



**SCIENTIFIC COMMITTEE
FOURTEENTH REGULAR SESSION**

**Busan, Republic of Korea
8-16 August 2018**

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

WCPFC-SC14-AR/CCM-15

NEW CALEDONIA

WESTERN AND CENTRAL PACIFIC FISHERIES COMMISSION

NEW CALEDONIA - ANNUAL REPORT 2017

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 2018	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 2017, the New-Caledonian government has granted 16 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.

In 2017, the total catches was similar (+1.99%) compared to 2016. The annual catches of 2,514 mt were mainly composed of albacore which is the target species of all the vessels and accounted for 64% of the total (1,614 mt). Yellowfin was second with 528 mt (21%). Striped marlin is the main bycatch of the fishery (60 mt).

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 2017, observer activities carried out under the New Caledonia programme punctually reached a 8.4% 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 2017, there were 4 sea turtle, 1 sea bird and 3 marine mammal interactions.

The incidental catches of shark and ray species were reported by the observer programme at 797 individuals in 2017.

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 catch level reported on logsheet is 2,514 mt, all species combined. The main species catch estimate represents 2,680 mt in 2017 (2,653 mt in 2016).

As the target species of the New Caledonian tuna fisheries, the South Pacific albacore is the predominant specie in the catches with 1,614 mt (64%) in 2017.

In 2017 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 33kg (30kg in 2016) and 38kg (37kg in 2016) 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 60 mt of striped marlin (south of 15° South) and 9 mt of swordfish were landed in 2017, of which 6.5 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 2017, 16 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 2017 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, 310 fishing trips were reported in 2017, totaling 3,399 days at sea and 2,378 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 2017, 24 trips were observed by four observers on-board 14 vessels of the domestic companies, representing 194 fishing days and almost 14,423 fish observed. Over this period of time the observer activity covered about 8.4 % of the fishing activity (in number of hooks observed).

During the trips observed in 2017, 4 turtles interaction was reported, 1 sea bird and 3 marine mammals were unintentionally captured.

The accidental catch of shark and ray species were reported by the observer program at 797 individuals in 2017.

Port sampling activity

In 2017, 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 monitoring and surveillance of the marine traffic in the EEZ operated by the French navy.

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

The development of a new VMS application has been engaged in 2017. It'll be fully operational in 2018.

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 centre 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:

- 1- Acquiring new knowledge - data gathering to fill knowledge gaps and improve understanding of the biodiversity and functioning of the oceanic ecosystem: samples of micronekton, zooplankton and phytoplankton collected during the 2 scientific cruises conducted in New Caledonia in 2016 and 2017 are in the process of being analysed in various labs; DNA barcoding of ~600 Myctophidae fish and DNA metabarcoding of seabird guano and micronekton juice were conducted to gain a better knowledge of the forage of the

top predators including the tuna; 5 months of seabird tagging (GPS) were conducted in four different sites in New Caledonia to equip *Ardenna pacifica* (wedge-tailed shearwater) and Gould and Tahiti petrels, to monitor their populations and identify their offshore feeding grounds during the nesting season

- 2- Capacity building – to train selected individuals and to share and disseminate information gathered: 10 postgraduate students and 3 undergraduate students and 2 volunteers have been working on the project and students of 4 different school years have been informed on the biodiversity and functioning of the oceanic ecosystem

- 3- 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 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

Effort	2013	2014	2015	2016	2017
DAYS FISHED	2 439	2 259	2 278	2 694	2 386
Nb HOOKS	4 560 826	4 312 484	4 359 200	4 715 600	4 811 570
Catch (mt)	2 453	2 951	2 761	2 465	2 514
ALBACORE	1 565	1 738	1 567	1 615	1 614
BIGEYE	57	58	59	72	48
BLACK MARLIN	35	35	33	30	26
BLUE MARLIN	17	41	21	14	19
PACIFIC BLUEFIN TUNA	1	1	-	0	1
SKIPJACK	0	0	6	6	31
STRIPED MARLIN	44	48	55	67	60
SWORDFISH	8	12	9	8	9
YELLOWFIN	500	705	814	451	528
Other retained species	226	314	197	202	178

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

Catch estimates (mt) (discarded dead)	2017	
	Retained	Discard
ALBACORE	1 614	120
BIGEYE	48	0
PACIFIC BLUEFIN TUNA	1	0
SKIPJACK	31	10
YELLOWFIN	528	31
BLACK MARLIN	26	5
BLUE MARLIN	19	0
STRIPED MARLIN	60	0
SWORDFISH	9	0

