



**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-15

NEW CALEDONIA

WESTERN AND CENTRAL PACIFIC FISHERIES COMMISSION

NEW CALEDONIA - ANNUAL REPORT 2016

Part 1

Scientific data was provided to the Commission in accordance with the decision relating to the provision of scientific data to the Commission by 30 April 2016	YES
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Summary:

Fishing for tuna and associated species by New Caledonian vessels started in 1981 with pole-and-line (less than 3 vessels) which stopped very rapidly (1981: 228 mt; 1982: 998 mt; 1983: 492 mt).

Some domestic longliners started operating at the same time and it took almost 20 years before this domestic fleet had a significant activity.

The New-Caledonian fleet operates in the New Caledonian EEZ and very rarely in the adjacent high seas.

In 2016, the New-Caledonian government has granted 17 licences to longliner vessels. All of those licensed domestic longliners were active. Similarly to past years there were no foreign vessels licensed or chartered to operate in the New Caledonian EEZ.

There was an 11% decrease of the total catches reported last year compared to 2015. The annual catches of 2,483 mt were mainly composed of albacore which is the target species of all the vessels and accounted for 65% of the total (1,615 mt). Yellowfin was second with 451 mt (18%). Striped marlin and swordfish are the main bycatch of the fishery (67 mt and 8 tonnes respectively).

Catches of sharks have been decreasing since 2006, due to an increasing use of monofilament branchlines and the adoption of a regulation in April 2013 prohibiting the retention of any shark or ray on-board.

In 2016, observer activities carried out under the New Caledonia programme punctually reached a 6.0% coverage rate of the longline hooks. The aim of this activity is to collect information to be checked with other sources of data and to provide accurate data for stock assessments (biological samples, size composition, estimates of incidental catch ...).

During all the trips observed in 2016, there were 5 sea turtle and 1 sea bird interactions. The incidental catches of shark and ray species were reported by the observer programme at 761 individuals in 2016.

Catch statistics

As a counterpart to their licenses the New Caledonian fishing companies must provide logsheets which are collected by the New Caledonia fisheries authority at the end of the trips. The coverage rate of collected logsheets is 100%.

In accordance with the provision of scientific data to the Commission all the logsheets data are made available to the SPC/OFP by the TUFMAN2. All data presented in this report are extracted by the DORADO system operated by SPC.

Therefore, effort and catch estimated statistics are extracted from logsheets and observer program data. The estimated total catches represent 2,653 mt in 2016 (2,886 mt in 2015). The catch level reported on logsheet is 2,483 mt.

As the target species of the New Caledonian tuna fisheries, the South Pacific albacore is the predominant specie in the catches with 1,615 mt (65%) in 2016. Albacore annual catches on the south of 20° South for the years 2014-2016 were respectively 1,328 mt, 1,007 mt, 1,372 mt.

In 2016 the average weight of albacore was 18 kg, which is very similar to the weights recorded in the previous years. The average weight of yellowfin was 30kg (25kg in 2015) and 37kg (30kg in 2015) for bigeye.

No New Caledonian vessel targets bigeye, sharks, marlins or swordfish. Therefore, all the catch reported for these species are bycatch. In particular, only 67 mt of striped marlin (south of 15° South) and 8 mt of swordfish were landed in 2016, of which 6.7 mt were caught south of 20° South.

Since the adoption of the regulation for the conservation of sharks in April 2013, which prohibits the retention of any shark and ray, all the sharks must be released by the vessels as soon as possible.

Many species show seasonal patterns in their abundance around New Caledonia which induces similar fluctuations in the reported catch levels.

No New Caledonian vessel takes part in transshipment activities in the WCPFC area.

Fleet structure and fishing activity

In 2016, 17 domestic tuna longliners were licensed to fish and all of them were active. Similarly to past years there were no foreign vessels licensed or chartered to operate in the New Caledonian EEZ.

All active vessels in 2016 are less than 200 tons GRT. These vessels have limited cruising range within the EEZ. Although the larger longliners nearing 150 tons can stay at sea for two or more weeks. The average trip length for the whole fleet is 11 days, 7 of which are fished.

