Annual Review of National SBT Fisheries for the Extended Scientific Committee

(Revised at the Twenty-Sixth Annual Meeting: 17 October 2019)

1. Introduction

- Background

No directed fisheries of Southern Bluefin Tuna (SBT) are permitted under the EU quota of SBT and, therefore, EU fishing vessels do not target SBT. Any incidental catches of SBT by EU vessels are the result of by-catches of surface longliners operating in the Southern Hemisphere targeting swordfish, sometimes in association with sharks, notably in the IOTC Convention Area (Table 1).

EU Purse Seiners operating in the Southern hemisphere do not harvest SBT as they fish in tropical tunas fishing grounds.

Area	Year	SBT reported catch (tonnes)
Indian Ocean	2001	0
Indian Ocean	2002	0
Indian Ocean	2003	3
Indian Ocean	2004	22
Indian Ocean	2005	0
Indian Ocean	2006	3
Indian Ocean	2007	18
Indian Ocean	2008	14
Indian Ocean	2009	2
Indian Ocean	2010	11
Indian Ocean	2011	3
Indian Ocean	2012	4
All	2013	0
All	2014	0
All	2015	0
All	2016	0
All	2017	0
All	2018	0
All	2019	0

Table 1. Total reported EU bycatch of SBT.

- Summary of historical developments in the fishery

Indian Ocean

In 2018 (last IOTC scientific report) as well as in 2019, 16 EU surface long-liners fishing for swordfish in association with sharks in IOTC (11 vessels from Spain, 3 from Portugal and 2 from UK) entered intermittently in the SBT distribution area. The average size of the longliners is roughly 40 meters, ranging from 35 to 50 meters. There are also some small longliners active in La Reunion EEZ, mainly fishing Albacore sometimes outside their EEZ but not operating in areas of SBT distribution (i.e. not interfering with SBT fisheries).

Atlantic Ocean

In 2019 (most recent data provided to ICCAT), there were 33 EU surface longliners (29 from Spain and 4 from Portugal) operating intermittently in the South Atlantic (ICCAT), that entered in the SBT distribution area. These surface longliners have the same characteristics as the EU

oceanic surface longliners active in IOTC.

West Pacific

In 2019 (last WCPFC report), there were 3 Spanish surface longliners operating intermittently in the Southwest Pacific Ocean that had some fishing trips in the SBT distribution area. These surface longliners have the same characteristics as the EU oceanic surface longliners active in IOTC.

- Overview of the most recent fishing season

No by-catches of SBT in 2018 and 2019 were reported by the EU fleets, including data provided by observers, operating in all oceans in areas where incidental catches of SBT could occur.

2. Catch and Effort
   - Trends by gear type (surface and longline)
   - Trends by area and season

   (Table should include: catch & effort for above strata as well as totals for the entire history of the fishery)

The EU fleet does not target SBT and there were no incidental catches of SBT by EU vessels that entered in the SBT distribution area.

The information and data provided below concerns fishing activities of the EU longliners that could enter in areas where SBT encounters could occur in all oceans.

Indian Ocean

Catch and effort of the EU longline fleet targeting swordfish in association with sharks is distributed in the Southern Indian Ocean between latitudes 20°S and 40°S, mainly around and north of 30 ºS, in the Mozambique Channel, at the south of Madagascar and around the longitude of 100°E (Figures 1a, 1b and 1c).

The nominal effort – number of hooks - for all longliners targeting swordfish in association with sharks has decreased since 2013 (Table 2). EU fleets (Spain, Portugal and UK flagged vessels) mainly operate in IOTC high seas. In 2018 (last IOTC scientific report available), swordfish and sharks catches represented respectively about 42 % and 52 % of total catches.

Year	Effort	Catches (t)						
	(10^6 hooks)	SWO	BSH	SMA	TUS	BIL	NEI	Total
2011	5,353	4.682	4.459	612	159	52	259	10.223
2012	5,941	5.770	4.559	750	110	51	146	11.385
2013	8,324	6.692	1.765	887	224	84	164	9.816
2014	7,665	5.285	5.794	1.026	324	45	100	12.574
2015	6,312	5.240	5.166	692	402	69	126	11.696
2016	6,398	4.958	5.140	715	913	237	303	12.265
2017	5,697	4.609	4.495	798	431	159	271	10.763
2018	4,213	3.197	3.299	646	213	116	158	7.628

Table 2. Nominal efforts (Number of hooks) and catches in tonnes of live weight of the EU longliners in IOTC area targeting Swordfish in association with sharks.