Catch estimates (mt) (discarded dead)	2013		2014		2015		2016	
	Retained	Discard	Retained	Discard	Retained	Discard	Retained	Discard
ALBACORE	1 565	100	1 738	82	1 567	56	1 615	132
BIGEYE	57	1	58	1	59	1	72	2
PACIFIC BLUEFIN TUNA	1	0	1	0	-	0	0	0
SKIPJACK	0	1	0	6	6	5	6	3
YELLOWFIN	500	22	705	17	814	25	451	31
BLACK MARLIN	35	0	35	0	33	1	30	0
BLUE MARLIN	17	0	41	0	21	0	14	1
STRIPED MARLIN	44	2	48	0	55	5	67	2
SWORDFISH	8	0	12	1	9	0	8	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)	2017
	Discard
BLUE SHARK	7
SILKY SHARK	10
HAMMERHEAD SHARK	0
SHORT FINNED MAKO SHARK	7
OCEANIC WHITE-TIP SHARK	3
PORBEABLE SHARK	0
WHALE SHARK	0
THRESHER SHARK	0

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

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

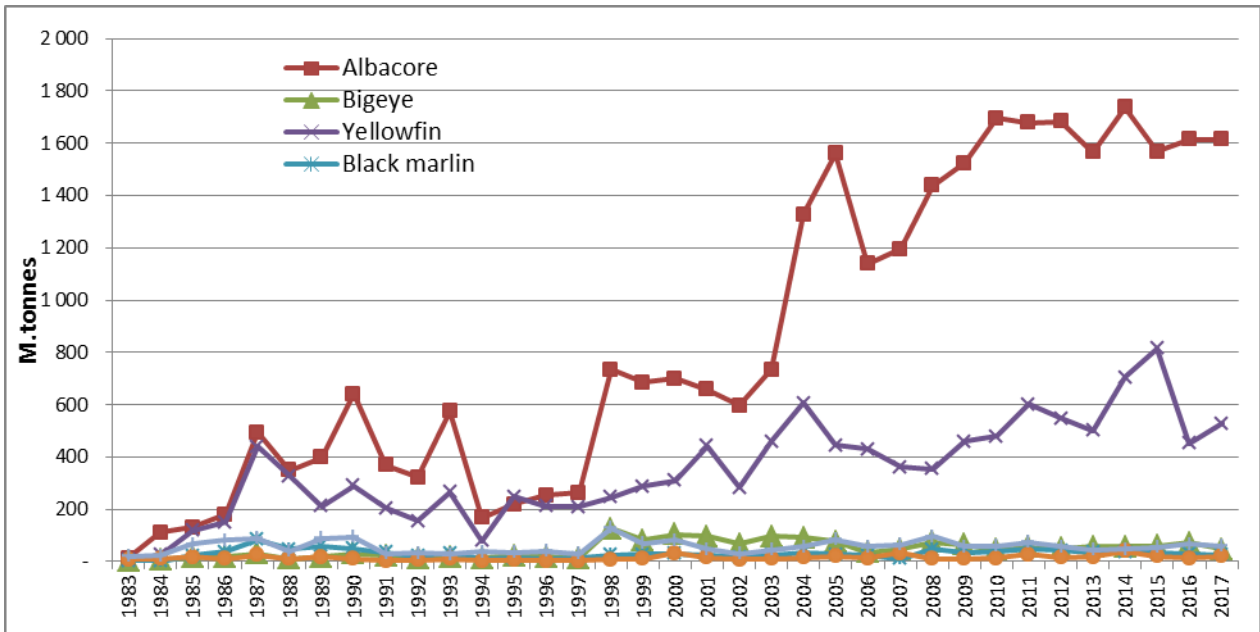


Table 2: number of domestic longliners active by GRT class

Vessel by GRT	0-50	51-200
2013	0	17
2014	0	17
2015	1	16
2016	1	16
2017	1	15

Figure 2: New Caledonian longline vessels licensed

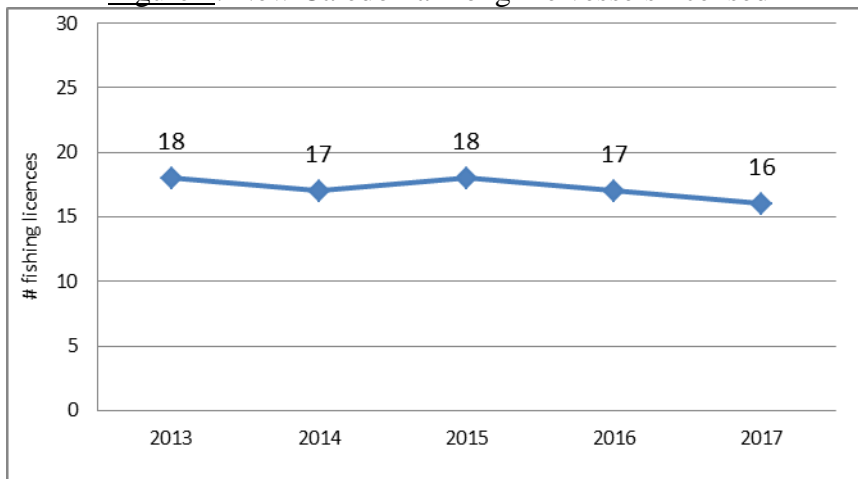


Table 3: number of fish caught per month in 2017 (not raised-no sharks)

Nb of fish	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
ALBACORE	10 259	3 048	5 902	3 632	7 350	7 112	11 679	7 352	6 617	7 407	8 149	11 414