There was no fishing activity by the New Caledonian fleet neither north of the equator, nor south of 30°South.

Globally, 324 fishing trips were reported in 2016, totaling 3,823 days at sea and 2,694 days fished.

Monitoring activities

Observer activity has been carried out in New Caledonia for more than 20 years. After being operated under EU-funded programmes, this activity is now funded by the New Caledonia government.

Observer activity

In 2016, 17 trips were observed by two observers on-board 13 vessels of the domestic companies, representing 137 fishing days and almost 11,713 fish observed. Over this period of time the observer activity covered about 6.0 % of the fishing activity (in number of hooks observed).

During the trips observed in 2016, 5 turtles interaction was reported and 1 sea bird was unintentionally captured.

The accidental catch of shark and ray species were reported by the observer program at 761 individuals in 2016, an increase of 20% compared to 2015.

Port sampling activity

In 2016, due to funding limitation no port sampling was carried out. However, length frequency data are still collected by observers on-board the vessels.

No unloading or transshipment involving foreign vessels, carriers and bunkers, took place in the domestic ports.

Vessel Monitoring System

New Caledonia has been operating a Vessel Monitoring System in its EEZ since early 2005.

All licensed vessels must have transmitters on board. Due to safety regulations all of them are equipped with Inmarsat-C terminals but some vessels also have a dedicated Argos beacon on board.

The monitoring is carried out by the New Caledonia fisheries department, so as to help:

- a. check the VMS data with the number of logsheets provided by the fishing companies
- b. the French Navy survey the EEZ.

Since 2010 all the location data have been managed under a dedicated software which can accept various sources of VMS data and provide related statistics.

Scientific activities

SPC and IRD in coordination with the New Caledonia Direction des Affaires Maritimes have started in June 2016 a three year project named BIOPELAGOS, a BEST 2.0 initiative funded by EU, on the biodiversity of oceanic pelagic ecosystems for a better conservation and management of outstanding natural areas of New Caledonia. This project is also implemented in Wallis and Futuna.

The Biopelagos project (<http://www.spc.int/oceanfish/ofpsection/ema/biopelagos>) aims at providing scientific information on the oceanic pelagic biodiversity and ecosystem that sustain the pelagic food-web and the tuna fisheries for a better conservation and management of the pelagic domain.

The micronekton compartment is at the center of the food-web and feeds most of all the top predators including tuna, marine mammals and seabirds. The micronekton is a very diverse group of organisms difficult to study but that can provide information on areas of importance for the feeding of megafauna that requires protection or management.

In this project there are 3 areas of work:

- acquiring new knowledge - data gathering to fill knowledge gaps and improve understanding of the biodiversity and functioning of the oceanic ecosystem: 2 scientific cruises were conducted in New Caledonia in 2016 and 2017 to collect data on the micronekton, zooplankton and phytoplankton and on oceanographic conditions, and 2 months of seabird tagging (GPS) were conducted in three different sites in New Caledonia to equip *Ardenna pacifica* (wedge-tailed shearwater) and identify their feeding grounds during the nesting season
- Capacity building – to train selected individuals and to share and disseminate information gathered : 4 postgraduate students and 2 undergraduate students have been working on the project and students of 4 different school years have been informed on the biodiversity of the oceanic ecosystems
- Provision of scientific advices and recommendations to support informed decision on conservation, sustainable management and resilience of oceanic ecosystem that supports an

important biodiversity and charismatic megafauna such as sharks, seabirds, marine mammals and tuna and which is impacted by environmental changes: this activity will be mainly developed in the second and third year of the project.

The information provided aims at supporting the current development of the management plan of the Parc Marin de la Mer de Corail in New Caledonia.

