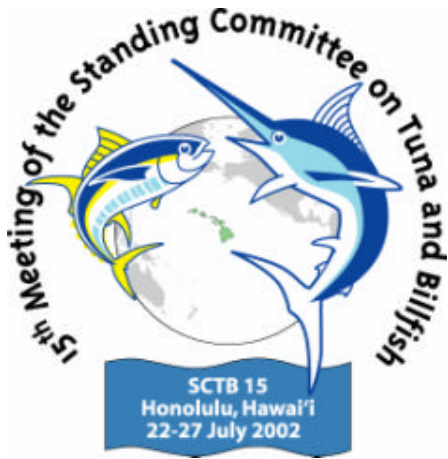
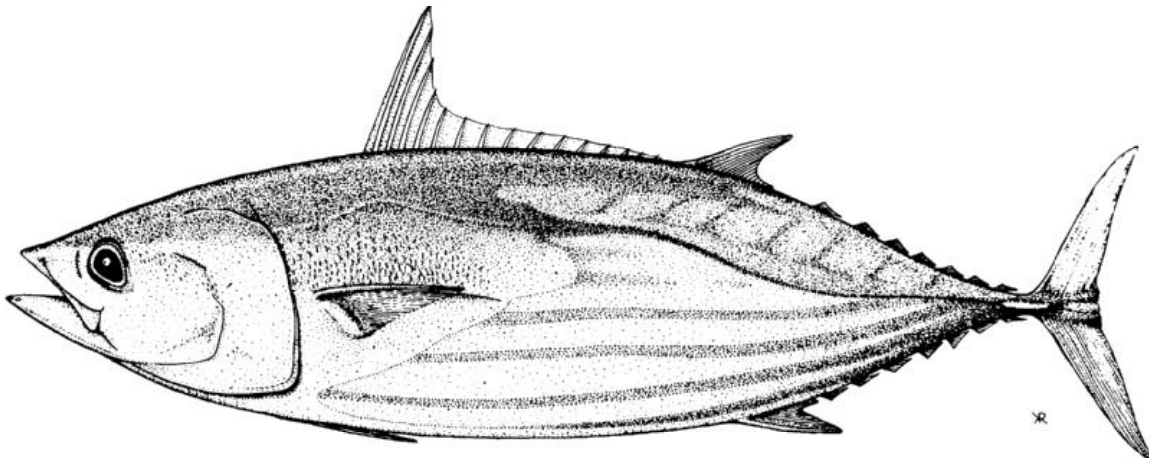


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## **French Polynesia tuna fisheries**



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## FRENCH POLYNESIA TUNA FISHERIES

Christophe Misselis, Service de la Pêche, Tahiti, French Polynesia

National Tuna Fishery Report Presented to the 15<sup>th</sup> SCTB Meeting  
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### Background Information on French Polynesian Tuna Fisheries

Prior to the 1990's, French Polynesian tuna fisheries were operated by two types of inshore vessel, i.e. *bonitiers*, which were 12-m vessels targeting mainly skipjack with pole-and-line and trolling gear and by *poti marara*, i.e. 5- to 7-m vessels using a number of coastal fishing methods, e.g. trolling for tuna and billfish, harpooning for mahimahi, scooping for flying fish, deep handlining and pole-and-line fishing for tuna and even speargun fishing for reef fish.

In addition to such surface fishing, marine resources were exploited by foreign longline fleets from Japan and Korea under access agreements with the French Polynesian Government. The last access agreements were signed with Korea fleets in November 1999 for one year.

In the 1990s, the French Polynesian Government decided to develop oceanic tuna fisheries by introducing the drifting monofilament longline technique. The first two French Polynesian tuna vessels began operations in 1990. By 1994, 66 French Polynesian vessels were using drifting longlines, 29 of which were converted *bonitiers*. By 2001, 57 French Polynesian fishing boats were using drifting longlines, 10 of which were converted *bonitiers*. Over the years, the number of *bonitiers* has fallen, whether or not the boats were using drifting longlines, unlike the number of larger tuna vessels and small coastal boats, i.e. *poti marara*, which fished from the same resource and used the same marketing channels. *Bonitiers* equipped with longline gear have not found a profitable yield with only 500 hooks per set.

