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FOURTH REGULAR SESSION**

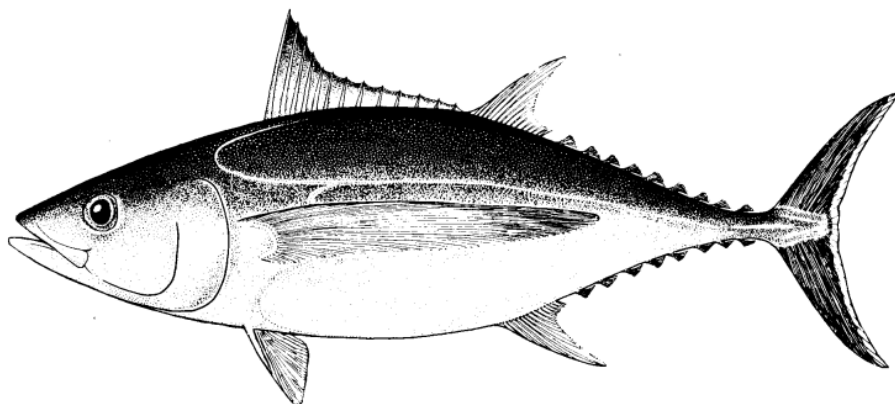
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**ANNUAL REPORT – PART 1
INFORMATION ON FISHERIES, RESEARCH, AND STATISTICS**

WCPFC-SC4-AR PART 1/WP-11

FRENCH POLYNESIA

Tuna fisheries in French Polynesia in 2007



Fisheries Department (*Service de la Pêche*)
Tahiti, French Polynesia

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Introduction

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 .

1 Annual Fisheries Information

Fleet structure

The 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, operating in the coastal area in the vicinity of 15 nm) and the *bonitiers* (‘skipjack boats’), which are 10-to-12 m long boats made from wood or FRP, targeting skipjack using pole-and-line.

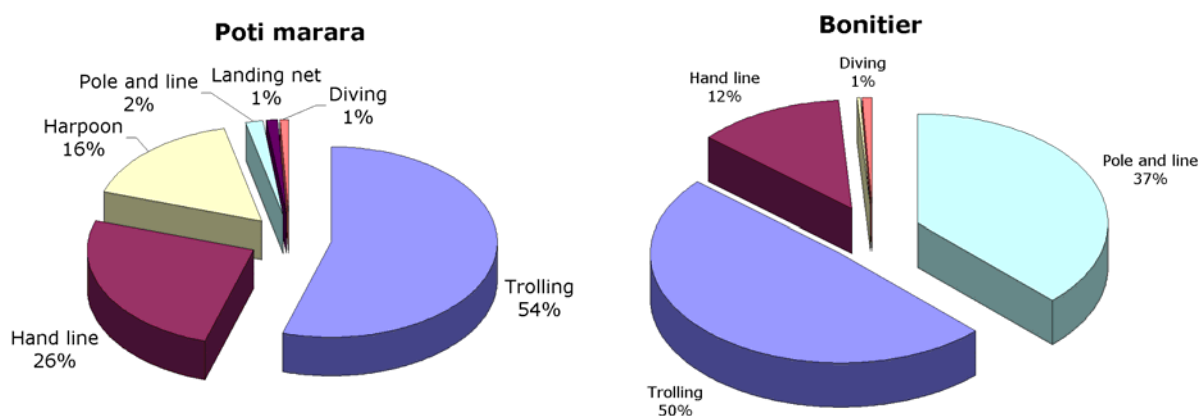


Figure 1 – Fishing gears used by the small scale nearshore fishery (in % of the nominal catch)

Although the size of the *poti marara* fleet shows some fluctuations among years, this fleet seems to have reached a stable level and the individual fishing effort will probably remain quite steady in the future. It is noteworthy that there is also a large number of non professional *poti marara* whose fishing effort and catches are difficult to estimate. The *bonitiers*’ fleet has steadily decreased and it is likely that this trend will continue in the future. Nevertheless, consistent with the low level of coverage, short term trends are difficult to highlight for these two fleets.

Table 1 – Fleet structure of the small scale nearshore fishery

| Type of boats | 2003 | 2004 | 2005 | 2006 | 2007 |
|---------------|------|------|------|------|------|
| Poti marara | 245 | 247 | 234 | 275 | 280 |
| Bonitier | 55 | 55 | 49 | 52 | 50 |

The longliners fleet could be sorted into two types of vessels : fresh fish longliners and freezer longliners.

- 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 2003, several freezer boats have been operated as fresh tuna boats as the price on the local market is generally higher for the fresh tunas.

