch (in tons) by year and primary species, and nominal fishing effort in fishing days and searching days of the purse seine Spanish fleet in the IOTC area of competence during the period 2008-2024 (data of previous years have been already reported).

TOTAL CATCH BY SPECIES (tonnes)				NOMINAL FISHING EFFORT	
YEAR	YFT	SKJ	BET	Fishing Days	Searching Days
2008	46051	65096	12490	4792	3882
2009	33511	66570	11781	3784	2992
2010	45209	75131	10022	3825	2938
2011	52256	67247	10702	3851	2944
2012	57745	42892	7589	3991	3150
2013	68352	64632	13880	4224	3326
2014	57892	66597	8988	4185	3340
2015	52631	58283	9832	4157	3287
2016	51489	75264	9371	4261	3268
2017	54513	84432	12345	3512	2618
2018	46991	132986	28167	3633	2632
2019	42273	119138	11303	3397	2567
2020	44246	85193	13338	3797	2838
2021	44347	94165	16190	3182	2277
2022	42173	88992	16154	3216	2384
2023	38767	78675	13949	3660	2775
2024	40584	33324	7932	3280	2392

Table 2.b: Catch in number of fish and in kg of round weight of swordfish (SWO) obtained by the Spanish surface longline fishery and total number of hooks (in thousands) set in the IOTC area of competence during the period 2008-2024 (data of previous years have been already reported).

TOTAL CATCH of SWO			NOMINAL FISHING EFFORT
YEAR	Number of fish	Kg RW	Hooks*1000
2008	76882	3924743	4885
2009	66000	3306663	3634
2010	61100	3116458	3174
2011	63165	3191553	3758
2012	85472	4396670	4674
2013	92909	4766588	6263
2014	79373	4164218	6107
2015	64698	3421352	4509
2016	66952	3354291	4427
2017	58671	2897902	3579
2018	39803	1971026	2822
2019	41713	2097373	2992
2020	33378	1601720	2654
2021	30639	1491681	2087
2022	32974	1621333	1983
2023	58327	2953878	3212
2024	78790	4057048	3846

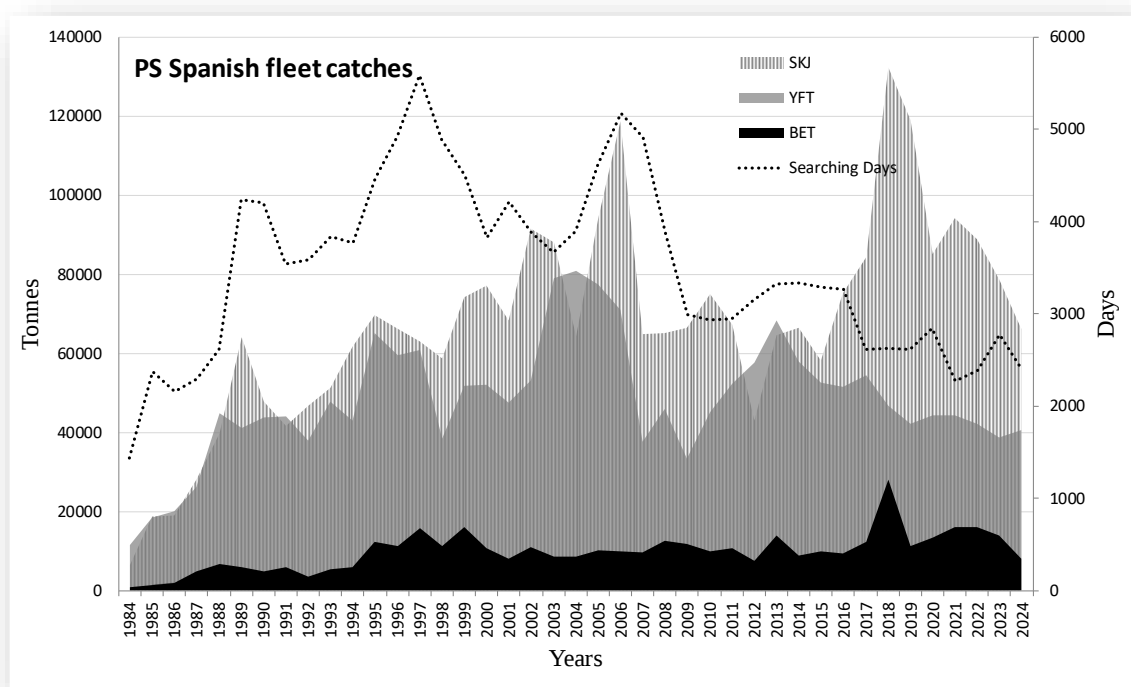


Figure 1.a. Historical annual catch and effort (searching days) of the Spanish purse seine fleet, by main tropical tuna species, in the IOTC area of competence since 1984 to 2023.

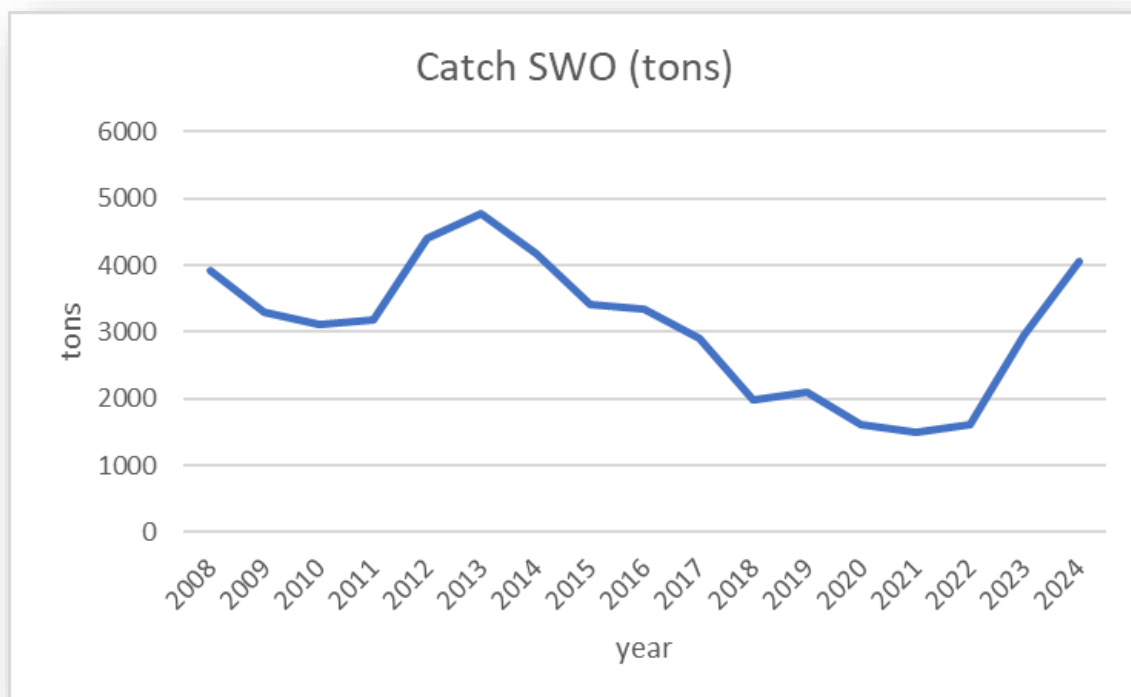


Figure 1.b. Historical annual swordfish catches (tons of RW) of the Spanish longline fleet, for the IOTC area of competence since 2008 to 2024.

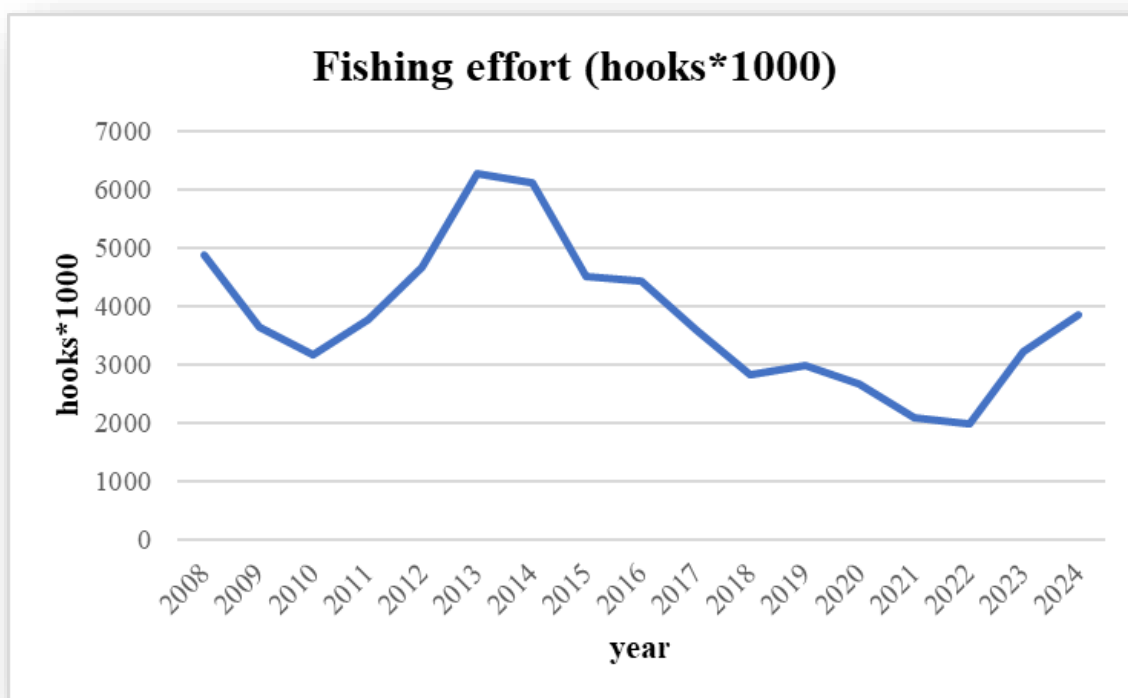


Figure 1.c. Historical annual nominal effort (in thousands of hooks) of the Spanish surface longline fleet, in the IOTC area of competence since 2008 to 2024.

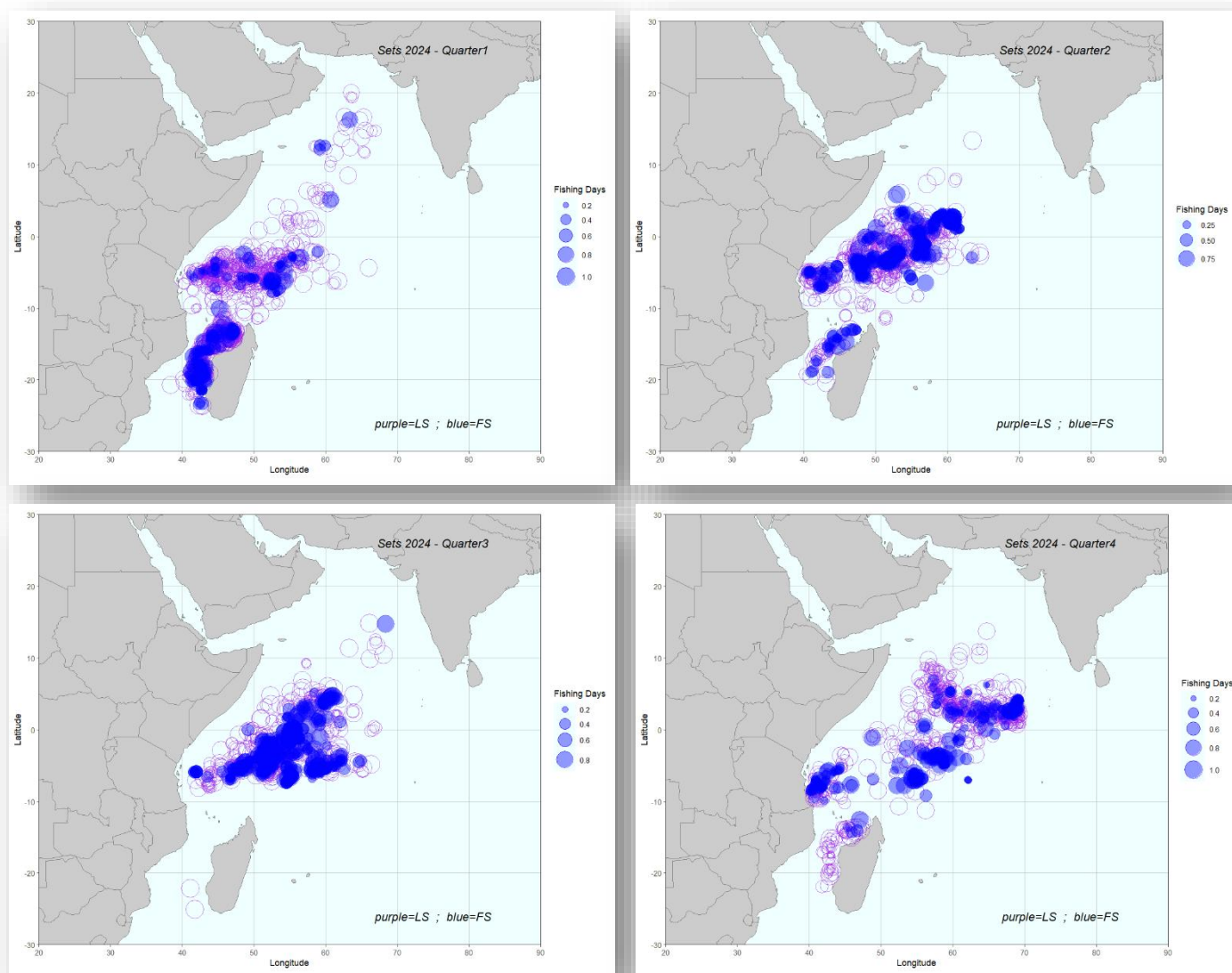


Figure 2.a(i). Map of the distribution of the fishing effort (fishing days) of the Spanish purse seine fleet in 2024, per quarter and fishing mode, in the IOTC area of competence. Key: Purple, Log School associated sets; Blue: Free-Swimming School sets.

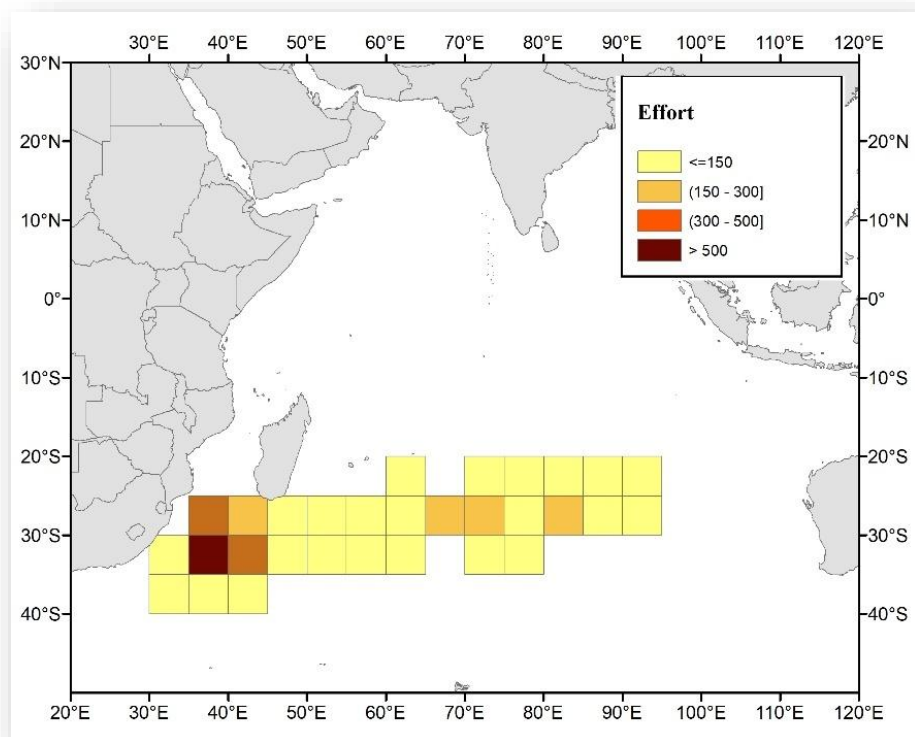


Figure 2.a(ii). Map of the distribution of the nominal fishing effort (thousand hooks), by 5°x5° grid squares of the Spanish longline fleet during the year 2024, in the IOTC area of competence.

