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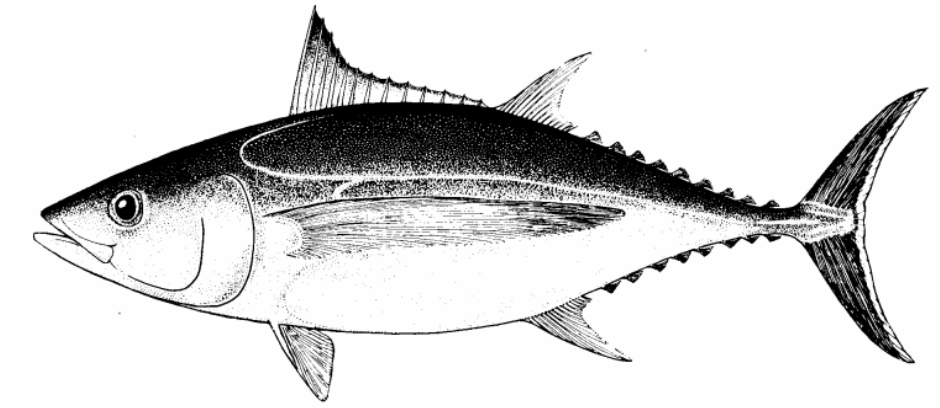
INFORMATION ON FISHERIES, RESEARCH, AND STATISTICS

WCPFC-SC3-AR PART 1/WP-11

FRENCH POLYNESIA

WCPFC-SC3

Tuna fisheries in French Polynesia in 2006



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

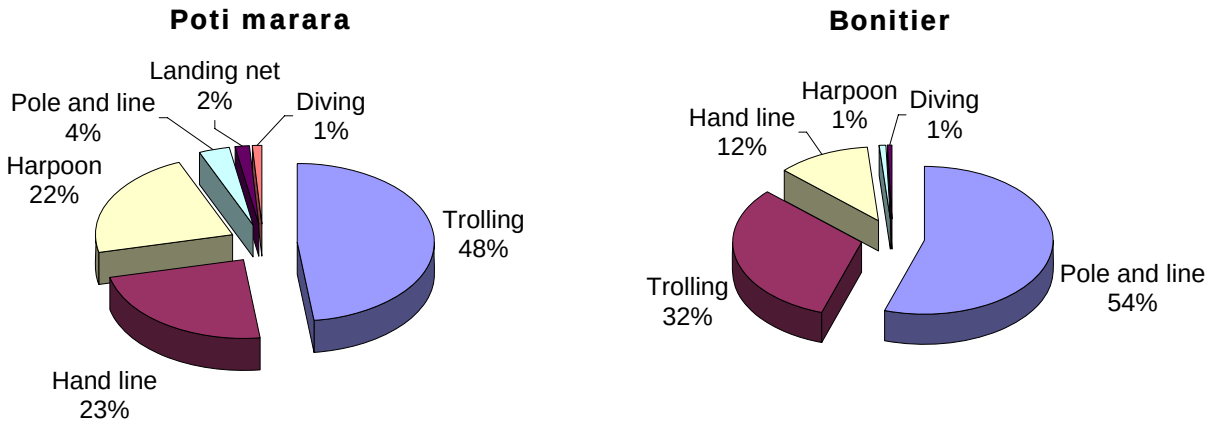


Table 1 – Fleet structure of the small scale nearshore fishery

Type of boats	2002	2003	2004	2005	2006
Poti marara	237	245	247	234	275
Bonitier	55	55	55	49	52

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.

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 make15 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 can remain at sea for 1 1/2 up to 3 months and have freezer capacity 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 small scale nearshore fishery

Type of boats	2002	2003	2004	2005	2006
Fresh longliners	36	42	45	40	39
Freezer longliners	18	22	30	32	32

Annual catch by species

The overall nominal catches for the professional tuna fisheries in 2006 is estimated around 8 000 metric tons, albacore accounting for 38 %, yellowfin tuna for 15 %, skipjack for 14 % and big eye tuna for 6 %.