Table 2 – Fleet structure of the longline fishery

| Type of boats | 2003 | 2004 | 2005 | 2006 | 2007 |
|----------------------|-------------|-------------|-------------|-------------|-------------|
| Fresh longliners | 42 | 45 | 40 | 39 | 35 |
| Freezer longliners | 22 | 30 | 32 | 32 | 29 |

Annual catch by species

The overall nominal catches for the professional tuna fisheries in 2007 is estimated at 8 640 metric tons, albacore accounting for 47 %, yellowfin tuna for 13 %, skipjack for 10 % and big eye tuna for 7 %.

Table 3 – Annual catch estimates for the bonitier fleet

| Metric tons | 2003 | 2004 | 2005 | 2006 | 2007 |
|--------------------|-------------|-------------|-------------|-------------|-------------|
| Skipjack | 521 | 520 | 391 | 585 | 359 |
| Yellowfin tuna | 77 | 142 | 104 | 126 | 152 |
| Dolphin fish | 32 | 22 | 27 | 36 | 19 |
| Billfish | 24 | 21 | 20 | 18 | 23 |
| Wahoo | 6 | 7 | 19 | 37 | 29 |
| Albacore tuna | 11 | 6 | 6 | 20 | 17 |
| Other | 11 | 18 | 13 | 79 | 67 |
| Total | 682 | 737 | 580 | 901 | 666 |

Table 4 – Annual catch estimates for the poti marara fleet

| Metric tons | 2003 | 2004 | 2005 | 2006 | 2007 |
|--------------------|-------------|-------------|-------------|-------------|-------------|
| Skipjack | 472 | 491 | 365 | 516 | 506 |
| Yellowfin tuna | 235 | 412 | 288 | 419 | 410 |
| Dolphin fish | 292 | 244 | 240 | 435 | 300 |
| Billfish | 109 | 112 | 148 | 161 | 148 |
| Wahoo | 37 | 46 | 67 | 79 | 88 |
| Albacore tuna | 87 | 72 | 86 | 138 | 10 |
| Other | 121 | 181 | 110 | 161 | 103 |
| Total | 1 353 | 1 557 | 1 303 | 1 909 | 1 663 |

Table 5 – Annual catch estimates for the longline fleet

| Metric tons | 2003 | 2004 | 2005 | 2006 | 2007 |
|--------------------|--------------|--------------|--------------|--------------|--------------|
| Albacore tuna | 3 846 | 2 218 | 2 426 | 2 918 | 3 957 |
| Yellowfin tuna | 621 | 1 066 | 793 | 690 | 527 |
| Big eye tuna | 439 | 502 | 606 | 498 | 478 |
| Blue marlin | 303 | 243 | 251 | 266 | 327 |
| Wahoo | 195 | 196 | 243 | 201 | 267 |
| Other sharks | 280 | 317 | 217 | 123 | 148 |
| Opah | 188 | 150 | 118 | 108 | 122 |
| Dolphin fish | 172 | 129 | 90 | 113 | 109 |
| Striped marlin | 117 | 109 | 91 | 122 | 138 |
| Swordfish | 117 | 86 | 79 | 83 | 67 |
| Misc. | 10 | 75 | 64 | 31 | 65 |
| Oilfish | 30 | 37 | 26 | 27 | 28 |
| Mako shark | 49 | 37 | 25 | 26 | 18 |
| Skipjack | 55 | 72 | 24 | 28 | 30 |
| Pomfret | 16 | 25 | 21 | 15 | 14 |
| Spearfish | 15 | 12 | 10 | 9 | 10 |
| Sailfish | 11 | 5 | 4 | 2 | 2 |
| Black marlin | 1 | 1 | 0 | 0 | 1 |
| Total | 6 468 | 5 278 | 5 087 | 5 258 | 6 308 |

Catches from the nearshore fishery are stored on ice and sold fresh within the island of production. Although, the freezer longliners represent 45 % of the fleet, only 18 % of the nominal longliners catches are landed frozen (whole or loined). An equivalent of 21 % of the commercial longline catches are exported : 76 % of the frozen landings but only 8 % 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 among 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°-20° S /140°-150°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.

- *Logbook*

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

Table 6 – Data coverage rate of the longline fleet in 2007

| Parameter | Coverage rate (%) |
|-------------|-------------------|
| Boats | 88 |
| Trips | 71 |
| Days at sea | 75 |
| Sets | 71 |
| Hooks | 71 |

- *Unloadings*

Most of the domestic longliners have an obligation to unload 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 in 2007 is estimated around 50 % of the commercial catches. Coverage rate for the fresh products is estimated at 40 %. Coverage rate for frozen products is higher, 75 %, but the information is often less detailed.

- *Observer program*

The French Polynesia Observer Program began in September 2002 with 2 observers (1 observer and 1 coordinator). Two port samplers joined the observers' team in June 2006. In 2007, we had 1 coordinator, 2 observers and 2 port samplers.

