

SCIENTIFIC COMMITTEE EIGHTH REGULAR SESSION

7-15 August 2012 Busan, Republic of Korea

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

WCPFC-SC8-AR/CCM-08

FRENCH POLYNESIA



WESTERN AND CENTRAL PACIFIC COMMISSION

SCIENTIFIC COMMITTEE

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Scientific data was provided to the	
Commission in accordance with the decision	YES
relating to the provision of scientific data to	I Lo
the Commission by the 30 april 2011.	

Abstract

French Polynesia professional tuna fleet in 2011 comprised 59 longliners (ranging from 13 m to 24 m) operating only within French Polynesia Economic Zone and 413 small boats (5m to 11 m) using artisanal gears (pole and line, handlines, trolling...) and operating inside the territorial waters.

The overall nominal catches for the professional tuna fisheries in 2011 is estimated around 8 433 metric tons, albacore accounting for 41 %, yellowfin tuna for 12 %, skipjack for 11 % and big eye tuna for 7 %.

Effort and total catch trends of the longline fleet decreased since 2005 after a steady increase since the beginning of this fleet in the early 90's. In contrast these trends for the artisanal near shore fishery show a slow and steady increase partly driven by the increase of the population.

Since 2006, all sharks except make are fully protected inside the entire French Polynesia Economic Zone. It is planned to include make.

1 Annual Fisheries Information

Tuna fishery is a major component of the development of French Polynesia economy, either for economical and social aspects. Its professional tuna fishery is divided into two components : a small scale coastal fishery and an offshore long line fishery. There is no longer fishing agreement inside the EEZ for foreign fleet since December 2000.

Fleet structure and effort

The **professional coastal fishery** comprises two types of boat: the *poti marara*, (literally 'flying-fish boats') which are small boats, 6-8 m in length, made from wood or FRP and suitable for many different fishing techniques (trolling, vertical longlining or harpooning) and the *bonitiers* ('skipjack boats'), which are 10-to-12 m long boats made from wood or FRP, targeting skipjack using mainly pole-and-line. This fleet operates inside the territorial waters.



Figure 1 – Nominal catch by fishing gear for the small scale nearshore fishery

Table 1 – Fleet structure of the small scale nearshore fishery

Type of boats	2006	2007	2008	2009	2010	2011
Poti marara	275	280	291	313	320	361
Bonitier	52	50	47	47	48	52

Although the size of the *poti marara* fleet shows significant fluctuations among years, this fleet seems to increase slowly. Total effort in 2011 is estimated around 40 500 fishing days. It is noteworthy that there is also a large number of non professional *poti marara* whose fishing effort and catches are difficult to estimate. In the other hand, the *bonitiers*' fleet has steadily decreased but the size of this fleet now seems to be stabilized. Nevertheless, consistent with the low level of coverage, short term trends are difficult to highlight for these two fleets.

The **longliners fleet** could be sorted into two types of vessels : fresh fish longliners and freezer longliners. This fleet operates exclusively inside the French Polynesia EEZ. Total effort for the WCPF-CA is approximately 18 million hooks.

- Fresh fish longliners, comprise boats 11-to-20 m in length made of aluminium or FRP. These boats make 15 days trips, partly due to the limited time of conservation on ice as well as their limited range.
- Freezer longliners are mostly 21-26 m steel vessels. These boats have freezer capacity and can remain at sea for 1 1/2 up to 3 months. However, the last sets are often used to target fresh-fish that is kept on ice or in slurry. Since the drop of the catch rate in 2003, freezer boats tend to operate as fresh tuna boats as the price on the local market is generally higher for the fresh tunas.

Type of boats	2006	2007	2008	2009	2010	2011
Fresh longliners	39	35	34	33	30	30
Freezer longliners	32	29	34	35	31	29

Table 2 – Fleet structure of the longline fishery

Annual catch by species

The overall nominal catches for the professional tuna fisheries in 2011 is estimated around 8 433 metric tons, albacore accounting for 41 %, yellowfin tuna for 12 %, skipjack for 11 % and big eye tuna for 7 %.

 Table 3 – Annual catch estimates for the bonitier fleet

Metric tons	2006	2007	2008	2009	2010	2011
Skipjack	585	359	543	676	503	334
Yellowfin tuna	126	152	82	77	53	76
Dolphin fish	36	19	41	31	61	20
Billfish	18	23	25	17	5	27
Wahoo	37	29	26	12	19	26
Albacore tuna	20	17	12	21	14	21
Other	79	67	43	22	35	34
Total	901	666	772	855	691	538

Table 4 - Annual catch estimates for the poti marara fleet

Metric tons	2006	2007	2008	2009	2010	2011
Skipjack	516	506	443	605	628	540
Yellowfin tuna	419	410	327	400	503	482
Dolphin fish	435	300	418	319	445	348
Billfish	161	148	151	178	251	231
Wahoo	79	88	59	69	127	109
Albacore tuna	138	10	160	211	190	233
Other	161	103	150	136	200	205
Total	1 909	1 663	1 708	1 918	2 343	2 149