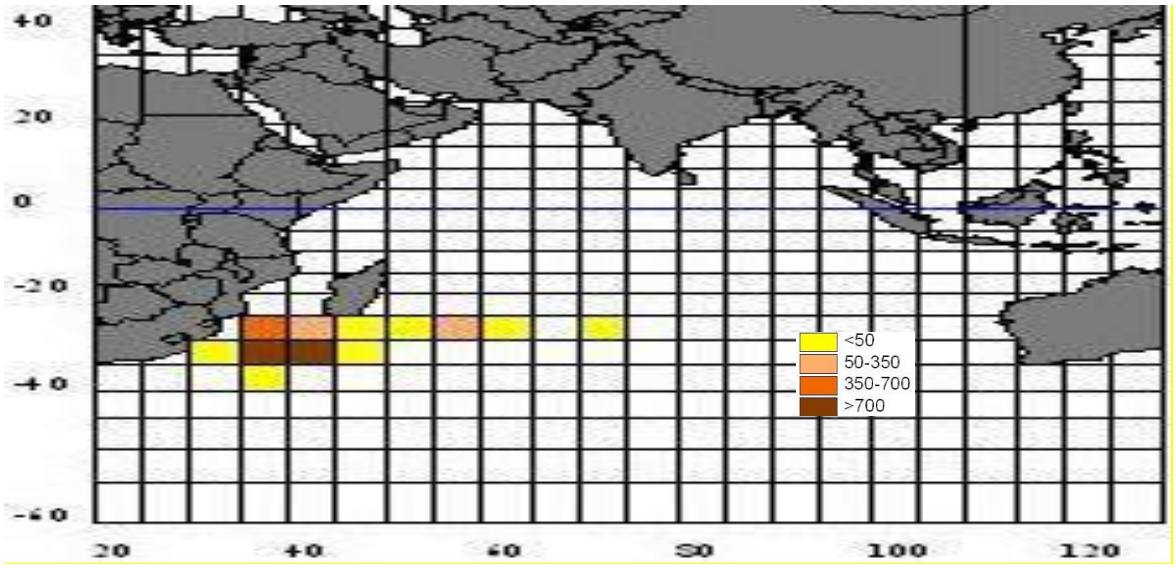

Figure 1a LL. Distribution of the nominal fishing effort (thousands hooks) by 5ºx5º squares carried out by the Spanish surface longline fleet in the Indian Ocean during the year 2018.

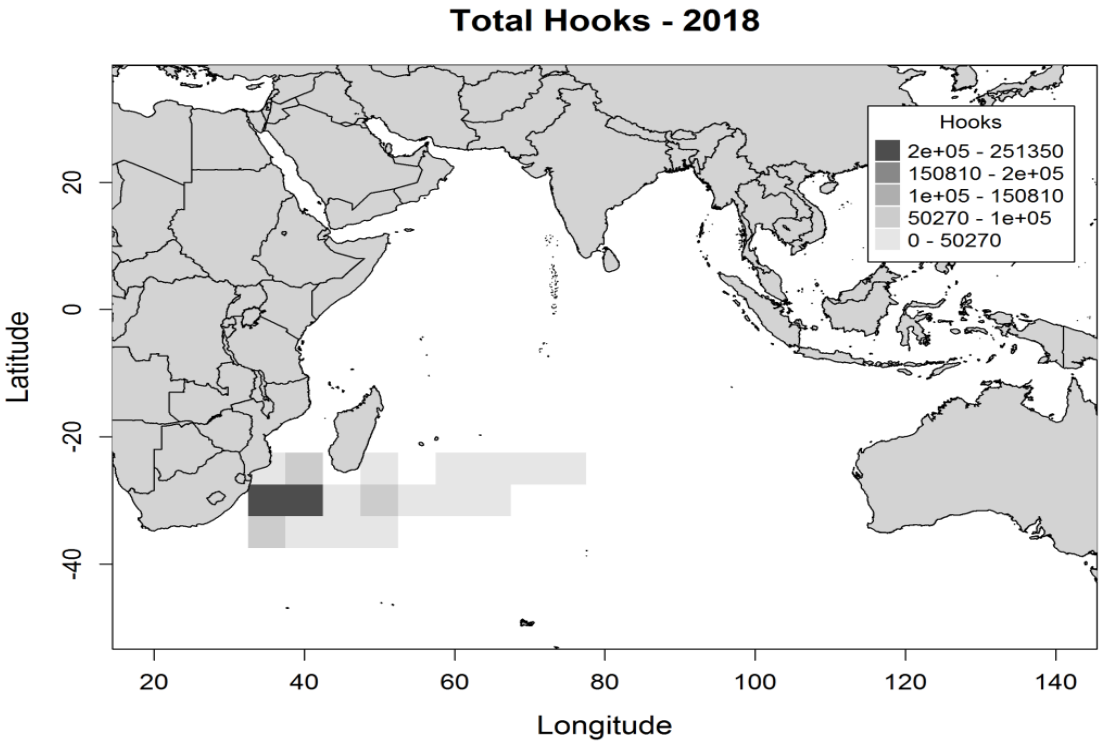

Figure 1b. Map of the distribution of fishing effort (number of hooks deployed), by the Portuguese longline fleet operating in the IOTC area of competence during 2018.