### Total catch

The total catch is given in Table 1. The overall catch is estimated at 10,317 metric tons. The French Polynesian fleet's catch is rising as compared to previous years' performance.

**Table 1 : Total catch for all species, by professional domestic and foreign fleets  
(in metric tons)**

Year	<i>Bonitier</i> landings	Domestic longliner landings	Domestic albacore troller landings at 40°S	<i>Poti marara</i> landings	Total catch by Korean longliners	<b>Total catch all fleets</b>
1997	934	4,636	24	678	1,737	<b>8,009</b>
1998	992	5,282	0	1,200	2,307	<b>9,781</b>
1999	826	5,304	0	1,206	2,688	<b>10,024</b>

2000	633	6,891	0	1,397	2,044	<b>10,965</b>
2001	891	7,811	0	1,615	0	<b>10,317</b>

As in the previous three years, no trolling for small albacore tuna took place around the fortieth parallel during 2001. The *poti marara* catch and domestic longliner catch reached a new record level in 2001 with respectively 1,615 metric tons and 7,811 metric tons. There is no access agreement since 2000 with Korean fleets.

### Fleet structure

Table 2 indicate the number of vessels operating in the French Polynesian EEZ over the last five years.

**Table 2 : Number of vessels operating in the French Polynesian EEZ from 1997 to 2001**

Year	Bonitiers	Poti Marara	Domestic longliners	Foreign longliners
<b>1997</b>	70	166	60	64
<b>1998</b>	72	207	54	56
<b>1999</b>	74	242	57	70
<b>2000</b>	63	280	57	71
<b>2001</b>	60	250	57	0

The number of *bonitiers* declined until 2001, whereas *poti marara* numbers have been rising since 1997 to 2000 with a decline of number of active boats in 2001, certainly due to economic crisis. Inshore fisheries are increasingly resorting to smaller vessels, which are more adaptable and can be used for different types of fishing. This trend has been encouraged by investment assistance and the many FAD's deployed off the more heavily populated islands.

The total number of longliners remained stable in 2001, although some developments did occur (cf table 3). Seven new fresh tuna vessels, one new tuna freezer vessel and one *bonitier* equipped with longline began operation. Seven fresh tuna vessels and two longlining *bonitiers* did not operate in 2000.

**Table 3 : Longliner fleet breakdown**

Year	Bonitiers longliners	Fresh tuna vessels	Freezer tuna vessels	TOTAL
<b>1997</b>	15	30	15	60
<b>1998</b>	14	28	12	54
<b>1999</b>	14	24	19	57
<b>2000</b>	11	30	16	57
<b>2001</b>	10	34	13	57

## Catch by species

Table 4 (appended) provides catch totals by vessels type for the main species exploited.

The most highly fished species is albacore, which represent 43% of total catches by French Polynesian fleets, and 96% of which are obtained by longliners. There are two reasons for this. The export market is still buoyant and continues to be profitable for freezer vessels. Also, the fishing grounds are located between latitudes 10°S and 20°S where albacore dominate catches. 2001 was a record year for albacore catches, which rose by 24% as compared to 2000.

The second most fished species is yellowfin, which accounts for 13% of total catches by French Polynesian fleets, of which 74% are obtained by longliners and 20% by *poti marara*. Longliners catch yellowfin in the northern EEZ between latitudes 10° to 15°S, where this fish is more abundant than in the south or maybe more accessible to longline fishery. Because yellowfin have a more coastal behavior in the south of fishing grounds, it is more accessible to inshore fisheries in the Society Islands, particularly *poti marara*. Catch of yellowfin, for all the fleets, declined in 2001 for 21% compared to 2000.

Skipjack comes in third, accounting for 12% of total catches by French Polynesian fleets. It is mainly caught by coastal fisheries, as 55% of total catches are obtained by *bonitiers* which target this species and 38% by *poti marara*. Skipjack catches from longliners are certainly less reliable because longliners usually discard this species and under-declared it.