TABLES AND FIGURES

Table 1: Days fished and catch by species from New Caledonian longliners in the WCPFC area

Catch (mt)	2012	2013	2014	2015	2016
ALBACORE	1 684	1 565	1 738	1 567	1 615
BIGEYE	50	57	58	59	72
BLACK MARLIN	43	35	35	33	30
BLUE MARLIN	16	17	41	21	14
PACIFIC BLUEFIN TUNA	2	1	1	-	-
SKIPJACK	54	40	81	41	24
STRIPED MARLIN	58	44	48	55	67
SWORDFISH	11	8	12	9	8
YELLOWFIN	549	500	705	814	451
Other retained species	221	226	314	193	202
TOTAL	2 686	2 493	3 032	2 792	2 483
DAYS FISHED	2 612	2 439	2 259	2 278	2 694
Nb HOOKS	4 938 562	4 560 826	4 312 484	4 359 200	4 715 600

Table 1bis: Estimates catch (raised by observers data) by primary species from New Caledonian longliners in the WCPFC area

Catch estimates (mt) (discarded dead)	2016	
	Retained	Discard
ALBACORE	1615	132
BIGEYE	72	2
PACIFIC BLUEFIN TUNA	0	0
SKIPJACK	24	3
YELLOWFIN	451	31
BLACK MARLIN	30	0
BLUE MARLIN	14	1
STRIPED MARLIN	67	2
SWORDFISH	8	0

Catch estimates (mt) (discarded dead)	2012		2013		2014		2015	
	Retained	Discard	Retained	Discard	Retained	Discard	Retained	Discard
ALBACORE	1684	110	1565	100	1738	82	1567	56
BIGEYE	50	0	57	1	58	1	59	1
PACIFIC BLUEFIN TUNA	2	0	1	0	1	0	0	0
SKIPJACK	54	3	40	1	81	6	41	5
YELLOWFIN	549	23	500	22	705	17	814	25
BLACK MARLIN	43	1	35	0	35	0	33	1
BLUE MARLIN	16	0	17	0	41	0	21	0
STRIPED MARLIN	58	0	44	2	48	0	55	5
SWORDFISH	11	0	8	0	12	1	9	0

Table 1ter: Estimated catch for shark species of interest (observers data) from New Caledonian longliners in the WCPFC area

Catch estimates (mt) (discarded dead)	2016
	Discard
BLUE SHARK	16
SILKY SHARK	10
HAMMERHEAD SHARK	0
SHORT FINNED MAKO SHARK	1
OCEANIC WHITE-TIP SHARK	1
PORBEABLE SHARK	0
WHALE SHARK	0
THRESHER SHARK	0

Catch estimates (tonnes) (discarded dead)	2012		2013	2014	2015
	Retained	Discard	Discard	Discard	Discard
BLUE SHARK	0	54	47	17	14
SILKY SHARK	0	6	0	1	2
HAMMERHEAD SHARK	0	0	0	0	0
SHORT FINNED MAKO SHARK	12	0	0	0	0
OCEANIC WHITE-TIP SHARK	0	7	0	1	2
PORBEABLE SHARK	0	0	0	0	0
WHALE SHARK	0	0	0	0	0
THRESHER SHARK	0	0	0	0	0

Figure 1: historical annual catch by the New Caledonia longliners (from logsheets / CES) in the WCPFC area