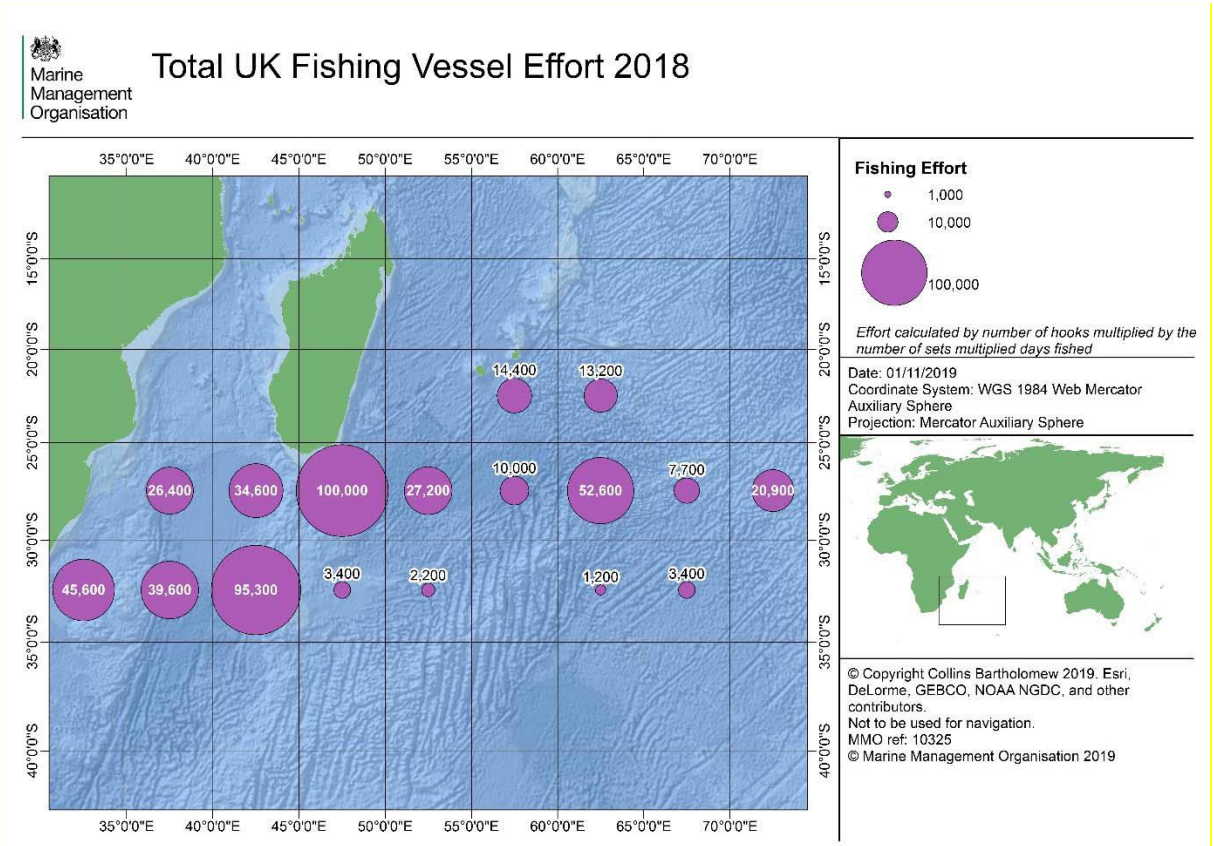

Figure 1c. Distribution of longline fishing effort (No. of hooks x no. of sets x days fished,) UK vessels in the IOTC area of competence (2018)

Southern Atlantic Ocean

The EU longline fleet operating in the Southern Atlantic Ocean, targets swordfish in association with sharks. These vessels mainly operated in fishing areas situated at the north of 30° south but intermittently entered the SBT distribution area.

In 2019 in the South Atlantic, the Spanish surface longliners operated 1408 fishing days in fishing grounds south of 30° South. Main catches of the Spanish fleet are shown in table 3.

Year	SWO	BSH	SMA
2017	4168.917	10045.035	834.494
2018	3936.294	12485.377	1032.669
2019	3728.733	15570.274	930.661

Table 3: Spanish surface longliners catches (Tonnes) of the main species in 2019.

Catches per species and the fishing effort, per FAO in the SBT distribution area subarea, of the Portuguese fleet in the Southern Indian Ocean in 2019 are shown in the table 4.

FAO AREA	SPECIES	EFFORT (HOOKS)	CATCHES (TON)
41.2.3	BET	1000	0,084
41.2.3	BSH	31000	434,256
41.2.3	LEC	0	0,042
41.2.3	SMA	9000	9,43
41.2.3	SWO	8000	5,39
41.2.3	YFT	1000	0,042
41.2.4	ALB	4000	0,25
41.2.4	BET	6000	1,491
41.2.4	BSH	150000	1683,849

41.2.4	LAG	0	0,155
41.2.4	LEC	0	1,238
41.2.4	SAI	0	0,642
41.2.4	SMA	58000	64,583
41.2.4	SSP	0	1,925
41.2.4	SWO	51000	76,163
41.2.4	YFT	0	3,546
41.3.1	ALB	0	0,099
41.3.1	BSH	6000	59,112
41.3.1	LEC	0	0,035
41.3.1	SMA	0	1,28
41.3.1	SWO	0	0,23
41.3.3	BSH	6000	287,04
41.3.3	LEC	0	0,148
41.3.3	SMA	0	14,365
41.3.3	SWO	0	13,843
47.C.0	BET	1000	0,14
47.C.0	BSH	10000	25,204
47.C.0	LEC	3000	0,06
47.C.0	SMA	8000	0,955
Total			2685.597

Table 4: Portuguese surface longliners, effort (number of hooks from logbooks) and catches (including Sharks) in 2019.

West and Central Pacific

The EU surface longline fleet is composed by 3 Spanish surface longliners. These longliners operated in the temperate area south of 20° south and the mostly work around of 30° south (FAO fishing areas 77 and 81). The port of Auckland (New Zealand) is the main hub for landings and supply activities.

The vessels carry on lengthy trips lasting for 2 to 3 months. The main catches are swordfish and blue shark. They displayed an average of 1.183 hooks per vessel and operated 874 fishing days in 2019.

Catches	BET	SKJ	BLM	YFT	BUM	ALB	MLS	PBF	SWO
Total	30.1805	0	69.54358	20.15468	0	2.32954	6.54276	0	1,193.72215

Table 5. Total estimated catches by species (sharks not included) in the Western and Central Pacific Ocean South of the Equator (Tons).

3. Nominal CPUE

   Where appropriate:

   - Trends by gear type (surface and longline)
   - Trends by area and season

   (Table should include: nominal CPUE for above strata as well as totals for the entire history of the fishery)

The EU has no SBT catches to report and therefore no Nominal CPUE to be transmitted. Related information regarding EU surface longline vessels operating in the Southern Hemisphere in ICCAT, IOTC and WCPFC have been transmitted to the respective secretariats of these organisations according to their mandatory data requirements.

