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

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FRENCH POLYNESIA



WESTERN AND CENTRAL PACIFIC COMMISSION

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

FRENCH POLYNESIA

| Scientific data was provided to the Commission | |
|---|-----|
| in accordance with the decision relating to the | YES |
| provision of scientific data to the Commission | |
| by the 30 april 2014. | |

Abstract

French Polynesia professional tuna fleet in 2013 comprised 65 longliners (ranging from 13 m to 24 m) operating only within French Polynesia Economic Zone and 437 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 2013 is estimated around 9 632 metric tons, albacore accounting for 39%, yellowfin tuna for 13 %, skipjack for 10 % and big eye tuna for 8 %.

Effort and total catch trends of the longline fleet show a slow decrease 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. In december 2012, the make was also protected making French Polynesia EEZ the biggest sanctuary for sharks.

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.

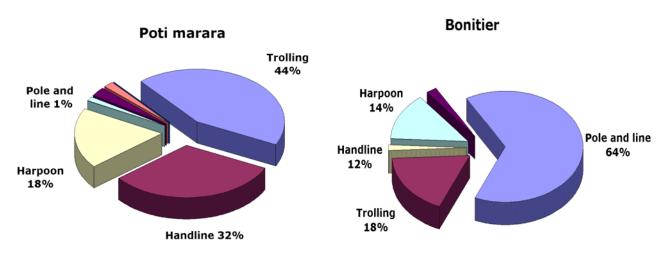


Figure 1 – Nominal catch by fishing gear for the small scale nearshore fishery

| fishery |
|---------|
| |

| Type of boats | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---------------|------|------|------|------|------|------|
| Poti marara | 291 | 313 | 320 | 361 | 377 | 390 |
| Bonitier | 47 | 47 | 48 | 52 | 50 | 47 |

Although the size of the *poti marara* fleet shows significant fluctuations among years, this fleet seems to increase slowly. Total effort in 2013 is estimated around 46 465 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 16 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 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|--------------------|------|------|------|------|------|------|
| Fresh longliners | 34 | 33 | 30 | 30 | 34 | 36 |
| Freezer longliners | 34 | 35 | 31 | 29 | 30 | 29 |

 Table 2 – Fleet structure of the longline fishery

Annual catch by species

The overall nominal catches for the professional tuna fisheries in 2013 is estimated around 9 632 metric tons, albacore accounting for 39%, yellowfin tuna for 13 %, skipjack for 10 % and big eye tuna for 8 %.

| Metric tons | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|----------------|------|------|------|------|------|------|
| Skipjack | 543 | 676 | 503 | 334 | 431 | 295 |
| Yellowfin tuna | 82 | 77 | 53 | 76 | 85 | 105 |
| Dolphin fish | 41 | 31 | 61 | 20 | 28 | 41 |
| Billfish | 25 | 17 | 5 | 27 | 29 | 34 |
| Wahoo | 26 | 12 | 19 | 26 | 21 | 31 |
| Albacore tuna | 12 | 21 | 14 | 21 | 26 | 45 |
| Other | 43 | 22 | 35 | 34 | 40 | 29 |
| Total | 772 | 855 | 691 | 538 | 660 | 579 |

Table 3 – Annual catch estimates for the bonitier fleet

 Table 4 – Annual catch estimates for the poti marara fleet

| Metric tons | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|----------------|-------|-------|-------|-------|-------|-------|
| Skipjack | 443 | 605 | 628 | 540 | 788 | 578 |
| Yellowfin tuna | 327 | 400 | 503 | 482 | 637 | 511 |
| Dolphin fish | 418 | 319 | 445 | 348 | 368 | 517 |
| Billfish | 151 | 178 | 251 | 231 | 253 | 224 |
| Wahoo | 59 | 69 | 127 | 109 | 107 | 118 |
| Albacore tuna | 160 | 211 | 190 | 233 | 248 | 294 |
| Other | 150 | 136 | 200 | 205 | 223 | 300 |
| Total | 1 708 | 1 918 | 2 343 | 2 149 | 2 624 | 2 541 |