Table 3 – Annual catch estimates for the bonitier fleet

Metric tons	2002	2003	2004	2005	2006
Skipjack	513	521	520	391	585
Yellowfin tuna	99	77	142	104	126
Dolphin fish	36	32	22	27	36
Billfish	21	24	21	20	18
Wahoo	17	6	7	19	37
Albacore tuna	7	11	6	6	20
Other	18	11	18	13	79
Total	711	682	737	580	901

Table 4 – Annual catch estimates for the poti marara fleet

Poti marara	2002	2003	2004	2005	2006
Skipjack	515	472	491	365	516
Yellowfin tuna	307	235	412	288	419
Dolphin fish	396	292	244	240	435
Billfish	92	109	112	148	161
Wahoo	46	37	46	67	79
Albacore tuna	99	87	72	86	138
Other	135	121	181	110	161
Total	1 590	1 353	1 557	1 303	1 909

Table 5 – Annua catch estimates for the longline fleet

Metric tons	2002	2003	2004	2005	2006
Albacore tuna	4 557	3 846	2 218	2 426	2 918
Yellowfin tuna	507	621	1 066	793	690
Big eye tuna	649	439	502	606	498
Blue marlin	255	303	243	251	266
Wahoo	168	195	196	243	201
Other sharks	525	280	317	217	123
Opah	140	188	150	118	108
Dolphin fish	117	172	129	90	113
Strpied marlin	91	117	109	91	122
Swordfish	70	117	86	79	83
Misc.	88	10	75	64	31
Oilfish	52	30	37	26	27
Mako shark	40	49	37	25	26
Skipjack	92	55	72	24	28
Pomfret	18	16	25	21	15
Spearfish	23	15	12	10	9
Sailfish	6	11	5	4	2
Black marlin	2	1	1	0	0
Total	7 401	6 468	5 278	5 087	5 258

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 20 % of the nominal longliners catches are landed frozen (whole or loined). An equivalent of 18 % of the commercial longline catches are exported : 60 % of the frozen landings but only 7 % 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 – Coverage rate of the longline fleet activity in 2006

Parameter	Coverage rate (%)
Boats	85
Trips	80
Days at sea	82
Hooks	78

- *Unloadings*

Most of the licensed long line boats 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 is estimated around 50 % of the commercial catches. Coverage rate for the fresh products is estimated at 43 %. Coverage rate for frozen products is higher, 60-70 %, but the information is often less detailed.
Ajouter ici un paragraphe sur les transbordements et éventuels débarquements étrangers

- *Observer program*

The French Polynesia Observer Programme began in September 2002 with 2 observers (1 observer and 1 coordinator). In 2006, we had 1 coordinator, 2 observers and 2 port samplers. The two port samplers joined the observers' team in June 2006.
In 2006, 20 observer trips were conducted on board of domestic longliners (487 days at sea, 312 sets and more than 723.000 hooks observed). Observer trips represent coverage of 5.86% (percentage of fishing days).

In 2006, observer placements increased slowly (18 trips in 2005), particularly on medium (<20m) fresh tuna boats, but placements on the larger freezer vessels remained low (7 boats observed and 5 of them were vessels involved in the experimental fishing trip).

- *Port sampling*

Since June 2006, a team of 2 port samplers carried out port-sampling operations.

Table 7 – Port sampling operation in 2006

Month	No boats unloaded	No boats sampled
June	*	13
July	*	32
August	58	34
September	60	35
October	75	40
November	75	39
December	28	17

** data not available*

210 port sampling operations were conducted during fish unloading processes. Sampling coverage was 56%. This coverage is lower than 2005 coverage (72%), but the data are better since the boats are now fully sampled.

Research

The Service de la Pêche of French Polynesia has been leading since 2005 experimental fishing with domestic longliners. The main objective is to sample different fishing grounds that are not currently exploited by the fleet. In 2005, the first trip was undertaken with 2 longliners in the east of Marquesas Islands. In 2006, a second trip was undertaken in the southern part of Polynesian EEZ with 6 domestic freezer longliners in November and December. These 6 boats worked in a large area delimited by the south Polynesian EEZ boundary and between 25°S and 31°S. Four of the 6 vessels set longline during day time for targeting albacore and the last two set during night time to target swordfish. Five boats were carrying an observer on board.

