

**SOUTH PACIFIC COMMISSION**

**STATUS OF TUNA FISHERIES IN THE SPC AREA DURING 1991,  
WITH REVISED ANNUAL CATCHES SINCE 1952**

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**Tuna and Billfish Assessment Programme  
Technical Report No.29**

**Noumea, New Caledonia  
1992**

977/92

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Original text: English

South Pacific Commission Cataloguing-in-publication data

Lawson, Tim

Status of tuna fisheries in the SPC area during 1991, with revised annual catches since 1952 / Tim Lawson.

(Technical report / Tuna and Billfish Assessment Programme ; no.29)

1. Tuna fisheries -- Catch effort 2. Tuna fisheries -- Oceania I. South Pacific Commission II. Title III. Series

639.2758099

ISBN 982-203-303-6

AACR2

## PREFACE

At the third meeting of the Standing Committee on Tuna and Billfish (SCTB) held in Noumea, New Caledonia, from 6 to 8 June 1990, the members of the committee called for the Tuna and Billfish Assessment Programme (TBAP) to compile fishery status reports, in order to facilitate the review by the SCTB of the TBAP work programme and to place the work of the TBAP in perspective.

The first annual status report, covering tuna fisheries in the SPC region during 1990, was presented as a working paper to the fourth meeting of the SCTB, held in Port Vila, Vanuatu, from 17 to 19 June 1991; this document was subsequently published as Tuna and Billfish Assessment Programme Technical Report No.27.

The present document is a revised version of the second annual status report, covering tuna fisheries in the SPC region during 1991, which was presented as a working paper to the fourth meeting of the Standing Committee on Tuna and Billfish, held from 17 to 19 June 1992 in Honolulu, Hawaii. In addition to providing information covering 1991, the present work also includes extensive revisions of the historical catch estimates presented in Technical Report No.27.

The reports are arranged by gear type and fishing nation. The industrial fishing methods employed in the SPC region, and discussed herein, include driftnet, longline, pole-and-line, purse seine and troll. Artisanal and subsistence tuna fisheries, though important in some SPC member countries, are not considered. Trends in catch and effort are discussed, with emphasis on events during 1991 for those fleets for which such information is available.

In the tables of historical catch and effort statistics, consideration is given to the four main commercial species caught in the SPC region: albacore (*Thunnus alalunga*), bigeye (*Thunnus obesus*), skipjack (*Katsuwonus pelamis*) and yellowfin (*Thunnus albacares*). Catches of other species are not discussed explicitly, and discards are ignored.

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## INTRODUCTION

Estimates of annual catches, 1952—1991, by countries or territories fishing for tuna in the SPC statistical area (Figure 1) using driftnet, longline, pole-and-line, purse seine and troll are presented. Special reference is made to events that occurred during 1991, whenever such information is available.

Historical statistics have been revised from those presented in Lawson (1991). In particular, revised estimates of catches by the Japanese fleets have been provided by the National Research Institute of Far Seas Fisheries, Japan. Korean purse seine statistics compiled by the National Fisheries Research and Development Agency, Korea, have also been included. Statistics for the (former) Soviet Union fleet were provided by the Pacific Research Institute of Fisheries and Oceanography (TINRO), Russia. Statistics for the *bonitier* fleet of French Polynesia have been included.

Whenever possible, the annual catch estimates were obtained from governments of the fishing nations. However, many of the statistics are from other sources. When no sources were available, an attempt was made to estimate catches from the information at hand. Extensive use was made of data held at SPC in the Regional Tuna Fisheries Database, which contains daily catch and effort data collected by SPC member countries from both domestic fleets and foreign fleets operating in their exclusive economic zones (EEZs).

Caution should be used in interpreting the statistics presented herein; in particular, most estimates for 1991 should be considered preliminary. Table 48 summarises the quality of the catch statistics for each fleet.

Maps depicting the distribution of fishing effort were produced from logbook data held at SPC; however, coverage of the distant-water fleets is generally poor, particularly in high seas areas.

## DRIFTNET

### Japan

The fleet of Japanese driftnet vessels targeted albacore in the South Pacific during the 1982/83—1989/90 seasons (Table 1). The number of vessels active increased to 65 during the 1988/89 season, then declined to 20 vessels during the 1989/90 season following the decision by the Fisheries Agency of Japan to restrict fishing effort. No vessels operated during the 1990/91 season. The catch of albacore peaked during the 1988/89 season at 13,263 mt.

### Korea

Only one driftnet vessel from Korea has fished in the South Pacific (Table 2). The vessel fished for albacore during the 1988/89 season, and caught 172 mt.

### Taiwan

Taiwanese driftnet vessels commenced fishing for albacore in the South Pacific during the 1987/88 season (Table 3). Fishing effort peaked during the 1988/89 season, resulting in a catch of albacore

by 71 vessels of 8,520 mt. Fishing effort declined considerably during the following seasons. During the 1990/91 season, 9 vessels caught 821 mt of albacore.

## LONGLINE

### Australia

The Australian longline fleet is comprised of three groups of vessels: domestic vessels, chartered foreign vessels under Australian registration, and Australian/Japanese joint-venture vessels.

The domestic fleet is comprised of locally built vessels and ex-Japanese vessels. There are currently five ex-Japanese longliners in the 85-vessel Australian domestic fleet. Longlining by domestic vessels occurs primarily in the coastal waters of New South Wales and southern Queensland, generally within 60 nautical miles of the coast. Vessels normally return to port each day, although two- or three-day trips have become common. In contrast to the ex-Japanese and joint-venture and charter vessels, which shoot between 1,800 and 3,000 hooks per set, the Australian-built domestic vessels use only about 200 to 500 hooks. The hooking rate for the Australian-built vessels is usually greater than for the ex-Japanese vessels, due in part to greater selectivity by the domestic vessels of areas and days fished.

High-quality catches of yellowfin, bigeye and striped marlin (*Tetrapturus audax*) are flown to the fresh-chilled sashimi markets of Japan, while other species, such as broadbill swordfish (*Xiphius gladius*) and albacore, are sold on the domestic market (Bureau of Rural Resources 1989).

During 1991, four foreign longliners, including three Korean vessels and one Japanese vessel, were chartered by Australian companies to catch southern bluefin allocated to Australia under a trilateral agreement between Australia, Japan and New Zealand<sup>1</sup>. The vessels were registered as Australian vessels and therefore fished under Commonwealth Fishing Boat licences.

During 1991, a joint-venture or collaborative agreement between the Tuna Longline Development Co-operation Pty Ltd (a consortium of Australian southern bluefin quota holders and Japanese interests) and the Australian government allowed a total of 21 Japanese vessels access to the Australian Fishing Zone (AFZ) during specified times<sup>2</sup>.

Statistics for the domestic vessels determined from logbook data are presented in Table 4. Domestic vessels caught at least 623 mt in 1991.

### Federated States of Micronesia

Since 1991, at least two vessels, *Amber Dawn* and *Mutunte*, have been active. The *Amber Dawn* is based in Pohnpei, while *Mutunte* is based in Kosrae. The two vessels caught at least 7 mt, primarily yellowfin, in 1991 (Table 5).

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<sup>1</sup> *Australian Fisheries*, Volume 50, December 1991

<sup>2</sup> *Australian Fisheries*, Volume 50, December 1991

## Fiji

In 1989 and 1990, major investments were made in Fiji for the purpose of catching yellowfin and bigeye by longline for export. About 11 longliners were actively fishing in 1990. During 1991, 14 vessels were licensed. The catch in 1991 by the 8 vessels for which data are available was 556 mt of albacore, bigeye and yellowfin (Table 6).

Chartered Taiwanese vessels have operated in Fijian waters since 1975; these vessels are covered in the discussion of Taiwanese longliners below.

Two Fijian-registered vessels conducted a three-month survey of the waters of Wallis and Futuna in 1991, producing good catches of tuna and deep-sea snapper.<sup>3</sup>

## French Polynesia

Longlining was introduced in French Polynesia during 1991. Five vessels, including two multi-purpose vessels built in France, caught 245 mt of yellowfin, albacore and bigeye (Table 7).

## Japan

The Japanese longline fleet currently operating in the SPC statistical area consists of two groups of vessels: distant-water vessels and vessels based in the SPC area.

Distant-water vessels (150—500 gross tonnes) have been active in the SPC area since the 1930s. After restrictions on the movement of Japanese vessels, imposed following World War II, were lifted in 1952, the number of distant-water vessels in the SPC area increased consistently throughout the 1950s and 1960s. Catches reached 155,256 mt in 1962 (Table 8). During the 1970s and 1980s, the number of distant-water vessels declined as less efficient vessels were retired in response to rising costs of fishing. Distant-water longliners caught 49,593 mt in FAO area 71 during 1990 (Table 8).

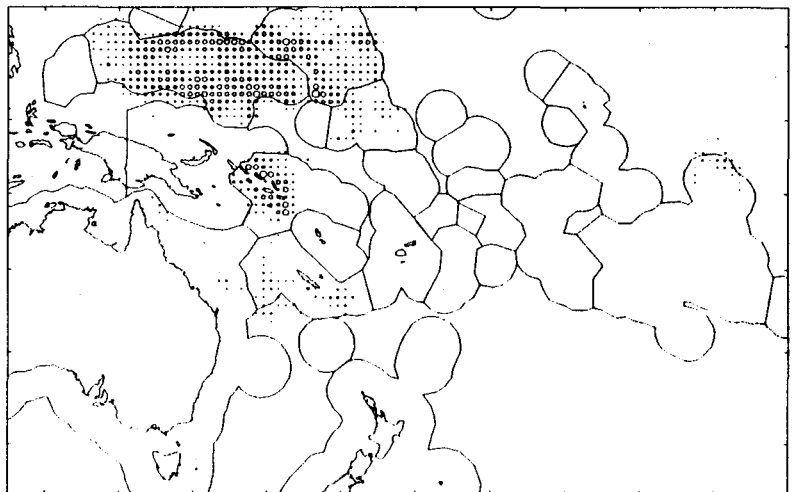


Figure 2. Japanese longline effort, 1991

<sup>3</sup> *The South Sea Digest*, No. 21, Vol. 11, 17 January 1992, quoted in *Forum Fisheries Agency News Digest*, March—April 1992

Since late 1987, smaller vessels (all under 100 gross tonnes, many around 20 gross tonnes) have been based in Guam, and, more recently, Koror and Pohnpei. These vessels transshipped 8,076 mt from Guam in 1991 (Table 9).

## Korea

It has been reported that a major shift in operations from the Indian and Atlantic Oceans to the Pacific Ocean occurred during 1991, although catches in the Pacific Ocean increased only slightly.<sup>4</sup>

It has also been reported that fishing by Korean longliners targeting southern albacore was poor during the 1990/91 season and that this, combined with low prices for albacore, forced the fleet to redeploy to target bigeye and yellowfin.<sup>5</sup> The number of Korean longliners based in Pago Pago,

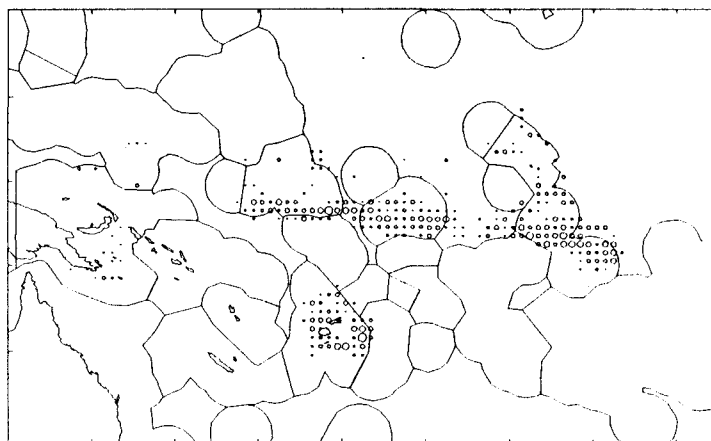


Figure 3. Korean longline effort, 1991

which include most of the vessels targeting albacore, dropped to eight in October 1991,<sup>6</sup> from 25 vessels in 1989 and 20 vessels in 1990.

During the first nine months of 1991, bigeye exports to Japan by Korean and Taiwanese longliners increased by 30 per cent as these vessels shifted from yellowfin to bigeye due to an oversupplied yellowfin market.<sup>7</sup>

The most recent catch statistics available are for 1989, during which Korean longliners caught an estimated 23,162 mt in the Pacific Ocean (Table 10).

<sup>4</sup> *Katsuo-Maguro Tsushin*, No. 6385, 2 October 1991, quoted in *Forum Fisheries Agency News Digest*, November–December 1991

<sup>5</sup> *Forum Fisheries Agency News Digest*, April–May 1990

<sup>6</sup> National Fisheries Research and Development Agency, personal communication, December 1991

<sup>7</sup> Food and Agriculture Organization *Globefish Highlights* 4/91

## Marshall Islands

During 1991, a 14 m ex-Taiwanese longliner, owned by a Taiwanese who is a naturalised Marshallese, operated from Majuro. The vessel developed engine trouble on 7 September 1991 and drifted until it was found south of Christmas Island on 21 February 1992.<sup>8</sup>

About ten other Taiwanese longliners, some of which are registered in the United States but crewed by Taiwanese, fished from Majuro during 1991. These vessels are considered under *Taiwan longline* below.

## New Caledonia

The fleet of longliners based in Noumea, New Caledonia, has grown from one vessel in 1983 to seven vessels in 1990; during 1991, six vessels were active (Table 11). The fleet fishes almost exclusively in the waters of New Caledonia, targeting albacore for the local market and yellowfin and bigeye for the Japanese sashimi markets.

During late 1991, the fleet ceased fishing activities. The total catch by the New Caledonian fleet during 1991 was approximately 1,850 mt, compared to 1,985 mt in 1990. Fishing resumed in early 1992.

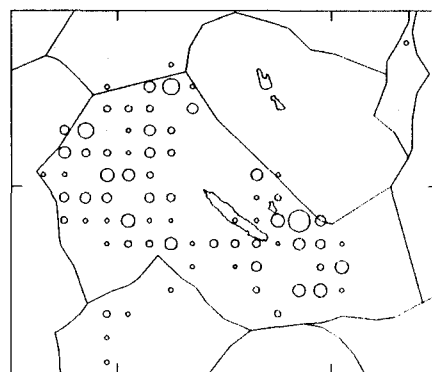


Figure 4. New Caledonian longline effort, 1991

## New Zealand

Logbook data available for domestic longliners in New Zealand (excluding chartered vessels) indicate that 11 vessels caught 21 mt in 1991, including 19 mt of bigeye and 2 mt of albacore (Table 12).

## Solomon Islands

Domestic longliners fished in Solomon Islands waters during 1973 and 1976—1985. Two vessels were active each year. The maximum catch was 818 mt in 1980, including 564 mt of yellowfin, 98 mt of bigeye and 25 mt of albacore (Table 13).

## Taiwan

The Taiwanese longliners fishing in the SPC statistical area fall into two groups. The smaller vessels based in Guam, Koror, Majuro, Pohnpei and Yap, mostly 20—80 gross tonnes, target on yellowfin and bigeye. The distant-water vessels, mostly 150—250 gross tonnes, fish from base ports in American Samoa and Fiji and primarily target albacore.

<sup>8</sup> Forum Fisheries Agency *News Digest*, March—April 1992

During 1991, ten Taiwanese longliners began operating from Majuro, Marshall Islands (McKoy, personal communication, September 1991). The crews included two to four Taiwanese and four to five Filipinos. The vessels took trips of about 10 to 14 days, catching three to five tons of yellowfin and bigeye. In late 1991, seven vessels were transshipping from Pohnpei and about 12 vessels from Yap. Taiwanese longliners less than 100 GRT transshipped an estimated 4,091 mt from Guam and Koror during 1991 (Table 14).

Taiwanese distant-water vessels caught an estimated 9,527 mt in the SPC area during 1990, an increase from 8,833 mt caught in 1989 (Table 15).

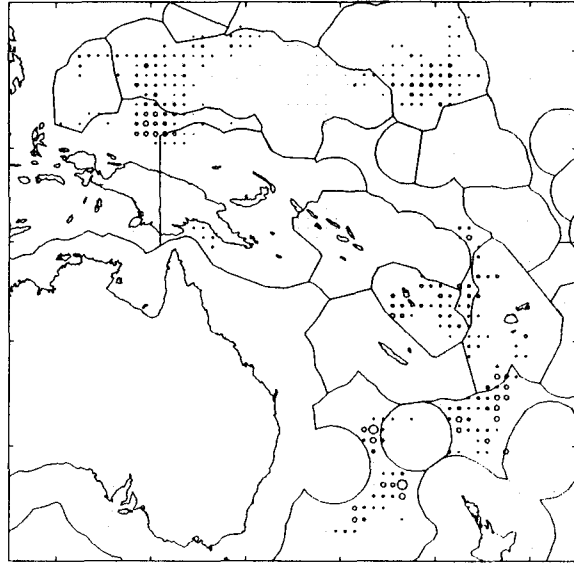


Figure 5. Taiwanese longline effort, 1991

Few data covering the distant-water longliners are held at SPC, therefore Figure 5 probably does not accurately depict the full distribution of fishing effort of these vessels.

### Tonga

Tonga's single longline vessel was built of GRP construction in Japan in 1981. Since fishing began, in 1982, catches have averaged 290 mt annually, with a peak in 1985 of 370 mt (Table 16). During 1991, 231 mt were caught, including 174 mt of albacore.

### United States

Three American longliners fished in the Marshall Islands for a short period during 1991 and experienced disappointing catch rates.

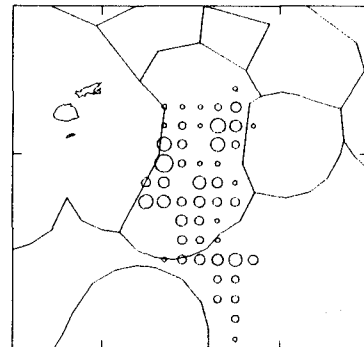


Figure 6. Tongan longline effort, 1991

### Vietnam

Three Vietnamese-registered vessels were reported to have operated from Guam during 1991, one of which was arrested for fishing illegally within the twelve-mile limit in Yap State, Federated States of Micronesia (McKoy, personal communication, September 1991).



## POLE-AND-LINE

### Australia

In recent years, the pole-and-line fishery in Australia has expanded. During 1991, approximately 1,036 mt were caught, including 987 mt of skipjack and 49 mt of yellowfin (Table 17).

### Fiji

The Fijian pole-and-line fleet has consisted of vessels owned by Ika Corporation, chartered Japanese vessels, and other private vessels. During 1991, 10 vessels were active (Table 18). The fishery is seasonal, usually from November to August; the catch is usually comprised of about 90 per cent skipjack and 10 per cent yellowfin. Four vessels fished in Solomon Islands waters during the second half of 1991.



Figure 7. Fijian pole-and-line effort, 1991

The 1991 catch of 4,427 mt was less than the 1989 catch of 5,883 mt, but greater than the 1990 catch of 4,029 mt.