Table 7 – Coverage of the observer program during the last 5 years

| Year | Sets observed | Sets recorded | Coverage % |
|------|---------------|---------------|------------|
| 2003 | 179 | 8 398 | 2.1% |
| 2004 | 193 | 10 103 | 1.9% |
| 2005 | 242 | 9 192 | 2.6% |
| 2006 | 286 | 8 422 | 3.4% |
| 2007 | 124 | 8 157 | 1.5% |

In 2007, 17 observer trips were conducted on board of domestic longliners (194 days at sea, 124 sets and almost 300.000 hooks observed). Observer trips represent coverage of 1.8% (percentage of fishing days).

Table 8 – Observer activity in 2007

| Month | No sets for the fleet | No sets observed |
|----------|-----------------------|------------------|
| January | 578 | 23 |
| February | 662 | 16 |
| March | 694 | 10 |
| April | 732 | 22 |
| May | 622 | 17 |
| June | 553 | 14 |
| July | 686 | 22 |

Observer program stopped in French Polynesia in July 2007 because of a gap in the availability of funding. Therefore observer placements and observer coverage decrease in 2007 (487 days at sea and coverage of 5.86% in 2006).

- *Port sampling program*

There has been regular but low coverage sampling in Papeete for several years and very limited in recent year due to difficulties in access to catches during the landing process. However, these difficulties were partly overcome by the completion of a centralised unloading facility in Papeete since 2005. Currently a team of 2 port samplers carried out port-sampling operations.

335 port sampling operations were conducted during fish unloading processes. Sampling coverage was 67%. This coverage increase since 2006 (56%).

Table 9 - Coverage of the port sampling program during the last 5 years

| Year | Unloadings observed | Unloadings recorded | Coverage % |
|------|---------------------|---------------------|------------|
| 2003 | 195 | 1150 | 17.0% |
| 2004 | 244 | 1109 | 22.0% |
| 2005 | 328 | 925 | 35.5% |
| 2006 | 231 | 876 | 26.4% |
| 2007 | 335 | 926 | 33.7% |

Table 10 – Port sampling operation in 2007

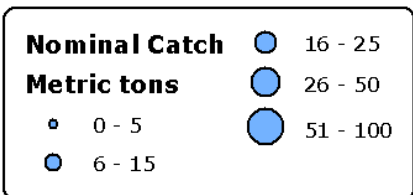
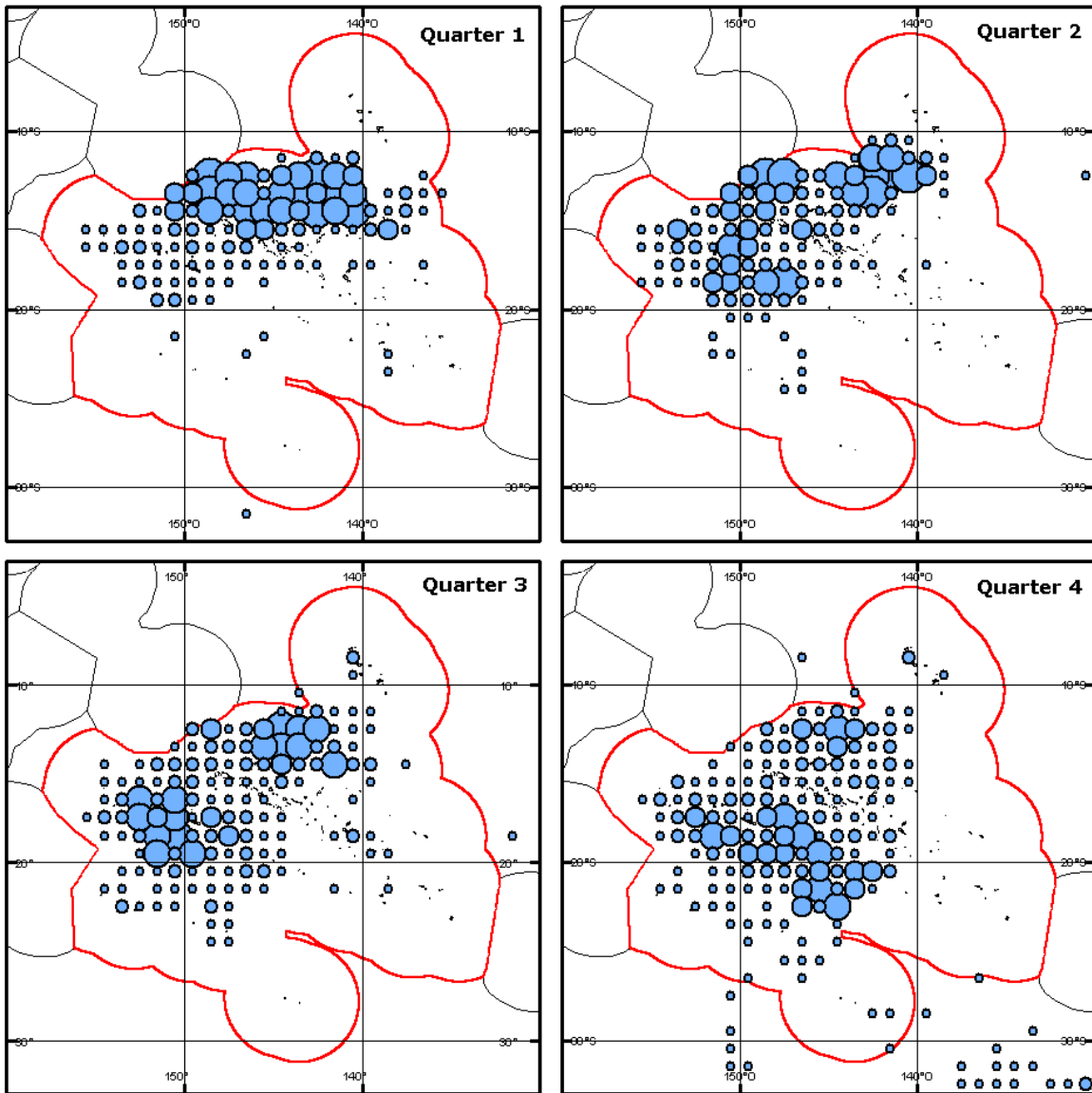
| Month | No boats unloaded | No boats sampled |
|----------|-------------------|------------------|
| January | 43 | 29 |
| February | 52 | 33 |
| March | 70 | 43 |
| April | 61 | 44 |
| May | 48 | 35 |
| June | 67 | 47 |
| July | 78 | 58 |
| December | 81 | 46 |

