



**SCIENTIFIC COMMITTEE
THIRTEENTH REGULAR SESSION**

**Rarotonga, Cook Islands
9 – 17 August 2017**

**ANNUAL REPORT TO THE COMMISSION
PART 1: INFORMATION ON FISHERIES, RESEARCH, AND STATISTICS**

**WCPFC-SC13-AR/CCM-05
Addendum Submitted (13 July 2017)**

EUROPEAN UNION



DATOS CIENTÍFICOS DE LA FLOTA ESPAÑOLA DE CERCO PARA EL INFORME ANUAL DEL COMITÉ CIENTÍFICO DE LA COMISIÓN PESQUERA DEL PACÍFICO OCCIDENTAL Y CENTRAL

Introducción

Los datos que se presentan a continuación corresponden a las actividades de investigación realizadas por el Instituto Español de Oceanografía en el ámbito de la Comisión Pesquera del Pacífico Occidental y Central (WCPFC), con el fin de que sean incluidos en el Informe Anual que se debe presentar al Comité Científico de dicha ORP.

La fecha límite para el envío de dicho informe es el 9 de julio de 2017, un mes antes del Comité Científico.

Las estimaciones que se presentan se derivan de campañas de observadores del Acuerdo del Programa Internacional para la Conservación de los Delfines. A pesar de que este acuerdo afecta al área de la Comisión Interamericana del Atún Tropical (CIAT), los buques cerqueros que faenan en el área de ambas ORPs son los mismos, y durante 2016 todas las actividades de los buques en la zona WCPFC cuentan con datos de este programa. En el caso de las mareas no cubiertas por observadores (también se proporcionan datos de años anteriores), la información se ha complementado con cuadernos de pesca proporcionados por la Organización de Productores Asociados de Grandes Atuneros Congeladores (OPAGAC), y se ha asumido una tasa similar de descarte y de capturas accesorias.

La información se presenta de acuerdo al formato utilizado en el Informe Anual de años anteriores.

1.- PURSE SEINE

1.1.- Annual catch and effort by primary species in the WCPFC Convention Area.

Fishing vessels operating in the eastern Pacific Ocean have 100% coverage of onboard observers, in line with the Agreement on the International Dolphin Conservation Program (AIDCP). Although this agreement applies to vessels operating in the IATTC Convention Area, the two EC-flagged purse seiners operating in the Pacific Ocean have carried out their activity in both the IATTC and WCPFC Convention Areas during 2016, and observers of the APICD have covered 100% of the trips in the WCPFC Convention Area. Information from trips not covered by observers of the APICD (during previous years the coverage has been slightly below 100%) is obtained from logbooks. Total catches reported by the observers and estimated from logbooks, catches to the east of 150°W and discards of the three main target species during 2016, as well as in previous years, are shown in Table I.

2016				
	WCPFC	WCPFC east of 150°W	Discards	No. Sets
BET	2049	287	17	
SKJ	6081	1462	20	102
YFT	378	105	4	

2015					2014			
	WCPFC	east of 150°W	Discards	No. Sets	WCPFC	east of 150°W	Discards	No. Sets
BET	1529	482	2		5591	187	8	
SKJ	30389	8490	356	459	31997	1560	225	655
YFT	1290	347	1		2866	154	0	

2013					2012			
	WCPFC	east of 150°W	Discards	No. Sets	WCPFC	east of 150°W	Discards	No. Sets
BET	8133	241	19		5423	108	18	
SKJ	31602	780	758	665	20553	257	716	596
YFT	5281	45	7		6149	10	10	

Table I- Total catches (in metric tonnes) of BET, SKJ and YFT from EU purse seiners in the WCPFC convention area, in the WCPFC-CA east of the 150°W meridian, estimated discards and number of sets during the last 5 years.

1.2.- Number of vessels by size

In 2016, 2 EU-Spain flagged purse seiners fished in the WCPFC-CA, with gross register tonnages of 1562 and 2502 GRT. Tuna are mainly caught by sets on FADs, but also on free schools. Catches are frozen onboard in salt vats. Table II summarizes the number of vessels and total gross register tonnages from the beginning of the fishery in the WCPFC-CA.

Year	GRT	No. vessels
1996	1351	1
1997	1351	1
1998	4419	3
1999	8176	4
2000	6887	4
2001	9172	4
2002	9172	4
2003	10678	5
2004	6532	3
2005	6532	3
2006	6532	3
2007	9732	4
2008	9732	4
2009	9732	4
2010	9732	4
2011	9732	4
2012	9732	4
2013	9732	4
2014	9732	4
2015	9732	4
2016	4064	2

Table II- Number of EU purse seiners and total gross register tonnage in the WCPFC-CA by year.

1.3.- Fishing patterns

Figure 1 shows the distribution of the catches (5° x 5°) of EU purse seiners in the WCPFC-CA during 2015 and the five previous years.