### French Polynesia

The *bonitier* fleet of French Polynesia has been active since at least 1975 (Table 19). Annual catches averaged 918 mt during 1979–1991. The 1991 catch was 760 mt, including 614 mt of skipjack and 105 mt of yellowfin.

### Japan

Japanese pole-and-line fishing started in the Western Central Pacific in 1922. The fishery peaked at 160,047 mt in 1977 (Table 20). Thereafter, the fishery contracted in response to rising costs of fishing and reduced access to fishing grounds resulting from the implementation of EEZs by SPC member countries. Logbook data held at SPC cover 317 vessels in 1980, whereas only 54 vessels are covered for 1991.

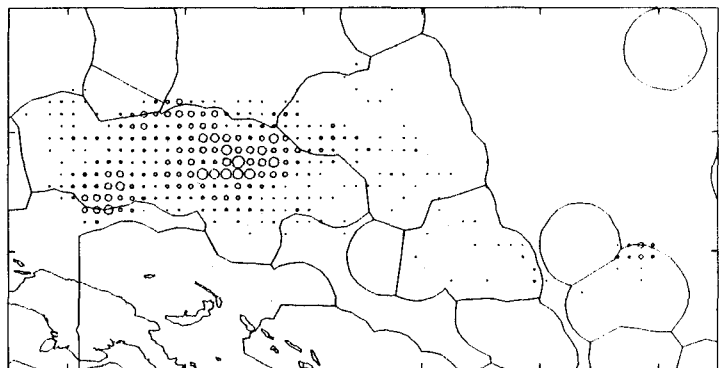


Figure 8. Japanese pole-and-line effort, 1991

The catch increased during 1991 to approximately 91,663 mt, compared to 59,663 mt in 1990.

A JAMARC pole-and-line vessel, *Kaiwao Maru 58*, surveyed *toro katsuo*, fatty skipjack, in the international waters of the Tasman Sea from November to December 1991, and in the New Zealand EEZ from December 1991 to January 1992.<sup>9</sup> From November 1991 to January 1992, five other vessels explored the international waters in the Tasman Sea and caught sashimi-quality skipjack and some albacore using live bait from New Zealand.<sup>10</sup>

## Kiribati

The Kiribati pole-and-line fleet grew to five vessels in 1988, when two vessels constructed in Fiji were added. Since 1987, several of the vessels have fished in the waters of Fiji on a seasonal basis, usually from November to April. In late 1990, four of the five vessels fished in the waters of Solomon Islands. Following poor fishing and mechanical problems in 1990, the fleet was forced to discontinue fishing at the beginning of 1991. Three of the vessels recommenced fishing later in the year.

Catches have been variable in recent years: 434 mt in 1987, 1,536 mt in 1988, 2,273 mt in 1989 and 578 mt in 1990 (Table 21).

## New Caledonia

The pole-and-line fleet was established in 1981 with one vessel; it expanded to three vessels in 1982 (Table 22). The fishery closed in 1983 due to economic conditions prevalent at the time (Hallier 1984).

## New Zealand

Three pole-and-line vessels were active in the waters of New Zealand during 1990—1991 (Table 23), while one New Zealand-registered vessel was active in the waters of Solomon Islands during 1991. The three vessels operating in the waters of New Zealand caught 1.2 mt of albacore in 1991, while the vessel operating in the waters of Solomon Islands caught 116 mt, including 114 mt of skipjack and 2 mt of yellowfin.

## Palau

The Van Camp Sea Food Company established cold storage facilities at Koror in 1964 for the transshipment of tuna landed by Okinawan pole-and-line vessels owned by Van Camp. The fleet operated until 1982. According to logbook data held at SPC, the maximum number of vessels was reached in 1981, when 36 vessels were active (Table 24). Catches grew from 1,178 mt in 1964 to 8,442 mt in 1970; thereafter catches were variable.

<sup>9</sup> *Katsuo-Maguro Tsushin* No. 6404, 30 October 1991, quoted in Forum Fisheries Agency *News Digest*, January—February 1992

<sup>10</sup> *Katsuo-Maguro Tsushin* No. 6450, 14 January 1992, and *Suisan Keizai Shinbun*, No. 10857, 13 January 1992, quoted in Forum Fisheries Agency *News Digest*, March—April 1992

A locally-owned 25 GRT pole-and-line vessel operated in Palau during 1991.

### Papua New Guinea

Pole-and-line fishing in Papua New Guinea commenced first out of Manus and Madang for a short period, then out of Kavieng, New Ireland, in 1970 (Tuna Programme 1983). The fishery grew from one joint-venture company and 2,431 mt caught in 1970 to four companies and 41,780 mt caught in 1974 (Table 25). Okinawan-style (59 gross tonnes) pole-and-line vessels were predominant in the fishery, catching 90 per cent skipjack and operating in groups serviced by a mothership with freezer and storage facilities. The fishery ceased operations in 1981, then recommenced in October 1984 and continued until late 1985.

### Solomon Islands

Two companies, Solomon-Taiyo Ltd and National Fisheries Development Corporation (NFD), developed the pole-and-line fishery in Solomon Islands. NFD was sold in 1990 to British Columbia Packers Ltd and is now operated in association with a BC Packers associate, Mar Fishing Company, which is based in the Philippines.

Catches usually consist of about 95 per cent skipjack, 2 to 3 per cent yellowfin, with the remainder rainbow runner (*Elegatis bipinnulatus*), dolphinfish (*Coryphaena hippurus*) and island bonito (*Euthynnus affinis*).

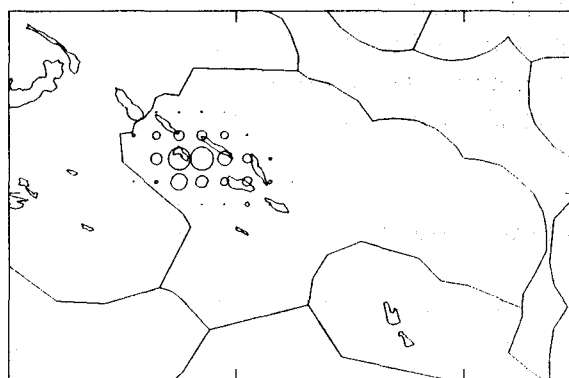


Figure 9. Solomon Islands pole-and-line effort, 1991

In the 1980s, catches averaged 26,865 mt per year (Table 26). The total catch in 1991 was 36,212 mt, up considerably from the low level of 21,558 mt caught in 1990.

### Tuvalu

In 1981, the National Fishing Corporation of Tuvalu (NAFICOT) received a 173 gross tonne pole-and-line vessel, *Te Tautai*, through bilateral aid from the Japanese Government. From the start of operations, April 1982, the *Te Tautai* operated in Fijian waters, managed under an agreement with Ika Corporation. The *Te Tautai* fished in Solomon Islands during most of 1987 and 1988; the annual catch peaked at 1,090 mt in Solomon Islands waters in 1988 (Table 27). Since December 1989, the *Te Tautai* has been under charter to the South Pacific Commission for the Regional Tuna Tagging Project.

## PURSE SEINE

### Australia

Data held at SPC covering the activities of Australian purse seiners off the east coast of Australia, in the SPC statistical area, go back to 1975 (Table 28), though it is known that purse seiners caught skipjack tuna before then. In most cases, skipjack catches have been incidental catches while targeting on southern bluefin. In early 1991, 10 vessels were endorsed to operate in the east coast tuna purse seine fishery, with 8 permitted to fish within 50 nautical miles of the coast and two permitted to fish outside 50 nautical miles.<sup>11</sup> During the 1991 skipjack season, eight vessels fished, catching about 3,424 mt (Table 28).

Since at least 1988, Australian purse seiners have fished outside the Australian Fishing Zone (AFZ), in the waters of the Federated States of Micronesia, Papua New Guinea and Solomon Islands (Table 29). During 1991, five vessels operated in Papua New Guinea, of which four also fished in the waters of the Federated States of Micronesia. Three of the vessels which fished in the Federated States of Micronesia operated under the Caroline Fishing Company, a three-way joint-venture in the Federated States of Micronesia involving the State of Pohnpei, the National Fisheries Corporation, and Kailis and France Pty Ltd of Australia (Micronesian Maritime Authority 1990). The catch of Australian purse seiners fishing outside the AFZ was about 6,444 mt in 1991.

### Federated States of Micronesia

Three ex-American purse seiners based on Yap caught at least 627 mt, including 389 mt of skipjack and 238 mt of yellowfin, during 1991 (Table 30).

### Indonesia

During 1987—1990, three French-built purse seiners (632—765 gross tonnes) operated by a French—Indonesian joint-venture company (Anon 1988) have operated in the waters of SPC member countries on a part-time basis, also fishing in Indonesian waters and on the high seas.

In 1988, their total annual catch was 13,000 mt (Table 31); 3,859 mt, or 30 per cent, were reported on daily catch and effort logsheets to have been caught in the waters of SPC member countries.

### Japan

Purse seine trials in the SPC area began around 1960 (Matsuda and Ouchi 1984). Since 1985, the number of single seiners licensed by the Fisheries Agency of Japan to fish in the SPC area has been limited to 31 vessels; two or three other vessels with special licences for exploratory fishing have fished there occasionally (Anon 1989b). At the outset of the fishery, almost all Japanese purse seiners were of the same type, 499 gross tonnes with a carrying capacity of 550 tonnes; in recent

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<sup>11</sup> Australian Fisheries Service *Tuna Newsletter*, May 1991

years several 550-tonne capacity purse seiners have been replaced with vessels of 750-tonne capacity.

Japanese group seiners operate with one catcher vessel, usually of 116 gross tonnes, one or two carrier vessels of about 325 gross tonnes, and an anchor vessel of 45 gross tonnes. The fishery is seasonal, with vessels usually operating in the region from February to May. Group seiners first operated in the region in 1980, in the waters of the Federated States of Micronesia. The number of group seiners licensed by the Fisheries Agency of Japan to fish in the SPC area has been limited to seven.

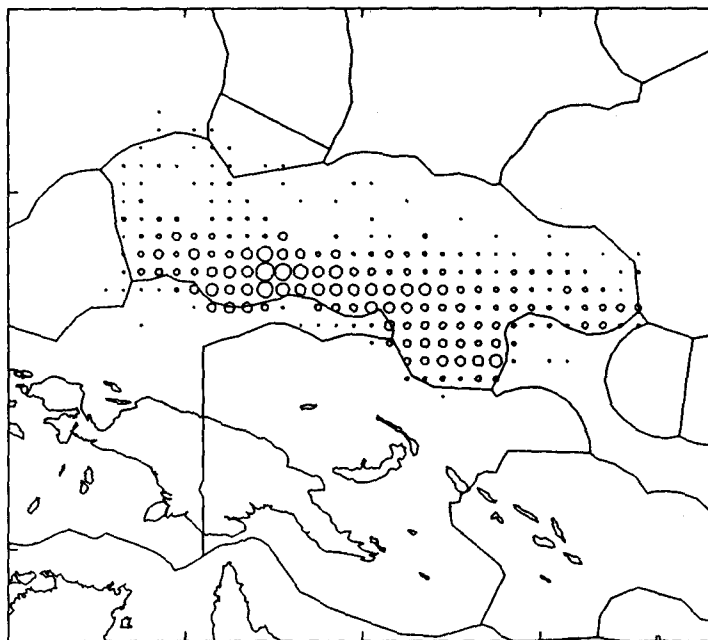


Figure 10. Japanese purse seine effort, 1991

The catch by Japanese seiners in 1991 was 170,315 mt, including 73 per cent skipjack and 26 per cent yellowfin (Table 32). The 1991 catch represents an increase of 10,580 mt, or 7 per cent, over the 1990 catch.

## Korea

During 1991, the Korean purse seine fleet numbered 37 vessels (Table 33). Though a smaller number of vessels fished than in the fleets of Taiwan and the United States, the total catch in 1991, 242,685 mt, including 80 per cent yellowfin and 20 per cent skipjack, was greater than for all other fleets. The high catch by the Korean fleet has been attributed to efficient transshipment at sea, which reduces the amount of time spent idle in port.

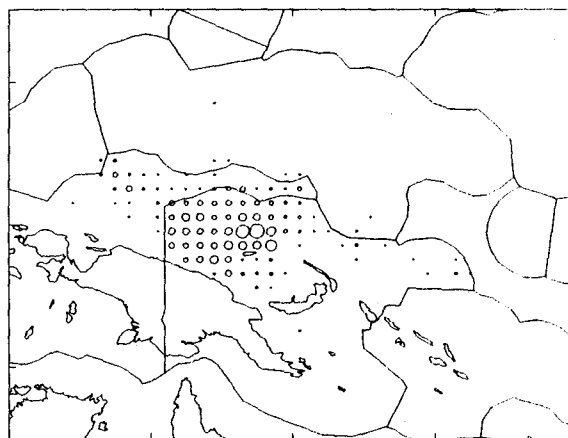


Figure 11. Korean purse seine effort, 1991

## Marshall Islands

*Koorale*, the first purse seiner owned by the Marshall Islands government (in a joint venture with an American captain), began fishing in December 1989. A second joint-venture vessel, *Bold Fleet*, was purchased in 1990. The Marshall Islands vessels are licensed to fish under the *Treaty on fisheries between certain Pacific Island states and the United States*; catch statistics for the Marshall Islands seiners are included in the table for American purse seiners.

## Mexico

Two Mexican purse seiners fished under an agreement with the Federated States of Micronesia in 1984. The vessels fished for 167 days and caught 3,191 mt, for an average catch rate of 19.1 mt per day (Table 34).

## New Zealand

The purse seine fishery for skipjack in New Zealand takes place during the southern summer months. From statistics provided by the Ministry of Agriculture and Fisheries, the New Zealand purse seine fleet, excluding chartered American vessels, caught 6,720 mt during 1991 (Table 35).

## Philippines

Two companies in the Philippines operate purse seiners in the waters of SPC member countries. An estimated 12 vessels fished in Papua New Guinea and Solomon Islands during 1991, including two Philippine-flagged vessels which operated in a Papua New Guinea joint venture (with Korean and Singapore interests) based in Madang, Papua New Guinea (Table 36). The Philippine vessels make extensive use of payaos (anchored rafts) to attract the fish.

The catch in the SPC area during 1991 reported on logbooks received at SPC was 16,557 mt, although the total catch, both inside the SPC area and in the waters of the Philippines and, more recently, Indonesia, may have been substantially greater.

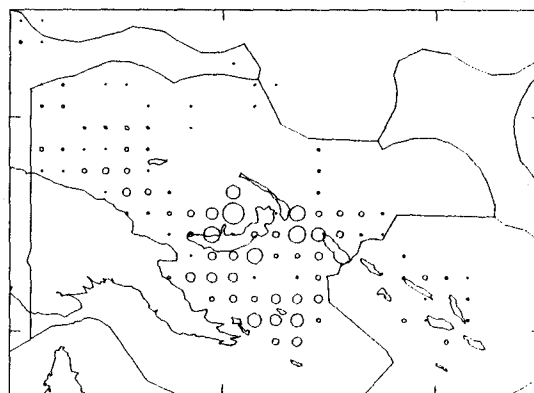


Figure 12. Filipino purse seine effort, 1991

## Solomon Islands

In 1980, trials were conducted by a Japanese group seine operation. In 1984, Solomon Taiyo Ltd (STL) was established and purchased the purse seiner and associated vessels. During 1990, STL acquired a second group seiner. The original group seiner sank in 1991, with a loss of crew. A 995 gross tonne Taiwanese purse seiner has been chartered by STL since 1987.

Two single seiners of 500 gross tonnes, built by National Fisheries Development Ltd (NFD), began fishing in 1988. In January 1990, one of the two NFD seiners was transferred to STL; the vessel stopped fishing in August 1990 because of the need for repairs. NFD was sold in 1990 to BC Packers Ltd and is now operated in association



Figure 13. Solomon Islands purse seine effort, 1991

with its Philippines-based associate, Mar Fishing Company. In December 1990, Filipinos joined the crew of the remaining NFD seiner.

The total catch by the three vessels active in 1991 was 10,030 mt (Table 37).

### Soviet Union

The first year-round purse seining in the Western Pacific by the ex-Soviet Union fleet was conducted in mid-1985. The fleet included five seiners of 85 metres, 2,634 GRT and a carrying capacity of 940 mt. The fleet, which has varied from 4 to 8 vessels, has fished continuously in the SPC area since 1985, with annual catches averaging 4,086 mt (Table 38). The catch during 1991 was 3,715 mt.

### Taiwan

The Taiwanese purse seine fleet grew from 3 vessels in 1980 to 35 vessels in 1990 (Table 39). Taiwan added 9 vessels to the fleet in 1991, resulting in a total of 44 purse seiners.<sup>12</sup>

While coverage of the number of days fished by Taiwanese purse seiners by data held at SPC has been relatively high, the catches recorded on logsheets provided to SPC member countries are under-reported (South Pacific Commission 1992). If it is assumed that the catch per vessel averaged about 4,000 mt, the total catch in 1991 was probably about 176,000 mt.

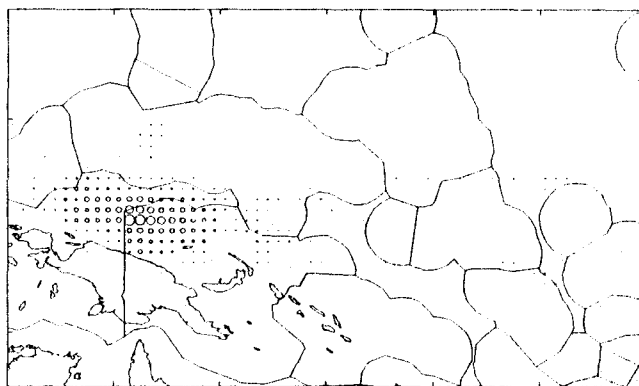


Figure 14. Taiwanese purse seine effort, 1991

### United States

The American purse seine fleet was firmly established in the SPC area by the time of the agreement concluded between the American Tunaboat Association and three SPC member countries, Palau, the Federated States of Micronesia and the Marshall Islands; the agreement allowed American seiners to fish in the EEZs of the three countries from July 1980 until June 1982. Since the implementation of the multilateral treaty in June 1988, the American purse seine fleet has been permitted to fish in the EEZs of the 16 Pacific island countries party to the treaty.

On 1 March 1991, the governments of the United States and France signed an agreement permitting American vessels to fish in the waters of New Caledonia and of Wallis and Futuna from November

<sup>12</sup> NMFS Office of International Affairs, quoted in National Marine Fisheries Service *Tuna Newsletter* 103, November 1991

1991 to October 1992. The agreement allows for 25 licences for New Caledonia, with a maximum of 14 vessels at any time, and 17 licences for Wallis and Futuna, with a maximum of 4 vessels at any time. No vessels fished under the agreement during 1991.