Bigeye accounts for only 7% of total catches and is landed mainly by longliners in 2001. As it has a deep habitat south of 10°S, except on sea mounts, it is out of reach for longline fisheries, which concentrate on the water column's first 300 metres.

Billfish account for 5% of total catches by all French Polynesian vessels with swordfish accounting for only 0,8 of total catches. Swordfish is only captured by longliners and represents 1% of longline catches. 73% of billfish caught by longliners are blue marlin and 26% striped marlin.

## Marketing and export

Table 5 provides the quantities exported fresh or frozen over last five years. The considerable rise in fresh or frozen exports, mainly to the United States and Europe, is partly due to increased production, but also to the new markets that have been developed. In 2001, 23% of exports, in weight, were fresh fish and 77% frozen. 2001 reached a new record level for fresh tuna exports.

**Table 5 : Fresh and frozen export tonnages over the last five years  
(in live weight)**

<b>Year</b>	<b>Fresh</b>	<b>Frozen</b>	<b>Total</b>
<b>1997</b>	346	956	<b>1 302</b>
<b>1998</b>	186	1101	<b>1 287</b>

<b>1999</b>	52	1256	<b>1 308</b>
<b>2000</b>	296	2197	<b>2 493</b>
<b>2001</b>	803	2625	<b>3 428</b>

Table 6 indicates the types of products exported in 2001. Frozen loins, mainly albacore, accounted for 60% of exports. They were prepared aboard freezer vessels, which were individually issued with health permits for export purposes.

**Table 6 : Exports by weight (metric tons)  
(in live weight)**

	<b>Whole</b>	<b>Loins</b>	<b>Other</b>	<b>Total</b>	<b>%</b>
<b>Fresh</b>	794	8		<b>802</b>	<b>23 %</b>
<b>Frozen</b>	541	2 084		<b>2 625</b>	<b>76 %</b>
<b>Processed</b>			8	<b>8</b>	<b>1 %</b>
<b>Total</b>	<b>1 335</b>	<b>2 092</b>	<b>8</b>	<b>3 435</b>	
<b>%</b>	<b>38 %</b>	<b>61 %</b>	<b>1 %</b>		

### **Onshore infrastructure development**

Oceanic tuna fishery development has gone hand-in-hand with onshore facility development. The infrastructures are aimed at developing fish exports, increasing ice production for fresh fisheries, developing the fishing harbor for the projected 61 tuna vessels and refurbishing the fish processing plant for the local market.

- **Building a fish primary processing plant and marketing center for exports**

*This building, which will be completed by September 2002, will house six processing stations for packaging fresh export fish. It will be built to comply with a number of European and US standards and follow the Codex Alimentarius (FAO) recommended code of practice as a benchmark. It will also contain two auction halls and a large number of offices for wholesalers and the main fish industry stakeholders.*

- **Refurbishing the current fish processing plant building**

*The current fish processing plant will be refurbished by the beginning of 2003 and will house between 6 and 8 primary processing stations for the local and export market, which will comply with applicable health standards.*

- **Increasing ice production**

*There is currently only one ice plant with an output production capacity of 20 metric tons per day (storage capacity of 30 metric tons) that supplies fresh fish vessels. The plan is to double output so as better to conserve produce and cater for new vessels under construction.*

- **Developing the fishing harbor**

*In order to cater for a larger fleet, the fishing harbor need to be developed with more berths at the wharf. 10.000 sq m will be reclaimed and floating jetties set up to cater for approximately 70 new vessels.*

## **Conclusion and prospects**

French Polynesian tuna fisheries are booming. Exports reached a record level in 2001 and should continue to rise over the next few years. Developing this industry is one of the French Polynesian Government's priorities, as fisheries are the third-largest trade sector after tourism and pearl industries.