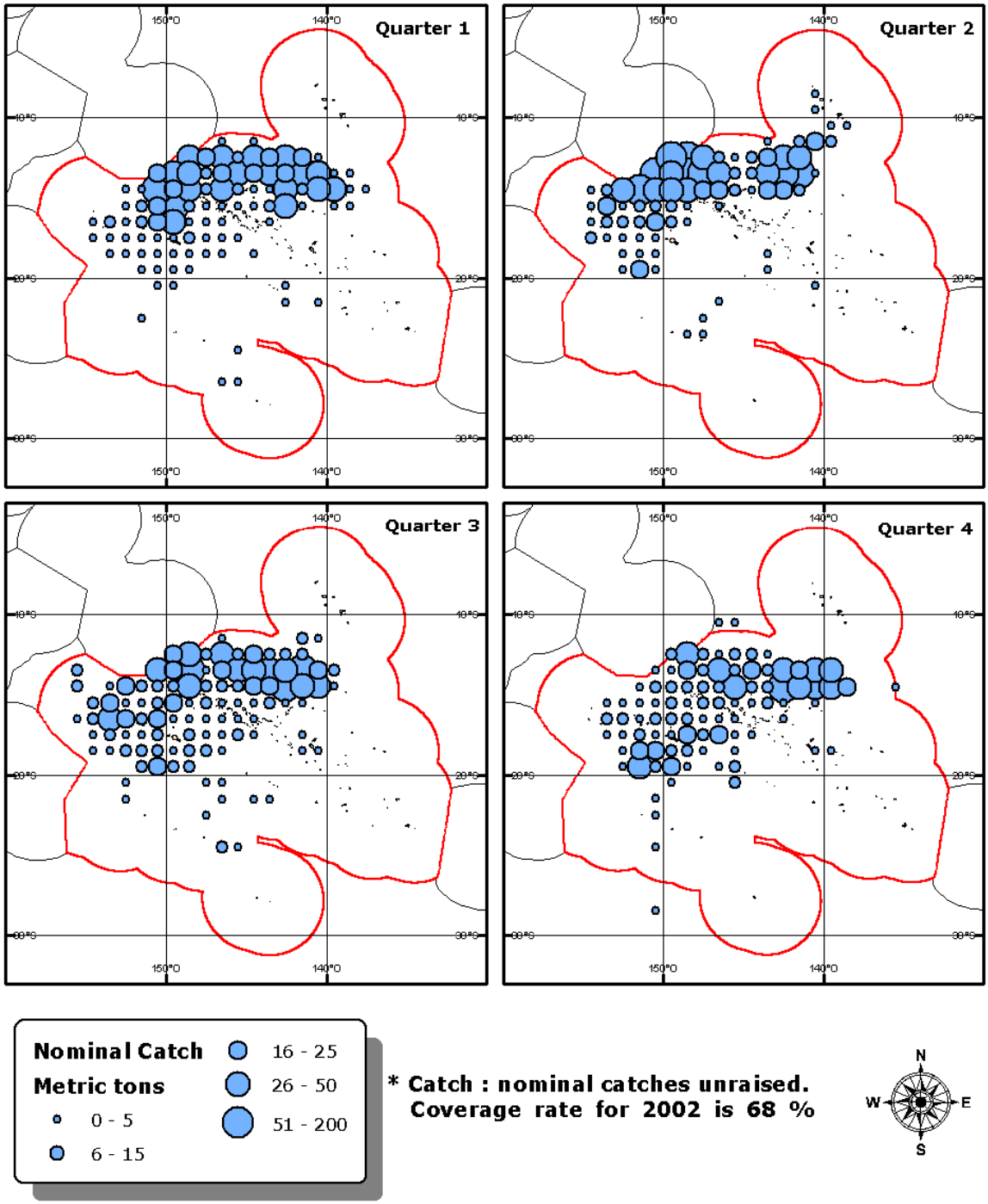
Catch rates for tunas and tuna-like species were very low. Catches of swordfish were relatively better. Some domestic longliners are willing to target swordfish seasonally during 2007.