The number of vessels active in the Western Pacific increased to 43 vessels in 1990 from 36 vessels in 1989, as vessels arrived from the Eastern Pacific following the announcement on 12 April 1990 that the three largest American tuna canning companies had decided not to purchase tuna caught in association with dolphins (Table 40). During 1991, the fleet caught 214,415 mt, including 173,427 mt of skipjack and 40,511 mt of yellowfin, a substantial increase over the 1990 catch of 164,054 mt.

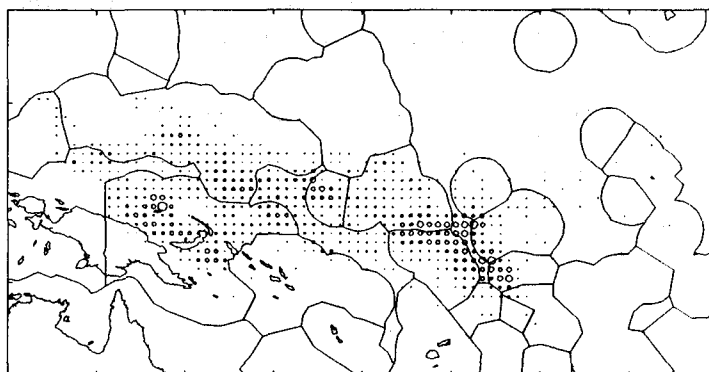


Figure 15. American purse seine effort, 1991.

## TROLL

### Australia

In September—October 1991, two commercial vessels began fishing for albacore off south-eastern Australia as part of a research project initiated by the Bureau of Rural Resources (Table 41).<sup>13</sup> The main aims of the project are to assess the commercial feasibility of poling and trolling for albacore and to gather information on the extent of the albacore resource off south-eastern Australia.

### Canada and Fiji

Several Canadian and Fijian trollers have participated in the southern albacore fishery, including two vessels licensed by Fiji in 1991. Catches of albacore by Canadian and Fijian vessels were estimated to be 103 mt in 1991 (Table 42).

### French Polynesia

Trollers based in French Polynesia targeting albacore in the Sub-Tropical Convergence Zone have been active since 1989. During 1991, the catch of albacore by four vessels, including two multi-purpose vessels, was 326 mt (Table 43).

<sup>13</sup> *Australian Fisheries*, Volume 50, Number 12, December 1991



## New Zealand

New Zealand trollers have fished for albacore since at least the 1973/74 season (Table 44). The number of vessels has been variable in recent years, dropping from about 100 vessels during the 1986/87 season to about 25 vessels during the 1987/88 season; during the 1990/91 season, 142 vessels were active. In past years, the fishing grounds were located off the west coast of New Zealand and in the Tasman Sea; in recent years, a number of New Zealand vessels have fished in international waters off the east coast of New Zealand. The albacore catch during 1973/74—1989/90 averaged 1,682 mt. The 1990/91 catch, 2,464 mt, was above average.

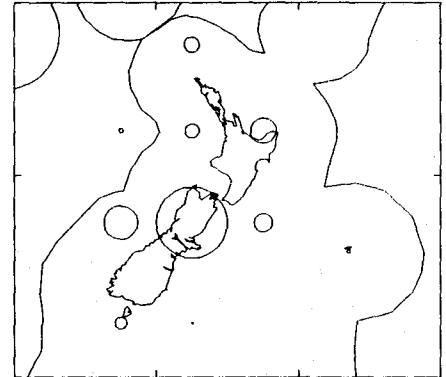


Figure 16. New Zealand troll effort during the 1990/91 season

## United States

Surveys were conducted by the National Marine Fisheries Service in 1986 with a view to establishing the potential for an albacore fishery in southern waters. In response to the successful results from the surveys, 35 vessels participated 1988 (Table 45). During 1990, 58 vessels caught 5,427 mt of albacore, a considerable increase over the 1990 catch of 3,758 mt.

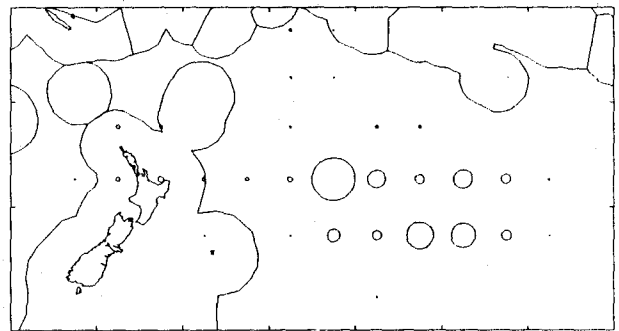


Figure 17. American troll effort during the 1990/91 season

## SOUTH-EAST ASIA

### Indonesia

Domestic tuna fisheries in the eastern waters of Indonesia use several gear types (Naamin and Bahar 1990). State enterprise companies for skipjack pole-and-line fishing are located in Sorong, Ambon and Bitung, while joint ventures, private companies and the artisanal fisheries are based in Biak, Sorong, Ambon, Ternate and other areas. The joint-venture pole-and-line vessels based in Biak are 300 gross tonnes; the state enterprise vessels are mostly 30 gross tonnes; the private company and artisanal vessels range in size from 3 to 30 gross tonnes. A total of 616 pole-and-line vessels ranging from 3 to 30 gross tonnes fished in 1989.

Since 1985, the longline fishery has developed rapidly, increasing to 136 vessels in 1989. While the regular longline fleets consists of vessels ranging from 50 to 100 gross tonnes, a fleet of smaller vessels, from 1 to 30 gross tonnes, has been introduced. Hand-line vessels, ranging from 1 to 3 gross tonnes, numbered 463 in 1989.

About 290 artisanal purse seiners operate off East Java. About 200 gillnet vessels, ranging from 3 to 6 gross tonnes, fished in 1989.

Annual catches of tuna and tuna-like species have increased consistently in Indonesia. The total catch of skipjack in eastern Indonesian waters in 1990 was 94,148 mt, an 8 per cent increase over 1989; the total catch of yellowfin was 48,087 mt in 1990, a 4 per cent increase over 1989 (Table 46).

## Philippines

Fishing vessels in the Philippines are categorised on the basis of their size; those below three gross tonnes are considered *municipal* vessels, while those over three gross tonnes are considered *commercial* vessels. Municipal vessels are licensed by the municipalities; commercial vessels obtain licences from the Bureau of Fisheries and Aquatic Resources. From 1984 to 1989, the commercial sector contributed slightly over 50 per cent of all tuna landings.

The major municipal gear catching tuna is handline, which includes vessels which sell their catch on the Japanese sashimi market, followed by vessels using by small ringnets and gillnets (Barut and Arce 1990). The most important commercial gear types are purse seine and ringnets, operated in conjunction with fish aggregation devices (FADs). While the total number of municipal vessels is unknown, about 8,000 handliners recently fished for sashimi-grade tuna from General Santos City.

The number of commercial vessels has been variable. The number of purse seiners peaked at 516 in 1982, then declined to 286 in 1988. Ringnet vessels increased consistently, from 143 vessels in 1978 to 524 vessels in 1988; the number of vessels dropped slightly in 1989.

Ringnet, bagnet, handline and longline vessels are almost all less than 100 gross tonnes. The composition of the purse seine fleet has changed over the years. In 1980, there were 409 vessels, of which 20 per cent were over 100 gross tonnes, while in 1988, 46 per cent of the 286 vessels were over 100 gross tonnes.

Skipjack catches in the Philippines have increased considerably, though not consistently, from 20,000 mt in 1970 to 95,594 mt in 1991 (Table 47). Yellowfin catches have followed a similar pattern, increasing from 32,000 mt in 1970 to 102,394 mt in 1991.

## DISCUSSION

### Data quality

The quality of the estimates of annual catches presented in Tables 1—47 varies considerably (Table 48). The estimates for fleets of SPC member countries tend to be good. The estimates for certain distant-water fleets are good (e.g. Japanese pole-and-line and purse seine, Korean purse seine), while those for other distant-water fleets are poor. For recent years, the lack of reliable estimates of annual catches in the SPC statistical area for a number of the distant-water fleets (Japanese and Korean longline; Indonesian, Filipino and Taiwanese purse seine) has been especially problematic. Nevertheless, indications of the trends in catch are presented in Tables 49—57.

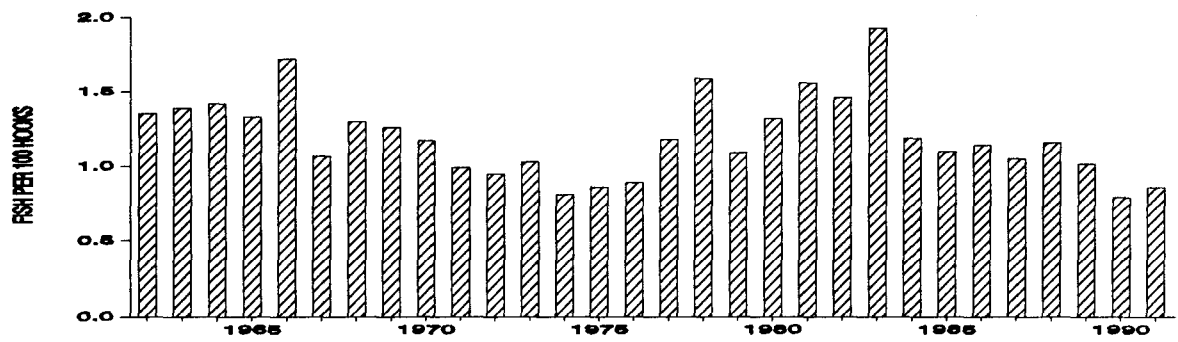


Figure 18. Japanese longline catch rates for yellowfin between 10°S and 15°N

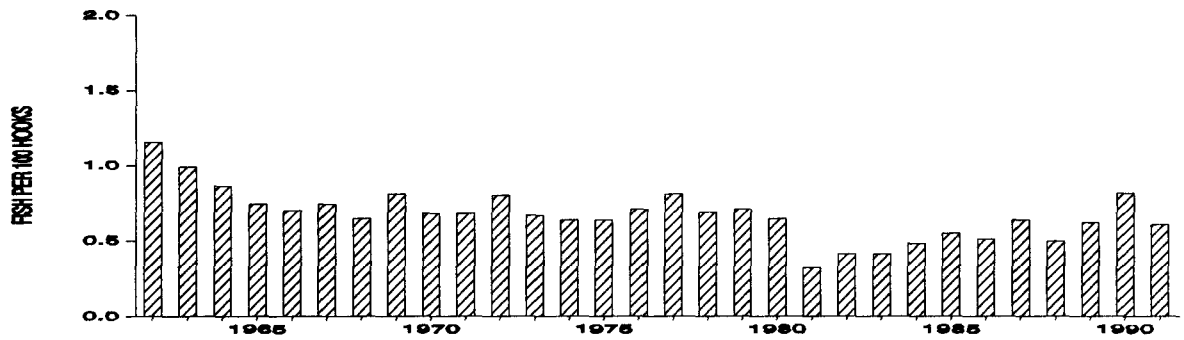


Figure 19. Japanese longline catch rates for bigeye between 10°S and 15°N

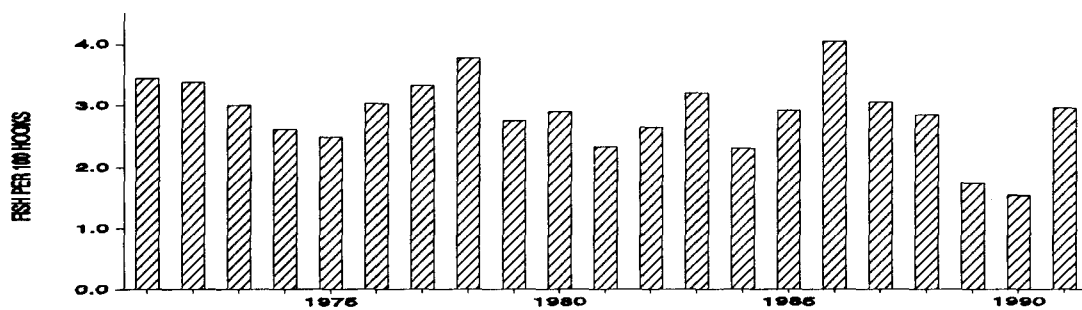


Figure 20. Taiwanese longline catch rates for South Pacific albacore

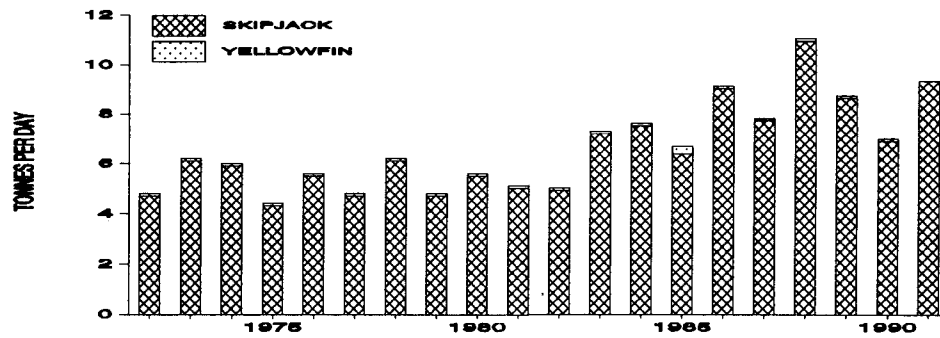


Figure 21. Japanese pole-and-line catch rates

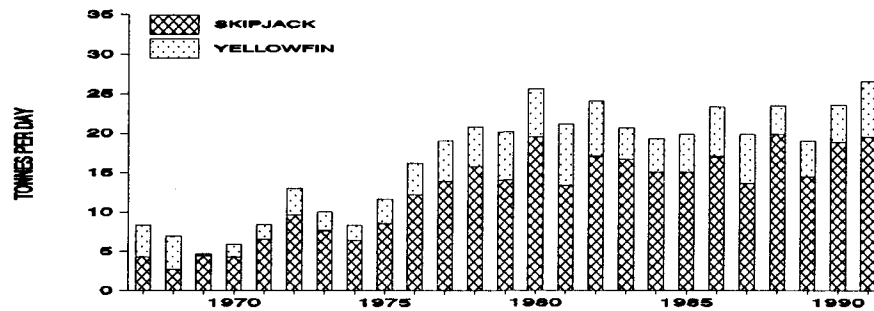


Figure 22. Japanese purse seiner catch rates

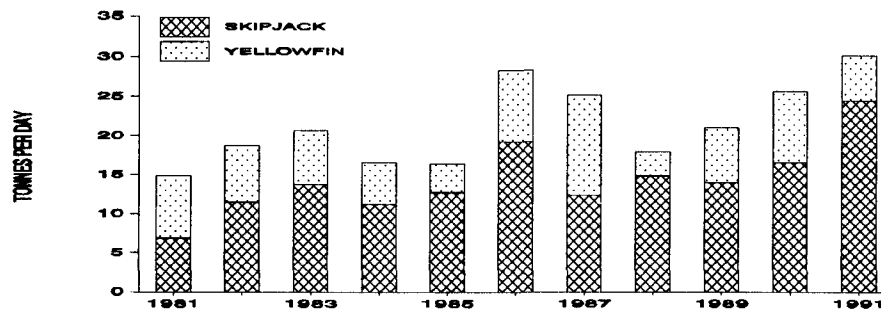


Figure 23. American purse seiner catch rates

## **Driftnet**

The driftnet fishery was marked by a further decline in the number of vessels active during the 1990/1991 season. The albacore catch by driftnet vessels dropped from 7,426 mt in 1990 to 821 mt in 1991 (Table 49).

## **Longline**

With few data forthcoming from the distant-water longline fishing nations in recent years, and the lack of complete or even representative data for the longline fleets of Japan, Korea and Taiwan in the logbook data held at SPC, a quantitative assessment of the status of the longline fishery is difficult. Nevertheless, the following trends are evident.

The number of smaller Taiwanese and Japanese longliners transshipping from ports in the region continued to increase in 1991. In addition to the larger distant-water vessels based in Levuka and Pago Pago, smaller Taiwanese vessels are now established in Guam, Koror, Majuro, Pohnpei and Yap. During 1991, smaller Japanese longliners transshipped from Guam, Koror, Pohnpei and Yap.

During the first half of 1991, longliners in general shifted from yellowfin to bigeye, due to an oversupply of yellowfin in Japan. Imports of bigeye to Japan increased considerably by July, with a consequent weakening of prices.

An indication of longline catch rates for yellowfin and bigeye is given from logbook data collected from Japanese longliners fishing between 15°N and 10°S. Since 1983, yellowfin CPUE has generally shown a declining trend (Figure 18). During 1991, yellowfin catch rates increased slightly. Since 1981 bigeye CPUE has shown a slightly increasing trend (Figure 19). During 1991, bigeye catch rates decreased.

Data published by the National Taiwan University show that albacore CPUE in the SPC area declined from a relatively high level in 1986 to the lowest level ever recorded by 1989 (Figure 20). Data held by the National Marine Fisheries Service covering Taiwanese vessels sampled in Pago Pago indicate that albacore catch rates began to recover during 1990. The limited SPC logbook data for 1991, covering vessels fishing in the waters of Fiji and in the Tasman Sea, suggest that the recovery has continued.

The preliminary estimate of the total catch by all longliners in 1991 is 92,245 mt (Table 50).

## **Pole-and-line**

The Japanese pole-and-line fishery experienced poor catches during 1990, which resulted in reduced effort by the Japanese fleet in the SPC area. Compared to 1988 and 1989, when the catch rate for Japanese pole-and-line vessels reached 11.7 mt per day and 10.7 mt per day respectively, the catch rate during 1990 was 7.1 mt per day (Figure 21). During 1991, the catch rate increased to 9.2 mt per day.

The catch rate for the Solomon Islands pole-and-line fleet was 5.34 mt per day during 1991, up from the low level of 3.5 mt per day experienced in 1990 and considerably above the 1971—1990 average of 4.0 mt per day.

The preliminary estimate of the total 1991 pole-and-line catch, for all fleets combined, is 134,173 mt, up considerably from the estimated 1990 catch of 87,103 mt (Table 51).

### **Purse seine**

The purse seine fishery was marked by a considerable increase in fishing effort during 1990. During 1991, the number of vessels in the fleets of Japan, Korea, the Philippines and the United States remained relatively stable, while the Taiwanese fleet increased from 35 vessels in 1990 to 44 vessels in 1991.

Purse seine catch rates have shown an increasing trend in recent years. Catch rates for Japanese and American purse seiners continued to increase in 1991 (Figures 22 and 23), resulting in increased catches over 1990. The Korean fleet recorded the largest catch, due in part to high fishing effort resulting from extensive transshipment at sea.

The preliminary estimate of the catch by purse seiners during 1991 is 848,907 mt, including 668,385 mt of skipjack and 180,522 mt of yellowfin<sup>14</sup>. The purse seine catch for 1991 represents an increase of 181,162 mt, or 27 per cent, over the estimated 1990 catch of 667,745 mt (Table 52).