4. Size composition

   - Trends by gear type (surface and longline)

- Trends by area and season

(Figures should include: average size frequency distributions by gear type for each 10 year period, as well as individually for each of the last 5 years)

The EU has no SBT catches to report and therefore no size frequencies to be transmitted. Size frequencies for other species caught by EU surface longline vessels operating in the Southern Hemisphere in ICCAT, IOTC and WCPFC have been transmitted to the respective secretariats of these RFMOs according to their mandatory data requirements.

5. Fleet size and distribution
    - Trends by season
    - Trends by area

    (Maps should include: historical catch and effort by gear type for the entire history of the fishery, as well as individually for each of the last 5 years)

Indian Ocean

In 2018 (last IOTC report) and 2019, there were 16 EU surface longliners operating in the IOTC area intermittently entering in the distribution area of SBT – 11 vessels from Spain, 3 from Portugal and 2 from UK. All fleet is targeting swordfish in association with sharks and is distributed in the Southern Indian Ocean between latitudes 20°S and 40°S, mainly around and north 30 ºS, in the Mozambique Channel, at the south of Madagascar and around the longitude of 100°E.

Atlantic Ocean

In 2019, there were 33 EU longliners (29 from Spain and 4 from Portugal) fishing in the ICCAT (South Atlantic) that entered intermittently in the SBT distribution area.

West Pacific

In 2019, there were 3 Spanish surface longline vessels mainly fishing in the Western and Central Pacific in the temperate area, mostly operating in fishing grounds between 25° and 35º south.

6. Research and monitoring to improve estimates of components of attributable catch:

    i. Releases and/or discards
    - *Describe the various sources of information and data used in calculating the estimates*
    - *Describe the method applied for estimating the catch*
    - *Provide the resulting estimated catch*

    ii. Recreational fishing
    - *Describe the various sources of information and data used in calculating the estimates*
    - *Describe the method applied for estimating the catch*
    - *Provide the resulting estimated catch*

    iii. Customary and/or traditional
    - *Describe the various sources of information and data used in calculating the estimates*
    - *Describe the method applied for estimating the catch*
    - *Provide the resulting estimated catch*

    iv. Artisanal
    - *Describe the various sources of information and data used in calculating the estimates*

- *Describe the method applied for estimating the catch*
- *Provide the resulting estimated catch*

The EU fleets operating in the SBT distribution area did not catch any SBT (including releases and discards). There are no specific research activities and monitoring to improve estimates of attributable catch.

Information reported to the EU on activities of surface longliners operating in the SBT distribution area includes data provided by observers.

The EU has neither recreational vessels nor artisanal fishing boats operating in the SBT distribution area.

7. Development and implementation of scientific observer programs[1]
    - *Provide a report containing the information specified in Annex 1 on the sampling scheme and arrangements for collecting data from the Member's/CNM's observer program.*

The EU vessels do not target SBT and SBT is not a substantial by-catch and therefore the SBT scientific observer programme is not an obligation to the EU vessels operating in the SBT distribution area. However, observers are deployed in the EU surface Longliners according to the requirements of the relevant tuna RFMO (IOTC, ICCAT and WCPFC).

Indian Ocean

The observer coverage rate in 2018 of the EU surface longliners, operating in the Indian, was about 5.4% of the total number of hooks.

Spanish fleet:

The sampling at sea/observer programme started at the beginning of the fishery in 1993. A total of 33,160 hooks (1.2%) were observed during the year 2018 in areas of the Indian Ocean between 25ºS-30ºS and 35ºE-60ºE.

Portuguese fleet:
Since 2011 an observer program has been fully implemented. The program aims to cover 10% of the fishing effort on the convention, while a minimum of 5% is established. Table 6 provides the coverage of the program by year calculated both in number of hooks and sets.

Year	Gear	Observer coverage		Size data coverage
		Hooks (%)	Sets (%)	
2011	Pelagic longline	17.9	16.3	Sizes are taken for all retained specimens and dead discards
2012	Pelagic longline	10.7	10.9	
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	

Table 6. 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, for the period 2011–2018.

During 2018 observers were on board 134 days, covering a total of 116 pelagic longline sets, which corresponded to 15.5% and 13.9% of the total fishing effort by the fleet in 2018, in terms

[1] Section 11 and Attachment 2 of the CCSBT Scientific Observer Program Standards.

of number of hooks and sets, respectively (Figure 2).

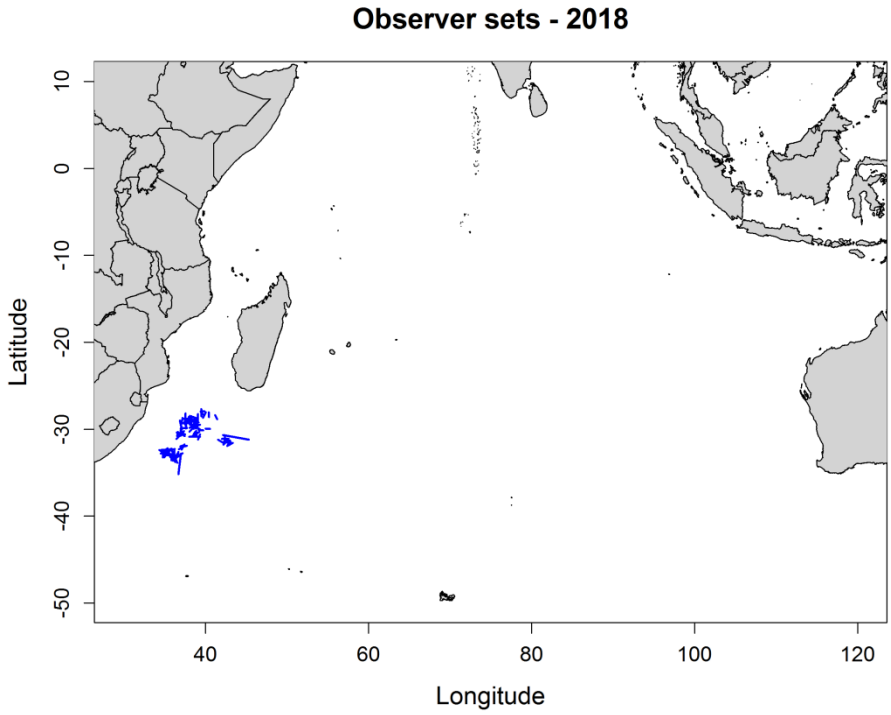

Figure 2: Map showing the spatial distribution of longline sets covered by the observer program in 2018.