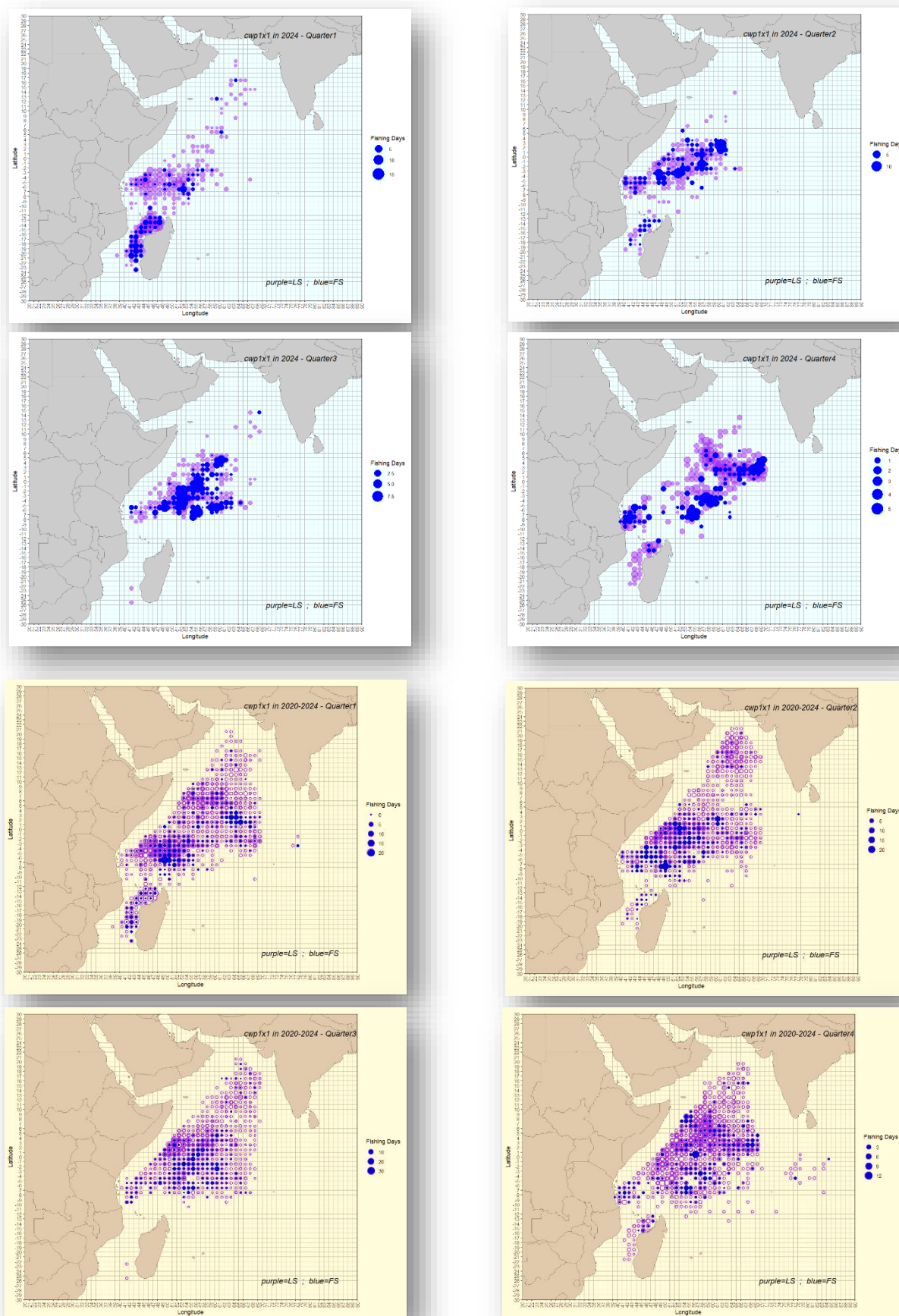


Figure 2.b(i). Map of the distribution of fishing effort (fishing days), by cwp1x1, of the purse seine Spanish fleet in 2024 (4 images up) and in 2020-2024 (4 images down) (average of the 5 most recent years), per quarter and fishing mode, in the IOTC area of competence. Key: Purple, Log School associated sets; Blue, Free-swimming School sets-

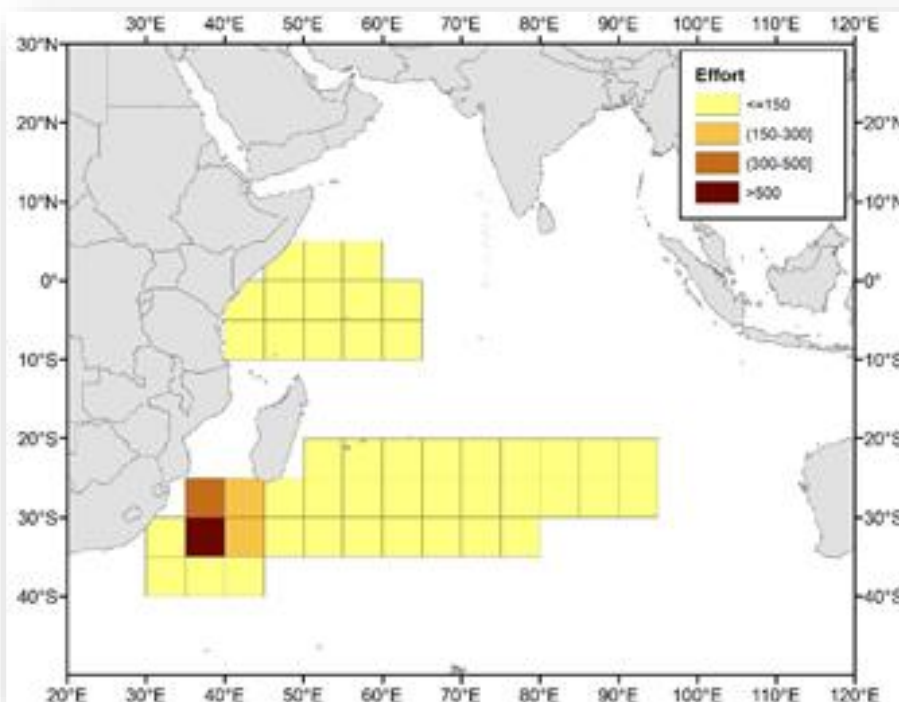


Figure 2.b(ii). Distribution of the nominal fishing effort (thousand hooks) by 5°x5° grid squares carried out by the Spanish surface longline fleet in the Indian Ocean (average of the 5 previous years 2020-2024).

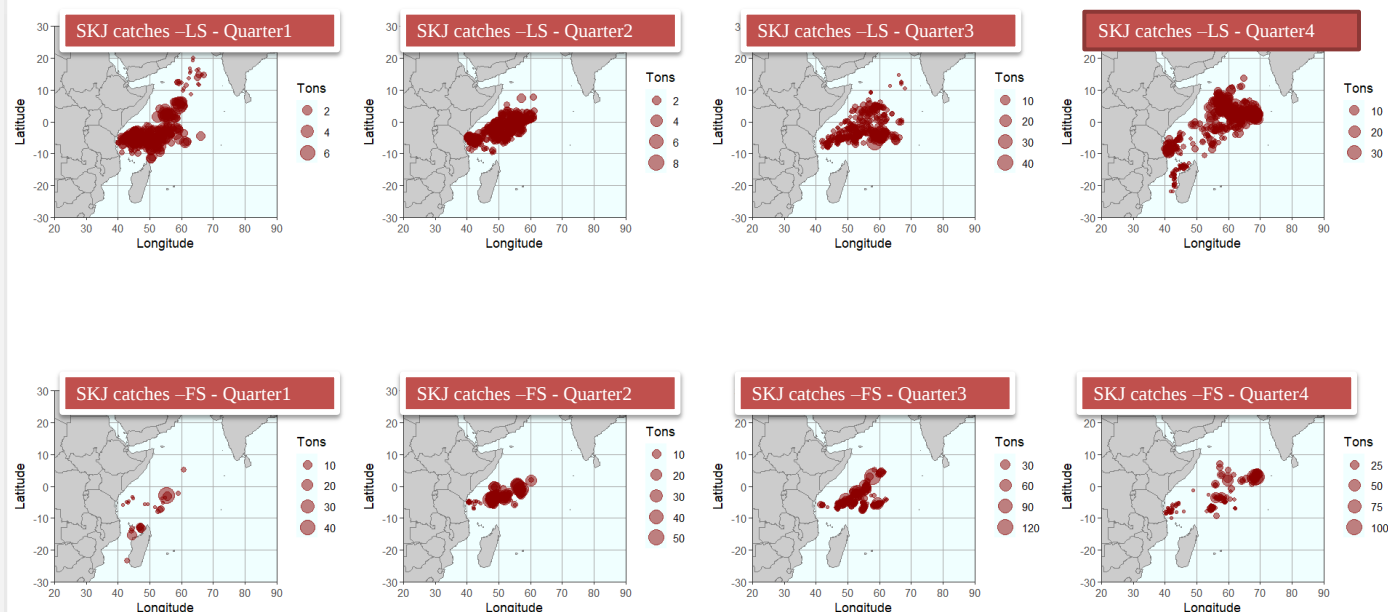


Figure 3.a(i). Map of distribution of SKJ catches of the Spanish purse seine fleet in 2024, in the IOTC area of competence, per quarter and fishing mode. Key: LS = Log Schools associated sets; FS = Free-swimming Schools sets.

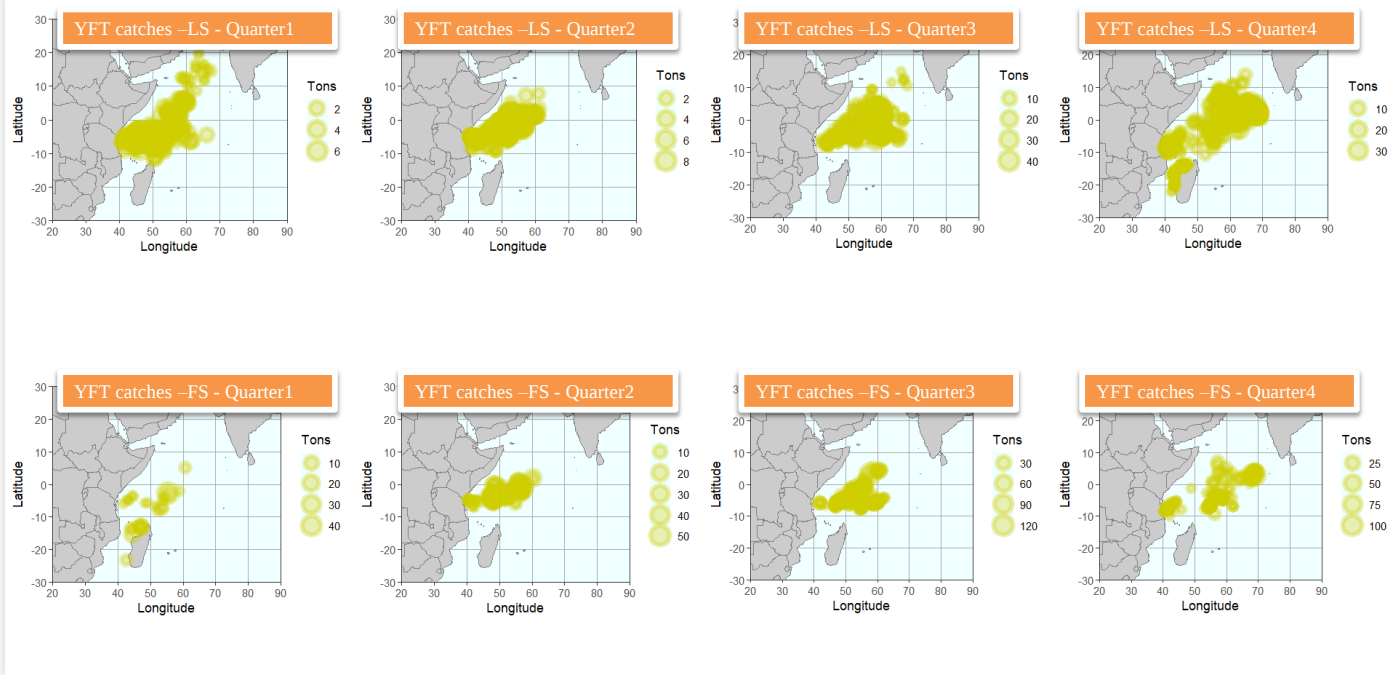


Figure 3.a(ii). Map of distribution of YFT catches of the Spanish purse seine fleet in 2024, in the IOTC area of competence, per quarter and fishing mode. Key: LS = Log Schools associated sets; FS = Free-swimming Schools sets.