### **Troll**

The total catch of albacore by American trollers during 1991 increased to 5,427 mt, from 3,758 mt during 1990, due largely to an increase in the number of vessels active, 58 in 1991 compared to 38 in 1990. While the American troll catch increased, the New Zealand catch declined slightly, to 2,464 mt during the 1990/91 season compared to 2,525 mt during the 1989/90 season. The overall troll catch of albacore increased during the 1990/91 season, from an estimated 6,582 mt in 1990 to 8,320 mt in 1991 (Table 53).

## **CONCLUSION**

Preliminary estimates of catches in the SPC statistical area for 1990 presented in Lawson (1991) have been revised downward for longline and pole-and-line, while the estimate of the purse seine catch for 1990 has remained unchanged. Preliminary estimates of catches in Indonesia for 1990 have been revised downwards, while catches in the Philippines for 1990 have been revised upwards. As a result, the estimate of the 1990 catch in the SPC area has decreased, while the estimate of the 1990 catch in the SPC area plus Indonesia and the Philippines has remained unchanged.

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<sup>14</sup> Catches of yellowfin reported for purse seiners may include about 10 per cent bigeye.

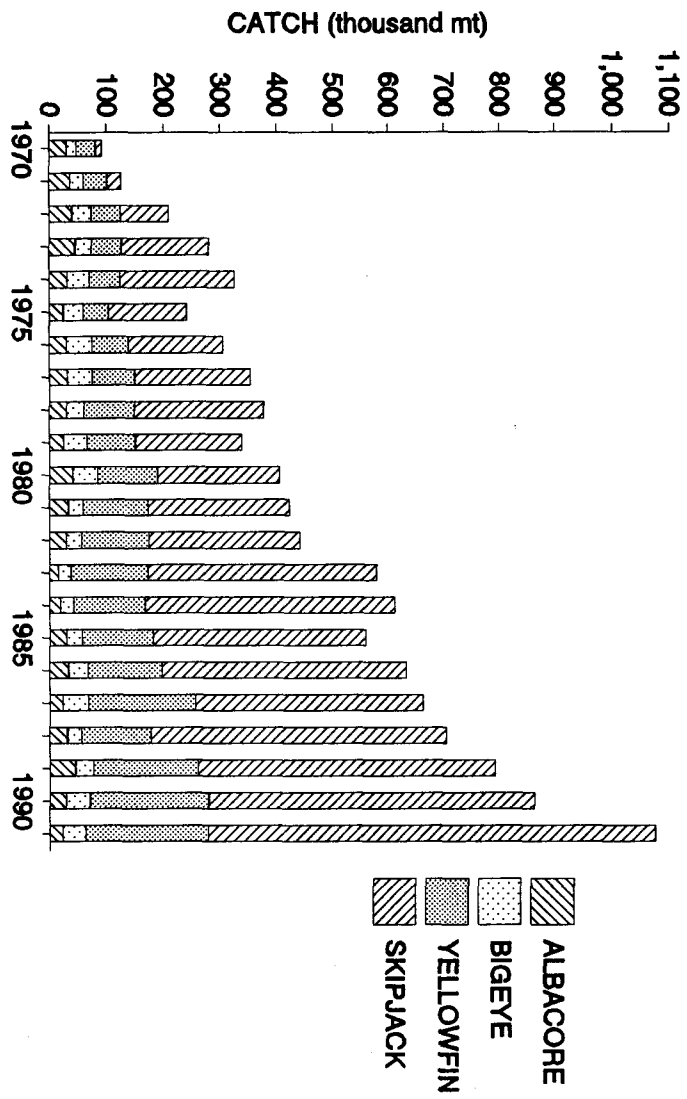


Figure 24. Annual catches by species in the SPC statistical area

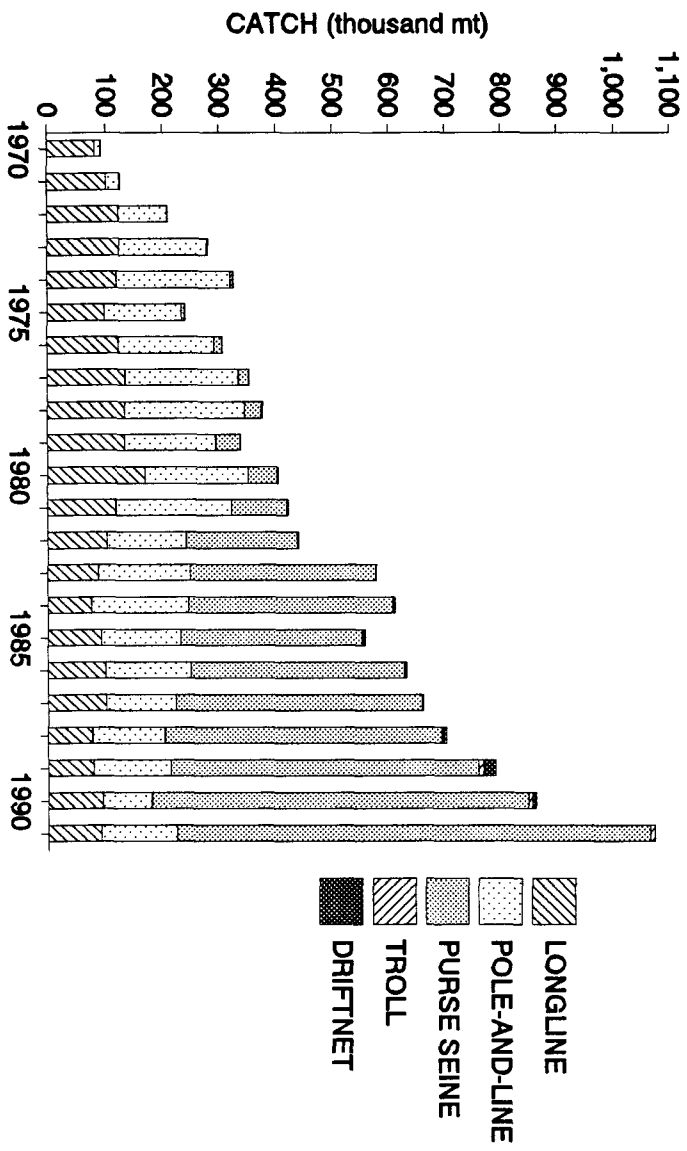


Figure 25. Annual catches by gear type in the SPC statistical area

The preliminary estimate of the annual catch in 1991 of the four principal species (albacore, bigeye, skipjack and yellowfin) in the SPC area is 1,084,466 mt (Table 54). The catch during 1991 represents an increase of 221,275 mt, or 26 per cent, over the catch during 1990 of 863,191 mt. An increase in the catch by purse seiners accounted for 173,108 mt, or 81 per cent of the total increase.

The catch in the SPC area together with the catch in the waters of Indonesia and the Philippines reached approximately 1,424,689 mt in 1991, an increase of 238,456 mt, or 20 per cent, over the 1990 catch of 1,186,233 mt (Table 55).

Trends in the catch by species and in the catch by gear type are shown in Figures 24 and 25 respectively. Trends in the catch by fishing nation are presented in Tables 56 and 57.

### ACKNOWLEDGEMENTS

Compilation of the statistics presented in this report has only been possible through the co-operation of numerous colleagues. Thanks are due to the following for taking the time to respond to requests for information: F. Arce (Philippines), A. Coan (United States), R. Etaix-Bonnin (New Caledonia), W. Fitzgerald (Guam), C.-C. Hsu (Republic of China), K. Karyakin (Russia), T. Murray (New Zealand), N. Naamin (Indonesia), M. Perotti (Food and Agriculture Organization), R. Rechebei (Palau), A. Richards (Papua New Guinea), S. Sharma (Fiji), T. Skousen (Australia), B. Thoulag (Federated States of Micronesia), S. Tsuji (Japan), A. Wright (Forum Fisheries Agency) and S. Yen (French Polynesia). The meticulous editing of Caroline Nalo and Roselyn Sharp resulted in numerous improvements in the final draft.



## REFERENCES

- Anon. 1979. Country Statement — Republic of Kiribati. SPC/Fisheries 11/WP.1, Eleventh Regional Technical Meeting on Fisheries, Noumea, New Caledonia, 5—10 December 1979. South Pacific Commission, Noumea, New Caledonia. 6 pp.
- Anon. 1982. Country Statement — Republic of Kiribati. SPC/Fisheries 14/WP.8, Fourteenth Regional Technical Meeting on Fisheries, Noumea, New Caledonia, 2—6 August 1982. South Pacific Commission, Noumea, New Caledonia. 5 pp.
- Anon. 1985. *Fisheries Department, Annual report, 1984*. Fisheries Department, Ministry of Natural Resources, Honiara, Solomon Islands. 85 pp.
- Anon. 1988. Recent development of tuna fisheries in Indonesia. Second Southeast Asian Tuna Conference, 22—25 August 1988, Kuala Trengganu, Malaysia. 31 pp.
- Anon. 1989a. *Fisheries Department, Annual report, 1988*. Fisheries Department, Ministry of Natural Resources, Honiara, Solomon Islands. 46 pp.
- Anon. 1989b. Pacific tuna industry: overview and effect of distant water fishing nations' tuna fleet expansion. FFC 17/TM3/3.16 (Rev.1). Forum Fisheries Committee, Third Technical Sub-Committee Meeting, 18—25 September 1989, Honiara, Solomon Islands. Forum Fisheries Agency, Honiara. 17 pp.
- Anon. 1989c. *Fishery Sector Review, Papua New Guinea, Final report*. Project PNG/88/004/A/01/31, United Nations Development Programme. 110 pp.
- Barut, N.C., and F.M. Arce. 1990. The Philippines tuna fisheries: industry and research. Fourth Southeast Asian Tuna Conference, 27—30 November 1990, Bangkok, Thailand. Indo-Pacific Tuna Development and Management Programme, Colombo, Sri Lanka. 55 pp.
- Blackburn, M., and D.L. Serventy. 1981. Observations on distribution and life history of skipjack tuna, *Katsuwonus pelamis*, in Australian waters. *Fishery Bulletin* 79(1): 85—94.
- Bureau of Rural Resources. 1989. A biological study of east coast tunas and billfishes, with particular emphasis on yellowfin tuna (*Thunnus albacares*). Working Paper No. 11/89 (Revised Edition). Fishing Industry Research Trust Account, Final report, Project F86/127. Bureau of Rural Resources, Department of Primary Industries and Energy, Canberra. 35 pp.
- Coan, A.L., and G.M. Resnick. 1991. U.S. troll fishery for albacore in the South Pacific. Working Paper 12. Fourth South Pacific Albacore Research Workshop, 4—8 November 1991, Taipei, Taiwan. National Marine Fisheries Service, La Jolla, California. 22 pp.
- Dendrinis, G., and T. Skousen. 1991. East coast tuna longline fishery: data summary for the period 1989—1990. Australian Fisheries Service, Canberra.
- Fisheries Agency of Japan. *Annual report of effort and catch statistics by area on Japanese tuna longline fishery, 1962—1980*. Research Department, Fisheries Agency of Japan.
- Fisheries Agency of Japan. *Annual report of effort and catch statistics by area, Japanese skipjack baitboat fishery, 1970—1979*. Research and Development Division, Fisheries Agency of Japan.
- Habib, G. 1984. Overview of purse seining in the South Pacific. TW/15. Workshop on National Tuna Fishing Operations, Tarawa, Kiribati, 28 May — 2 June, 1984. Forum Fisheries Agency, Honiara, Solomon Islands. 26 pp.

- Hallier, J.P. 1984. Transpêche — données préliminaires. Office de la recherche scientifique et technique d'outre-mer, Noumea, New Caledonia.
- Indo-Pacific Tuna Programme. 1991a. Indian Ocean and Southeast Asian tuna fisheries data summary for 1989. IPTP *Data Summary* No.11, March 1991. Indo-Pacific Tuna Development and Management Programme, Colombo, Sri Lanka. 96 pp.
- Indo-Pacific Tuna Programme. 1991b. Interim report on 1990 tuna catch statistics in the Indian Ocean and Southeast Asian regions. Indo-Pacific Tuna Development and Management Programme, Colombo, Sri Lanka. 42 pp.
- Josse, E., A. Asine and T. Tehina. 1991. *Recueil des données sur la pêche bonitière à Papeete en 1990*. Archives d'Océanographie 91-01. Institut français de recherche scientifique pour le développement en coopération, Centre ORSTOM de Tahiti, Papeete, Polynésie française. 44 pp.
- Lawson, T.A. 1991. Status of tuna fisheries in the SPC area during 1990, with annual catches since 1952. *Tuna and Billfish Assessment Programme Technical Report No. 27*. South Pacific Commission, Noumea, New Caledonia. 73 pp.
- Matsuda, Y., and K. Ouchi. 1984. Legal, political and economic constraints on Japanese strategies for distant water tuna and skipjack fisheries in Southeast Asian seas and the Western Central Pacific. *Memoirs of the Kagoshima University Research Center for the South Pacific*, Vol. 5, No. 2. English translation in: *Reprint No. 89*, East-West Environment and Policy Institute, East-West Center, Honolulu. 232 pp.
- Micronesian Maritime Authority. 1990. Annual report 1989/90. Micronesian Maritime Authority, Pohnpei, Federated States of Micronesia. 27 pp.
- Naamin, N., and S. Bahar. 1990. Present status of tuna fisheries in Indonesia. Fourth Southeast Asian Tuna Conference, 27—30 November 1990, Bangkok, Thailand. Indo-Pacific Tuna Development and Management Programme, Colombo, Sri Lanka. 34 pp.
- Nambiar, K.P.P. 1991. Tuna industry in the Philippines and selected Asian countries. In: H. de Saaram [ed.], *Tuna 91 Bali, Papers of the 2nd World Tuna Trade Conference, Bali, Indonesia, 13—15 May 1991*. INFOFISH, Kuala Lumpur, Malaysia.
- Park, Y.C., W.S. Yang and T.I. Kim. 1991. Status of Korean tuna longline and purse seine fisheries in the Pacific Ocean. TIC/91/BP#17. FAO Expert Consultation on Interactions of Pacific Tuna Fisheries, Noumea, New Caledonia, 3—11 December 1991. Food and Agriculture Organization of the United Nations, Rome, Italy. 14 pp.
- South Pacific Commission. 1989. *Report of the Second South Pacific Albacore Research Workshop, Suva, Fiji, 14—16 June 1989*. South Pacific Commission, Noumea, New Caledonia. 35 pp.
- South Pacific Commission. 1990. *Report of the Third South Pacific Albacore Research Workshop, Noumea, New Caledonia, 9—12 October 1990*. South Pacific Commission, Noumea, New Caledonia.
- South Pacific Commission. 1991. *Report of the Fourth South Pacific Albacore Research Workshop, Taipei, Republic of China, 4—8 November 1991*. South Pacific Commission, Noumea, New Caledonia.
- South Pacific Commission. 1992. Non-reporting and under-reporting of catches by Western Pacific purse seiners in data collected by coastal states. Working Paper 6. Fifth Meeting of the Standing Committee on Tuna and Billfish, 17—19 June 1992, Honolulu, Hawaii. South Pacific Commission, Noumea, New Caledonia. 13 pp.
- Tuna Programme. 1983. *An assessment of the skipjack and baitfish resources of Papua New Guinea*. Skipjack Survey and Assessment Programme Final Country Report No. 12, South Pacific Commission, Noumea, New Caledonia. 91 pp.

- Tuna Programme. 1984. *An assessment of the skipjack and baitfish resources of Eastern Australia*. Skipjack Survey and Assessment Programme Final Country Report No. 16, South Pacific Commission, Noumea, New Caledonia. 59 pp.
- Tuna Research Center. 1974—1986. *Annual catch statistics of Taiwanese tuna longline Fishery, 1974—1985*. Tuna Research Center, National Taiwan University, Taipei, Taiwan, Republic of China.
- Watanabe, Y. 1990. Catch trends and length frequency of southern albacore caught by Japanese driftnet fishery. Working Paper 8, Third South Pacific Albacore Research Workshop, Noumea, New Caledonia, 9—12 October 1991. South Pacific Commission, Noumea, New Caledonia. 11 pp.

**Table 1. Catches of albacore by driftnet vessels of Japan**

YEAR	VESSELS ACTIVE	DAYS FISHED	ALB	CPUE		
				TASMAN SEA	OFF NEW ZEALAND	EAST AREA
1982	..	...	..	...	...	...
1983	..	...	..	...	...	...
1984	..	...	..	...	...	...
1985	..	...	..	...	...	...
1986	..	...	..	...	...	...
1987	..	...	..	...	...	...
1988	..	...	..	...	...	...
1989	..	...	..	...	...	...
1990	..	...	..	...	...	...
1991	-	-	-	-	-	-

SEASON	VESSELS ACTIVE	DAYS FISHED	ALB	CPUE		
				TASMAN SEA	OFF NEW ZEALAND	EAST AREA
1982/83	..	...	32	...	...	...
1983/84	17	...	1,581	256	277	136
1984/85	15	...	1,928	585	351	...
1985/86	12	...	1,936	461	437	...
1986/87	11	...	919	517	168	...
1987/88	21	...	4,271	906	...	...
1988/89	65	3,247	13,263	602	373	895
1989/90	20	1,211	5,567	646	87	1,128
1990/91	-	-	-	-	-	-

Units: ALB, metric tonnes; CPUE, number of fish per day

1. All statistics were reported at the Third South Pacific Albacore Research Workshop (SPAR 3) by the National Research Institute of Far Seas Fisheries (South Pacific Commission 1990; Watanabe 1990), except the number of days fished for 1988/89 and 1989/90 which were determined from data provided to the SPAR Database by the National Research Institute of Far Seas Fisheries (Watanabe, personal communication, October 1990).

**Table 2. Catches of albacore by driftnet vessels of Korea**

YEAR	VESSELS ACTIVE	DAYS FISHED	—ALBACORE—	
			MT	CPUE
1988	..	...	...	...
1989	..	...	...	...

SEASON	VESSELS ACTIVE	DAYS FISHED	—ALBACORE—	
			MT	CPUE
1988/89	1	...	172	...

1. The number of vessels and the catch of albacore in 1988/89 were provided by the National Fisheries Administration of Korea (Kim, personal communication, June 1989); the estimate is for the catch in the 'South Pacific'.

**Table 3. Catches of albacore by driftnet vessels of Taiwan**

YEAR	VESSELS ACTIVE	DAYS FISHED	—ALBACORE— MT CPUE	
1987	...	...	...	...
1988	...	...	...	...
1989	...	...	...	...
1990	...	...	...	...
1991	...	...	...	...

SEASON	VESSELS ACTIVE	DAYS FISHED	—ALBACORE— MT CPUE	
1987/88	7	...	1,000	...
1988/89	71	11,511	8,520	0.7
1989/90	12	...	1,859	...
1990/91	9	...	821	...

Units: CPUE, metric tonnes per day

1. The catch of albacore in 1987/88 was estimated by the Tuna and Billfish Assessment Programme and reported to SPAR 3 (South Pacific Commission 1990).
2. Statistics for 1988/89 are from catch and effort data provided by the Tuna Research Center, National Taiwan University (Hsu, personal communication, January 1991).
3. The catches of albacore in 1989/90 and 1990/91 and the number of vessels active for 1987/88—1990/91 were reported to SPAR 4 (South Pacific Commission 1991).