By building at least 61 extra vessels, French Polynesia intends to increase production to 23,000 metric tons ; 15,000 of which will be exported. The fisheries development policy emphasizes frozen products, as this export market segment appears to be relatively stable and offers attractive development prospects. There are plans to build thirty-two 24-m tuna freezer vessels, four 21-m combined fresh and frozen tuna vessels, ten 18-m fresh tuna vessels and fifteen 15-m fresh tuna vessels by 2006, not to mention private building projects. The French Polynesia Government subsequently intends to boost these figures to 100 extra tuna vessels over the next 10 years, so as to exceed the 30,000 metric tons production mark.

The leading species for development is albacore, which has been successful in terms of frozen loin exports. Bigeye and yellowfin are not a priority for the industry at this stage, although both these species are in fact profitable for the fresh export market. Swordfish in the southern EEZ could also be cost-effective, as there is as yet little fishing in this area.

APPENDICES

**Table 4 : Total catches of the main species by the various French Polynesian fisheries since 1991 (in metric tons)**

Y E A R	FLEET	DOMESTIC FLEET										FOREIGN FLEET					
		Active vessels	TUNA			BILLFISH		MISCELLANEOUS			TOTAL	Days fished	TUNA			Others	TOTAL
			Skipjack	Yellowfin	Bigeye	Albacore	Marlins	Swordfish	Sharks	Others			Yellowfin	Bigeye	Albacore		
1991	Bonitiers	106	1,254	251	0	5	30	0	0	64	1,604						
	Poti marara	104	53	121	1	60	23	0	0	186	441						
	Albacore trollers	4			328						326						
	Longliners	8	1	118	45	100	30	7	38	31	370			1,035	2,733	531	427
	<b>total 1991</b>	<b>220</b>	<b>1,308</b>	<b>490</b>	<b>46</b>	<b>491</b>	<b>83</b>	<b>7</b>	<b>38</b>	<b>281</b>	<b>2,744</b>			<b>1,035</b>	<b>2,733</b>	<b>531</b>	<b>427</b>
1992	Bonitiers	100	1,122	248	0	5	33	0	0	52	1,460						
	Poti marara	106	47	77	1	38	19	0	0	160	362						
	Albacore trollers	2			72						72						
	Longliners	25	7	150	57	111	111	24	132	144	820			509	1,296	12	260
	<b>total 1992</b>	<b>231</b>	<b>1,176</b>	<b>475</b>	<b>58</b>	<b>310</b>	<b>163</b>	<b>24</b>	<b>132</b>	<b>376</b>	<b>2,714</b>			<b>509</b>	<b>1,296</b>	<b>12</b>	<b>260</b>
1993	Bonitiers	70	665	236	0	2	15	0	0	61	979						
	Poti marara	152	51	80	1	39	21	0	0	170	362						
	Ligneurs germon	4			45						45						
	Palangriers	50	25	366	163	714	300	64	325	443	2,400			303	634	100	155
	<b>total 1993</b>	<b>272</b>	<b>741</b>	<b>682</b>	<b>164</b>	<b>800</b>	<b>336</b>	<b>64</b>	<b>325</b>	<b>674</b>	<b>3,786</b>			<b>303</b>	<b>634</b>	<b>100</b>	<b>155</b>
1994	Bonitiers	70	1,004	161	0	3	18	0	0	43	1,229						
	Poti marara	155	63	118	1	58	26	0	0	186	452						
	Albacore trollers	0			0	0					0						
	Longliners	66	43	275	165	913	488	72	420	277	2,653			532	1,231	133	235