UK fleet:

An observer programme has now been put in place for UK vessels since 2017. In 2018, the observer was present for just over 11 percent of the fishing days of the two UK vessels active in the IOTC area.

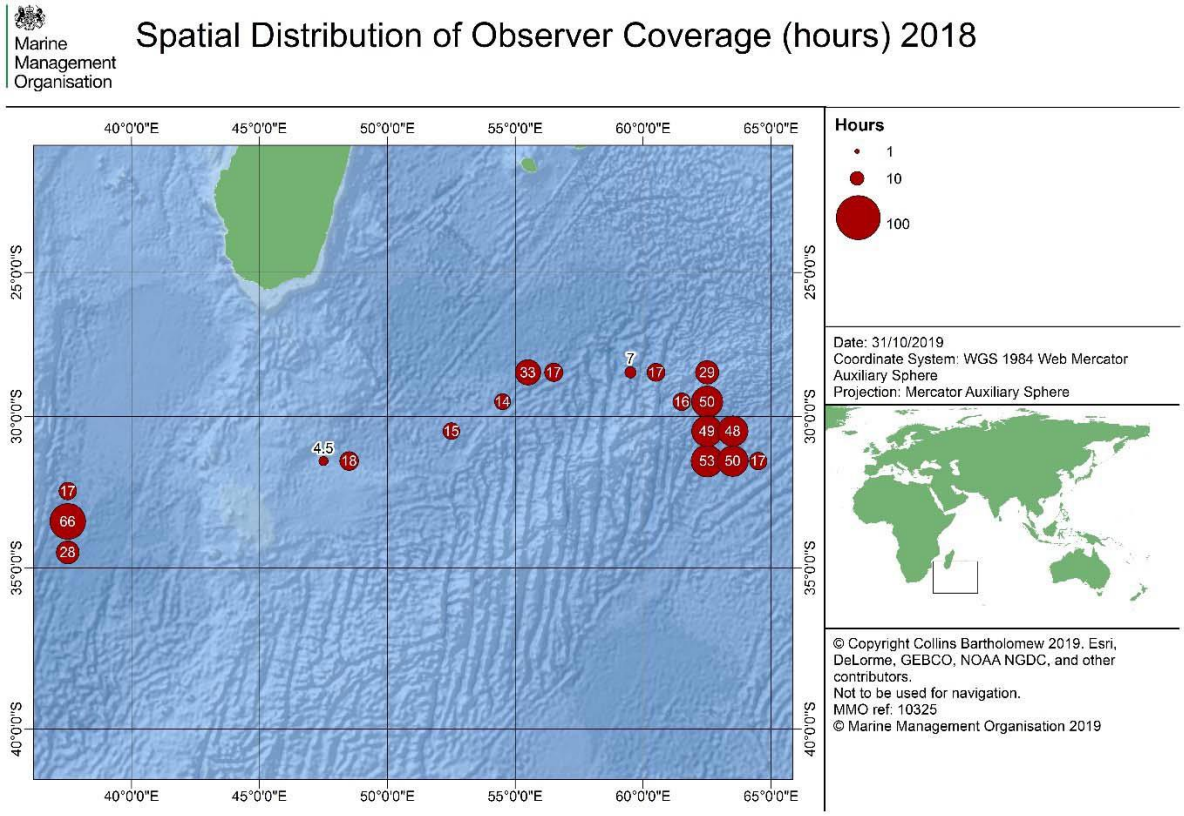

Figure 3. UK fleet - distribution of observer coverage (hours) in 2018

Atlantic Ocean

An EU-wide framework for the collection of fisheries data is in place since the early 2000s.

Observers:

The EU national scientific observers cover the main fisheries in which the EU is involved, including SWO (longliners). These observers follow appropriate training courses including data validation training. The information collected concerns all target and not-target species and, where possible, the collection of data is extended to cover turtles, seabirds and marine mammals. The type of data collected refer to catch, discards, by-catch, vessels and fishing gear characteristics as well as biological parameters such as length, weight, sex, maturity and growth.

Spanish Fleet

The total observed effort on board the Spanish longline fisheries reached 7.8% in all ICCAT area in 2019.

Portuguese fleet

The total observed effort on board the Portuguese surface longline fisheries was near 5% in all ICCAT area in 2019 but no observations took place in the SBT distribution area (the majority of fishing operations took place outside this area). Portugal also has a self-sampling programme undertaken by trained fishers.

West Pacific

EU longliners have observers onboard according to the rules and coverage rate adopted in WCPFC. In 2019 the observer coverage in EU longliners operating in WCPFC was 5.4%,

observer sets are shown in the figure 4.

The weight of the catches were estimated by the observers and the electronic logbooks were daily sent to the relevant national authority (Centro de Comunicaciones de la Secretaria General de Pescas dof Spain).