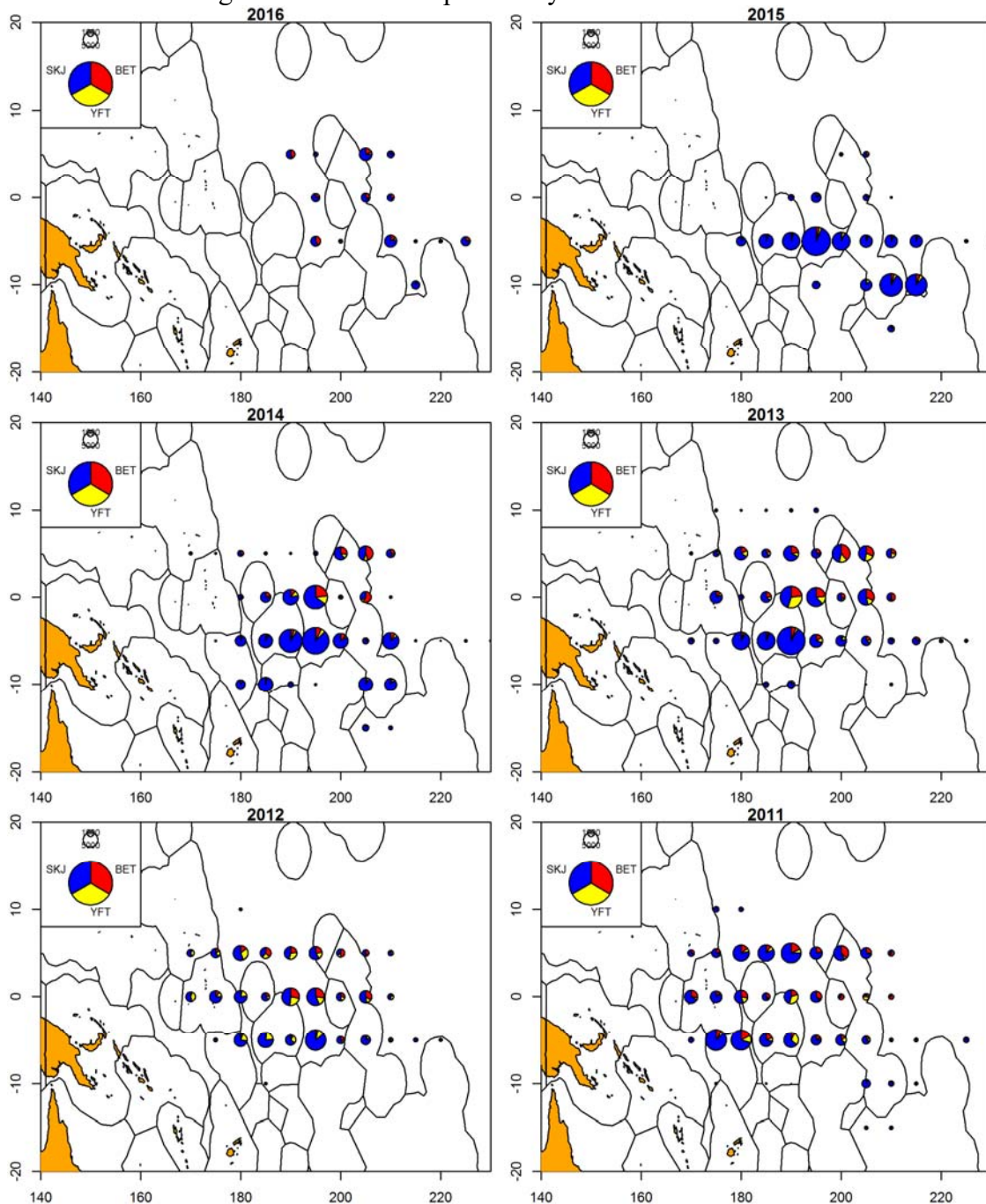


Fig. 1- Distribution of catches by area (5°x5°) and species in 2011-2016.

During 2016, the overall catch decreased significantly, due to the reduction in the number of active vessels in the area. It has also shifted north, as compared to 2015. The reported species composition has also varied, with a significant increase in the percentage of bigeye as compared to 2015.

The distribution of the effort follows a similar pattern (Fig. 2), with the effort in 2016 concentrated further north than in 2015.

1.4.- Estimated total catches of non-target, associated and dependent species.

Tables III and IV summarize the purse seine bycatch by species in the WCPFC-CA in 2016 and 2015, respectively. In most cases, the observers only record the number of fish of each species per set. The total weight has been estimated by multiplying the number of fish in each size category (small, medium, large) by an average weight for the purse seine fishery provided by the IATTC (N. Vogel, pers. comm.).

7 species account for more than 95% of the bycatch, in terms of weight: Silky shark, blue and black marlins, dolphinfish, wahoo, rainbow runner and triggerfish.

Around 24% of the *Carcharinus falciformis*, the main shark species bycatch of the purse seine fleet, as well as 81% of the *C. longimanus* captured in 2016 was estimated to be released alive.

There is a mandatory Spanish protocol for releasing marine turtles caught by purse seine alive. All turtles involved in fishing operations must be released in the best conditions as soon as possible. No marine turtle was involved in purse seine fishing operations within the WCPFC-CA in 2016.

On 27/12/2016, at 01°57'S 150°43'W, a whale shark, measuring around 2 m long, which had not been detected before the set took place, was encircled incidentally on a FAD set. Once detected, it was released with the aid of the brail as soon as possible and swam away from the vessel.

3.- RESEARCH AND STATISTICS

100% of the catch in the WCPFC-CA, including bycatch, was monitored by IATTC and national program observers of the Agreement on the International Dolphin Conservation Program (AIDCP). Additionally, in keeping with the current CMMs, EU purse seiners fishing in the WCPFC-CA have 100% coverage of ROP observers. These observers also record information on size and species composition, vessel activity, bycatch, etc. However, this information is submitted directly to the Science Service Provider and not reported to the flag State, and is not included in the current report.