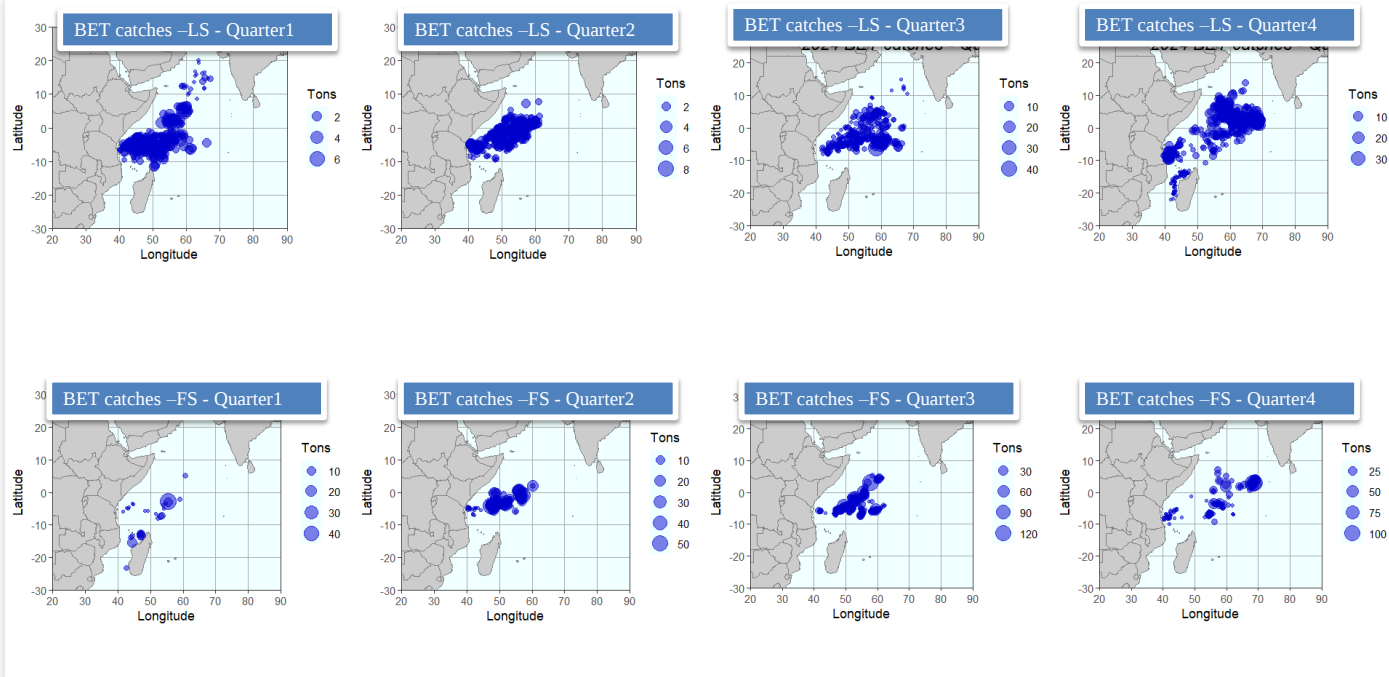


Figure 3.a(iii). Map of distribution of BET catches of the Spanish purse seine fleet in 2024, in the IOTC area of competence, per quarter and fishing mode. Key: LS = Log Schools associated sets; FS = Free-swimming Schools sets.

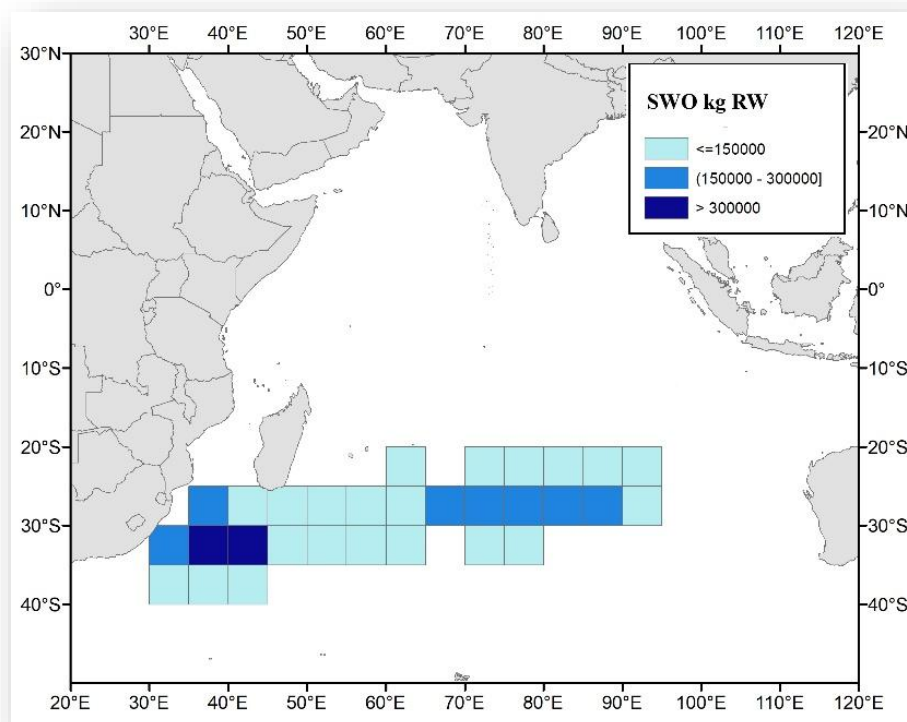


Figure 3.a(iv). Map of distribution of SWO catches (kg of round weight) of the Spanish surface longline fleet in 2024, by 5°x5° grid squares, in the IOTC area of competence.

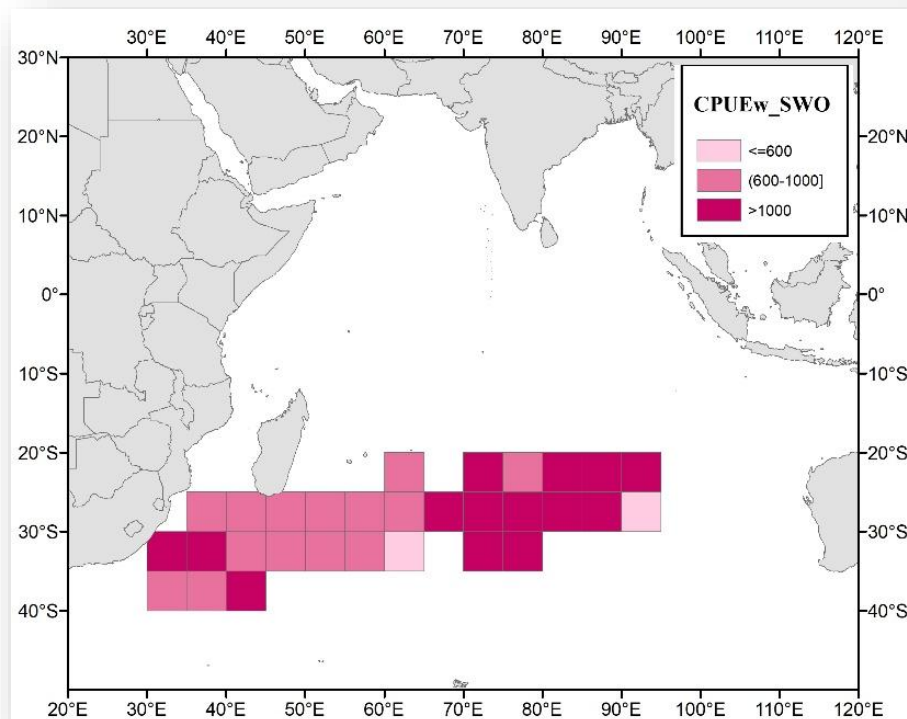


Figure 3.a(v). Map of distribution of the nominal CPUEw in kg (round weight) of SWO landed per thousand hooks set by 5°x5° grid squares, carried out by the Spanish surface longline fleet in 2024, in the IOTC area of competence.

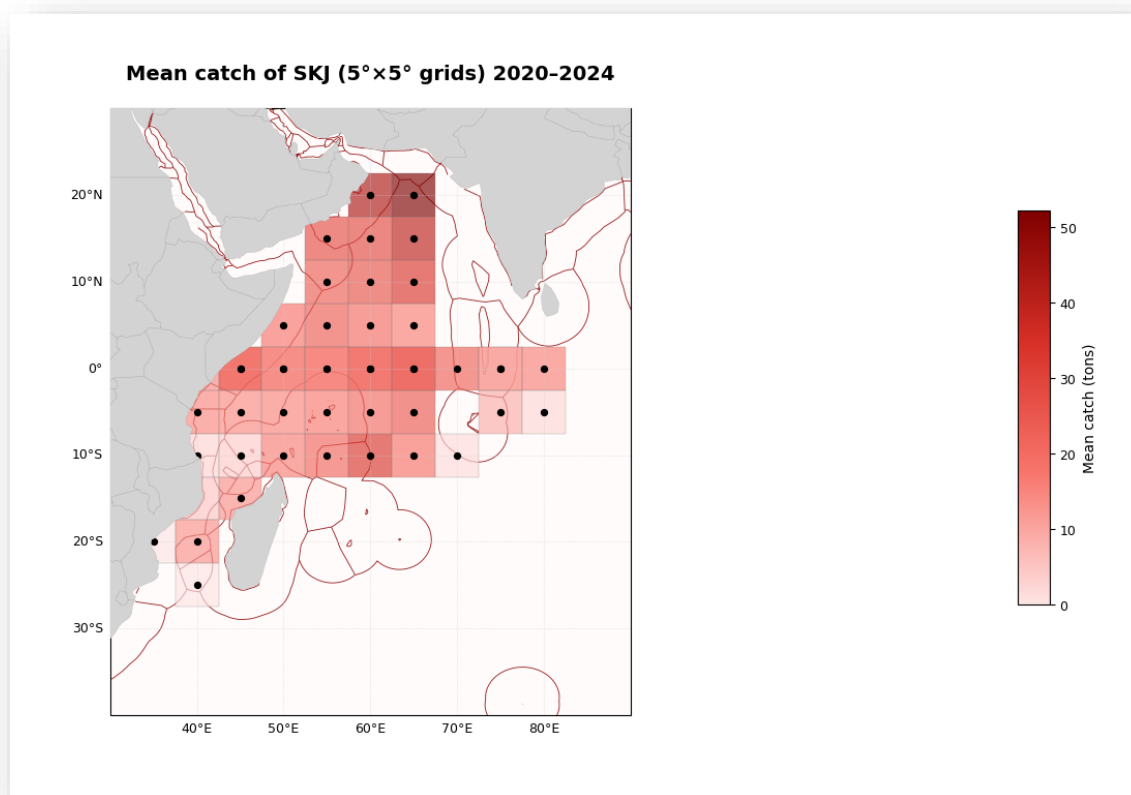


Figure 3.b(i). Map of distribution of SKJ catches, in cwp5x5 squares, by the Spanish purse seine fleet, in the IOTC area of competence (average of the 5 previous years: 2020–2024).

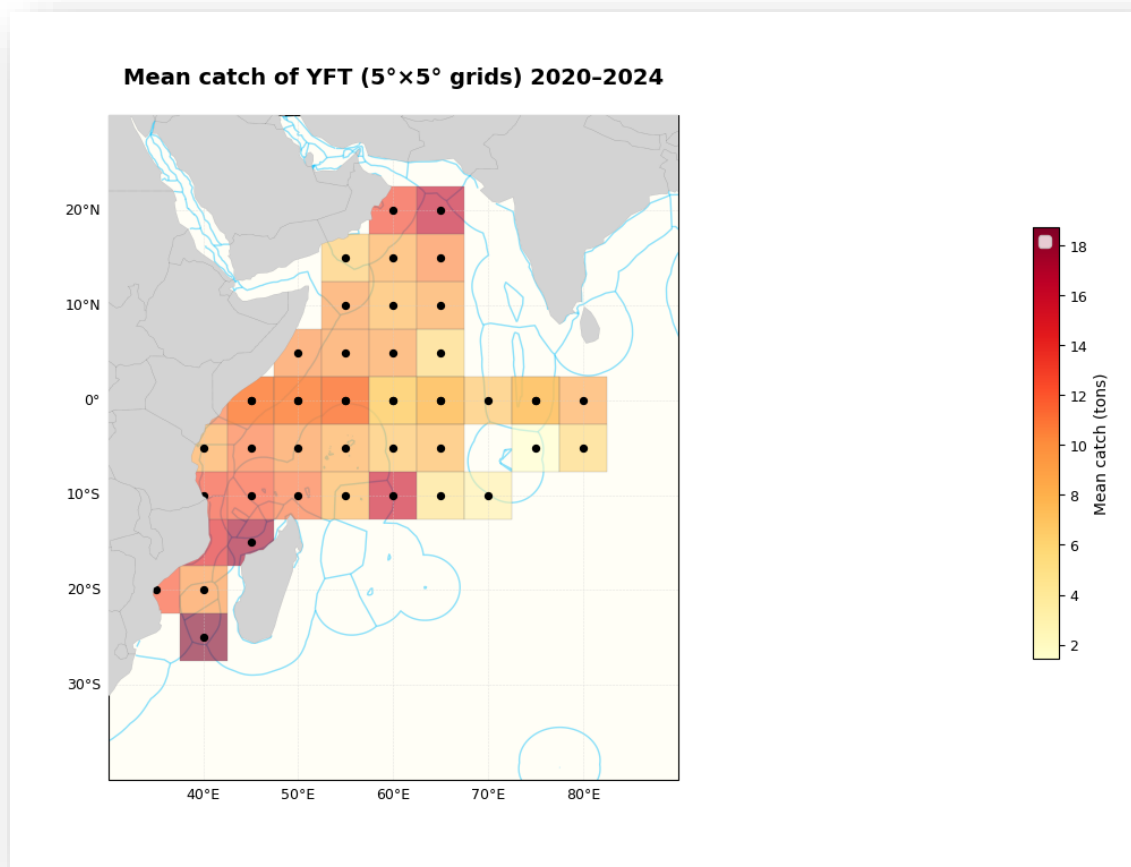


Figure 3.b(ii). Map of distribution of YFT catches, in cwp5x5 squares, by the Spanish purse seine fleet, in the IOTC area of competence (average of the 5 previous years: 2020–2024).

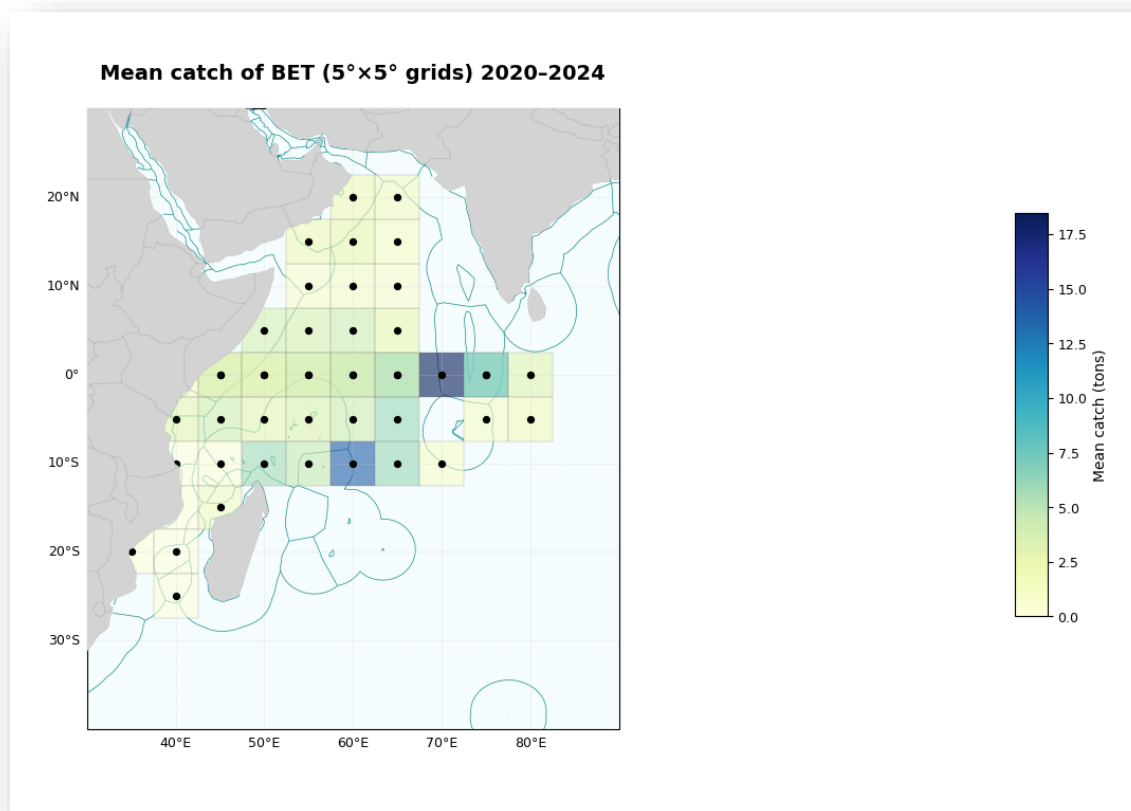


Figure 3.b(iii). Map of distribution of BET catches, in cwp5°x5° grid squares, by the Spanish purse seine fleet, in the IOTC area of competence (average of the 5 previous years: 2020–2024).