Table 4. Catch statistics for longliners of Australia

YEAR	VESSELS ACTIVE	HOOKS	ALBACORE			BIGEYE			YELLOWFIN			OTHER MT	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	CPUE	%		MT	CPUE
1985	1	...	...	...	..	...	...	..	...	...	..	...	...	...
1986	12	85	—	—	—	—	—	—	8	1.17	89	1	9	1.53
1987	64	1,109	94	0.67	9	33	0.06	3	743	2.64	72	163	1,033	3.83
1988	61	1,042	82	0.66	11	24	0.05	3	502	1.99	67	144	752	3.07
1989	93	733	66	1.06	10	11	0.03	2	513	2.49	79	56	646	3.86
1990	94	718	73	0.65	11	13	0.03	2	518	3.41	81	38	642	4.32
1991	85	1,112	24	1.07	4	15	0.03	2	506	2.29	81	78	623	3.69

Units: HOOKS, thousands; CPUE, numbers of fish per 100 hooks

1. All statistics for 1985—1989 were determined from logbook data held at SPC, provided by the Australian Fisheries Management Authority. It is estimated that coverage by logbooks was 50 per cent of actual landings during 1987 and 1988, and 70 per cent during 1989 (Dendrinis and Skousen 1991).
2. All statistics for 1990—1991 were provided by the Australian Fisheries Management Authority (Skousen, personal communication, May 1992). Coverage by logbooks was 85—90 per cent during 1990—1991.
3. All statistics for 1985—1991 include domestic vessels (including ex-Japanese vessels) and exclude joint venture and charter vessels. The statistics above may differ from those published in the *SPC Regional Tuna Bulletin*, which exclude joint venture, charter and ex-Japanese domestic vessels.
4. Domestic catches of albacore (i.e. excluding charter and joint-venture vessels) in 1986—1990 were reported to SPAR 4 by the Bureau of Rural Resources as 40 mt, 200 mt, 200 mt, 100 mt and 150 mt respectively (South Pacific Commission 1991). The discrepancy between these estimates and the estimates from the logbook data reported in the table above is thought to be due in part to under-reporting of albacore on the logbooks and in part to the inclusion of catches of albacore by other fisheries in the SPAR 4 estimates.
5. In accordance with the standard policy on confidentiality of data at the Australian Fisheries Management Authority, statistics for Australian longliners have not been included for the year during which the number of vessels covered by the data is less than five (1985).

**Table 5. Catch statistics for longliners of the Federated States of Micronesia**

YEAR	VESSELS ACTIVE	HOOKS	ALBACORE			BIGEYE			YELLOWFIN			OTHER MT	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	CPUE	%		MT	CPUE
1991	2	12	-	-	-	-	-	-	6	1.35	86	1	7	1.49

Units: HOOKS, thousands; CPUE, numbers of fish per 100 hooks

1. All statistics were determined from logbook data held at SPC, provided by the Micronesian Maritime Authority.

**Table 6. Catch statistics for longliners of Fiji**

YEAR	VESSELS ACTIVE	HOOKS	ALBACORE			BIGEYE			YELLOWFIN			OTHER MT	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	CPUE	%		MT	CPUE
1989	..	...	...	...	..	...	...	..	...	...	..	...	...	...
1990	..	...	...	...	..	...	...	..	...	...	..	...	...	...
1991	8	...	206	...	37	117	...	21	101	...	18	132	556	...

1. All statistics for 1991 were provided by the Fisheries Division (Sharma, personal communication, March 1992). These data include catches by *Barbara J*, *Cajun Queen*, *Lady Bay*, *Labella*, *Sunbird*, *Jiko 1*, *Royal Ocean* and *Royal Fortune*. (The last three are Korean vessels registered in Fiji.) While only 8 vessels are covered in the statistics above, 14 longliners (all waters, pelagic and demersal) and 5 longline/dropline vessels were licensed by the Fisheries Division in 1991. The Fisheries Division also licensed 16 Taiwanese vessels in 1991 that were chartered by the Pacific Fishing Company; statistics for these vessels are covered in Table 15.

**Table 7. Catch statistics for longliners of French Polynesia**

YEAR	VESSELS ACTIVE	HOOKS	ALBACORE			BIGEYE			YELLOWFIN			OTHER MT	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	CPUE	%		MT	CPUE
1991	5	...	66	...	27	26	...	11	89	...	36	64	245	...

1. All statistics were provided by *Établissement pour la valorisation des activités aquacoles et maritimes* (EVAAM) (Yen, personal communication, May 1992). The 1991 statistics include two multi-purpose vessels (*Tahiti Nui* and *Arevananu*), except for albacore catches by these vessels in the Sub-Tropical Convergence Zone, which are included in Table 43.



Table 8. Catch statistics for longliners of Japan, excluding vessels based in the SPC region

YEAR	VESSELS ACTIVE	HOOKS	ALBACORE			BIGEYE			YELLOWFIN			OTHER— MT	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	CPUE	%		MT	CPUE
1952	...	...	210	...	..	...	...	..	...	...	..	...	...	...
1953	...	...	1,091	...	..	...	...	..	...	...	..	...	...	...
1954	...	...	10,200	...	..	...	...	..	...	...	..	...	...	...
1955	...	...	8,420	...	..	...	...	..	...	...	..	...	...	...
1956	...	...	6,220	...	..	...	...	..	...	...	..	...	...	...
1957	...	...	9,764	...	..	...	...	..	...	...	..	...	...	...
1958	...	...	21,558	...	..	...	...	..	...	...	..	...	...	...
1959	...	...	19,344	...	..	...	...	..	...	...	..	...	...	...
1960	...	...	23,756	...	..	...	...	..	...	...	..	...	...	...
1961	...	...	25,628	...	..	...	...	..	...	...	..	...	...	...
1962	...	161,070	34,526	1.55	22	29,818	0.58	19	53,327	1.26	34	37,586	155,256	3.89
1963	...	152,144	21,980	1.04	17	27,739	0.57	21	49,715	1.24	38	32,931	132,366	3.33
1964	...	114,674	15,276	0.96	15	20,276	0.55	20	41,270	1.37	41	24,100	100,921	3.35
1965	...	135,561	16,404	0.87	15	22,607	0.52	21	41,563	1.16	38	27,761	108,335	3.01
1966	...	130,384	19,157	1.06	19	18,268	0.44	18	46,966	1.37	47	16,268	100,658	3.11
1967	...	107,380	14,418	0.97	22	14,983	0.43	22	24,209	0.86	36	13,333	66,943	2.51
1968	...	100,691	7,783	0.56	13	13,969	0.43	23	28,051	1.06	45	11,939	61,741	2.29
1969	...	101,981	5,485	0.39	9	17,518	0.54	28	29,340	1.09	46	10,967	63,309	2.23
1970	...	101,177	6,307	0.45	10	13,841	0.43	22	28,256	1.06	44	15,440	63,843	2.23
1971	...	112,483	4,891	0.31	8	16,230	0.45	27	26,439	0.89	44	13,000	60,561	1.86
1972	...	123,027	3,721	0.22	6	22,335	0.57	34	27,091	0.84	41	12,846	65,992	1.82
1973	...	102,922	3,079	0.22	5	15,415	0.47	26	28,809	1.06	49	12,007	59,309	1.97
1974	...	138,433	3,484	0.18	5	21,348	0.48	32	28,868	0.79	43	12,791	66,491	1.63
1975	...	113,267	2,174	0.14	4	19,336	0.53	35	25,127	0.84	46	8,149	54,785	1.65
1976	...	127,441	2,626	0.15	4	22,034	0.54	35	29,165	0.87	46	10,003	63,828	1.71
1977	...	111,865	1,510	0.10	2	24,595	0.69	34	40,425	1.37	55	6,818	73,348	2.28
1978	...	119,408	1,773	0.11	2	20,439	0.53	23	58,240	1.85	65	9,834	90,286	2.67
1979	...	146,477	2,288	0.11	3	26,846	0.57	31	46,932	1.22	53	11,877	87,943	2.07
1980	...	173,364	3,154	0.13	3	27,251	0.49	26	60,583	1.33	57	15,748	106,737	2.14
1981	...	...	3,477	...	5	14,579	...	19	49,003	...	64	9,372	76,431	...
1982	...	...	3,711	...	6	15,892	...	24	38,162	...	57	8,612	66,377	...
1983	...	...	2,347	...	4	14,117	...	22	40,193	...	64	6,433	63,090	...
1984	...	...	2,039	...	4	14,544	...	28	28,433	...	54	7,644	52,660	...
1985	...	...	2,047	...	4	16,400	...	29	30,766	...	54	7,263	56,476	...
1986	...	...	2,293	...	4	17,763	...	34	24,872	...	47	7,580	52,508	...
1987	...	...	955	...	2	22,669	...	43	23,568	...	45	5,015	52,207	...
1988	...	...	1,900	...	6	8,789	...	27	16,432	...	51	5,093	32,214	...
1989	...	...	1,957	...	4	17,060	...	37	21,679	...	47	5,879	46,575	...
1990	...	...	1,437	...	3	22,037	...	44	21,793	...	44	4,326	49,593	...
1991	...	...	1,437	...	3	22,037	...	44	21,793	...	44	4,326	49,593	...

Units: HOOKS, thousands; CPUE, numbers of fish per 100 hooks

1. Catches of albacore in 1952—1961 were reported by the National Research Institute of Far Seas Fisheries to SPAR 3 (South Pacific Commission 1990); these estimates are for the Pacific Ocean, south of the Equator.
2. Statistics for 1962—1980 were determined from data published by 5° x 5° square by month (Fisheries Agency of Japan 1962—1980), for an area approximating the SPC statistical area. The catch estimates published by the Fisheries Agency of Japan are given in numbers of fish; these were converted to the catch in metric tonnes using average weights (kg) determined from logsheet data held at SPC (see below).

Table 8 (continued)

SPECIES	WEIGHT
YELLOWFIN	26.32
ALBACORE	13.83
BIGEYE	32.08
SKIPJACK	6.19
BLUEFIN	37.00
STRIPED MARLIN	78.68
BLUE MARLIN	44.00
BLACK MARLIN	89.96
SWORDFISH	54.59
SAILFISH	22.42
SHARK	23.03
OTHER	36.07

3. All statistics for 1981—1990 were provided by the National Research Institute of Far Seas Fisheries (Tsuiji, personal communication, June 1992). The catch estimates are for FAO area 71.
4. Estimates for 1990 have been used as preliminary estimates for 1991.

Table 9. Catch statistics for longliners of Japan based in the SPC region

YEAR	VESSELS ACTIVE	HOOKS	ALBACORE			BIGEYE			YELLOWFIN			OTHER	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1987	...	...	...	...	..	1,615	...	54	1,277	...	43	108	3,000	...
1988	...	...	...	...	..	2,153	...	54	1,703	...	43	144	4,000	...
1989	...	...	29	...	1	2,255	...	51	1,977	...	45	179	4,440	...
1990	114	...	2	...	0	5,456	...	60	3,294	...	36	349	9,101	...
1991	122	...	1	...	0	3,939	...	49	3,779	...	47	357	8,076	...

1. Catch statistics for 1987—1988 were estimated from the total annual amount of tuna transshipped in Guam, for all fleets combined, by the Port Authority of Guam and provided by the Department of Commerce (Harris, personal communication, June 1991). It was assumed that 60 per cent of the total was transshipped by Japanese longliners. The species composition for 1989 was applied to 1987—1988.
2. The number of vessels active and catch estimates for 1990—1991 were determined from transshipment statistics provided by the Department of Commerce, Guam (Harris, personal communication, June 1991; Fitzgerald, personal communication, June 1992). Transshipment by Japanese vessels in Koror and Pohnpei during 1991 has been ignored.

Table 10. Catch statistics for longliners of Korea

YEAR	VESSELS ACTIVE	HOOKS	ALBACORE			BIGEYE			YELLOWFIN			OTHER- MT	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	CPUE	%		MT	CPUE
1958	...	...	146	...	..	...	...	..	...	...	..	...	...	...
1959	...	...	456	...	..	...	...	..	...	...	..	...	...	...
1960	...	...	610	...	..	...	...	..	...	...	..	...	...	...
1961	...	...	330	...	..	...	...	..	...	...	..	...	...	...
1962	...	...	599	...	..	...	...	..	...	...	..	...	...	...
1963	...	...	1,367	...	..	...	...	..	...	...	..	...	...	...
1964	19	...	2,911	...	..	...	...	..	...	...	..	...	...	...
1965	...	...	3,500	...	56	700	...	11	2,000	...	33	...	6,200	...
1966	...	...	11,700	...	66	2,900	...	16	3,000	...	18	...	17,600	...
1967	...	...	14,900	...	75	3,200	...	16	1,900	...	9	...	20,000	...
1968	...	...	10,900	...	65	600	...	4	5,300	...	31	...	16,800	...
1969	...	...	11,000	...	65	2,500	...	15	3,500	...	20	...	17,000	...
1970	...	...	12,000	...	73	2,500	...	15	2,000	...	12	...	16,500	...
1971	...	...	12,900	...	56	4,700	...	21	5,300	...	23	...	22,900	...
1972	...	...	15,600	...	44	7,800	...	22	11,800	...	34	...	35,200	...
1973	...	...	16,000	...	43	8,900	...	24	12,000	...	33	...	36,900	...
1974	270	...	9,631	...	25	14,444	...	37	15,104	...	38	...	39,179	...
1975	...	...	8,747	...	26	14,702	...	44	10,046	...	30	...	33,495	...
1976	...	...	9,492	...	20	21,299	...	46	15,584	...	34	...	46,375	...
1977	...	...	12,026	...	26	17,592	...	38	16,466	...	36	...	46,084	...
1978	...	...	11,048	...	34	8,013	...	25	13,412	...	41	...	32,473	...
1979	...	...	10,838	...	26	12,219	...	30	18,121	...	44	...	41,178	...
1980	...	...	10,389	...	23	12,731	...	29	21,443	...	48	...	44,563	...
1981	...	...	17,393	...	46	10,171	...	27	10,662	...	27	...	38,226	...
1982	...	...	14,504	...	43	10,011	...	29	9,569	...	28	...	34,084	...
1983	...	...	5,921	...	27	7,116	...	33	8,553	...	40	...	21,590	...
1984	...	...	6,686	...	31	7,478	...	35	7,330	...	34	...	21,494	...
1985	94	...	16,436	...	46	10,818	...	30	8,592	...	24	...	35,846	...
1986	...	...	18,655	...	41	15,683	...	35	10,679	...	24	...	45,017	...
1987	...	...	8,646	...	23	19,487	...	52	9,685	...	25	...	37,818	...
1988	...	...	7,029	...	23	13,649	...	45	9,370	...	32	...	30,048	...
1989	...	...	3,987	...	17	11,209	...	48	7,966	...	35	...	23,162	...
1990	182	...	3,987	...	17	11,209	...	48	7,966	...	35	...	23,162	...
1991	144	...	3,987	...	17	11,209	...	48	7,966	...	35	...	23,162	...

Units: HOOKS, thousands; CPUE, numbers of fish per 100 hooks

1. Catches of albacore for 1958—1964 were reported at SPAR 2 (South Pacific Commission 1989).
2. Catches of albacore and bigeye for 1965—1989 and catches of yellowfin for 1965—1980 were taken from FAO Yearbooks for the whole Pacific Ocean. Catches of yellowfin for 1981—1989 were determined by subtracting the catches by purse seiners from the catches reported to FAO for the whole Pacific Ocean.
3. Estimates for 1989 have been used as preliminary estimates for 1990—1991.
4. The numbers of vessels active in 1964, 1974, 1985 and 1990 were taken from Park et al. (1991). The numbers of vessels are for the whole Pacific Ocean.
5. The number of vessels active for 1991 was taken from *Katsuo-Majuro Tsushin* No. 6326, 4 July 1991 (quoted in Forum Fisheries Agency *News Digest*, September—October 1991).

Table 11. Catch statistics for longliners of New Caledonia

YEAR	VESSELS ACTIVE	HOOKS	ALBACORE			BIGEYE			YELLOWFIN			OTHER	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1983	1	89	12	0.7	22	1	0.0	2	7	0.3	14	34	54	2.0
1984	2	300	112	1.9	57	9	0.1	5	25	0.3	13	49	195	2.6
1985	3	536	131	1.2	33	15	0.1	4	119	0.8	30	135	400	2.5
1986	2	646	179	1.4	33	17	0.1	3	151	0.6	28	202	549	2.7
1987	3	1,408	563	1.8	42	33	0.1	2	448	1.0	33	307	1,351	3.4
1988	4	1,020	584	3.0	45	18	0.0	1	436	1.3	34	259	1,297	4.5
1989	4	1,336	566	2.0	49	24	0.0	2	248	0.5	22	310	1,148	3.0
1990	7	2,707	1,053	2.0	53	54	0.0	3	551	0.6	28	327	1,985	2.9
1991	6	...	750	...	41	200	...	11	600	...	32	300	1,850	...

Units: HOOKS, thousands; CPUE, numbers of fish per 100 hooks

1. Statistics for 1983—1986 were determined from logbook data held at SPC, provided by the *Service de la marine marchande et des pêches maritimes*.
2. Statistics for 1987—1991 were provided by the *Service de la marine marchande et des pêches maritimes* (Etaix-Bonnin, personal communication, June 1991, April 1992). Preliminary catch estimates for 1991 were determined from export data.

Table 12. Catch statistics for longliners of New Zealand

YEAR	VESSELS ACTIVE	HOOKS	ALBACORE			BIGEYE			YELLOWFIN			OTHER	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1989	3	...	1	...	100	-	...	-	-	...	-	...	1	...
1990	9	...	1	...	8	11	...	84	1	...	8	...	13	...
1991	11	...	2	...	10	19	...	90	-	...	-	...	21	...

1. All statistics for 1989—1991 were provided by the Ministry of Agriculture and Fisheries (Murray, personal communication, May 1992). These statistics do not include catches by chartered Japanese vessels or Japanese vessels fishing under access agreements; catches for those vessels are covered in Table 8.
2. The catches of albacore differ from those reported by MAF to SPAR 4 for 1989—1990, 19 and 46 mt respectively (South Pacific Commission 1991).