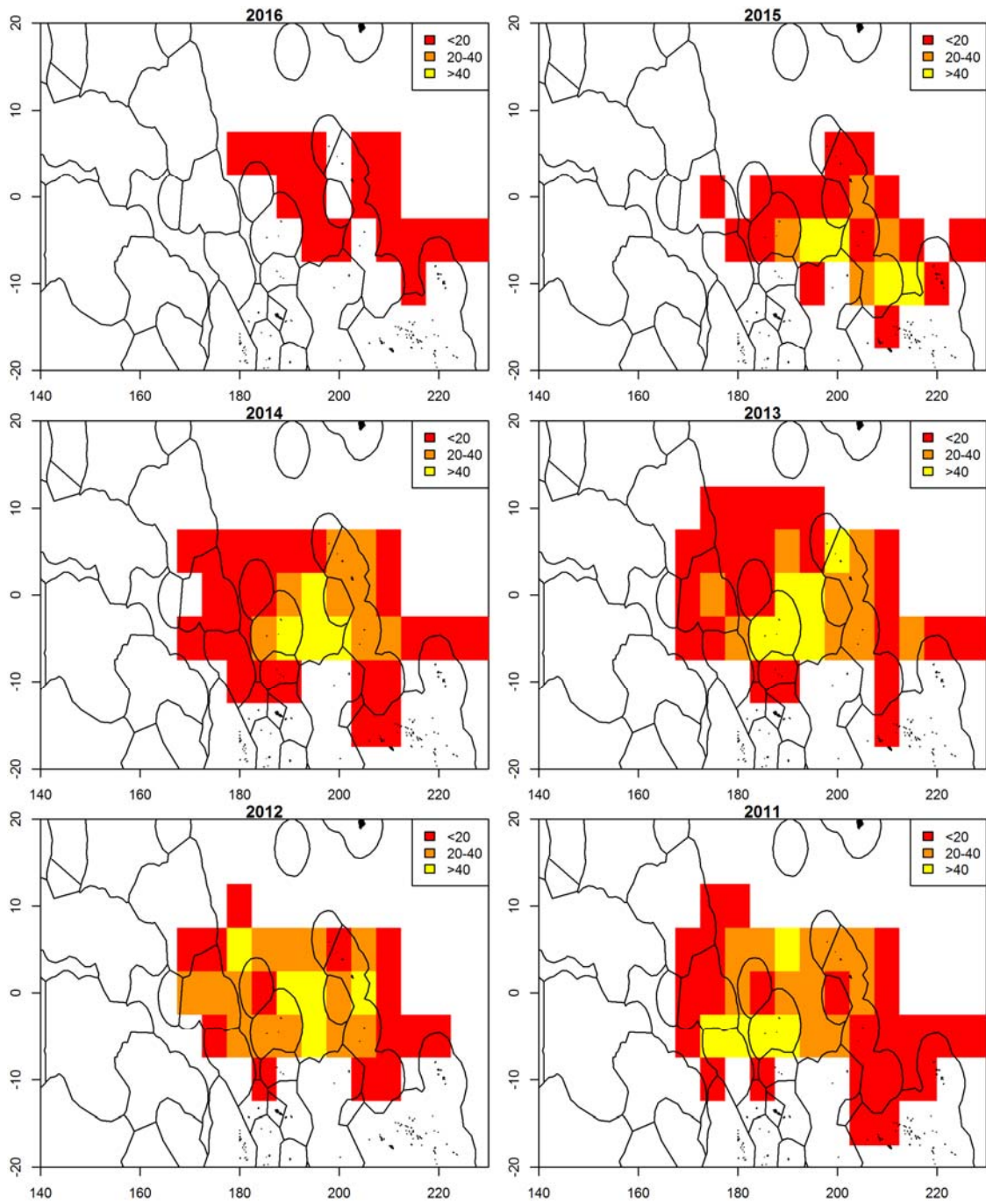


Fig. 2.- Distribution of the purse seine effort, in fishing days, by area (5°x5°) and year.

	Species	WCPFC	East of 150 ° W
BILLFISH	<i>Istiompax indica</i>	0,24	0,00
	<i>Makaira nigricans</i>	2,53	1,69
	<i>Makaira, Tetrapturus,</i> <i>Istiompax</i>	1,7	0,2
SHARKS & RAYS	<i>Carcharhinus falciformis</i>	27,28	6,09
	<i>Carcharhinus longimanus</i>	0,29	0,03
	<i>Carcharhinus spp.</i>	0,03	0,00
	<i>Pteroplatytrygon violacea</i>	<0,01	<0,01
	<i>Sphyrna lewini</i>	0,15	0,15
OTHER FISH	<i>Acanthocybium solandri</i>	1,64	0,84
	<i>Aluterus monoceros</i>	0,05	0,05
	<i>Aluterus scriptus</i>	<0,01	<0,01
	<i>Balistes polylepis</i>	<0,01	0,00
	<i>Canthidermis maculatus</i>	3,91	0,28
	<i>Caranx sexfasciatus</i>	0,04	0,02
	<i>Caranx spp.</i>	0,01	0,00
	<i>Coryphaena hippurus</i>	4,39	1,29
	<i>Decapterus macarellus</i>	0,17	0,03
	<i>Elagatis bipinnulata</i>	1,37	0,26
	<i>Kyphosus analogus</i>	<0,01	<0,01
	<i>Kyphosus elegans</i>	0,01	<0,01
	<i>Kyphosus spp.</i>	<0,01	0,00
	<i>Lobotes surinamensis</i>	<0,01	<0,01
	<i>Mola mola</i>	0,13	0,13
	<i>Naucrates ductor</i>	<0,01	<0,01
	<i>Sectator ocyurus</i>	0,01	0,00
	<i>Seriola rivoliana</i>	0,02	<0,01
	<i>Seriola spp.</i>	<0,01	0,00
	<i>Sphyraena barracuda</i>	0,13	0,06
<i>Uraspis helvola</i>	<0,01	<0,01	
<i>Others, NEI</i>	0,02	0,00	

Table III.- Purse seine bycatch in metric tonnes in the WCPFC-CA and in the WCPFC-CA east of meridian 150°W during 2016. These figures have been estimated from the bycatch records of the trips carrying observers of the AIDCP (100% of the total catch in weight in the WCPFC-CA).

	Species	WCPFC	East of 150 ° W	
BILLFISH	<i>Istiophoridae, Xiphiidae</i>	0.21	0.00	
	<i>Istiompax indica</i>	10.91	7.17	
	<i>Makaira nigricans</i>	6.69	1.23	
	<i>Makaira, Tetrapturus,</i> <i>Istiompax</i>	0.18	0.00	
	SHARKS & RAYS	<i>Carcharhinus falciformis</i>	22.97	5.65
<i>Carcharhinus longimanus</i>		0.07	0.03	
<i>Carcharhinus spp.</i>		0.80	0.04	
<i>Isurus oxyrinchus</i>		0.15	0.00	
<i>Manta birostris</i>		1.25	1.25	
<i>Mobula japonica</i>		0.15	0.00	
<i>Mobula spp.</i>		0.19	0.00	
<i>Mobula tarapacana</i>		0.14	0.00	
<i>Mobulidae</i>		0.11	0.08	
<i>Pteroplatytrygon violacea</i>		0.01	0.01	
<i>Sphyrna lewini</i>		0.12	0.00	
<i>Sphyrna spp.</i>		0.22	0.00	
<i>Sphyrna zygaena</i>		0.10	0.10	
Sharks, NEI		0.11	0.04	
OTHER FISH		<i>Acanthocybium solandri</i>	0.96	0.24
		<i>Aluterus monoceros</i>	0.01	0.01
	<i>Aluterus scriptus</i>	<0.01	0.00	
	<i>Canthidermis maculatus</i>	0.87	0.08	
	<i>Caranx sexfasciatus</i>	<0.01	<0.01	
	<i>Caranx spp.</i>	0.01	0.00	
	<i>Coryphaena hippurus</i>	1.00	0.26	
	<i>Decapterus macarellus</i>	<0.01	<0.01	
	<i>Elagatis bipinnulata</i>	2.31	0.61	
	<i>Kyphosus analogus</i>	<0.01	<0.01	
	<i>Kyphosus elegans</i>	<0.01	<0.01	
	<i>Kyphosus spp.</i>	<0.01	<0.01	
	<i>Lobotes surinamensis</i>	0.02	0.00	
	<i>Mola mola</i>	1.78	0.30	
	<i>Pisces</i>	<0.01	0.00	
	<i>Sectator ocyurus</i>	0.02	0.01	
	<i>Seriola rivoliana</i>	0.01	0.01	
	<i>Seriola, Caranx spp.</i>	0.20	0.00	
	<i>Sphyrna barracuda</i>	0.10	0.05	
	<i>Uraspis helvola</i>	0.01	<0.01	
Others, NEI	0.16	<0.01		