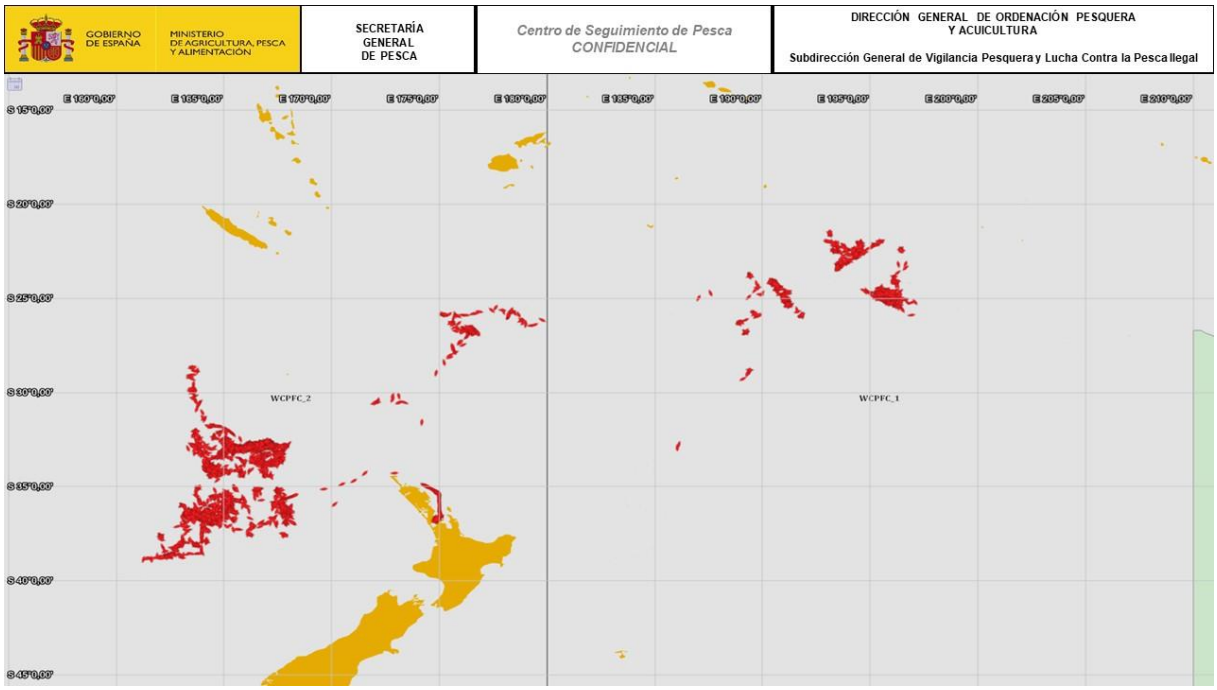

Figure 4. Observed sets in the Western and Central Pacific in 2019 (including innocent passage).

8. Other relevant information

Notes:

- *Data on catches should be presented by both calendar year and fishing year.*
- *Weight data should be reported as whole weight, conversion factors used should be specified.*
- *Nominal CPUE, particularly for longline fisheries, should be expressed in standard units (eg, number of SBT per 1000 hooks).*
- *State where estimates are scaled from sample data.*
- *Where appropriate measures can be calculated.*

The EU does not have SBT fisheries and in 2018 and 2019 there were no SBT by-catches. Information related to the EU surface longline activities in the SBT distribution area is provided in the previous chapters of this report. In this chapter, complementary information and data mainly concerning Ecological Related Species is reported.

Indian Ocean

Spanish fleet

Total catch of sharks in 2018 was estimated as 2,567 t, 159 t for tunas, 68 t for billfish and 71 t for other species. Basic statistical tasks, the scientific monitoring of the swordfish fishery and some research was conducted to find out what species are captured as by-catch or incidental interactions occurred. Following the scientific recommendations of the IOTC Scientific Committee, it was carried out some studies about the interaction between seabirds and the Spanish surface longline targeting swordfish reported in several papers in previous years, including an overall revision for the 1993-2017 period.

Sharks

The sharks, trunks or carcass with their respective fins naturally attached are retained, frozen and stowed on board and landed for human consumption. The presence of on-board observer when feasible, has allowed to acquire some additional biological information on the catches. By-catch data of sharks is summarized in table 7 for 2011-2018 period.

SPECIES/YEAR	**2011**	**2012**	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
C. falciformis	145803	25625	565	0	0	0	0	4075
Galeocerdo cuvieri	241	0	0	0	0	0	0	0
Isurus oxyrinchus	439784	561690	620973	823549	441013	450893	532306	399838
Isurus paucus	228	250	791	171	0	122	0	858
Lamna nasus	0	0	0	0	0	0	0	0
Prionace glauca	3290769	3686452	414948	4657270	3701847	3592515	3059154	2162043
Other sharks	228	0	0	0	0	0	0	0

Table 7. Scientific estimation of sharks by species, of the annual by-catch landings (kg round weight) obtained by the Spanish longline fleet in the Indian Ocean for the 2011-2018 period (the most recent period is included in this table).

Seabirds

After analyzing 673,580 hooks observed during the period 2010-2018, the overal interaction and mortality rates reached were of 2.82E-05 seabirds by hook observed. Table 8 shows the different rates obtained by year during the 2010 to 2018 period. A complete analysis for the 1993-2017 period have been also provided to IOTC in Fernandez-Costa *et al.* (2018).

Fishing areas, night setting and low levels of lighting during setting operations as well as other fishing protocols applied by the vessels, including domestic regulations, were identified as the most important factors to explain the regularly low or null interaction with seabirds in this fishery.