Metric tons	2006	2007	2008	2009	2010	2011
Albacore tuna	2 918	3 957	3 068	3 560	3 483	3 225
Yellowfin tuna	690	527	447	716	418	491
Big eye tuna	498	478	490	587	436	607
Blue marlin	266	327	224	223	260	201
Strpied marlin	122	138	142	104	127	124
Swordfish	83	67	80	71	80	89
Black marlin	0	1	0	0	0	0
Wahoo	201	267	180	162	205	191
Opah	108	122	120	99	113	134
Dolphin fish	113	109	68	81	204	121
Oilfish	27	28	23	42	62	51
Mako shark	26	18	10	14	21	14
Skipjack	28	30	18	25	22	19
Pomfret	15	14	17	17	20	23
Spearfish	9	10	13	15	41	39
Sailfish	2	2	1	4	7	6
Misc.	31	65	39	96	62	206
Other sharks*	123	148	116	200	172	205
Total	5 258	6 308	5 057	6 017	5 734	5 746

 Table 5 – Annua catch estimates for the longline fleet

* Released

Except the Mako shark, all sharks are prohibited to fishing. Finning is also prohibited. According to the logsheets collected and the observers data, there has been no incidental catch of turtle or bird in 2011. The only reported cetacean interactions relate to depredation.

Discards of the longline fleet are estimated around 0.22 % of the catches (13 t). There is no discard for the coastal fleet.

Disposal of the catches

Catches from the nearshore fishery are stored on ice and sold fresh within the island of production. Although, the freezer longliners represent half of the fleet, only 7 % of the nominal longliners catches are landed frozen (whole or loined). An equivalent of 23 % of the commercial longline catches are exported : 90% of the frozen landings and 20 % of the fresh landings.

Fishing patterns

More than three fourth of the nearshore fishery is based in the Society archipelago. Although the individual fishing effort shows some vicissitude the global fishing effort is relatively stable within the year and no seasonal trends can be highlighted.

The longliners fleet, most entirely based in Tahiti, usually exploit half to two third of the EEZ but the core fishing ground remains historically in the north part of the EEZ ($10^{\circ}-20^{\circ}$ S / $140^{\circ}-150^{\circ}$ W). (Appendix 1)

2 Research and statistics

Statistical data collection system

The data collection system for the longline fishery comprises six components.

• Fishing license

Fishing license for the domestic vessels is delivered for the life of the boat, presuming it does not change property and clears its annual visit for security. Any change of property or main modification on the vessel is subject to a re-licensing procedure. Currently, French Polynesia has not limited the number of domestic vessels authorised to operate in its EEZ.

Fishing permit for foreign vessels is delivered on an annual basis; no permit has been authorised since the end of the fishing agreement on December 2000.

• *Boat activity*

Every week day, the Fisheries office census the activity of the fleet at the fishing port. The main purpose is to monitor (in real time) the gross activity of the fleet. These data are also used as the main input for estimating the production of the vessels which do not report their catches correctly. In 2013, this census will be combined with the analyses of the VMS data.

Logbook

Licensed operators are required to record and submit daily records of fishing activities at an operational level to the Fisheries Office.

Parameter	Coverage rate (%)	
Boats	93%	
Trips	69%	
Days at sea	68%	
Sets	68%	
Hooks	68%	

Table 6 – Logsheets coverage rate of the longline fleet in 2010

Unloadings

Most of the licensed long line boats have an obligation to unload their catches within the fishing port of Papeete. The port manager has to monitor the amount of fish unloaded in order to collect unloading fees. Coverage rate for the overall landings is estimated around 90 % of the commercial catches.

• Observer programme

The French polynesia's Observer Program began in September 2002 with EU funding by the PROCFISH projet (2002-2007) and then by the SCIFISH project. In 2011, the staff was

made of six observers, two port samplers and one coordinator. Observers trips were conducted only on board of domestic longliners . Coverage is 6.5% of the fishing days. Protocols and forms are those used by SPC. Data are processed by SPC.

<u>Year</u>	<u>No</u> observers	<u>No trips</u>	<u>No days</u> <u>at sea</u>	<u>No</u> sets	<u>No hooks</u>	<u>%</u> covergage
2005	3	18	422	255	635,114	2.9 %
2006	6	20	487	312	723,149	5.9 %
2007	2	17	217	138	305,977	1.8%
2008	4	17	300	206	510,115	2.5 %
2009	6	51	800	488	1,130,574	6.5%
2010	5	44	768	453	894,426	6.5%
2011	6	33	531	355	1,13,880	6.2 %

Table 7 – Observers trips in French Polynesia since 2005.

• Port sampling

There has been regular but low coverage sampling in Papeete for several years and very limited in recent year due to logistical difficulties. However, these difficulties were partly overcome by the completion of a centralised unloading facility in Papeete and since 2005 a team of two port samplers carried out port-sampling operations.

Year	No boats unloaded *	No boats sampled	Sampling coverage
2005	319	232	73%
2006	377	210	56%
2007	500	335	67%
2008	610	439	72%
2009	619	477	77%
2010	514	407	79%
2011	521	446	86%

Table 8 – Port sampling operations since 2005

* during the sampling period

Coastal fishery

Data collection for the coastal fisheries is more difficult to handle since the vessels are scattered all around the numerous islands of French Polynesia. The monitoring process rely on two components : a licensing procedure and logsheets. Coverage rate for the logsheets range from 95 % to 0 % according the islands with a global coverage of 75 %.

Research

The observers regularly collecte biological samples of albacore tuna (gonads and ototliths) and striped marlin which are sent to the Oceanic Fisheries Program of the SPC. No samples have been made in 2011

During the year 2009, observers were trained by staff from CSIRO to tag swordfish with pop up mark. The first specimen was tagged in december 2009 and one more specimen was tagged in 2010. No tagging was made in 2011.