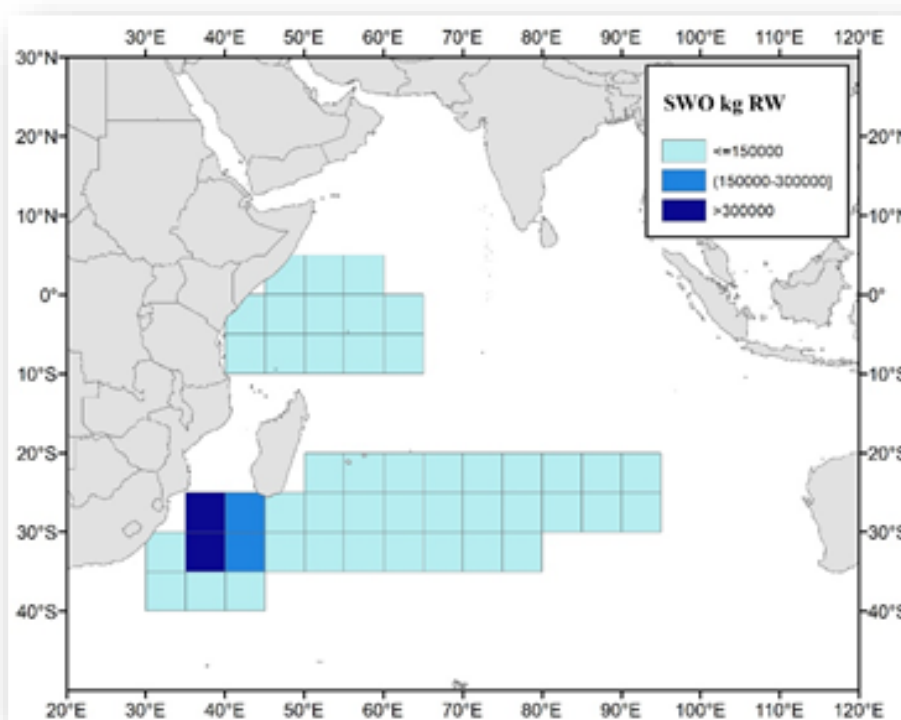


Figure 3.b(iv). Map of distribution of SWO catches (kg of round weight), in 5°x5° grid squares, by the Spanish surface longline fleet, in the IOTC area of competence (average of the 5 previous years: 2020–2024).

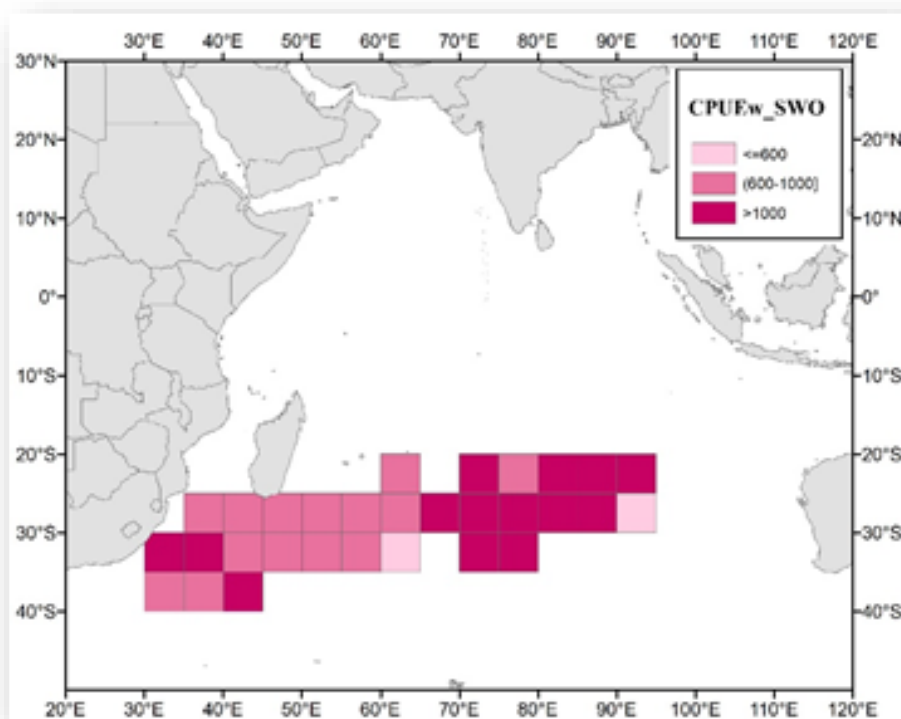


Figure 3.b(v). Map of distribution of the nominal CPUE in kg (round weight) of SWO landed per thousand hooks set, in 5°x5° grid squares, by the Spanish surface longline fleet, in the IOTC area of competence (average of the 5 previous years: 2020–2024).

4. RECREATIONAL FISHERY [Mandatory]

There are no recreational fishing activities of Spanish vessels in the IOTC area.

5. ECOSYSTEM AND BYCATCH ISSUES [Mandatory]

Purse Seine

A total of 38 trips—representing approximately 27% of the total trips conducted by this fleet—and 1109 sets (25 % of total sets) were carried out on board 11 of the 13 Spanish tropical tuna purse seiners operating in the Indian Ocean.

The **Table 3.a** provides a breakdown by vessel, indicating the number of days at sea and the number of sets performed in 2024, distinguishing between free-school and object-associated sets. All sets conducted—764 on object-associated schools and 345 on free-swimming schools—were sampled by onboard observers (see **figure 4.a**).

Table 3.a: Observed effort on board Spanish PS in 2024. Per vessel, the number of days at sea, the number of trips and the number of set types are stated.

IOTC vessel code	Days at sea	N sets on Free schools	N sets on Object schools	Total number of sets	Number of trips
IOTC000175	233	43	200	243	11
IOTC017253	165	41	113	154	7
IOTC000907	157	76	126	202	6
IOTC015569	42	9	52	61	3
IOTC000161	96	88	35	123	3
IOTC000164	66	13	74	87	2
IOTC000172	24	12	29	41	1
IOTC015353	20	7	16	23	1
IOTC000812	21	2	24	26	1
IOTC000879	45	16	52	68	1
IOTC016254	57	38	43	81	2
TOTAL	926	345	764	1109	38

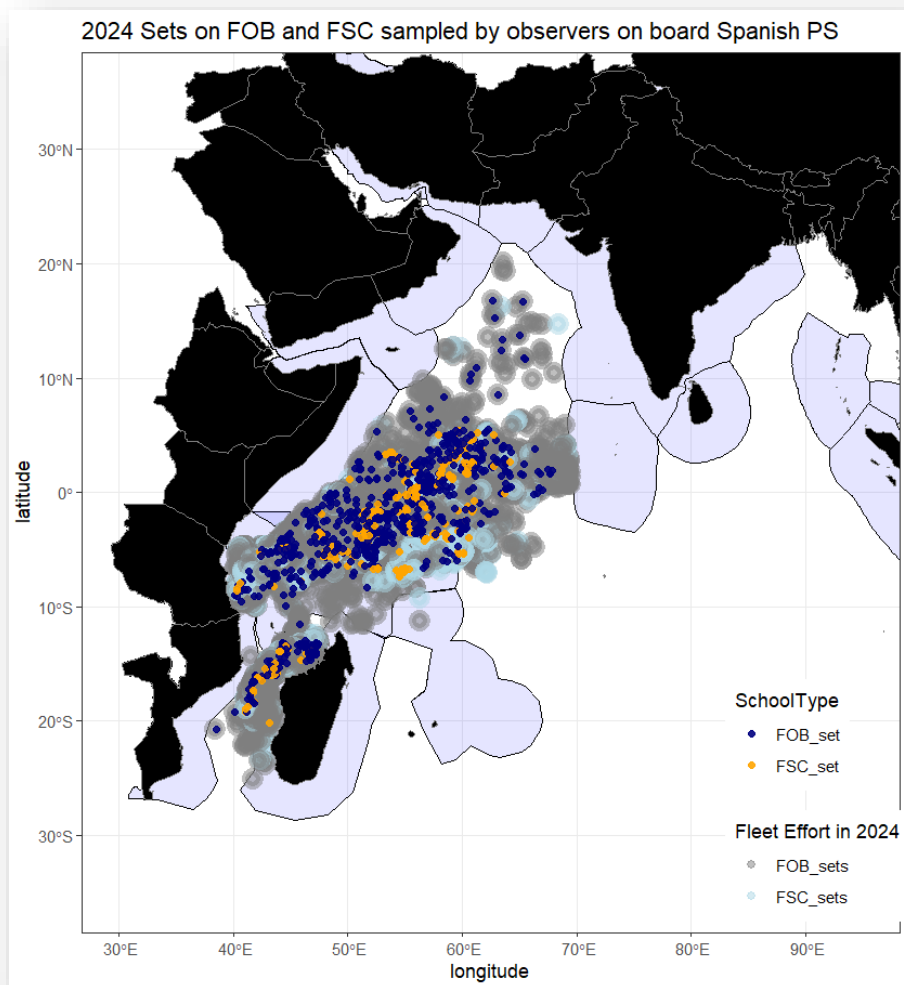


Figure 4.a. Positions of the sets carried out by the PS_EU.Spain fleet during the 38 sampled trips, clearly distinguishing between free-school sets (FSC – shown in yellow) and object-associated sets (FOB – shown in blue). These are overlaid on the entire fleet effort for 2024, which includes 3050 FOB set positions (in grey) and 1455 FSC set positions (in light blue)

Apart from tuna species, 53 species and taxa belonging to species groups associated with tropical tuna fisheries have been identified and measured during the sampled trips, having an approximate global retained catch of 46440 kg. The discarded fraction of these taxa reached an estimation of 191686 kg. A total of 11228 individuals were sampled (from the retained and the discarded fraction), most of them belonging to the species CNT (*Canthidermis maculata*), ALM (*Aluterus monoceros*), RRU (*Elagatis bipinnulata*), FAL (*Carcharhinus falciformis*) and DOL (*Coryphaena hippurus*).

Considering only the weight retained, the highest amount observed corresponds to the species, in order: RRU (*Elagatis bipinnulata*), DOL (*Coryphaena hippurus*), WAH (*Acanthocybium solandri*), CNT (*Canthidermis maculata*), BLM (*Istiompax indica*) and GBA (*Sphyrna barracuda*).

Considering only the discarded weight, the highest amount observed corresponds to the species, in order: FAL (*Carcharhinus falciformis*), RRU (*Elagatis bipinnulata*), DOL (*Coryphaena hippurus*), CNT (*Canthidermis*

maculata) and WAH (*Acanthocybium solandri*). The **table 3.a** shows specifically the number of sharks observed in the discarded fraction, by species and condition when released.

A total of 14 sea turtles were observed interacting with purse seiners (see positions in **figure 4.a**), all of them were released alive. These interactions primarily occurred during sets on floating objects (FOBs).

The global resulting interaction and mortality rates were $1.2624E^{-2}$ turtles per observed set and 0, respectively. Total interaction rate was slightly lower than to last year's (2023) bycatch ratio (0.0130) for marine turtles (see **Table 5.b(i)**).

In 2024 the observers on board the Spanish purse seine fleet in the Indian Ocean have **NO** records of marine turtles **not** involved in the sets but interacting with drifting FOBs.

- There were **NO** records of interactions with Seabirds
- There were **NO** records of interactions with Cetaceans, except for 3 opportunistic sightings of a single *Odontoceti* specimen and two groups of *Delphinidae* swimming free next to a FOB. There were NO fishing operations on these FOBs
- There were 2 records of interactions with Whale sharks not seen before the setting and released alive
- There were 21 records of interactions with Mobulids and Rays during the sets:
 - Concerning to the 15 interactions with Mobulids, 7 of them were part of the bycatch of FOB sets, while 8 were associated to free school sets. 12 of the Mobulids were released alive and 3 came dead on board. The species were: 1 *Mobulidae*, 4 *Mobula spp.*, 2 *Mobula birostris*, 2 *Mobula tarapacana* and 6 *Mobula mobular*.
 - Concerning to the 6 interactions with Rays. 3 were discarded dead and 3 were released alive. All of them were identified as *Pteroplatytrygon violacea*.

Longline

A total of 3 trips, 187 sets and displaying 252008 hooks were carried out on board of 3 Spanish longline targeting swordfish and operating in the Indian Ocean. One trip was covered by observers on board (OB), performing 84 sets and 112209 hooks; and the other 2 were covered by electronic observation (EMS), performing 103 sets and displaying 139104 hooks.

The following **table 3.b** provides a breakdown by vessel, indicating the number of sets and number of hooks performed in 2024, distinguishing between electronic or human observation. All sets conducted were sampled by onboard observers. See **figure 4.b** for spatial distribution.

Table 3.b: Observed effort on board Spanish LL in 2024. Per vessel, the number of days at sea, the number of trips, the number of sets and the number of hooks are stated by observation program.

Vessel	Trip	Observation Program	N sets	N hooks
IOTC013993	ESP-TRP-02588320231127160410	EMS	46	63628
IOTC003873	ESP-TRP-02598220240226090559	EMS	57	75476
IOTC000846	ESP-TRP-10021720240808134159	OB	84	112904
TOTAL	3		187	2520081

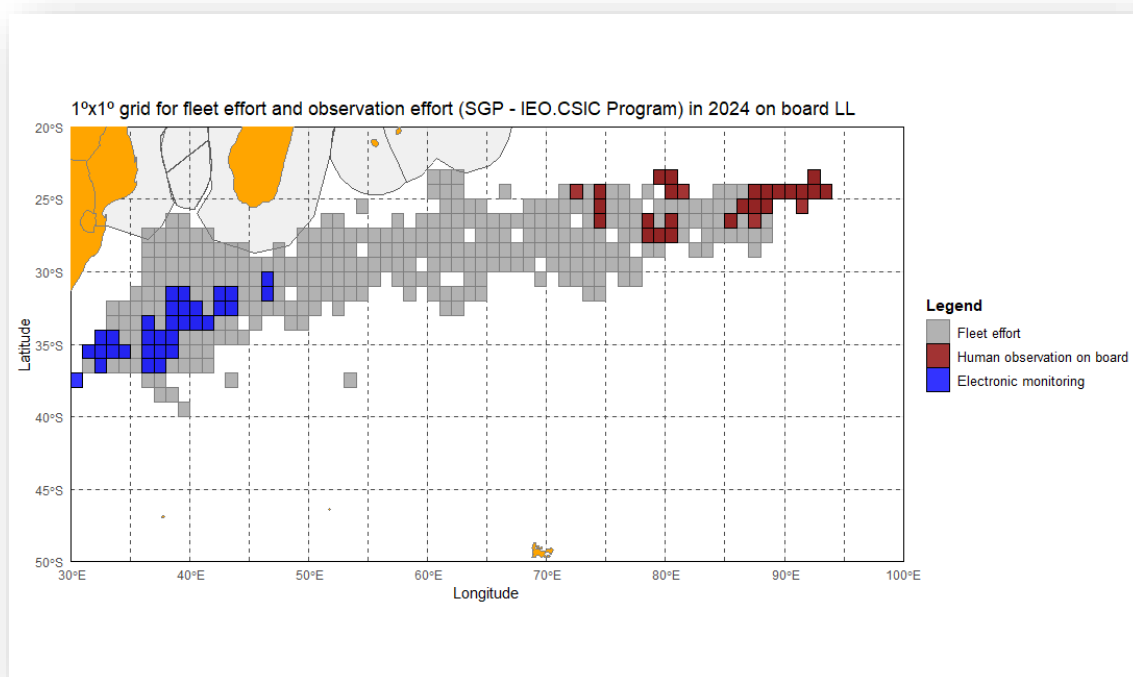


Figure 4.b. Positions of the sets carried out during the 3 sampled trips, differentiating between human (brown) and electronic observation (blue).