Port sampling activities stopped during 4 months because of a gap in the availability of funding.

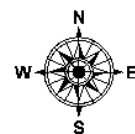
Appendix 1 : Catches per quarter for the longline fleet between 2003 and 2007

Catch per quarter

French Polynesia domestic longline fleet in 2003

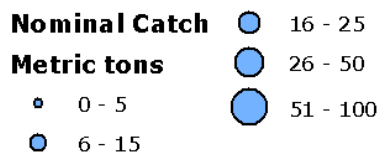
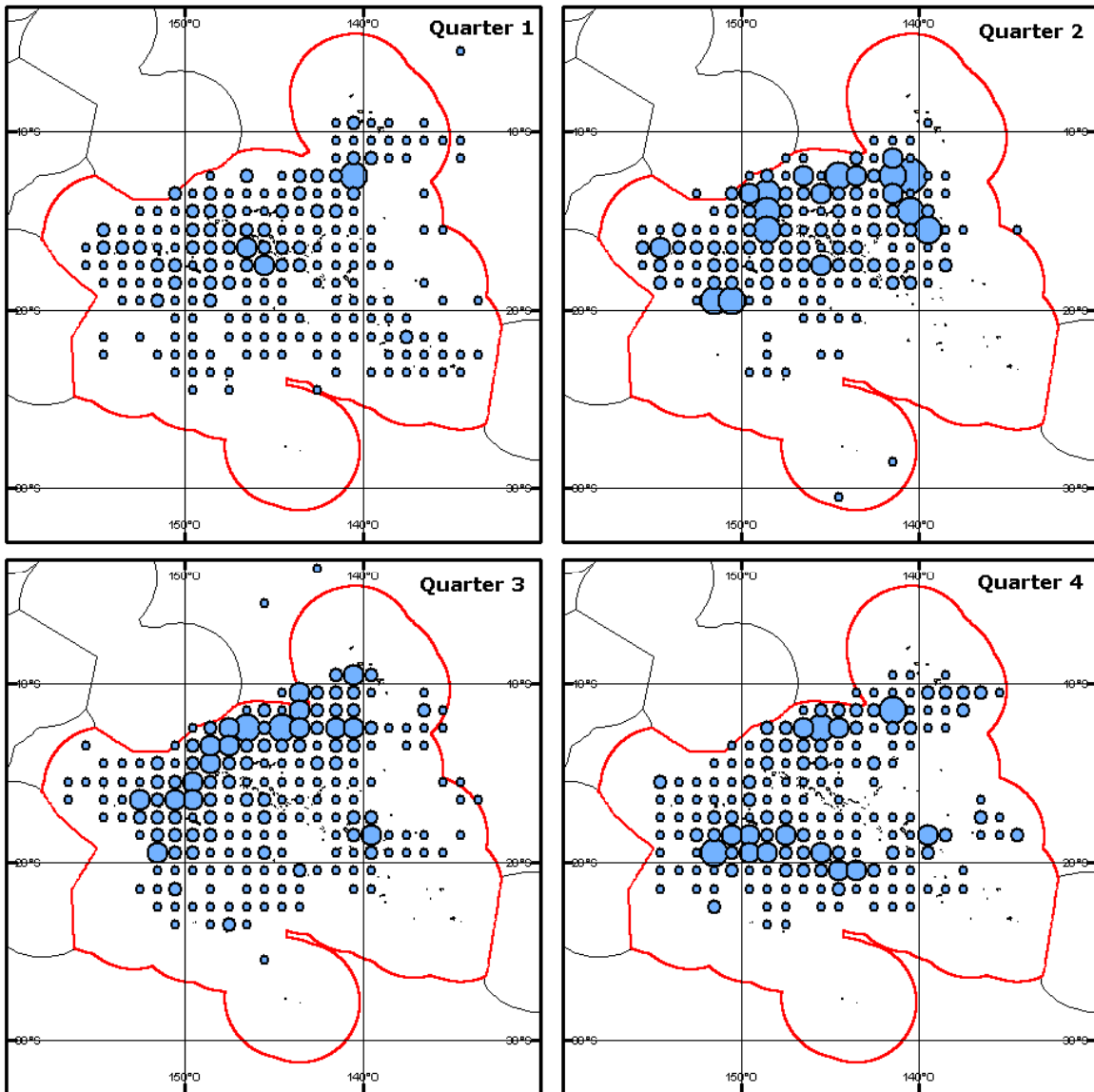