The boats have fished down to 32°S and observers reported very few bird abundance and no interaction with the fishing gear during the experiment.

Appendix 1 : Catches per quarter for the longline fleet between 2002 and 2006

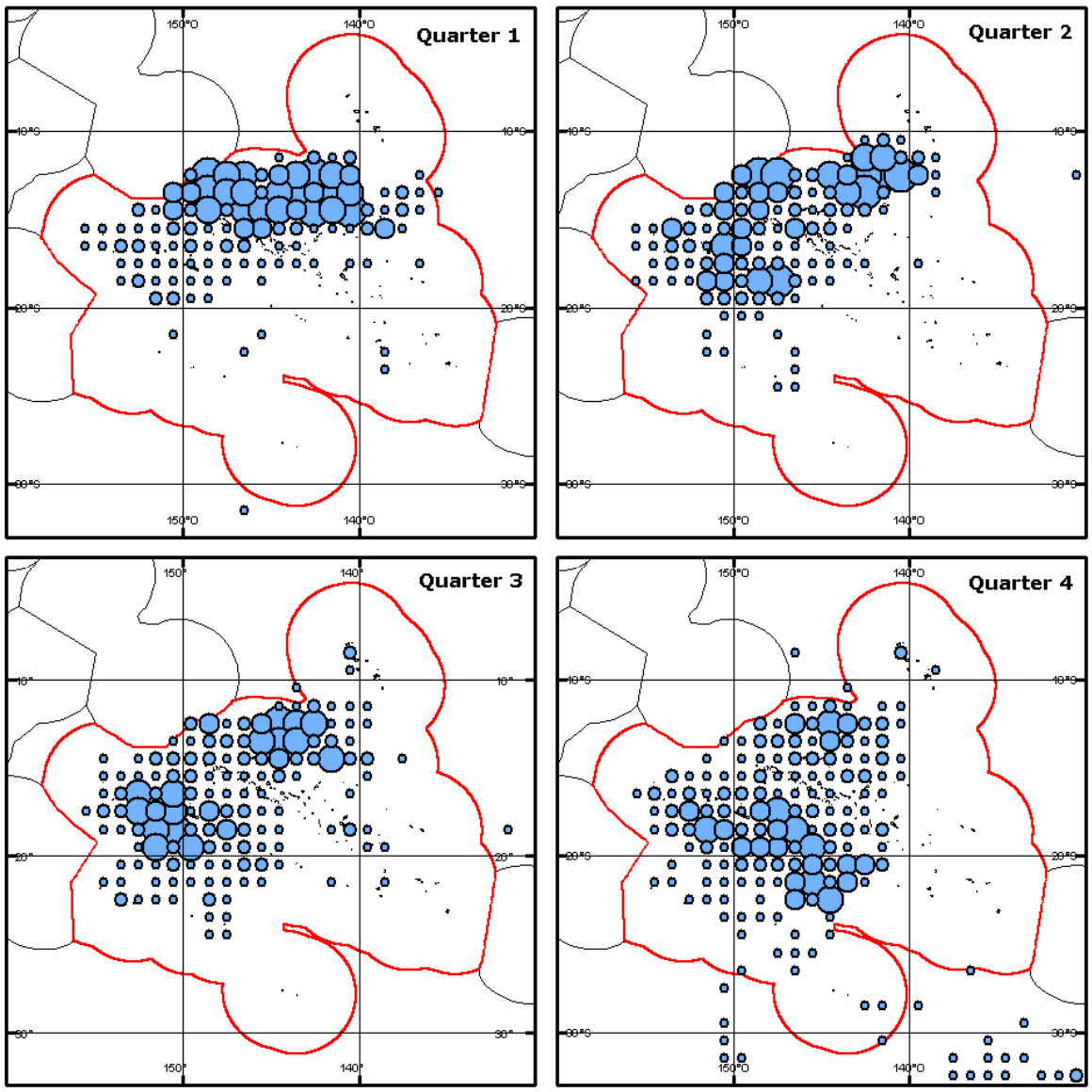