Table 13. Catch statistics for longliners of Solomon Islands

YEAR	VESSELS ACTIVE	HOOKS	ALBACORE			BIGEYE			YELLOWFIN			OTHER MT	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	CPUE	%		MT	CPUE
1973	2	...	4	...	3	16	...	12	91	...	69	21	132	...
1974	0	—	—	—	—	—	—	—	—	—	—	—	—	—
1975	0	—	—	—	—	—	—	—	—	—	—	—	—	—
1976	2	...	6	...	3	25	...	12	146	...	69	35	212	...
1977	2	...	9	...	3	34	...	12	198	...	69	46	287	...
1978	2	...	9	...	3	36	...	12	207	...	69	48	300	...
1979	2	...	21	...	3	86	...	12	493	...	69	115	715	...
1980	2	...	25	...	..	98	...	12	564	...	69	131	818	...
1981	2	176	2	0.0	1	25	0.2	12	146	1.6	70	36	209	2.0
1982	2	595	8	0.1	2	24	0.1	6	306	1.7	76	65	403	2.3
1983	2	635	19	0.2	3	34	0.2	6	443	2.6	80	55	552	3.1
1984	2	756	19	0.2	5	57	0.2	16	213	1.0	58	76	366	1.7
1985	2	393	12	0.2	5	46	0.3	19	151	1.6	62	33	242	2.3

Units: HOOKS, thousands; CPUE, numbers of fish per 100 hooks

1. The total catches for 1973—1980 were taken from Anon (1985); the species composition was estimated by applying the average species composition for 1981—1985, determined from logbook data held at SPC.
2. The total catches for 1981—1982 were taken from Anon (1985); the species composition for 1981—1982 was determined from logbook data held at SPC.
3. All statistics for 1983—1985 were determined from logbook data held at SPC.

**Table 14. Catch statistics for Taiwanese longliners less than 100 gross tonnes**

YEAR	VESSELS ACTIVE	HOOKS	ALBACORE			BIGEYE			YELLOWFIN			OTHER	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1987	...	...	...	...	..	...	...	..	...	...	..	...	...	...
1988	...	...	...	...	..	...	...	..	...	...	..	...	...	...
1989	...	...	...	...	..	...	...	..	...	...	..	...	...	...
1990	...	...	...	...	..	2,619	...	45	2,953	...	51	216	5,788	...
1991	...	...	...	...	..	1,270	...	31	2,786	...	68	35	4,091	...

1. Catches for 1990 were estimated from transshipment statistics provided by the Guam Department of Commerce and the Palau Maritime Authority. In Guam, 219 Taiwanese longliners transshipped 1,635 mt of bigeye, 1,838 mt of yellowfin and 129 mt of other species during 1990. In Palau, transshipment was estimated by raising the amount transshipped during the eight month period from January to September 1990, 1,639.351 mt, to the whole year; it was assumed that all of the resulting 2,186 mt was caught by Taiwanese vessels, although a small proportion may have been caught by mainland Chinese vessels. The species composition for Guam transshipment was applied to the estimate of Palau transshipment.
2. Catches for 1991 were estimated from transshipment statistics provided by the Guam Department of Commerce (Fitzgerald, personal communication, June 1992) and the Palau Maritime Authority (Rechebei, personal communication, June 1992). In Guam, 102 Taiwanese longliners transshipped 408 mt of bigeye, 895 mt of yellowfin and 7 mt of other species during 1991. In Palau, 2,781 mt of all species combined were transshipped. It was assumed that all fish transshipped in Palau was caught by Taiwanese vessels, though a small proportion was caught by Japanese and mainland Chinese vessels. The species composition for Guam transshipment was applied to the Palau transshipment. Transshipment by Taiwanese vessels in Majuro, Pohnpei and Yap during 1991 has been ignored.

Table 15. Catch statistics for Taiwanese longliners greater than 100 gross tonnes

YEAR	VESSELS ACTIVE	HOOKS	—ALBACORE—			—BIGEYE—			—YELLOWFIN—			—OTHER— MT	—TOTAL—	
			MT	CPUE	%	MT	CPUE	%	MT	CPUE	%		MT	CPUE
1964	...	...	...	...	..	...	...	..	...	...	..	...	...	...
1965	...	...	...	...	..	...	...	..	...	...	..	...	...	...
1966	...	...	...	...	..	...	...	..	...	...	..	...	...	...
1967	...	18,274	14,423	4.41	75	1,893	0.38	10	2,059	0.52	11	799	19,174	5.43
1968	...	21,635	14,986	3.94	64	2,093	0.29	9	5,050	0.91	22	1,134	23,263	5.35
1969	...	15,477	9,787	3.68	59	1,058	0.21	6	4,758	1.25	29	938	16,541	5.50
1970	...	17,455	12,260	4.08	71	744	0.22	4	2,997	0.65	17	1,331	17,332	5.22
1971	...	35,428	19,669	3.47	61	2,088	0.21	7	8,938	1.25	28	1,311	32,006	5.02
1972	...	39,480	21,182	3.31	59	2,990	0.27	8	9,758	0.97	27	1,697	35,627	4.64
1973	...	51,603	26,917	3.16	66	3,748	0.21	9	8,594	0.68	21	1,703	40,961	4.12
1974	...	51,710	18,388	2.45	67	2,596	0.20	10	5,115	0.46	19	1,155	27,253	3.17
1975	...	37,756	12,803	2.22	71	1,331	0.14	7	3,085	0.37	17	916	18,136	2.78
1976	...	38,996	18,078	2.84	76	1,270	0.14	5	3,399	0.33	14	1,034	23,781	3.48
1977	...	34,985	17,738	3.47	79	1,046	0.10	5	2,804	0.32	13	735	22,323	3.96
1978	...	30,741	16,176	3.79	60	967	0.11	4	3,629	0.47	13	6,312	27,084	4.77
1979	...	28,223	11,484	2.71	60	1,094	0.15	6	3,025	0.50	16	3,396	19,000	3.61
1980	...	62,178	25,838	2.89	72	2,503	0.13	7	5,128	0.37	14	2,398	35,867	3.48
1981	...	33,249	10,592	2.35	75	899	0.09	6	1,586	0.20	11	1,012	14,089	2.77
1982	...	22,589	9,007	2.79	82	416	0.06	4	764	0.13	7	799	10,985	3.15
1983	...	16,258	7,412	3.27	87	231	0.05	3	518	0.13	6	370	8,530	3.56
1984	...	19,515	6,525	2.31	84	327	0.06	4	575	0.12	7	367	7,795	2.54
1985	...	13,500	5,534	2.89	84	213	0.06	3	607	0.21	9	198	6,552	3.19
1986	...	14,743	8,316	4.35	91	172	0.04	2	513	0.15	6	179	9,180	4.57
1987	...	19,652	9,633	3.41	90	185	0.03	2	641	0.13	6	224	10,683	3.59
1988	...	28,491	12,308	3.01	87	184	0.02	1	1,260	0.20	9	370	14,122	3.27
1989	...	30,234	7,400	1.79	84	338	0.03	4	750	0.11	8	345	8,833	1.95
1990	...	29,747	7,410	1.55	78	552	0.05	6	1,154	0.15	12	411	9,527	1.79
1991	...	29,747	7,410	1.55	78	552	0.05	6	1,154	0.15	12	411	9,527	1.79

Units: HOOKS, thousands; CPUE, numbers of fish per 100 hooks

1. Statistics for 1967—1985 were determined from data aggregated by 5° x 5° square published by the National Taiwan University (Tuna Research Center 1974—1986), for an area approximating the SPC statistical area.
2. Statistics for 1986—1990 were determined from unpublished data aggregated by 5° x 5° square provided to SPC by National Taiwan University (Hsu, personal communication, January 1991, May 1992) for an area approximating the SPC statistical area.
3. Estimates for 1990 have been used as preliminary estimates for 1991.
4. The catches of albacore above differ slightly from those reported to SPAR 4 (South Pacific Commission 1991) due to the different areas considered; catches reported above are for the SPC statistical area, while catches reported to SPAR 4 are for the entire South Pacific.

Table 16. Catch statistics for longliners of Tonga

YEAR	VESSELS ACTIVE	HOOKS	ALBACORE			BIGEYE			YELLOWFIN			OTHER- MT	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	CPUE	%		MT	CPUE
1982	1	...	106	1.2	42	18	0.1	7	81	0.6	32	47	252	2.5
1983	1	...	143	2.6	60	17	0.2	7	48	0.6	20	30	238	4.0
1984	1	...	135	4.0	44	28	0.5	9	55	1.2	18	89	307	8.0
1985	1	...	174	1.9	47	15	0.1	4	44	0.3	12	137	370	3.3
1986	1	...	206	3.8	68	12	0.1	4	33	0.3	11	52	303	4.9
1987	1	...	252	3.4	71	14	0.1	4	32	0.2	9	57	355	4.3
1988	1	...	242	3.1	76	6	0.1	2	26	0.2	8	45	319	3.9
1989	1	...	195	2.1	65	12	0.1	4	27	0.3	9	66	300	3.0
1990	1	...	153	2.1	67	10	0.1	2	28	0.3	12	39	230	2.8
1991	1	...	174	2.6	75	5	0.0	2	19	0.2	8	33	231	3.4

Units: CPUE, numbers of fish per 100 hooks

1. Total annual catches for 1982—1989 were provided by the Ministry of Fisheries, Nuku'alofa. The species composition for 1982—1989 was determined from logbook data held at SPC, provided by the Ministry of Fisheries.
2. All statistics for 1990—1991 were determined from data held at SPC, provided by the Ministry of Fisheries. The data for 1991 cover January—March and June—December.



Table 17. Catch statistics for pole-and-line vessels of Australia

YEAR	VESSELS ACTIVE	DAYS FISHED	—SKIPJACK—			—YELLOWFIN—			—OTHER—	—TOTAL—	
			MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1976	9	65	46	0.7	35	1	0.0	1	84	131	2.0
1977	20	134	31	0.2	3	—	—	—	1,165	1,197	8.9
1978	14	205	146	0.7	14	16	0.1	2	870	1,032	5.0
1979	10	66	—	—	—	—	—	—	268	268	4.1
1980	9	62	—	—	—	—	—	—	446	446	7.2
1981	17	192	108	0.6	11	—	—	—	867	975	5.1
1982	20	254	196	0.8	24	5	—	1	626	827	3.3
1983	13	151	109	0.7	44	—	—	—	141	251	1.7
1984	8	57	78	1.4	81	5	0.1	6	13	96	1.7
1985	..	..	...	...	...	...	...	..	...	...	...
1986	..	..	149	...	100	...	...	..	...	149	...
1987	..	..	153	...	100	...	...	..	...	153	...
1988	..	..	921	...	100	...	...	..	...	921	...
1989	..	..	1,257	...	98	32	...	2	...	1,289	...
1990	..	..	527	...	99	7	...	1	...	534	...
1991	..	..	987	...	95	49	...	5	...	1,036	...

Units: CPUE, metric tonnes per day

1. Statistics for 1976—1984 were determined from logbook data held at SPC, which were provided by the Australian Fisheries Management Authority. Catches of southern bluefin comprise 99 per cent of the catches listed as 'other'.
2. Catches for 1986—1989 were provided by the Bureau of Rural Resources; these statistics represent deliveries to the Heinz Greenseas cannery in Eden, New South Wales. Estimates for 1989 include some catch taken by purse seiners. The fishing season is usually from December to March; catches for December have been allocated to the following year.
3. Catch estimates for 1990—1991 were provided by the Australian Fisheries Management Authority (Skousen, personal communication, May 1992). These statistics represent catches reported on logsheets raised assuming a coverage rate of 32.5 per cent of the actual catch during 1990 and 22.5 per cent during 1991.

Table 18. Catch statistics for pole-and-line vessels of Fiji

YEAR	VESSELS ACTIVE	DAYS FISHED	SKIPJACK			YELLOWFIN			OTHER MT	TOTAL	
			MT	CPUE	%	MT	CPUE	%		MT	CPUE
1976	2	...	658	2.4	89	84	0.3	11	—	742	2.7
1977	6	...	1,560	2.6	91	151	0.2	9	—	1,711	2.8
1978	6	...	2,115	2.6	84	409	0.7	16	—	2,524	3.3
1979	8	...	3,091	...	88	403	...	12	1	3,495	...
1980	11	...	2,263	1.9	91	233	0.2	9	4	2,500	2.0
1981	12	...	5,222	1.7	90	599	0.2	10	—	5,821	1.9
1982	14	...	3,844	2.2	82	814	0.3	17	7	4,665	2.5
1983	13	...	3,621	2.4	87	562	0.3	13	2	4,185	2.7
1984	11	...	3,992	3.3	87	580	0.4	13	—	4,572	3.7
1985	7	...	3,219	2.8	82	724	0.4	18	4	3,947	3.2
1986	6	...	2,288	2.1	73	823	0.6	26	4	3,115	2.8
1987	8	...	3,474	3.4	89	411	0.3	11	1	3,886	3.7
1988	8	...	3,761	3.0	88	527	0.3	12	—	4,288	3.3
1989	8	...	5,369	3.8	91	507	0.4	7	7	5,883	4.2
1990	10	...	3,507	2.8	87	516	0.3	13	6	4,029	3.1
1991	10	...	4,069	2.6	92	358	0.1	8	—	4,427	2.7

Units: CPUE, metric tonnes per day

1. Estimates of catches for 1976—1991, and the number of vessels in 1976—1978, 1983—1984 and 1990—1991, were provided by the Fisheries Division, Fiji (Sharma, personal communication, May 1990, June 1991, March 1992; Adams, personal communication, June 1991). The catch estimates represent landings received at the Pacific Fishing Company Ltd cannery in Levuka. Catches by Kiribati and Tuvalu vessels which operated in Fijian waters under charter are excluded; catches for those vessels are reported in Tables 21 and 27 respectively. Catches by the *Ika 3*, formerly registered as a New Zealand vessel, are included.
2. CPUE for 1976—1978 and 1980—1991 was determined from logbook data held at SPC.
3. The numbers of vessels active for 1979—1982 and 1985—1989 were taken from annual reports of the Fisheries Division, Fiji.

Table 19. Catch statistics for pole-and-line vessels of French Polynesia

YEAR	VESSELS ACTIVE	DAYS FISHED	—SKIPJACK—			—YELLOWFIN—			—OTHER—	—TOTAL—	
			MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1975	..	...	...	84	..	...	10	..	..	...	...
1976	..	...	...	84	..	...	6	..	..	...	...
1977	..	...	...	75	..	...	17	..	..	...	...
1978	..	...	...	121	..	...	13	..	..	...	...
1979	..	9,832	535	54	70	161	17	21	73	769	82
1980	46	9,964	683	68	69	253	25	26	56	992	100
1981	51	9,528	529	56	51	472	50	46	34	1,035	110
1982	46	8,764	666	76	62	368	42	34	33	1,067	122
1983	46	7,820	598	77	66	238	30	26	67	903	115
1984	51	9,737	824	85	63	426	44	33	50	1,300	134
1985	49	9,253	593	64	66	243	26	27	67	903	98
1986	51	9,513	729	77	74	232	24	24	20	981	103
1987	64	8,791	729	83	80	149	17	16	29	907	103
1988	53	7,578	441	58	59	274	36	37	33	748	99
1989	56	7,980	567	71	72	187	23	24	33	787	99
1990	55	7,487	685	92	87	55	7	7	46	786	105
1991	31	...	614	...	81	105	..	14	41	760	...

Units: CPUE, kg per day

1. Catch estimates and days fished for 1979—1990 and CPUE for 1975—1990 are from Josse et al. (1991). These statistics are for the *bonitier* fleet. Catches for 1979—1986 are for vessels based on Tahiti. Statistics for 1987—1990 are for vessels based on Tahiti and two other islands. The statistics above represent about 90 per cent of the total catch from the *bonitiers*.
2. Catch estimates for 1991 and the numbers of vessels active for 1980—1991 were provided by *Établissement pour la valorisation des activités aquacoles et maritimes* (EVAAM) (Yen, personal communication, May 1992).

Table 20. Catch statistics for pole-and-line vessels of Japan

YEAR	VESSELS ACTIVE	DAYS FISHED	—SKIPJACK—			—YELLOWFIN—			—OTHER—	—TOTAL—	
			MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1972	...	13,330	63,167	4.7	96	1,158	0.1	2	1,386	65,711	4.9
1973	...	19,085	117,070	6.1	98	1,536	0.1	1	714	119,319	6.3
1974	...	23,849	141,636	5.9	98	1,293	0.1	1	1,283	144,212	6.0
1975	...	24,076	103,707	4.3	97	1,920	0.1	2	1,426	107,052	4.4
1976	...	20,283	111,694	5.5	97	2,410	0.1	2	1,198	115,302	5.7
1977	...	32,459	153,579	4.7	96	4,816	0.1	3	1,652	160,047	4.9
1978	...	21,495	131,322	6.1	98	1,534	0.1	1	778	133,635	6.2
1979	...	21,272	99,660	4.7	97	1,589	0.1	2	971	102,220	4.8
1980	317	20,869	114,088	5.5	98	1,733	0.1	1	846	116,667	5.6
1981	279	26,239	131,701	5.0	98	2,369	0.1	2	774	134,844	5.1
1982	117	22,121	109,237	4.9	96	2,783	0.1	2	1,974	113,994	5.2
1983	103	17,307	124,702	7.2	98	1,791	0.1	1	1,269	127,762	7.4
1984	94	17,186	128,414	7.5	98	1,584	0.1	1	658	130,656	7.6
1985	84	14,974	95,242	6.4	94	4,601	0.3	5	974	100,817	6.7
1986	83	11,922	106,745	9.0	98	1,316	0.1	1	588	108,649	9.1
1987	77	12,106	93,552	7.7	98	1,080	0.1	1	538	95,170	7.9
1988	63	8,244	89,548	10.9	99	729	0.1	1	475	90,752	11.0
1989	59	11,483	99,018	8.6	98	1,248	0.1	1	393	100,659	8.8
1990	62	...	58,402	6.9	98	1,261	0.1	2	—	59,663	7.1
1991	54	...	90,663	9.3	99	1,000	0.0	1	—	91,663	9.2

Units: CPUE, metric tonnes per day

1. All statistics for 1972—1978 were determined from data published by 1° x 1° square by the Fisheries Agency of Japan (Fisheries Agency of Japan 1972—1979), for the SPC statistical area.
2. Catch estimates for 1979—1990 and days fished for 1979—1989 are from National Research Institute of Far Seas Fisheries (Tsuji, personal communication, June 1992). All catches are for the SPC statistical area, except for the 1990 catch of skipjack, which is for FAO area 71.
3. The catch of skipjack for 1991 was taken from *Katsuo-Maguro Tsushin* No.6464, 4 February 1992 (quoted in *Forum Fisheries Agency News Digest*, March—April 1992); the estimate represents the total landings of frozen skipjack. The catch of yellowfin in 1991 is a best guess.
4. The numbers of vessels active during 1980—1991 were determined from logbook data held at SPC.
5. CPUE for 1990—1991 were determined from data held at SPC.