* Catch : nominal catches unraised.
Coverage rate for 2003 is 80 %

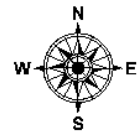


Catch per quarter

French Polynesia domestic longline fleet in 2004

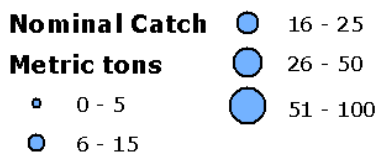
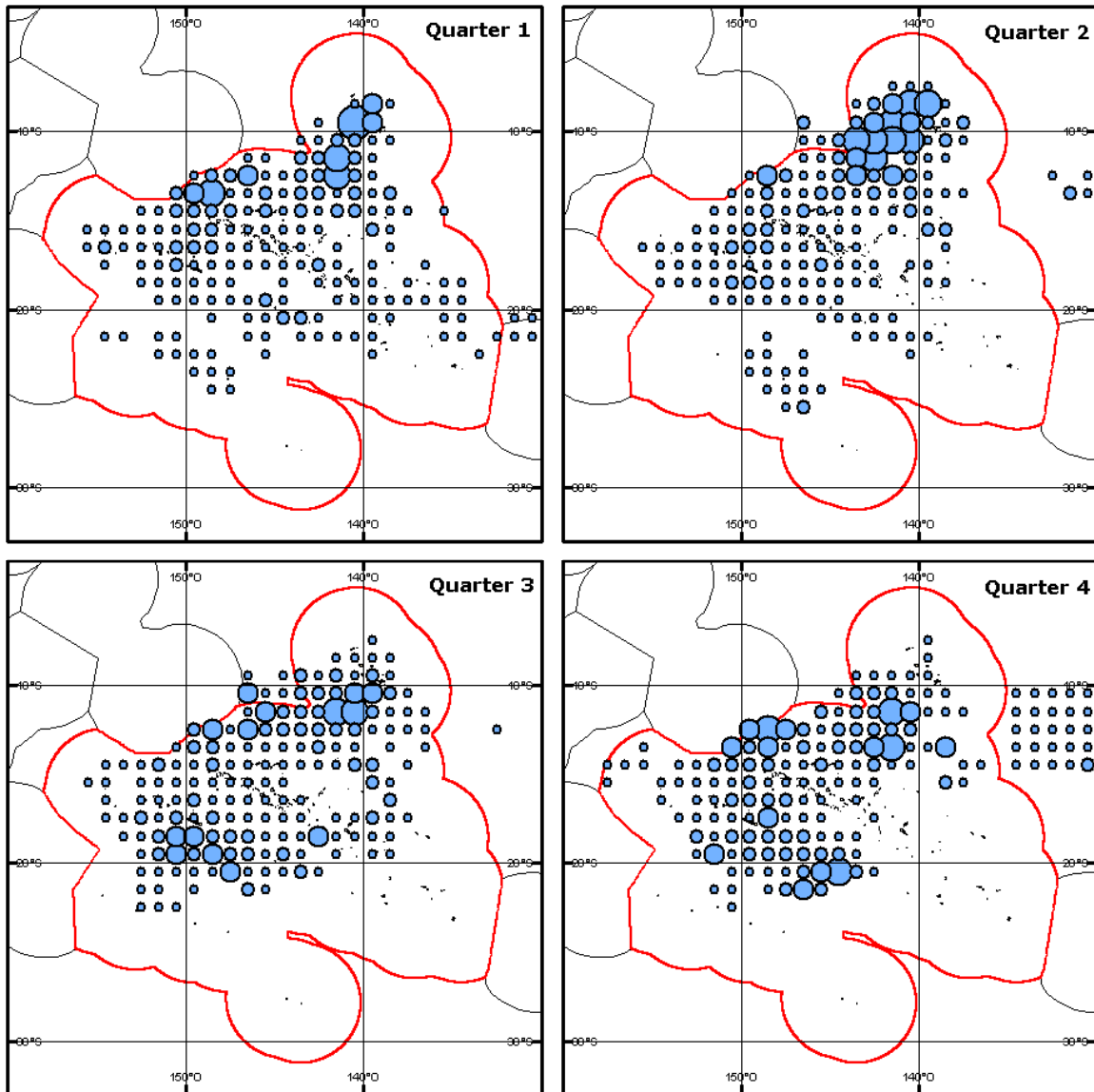