Table IV.- Purse seine bycatch in metric tonnes in the WCPFC-CA and in the WCPFC-CA east of meridian 150°W during 2015. These figures have been estimated from the bycatch records of the trips carrying observers of the AIDCP (90.72% of the total catch in weight in the WCPFC-CA), assuming a similar composition of the bycatch in trips without observers onboard.

2. LONG LINE FISHERY

The Spanish long line fleet is composed by 3 long liners. The activity of the fleet commenced in 2004, and it has been targeting swordfish since then. The data hereby included have been obtained from mandatory electronic logbooks for 2016 activity. All Spanish flagged longliners process the swordfish on board in dressed weight (eliminating the head, viscera and fins) and keep it frozen.

2.1 Annual catch and effort by primary species and gear in the WCPFC Convention Area

FAO fishing area	VESSEL	BSH	SMA	SWO
71	CARMEN TERE	8.986	2.823	11.439
77	ILLA GAVEIRA	2.948	2.098	8.710
	PICO TRESMARES	2.644	0	4.553
81	CARMEN TERE	464.837	237.938	648.396
	ILLA GAVEIRA	198.086	130.030	373.444
	PICO TRESMARES	16.105	32.698	121.820
87.1.4	ILLA GAVEIRA	3.807	916	142.989
	PICO TRESMARES	125.224	9.977	144.511
87.2.6	ILLA GAVEIRA	806	73	2.039
	PICO TRESMARES	200.996	55.119	193.001
Total general (Kg)		1.024.439	471.672	1.650.902

Total estimated catches by species in the Pacific Ocean South of the Equator (Kg)

It has to be noted that the catches included the total amount as result of the activity of these vessels in the WCPFC area, overlapping area and IATTC area, since these vessels may operate in the IATTC area.

2.2. Number of vessels by gear and size (fleet characteristic)

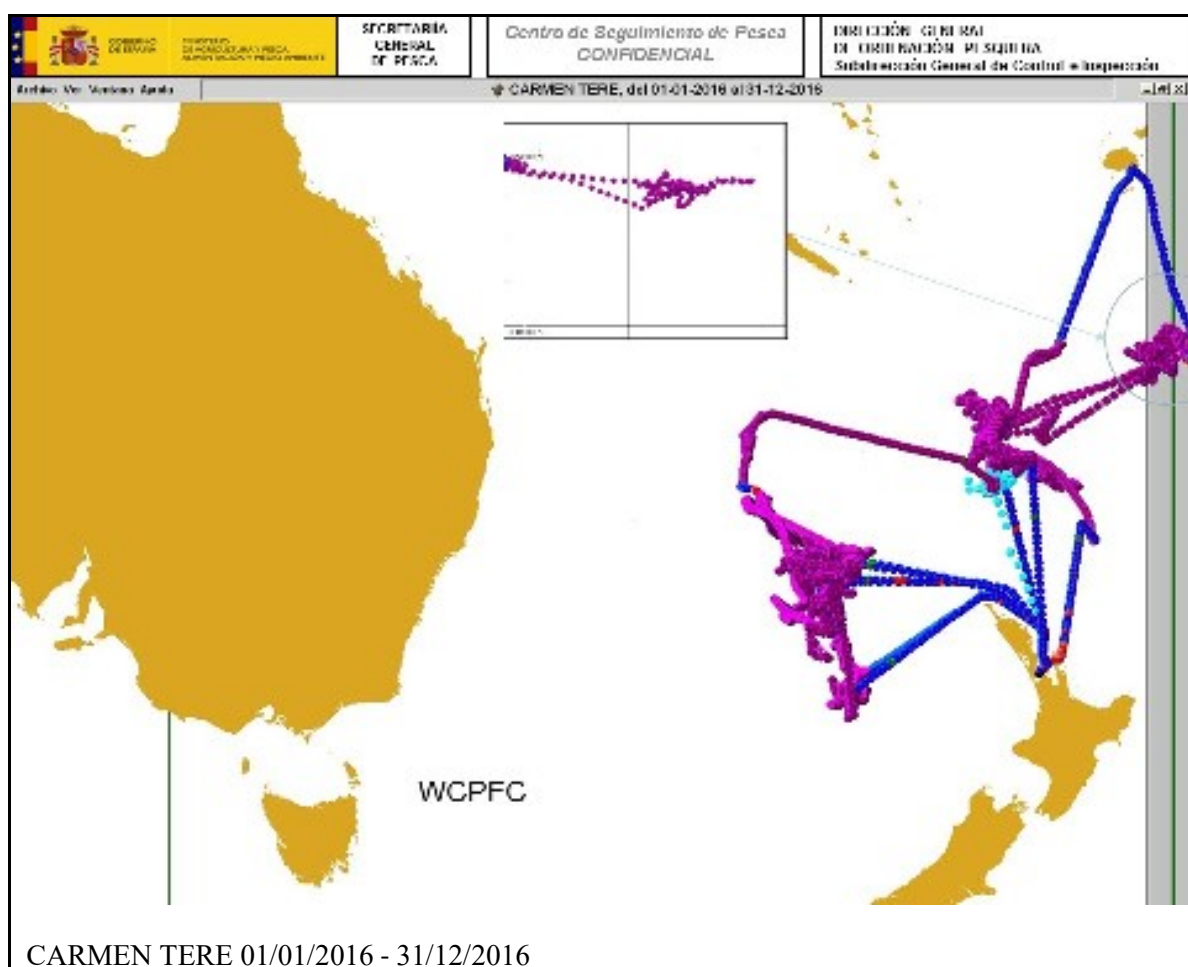
Gear	LONGLINE
Fleet	SPAIN (EU)
Size class (GRT)	
0-50	0
50-200	0
201-500	3
500+	0