YELLOWFIN	1 558	1 191	1 286	2 069	2 026	1 584	1 223	2 020	1 351	747	497	586
BIGEYE	43	84	122	167	158	178	141	105	84	73	71	30
STRIPED MARLIN	48	17	19	26	56	58	71	55	53	114	198	150
BLACK MARLIN	22	34	33	26	8	23	12	20	20	28	31	27
BLUE MARLIN	12	19	30	41	6	13	2	9	33	44	27	9
SWORDFISH	12	7	12	10	11	6	5	8	7	5	11	18
OTHERS	1 068	852	752	639	908	1 119	1 863	1 532	1 765	1 479	1 712	2 564
TOTAL	13 022	5 252	8 156	6 610	10 523	10 093	14 996	11 101	9 930	9 897	10 696	14 798

Table 3bis: average weight (kg) per month in 2017

Average weight (kg)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
ALBACORE	18,20	18,70	18,95	18,99	17,77	18,22	16,57	17,05	17,58	18,45	18,64	18,02
BIGEYE	43,26	33,35	39,41	32,81	40,44	40,17	42,62	40,82	36,26	41,29	24,35	35,80
YELLOWFIN	28,47	34,34	31,34	30,42	29,58	30,89	36,15	33,73	34,57	36,30	38,19	42,78
STRIPED MARLIN	65,25	72,41	63,05	62,65	72,04	74,90	60,93	66,89	57,55	72,85	71,33	69,77
BLACK MARLIN	99,45	85,29	85,24	65,35	92,63	105,26	124,92	98,80	89,10	89,86	86,06	89,44
BLUE MARLIN	93,58	82,95	78,93	69,68	93,33	99,85	98,50	80,56	76,91	81,77	70,56	80,78
SWORDFISH	62,58	54,00	62,33	76,40	67,45	63,67	51,20	90,63	60,43	100,40	79,91	111,83