* Catch : nominal catches unraised.
Coverage rate for 2004 is 74 %

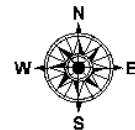


Catch per quarter

French Polynesia domestic longline fleet in 2005

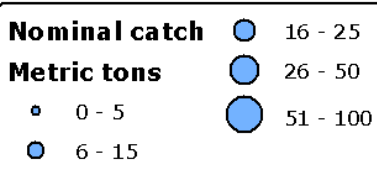
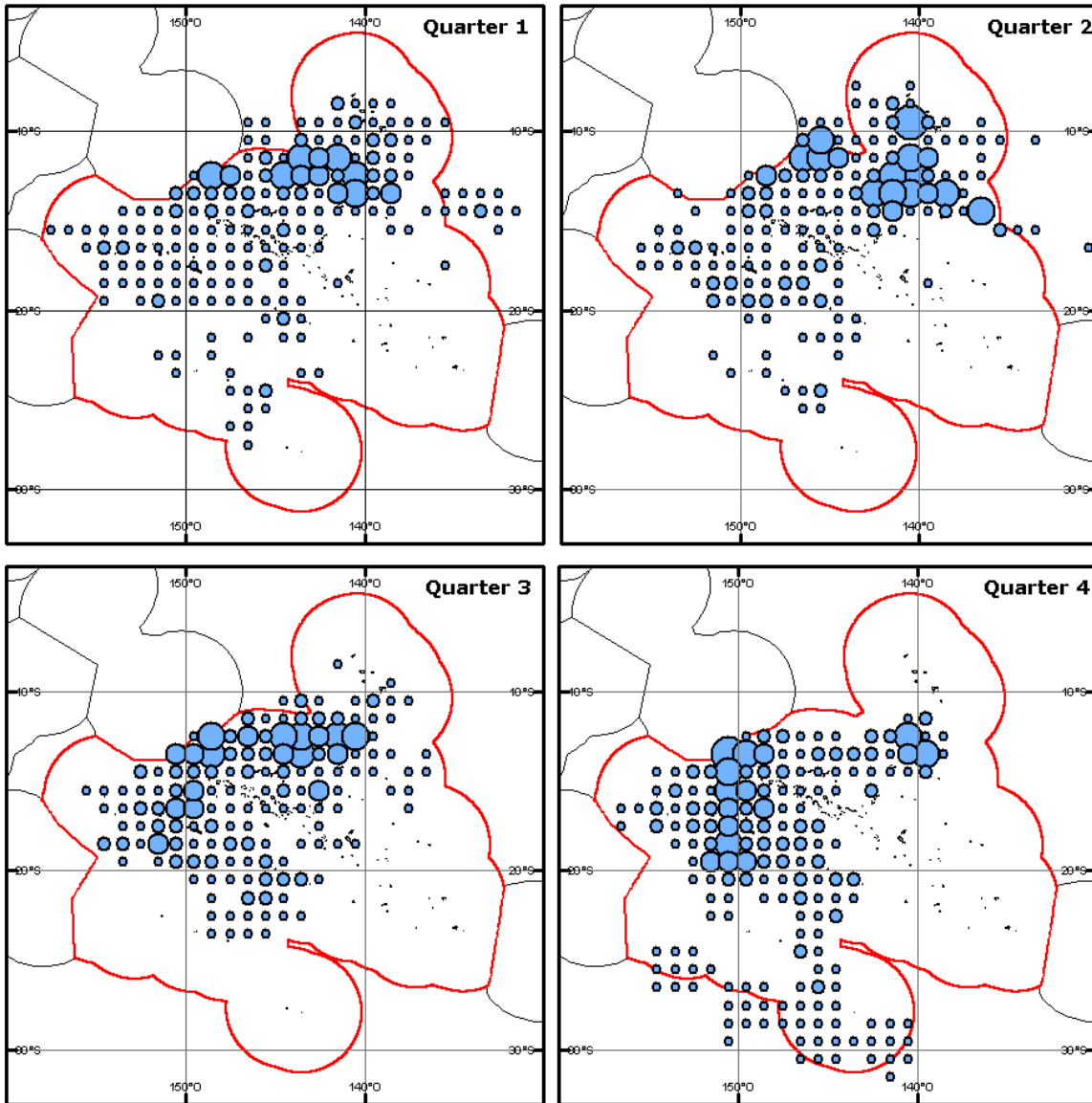