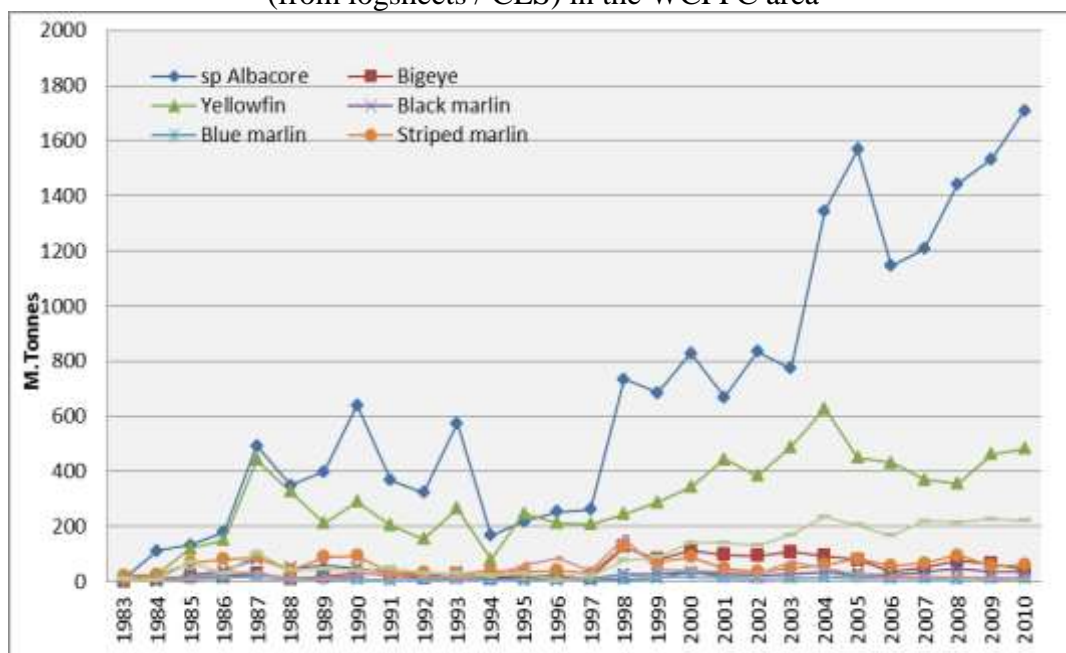


Figure 1bis: historical annual catch by the New Caledonia longliners in the WCPFC area