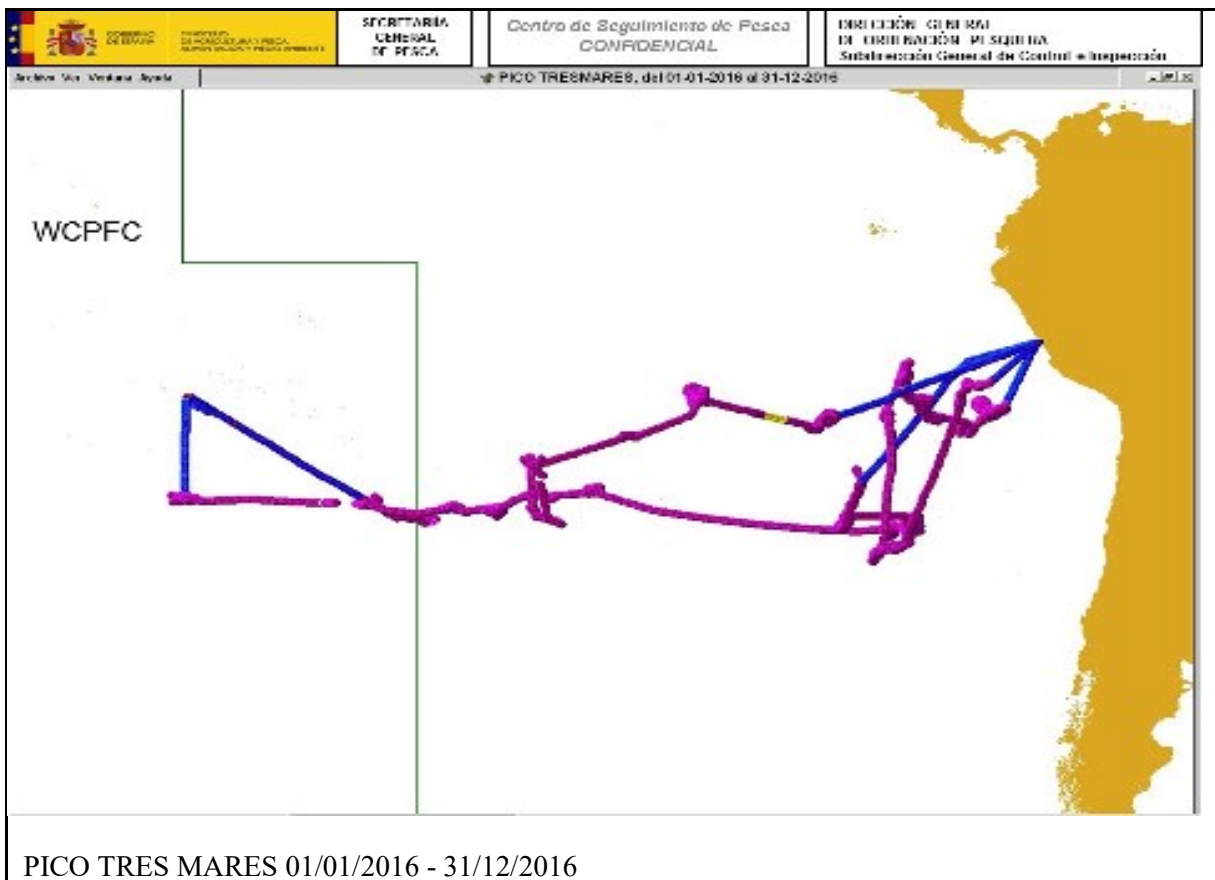
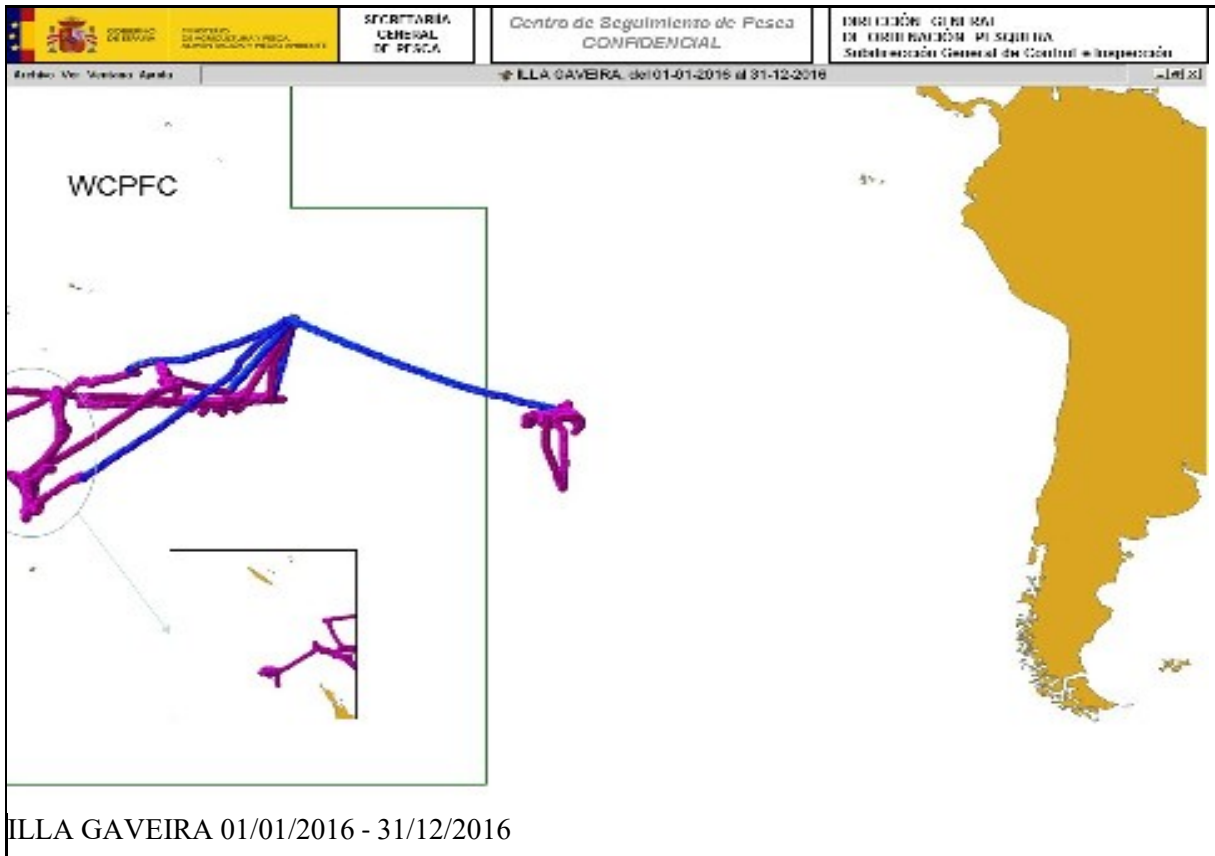
VESSEL NAME	AUTHORIZATION PERIOD
CARMEN TERE	01/01 to 31/12/2016
ILLA GAVEIRA	01/01 to 31/12/2016
PICO TRESMARES	01/01 to 31/12/2016