SEABIRDS	**Year**	**Interaction rate**	**Mortality rate**	**Number**
	2010	0	0	0
	2011	0	0	0
	2012	0	0	0
	2013	$7.19E^{-05}$	$7.19E^{-05}$	13
	2014	$2.83E^{-05}$	$2.83E^{-05}$	2
	2015	$8.75E^{-05}$	$8.75E^{-05}$	4
	2016	0	0	0
	2017	0	0	0
	2018	0	0	0

Table 8. Observed annual interactions rates of surface longline gear on seabirds for the 2010-2018 period and number of individuals observed.

Marine Turtles and sea mammals

No encounters with marine turtles were observed in 2018 so that the resulting mortality and interaction rates were null during 2018.

After analyzing 673,580 hooks observed during the period 2010-2018, the overall interaction rate reached for this period was of 6.09E-05 marine turtles by hook. The overall mortality rate for the period 2010-2018 reached was of 4.60E-05. Table 9 shows the different rates obtained by year for between 2010 and 2018.

There has been no interaction on marine mammals and neither on the basking shark.

TURTLES	Year	Interaction rate	Mortality rate	Number
	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

Table 9. Observed annual interactions rates of surface longline gear (Spanish fleet) on marine turtles for the 2010-2018 period and total number of individuals observed.

Portuguese fleet

IPMA prepared and distributed among the fleet ID sheets for all major species usually caught in the fishery. These ID sheets include photos, FAO and scientific names for target, by-catch and accidentally species caught (including marine turtles and seabirds). The recently IOTC ID guides will be distributed as Portuguese and/or Spanish printed translations are made available.

Sharks

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 has to comply with the EU regulations on shark finning and fins-attached policy. Blue shark belly have been observed as being occasionally used as bait, particularly in areas/seasons when high shark bycatch occur. Accordingly, an increase use of wire traces has also been observed. Shark catches have increased between 2014 and 2017, but dropped substantially in 2018 (Table 10). Only blue shark and shortfin mako are retained by the national fleet and commercialized, while the other species are discarded due to International and/or EU regulations. Those other species are therefore not retainer or landed, but are recorded and reported by the onboard observer program describe further below.

FAO code	Species name	2014	2015	2016	2017	2018
BSH	*Prionace glauca*	885.0	124.8	1375	1240	806
SMA	*Isurus oxyrinchus*	148.0	225.1	241	218	166
	Total	1033.0	1473.9	1616.0	1458.3	973

Table 10. Total weight (MT) of sharks, by species, retained by the national fleet in the IOTC area of

competence during the period 2013-2017.

In Table 11 it is summarized the observed number of sharks, by species, released/discarded in the IOTC area of competence in 2018, including their condition status at haulback and upon released/discarded. Those records come from the onboard observer program. These figures should be regarded carefully, as they are based on the observer coverage which represented 15.5% in 2018 of the total fishing effort and are limited both geographically and seasonally.

FAO code	Species name	Status at release		Total no. sharks released/discarded
		Dead	Alive	
BSH	*Prionace glauca*	45	2	47
BTH	*Alopias superciliosus*	42	5	47
FAL	*Carcharhinus falciformis*	216	10	226
OCS	*Carcharhinus longimanus*	5	3	8
PLS	*Pteroplatytrygon violacea*	19	25	0
PSK	*Pseudocarcharias kamoharai*	3	1	4
MNT	*Manta* spp.	7	98	105
SMA	*Isurus oxyrinchus*	11	6	17
SPL	*Sphyrna lewini*	2	0	2
SPZ	*Sphyrna zygaena*	8	0	8
	Total	**358**	**150**	**508**

Table 11: Observed number of sharks (elasmobranchs), by species, released/discarded in 2018 by the EU-Portugal longline fleet in the IOTC area of competence, including life status at haulback and upon released/discard. Note: Information represents 15.5% of the total EU-Portugal fishing effort in 2018 and is limited in terms of geographical and seasonal distribution of the fishing effort in the Indian Ocean.

Seabirds

IOTC recommendations on seabirds have been made available to the fishermen operating longline gear. Skippers are encouraged 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 25º 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.

During 2018, 0 (zero) seabirds were accidentally captured in the sets covered by the fishery observer program. In case of any interaction, as occurred occasionally in previous years, the full high resolution sea-bird interactions data with date, biology, fate and in 1*1 degree spatial resolution is reported to IOTC in the respective observer trip data, that has always been submitted by EU.Portugal fully and in due time, in electronic database format in the more recent years.

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.

Marine Turtles

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.

During 2018, 13 sea turtles were accidentally captured in the sets covered by the fishery observer program. From those, 12 were released alive and 1 was discarded already dead (Table 12). The full high resolution sea-turtle interactions data with date, biology, fate and in 1*1 degree spatial resolution was reported to IOTC in the respective observer trip reports, that in recent years has been provided as full electronic datasets.

Other ecologically related species (e.g. marine mammals, whale sharks)

The accidental catch of other species such as marine mammals and whale sharks are considered extremely rare. Whenever such animals are caught, fishermen are encouraged to immediately and safely release them.

In 2018 there were 2 interactions with marine mammals in the sets covered by the fishery observer program, which were in both cases immediately released alive (Table 12). The full high resolution marine-mammal interactions data with date, biology, fate and in 1*1 degree spatial resolution was reported to IOTC in due time in the respective observer trip reports and data, which in recent years has been provided in electronic format.