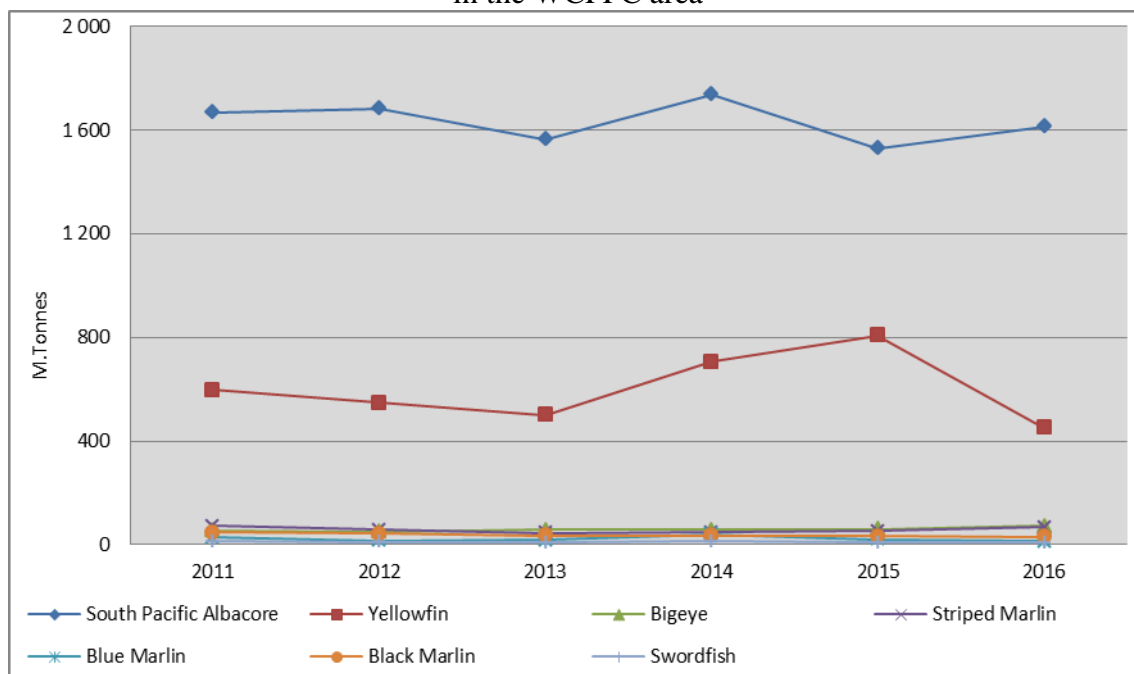


Table 2: number of domestic longliners active by GRT class

Vessel by tjb	0-50	51-200
2012	0	19
2013	0	17
2014	0	17
2015	1	16
2016	1	16

Figure 2: New Caledonian longline vessels licensed

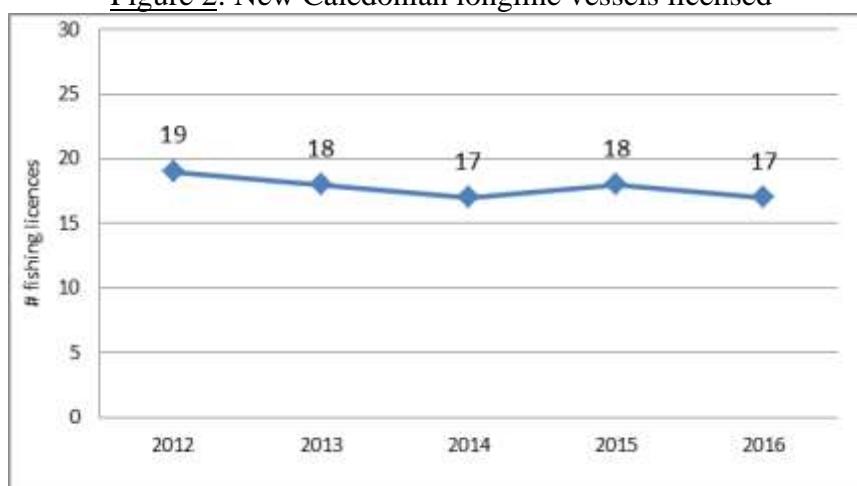


Table 3: number of fish caught per month in 2016 (not raised-no sharks)

Nb of fish	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
SP Albacore	6 446	6 928	5 876	5 596	5 246	8 889	7 710	13 460	5 411	5 517	9 977	10 839
Yellowfin	2 420	1 526	2 533	1 982	1 833	995	701	246	762	924	493	411
Bigeye	34	78	213	261	347	288	281	184	101	76	37	26
Striped marlin	65	27	33	32	44	71	54	72	59	125	257	172
Black marlin	45	66	52	61	35	16	9	7	10	21	20	19
Blue marlin	16	17	11	25	15	7	14	9	11	27	9	17
Swordfish	17	8	8	9	7	7	6	5	4	13	11	8
Others	2 145	2 183	2 320	2 404	2 452	2 388	281	184	101	76	37	26
Total	11 188	10 833	11 046	10 370	9 979	12 661	9 056	14 167	6 459	6 779	10 841	11 518

Table 3bis: average weight (kg) per month in 2016

Average weight	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
SP Albacore	18.50	18.41	18.84	18.29	17.65	15.76	15.90	15.83	15.41	19.75	19.69	18.28
Bigeye	30.74	34.24	33.69	36.76	36.44	38.37	39.04	37.81	38.50	38.99	41.41	43.62
Yellowfin	29.64	32.53	31.42	32.40	27.29	28.39	27.09	33.38	25.79	32.29	34.56	34.42
Striped marlin	65.57	66.89	74.24	64.06	65.34	62.30	60.54	65.83	57.54	67.74	67.90	68.43
Swordfish	104.53	61.75	71.75	80.22	62.86	57.29	58.67	82.60	45.50	67.15	87.73	106.13

Figure 3: annual average weight of interest species (kg)