2.3. Fishing patterns

Spanish longline vessels in the Western and Central Pacific operate in the temperate area south of 20° south and the mostly work south of 30° south. The port of Papete (French Polynesia) is the main hub for landings and supply activities. Long distances toward south are usually covered before starting fishing activities.

The vessels carry on lengthy trips lasting for 2 to 3 months. The main catches are swordfish and blue shark. They do not caught tropical sensitive shark species such as oceanic whitetip shark, silky shark or whale shark. They displayed an average of 1.169 hooks per vessel in 2016. They usually deploy wire leathers, since catches of blue shark and shorfin mako are significant for this fleet.





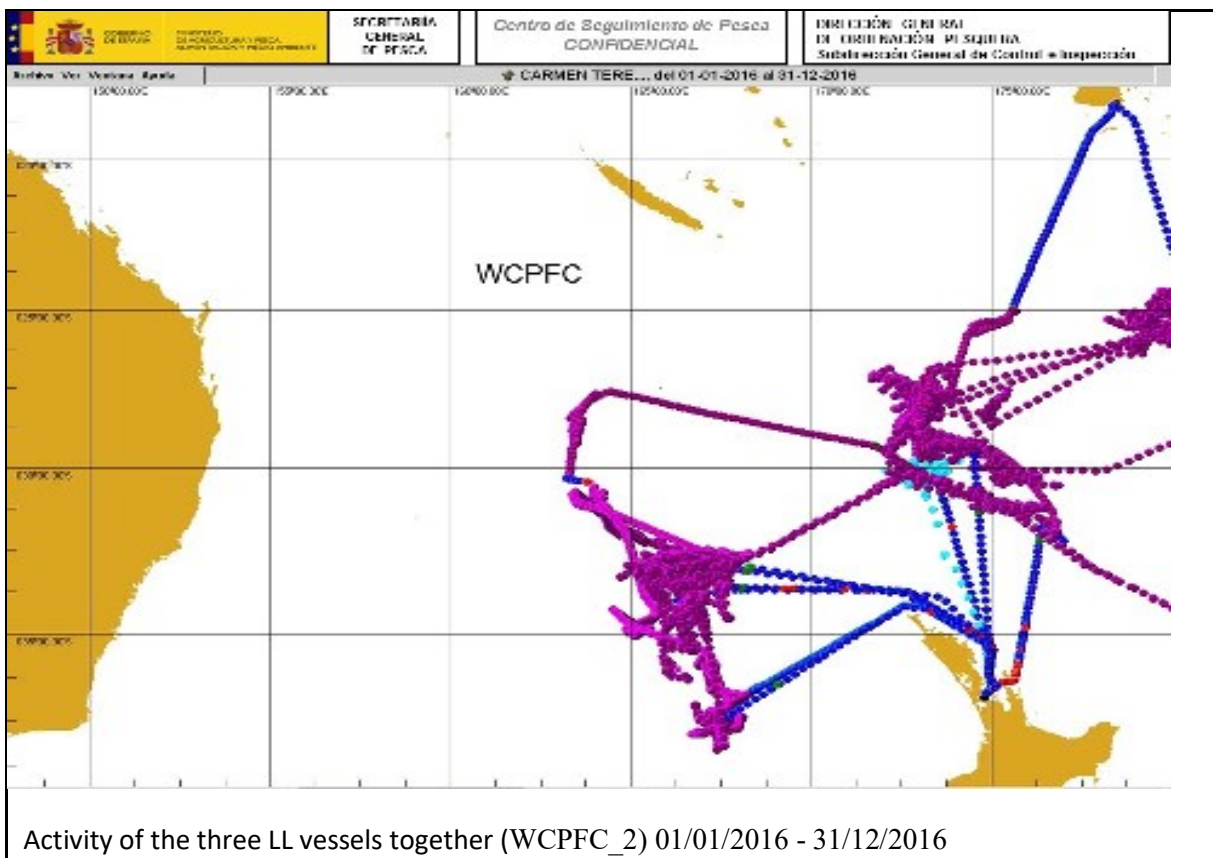
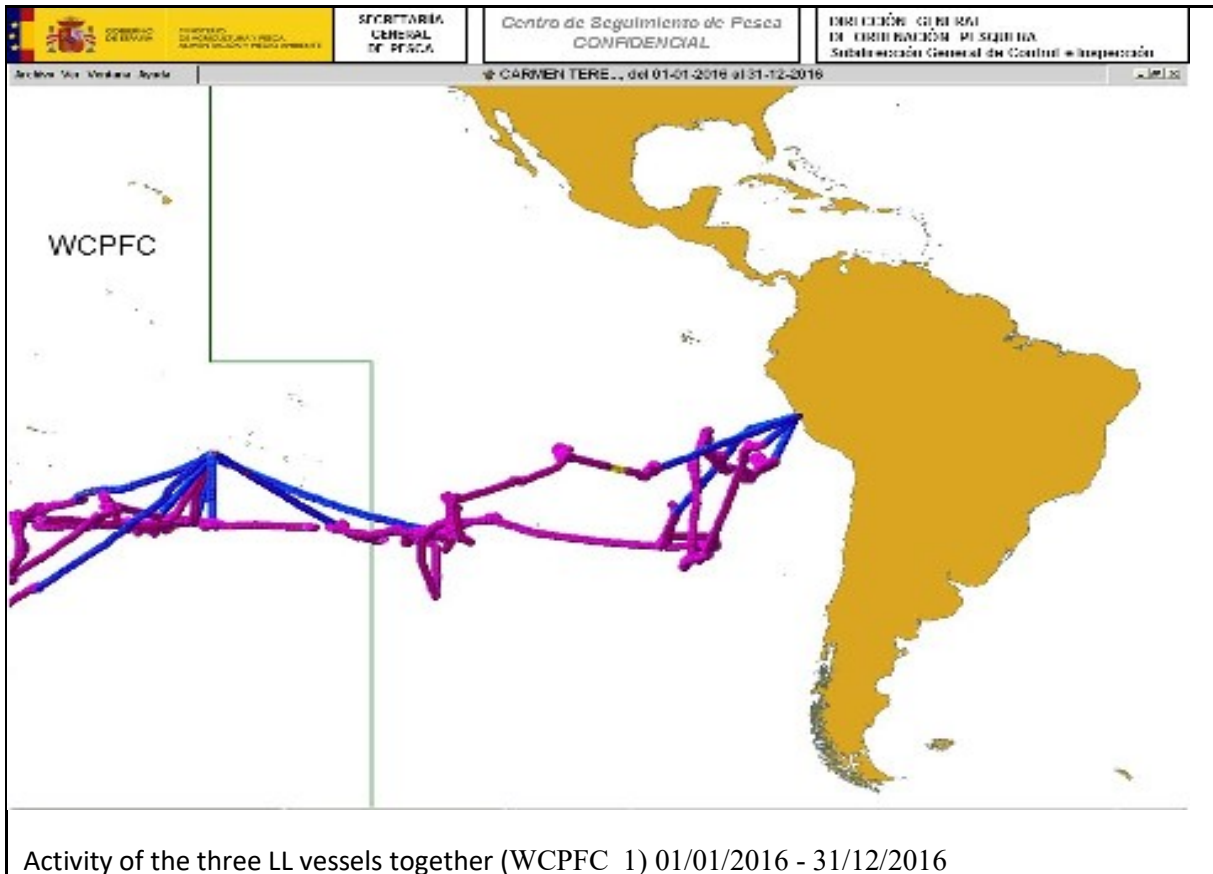