Taxa	FAO Code	Scientific name	Status		Total no. specimens released/discarded
			Dead	Alive	
Sea birds	**Total sea birds**		**0**	**0**	**0**
Marine turtles	TTL	*Caretta caretta*	0	12	12
	DKK	*Dermochelys coriacea*	1	0	1
	Total marine turtles		**1**	**12**	**13**
Marine mammals	DLP	*Delphinidae*	0	2	2
	Total marine mammals		**0**	**2**	**2**

Table 12. Observed catches of species of special interest (marine turtles, seabirds and marine mammals) in 2018, for the EU-Portugal longline fleet operating in the IOTC area of competence. Observer coverage represented 15.5% of total fishing effort in 2018.

UK fleet

Sharks

Shark catches are reported by species and the vessels are encouraged to release bycatch species that are caught alive. The UK fleet retained in 2018: 330,7 tons of blue shark, 79,7 tons of shortfin mako and 0.3 tons of longfin Mako, in the IOTC area of competence. In 2010 the UK revoked the permits allowing for fins to be removed from sharks therefore all sharks retained must have their fins still naturally attached.

Seabirds

No incidents reported in 2018. All longline fishing vessels are aware of the need to use mitigation measures when fishing south of 25 degrees south or whenever interaction with seabirds is expected. Additional information is being sent to vessels to ensure that they are complying with their obligations.

Marine Turtles

All vessels are aware of and use proper handling techniques and keep on board equipment needed for the release of live turtles. Additional information is being sent to vessels to ensure that they are complying with their obligations.

Just two turtles were observed as being caught in 2018. Both were released alive.

Other ecologically related species (e.g. marine mammals, whale sharks)

No reported incidents this year. All fishers are encouraged to immediately and safely release them.

Atlantic Ocean

Spanish fleet

The Spanish fleet caught in 2019: 15570.274 t. of blue shark and 930,661 t. of shortfin mako.

Regarding turtles, there were interactions with 34 turtles of caretta caretta (32 of them released alive) and, an interaction with 1 a seabird (Diomedeidae) which was release dead.

There were no interactions reported with cetaceans.

Portuguese fleet (Southern Atlantic Ocean)

Sharks catches reported by the Portuguese fleet: Blue shark (BSH) 2489.461 t. and Shortfin Mako (SMA) 90.613 t..

No interactions with Seabirds have been reported in 2019.

With regard to Marine Turtles there were 52 interactions in 2019:

- 4 Caretta caretta
- 20 Dermochelys coriacea
- 28 Lepidochelys olivacea.

There was 1 interaction in 2019 with a mammal (Tursiops truncates).

Western and Central Pacific

Data on interactions with ecologic related species are not specifically available for the SBT distribution area. Total catch of sharks by the EU fleet in WCPFC area is provided in Table 13. There were no reported interactions with other shark species (MAK (LMA), FAL, OCS, THR/ALV, POR, SPN/SPY and RHN).

NAME	Species	Total (t)
Shortfin mako	**SMA**	554.02257
Blue shark	**BSH**	1,611.30406
Total		**2,165.32663**

Table 13. Catches according fishing logbooks and landing declarations.

Furthermore, there were no reported interactions with seabirds, marine turtles and mammals in 2019 from EU longliners operating in WCPFC.

Annex 1

FORMAT OF NATIONAL REPORT SECTIONS ON DEVELOPMENT AND IMPLEMENTATION OF SCIENTIFIC OBSERVER PROGRAMS

(from the CCSBT Scientific Observer Program Standards)

REPORT COMPONENTS

The observer program implementation report should form a component of the annual National Reports submitted by members to the Scientific Committee. This report should provide a brief overview of observer programs for SBT fisheries, and is not intended to replace submitted papers containing proper analyses of collected observer data. This observer program report should include the following sections:

A. Observer Training

An overview of observer training conducted, including:

- Overview of training program provided to scientific observers.
- Number of observers trained.
- Summary of qualifications / training and years of experience of the observers deployed in SBT fisheries during the past year.
- A copy of the latest version of relevant manuals in their original language for reference

As indicated in point 7, EU vessels are not targeting SBT and SBT is not a substantial by-catch and therefore the SBT scientific observer programme is not an obligation to the EU vessels operating in the SBT distribution area.

B. Scientific Observer Program Design and Coverage

Details of the design of the observer program, including:

- Which fleets, fleet components or fishery components were covered by the program.
- How vessels were selected to carry observers within the above fleets or components.
- How was observer coverage stratified: By fleets, fisheries components, vessel types, vessel sizes, vessel ages, fishing areas and seasons.

Details of observer coverage of the above fleets, including:

- Components, areas, seasons and proportion of total SBT catch, specifying units used to determine coverage.
- Total number of observer employment days, and number of actual days deployed on observation work.

Idem (see point 7).

C. Observer Data Collected

List of observer data collected against the agreed range of data set out in Attachment 1. In broad structure this would include:-

- Effort data: Amount of effort observed (vessel days, sets, hooks, etc), by area and season and % observed out of total by area and seasons
- Catch data: Amount of catch observed of SBT and other species (if collected), by area and season, and % observed out of total estimated SBT catch by area and seasons
- Length frequency data: Number of fish measured per species, by area and season.
- Biological data: Type and quantity of other biological data or samples (otoliths, sex, maturity, Gonosomatic index, etc) collected per species.
- The size of sub-samples relative to unobserved quantities.

Idem. Observers (in EU surface longline fleets) covered nearly 5% of the hooks in the Indian Ocean (2018), more than 7% in the Atlantic Ocean (2019) and more than 5% Western and Central Pacific (2019).

D. Tag Return Monitoring

Number of tags returns observed, by fish size class and area.

There were no Tags recovered.

E. Problems Experienced

- Summary of problems encountered by observers and observer managers that could affect the CCSBT Observer Program Standards and/or each member's national observer program developed in the light of the Standards.

NA (see A).