* Catch : nominal catches unraised.
Coverage rate for 2005 is 74 %

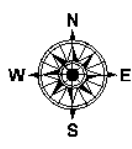


Catch per quarter

French Polynesia domestic longline fleet in 2006

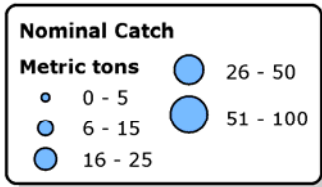
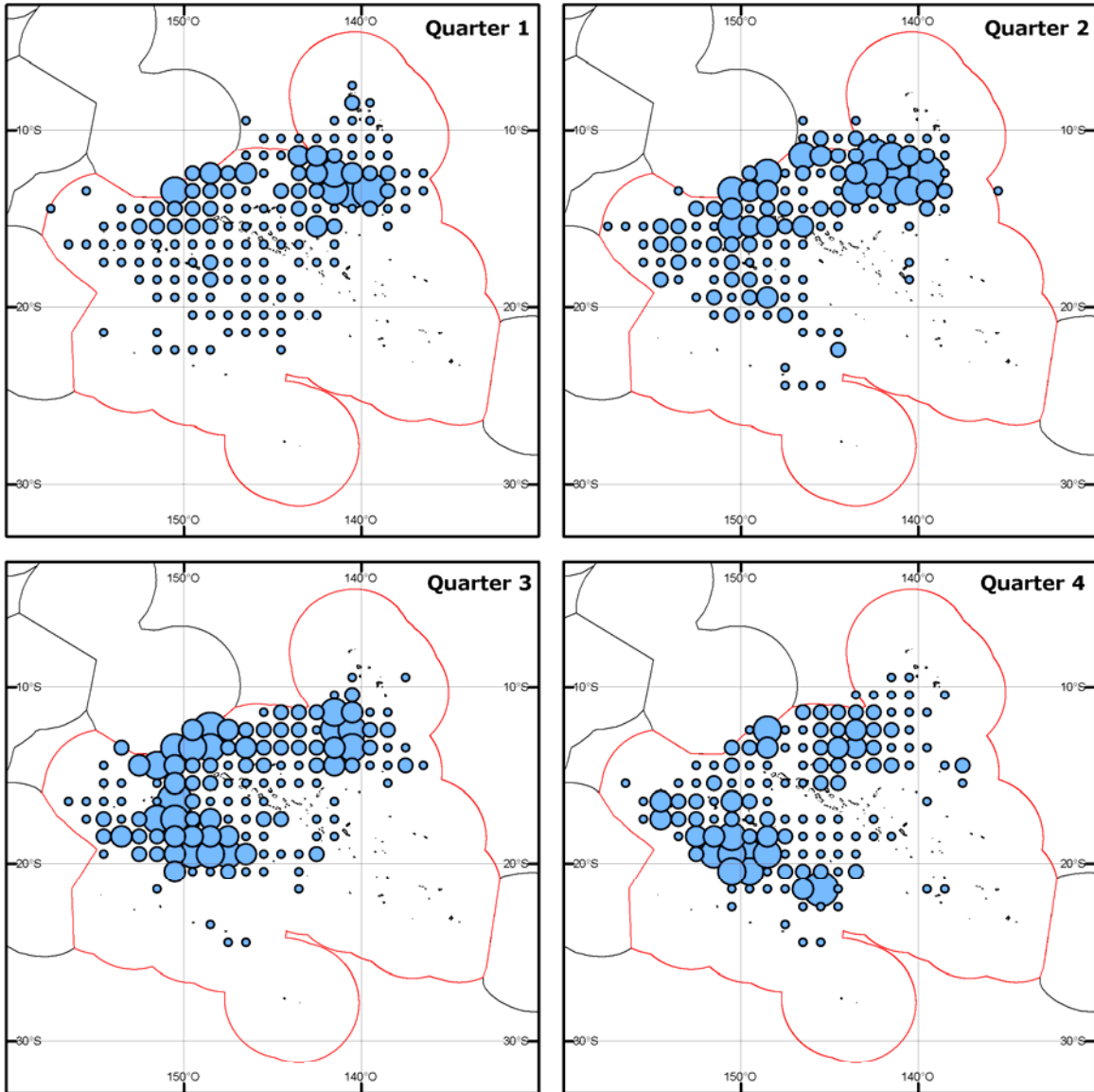