Fig 3. VMS plot for longlines of Spanish flag. The blue points correspond to transits with no fishing activities. Fishing activities are shown in pink.

2.4. Estimated total catches of non target, associated and dependent species

FAO fishing area	VESSEL	ALB	BET	BLM	MLS	YFT	SKJ	BUM	PBF
71	CARMEN TERE	-	80	984	-	107	-	-	-
77	ILLA GAVEIRA	31	1.292	-	234	343	-	-	-
	PICO TRESMARES	-	-	554	42	-	-	-	-
81	CARMEN TERE	733	33.816	20.616	-	23.421	-	18.244	-
	ILLA GAVEIRA	850	8.862	-	24.377	3.396	-	20	-
	PICO TRESMARES	-	732	6.119	4.517	525	-	-	-
87.1.4	ILLA GAVEIRA	-	5.541	-	4.789	-	-	-	-
	PICO TRESMARES	-	1.188	4.532	1.889	186	-	-	-
87.2.6	ILLA GAVEIRA	-	-	-	150	-	-	-	-
	PICO TRESMARES	-	1.793	1.650	739	37	-	-	-
Total general (Kg)		1.614	53.304	34.455	36.737	28.015	-	18.264	-

Total estimated catches by species in the Pacific Ocean South of the Equator (Kg).

Catches for other species (FAL, OCS, MAK (LMA), THR/ALV, POR SPN/SPY, RHN) were not declared.

WCPFC - ANNUAL REPORT TO THE COMMISSION INFORMATION ON FISHERIES

PART I

2016

1. In 2016, the list of Portuguese authorized vessels to operate within the WCPFC was as follows:

PRT000000115	ILHA BRAVA	L-3-N
PRT000001538	VERDEMILHO	V-1065-C
PRT000001540	VISTA ALEGRE	A-3148-C
PRT000016119	ARTICO	PD-400-N
PRT000016290	COSTA DE SAO JORGE	PD-464-C
PRT000023097	BALUEIRO	O-2176-N
PRT000022914	AVÔ MUSICO	V-24-N
PRT000022649	VALMITÃO	PM-1291-N
PRT000023043	NOVO RUIVO	V-25-N
PRT000023093	ALMA LUSA	PM-1269-N

As already mentioned in the 2015 report, the Portuguese fishing fleet operating in the Pacific region is limited, and comprehends only two vessels, both of which operating currently in the IATTC framework with longlines and targeting swordfish.

Most of the PRT fishing effort is focused in the Atlantic Region, and, to a lesser extent, in the western Indian Ocean region, in waters regulated by the IOTC.

2. Effort in WCPFC

GEAR	YEAR	MONTH	FISHING_DAYS	NUM_VESSELS
LLD	2016	6	12	1
LLD	2016	7	29	1
LLD	2016	8	18	1

LLD	2016	9	3	1
LLD	2016	10	26	1
LLD	2016	11	24	1
LLD	2016	12	16	1

3. TOTAL CATCHES

FAO	COMMON NAME	LIVE WEIGHT(tons)
SWO	SWORDFISH	167,5
SMA	SHORTFIN MAKO	84,8
BSH	BLUE SHARK	218,8
BET	BIGEYE TUNA	10
YFT	YELLOWFIN TUNA	5,5
ALB	ALBACORE	0,2
BLM	BLACK MARLIN	18
LEC	ESCOLAR	4,6
DOL	COMMON DOLPHINFISH	0,8

All catches of the FV ARTICO were landed and transferred to a container to be transported by a cargo vessel to a different port.