Catch per quarter

French Polynesia domestic longline fleet in 2002



Catch per quarter

French Polynesia domestic longline fleet in 2003



Nominal Catch
Metric tons

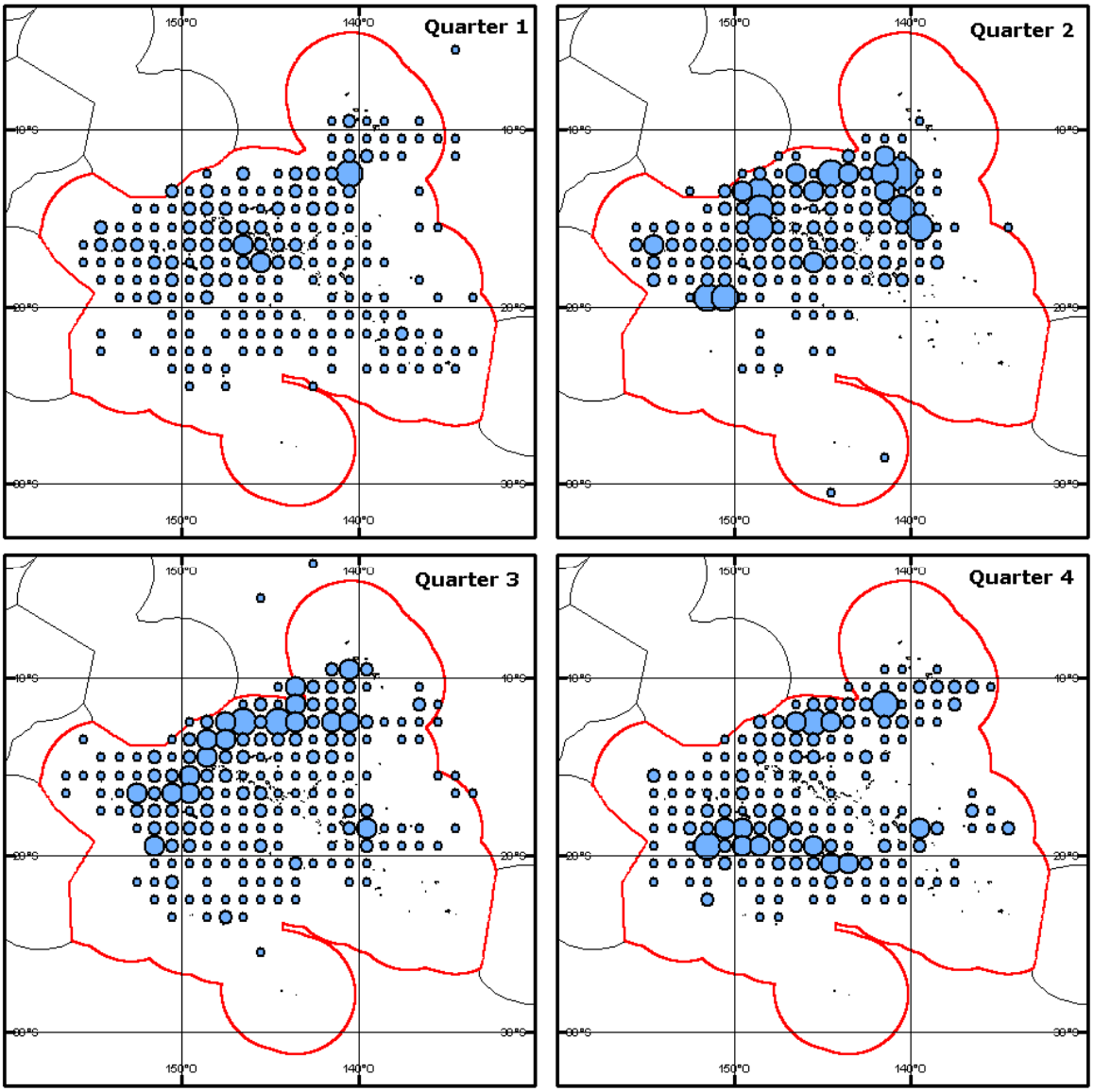
- 0 - 5
- 6 - 15
- 16 - 25
- 26 - 50
- 51 - 100