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

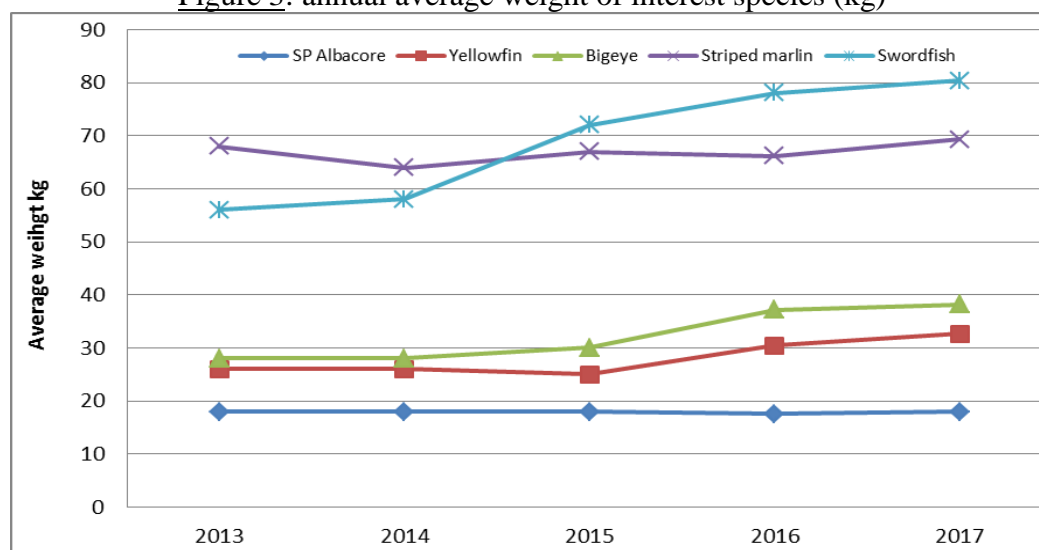


Table 4: number of observed species in 2017

FAO code	Species Group	Species Name	Number	Species Composition %
ALB	TUN	ALBACORE	8 413	58,33%
YFT	TUN	YELLOWFIN	1 540	10,68%
SKJ	TUN	SKIPJACK	905	6,27%
ALX	OTHER FISH	LONGSNOUTED LANCETFISH	848	5,88%
DOL	OTHER FISH	MAHI MAHI / DOLPHINFISH / DORADO	795	5,51%
BSH	SHK	BLUE SHARK	422	2,93%
GBA	OTHER FISH	GREAT BARRACUDA	224	1,55%
WAH	OTHER FISH	WAHOO	216	1,50%
LEC	OTHER FISH	ESCOLAR	165	1,14%
LAG	OTHER FISH	OPAH / MOONFISH	101	0,70%
SHK	SHK	SHARKS (UNIDENTIFIED)	98	0,68%
PLS	SHK	PELAGIC STING-RAY	93	0,64%
BET	TUN	BIGEYE	81	0,56%
MLS	BIL	STRIPED MARLIN	78	0,54%
FAL	SHK	SILKY SHARK	74	0,51%
SSP	BIL	SHORT-BILLED SPEARFISH	70	0,49%
SMA	SHK	SHORT FINNED MAKO SHARK	41	0,28%
GES	OTHER FISH	SNAKE MACKEREL	33	0,23%
BLM	BIL	BLACK MARLIN	31	0,21%
BUM	BIL	BLUE MARLIN	25	0,17%
SFA	BIL	SAILFISH (INDO-PACIFIC)	23	0,16%
OCS	SHK	OCEANIC WHITE-TIP SHARK	17	0,12%
LGH	OTHER FISH	PELAGIC PUFFER	16	0,11%
SWO	BIL	SWORDFISH	11	0,08%
AML	SHK	GREY REEF SHARK	10	0,07%
LMA	SHK	LONG FINNED MAKO SHARK	10	0,07%
TIG	SHK	TIGER SHARK	10	0,07%
BRZ	OTHER FISH	POMFRETS AND OCEAN BREAMS	9	0,06%
PTH	SHK	PELAGIC THRESHER SHARK	8	0,06%
OIL	OTHER FISH	OILFISH	6	0,04%
GEM	OTHER FISH	GEMFISH (SOUTHERN OR SILVER KINGFISH)	5	0,03%
BTH	SHK	BIGEYE THRESHER SHARK	4	0,03%
LKV	TTX	OLIVE RIDLEY TURTLE (NEW FAO)	4	0,03%
PRP	OTHER FISH	ROUDI ESCOLAR	4	0,03%
MAK	SHK	MAKO SHARKS	3	0,02%
RZV	OTHER FISH	SLENDER SUNFISH	3	0,02%
POA	OTHER FISH	ATLANTIC POMFRET / RAY'S BREAM	2	0,01%
LOP	OTHER FISH	CRESTFISH/UNICORNFISH	2	0,01%
RRU	OTHER FISH	RAINBOW RUNNER	2	0,01%
MRW	OTHER FISH	SHARPTAIL MOLA	2	0,01%
SHW	MAM	SHORT-FINNED PILOT WHALE	2	0,01%
TST	OTHER FISH	SICKLE POMFRET	2	0,01%
SNA	OTHER FISH	SNAPPERS (LUTJANIDAE)	2	0,01%
BRD	BRD	BIRD (UNIDENTIFIED)	1	0,01%

CCL	SHK	BLACKTIP REEF SHARK	1	0,01%
RMB	SHK	GIANT MANTA	1	0,01%
BIL	BIL	MARLINS SAILFISHES SPEARFISHES (UNIDENTIFIED)	1	0,01%
MOX	OTHER FISH	OCEAN SUNFISH	1	0,01%
PUX	OTHER FISH	PORCUPINE FISHES (FAMILY)	1	0,01%
RTD	MAM	ROUGH-TOOTHED DOLPHIN	1	0,01%
CCP	SHK	SANDBAR SHARK	1	0,01%
REM	SHK	SHARK SUCKER	1	0,01%
ALS	SHK	SILVER-TIP SHARK	1	0,01%
SPZ	SHK	SMOOTH HAMMERHEAD	1	0,01%
GSE	OTHER FISH	SOAPFISH	1	0,01%
THR	SHK	THRESHER SHARKS	1	0,01%