Table 21. Catch statistics for pole-and-line vessels of Kiribati

YEAR	VESSELS ACTIVE	DAYS FISHED	—SKIPJACK—			—YELLOWFIN—			—OTHER—	—TOTAL—	
			MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1979	1	...	...	...	..	...	...	..	..	...	...
1980	..	...	...	...	..	...	...	..	..	...	...
1981	2	...	...	...	..	...	...	..	..	780	...
1982	..	...	...	...	..	...	...	..	..	...	...
1983	..	...	1,481	...	85	253	...	15	..	1,734	...
1984	..	...	1,664	...	74	588	...	26	..	2,252	...
1985	..	...	246	...	30	580	...	70	..	826	...
1986	4	179	117	0.6	49	123	0.7	51	—	240	1.3
1987	4	...	278	0.4	64	143	0.2	33	13	434	0.6
1988	6	...	1,137	1.5	74	384	0.5	25	15	1,536	2.1
1989	5	...	2,273	3.2	100	—	—	—	—	2,273	3.2
1990	5	...	468	1.1	81	110	0.2	19	—	578	1.3
1991	..	...	...	...	..	...	...	..	..	...	...

Units: CPUE, metric tonnes per day

1. Anon (1979) reported that the Kiribati Government took delivery of a 35-metre skipjack pole-and-line vessel, *Nei Manganibuka*, in 1979. However, no catch statistics are given.
2. Data for 1981 are from Anon (1982).
3. Catches for 1983—1985 were taken from statistics provided by the Fisheries Division, Tarawa (Mees, personal communication, November 1985).
4. Statistics for 1986 were determined from logbook data held at SPC; these statistics represent catches in the waters of Fiji only.
5. Total catches for 1987—1990 were provided by the Fisheries Division, Tarawa. The species composition was determined from logbook data held at SPC. Total catches for 1987—1990 represent the catches in the waters of Fiji, Kiribati and, in 1990, Solomon Islands.

**Table 22. Catch statistics for pole-and-line vessels of New Caledonia**

YÉAR	VESSELS ACTIVE	DAYS FISHED	—SKIPJACK—			—YELLOWFIN—			—OTHER— MT	—TOTAL—	
			MT	CPUE	%	MT	CPUE	%		MT	CPUE
1981	1	40	226	5.6	99	3	0.1	1	-	228	5.7
1982	3	216	827	3.8	83	41	0.2	4	130	998	4.6
1983	3	113	414	3.7	84	25	0.2	5	53	492	4.4

Units: CPUE, metric tonnes per day

1. All statistics were determined from logbook data held at SPC.

**Table 23. Catch statistics for pole-and-line vessels of New Zealand**

YEAR	VESSELS ACTIVE	DAYS FISHED	—SKIPJACK—			—YELLOWFIN—			—OTHER— MT	—TOTAL—	
			MT	CPUE	%	MT	CPUE	%		MT	CPUE
1990	3	...	—	—	—	—	—	—	14	14	...
1991	4	...	114	...	97	2	...	2	1	117	...

1. Statistics for 1990 were provided by the Ministry of Agriculture and Fisheries (Murray, personal communication, May 1992). Three vessels operated in the waters of New Zealand and caught 13.676 mt of albacore (reported above as *other*).
2. Statistics for 1991 were determined from data provided by the Ministry of Agriculture and Fisheries and from logbook data held at SPC. Three vessels operated in the waters of New Zealand and caught 1.231 mt of albacore (reported above as *other*), while one vessel fished for 53 days in the waters of Solomon Islands and caught 114 mt of skipjack and 2 mt of yellowfin.

Table 24. Catch statistics for Okinawan pole-and-line vessels based in Palau

YEAR	VESSELS ACTIVE	DAYS FISHED	SKIPJACK		YELLOWFIN		OTHER		TOTAL	
			MT	CPUE	MT	CPUE	MT	CPUE	MT	CPUE
1964	6	412	1,025	2.49	141	0.34	12	12	1,178	2.86
1965	31	1,399	2,497	1.78	173	0.12	72	72	2,742	1.96
1966	15	1,362	2,615	1.92	71	0.05	250	250	2,936	2.16
1967	20	1,399	3,354	2.40	52	0.04	123	123	3,529	2.52
1968	11	1,512	5,039	3.33	99	0.01	43	43	5,099	3.37
1969	9	1,193	4,629	3.88	133	0.11	497	497	5,258	4.41
1970	10	1,599	8,081	5.05	1	0.00	360	360	8,442	5.28
1971	20	1,639	2,133	1.30	10	0.01	175	175	2,318	1.41
1972	11	1,053	1,463	1.39	56	0.05	394	394	1,914	1.82
1973	12	1,160	2,309	1.99	41	0.04	399	399	2,749	2.37
1974	24	1,692	6,647	3.93	161	0.09	122	122	6,930	4.10
1975	21	1,790	5,971	3.34	298	0.17	346	346	6,614	3.70
1976	33	1,614	4,911	3.04	412	0.26	25	25	5,347	3.31
1977	23	1,119	3,592	3.21	420	0.37	32	32	4,043	3.61
1978	26	2,233	9,391	4.21	303	0.14	31	31	9,725	4.36
1979	21	1,752	5,687	3.25	1	0.00	4	4	5,692	3.25
1980	31	1,219	5,580	4.58	996	0.82	20	20	6,596	5.41
1981	36	1,651	6,931	4.20	2,480	1.50	22	22	9,433	5.71
1982	20	858	3,438	4.01	615	0.72	327	327	4,381	5.11

Units: CPUE, metric tonnes per day

1. All statistics were determined from logbook data held at SPC.

Table 25. Catch statistics for pole-and-line vessels of Papua New Guinea

YEAR	VESSELS ACTIVE	DAYS FISHED	SKIPJACK		YELLOWFIN		OTHER		TOTAL	
			MT	CPUE	MT	CPUE	MT	CPUE	MT	CPUE
1970	5	511	2,354	4.6	74	0.1	3	2	2,431	4.8
1971	29	4,060	16,862	4.2	112	0.0	1	28	17,003	4.2
1972	45	4,950	11,785	2.4	1,345	0.3	10	202	13,332	2.7
1973	43	7,863	27,300	3.5	916	0.1	3	280	28,496	3.6
1974	47	9,408	40,214	4.3	1,416	0.2	3	150	41,780	4.4
1975	48	6,435	15,625	2.4	1,744	0.3	10	29	17,398	2.7
1976	40	7,901	24,358	3.1	8,563	1.1	26	93	33,015	4.2
1977	51	9,736	20,106	2.1	4,009	0.4	16	296	24,411	2.5
1978	48	9,941	45,760	4.6	3,099	0.3	6	61	48,920	4.9
1979	45	8,184	23,976	2.9	2,881	0.4	11	88	26,945	3.3
1980	50	9,484	30,976	3.3	3,018	0.3	9	102	34,096	3.6
1981	44	7,861	27,207	3.5	4,205	0.5	13	-	31,412	4.0
1982	0	-	-	-	-	-	-	-	-	-
1983	0	-	-	-	-	-	-	-	-	-
1984	..	683	2,470	3.6	274	0.4	10	...	2,744	4.0
1985	..	...	8,370	...	930	...	10	...	9,300	...

Units: CPUE, metric tonnes per day

1. All statistics for 1970—1981 were determined from logbook data held at SPC.

2. All statistics for 1984—1985 were taken from Anon (1989c).

Table 26. Catch statistics for pole-and-line vessels of Solomon Islands

YEAR	VESSELS ACTIVE	DAYS FISHED	—SKIPJACK—			—YELLOWFIN—			—OTHER—	—TOTAL—	
			MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1971	..	813	4,570	5.6	97	141	0.2	3	...	4,711	5.8
1972	..	3,356	7,668	2.3	97	237	0.1	3	...	7,905	2.4
1973	11	1,944	6,318	3.2	97	195	0.1	3	...	6,513	3.4
1974	11	2,182	10,022	4.6	97	310	0.1	3	...	10,332	4.7
1975	12	2,419	6,954	2.8	97	215	0.1	3	...	7,169	3.0
1976	14	3,495	15,326	4.4	97	474	0.1	3	...	15,800	4.5
1977	20	4,741	11,752	2.5	97	363	0.1	3	...	12,116	2.6
1978	20	4,656	16,931	3.6	97	524	0.1	3	...	17,455	3.7
1979	23	5,085	23,087	4.5	97	714	0.1	3	...	23,801	4.7
1980	22	4,993	21,278	4.3	97	658	0.1	3	...	21,936	4.4
1981	23	5,259	21,907	4.2	97	265	0.1	1	450	22,622	4.3
1982	25	4,858	16,565	3.4	96	237	0.0	1	520	17,322	3.6
1983	27	6,185	27,992	4.5	96	660	0.1	2	615	29,267	4.7
1984	30	6,397	29,984	4.7	98	397	0.1	1	218	30,599	4.8
1985	33	6,906	24,592	3.6	97	183	0.0	1	459	25,234	3.7
1986	35	7,663	38,287	5.0	99	358	0.0	1	178	38,823	5.1
1987	34	6,781	19,388	2.9	86	2,965	0.4	13	291	22,644	3.3
1988	34	8,030	27,479	3.4	91	2,251	0.3	7	371	30,101	3.7
1989	33	7,122	24,284	3.4	94	1,475	0.2	6	109	25,868	3.6
1990	33	6,112	19,166	3.1	89	2,309	0.4	11	82	21,558	3.5
1991	32	6,825	35,233	5.2	97	950	0.1	3	29	36,212	5.3

Units: CPUE, metric tonnes per day

1. Days fished, total catch and total CPUE for 1971—1980 were taken from Anon (1989a). Catches of skipjack and yellowfin for 1971—1980 were estimated by applying a species composition of 97 per cent skipjack and 3 per cent yellowfin.
2. The numbers of vessels active during 1973—1980 were taken from Anon (1985).
3. Estimates for 1981—1990 were provided by the Fisheries Department, Honiara; the catch estimates were determined from daily catch and effort logbook data corrected with unloading data.
4. All statistics for 1991 were determined from logbook data held at SPC, provided by the Fisheries Department.



**Table 27. Catch statistics for pole-and-line vessels of Tuvalu**

YEAR	VESSELS ACTIVE	DAYS FISHED	—SKIPJACK—			—YELLOWFIN—			—OTHER—	—TOTAL—	
			MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1982	1	68	163	2.4	75	53	0.8	25	—	217	3.2
1983	1	122	286	2.3	85	51	0.4	15	—	337	2.8
1984	1	...	513	4.5	95	27	0.2	5	—	540	4.7
1985	1	...	4	...	100	—	—	—	—	4	...
1986	1	...	378	1.7	97	12	0.1	3	—	390	1.7
1987	1	153	542	3.5	85	90	0.6	14	5	637	4.2
1988	1	190	1,069	5.6	98	21	0.1	2	1	1,090	5.7
1989	1	...	142	...	95	7	...	5	—	149	...
1990	1	198	64	0.3	65	26	0.1	26	8	98	0.5
1991	1	221	23	0.1	62	6	0.0	15	8	37	0.1

Units: CPUE, metric tonnes per day

1. All statistics for 1982—1983 and 1987—1988 were determined from logbook data held at SPC; coverage by data at SPC for the Tuvalu pole-and-line vessel for these years is complete.
2. The total catches for 1984—1986 and 1989 were provided by the National Fishing Company of Tuvalu (NAFICOT) (Faulkner, personal communication, 1990); the species composition was determined from logbook data held at SPC for the Tuvaluan pole-and-line vessel for 1984—1986, and by assuming a species composition of 95 per cent skipjack and 5 per cent yellowfin for 1989. Catches while the vessel was under charter from October 1984 to May 1986 are excluded.
3. All statistics for 1990—1991 were determined from data collected while the vessel was under charter to SPC for the Regional Tuna Tagging Project. Catch estimates include decked fish only and exclude fish tagged and released.

**Table 28. Catch statistics for purse seine vessels of Australia fishing in the Australian Fishing Zone**

YEAR	VESSELS ACTIVE	DAYS FISHED	SKIPJACK			YELLOWFIN			OTHER	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1974	..	...	1,900	...	..	...	...	..	...	1,900	...
1975	4	...	...	...	..	...	...	..	...	...	...
1976	2	...	...	...	..	...	...	..	...	...	...
1977	1	...	...	...	..	...	...	..	...	...	...
1978	2	...	...	...	..	...	...	..	...	...	...
1979	1	...	...	...	..	...	...	..	...	...	...
1980	1	...	...	...	..	...	...	..	...	...	...
1981	5	98	339	3.5	14	—	—	—	2,129	2,468	25.2
1982	5	50	101	2.0	10	—	—	—	864	965	19.3
1983	5	28	110	3.9	12	—	—	—	791	901	32.2
1984	2	...	...	...	..	...	...	..	...	...	...
1985	1	...	...	...	..	...	...	..	...	...	...
1986	1	...	...	...	..	...	...	..	...	...	...
1987	0	...	...	...	..	...	...	..	...	...	...
1988	2	...	...	...	..	...	...	..	...	...	...
1989	1	...	...	...	..	...	...	..	...	...	...
1990	6	...	1,216	1.2	100	—	—	—	—	1,216	1.2
1991	8	...	3,424	0.6	100	—	—	—	—	3,424	0.6

Units: CPUE, metric tonnes per day

1. The catch of skipjack during the 1974/75 season was taken from Blackburn and Serventy (1981), quoted in Tuna Programme (1984).
2. Statistics for 1975—1989 were determined from logbook data held at SPC, provided by the Australian Fisheries Management Authority.
3. Catch estimates for 1990—1991 were provided by the Australian Fisheries Management Authority (Skousen, personal communication, May 1992). These statistics represent catches reported on logsheets raised assuming a coverage rate of 85 per cent of the actual catch during 1990 and 32.5 per cent during 1991. The number of vessels active is the number of vessels that submitted logbooks.
4. In accordance with the standard policy on confidentiality of data at the Australian Fisheries Management Authority, statistics for Australian purse seiners have not been included for years during which the number of vessels covered by the data is less than five (1975—1980, 1984—1989).

**Table 29. Catch statistics for purse seine vessels of Australia fishing outside the Australian Fishing Zone**

YEAR	VESSELS ACTIVE	DAYS FISHED	SKIPJACK			YELLOWFIN			OTHER	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1988	3	36	101	2.8	77	30	0.8	23	—	131	3.6
1989	1	22	148	6.7	91	15	0.7	9	—	163	7.4
1990	9	366	3,695	10.1	78	1,040	2.8	22	10	4,745	13.0
1991	5	...	3,997	8.6	62	2,302	3.5	36	145	6,444	12.1

Units: CPUE, metric tonnes per day

1. Statistics for 1988 include two vessels which fished in Solomon Islands waters and one vessel which fished in Papua New Guinea waters. The data for the vessels which fished in Solomon Islands were taken from Anon (1989a); statistics for the vessel which fished in Solomon Islands were determined from logbook data held in the Regional Tuna Fisheries Database.
2. All statistics for 1989 were determined from logbook data held at SPC. They represent one vessel which fished in the waters of both the Federated States of Micronesia and Papua New Guinea.
3. All statistics for 1990 were determined from logbook data held at SPC covering vessels active in the Federated States of Micronesia (*Bluefin Conquest*, *Bluefin Endeavour*, *Eastern Pacific*, *Mareta*, *Queen Mary*, *Tasman Dawn*, *Veronika* and *Zora*) and Papua New Guinea (*Bluefin Endeavour*, *Mareta*, *Veronika* and *Zora*). Coverage is unknown.
4. All statistics for 1991 were determined from logbook data held at SPC and from statistics provided by the Papua New Guinea Department of Fisheries and Marine Resources and the Micronesian Maritime Authority. Vessels covered in the waters of the Federated States of Micronesia during 1991 include *Bluefin Endeavour*, *Eastern Pacific*, *Queen Mary* and *Trinidad 3*. Catches by vessels operating under the Caroline Fishing Company, an Australia — Federated States of Micronesia joint-venture (*Queen Mary*, *Eastern Pacific* and *Trinidad 3*) are included. Coverage of vessels in the waters of the Federated States of Micronesia during 1991 is probably high. Vessels covered in the waters of Papua New Guinea during 1991 include *Bluefin Endeavour*, *Eastern Pacific*, *Queen Mary*, *Tasman Dawn* and *Trinidad 3*. Coverage of vessels in the waters of Papua New Guinea during 1991 is unknown.

**Table 30. Catch statistics for purse seine vessels of the Federated States of Micronesia**

YEAR	VESSELS ACTIVE	DAYS FISHED	SKIPJACK			YELLOWFIN			OTHER	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1991	3	104	389	3.7	62	238	2.3	38	—	627	6.0

Units: CPUE, metric tonnes per day

1. All statistics were determined from logbook data held at SPC. These data cover the *Gapilmogol* during March—December, *Mathawmal* during July—November and *Mathawwolwol* during October—December.

**Table 31. Catch statistics for purse seine vessels of Indonesia licensed to fish in the waters of SPC member countries**

YEAR	VESSELS ACTIVE	DAYS FISHED	SKIPJACK			YELLOWFIN			OTHER	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1984	..	...	...	...	..	...	...	..	...	...	...
1985	..	...	...	...	..	...	...	..	...	...	...
1986	3	...	7,121	8.7	83	1,441	1.7	17	—	8,562	10.5
1987	3	...	11,050	13.5	84	2,120	2.5	16	—	13,170	16.1
1988	3	...	11,050	13.5	85	1,950	2.3	15	—	13,000	15.8
1989	3	...	10,313	12.6	81	2,543	3.0	19	—	12,856	15.6
1990	3	...	...	...	..	...	...	..	...	...	...

Units: CPUE, metric tonnes per day

1. The total catch in 1988 was provided by PT Multi-Transpêche (Marcille, personal communication, 1989); the species composition was determined from logbook data held at SPC. An unknown proportion of the total catch was taken outside the SPC area.
2. Catches for 1986—1987 and 1989 were estimated by adjusting the catches during 1988 by the ratio of the catch rates in 1986—1987 and 1989 to the catch rates in 1988. An unknown proportion of the total catch was taken outside the SPC area.
3. Only a small proportion of the catch was taken inside the SPC area during 1990. The fleet was inactive in the SPC area during 1991.