	<b>total 1994</b>	<b>291</b>	<b>1,110</b>	<b>554</b>	<b>166</b>	<b>974</b>	<b>532</b>	<b>72</b>	<b>420</b>	<b>506</b>	<b>4,334</b>			<b>532</b>	<b>1,231</b>	<b>133</b>	<b>235</b>
1995	Bonitiers	77	1,250	306	0	3	12	0	0	40	1,611						
	Poti marara	159	130	140	1	69	29	0	0	130	499						
	Albacore trollers	4			183						183						
	Longliners	65	10	297	182	772	524	61	365	244	2,455			328	1,336	121	264
	<b>total 1995</b>	<b>301</b>	<b>1,390</b>	<b>743</b>	<b>183</b>	<b>1,027</b>	<b>565</b>	<b>61</b>	<b>365</b>	<b>414</b>	<b>4,748</b>			<b>328</b>	<b>1,336</b>	<b>121</b>	<b>264</b>
1996	Bonitiers	75	945	126	0	4	14	0	0	37	1,126						
	Poti marara	160	144	160	2	80	34	0	0	157	577						
	Albacore trollers	4			69						69						
	Longliners	59	26	380	184	1,463	551	84	387	298	3,373			911	879	104	180
	<b>total 1996</b>	<b>294</b>	<b>1,115</b>	<b>666</b>	<b>186</b>	<b>1,616</b>	<b>599</b>	<b>84</b>	<b>387</b>	<b>492</b>	<b>5,145</b>			<b>911</b>	<b>879</b>	<b>104</b>	<b>180</b>
1997	Bonitiers	70	698	142	0	9	15	0	0	70	934						
	Poti marara	166	176	99	2	69	32	0	0	300	678						
	Albacore trollers	1			24						24						
	Longliners	60	22	420	308	2,595	521	56	367	347	4,636			428	1,078	49	182
	<b>total 1997</b>	<b>296</b>	<b>896</b>	<b>661</b>	<b>310</b>	<b>2,697</b>	<b>568</b>	<b>56</b>	<b>367</b>	<b>717</b>	<b>6,272</b>			<b>428</b>	<b>1,078</b>	<b>49</b>	<b>182</b>
1998	Bonitiers	72	784	118	0	8	17	0	0	65	992						
	Poti marara	207	474	190	1	30	52	0	0	453	1,200						
	Albacore trollers	0			402						402						
	Longliners	54	34	480	402	3,189	431	58	348	342	5,282			583	1,018	330	376
	<b>total 1998</b>	<b>327</b>	<b>1,292</b>	<b>788</b>	<b>403</b>	<b>3,227</b>	<b>500</b>	<b>58</b>	<b>348</b>	<b>860</b>	<b>7,474</b>			<b>583</b>	<b>1,018</b>	<b>330</b>	<b>376</b>
1999	Bonitiers	74	526	160	0	38	21	0	0	81	826						
	Poti marara	242	479	257	2	23	72	0	0	373	1,206						
	Albacore trollers	0			276						276						
	Longliners	57	103	756	278	2,641	683	66	427	506	5,304			641	1,500	74	310
	<b>total 1999</b>	<b>359</b>	<b>1,108</b>	<b>1,173</b>	<b>278</b>	<b>2,641</b>	<b>683</b>	<b>66</b>	<b>427</b>	<b>960</b>	<b>7,336</b>			<b>641</b>	<b>1,500</b>	<b>74</b>	<b>310</b>
2000	Bonitiers	63	440	110	0	8	27	0	0	46	633						
	Poti marara	280	377	350	1	89	110	0	0	470	1,397						
	Albacore trollers	0			711						711						
	Longliners	57	72	1,202	711	3,473	355	47	556	480	6,996			638	1,207	6	193
	<b>total 2000</b>	<b>400</b>	<b>889</b>	<b>1,662</b>	<b>712</b>	<b>3,570</b>	<b>492</b>	<b>49</b>	<b>556</b>	<b>996</b>	<b>8,926</b>			<b>638</b>	<b>1,207</b>	<b>6</b>	<b>193</b>
2001	Bonitiers	60	688	84	0	8	21	0	0	90	891						
	Poti marara	250	477	264	1	147	82	0	0	644	1,615						
	Albacore trollers	0			745						745						
	Longliners	57	91	967	745	4,261	418	79	747	503	7,811						
	<b>total 2001</b>	<b>367</b>	<b>1,256</b>	<b>1,315</b>	<b>746</b>	<b>4,416</b>	<b>521</b>	<b>79</b>	<b>747</b>	<b>1,237</b>	<b>10,317</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>