Apart from swordfish species, 34 different species of fishes associated with swordfish fisheries have been identified and measured during the sampled trips, having retained catch of 9072 fishes. The discarded specimens reached 155 individuals.

Considering only the catch retained, the highest amount observed corresponds to the species, in order: SWO (*Xiphias gladius*), BSH (*Prionace glauca*), SMA (*Isurus oxyrinchus*), DOL (*Coryphaena hippurus*) and LEC (*Lepidocybium flavobrunneum*).

Considering only the discarded specimens, the highest amount observed corresponds to the species, in order: SWO (*Xiphias gladius*), PLS (*Pteroplatytrygon violacea*) and SKX (*Elasmobranchii*).

1. From the protocol of Human Observers on board:

- A total of **three** marine turtles were observed interacting with surface longline, one *Caretta caretta* and three unidentified, all of them were released alive in good conditions, except for one unidentified individual, which was alive when released but its condition was undetermined. Taking this into consideration, the resulting interaction has been $1.1956E^{-05}$ per hook and mortality rate has been null
- There has been **NO** of interactions with seabirds
- There have been **two** interactions with cetaceans, a Risso's dolphin (*Grampus griseus*) and a whale (*Balaenoptera*). Both were released alive. The interaction rate in this protocol was $7.9705E^{-06}$ marine mammals per hook and the mortality rate was null
- There has been **NO** interactions with whale sharks
- There has been **NO** interactions with Mobulids

2. From the protocol of Electronic Monitoring System (EMS) there was:

- There has been **one** interaction with an unidentified marine turtle recorded by this protocol. It was released alive though its final condition was not determined at all
- There has been **NO** interactions with seabirds recorded by this protocol
- There has been **NO** interactions with cetaceans recorded by this protocol
- There was **one** record of interactions with *Mobulids* (*Mobula spp.*), that was released alive in good conditions. The interaction rate in this protocol was $7.1889E^{-06}$ *Mobulidae* per hook and the mortality rate was null

5.1 Sharks [Mandatory]

For the **purse seine** fishery, shark bycatch, while not significant globally compared to other fishing gears, is tried to be avoided by the implementation of good practices, such as the application of appropriate handling and release protocols. The fleet is strictly regarding the practice of shark finning, which is completely prohibited. **Table 5.a.** shows the nominal observed catch (in number or weight) of sharks by species.

For the surface **longline** fishery, the profitable use of the different parts of the sharks is regularly better than that most bony fish species. The sharks are processed on board as trunks or carcass with their respective fins naturally attached, frozen and stowed on board, and landed for human consumption. Bycatch data of sharks is summarized in **table 5.b** for 2012-2024 periods. It was not feasible to obtain a scientifically robust data by extensive area-time stratification due to the low occurrence of most bycatch species. However, total catches of all bycatch species are scientifically estimated and reported for assessment.

Electronic Reporting System (ERS) is mandatory for all Spanish vessels operating in the IOTC area, according to the Regulation 1224/2009, establishing a Community control system for ensuring compliance with the rules of the common fisheries policy. Blue shark has no special regulation related to the report of its catches. Catches of blue sharks have to be reported by ERS as for the rest of the species.

Table 5.a: Total nominal number (in weight for 2024) of sharks observed on board, by species, released/discarded by the purse seiner PS_EU.Spain fleet in the IOTC area of competence (for the most recent five years at a minimum, e.g. 2019–2024). Life status upon released/discard is indicated. Observer coverage, in number of sets is indicated.

	2019_23%sets		2020_14%sets		2021_24%sets		2022_40%sets		2023_29%sets		2024_25%sets	
Species	No. Released Dead	No. Released Alive	No. Released Dead	No. Released Dead	No. Released Alive	No. Released Dead	No. Released Alive	No. Released Dead	No. Released Dead	No. Released Alive	KG. Released Dead	KG. Released Alive
<i>Carcharhinidae</i>							1		44	12		76.7
<i>Carcharhiniformes</i>	11					11						
<i>Carcharhinus falciformis</i>	1621	2223	894	2985	3910	1621	2223	894	2200	2870	38961.4	29067.6
<i>Carcharhinus longimanus</i>	7	14	5	26	20	7	14	5	41	145	588.2	737.3
<i>Isurus oxyrinchus</i>	1					1						32.9
<i>Lamnidae</i>										1		
<i>Prionace glauca</i>												
<i>Rhincodon typus</i>					5							11066.5
<i>Rhyna ancylostomus</i>												
<i>Sphyrna mokarran</i>												21.5
<i>Sphyrnidae</i>										1		

Table 5.b: Scientific estimation of sharks by species, of the annual landings (tons of round weight) retained by the Spanish surface longline fleet in the Indian Ocean for the 2012-2024 period.

SPECIES/YEAR	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
<i>Carcharhinus falciformis</i>	25	0.5	0	0	0	0	4	0.9	0	0	0	0	0
<i>Isurus oxyrinchus</i>	561	620	823	441	450	532	399	424	348	390	285	397	392
<i>Isurus paucus</i>	0.2	0.7	0.1	0	0.1	0	0.8	0.6	0	0	0	0	0
<i>Prionace glauca</i>	3686	414	4657	3701	3592	3059	2162	2646	2417	2125	2026	3471	3894

5.1.1. NPOA sharks [Desirable]

Regulation n°2021-47 of 9th of July 2021 legislating tuna and tuna-like species fisheries includes marine species protection measures, especially in its Annex 2, aiming to reduce the impact on marine turtles, sea birds and sharks.

Sharks: Approved on 05-Feb-2009 and it is currently being implemented.

Seabirds: The EU adopted on Friday 16 November 2012 an Action Plan to address the problem of incidental catches of seabirds in fishing gears. A specific national plan of action has been published for Albatrosses which runs from 2018-2027.

Marine turtles: European Union Council Regulation (EC) No 520/2007 of 7 May 2007 lay down technical measures for the conservation of marine turtles including articles and provisions to reduce marine turtle bycatch. The regulation urges Member States to do their utmost to reduce the impact of fishing on sea turtles, in particular by applying the measures provided for in paragraphs 2, 3 and 4 of the resolution.

5.1.2. Blue shark [Mandatory]

Electronic Reporting System is mandatory for all Spanish vessels operating in the IOTC area, according to the Regulation 1224/2009, establishing a Community control system for ensuring compliance with the rules of the common fisheries policy. Blue shark has no special regulation related to the report of its catches. Catches of blue sharks have to be reported by ERS as for the rest of the species.

5.2 Seabirds [Mandatory]

There were **NO** interactions with any seabirds recorded by either human observer and EMS programs in 2024.

A total of 10 longliners operated in the IOTC area in 2024. To prevent the interactions with seabirds, all of them used night setting and bird scaring lines. Additionally, 2 vessels used weighting.

1. How many vessels operated south of 25°S in the period covered by this report? None
2. How many of those vessels used bird scaring lines (as a proportion of total effort)? NA
3. How many of those vessels used line weighting (as a proportion of total effort)? NA
4. How many of those vessels used night setting (as a proportion of total effort)? NA

5.3 Marine Turtles [Mandatory]

Spain has ratified the the International Convention for the Prevention of Pollution from Ships, modified by the Protocol of 1978 (MARPOL 73/78), prohibiting the fleet to dump plastic into the ocean.

Biodegradable FAD are used in the Spanish purse seine fleet, in order to prevent the accidental catch of marine turtles.

In 2017 the WPEB was requested by the Commission to review the mitigation measures in Resolution 12/04 On the conservation of marine turtles as scheduled in the annual programme of work. Detailed information regarding interactions of turtles with fisheries recorded in the IOTC Record of Authorised Vessels shall already be reported to the Secretariat through form 1DI as per IOTC Res. 12/04, 15/02, as well as via the data reported through the Regional Observer Scheme (ROS).

The national strategy on marine turtles is based on international, European and Spanish regulation. The main acts are the following:

- Resolution IOTC 12/04 on the conservation of marine turtles
- Regulation (EC) No. 520/2007, of the Council, of May 7, 2007, which establishes technical measures for the conservation of certain populations of highly migratory fish species and which repeals Regulation (EC) No. 973/2001. Specifically, the provisions of articles 15, 20 and 27 (relating to sea turtles)
- Order APM / 1057/2017, of October 30, which modifies Order AAA/658/2014, of April 22, which regulates fishing with surface longline gear for the capture of highly migratory species, and which repeals Order ARM / 1647/2009, of June 15, which regulates the fishing of highly migratory species (BOE of November 3, 2017)
- Order AAA / 658/2014, of April 22, regulating surface longline fishing for the capture of highly migratory species and creating the unified surface longline census
- FAO Guidelines to reduce the mortality of sea turtles in fishing operations (2009)

Spanish mitigation measures on sea turtles are carried out through Temporary Fishing Licences (PTP) issued by the General Fisheries Secretariat (SGP) which is mandatory for all Spanish vessels operating in the IOTC area, both for the purse-seine fishery and for the surface longline fishery. The mentioned licences have an annex that includes the obligation to comply with the regulations issued by IOTC, mandatory measures on sea turtles and the obligation to record the interactions that occur with them.

These licences are reviewed and updated annually to include the new provisions that emanate from regulations approved by the IOTC Commission, as well as other European and national regulations.

There are other mitigation measures on marine turtles:

- Management Plan on Fisheries Aggregation Devices (FAD): established by the Spanish administration as mandatory since 2010. It includes mitigation measures on non-target species as marine turtles, through the use of non-entangling FADs.
- This plan is updated annually to incorporate new regulation.

- “Code of Good Practices on board purse seiners”: it includes the design and use of non-entangling FADs that reduce entanglement mortality of vulnerable species such as sea turtles, among others; best practices guidelines for their release and, the application of a FAD management system through the implementation of a FAD logbook and responsible use of active FADs.
- Training sessions on Mitigation measures on marine turtles by the industry and the administration and projects involved in this action field.

A total of 14 sea turtles were observed interacting with purse seiners (see rates in **table 5.c(i)** and spatial distribution in **map 6.a**), all of them were released alive. These interactions primarily occurred during sets on floating objects (FOBs).

Table 5.c(i): Rates of interaction and mortality of marine turtles by species and total, obtained during the year 2024 in the Indian Ocean by the observers sampling programs on board the Spanish purse seine fleet.

Species	Year	Interaction rate (turtles/sets observed)	Mortality rate	Number
<i>Eretmochelys imbricata</i>	2024	5.4103E ⁻⁰³	0	6
<i>Lepidochelys olivacea</i>	2024	4.5086E ⁻⁰³	0	5
<i>Chelonias mydas</i>	2024	1.8034E ⁻⁰³	0	2
<i>Caretta caretta</i>	2024	9.0171E ⁻⁰⁴	0	1
Total turtles	2024	1.2624E⁻⁰²	0	14

In 2024, 4 interactions of longliners with marine turtles were reported. The species identified were 1 *Caretta caretta* and 3 non-identified individuals.

All the specimens were released alive. Considering this, the global resulting observed interaction rate was 1.592E⁻⁰⁵ per hook and the mortality rate was null (see rates in **table 5.c(ii)** and spatial distribution in **map 6.b**).

Table 5.c(ii): Observed annual interactions rates of surface longline gear by the LL Spanish fleet on marine turtles for the 2010-2024 period and number of individuals observed during the sets under the framework of the IEO.CSIC-SGP program.



	Year	Interaction rate	Mortality rate	Number
TURTLES	2010	0	0	0
	2011	0	0	0
	2012	0	0	0
	2013	1.49E ⁻⁰⁴	2.76E ⁻⁰⁵	27
	2014	7.07E ⁻⁰⁵	0	5
	2015	4.37E ⁻⁰⁵	0	2
	2016	3.78E ⁻⁰⁵	9.44E ⁻⁰⁶	4
	2017	3.34E ⁻⁰⁵	0	2
	2018	0	0	0
	2019	2.10E ⁻⁰⁵	0	1
	2020	6.038E ⁻⁰⁵	0	3
	2021	1.979E ⁻⁰⁵	0	3
	2022	9.701E ⁻⁰⁵	9.701E ⁻⁰⁶	10
	2023	2.952E ⁻⁰⁵	3.690E ⁻⁰⁶	8
	2024	1.592E ⁻⁰⁵	0	4

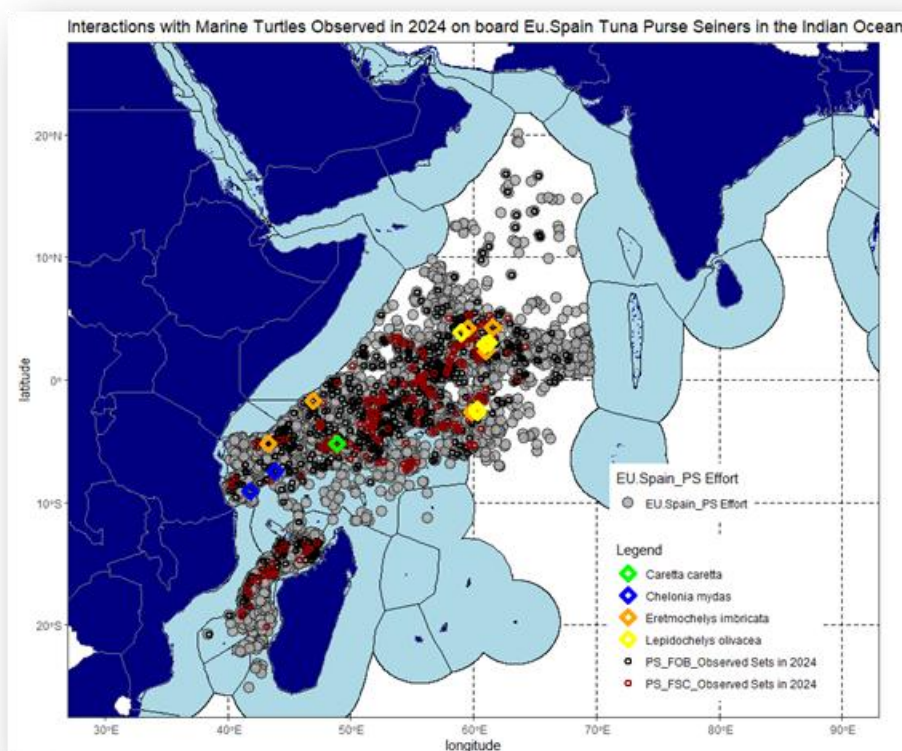


Figure 6.a: Map showing the spatial distribution of observer coverage in 2024 by Human Observation (black and red) on board PS_EU.Spain fleet, compared to total effort (grey), in number of sets. Turtles interactions positions are shown, by species, in different colours in diamond pattern