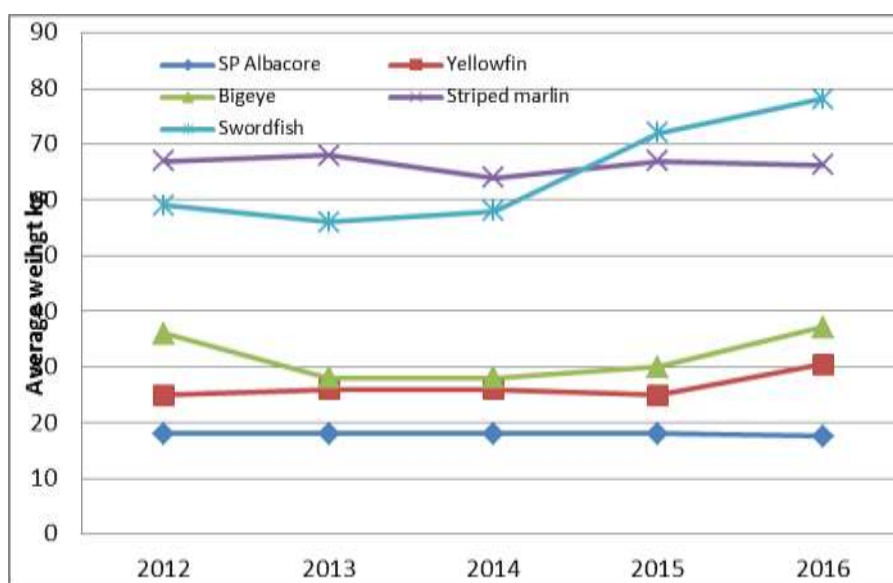


Table 4: number of observed species in 2016

FAO code	Species Group	Species Name	Number	Species Composition %
ALB	TUN	ALBACORE	7 126	60.84%
YFT	TUN	YELLOWFIN	1 150	9.82%
ALX	OTHER FISH	LONGSNOUTED LANCETFISH	1 086	9.27%
BSH	SHK	BLUE SHARK	489	4.18%
DOL	OTHER FISH	MAHI MAHI / DOLPHINFISH / DORADO	369	3.15%
SKJ	TUN	SKIPJACK	213	1.82%
GBA	OTHER FISH	GREAT BARRACUDA	172	1.47%
BET	TUN	BIGEYE	157	1.34%
WAH	OTHER FISH	WAHOO	149	1.27%
LAG	OTHER FISH	OPAH / MOONFISH	134	1.14%
LEC	OTHER FISH	ESCOLAR	105	0.90%
MLS	BIL	STRIPED MARLIN	90	0.77%
FAL	SHK	SILKY SHARK	61	0.52%
SHK	SHK	PELAGIC STING-RAY	53	0.45%
SMA	SHK	SHORT FINNED MAKO SHARK	46	0.39%
SSP	BIL	SHORT-BILLED SPEARFISH	39	0.33%
-	SHK	SHARKS (UNIDENTIFIED)	32	0.27%
GES	OTHER FISH	SNAKE MACKEREL	27	0.23%
BLM	BIL	BLACK MARLIN	24	0.20%
OIL	OTHER FISH	OILFISH	20	0.17%
OCS	SHK	OCEANIC WHITE-TIP SHARK	15	0.13%
PTH	SHK	PELAGIC THRESHER SHARK	15	0.13%
TIG	SHK	TIGER SHARK	13	0.11%
AML	SHK	GREY REEF SHARK	11	0.09%
SWO	BIL	SWORDFISH	11	0.09%
BUM	BIL	BLUE MARLIN	10	0.09%
LEC	OTHER FISH	BLACK MACKEREL	7	0.06%

BRZ	OTHER FISH	POMFRETS AND OCEAN BREAMS	9	0.08%
SFA	BIL	SAILFISH (INDO-PACIFIC)	8	0.07%
BTH	SHK	BIGEYE THRESHER SHARK	7	0.06%
MAK	SHK	MAKO SHARKS	7	0.06%
	OTHER FISH	SARGENT MAJOR	6	0.05%
GEM	OTHER FISH	GEMFISH (SOUTHERN OR SILVER KINGFISH)	4	0.03%
-	OTHER FISH	UNSPECIFIED	5	0.04%
LMA	SHK	LONG FINNED MAKO SHARK	4	0.03%
LGH	OTHER FISH	PELAGIC PUFFER	4	0.03%
TST	OTHER FISH	SICKLE POMFRET	4	0.03%
TUG	TTX	GREEN TURTLE	3	0.03%
THR	SHK	THRESHER SHARKS	3	0.03%
CCL	SHK	BLACKTIP SHARK	2	0.02%
MOX	OTHER FISH	OCEAN SUNFISH	2	0.02%
ALO	OTHER FISH	SHORTSNOURED LANCETFISH	2	0.02%
ALS	SHK	SILVER-TIP SHARK	2	0.02%
GSE	OTHER FISH	SOAPFISH	2	0.02%
LOP	OTHER FISH	CRESTFISH/UNICORNFISH	1	0.01%
	OTHER FISH	DEEPWATER LONGTAIL RED SNAPPER	1	0.01%
	OTHER FISH	EIGHTBAR GROUPER	1	0.01%
	OTHER FISH	GREATER AMBERJACK	1	0.01%
TTH	TTX	HAWKSBILL TURTLE	1	0.01%
KAW	TUN	KAWAKAWA	1	0.01%
DKK	TTX	LEATHERBACK TURTLE (NEW FAO)	1	0.01%
-	TUN	MACKEREL (UNIDENTIFIED)	1	0.01%
	OTHER FISH	ORANGE-SPOTTED EMPEROR	1	0.01%
PRX	BRD	PETRELS AND PUFFINS	1	0.01%
	OTHER FISH	RED SEA CATFISH	1	0.01%
PRP	OTHER FISH	ROUDI ESCOLAR	1	0.01%
CCP	SHK	SANDBAR SHARK	1	0.01%
CCP	SHK	SANDBAR SHARK	1	0.01%