* Catch : nominal catches unraised.
Coverage rate for 2006 is 79 %

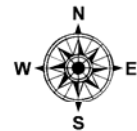


Catch per quarter

French Polynesia domestic longline fleet in 2007



* Catch : nominal catches unraised.
Coverage rate for 2007 is 71 %



Appendix 2 : Composition of coastal fleets since 1990

| Year | Bonitiers | Poti marara | Total |
|-------------|------------------|--------------------|--------------|
| 1990 | 118 | 100 | 218 |
| 1991 | 108 | 104 | 212 |
| 1992 | 115 | 106 | 221 |
| 1993 | 98 | 152 | 250 |
| 1994 | 96 | 155 | 251 |
| 1995 | 100 | 159 | 259 |
| 1996 | 96 | 160 | 256 |
| 1997 | 70 | 166 | 236 |
| 1998 | 72 | 207 | 279 |
| 1999 | 74 | 242 | 316 |
| 2000 | 63 | 280 | 343 |
| 2001 | 60 | 250 | 310 |
| 2002 | 55 | 237 | 292 |
| 2003 | 55 | 245 | 300 |
| 2004 | 55 | 247 | 302 |
| 2005 | 49 | 234 | 283 |
| 2006 | 52 | 275 | 327 |
| 2007 | 50 | 280 | 330 |

Appendix 3 : Evolution of the catches of the coastal fleet

| Year | Catch estimates (mt) |
|-------------|---------------------------------|
| 1990 | 1 567 |
| 1991 | 2 048 |
| 1992 | 1 822 |
| 1993 | 1 341 |
| 1994 | 1 681 |
| 1995 | 2 110 |
| 1996 | 1 703 |
| 1997 | 1 612 |
| 1998 | 2 192 |
| 1999 | 2 033 |
| 2000 | 2 028 |
| 2001 | 2 506 |
| 2002 | 2 301 |
| 2003 | 2 035 |
| 2004 | 2 294 |
| 2005 | 1 883 |
| 2006 | 2 810 |
| 2007 | 2 332 |

Appendix 4 : Composition of offshore longline fleet since 1990

| Year | Longline bonitiers | Fresh tuna boats | Freezer tuna boats | Total | Hooks (*1000) |
|-------------|---------------------------|-------------------------|---------------------------|--------------|----------------------|
| 1990 | 1 | - | 4 | 5 | 49 |
| 1991 | 2 | 2 | 6 | 10 | 414 |
| 1992 | 15 | 6 | 4 | 25 | 662 |
| 1993 | 25 | 15 | 7 | 47 | 3 650 |
| 1994 | 25 | 29 | 9 | 63 | 5 026 |
| 1995 | 23 | 31 | 11 | 65 | 5 898 |
| 1996 | 21 | 26 | 12 | 59 | 6 601 |
| 1997 | 15 | 30 | 15 | 60 | 7 549 |
| 1998 | 14 | 28 | 12 | 54 | 8 247 |
| 1999 | 14 | 24 | 19 | 57 | 11 760 |
| 2000 | 11 | 30 | 16 | 57 | 12 453 |
| 2001 | 10 | 34 | 17 | 57 | 14 109 |
| 2002 | 6 | 30 | 18 | 54 | 13 964 |
| 2003 | 6 | 37 | 22 | 64 | 17 873 |
| 2004 | 3 | 42 | 30 | 75 | 22 515 |
| 2005 | 0 | 40 | 32 | 72 | 21 454 |
| 2006 | 0 | 39 | 32 | 71 | 19 652 |
| 2007 | 0 | 35 | 29 | 64 | 18 789 |

Appendix 5 : Evolution of the catches of the off shore fleet

| Year | Long line fleet | Trollers (40°S) | Total |
|-------------|------------------------|------------------------|--------------|
| 1990 | 55 | 299 | 354 |
| 1991 | 370 | 326 | 696 |
| 1992 | 820 | 72 | 892 |
| 1993 | 2 400 | 45 | 2 445 |
| 1994 | 2 653 | 0 | 2 653 |
| 1995 | 2 455 | 183 | 2 638 |
| 1996 | 3 373 | 69 | 3 442 |
| 1997 | 4 636 | 24 | 4 660 |
| 1998 | 5 282 | 0 | 5 282 |
| 1999 | 5 303 | 0 | 5 303 |
| 2000 | 6 891 | 0 | 6 891 |
| 2001 | 7 811 | 0 | 7 811 |
| 2002 | 7 401 | 0 | 7 401 |
| 2003 | 6 530 | 0 | 6 530 |
| 2004 | 5 159 | 0 | 5 159 |
| 2005 | 5 082 | 0 | 5 082 |
| 2006 | 5 258 | 0 | 5 258 |
| 2007 | 6 309 | 0 | 6 309 |