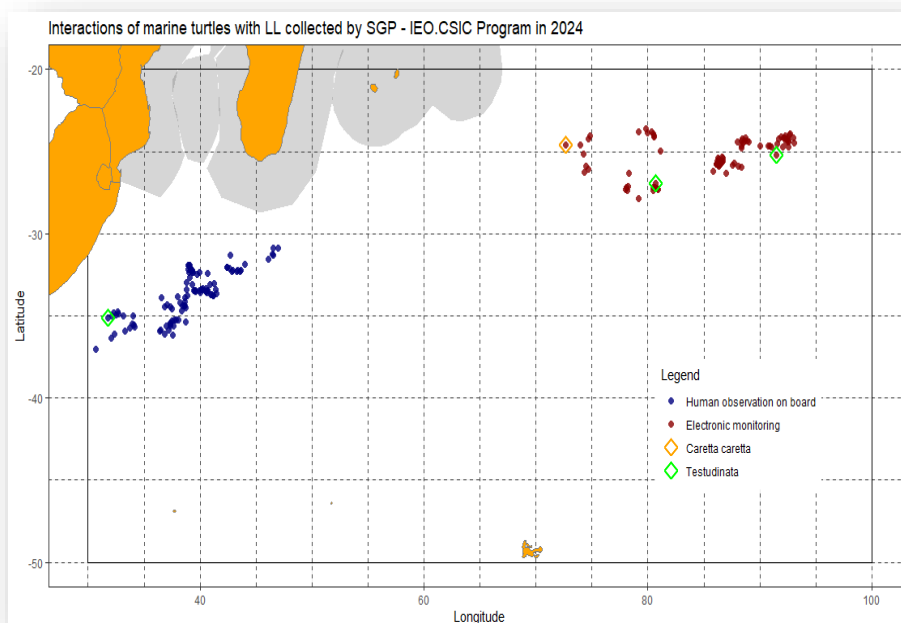


Figure 6.b: Maps showing the spatial distribution of observer coverage by Human Observation (blue) and EMS (red), for IEO.CSIC-SGP Program on board Spanish longline vessels in 2024. Turtles catch positions are shown in orange (*Caretta caretta*) or green (*Testudinata*).

5.4 Other ecologically related species (e.g., cetaceans, mobulid rays, whale sharks) [Desirable]

Purse seine

- There were **NO** records of interactions with Seabirds
- There were **NO** records of interactions with Cetaceans, except for 3 opportunistic sightings of a single *Odontoceti* specimen and two groups of *Delphinidae* swimming free next to a FOB. There were NO fishing operations on these FOBs
- There were 2 records of interactions with Whale sharks not seen before the setting and released alive
- There were 21 records of interactions with Mobulids and Rays during the sets, 15 were released alive and 5 came dead on board

Longline

- There have been 2 records of interactions with cetaceans identified as *Grampus griseus* and *Balaenopteridae*. They were captured and released alive. The rate of interaction was $7.94E^{-06}$ per hook, and the mortality rate has been null
- There were NO records of interactions with seabirds
- There were NO records of interactions with basking or whale sharks
- Only 1 record of interactions with *Mobulids* was observed during the sets, and the individual was released alive

6. NATIONAL DATA COLLECTION AND PROCESSING SYSTEMS [Mandatory]

Purse seine: During 2020, the sampling activities of the landings in Port Victoria (Seychelles) (that are subsequently used in the catch correction process), currently under Spanish coordination, has been stopped due to the outbreak of COVID19 pandemic. This activity was resumed in 2021.

In 2024, A total of 38 trips (approximately a 27 % of the total trips performed by this fleet) and 1109 sets (a 25% of the total sets) on board 11 of the 13 Spanish tropical tuna purse seiners present in the Indian Ocean have been carried out. They are shown in the **Table 3**, stating the number of days at sea and the number of sets (on free schools or object schools) by vessel performed in 2024. All sets conducted—764 on object-associated schools and 345 on free-swimming schools—were sampled by onboard observers.

Longline: Since the beginning of this fishery in the Indian Ocean in 1993, the implementation of an Information and Sampling Network (IEO.CSIC, A Coruña) has provided the basic data for the study research and for estimating the annual statistics for swordfish by 5°x5° grid squares up to the year 2024. Same size-sex variables of swordfish and blue shark were obtained. The voluntary tagging program is still being carried out tentatively on both, swordfish and bycatch species. Information about interaction with marine turtles, seabirds or others incidental unwanted captures continues being collecting.

6.1. Logsheet data collection and verification (including date commenced and status of implementation)

The Electronic Fisheries Reporting Logbook was implemented in Spanish fleet according to Council Regulation (EC) No 1224/2009 of 20 November 2009 establishing a Community control system for ensuring compliance with the rules of the common fisheries policy, according to the following calendar:

- since 2010 in fishing vessels of 24 metres' length overall or more
- since 2011 in fishing vessels of 15 metres' length overall or more and less than 24 metres' length overall
- since 2012 in fishing vessels of 12 metres' length overall or more and less than 15 metres' length overall

Purse Seine: The Spanish General Fisheries Secretariat (SGP) has implemented a new module of the Electronic Fisheries Reporting Logbook, where the captains and fishing patterns indicate the type of fishing mode (school free or associated), and total catch by species among other information.

6.2. Observer scheme (including date commenced and status; number of observer, include percentage of coverage by fishery. Also, a description of the protocols supporting the observer programs and sampling schemes mentioned in paragraphs 3, 4, 6 and 9 of Res [24-04])

Purse Seine: The EU establishes a Union framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy (CFP) through the ²Regulation (UE) 2017/1004 of the European Parliament and of the Council of 17 May 2017.

Under the coordination of the Spanish General Fisheries Secretariat (SGP), a multi-annual data collection program (PNDB – *Programa Nacional de Datos Básicos*) is implemented with the collaboration of various research centres since 2003.

The Spanish Institute of Oceanography (IEO.CSIC), together with the AZTI Foundation, are in charge of the implementation concerning the '*National Program of Tropical Tuna Fishing*'. Commercial vessels are sampled with Scientific Observers to estimate the bycatch and discards of Spanish-flagged tuna purse seiners operating in tropical waters of the Atlantic and Indian Oceans.

In addition to PNDB, a Memorandum of Understanding (MoU) for the deployment of fisheries observers on tuna purse-seine fleet between TAAF, Mauritius Ministry of Fisheries, Seychelles Fisheries Authority (SFA) and AZTI Foundation was signed in 2014. This agreement has allowed placing local observers on board instructed with the directives of the PNDB.

² Regulation (EU) 2017/1004 of the European Parliament and of the Council of 17 May 2017 on the establishment of a Union framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy and repealing Council Regulation (EC) No 199/2008 (recast). ELI: <http://data.europa.eu/eli/reg/2017/1004/oj>

During each trip, the observers on board must collect the required data by filling in the following FORMS:

- ✓ Form TRIP: general characteristics of the trip (start date, end date, port...)
- ✓ FORM A: route and environmental parameters (types of activity, coordinates, temperature...)
- ✓ FORM B: fishing characteristics (type of banc, tuna discards, bycatch, catch, destiny...)
- ✓ FORM C1: tuna discards length sampling
- ✓ FORM C2: bycatch length and sex sampling
- ✓ FORM D: description and components of floating objects

The main tasks to be performed by these scientific observers during the set follow a PRIORITY order, which is:

- ✓ 1st Tuna discards and estimation of bycatch:

Tuna discards by species

Tuna Length sampling (FL to the lowest nearest cm)

Bycatch estimation (weight or number) by species

- ✓ 2nd Sampling of other species:

The whole bycatch will be sampled or a representative sample will be selected whenever its quantity is high. Sampling will be done following a list of priorities by species group, measuring always the size to the lowest nearest cm:

- Sharks and rays
- Turtles
- Billfishes
- Other fishes

- ✓ 3rd Tuna catch:

The data collected will be obtained from the information provided by the skipper and/or the main engineer, registering the catch weight (in tonnes) by species and the destiny well/s. If any discrepancy were observed, it will be described in the comments of the suitable form.

1. COVERAGE:

The number of sets sampled represents approximately a 24.6 % of the total number of sets performed by the Spanish tropical tuna purse seiner fleet in the Indian Ocean in 2024.

2. VESSELS AND SETS SAMPLED:

A total of 38 trips—representing approximately 27% of the total trips conducted by this fleet—and 1109 sets (25 % of total sets) were carried out on board 11 of the 13 Spanish tropical tuna purse seiners operating in the Indian Ocean. All sets conducted—764 on object-associated schools and 345 on free-swimming schools—were sampled by onboard observers.

The **Table 3.a** provides a breakdown by vessel, indicating the number of days at sea and the number of sets observed in 2024, distinguishing between free-school and object-associated sets. All sets conducted—764 on

object-associated schools and 345 on free-swimming schools—were sampled by onboard observers (see **figure 4.a** for spatial distribution of observed coverage).

The following **table 3.b** provides a breakdown by vessel, indicating the number of sets and number of hooks observed in 2024, distinguishing between electronic or human observation. All sets conducted were sampled by onboard observers. See **figure 4.b** for spatial distribution, for both total and observed effort, in 1°x1° grids.

3. TARGET CATCHES AND DISCARDS:

The following table (**table 6.a**) specifies the observed tuna catches by species (in kilograms), depending on whether they have been retained or discarded, and the number and weight of the individuals sampled by scientific observers.

Table 6.a: Observed tuna catches and discards (in Kg) by species on board tropical tuna purse seiner vessels in 2024. The number and weight (kg) of individuals measured is included.

Tuna species	Observed retained catches (Kg)	Observed Discards (Kg)	No of individuals measured*	Weight (Kg) of the measured individuals*
AG10 (<i>Tunas nei</i>)	-	50000.0	-	-
ALB (<i>Thunnus alalunga</i>)	7218.0	31.0	2	31.631
BET (<i>Thunnus obesus</i>)	1558663.5	2658.9	677	432.97
BLT (<i>Auxis rochei</i>)	-	-	-	-
FRI (<i>Auxis thazard</i>)	132724	87491.2	1748	559.98
KAW (<i>Euthynnus affinis</i>)	-	563	7	6.419
SKJ (<i>Katsuwonus pelamis</i>)	15805123.5	143277.8	2712	1678.15
YFT (<i>Thunnus albacares</i>)	9872891.8	11562.9	1973	3494.97

* all measurements of tuna species belong to discarded fraction

4. BYCATCH:

Apart from tuna species, 53 species and taxa belonging to species groups associated with tropical tuna fisheries have been identified and measured during the sampled trips, having an approximate global retained catch of 46440 kg. The discarded fraction of these taxa reached an estimation of 191686 kg. A total of 11228 individuals were sampled (from the retained and the discarded fraction), most of them belonging to the species CNT (*Canthidermis maculata*), ALM (*Aluterus monoceros*), RRU (*Elagatis bipinnulata*), FAL (*Carcharhinus falciformis*) and DOL (*Coryphaena hippurus*).

Considering only the weight retained, the highest amount observed corresponds to the species, in order: RRU (*Elagatis bipinnulata*), DOL (*Coryphaena hippurus*), WAH (*Acanthocybium solandri*), CNT (*Canthidermis maculata*), BLM (*Istiompax indica*) and GBA (*Sphyrna barracuda*).

Considering only the discarded weight, the highest amount observed corresponds to the species, in order: FAL (*Carcharhinus falciformis*), RRU (*Elagatis bipinnulata*), DOL (*Coryphaena hippurus*), CNT (*Canthidermis maculata*) and WAH (*Acanthocybium solandri*).

Longline: The EU establishes a Union framework for the collection, management and use of data in the fisheries sector and support for scientific advice regarding the common fisheries policy (CFP) through the Regulation (UE) 2017/1004 of the European Parliament and of the Council of 17 May 2017.

Under the coordination of the Spanish Fisheries Secretariat (SGP), a multi-annual data collection program (PNDB – Programa Nacional de Datos Básicos) is implemented with the collaboration of various research centres.

Since 2017, the General Secretariat of Fisheries (SGP) has been developing a scientific observer program on board surface longliners in IOTC, with the aim of complying with the obligation established in the regulations of the tuna regional fisheries organizations, which require a minimum observer coverage of 5% of the fishing effort in each of the pelagic longline fisheries and, to comply with Article 17 of Order AAA/658/2014, of April 22, which regulates fishing with surface longline gear for the capture of highly migratory species. These data contribute to the construction of statistics submitted annually to IOTC and data on associated and incidental catches.

This program collects information, by human observer (OB) or electronic observation (EMS), on target species, bycatch, as well as on the interaction of the fishing gear with unwanted bycatch species.

The Spanish Institute of Oceanography (IEO.CSIC) is in charge of the implementation concerning the 'National Program for Tropical Tuna Fisheries'. Commercial vessels are sampled with Scientific Observers or Electronic Monitoring Systems to estimate the bycatch and discards of Spanish-flagged longline targeting swordfish and operating in tropical waters of the Atlantic and Indian Oceans.

During each trip, the observers on board must collect the required data by filling in the following FORMS:

- ✓ Form TRIP: general characteristics of the trip (start date, end date, port...)
- ✓ FORM SETS: route and environmental parameters (coordinates, hooks, mitigation measures...)
- ✓ FORM CATCHES: fishing characteristics and length sampling (bycatch, catch, destiny, length, condition...)
- ✓ FORM INCIDENTAL CATCHES: turtles, cetaceans and seabird

The main tasks to be performed by these scientific observers during the set follow a PRIORITY order, which is:

- ✓ 1st Swordfish:

Catches of swordfish and length sampling of swordfish (LJFL to the lowest nearest cm)

- ✓ 2nd Sampling of other species (bycatch and incidental species):

The whole bycatch is sampled, or a representative sample is selected whenever its quantity is high. Sampling is done following a list of priorities by species group, measuring always the size to the lowest nearest cm:

Billfishes

Sharks, Mobulids, and rays

Turtles, Cetaceans and seabird

Other fishes

1. COVERAGE:

The number of hooks sampled represents approximately a 6,5 % of the total number of hooks performed by the Spanish longline swordfish fleet in the Indian Ocean in 2024 (**Table 6.b**).

2. SETS AND HOOK SAMPLED:

A total of 3 trips, 187 sets and displaying 252008 hooks were carried out on board of 3 Spanish longline targeting swordfish and operating in the Indian Ocean. One trip was covered by observers on board (OB), performing 84 sets and 112209 hooks; and the other 2 were covered by electronic observation (EMS), performing 103 sets and displaying 139104 hooks.

Table 6.b: Annual observed coverage in number of sets (purse seine) or number of hooks (longline) for the last 5-year period (2019-2024)

	Purse Seine	Longline
YEAR	% coverage (nsets)	% coverage (Hooks*1000)
2019	23	2
2020	14	2
2021	24	7
2022	40	5
2023	29	8
2024	5	7

6.3. Port sampling programme

In January 2019, Spain reinforced its sampling team at the port of Victoria (Seychelles), the main discharge port for the Spanish freezer purse seine fleet. Data for 2020 could not be provided due to the COVID-19 pandemic and a disagreement between the Spanish private companies—who provided services to the Spanish administration—and the administration itself.