Figure 4: breakdown of shark and ray species recorded by observers in 2016

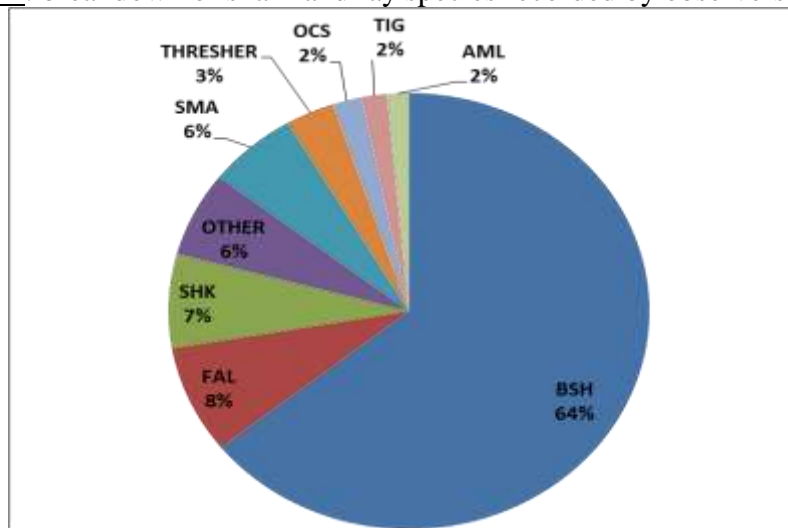


Table 5: number of commercial fish species observed in 2016

Tuna				
Species	ALB	BET	YFT	SKJ
Number of fish observed	7 126	157	1 150	213

Other commercial species			
Species	DOL	LAG	WAH
Number of fish observed	369	134	149

Billfishes						
Species	BLM	BUM	MLS	SFA	SSP	SWO
Number of fish observed	24	10	90	8	39	11

Table 6: Longline observer coverage of the New Caledonian tuna fleet

Year	No. of hooks observed	No. of hooks fished	Rate %
2009	405 844	4 920 450	8.2
2010	424 327	4 677 009	9.1
2011	316 337	4 768 281	6.6
2012	316 755	4 938 562	6.4
2013	298 344	4 560 826	6.5
2014	271 208	4 312 484	6.3
2015	147 337	4 359 200	3,4
2016	281 370	4 715 600	6,0

Table 7: effort, observed and estimated seabird captures by year for New Caledonian vessels

Year	Fishing effort				Observed seabird captures 23°N - 30°S	
	Number of active vessels	Number of hooks	Observed hooks	% hooks observed	Number	Rate (per thousand hooks)
2009	27	4 920 450	405 844	8.2	0	0
2010	20	4 677 009	424 327	9.1	5	0.01
2011	19	4 768 281	316 337	6.6	5	0.02
2012	19	4 938 562	316 755	6.4	1	0.003
2013	17	4 560 826	298 344	6.5	3	0.01
2014	17	4 312 484	271 208	6.3	2	0.01
2015	17	4 359 200	147 337	3.4	0	0
2016	17	4 715 600	281 370	6.0	1	0.004

Table 7bis: Number of observed seabird captures in the New Caledonia longline fishery in 2016, by species and area.