4. The owner of the vessel reaffirmed its full commitment in complying all the WCPFC data reporting obligations on fishing operations. Detailed information has been presented to flag state authorities, namely all the information exchanged with the port authorities where the landing took place.
5. Between 23/09/2016 and 14/12/2016 an observer from the Portuguese Observer Program embarked in the only PRT fishing vessel active in WCPFC. During 2016 three fishing trips were made in this RFMO, and, regarding the PRT fishing fleet, the observer coverage comprehended 33% of the total trips of PRT FV. It is worth to note that the one of these trips started in late December, and, despite some minor activity in the WCPFC, most of the fishing effort was focused in the framework of the IATTC.
6. Operational data is collected from electronic logbook data, crosschecked with

VMS, with 100% coverage. The vessel is equipped with two VMS systems, one installed by the national authorities (MONICAP), in accordance with the EU legislation, providing VMS information every two hours, and the other installed in accordance with WCPFC's VMS requirements, transmitting to the WCPFC's Secretariat. The vessel is equipped with an electronic logbook (ERS), as required with the EU legislation, allowing for the electronic registration and communication of catches. Both systems were fully operational during activity in WCPFC. The functionality of both systems was confirmed by the observer.

7. The gear used is the monofilament surface longline (Florida style modified), using an average of around 1100 hooks per set.
8. All fishermen operating in international waters are permanently informed about the measures adopted by the corresponding RFMO, including those taken to mitigate the impact on seabirds of fishing for species covered by WCPFC.
9. Concerning mitigation measures on turtles and seabirds, the following procedures have been followed:

SEABIRDS

Deep-setting line shooter: The vessel uses hydraulic equipment to begin the fisheries operations with the main line less than 1 m from the stern so the hooks can sink rapidly;

- *Tori lines*: The vessel uses the lines as described in CMM 2007-04 since the begging of the fishing operations;
- Weighted branch lines: The vessel uses weights of 80 g attached to within 3,5 m of the hook, for all hooks of the main line;
- Blue dyed bait: The bait used is dyed in blue
- Management of offal discharge: practice of strategic offal discharge from the opposite side of the boat to hauling. When setting no offal discharge is done so that birds are kept away;
- Logbook for registration of any by-catches of seabirds is ensured (see attached logbook from the captain)

SEA TURTLES

Concerning mitigation measures to avoid catches of sea turtles:

- circle hooks are already being used at a rate of 50% in longline sets;

- Deeper setting: hooks are set at depths around 80 meters (deeper than turtle abundance, less than 40 m), the hydraulic equipment make hooks sink rapidly and branch lines are weighted (use of weights of 80 g attached to within 3,5 ms of the hook, for all hooks of the main line);
- Night setting: the lines are set during the night with the vessels' lights off and all operations are done in lower level;
- Use of blue dyed bait as to avoid attracting sea turtles;
- Release techniques with line cutters and de-hooker sticks;
- Fishermen have information on handling methods to assess the condition of the turtles before releasing, identifying the species name, return to the sea, ensuring higher survival rates and reducing post-release mortality. The Interaction is recorded on logbook.

REGISTERED INTERACTIONS

SEA BIRDS

Date	Common Name	Number	Fate	Remaks	Position
10.02.16	Wedge-tailed shearwater	1	dead	IATTC R.A.	18.° 49'00S 097.° 01'00W
06.03.16	Wedge-tailed shearwater	1	alive	Without hook and left flying IATTC R.A.	15.° 34'00S 090.° 56'00W
03.04.16	Grey Faced Petrel	1	dead	No IATTC R.A.	16.° 34'00S 088.° 40'00W
10.07.16	Grey Faced Petrel	1	dead	No	29°49'00S 172° 59'00E
16.11.16	Southern Royal Albatross	1	alive	Without hook	28° 37'00S 173° 28'00E

SEA TURTLES

DATE	POSITION	SCIENTIFIC	FATE	Remark
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		NAME		
14.04.16	15° 23'00S 91° 02'00W	<i>Dermochelys coriacea</i>	alive	IATTC R.A.

SHARKS

No interactions with silky and oceanic white tip sharks to report.

EU ES: Addendum to the Annual report Part I (activities 2016)

12/07/2017

1) Transshipment report 2016 (CMM 2009-06)

Number of transshipments: 27. The catches reported in this table have been harvested both within and outside the WCPFC Convention Area.

Species	quantity (Kg) (*)	In port (YES/NO)	Transshipment in/outside WCPFC area (**)	Catches in/outside WCPFC area	Presentation (FROZEN/FRESH)	Gear
BET	382.000	YES	IN	In and out	FROZEN	PS
BSH	394.672	YES	IN	In and out	FROZEN	LL
BSH	214.794	YES	OUTSIDE	In and out	FROZEN	LL
BSH	337.372	YES	OVERLAP AREA	In and out	FROZEN	LL
SKJ	933.000	YES	IN	In and out	FROZEN	PS
SMA	215.800	YES	IN	In and out	FROZEN	LL
SMA	39.856	YES	OUTSIDE	In and out	FROZEN	LL
SMA	181.559	YES	OVERLAP AREA	In and out	FROZEN	LL
SWO	502.246	YES	IN	In and out	FROZEN	LL
SWO	248.256	YES	OUTSIDE	In and out	FROZEN	LL
SWO	492.532	YES	OVERLAP AREA	In and out	FROZEN	LL
YFT	69.000	YES	IN	In and out	FROZEN	PS

* Please note that in these quantities are not included offloaded on land.

** Ports considered are in WCPFC area: Auckland, Suva and Taroa; outside WCPFC area: Callao and Overlap area: Papeete.

2) Sharks (CMM 2010-07)

Catches for other species (FAL, OCS, MAK (LMA), THR/ALV, POR SPN/SPY, RHN) were not occurred.

4) Seabirds (CMM 2012-07) and turtles (CMM 2008-03)

The information collected by observer, included in his observer report, is 0 interactions with seabirds and turtles.

Mitigation methods used for sea birds and turtles in longline fleet are the following:

Code	Vessel Name	Area	MITIGATION MEASURES FOR SEABIRDS (CMM 2012-07)							MITIGATION MEASURES FOR TURTLES (CMM 2008-03)			
			Night setting with minimum deck lighting	Tori-lines	Weighted branch lines	Side setting with a bird curtain and weighted branch lines	Blue-dyed bait	Management of offal discharge	Deep setting line shooter	Turtle Release Devices	Circular hooks	Bait fish flake	Any other action taken by the Scientific Committee, the Compliance Committee, and approved by the Commission
25475	CARMEN TERE	WCPFC/CIAT	X	X	X		X	X	X	X	X	X	
25542	ILLA GAVEIRA	WCPFC/CIAT	X	X	X	X	X		X	X			
25809	PICO TRESMARES	WCPFC/CIAT	X	X	X		X		X	X			Turtle Release Pole