Currently, the port sampling team consists of a Spanish coordinator, three local samplers, and one Spanish IT technician responsible for managing the databases. In 2024, a total of 49633 tuna were sampled during landings by the Spanish purse seine fleet in Victoria. Considering that the EU-Spanish purse seiner fleet made 123 landings in Victoria, the sampling effort covered approximately 92% of the yearly unloading (113 landings).

Regarding the longline fleet, Spain has not established a port sampling program.

Table 7 displays the number of fishes sampled and counted at port, along with the number of fishing trips, vessels, and sets by species and month.

Table 7: Number of vessel trips and fish sampled at port by species during 2024 in landings by the Spanish purse seine fleet in Victoria, Seychelles. The number of sets where the species were sampled is also indicated.

FAO code	Species	N length measures at port	N fishes counted at port	n fishing trips sampled	n unique vessels sampled
ALB	<i>Thunnus alalunga</i>	41	41	2	2
BET	<i>Thunnus obesus</i>	4432	4432	88	13
FRI	<i>Auxis thazard</i>	1555	1555	50	13
KAW	<i>Euthynnus affinis</i>	10	10	2	2
SKJ	<i>Katsuwonus pelamis</i>	15300	59209	83	13
YFT	<i>Thunnus albacares</i>	28293	28293	112	13
Total		49631	93540		

6.4. Actions taken to monitor catches & manage fisheries for Striped Marlin, Black Marlin, Blue Marlin and Indo-pacific Sailfish [Mandatory]

In purse seiner and longline fisheries, catches of these billfish species are monitored by onboard human observers, with medium coverage rates of 40% and 5%, respectively. Additionally, fishermen are required to report all catches through the ERS, which is overseen by the SGP. Information is collected in **tables 7** and **8**.

Table 8: Quantities (tons) by species and gear landed in ports located in the IOTC area competence

Species (AL3)	Purse seiner (t)	Longliner (t)
ALB	117.86	2.52
ALM	0.84	0.00
BAO	2.15	0.00
BET	7931.52	19.67
BLM	8.44	25.11
BSH	0.00	3893.80
BUM	12.57	2.70
CFW	0.00	0.00
CNT	26.56	0.00
CXS	1.14	0.00
DOL	51.84	7.04
FRI	630.73	0.00
GBA	7.25	0.00
KYC	0.24	0.00
KYV	0.06	0.00
LEC	0.00	47.84
LAG	0.00	0.79
LOB	3.48	0.00
MLS	0.00	9.60
MSD	0.79	0.00

Species (AL3)	Purse seiner (t)	Longliner (t)
MSD	0.79	0.00
NAU	0.02	0.00
NGT	0.06	0.00
NHR	0.11	0.00
OIL	0.00	2.08
POA	0.03	0.00
RRU	44.11	0.00
SFA	0.00	19.74
SKJ	66323.71	0.02
SMA	0.00	391.63
SSP	0.00	0.55
SWO	0.00	4057.05
UDD	0.26	0.00
URU	0.02	0.00
USE	3.48	0.00
WAH	10.36	2.68
YFT	40583.75	46.12
YTL	0.28	0.00

Table 9: Quantities (tons) by species and gear transhipped at ports located in the IOTC area of competence:

Gear	Species (AL3)	TOTAL
LOGLINER	ALB	2,40
LOGLINER	BET	19,06
LOGLINER	BLM	30,20
LOGLINER	BSH	3.893,91
LOGLINER	BUM	1,22
LOGLINER	DOL	7,13
LOGLINER	LAG	0,43
LOGLINER	LEC	47,53
LOGLINER	MLS	8,75
LOGLINER	OIL	2,39
LOGLINER	SAI	1,51
LOGLINER	SFA	14,27
LOGLINER	SMA	400,67
LOGLINER	SPF	1,05
LOGLINER	SSP	0,14
LOGLINER	SWO	4.038,18
LOGLINER	WAH	2,35
LOGLINER	YFT	45,21
PURSE SEINER	ALB	85,55
PURSE SEINER	BET	7.780,12
PURSE SEINER	BIL	5,91
PURSE SEINER	DOL	0,95
PURSE SEINER	FRI	58,60
PURSE SEINER	SKJ	53.059,93
PURSE SEINER	WAH	1,29
PURSE SEINER	YFT	36.234,88

6.5. Gillnet observer coverage and monitoring [Desirable]

EU.Spain gillnetters are absent in the Indian Ocean.

6.6 Sampling plans for mobulid rays [Mandatory]

As there are no *Mobulids* retained catches, there is no plan regarding this species.

The observer programs on board longline and purse seiner vessels monitor all the incidental catches of these species, take some biological parameters (straight disk length and sex) and record their destiny (alive or dead) when possible. If a tagging program is active, onboard observers are responsible for placing the tags and recording all available information in the event of a recovery.

6.7 Electronic Monitoring Standards [Mandatory for CPC implementing EMS]

The information of the fleet level summary of the Vessel Monitoring Plans (not mandatory) shall be presented in ANNEX A.

7. NATIONAL RESEARCH PROGRAMS [Desirable]

Several internal projects at the Spanish Institute of Oceanography (IEO.CSIC) are responsible for the scientific monitoring of Spanish tuna fisheries in the Indian Ocean.

7.1. National research programs on blue shark

National Program not available

7.2. National research programs on Striped Marlin, Black Marlin, Blue Marlin and Indo-pacific Sailfish

National Program not available

7.3. National research programs on sharks

National Program not available

7.4. National research programs on oceanic whitetip sharks

National Program not available

7.5. National research programs on marine turtles

National Plan for the reduction of by-catches is carried out by MITERD (the Spanish Ministry for Environmental Affairs), approved in 2022. Among the implied species, the turtles are included.

In addition, MITERD, works in coordination with the SGP and in the framework of a Marine Biodiversity Working Group of the Interministerial Commission for Marine Strategies that meets periodically.

7.6. National research programs on thresher sharks

National Program not available

8. IMPLEMENTATION OF SCIENTIFIC COMMITTEE RECOMMENDATIONS AND RESOLUTIONS OF THE IOTC RELEVANT TO THE SC. [Mandatory]

Purse seine: Vessels are tracked by the Spanish National Fishery Authority and are also required to fill in EU fishery logbooks system to be presented to the pertinent authorities and well as VMS and other requirements for fishing.

This surface longline fleet consists of vessels that operate far from their home ports, sometimes not returning for several years. These vessels share similar structural and operational characteristics, undertaking

exceptionally long trips. They may even shift between oceans between trips, depending on their administrative permissions.

Longline: Vessels are tracked by the Spanish National Fishery Authority and are also required to fill in EU fishery logbooks system to be presented to the pertinent authorities and well as VMS and other requirements for fishing.

Table 10. Scientific requirements contained in Resolutions of the Commission, adopted between 2012 and 2024.

Res. No.	Resolution	Scientific requirement	CPC progress
12/04	On the conservation of marine turtles	Paragraphs 3, 4, 6–10	Each year the report of the implemented measures and the interaction with sea turtles is provided by Spanish Fisheries Secretariat. The report of the interaction in 2024 with marine turtles was provided on 30/06/2025. Interactions and mortality in marine turtles are annually reported by Spain. The associations are involved in projects to inform the fishermen with the best techniques to release and to manage turtles in accordance with FAO requirements (achieved thanks to different initiatives such as FIP in longline fleet, “Código de Buenas Prácticas” for purse seine fleet) The Instituto Español de Oceanografía (IEO.CSIC) elaborates studies related to marine turtles’ interactions and measures to reduce the impact of fishing in them. Reference of the studies about bycatch: Ruiz J., F.J. Abascal, P. Bach, J.C. Báez, P. Cauquil, M. Grande, I. Krug, J. Lucas, H. Murua, M. L. Ramos Alonso & P.S. Sabarros (2018). Bycatch of the European, and associated flag, purse-seine tuna fishery in the Indian Ocean for the period 2008-2017. IOTC-2018-WPEB14-15. Working Party on Ecosystems and Bycatch (WPEB), Mon, 10/09/2018 (All day) to Fri, 14/09/2018. Cape Town, South Africa. Báez J.C., M^a. L. Ramos & I.A. Czerwinski (2019). Analysing the bycatch taxonomic structure changes from observers’ data on board Spanish purse seiners in the Indian Ocean. IOTC-2019-WPEB15-40. Working Party on Ecosystems and Bycatch (WPEB), IOTC meeting, 03/09/2019 to 07/09/2019, La Reunión (France). Acevedo-Iglesias S., M. Herrera, M. L. Ramos, J. C. Báez, J. Ruiz, G. Rodríguez-Rodríguez, V. Rojo, P. J. Pascual-Alayón, F. J. Abascal (2022). Bycatch trend and its fate of the Spanish-owned tuna purse seiners fleet from the Atlantic and Indian oceans: Impacts of the implementation of good practices. IOTC-2025-WPEB21-INF01. Working Party on Ecosystems and Bycatch (WPEB), IOTC meeting, 09/09/2025 to 13/09/2025, Sète (France).

Res. No.	Resolution	Scientific requirement	CPC progress
12/09	On the conservation of thresher sharks (family <i>Alopiidae</i>) caught in association with fisheries in the IOTC area of competence	Paragraphs 4–8	Thresher shark is a forbidden species to be caught according to the temporary fishing permission for longliners fishing in the Indian Ocean (a permission mandatory to fish in the IOTC area) and the Spanish law (Orden ARM/2689/2009 & Orden AAA/658/2014). If accidentally caught, it is mandatory to report the catches in the ERS. As the Spanish fleet is not directed to catch these species, nor there are no interactions reported, these species aren't, by the moment, subject of study for the IEO.CSIC.
13/04	On the conservation of cetaceans	Paragraphs 7–9	Cetaceans are a prohibited species for fishing in Spain. Since the Spanish fleet does not catch these species and no interactions have been reported, they are currently not a subject of study for the IEO.CSIC. National plan for the reduction of by-catches is carried out by MITERD (the Spanish Ministry for Environmental Affairs), approved in 2022. Among the implied species, cetaceans are included.
13/05	On the conservation of whale sharks (<i>Rhincodon typus</i>)	Paragraphs 7–9	Whale sharks are a prohibited species for fishing under the TAC/Quota regulation. Since the Spanish fleet does not catch these species and no interactions have been reported, they are currently not a subject of study for the IEO.CSIC.
13/06	On a scientific and management framework on the conservation of shark species caught in association with IOTC managed fisheries	Paragraph 5–6	It is forbidden to catch whitetip sharks, and it is mandatory to report bycatches of all species daily in the Electronic Reporting System. Additionally, efforts must be made to release whitetip sharks in a manner that minimizes harm. Reference of the studies about whitetip sharks: Ramos-Cartelle, A., B. García-Cortés, J. Fernández-Costa, J. Mejuto (2012). Standardized catch rates of the oceanic whitetip shark (<i>Carcharhinus longimanus</i>) from observations of the Spanish longline fishery targeting swordfish in the Indian Ocean during the 1998-2011 period. IOTC-2012-WPEB08-27 (2012). García-Cortés, B., A. Ramos-Cartelle, I. González-González, J. Mejuto (2012). Biological observations of oceanic whitetip shark (<i>Carcharhinus longimanus</i>) on Spanish surface longline fishery targeting swordfish in the Indian Ocean over the period 1993-2011. IOTC-2012-WPEB08-25 (2012). Lopetegui L., Poos J.J., Arrizabalaga H., Guirhem G., Murua H., Lezama-Ochoa N., Griffiths S., Ruiz Gondra J., Sabarros P.S., Báez J.C. & Juan-Jordá, M.J. (2021). A preliminary habitat suitability model for oceanic whitetip shark in the western Indian Ocean. 17th Working Party on Ecosystems and Bycatch: Assessment Meeting, 13-17th September online. IOTC-2021-WPEB17(AS)-25.

Res. No.	Resolution	Scientific requirement	CPC progress
			Báez J.C., A.M. Barbosa, M.L. Ramos, P. Pascual, J. Ruiz, P.S. Sabarros, M.Tolotti, P. Bach, H. Murua & F. Abascal (2019). Forecasting Oceanic Whitetip shark potential global distribution in a context of climatic change. Joint t-RFMO By-catch WG Doc. No. BYC-13/2019 December 11, 2019. Oporto (Portugal) 16-18 de diciembre 2019. Resumen Pérez, A., Ramos, M-L., Sierra, V. and Báez, J-C (2024). Undetected silky sharks (<i>Carcharhinus falciformis</i>) in the wells of the tropical tuna purse seine fleet in the Indian Ocean. Fisheries Research 278 (2024) 107109
15/01	On the recording of catch and effort by fishing vessels in the IOTC area of competence	Paragraphs 1–10	Electronic Reporting System is mandatory in accordance with Regulation 1224/2009. The updated logbook template was sent to the EU Commission on 06/09/2021, and has not been requested in this context since then.
15/02	Mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs)	Paragraphs 1–7	1. Estimated catches are sent as part of the obligations each year. 2024 Estimated catches provided 30/06/2025. 2. Reports of the interaction and measures implemented related to sea birds and marine turtles are sent regularly. For 2024, there was one record of interaction with sea birds. Marine turtles interactions were, together with sea birds interactions, reported on 30/06/2025. There were 24 interactions with marine turtles and 1 interaction with sea birds. 4. ERS is mandatory for Spanish vessels. 5. Size data has been provided regularly, for 2024, data provided on 30/06/2025. 6. FADs obligations are fulfilled every year, in 2024, active vessels, information about the daily FADs use provided monthly since 31/01/2025. 7. Timeliness fulfilled or causes reported.
17/05	On the conservation of sharks caught in association with fisheries managed by IOTC	Paragraphs 6, 9, 11	The statistical requirements about sharks are sent annually to the EU Commission. Estimated catches provided for sharks were fully (PS+LL) sent on 30/06/2025. Reference of the studies about sharks in IOTC area: Murua, H., Abascal, F.J., Amade, J., Ariz, J., Bach, P., Chavance, P., Coelho, R., Korta, M., Poisson, F., Neves, M., Seret, B. (2013). Provision of scientific advice for the purpose of the implementation of the EUPOA sharks. Final Report. European Commission, Studies for Carrying out the Common Fisheries Policy (MARE/2010/11 - LOT 2). Poisson, F., Abascal, F., Ellis, J.R., Chavance, P., Bach, P., Santos, M.N., Séret, B., Korta, M., Coelho, R., Ariz, J., Murua, H. (2016). Technical mitigation measures for sharks and rays in tuna and tuna-like fisheries: turning possibility into reality. Aquatic Living Resources 29, 402