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

N
W
E
S

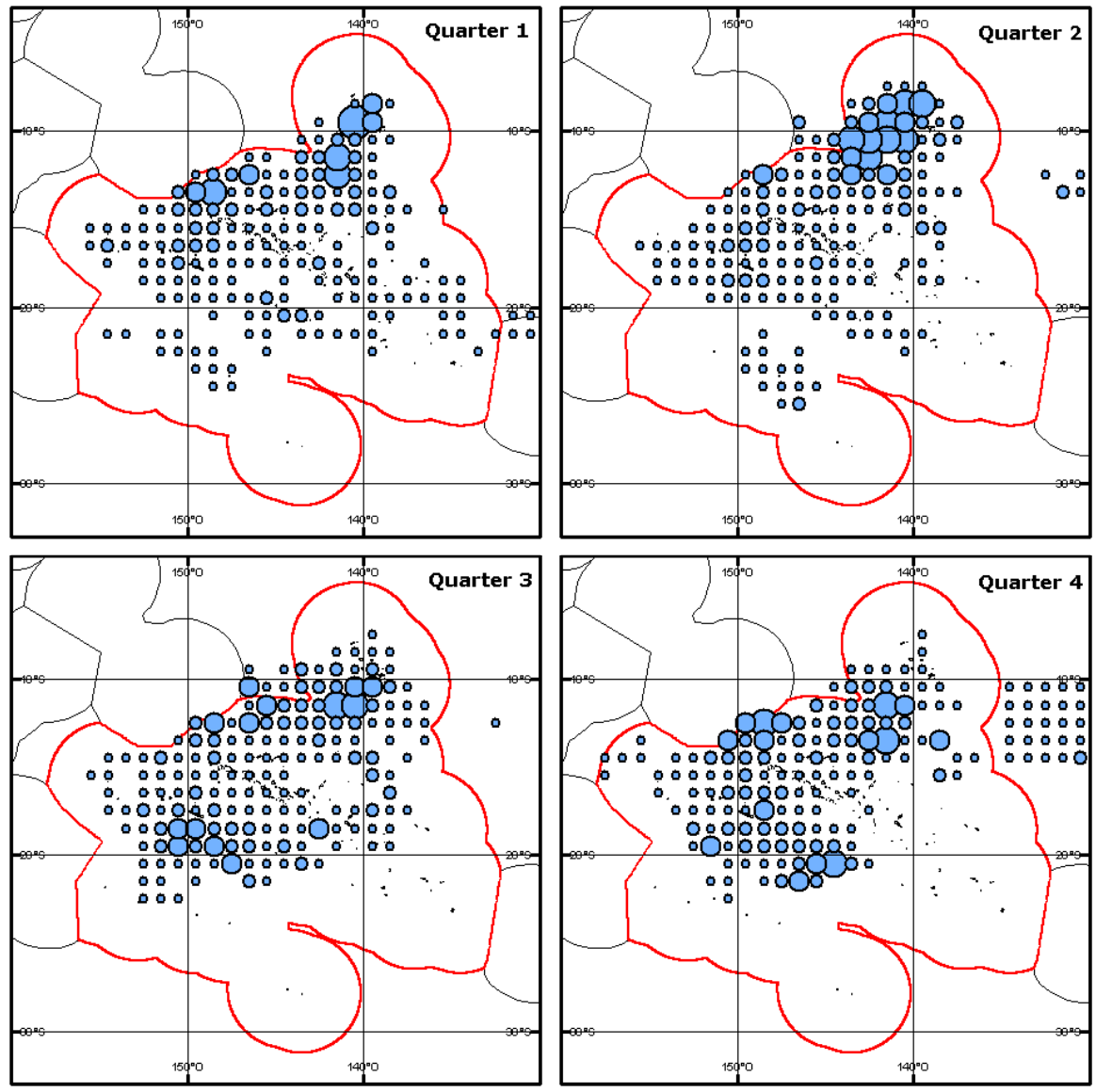
Catch per quarter

French Polynesia domestic longline fleet in 2004



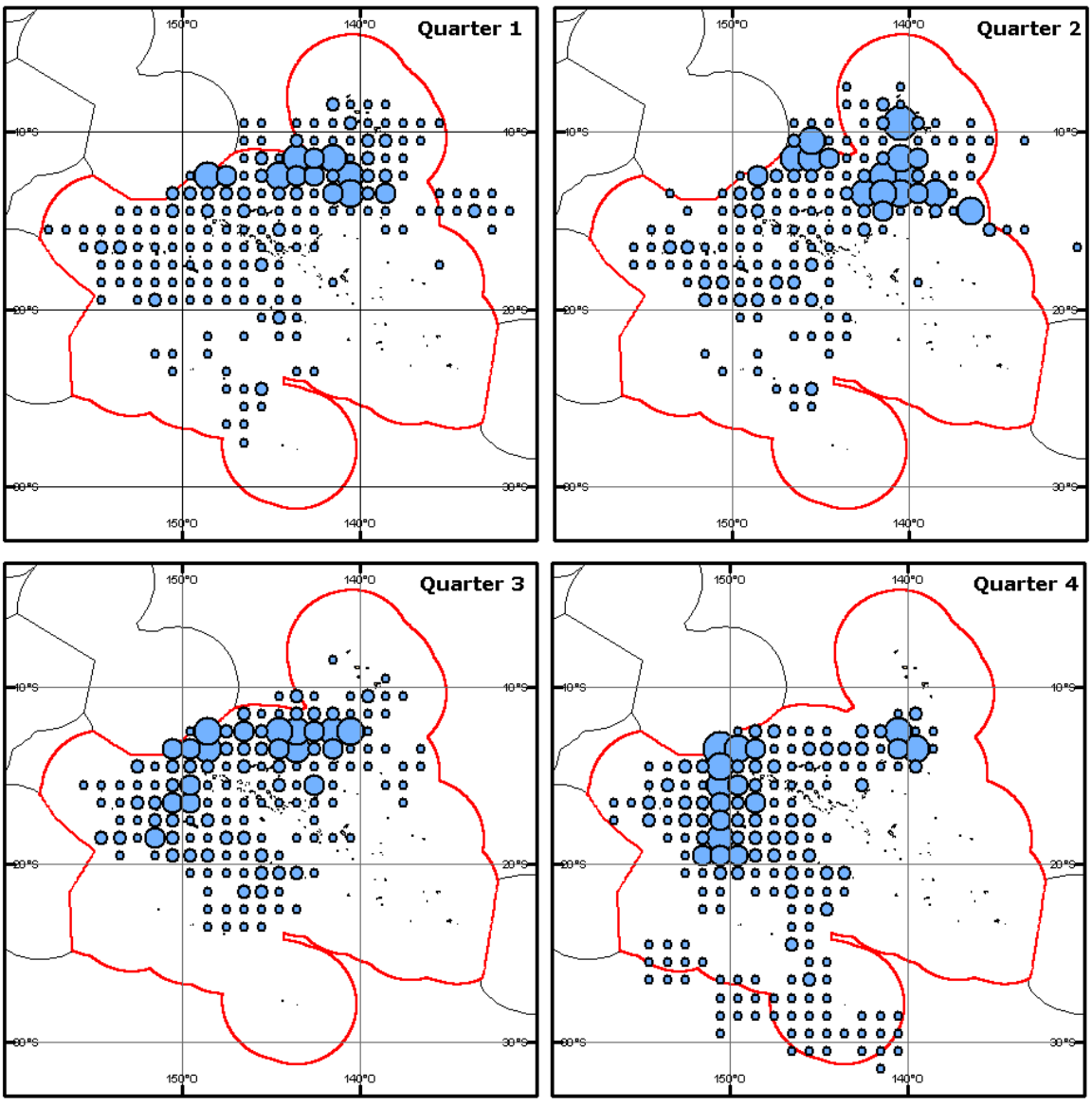
Catch per quarter

French Polynesia domestic longline fleet in 2005



Catch per quarter

French Polynesia domestic longline fleet in 2006



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

N.B: 2003 to 2005 figures updated since last year

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

N.B: 2003 to 2005 figures updated since last year

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

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