Species	South of 30°S	North of 23°N	23°N – 30°S	Total
Unidentified petrels or shearwaters	0	0	1	1

Table 7ter: Number of observed seabird, turtle and marine mammal (species of special interest) captures in the New Caledonia longline fishery

Species of special interest	Sea bird	Turtle	Marine Mammal
2012	1	0	0
2013	3	0	0
2014	2	2	0
2015	0	0	1
2016	1	5	0

ADDENDUM TO ANNUAL REPORT PART 1

CMM 2005-03: North Pacific Albacore

Nothing to report

CMM 2006-04: South West Striped Marlin

No vessel target for striped marlin south of 15°S in 2016
(However catch reported on logsheet is 67 tonnes for 17 vessels)

CMM 2009-03: Swordfish

No vessel target for swordfish south of 20°S in 2016
(However catch reported on logsheet is 6.7 tonnes for 15 vessels, 2 vessels don't have fished swordfish in the south of 20°S in 2016)

CMM 2009-06: Transshipment

Nothing to report

CMM 2010-07: Sharks

All sharks are discarded according to the shark regulation since 2013.

Catch estimates (tonnes) (discarded dead)	2012		2013	2014	2015	2016
	Retained	Discard	Discard	Discard	Discard	Discard
BLUE SHARK	0	54	47	17	14	16
SILKY SHARK	0	6	0	1	2	10
HAMMERHEAD SHARK	0	0	0	0	0	0
SHORT FINNED MAKO SHARK	12	0	0	0	0	1
OCEANIC WHITE-TIP SHARK	0	7	0	1	2	1
PORBEABLE SHARK	0	0	0	0	0	0
WHALE SHARK	0	0	0	0	0	0
THRESHER SHARK	0	0	0	0	0	0

CMM 2011-03: Impact of PS fishing on cetaceans

Nothing to report

CMM 2011-04: Oceanic whitetip sharks

All oceanic whitetip sharks were released.

2016	Observed catch (nb)	Estimated catch (nb)	Estimated number of releases	Released alive %
Oceanic whitetip shark	15	250	250	93%

CMM 2012-04: Whale sharks

Nothing to report

CMM 2012-07: Seabirds

Year	Fishing effort				Observed seabird captures	
	Number of active vessels	Number of hooks	Observed hooks	% hooks observed	Number	Rate (per thousand hooks)
2016	17	4 715 600	281 370	6.0	1	0.004

CMM 2013-08: Silky sharks

98% of silky shark sharks were released.

2016	Observed catch (nb)	Estimated catch (nb)	Estimated number of releases	Released alive %
Silky shark	61	1 017	1 000	85%

Observer coverage (WCPFC 11 decision –para 484(b))

Observer coverage is 6.0% (number of hooks)

CCM fleet	Fishery	N°. Of hooks		
		Total estimated	Observer	%
New-Caledonia	Domestic	4 715 600	281 370	6.0

CCM fleet	Fishery	Days fished		
		Total estimated	Observer	%
New-Caledonia	Domestic	2 694	137	5.1

CCM fleet	Fishery	Day at sea		
		Total estimated	Observer	%
New-Caledonia	Domestic	3823	215	5.6

CCM fleet	Fishery	N°. of trips		
		Total estimated	Observer	%
New-Caledonia	Domestic	324	17	5.3

CMM 15-02: South pacific Albacore Para 4

Addressed through the regular provision of operational catch/effort logsheet data to SPC, who automatically include these data in the WCPFC databases, as per our authorization.

Minimum requirement for Disposal of species (export and domestic market)

Destination from 2016 commercial data

Export & domestic market	Tuna		Billfish	other fish
Flag CCM	New-Caledonia			
Catch location	CCM EEZ			
Destination	74 % Domestic	26% export	100% domestic	100% domestic
Gear code	LL			
Estimate whole weight tonnes	1 853	651	119	226

Receipt and redistribution of species(re-export and re-export, transshipment activities to be considered as either export or import)

Export year	-
Export CCM or domestic	-
Import CCM	-
Harvest year	-
Gear code	-
Net weight (processed) kg	-
Estimate whole weight	-