Res. No.	Resolution	Scientific requirement	CPC progress
			García-Cortés, B., Ramos-Cartelle, A., Mejuto, J., Carroceda A. and Fernández-Costa, J. (2021). Biological observations of shortfin mako shark (<i>Isurus oxyrinchus</i>) on Spanish surface longline fishery targeting swordfish. IOTC-2021-WPEB17(AS)-INF07. Queiroz, N., Humphries, N.E., Couto, A., Vedor, M., da Costa, I, Sequeira, A.M.M., Mucientes, G., Santos, A.M., Abascal, F.J. et al. (2019) Global spatial risk assessment of sharks under the footprint of fisheries. <i>Nature</i> 572, 461-466. Brunel T., R. Coelho, G. Merino, J. Ortiz De Urbina, D. Rosa, C. Santos & H. Murua, P. Bach, S. Saber & D. Macias (2018). A preliminary stock assessment for the shortfin mako shark in the Indian ocean using a data-limited approach. IOTC-WPEB14-2018-033. Working Party on Ecosystems and Bycatch (WPEB), Mon, 10/09/2018 (All day) to Fri, 14/09/2018. Cape Town, South Africa. Murua, H., J. Santiago, R. Coelho, I. Zudaire, C. Neves, D. Rosa., I. Zudaire, Y. Semba, Z. Geng., P. Bach, H. Arrizabalaga, P. Bach, J.C. Baez, M.L. Ramos, J.F Zhu & J. Ruiz (2018). Updated Ecological Risk Assessment (ERA) for shark species caught in fisheries managed by the Indian Ocean Tuna Commission (IOTC). Submitted to 21th IOTC Scientific Committee. IOTC-2018-SC21-14_Rev.1. Diallo A, Travassos T.M., Sabarros P., Dagorn L., Deneubourg J.L., Murua H., Ruiz J., Ramos M.L., Báez J.C., Abascal F., Pascual P. & Capello M. (2019). Silky Shark Population Trend In The Indian Ocean Derived From Its Associative Behaviour With Floating Objects. IOTC-2019-WPEB15-23. Working Party on Ecosystems and Bycatch (WPEB), IOTC meeting, 03/09/2019 to 07/09/2019, La Reunion (France). Diallo A., M.T. Tolotti, P. Sabarros, L. Dagorn, J.L. Deneubourg, H. Murua, J. Ruiz, M.L. Ramos, J.C. Báez, F.J. Abascal, P.J. Pascual & M. Capello (2019). Deriving abundance indices for pelagic sharks based on their associative behaviour with floating objects. Joint t-RFMO By-catch WG Doc. No. BYC-23/2019. Oporto (Portugal) 16-18 de diciembre 2019. Tolotti, M., Sabarros, P.S., Bach, P., Grande, M., Ruiz, J., Murua, H., Coelho, R., Abascal, F., Báez, J.C., Pascual, P., Ramos, M.L., Shahid, U. and Juan-Jordá, M.J. (2019). In support of the IOTC ecosystem report card: Indicators for non-retained sharks and rays. 15th Working Party on Ecosystems and Bycatch. Indian Ocean Tuna Commission. IOTC-2019-WPEB15-25_Rev1 Fernández-Costa, J., A. Ramos-Cartelle, B. García-Cortés and J. Mejuto (2024). Updated standardized catch rates of shortfin mako (<i>Isurus oxyrinchus</i>) inferred from the Spanish surface longline fishery in

Res. No.	Resolution	Scientific requirement	CPC progress
			the Indian Ocean during the period 2001-2022. IOTC-2024-WPEB20(DP)-21
18/02	On management measures for the conservation of blue shark caught in association with IOTC fisheries	Paragraphs 2-5	It is mandatory to notify all the catches and bycatch in the ERS, according to Regulation 1224/2009. Fernández-Costa J., A. Ramos-Cartelle, B. García-Cortés, J. Mejuto. (2015). Standardized catch rates for the blue shark (<i>Prionace glauca</i>) caught by the Spanish longline in the Indian Ocean during the 2001-2013 period. IOTC-2015-WPEB11-25. Reference of the studies about blue sharks: Coelho, R., J. Mejuto, A. Domingo, K. Liu, E. Cortés, K. Yokawa, F. Hazin, F. Arocha, Ch. da Silva, B. García-Cortés, A.M. Ramos-Cartelle, P. Lino, R. Forselledo, S. Ohshimo, F. Carvalho, M. Neves. (2018). Distribution patterns and population structure of the blue shark (<i>Prionace glauca</i>) in the Atlantic and Indian Oceans. Fish and Fisheries. 19(1): 90-106 (https://doi.org/10.1111/faf.12238). Fernández-Costa, J., Ramos-Cartelle, A. and Mejuto, J. (2021). Updated standardized catch rates in biomass for the blue shark (<i>Prionace glauca</i>) caught by the Spanish surface longline fleet in the Indian Ocean during the 2001-2019 period. IOTC-2021-WPEB17(DP)-09. 2025_MJ Ramos-Cartelle, A., B. García-Cortés and J. Fernández-Costa (2025). Updated standardized catch rates in biomass for the Indian stock of blue shark (<i>Prionace glauca</i>) from the Spanish surface longline fleet for the period 2001-2023. IOTC-2025-WPEB21(DP)-06
18/05	On management measures for the conservation of the Billfishes: Striped marlin, black marlin, blue marlin and Indo-Pacific sailfish	Paragraphs 7 – 11	It is mandatory to notify all the catches and bycatches in the ERS, according to Regulation 1224/2009 Data on discards and retained catches provided (30/06/2025).
18/07	On measures applicable in case of non-fulfilment of reporting obligations in the IOTC	Paragraphs 1, 4	Report of Implementation is annually sent to the EU Commission. For 2024, report of implementation sent on 18/03/2025. Nominal catches provided in 2025 as stated by the IOTC for purse seiners and longliners (30/06/2025).
19/01	On an Interim Plan for Rebuilding the Indian Ocean Yellowfin Tuna Stock in the IOTC Area of Competence (<i>If not provided under Res 21/01 below</i>)	Paragraph 22	European CPCs have made an effort in order to understand YFT dynamics and produce CPUE abundance indexes and catch estimates by fishery type: Correa, G., Uranga, J., Kaplan D., Merino, G. and Ramos, M-L. (2024). Standardized catch per unit effort of yellowfin tuna in the Indian Ocean for the European purse seiner fleet operating in floating objects. IOTC-2024-WPTT26(DP)-11. Kaplan, D., Correa, G., Ramos, M-L., Duparc, A., Uranga, J., Santiago, J., Floch, L., Báez, J-C., Rojo, V.,

Res. No.	Resolution	Scientific requirement	CPC progress
			Pascual, P. and Merino, G. (2024). Standardized CPUE abundance indices for adult yellowfin tuna caught in free-swimming school sets by European purse-seine fleet in the Indian Ocean, 1991-2022. IOTC-2024-WPTT26(DP)-13. Abascal, F., Kaplan, D., Gaertner, D., Ramos, M-L., Duparc, A., Depetris, M. and Báez J-C. Scientific catch estimation for the global FAD tropical purse seine fishery in the Indian Ocean 2025...
19/03	On the Conservation of Mobulid Rays Caught in Association with Fisheries in the IOTC Area of Competence	Paragraph 11	There were 39 interactions of Mobulids by Spanish fleet in 2024 in the Indian Ocean, all the individuals were released
21/01	On an Interim Plan for Rebuilding the Indian Ocean Yellowfin Tuna Stock in the IOTC Area of Competence (<i>If not provided under Res 19/01 above</i>)	Paragraph 23	European CPCs have made an effort in order to understand YFT dynamics and produce CPUE abundance indexes and catch estimates by fishery type: Correa, G., Uranga, J., Kaplan D., Merino, G. and Ramos, M-L. (2024). Standardized catch per unit effort of yellowfin tuna in the Indian Ocean for the European purse seiner fleet operating in floating objects. IOTC-2024-WPTT26(DP)-11. Kaplan, D., Correa, G., Ramos, M-L., Duparc, A., Uranga, J., Santiago, J., Floch, L., Báez, J-C., Rojo, V., Pascual, P. and Merino, G. (2024). Standardized CPUE abundance indices for adult yellowfin tuna caught in free-swimming school sets by European purse-seine fleet in the Indian Ocean, 1991-2022. IOTC-2024-WPTT26(DP)-13. Abascal, F., Kaplan, D., Gaertner, D., Ramos, M-L., Duparc, A., Depetris, M. and Báez J-C. Scientific catch estimation for the global FAD tropical purse seine fishery in the Indian Ocean 2025....
22/04	On a regional observer scheme	Paragraph 12	Since 2017 an observer program is implemented in the longliners fleet, to reach the 5% of mandatory observation in that fleet. In the purse seine fleet, the observation reaches a 100%, according to their “Código de Buenas Prácticas”. The achievement of the observation in each fleet has been positive, with the exemption of problems in 2020 due to the COVID pandemic.
23/07	On reducing the incidental bycatch of seabirds in longline fisheries.	Paragraphs 3–7	Each year the report of interaction with sea birds is provided by Spanish Fisheries Secretariat. The report of the interaction in 2024 with sea birds was provided on 30/06/2025. National plan for the reduction of by-catches is carried out by MITERD (the Spanish Ministry for Environmental Affairs), approved in 2022. Among the implied species, sea birds are included

Res. No.	Resolution	Scientific requirement	CPC progress
			On the other hand, the Spanish vessels are required to annually fill out a form to include measures that will be carried out in order to prevent the interactions with sea birds.
23/08	On electronic monitoring standards for IOTC fisheries	Paragraphs 3c	
24/04	On a regional observer scheme	Paragraph 12	

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9. LITERATURE CITED

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Annex A:

A fleet level summary of the Vessel Monitoring Plans [Mandatory for CPC implementing EMS]

A.1 The number of CPC flagged vessels implementing EM by gear/fishery type [Mandatory for CPC implementing EMS].

Table A: Number of longline vessels and trips by year operating by camera (EMS)

Year	Gear	Number of vessels	Number of trips
2020	LLSWO	0	0
2021	LLSWO	1	1
2022	LLSWO	2	3
2023	LLSWO	2	2
2024	LLSWO	2	2

A.2 The range of EMS configurations implemented within the fleet (including the numbers and placements of cameras for each configuration) [Mandatory for CPC implementing EMS].

A.3 A general description of EMS requirements placed upon vessel skippers/crews by the CPC government [Mandatory for CPC implementing EMS].

During the 2020–2024 period, a total of six vessels from the Spanish longline fleet targeting swordfish conducted observation activities using Electronic Monitoring Systems (EMS). The system installed on board the six vessel is MarineObserve. The system allows for the storage of high-definition images and videos along with all information collected during vessel operations, including position, speed, heading, and/or sensor status.

Features

- Robust and highly configurable system, adaptable to all types of vessels and fisheries.
- Fully integrated and autonomous system.
- High-definition image and video capture (up to 5 Mpx or 30 FPS).
- Support cameras specifically designed and manufactured by Marine Instruments for the marine environment.
- 3G/4G connectivity and Wi-Fi 802.11n with multi-antenna (MIMO) technology.
- Dome Cameras are designed for installation in confined spaces. They are installed on the stern and inside the vessel where specimens are brought onboard.

The EMI analysis software is used, optimized for the generation of fishing activity reports. This software:

- Provides decryption capability for information collected by the EMS.
- Displays the vessel track visualization throughout the entire observation period and metadata information (vessel name, date, time, and position). Allows visualization of the vessel's course and speed.
- Provides image area calibration tools for catch measurement.
- It is capable of interacting with the database used for storing the visualized information.
- It allows the extraction of stored data from the database in the requested formats.
- It enables the export of evidence confirming that the processed information is accurate and ensures the traceability of the stored data.

Annex B

Table B1 displays, in a 5°x5° grid squares, the marine turtles catch performed by the purse seiner fleet in 2023. The observation on board has covered most of the 5°x5° squares where the fleet has been working.

Table B2 displays, in a 5°x5° grid squares, the marine turtles catch performed by the longline fleet in 2023. The observation on board has covered most of the 5°x5° squares where the fleet has been working.

Table B1. Marine turtle bycatch of the Spanish purse seiner fleet in 2024 from observers' data, in 5°x5° grid squares, by species and destiny.

Year	cwp5x5	Total effort fleet (number of sets)	Total effort observed (number of sets)	Species	nCaptures	Nmortalities	nLiveReleases
2024	6100045	10	1				
2024	6100050	96	41				
2024	6100055	323	163	<i>Lepidochelys olivacea</i>	1	0	1
				<i>Eretmochelys imbricata</i>	1	0	1
2024	6100060	320	110	<i>Lepidochelys olivacea</i>	2	0	2
				<i>Eretmochelys imbricata</i>	2	0	2
2024	6100065	233	12				
2024	6100075	0	0				
2024	6105050	3	1				
2024	6105055	104	20				
2024	6105060	25	10				
2024	6105065	10	0				
2024	6105075	0	0				
2024	6110055	7	0				
2024	6110060	14	4				
2024	6110065	11	2				
2024	6115060	8	2				
2024	6115065	1	1				
2024	6120055	0	0				
2024	6120060	1	0				
2024	6125055	0	0				
2024	6200040	149	23				
2024	6200045	275	69	<i>Eretmochelys imbricata</i>	1	0	1
2024	6200050	502	165				
2024	6200055	340	114	<i>Eretmochelys imbricata</i>	1	0	1
2024	6200060	85	33	<i>Lepidochelys olivacea</i>	2	0	2
2024	6200065	6	2				
2024	6200070	0	0				
2024	6200075	0	0				
2024	6205035	3	0				
2024	6205040	352	56	<i>Eretmochelys imbricata</i>	1	0	1
				<i>Chelonia mydas</i>	2	0	2
2024	6205045	248	72	<i>Caretta caretta</i>	1	0	1
2024	6205050	277	45				
2024	6205055	139	13				
2024	6205060	34	3				
2024	6205065	3	0				
2024	6205075	0	0				
2024	6210040	126	32				
2024	6210045	275	60				
2024	6210050	8	0				
2024	6210055	1	0				
2024	6215000	0	0				
2024	6215040	336	53				
2024	6215045	12	0				
2024	6215055	0	0				
2024	6220000	0	0				

Year	cwp5x5	Total effort fleet (number of sets)	Total effort observed (number of sets)	Species	nCaptures	Nmortalities	nLiveReleases
2024	6220035	1	1				
2024	6220040	65	1				
2024	6220055	0	0				
2024	6225005	0	0				
2024	6225035	0	0				
2024	6225040	1	0				
2024	6230010	0	0				
2024	6230025	0	0				
2024	6230030	0	0				
2024	6235020	0	0				
2024	6340005	0	0				

Table B2. Spanish longline fleet effort and observed interactions with marine turtles in 2024 from observers' data, by species and destiny in 5°x5° grid squares.

Year	Cwp5x5	Total effort fleet (number of hooks)	Total effort observed (number of hooks)	Species	nCaptures	nMortalities	nLiveReleases
2024	6220060	38198	0				
2024	6220070	8172	5771				
2024	6220075	8812	3312				
2024	6220080	8400	8402				
2024	6220085	24222	12631				
2024	6220090	28512	27096	<i>Caretta caretta</i>	1	0	1
"	"	"	"	<i>Testudinata</i>	1	0	1
2024	6225035	332290	0				
2024	6225040	196402	0				
2024	6225045	149120	0				
2024	6225050	106838	0				
2024	6225055	82156	0				
2024	6225060	143748	0				
2024	6225065	178025	0				
2024	6225070	204056	4909				
2024	6225075	138601	9534				
2024	6225080	150583	7007	<i>Testudinata</i>	1	0	1
2024	6225085	111893	32082				
2024	6225090	2160	2160				
2024	6230030	137268	6468				
2024	6230035	917953	49247				
2024	6230040	393935	42811				
2024	6230045	138336	6216				
2024	6230050	74200	0				
2024	6230055	29632	0				
2024	6230060	37859	0				
2024	6230070	27952	0				
2024	6230075	12980	0				
2024	6235030	36312	14544	<i>Testudinata</i>	1	0	1
2024	6235035	87692	19818				
2024	6235040	39800	0				