| Metric tons | 2 008 | 2 009 | 2 010 | 2 011 | 2 012 | 2 013 |
|----------------|-------|-------|-------|-------|-------|-------|
| Albacore tuna | 3 068 | 3 560 | 3 483 | 3 225 | 3 594 | 3 396 |
| Yellowfin tuna | 447 | 716 | 418 | 491 | 758 | 594 |
| Big eye tuna | 490 | 587 | 436 | 607 | 654 | 763 |
| Blue marlin | 224 | 223 | 260 | 201 | 241 | 234 |
| Strpied marlin | 142 | 104 | 127 | 124 | 117 | 103 |
| Swordfish | 80 | 71 | 80 | 89 | 116 | 124 |
| Black marlin | 0 | 0 | 0 | 0 | 1 | 0 |
| Wahoo | 180 | 162 | 205 | 191 | 182 | 201 |
| Opah | 120 | 99 | 113 | 134 | 136 | 143 |
| Dolphin fish | 68 | 81 | 204 | 121 | 143 | 177 |
| Oilfish | 23 | 42 | 62 | 51 | 57 | 89 |
| Mako shark | 10 | 14 | 21 | 14 | 0 | 15 |
| Skipjack | 18 | 25 | 22 | 19 | 50 | 33 |
| Pomfret | 17 | 17 | 20 | 23 | 27 | 38 |
| Spearfish | 13 | 15 | 41 | 39 | 35 | 38 |
| Sailfish | 1 | 4 | 7 | 6 | 5 | 6 |
| Misc. | 39 | 96 | 62 | 206 | 218 | 297 |
| Total | 4 940 | 5 816 | 5 562 | 5 541 | 6 333 | 6 251 |

 Table 5 – Annua catch estimates for the longline fleet

Discards of the longline fleet are estimated around 0,4 % of the catches (24 t). There is no discard for the coastal fleet.

Species of special interest

All sharks are prohibited to fishing and fining is also prohibited. French Polynesia EEZ is now the biggest sanctuary for sharks. According to the logsheets collected and the observers data, 5 308 sharks (324 t) have been caught and released. Concerning the oceanic white tip shark, 46 specimens (2,2 t) have been reported by observer, 74% alive. Catch estimates for this species is 32,4 t.

No accidental catch of turtle was reported.

No accidental catch of bird was reported.

The only reported cetacean interactions relate to depredation.

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 commercial longliners catches are landed frozen (whole or loined). An equivalent of 28 % of the commercial longline catches are exported : 90% of the frozen landings and 26 % 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 clear seasonal trends can be highlighted.

The longliners fleet, most entirely based in Tahiti, usually exploit half 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).

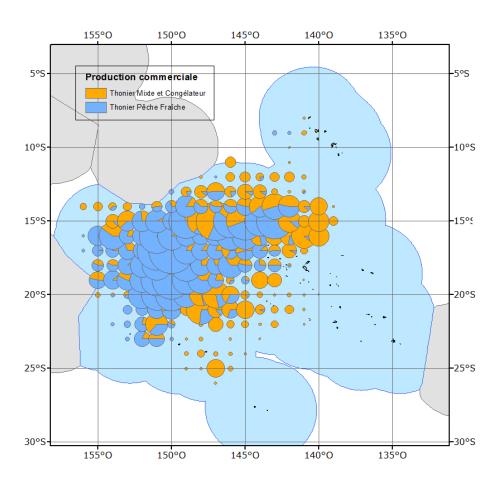


Figure 2 – Geographical distribution of the commercial catch of the longliners

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. Coverage rate is estimated around 86 %.

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 100 % 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 2013, the staff was made of six observers, two port samplers and one coordinator. Observers trips were conducted only on board of domestic longliners. For administrative reason, the monitoring was postponed the first two month of the year and resume in march. Therefore the coverage for 2013 is only 4,4 % 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 % |
| 2012 | 6 | 34 | 521 | 282 | 543474 | 4,1 % |
| 2013 | 6 | 38 | 697 | 346 | 658578 | 4,4% |

Table 6 – 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 unloadings | No unloadings sampled | Sampling coverage |
|------|---------------|-----------------------|-------------------|
| 2005 | 892 | 232 | 26% |
| 2006 | 876 | 210 | 24% |
| 2007 | 926 | 335 | 36% |
| 2008 | 858 | 439 | 51% |
| 2009 | 883 | 477 | 54% |
| 2010 | 841 | 407 | 48% |
| 2011 | 883 | 446 | 51% |
| 2012 | 938 | 386 | 41% |
| 2013 | 972 | 346 | 36% |

Table 7 – Port sampling operations since 2005

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 is 98%.

Research

The observers regularly collect biological samples of the four main tunas (muscle, liver, stomac, gonads and otholits) and swordfish (otholiths) which are sent to the Oceanic Fisheries Program of the SPC.

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. Two tags were deployed in 2012 (one in march and one in october). No tag has been deployed in 2013.

In January 2013, a longliner retrieve a tag on a blue marlin (75 kg) tagged in Kona (Hawaii) on the 9th august 2012.