Figure 4: breakdown of shark and ray species recorded by observers in 2017

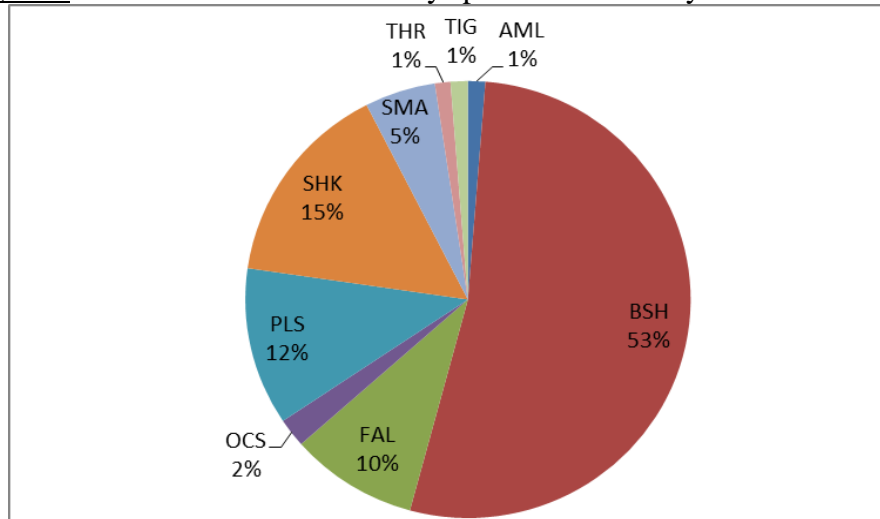


Table 5: number of commercial fish species observed in 2017

Tuna				
Species	ALB	BET	YFT	SKJ
Number of fish observed	8 413	81	1 540	905

Other commercial species			
Species	DOL	LAG	WAH
Number of fish observed	795	101	216

Billfishes						
Species	BLM	BUM	MLS	SFA	SSP	SWO
Number of fish observed	31	25	78	23	70	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
2017	406 000	4811540	8,4

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
2017	16	4 811 540	406 000	8,4	1	0.002

Table 7bis: Number of observed seabird captures in the New Caledonia longline fishery in 2017, 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
2017	1	4	3

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 2017
(However catch reported on logsheet is 60 tonnes for 16 vessels)

CMM 2009-03: Swordfish

No vessel target for swordfish south of 20°S in 2017
(However catch reported on logsheet is 6.5 tonnes for 16 vessels)

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)	2013	2014	2015	2016	2017
	Discard	Discard	Discard	Discard	Discard
BLUE SHARK	47	17	14	16	7
SILKY SHARK	0	1	2	10	10
HAMMERHEAD SHARK	0	0	0	0	0
SHORT FINNED MAKO SHARK	0	0	0	1	7
OCEANIC WHITE-TIP SHARK	0	1	2	1	3
PORBEABLE SHARK	0	0	0	0	0
WHALE SHARK	0	0	0	0	0
THRESHER SHARK	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.

2017	Observed catch (nb)	Estimated catch (nb)	Estimated number of releases	Released alive %
Oceanic whitetip shark	17	201	201	88%

CMM 2012-04: Whale sharks

Nothing to report

CMM 2013-08: Silky sharks

All silky sharks were released.

2017	Observed catch (nb)	Estimated catch (nb)	Estimated number of releases	Released alive %
Silky shark	74	877	877	82%

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

Observer coverage is 8.4% (number of hooks) in 2017.

CCM fleet	Fishery	N°. Of hooks		
		Total estimated	Observer	%
New-Caledonia	Domestic	4 811 540	406 000	8,4

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.

CMM 2017-06: Seabirds

Fishing activities are only on the EEZ, there is no mitigation measure in NC.
There is 1 unidentified bird caught in 2017 in the NC-EEZ.

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)
2017	16	4 811 540	406 000	8,4	1	0.002

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

Destination from 2017 commercial data

Export & domestic market	Tuna		Billfish	other fish
Flag CCM	New-Caledonia			
Catch location	CCM EEZ			
Destination	82 % Domestic	18% export	100% domestic	100% domestic
Gear code	LL			
Estimate whole weight tonnes	1 822	400	114	175

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	-