Table 32. Catch statistics for purse seiners of Japan

YEAR	VESSELS ACTIVE	DAYS FISHED	SKIPJACK			YELLOWFIN			OTHER MT	TOTAL	
			MT	CPUE	%	MT	CPUE	%		MT	CPUE
1967	..	8	34	4.3	51	33	4.1	49	—	67	8.4
1968	..	51	140	2.7	39	218	4.3	61	—	358	7.0
1969	..	17	77	4.5	96	3	0.2	4	—	80	4.7
1970	..	77	333	4.3	73	123	1.6	27	—	456	5.9
1971	..	101	667	6.6	75	192	1.9	21	36	895	8.9
1972	..	56	541	9.7	69	188	3.4	24	55	784	14.0
1973	6	209	1,602	7.7	70	504	2.4	22	177	2,283	10.9
1974	7	381	2,421	6.4	72	743	2.0	22	213	3,377	8.9
1975	7	530	4,583	8.6	71	1,664	3.1	26	204	6,451	12.2
1976	10	842	10,353	12.3	74	3,304	3.9	24	290	13,947	16.6
1977	13	895	12,574	14.0	72	4,525	5.1	26	471	17,570	19.6
1978	16	1,397	22,006	15.8	75	7,106	5.1	24	408	29,520	21.1
1979	16	1,684	23,772	14.1	68	10,250	6.1	29	781	34,803	20.7
1980	18	1,517	29,799	19.6	75	9,144	6.0	23	617	39,560	26.1
1981	28	2,744	36,735	13.4	62	21,528	7.8	36	995	59,258	21.6
1982	39	4,095	70,032	17.1	70	28,785	7.0	29	1,610	100,427	24.5
1983	41	6,579	109,759	16.7	80	26,182	4.0	19	1,451	137,392	20.9
1984	48	7,268	110,075	15.1	78	30,876	4.2	22	522	141,473	19.5
1985	40	7,210	108,615	15.1	75	34,752	4.8	24	833	144,200	20.0
1986	40	6,343	108,538	17.1	73	39,759	6.3	27	994	149,291	23.5
1987	37	6,473	88,446	13.7	68	40,274	6.2	31	1,238	129,958	20.1
1988	40	7,110	141,137	19.9	84	25,525	3.6	15	510	167,172	23.5
1989	36	7,207	104,511	14.5	75	33,507	4.6	24	1,042	139,060	19.3
1990	38	6,689	126,637	18.9	79	31,179	4.7	20	1,919	159,735	23.9
1991	44	6,366	124,686	19.6	73	44,397	7.0	26	1,232	170,315	26.8

Units: 1967–1982 - EFFORT, days on which a set was made; CPUE, mt per day on which a set was made  
 1983–1991 - EFFORT, days fished and searched; CPUE, mt per day fished or searched

1. Catch statistics and days fished for 1967–1991 are from the National Research Institute of Far Seas Fisheries (Tsuji, personal communication, June 1992). The 1991 catch includes 8,066 mt caught by group seiners and 2,000–3,000 mt taken by survey vessels (Wright, personal communication, June 1992).
2. The numbers of vessels during 1973–1982 were determined from the number of single seiners given in Habib (1984) and the number of group seiners for which logbook data are held at SPC. The numbers of single seiners include one survey vessel in 1974–1975, two survey vessels in 1976, and three survey vessels in 1977–1982. The numbers of group seiners operating each year during 1980–1982 were 4, 4 and 6 respectively.
3. The numbers of vessels active for 1983–1991 were determined from data held at SPC. The numbers of group seiners each calendar year during 1983–1991 were 7, 7, 7, 7, 5, 7, 3, 5 and 0 respectively. The number of vessels active during the calendar year, given in the table, will usually be greater than the number of vessels active during the licensing year (August–August), since vessels can change their name or be replaced between licensing years. The number of single seiners active during the 1990/91 licensing year was 32.

**Table 33. Catch statistics for purse seiners of Korea**

YEAR	VESSELS ACTIVE	DAYS FISHED	SKIPJACK			YELLOWFIN			OTHER	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1980	2	...	500	...	100	—	...	—	—	500	...
1981	3	...	1,200	...	75	400	...	25	—	1,600	...
1982	10	...	10,000	...	83	2,000	...	17	—	12,000	...
1983	11	...	15,300	...	96	700	...	4	—	16,000	...
1984	12	...	13,500	...	99	100	...	1	—	13,600	...
1985	11	...	9,700	...	86	1,600	...	14	—	11,300	...
1986	13	...	25,300	...	91	2,400	...	9	—	27,700	...
1987	20	...	40,500	...	68	19,500	...	32	—	60,000	...
1988	23	...	62,056	...	79	16,496	...	21	—	78,552	...
1989	30	...	81,028	...	70	34,726	...	30	...	115,754	...
1990	..	...	131,740	...	76	41,603	...	24	...	173,343	...
1991	37	...	194,148	...	80	48,537	...	20	...	242,685	...

1. Statistics for 1983—1987 were taken from Park et al. (1991).
2. Total catches for 1988—1990 are Korean Government estimates quoted in Nambiar (1991). The species composition for 1988—1990 was taken from Park et al. (1991).
3. The total catch and the number of vessels active for 1991 were provided by an industry source. The species composition for 1991 was determined from logbook data held at SPC.

**Table 34. Catch statistics for purse seiners of Mexico**

YEAR	VESSELS ACTIVE	DAYS FISHED	SKIPJACK			YELLOWFIN			OTHER	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1984	2	167	2,017	12.1	63	1,174	7.0	37	—	3,191	19.1

Units: CPUE, metric tonnes per day

1. All statistics were determined from logbook data held at SPC.

Table 35. Catch statistics for purse seiners of New Zealand

YEAR	VESSELS ACTIVE	DAYS FISHED	SKIPJACK			YELLOWFIN			OTHER	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1983	7	277	5,581	20.1	96	239	0.9	4	5	5,825	21.0
1984	5	226	3,999	17.7	91	231	1.0	5	159	4,389	19.4
1985	5	164	2,289	14.0	78	170	1.0	6	459	2,918	17.8
1986	4	183	4,875	26.6	89	—	—	—	622	5,497	30.0
1987	3	157	4,178	26.6	91	1	0.0	0	429	4,608	29.4
1988	4	166	2,907	17.5	84	—	—	—	565	3,472	20.9
1989	5	...	1,778	...	100	—	—	—	...	1,778	...
1990	5	...	4,879	...	100	—	—	—	...	4,879	...
1991	5	...	6,720	...	100	—	—	—	...	6,720	...

Units: CPUE, metric tonnes per day

1. Statistics for 1983—1988 were determined from logbook data held at SPC, provided by the Ministry of Agriculture and Fisheries.
2. All statistics for 1989—1991 were provided by the Ministry of Agriculture and Fisheries (Murray, personal communication, May 1992). The skipjack catches do not include those of chartered American vessels in the New Zealand zone (2,186 mt in 1989, 1,310 in 1990 and 184 mt in 1991); these catches are included in Table 40.

Table 36. Catch statistics for purse seiners of the Philippines

YEAR	VESSELS ACTIVE	DAYS FISHED	SKIPJACK			YELLOWFIN			OTHER	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1982	1	118	766	6.5	58	475	4.0	36	90	1,331	11.3
1983	0	—	—	—	—	—	—	—	—	—	—
1984	3	276	775	2.8	48	846	3.1	52	—	1,621	5.9
1985	5	1,473	9,148	6.2	73	3,331	2.3	27	...	12,479	8.5
1986	5	1,609	6,989	4.3	81	1,630	1.0	19	...	8,619	5.3
1987	5	1,606	12,035	7.5	76	3,867	2.4	24	...	15,902	9.9
1988	9	817	8,356	10.2	70	3,419	4.2	29	114	11,889	14.6
1989	14	1,671	16,668	10.0	66	7,590	4.5	30	995	25,253	15.1
1990	13	1,820	16,466	9.0	68	7,309	4.0	30	255	24,030	13.2
1991	12	1,253	11,441	9.1	69	4,948	3.9	30	168	16,557	13.2

Units: CPUE, metric tonnes per day

1. The numbers of vessels active for 1982—1991 and all statistics for 1982—1984 and 1988—1991 were determined from logbook data held at SPC.
2. All statistics for 1985—1987 were provided by an industry source. A small proportion of the catch may have been taken outside the SPC area, in the waters of Malaysia and the Philippines.

Table 37. Catch statistics for purse seiners of Solomon Islands

YEAR	VESSELS ACTIVE	DAYS FISHED	SKIPJACK			YELLOWFIN			OTHER	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1980	1	60	497	8.3	52	449	7.5	47	16	962	16.0
1981	1	129	1,486	11.5	52	1,342	10.4	47	45	2,873	22.3
1982	1	127	1,598	12.6	52	1,444	11.4	47	49	3,091	24.3
1983	1	173	2,800	16.2	52	2,530	14.6	47	85	5,415	31.3
1984	1	178	3,050	17.1	56	2,397	13.9	44	—	5,447	30.6
1985	1	188	2,824	15.0	49	2,882	15.3	50	57	5,763	30.7
1986	1	177	3,267	18.4	55	2,258	12.8	38	418	5,943	33.6
1987	2	217	3,580	16.5	43	3,837	17.7	46	868	8,285	38.1
1988	4	311	6,467	20.8	58	4,244	13.6	38	510	11,221	36.1
1989	4	336	5,892	17.5	55	4,410	13.1	41	489	10,791	32.1
1990	4	349	4,276	12.3	47	3,825	11.0	42	923	9,024	25.9
1991	3	234	6,752	28.9	67	3,275	14.0	33	3	10,030	42.9

Units: CPUE, metric tonnes per day

1. The total catches for 1980—1986 and the number of days fished were taken from Anon (1989a); the species composition was determined from logbook data held at SPC. The single vessel active during 1980—1986 was a group seiner.
2. Statistics for 1987—1988 were taken from Anon (1989a). Data for 1987 cover one single seiner and one group seiner. Data for 1988 cover one group seiner, two single seiners and one Taiwanese single seiner on charter to Solomon Taiyo Ltd, but not two Australian vessels which conducted trials for a limited duration.
3. All statistics for 1989—1991 were determined from logbook data held at SPC. One group seiner and three single seiners were active during 1989—1990, while two group seiners and one single seiner were active during 1991.

Table 38. Catch statistics for purse seiners of the Soviet Union

YEAR	VESSELS ACTIVE	DAYS FISHED	SKIPJACK			YELLOWFIN			OTHER	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1985	5	344	1,541	...	73	570	...	27	..	2,111	6.1
1986	8	593	3,743	6.3	89	432	0.7	10	16	4,191	7.1
1987	5	738	5,614	7.6	62	3,381	4.6	37	15	9,010	12.2
1988	5	568	5,339	9.4	86	850	1.5	14	—	6,189	10.9
1989	5	385	3,400	8.8	69	1,535	4.0	31	—	4,935	12.8
1990	5	318	1,505	4.7	69	621	2.0	29	41	2,167	6.8
1991	4	218	2,601	11.9	70	1,114	5.1	30	—	3,715	17.0

Units: DAYS FISHED, days on which a set was made; CPUE, metric tonnes per day on which a set was made

1. The total catch, vessels active and days fished for 1985 and all statistics for 1986—1991 were provided by the Pacific Research Institute of Fisheries and Oceanography (TINRO) (Karyakin, personal communication, March 1992). The species composition for 1985 was estimated using the average species composition for 1986—1991.



**Table 39. Catch statistics for purse seiners of Taiwan**

YEAR	VESSELS ACTIVE	DAYS FISHED	SKIPJACK			YELLOWFIN			OTHER MT	TOTAL	
			MT	CPUE	%	MT	CPUE	%		MT	CPUE
1983	3	...	9,840	...	82	2,160	...	18	—	12,000	...
1984	6	...	20,160	...	84	3,840	...	16	—	24,000	...
1985	7	...	23,520	...	84	4,480	...	16	—	28,000	...
1986	10	...	34,400	...	86	5,600	...	14	—	40,000	...
1987	13	...	44,720	...	86	7,280	...	14	—	52,000	...
1988	19	...	66,880	...	88	9,120	...	12	—	76,000	...
1989	25	...	84,000	...	84	16,000	...	16	—	100,000	...
1990	35	...	104,960	...	82	23,040	...	18	—	128,000	...
1991	44	...	140,800	...	80	35,200	...	20	—	176,000	...

1. The numbers of vessels active for 1983—1989 were estimated from logbook data held at SPC.
2. The numbers of vessels active during 1990—1991 were taken from National Marine Fisheries Service *Tuna Newsletter* 103, November 1991.
3. Total catches for 1983—1991 were estimated assuming each vessel caught 4,000 mt annually. Catches by species were determined by applying the species composition from logbook data held at SPC for Taiwanese purse seiners during 1983—1991.

Table 40. Catch statistics for purse seiners of the United States

YEAR	VESSELS ACTIVE	DAYS FISHED	SKIPJACK			YELLOWFIN			OTHER	TOTAL	
			MT	CPUE	%	MT	CPUE	%	MT	MT	CPUE
1976	..	...	500	...	71	200	...	29	...	700	...
1977	..	...	700	...	78	200	...	22	...	900	...
1978	..	...	800	...	80	200	...	20	...	1,000	...
1979	..	...	8,000	...	93	600	...	7	20	8,620	...
1980	..	...	9,900	...	90	1,100	...	10	-	11,000	...
1981	18	2,362	16,228	6.9	46	18,785	8.0	54	-	35,013	14.8
1982	29	4,310	50,191	11.6	61	31,578	7.3	39	-	81,770	19.0
1983	39	...	104,100	12.9	68	49,600	7.7	32	...	153,700	20.6
1984	52	...	124,300	10.6	73	45,100	5.7	27	60	169,460	16.3
1985	39	...	87,700	12.8	75	29,000	3.8	25	...	116,700	16.6
1986	..	...	93,500	17.9	72	36,600	8.4	28	...	130,100	26.3
1987	..	...	79,800	11.6	55	66,400	12.0	45	...	146,200	23.6
1988	32	...	99,400	14.8	80	25,200	3.1	20	...	124,600	17.9
1989	36	6,629	92,210	13.9	66	46,794	7.1	33	861	139,865	21.1
1990	43	6,394	106,053	16.6	65	57,701	9.0	35	300	164,054	25.7
1991	43	7,094	173,427	24.4	81	40,511	5.7	19	477	214,415	30.2

Units: CPUE, metric tonnes per day

1. Catch estimates for 1976—1980 and 1983—1988 were provided by the National Marine Fisheries Service (Sakagawa, personal communication, June 1991); these statistics represent landings of tuna caught in the Central and Western Pacific. Since trips that start late in one year may land their catch in the next, landings in each calendar year may contain some catches from the previous year.
2. All statistics for 1981—1982 and the number of vessels during 1983—1985 were determined from data provided by the American Tunaboat Association.
3. Catch estimates for 1989—1991, CPUE estimates for 1976—1980 and 1983—1991, and the numbers of vessels active for 1988—1991 were determined from logbook data held at SPC.

**Table 41. Catches of albacore by  
trollers of Australia**

YEAR	VESSELS ACTIVE	DAYS FISHED	—ALBACORE— MT CPUE	
1991	2	...	...	...

SEASON	VESSELS ACTIVE	DAYS FISHED	—ALBACORE— MT CPUE	
1991/92	2	...	...	...

#### SOURCES

1. Two commercial fishing vessels chartered by the Bureau of Rural Resources for exploratory fishing, *Eileen M* and *Ocean Lady*, fished from September 1991 to about May 1992 (*Australian Fisheries*, November 1991, March 1992). Both vessels were rigged for trolling and poling.

**Table 42. Catches of albacore by  
trollers of Canada and Fiji**

YEAR	VESSELS ACTIVE	DAYS FISHED	—ALBACORE—	
			MT	CPUE
1988	..	...	140	...
1989	..	...	162	...
1990	..	...	—	...
1991	..	...	103	...

SEASON	VESSELS ACTIVE	DAYS FISHED	—ALBACORE—	
			MT	CPUE
1987/88	..	...	...	...
1988/89	..	...	...	...
1989/90	..	...	...	...
1990/91	..	...	...	...

Units: CPUE, metric tonnes per day

1. Catch estimates were taken from Coan and Resnick (1991), wherein catches for Canada and Fiji were combined.
2. Two vessels were licensed by the Fiji Fisheries Division in 1991 (Sharma, personal communication, May 1992); one of these vessels was *Tylo*.

**Table 43. Catches of albacore by trollers of French Polynesia**

YEAR	VESSELS ACTIVE	DAYS FISHED	—ALBACORE—	
			MT	CPUE
1989	2	...	90	...
1990	3	...	299	...
1991	4	...	326	...

SEASON	VESSELS ACTIVE	DAYS FISHED	—ALBACORE—	
			MT	CPUE
1988/89	2	...	90	...
1989/90	3	...	299	...
1990/91	4	...	326	...

1. All statistics were provided by *Établissement pour la valorisation des activités aquacoles et maritimes* (EVAAM) (Yen, personal communication, May 1992). The 1991 statistics include two multi-purpose vessels (*Tahiti Nui* and *Arevananu*). All catches were taken from the Sub-Tropical Convergence Zone.

**Table 44. Catches of albacore by trollers of New Zealand**

YEAR	VESSELS ACTIVE	DAYS FISHED	—ALBACORE—	
			MT	CPUE
1973	...	...	...	...
1974	...	...	...	...
1975	...	...	...	...
1976	...	...	...	...
1977	...	...	...	...
1978	...	...	...	...
1979	...	...	...	...
1980	...	...	...	...
1981	...	...	...	...
1982	...	...	...	...
1983	...	...	...	274
1984	...	...	...	150
1985	...	...	...	236
1986	...	...	...	249
1987	...	...	...	379
1988	...	...	...	402
1989	...	...	5,205	484
1990	...	...	...	259
1991	...	...	...	176

SEASON	VESSELS ACTIVE	DAYS FISHED	—ALBACORE—	
			MT	CPUE
1973/74	..	...	898	...
1974/75	..	...	646	...
1975/76	..	...	25	...
1976/77	..	...	621	...
1977/78	..	...	1,686	...
1978/79	..	...	814	...
1979/80	..	...	1,468	...
1980/81	..	...	2,085	...
1981/82	..	...	2,434	...
1982/83	..	...	744	276
1983/84	..	...	2,773	149
1984/85	..	...	3,253	238
1985/86	..	...	1,911	248
1986/87	100	...	1,227	374
1987/88	25	...	330	349
1988/89	200	...	5,161	520
1989/90	125	...	2,525	267
1990/91	142	...	2,464	174

Units: CPUE, kilogrammes per day

1. The annual catch for 1989 was provided by the Ministry of Agriculture and Fisheries (McKoy, personal communication, June 1990).
2. Seasonal catches and the numbers of vessels active were provided to SPAR 4 by the Ministry of Agriculture and Fisheries (South Pacific Commission 1991).

**Table 44 (continued)**

3. Estimates of CPUE were determined from logbook data held at SPC, provided by the Ministry of Agriculture and Fisheries. The CPUE estimate for 1991 represents the period January—July.

**Table 45. Catches of albacore by trollers of the United States**

YEAR	VESSELS ACTIVE	DAYS FISHED	—ALBACORE— MT CPUE	
1986	2	...	89	...
1987	7	...	859	...
1988	35	...	3,339	...
1989	38	...	3,563	...
1990	38	...	3,758	...
1991	58	...	5,427	...

SEASON	VESSELS ACTIVE	DAYS FISHED	—ALBACORE— MT CPUE	
1985/86	2	83	89	1.0
1986/87	7	378	748	2.0
1987/88	..	...	...	...
1988/89	..	...	...	...
1989/90	..	...	...	...
1990/91	..	...	...	...

Units: CPUE, metric tonnes per day

1. Seasonal statistics were provided by the National Marine Fisheries Service (Sakagawa, personal communication, June 1991).
2. All annual statistics were taken from Coan and Resnick (1991).
3. Estimates of the number of days fished during the 1985/86—1985/86 seasons were determined from the total catch and CPUE.

Table 46. Catches (mt) from domestic fisheries in Indonesia

YEAR	BB	HAN	LL	PS	UNCL	TOTAL
SKIPJACK						
1970	-	-	-	-	12,100	12,100
1971	-	-	-	-	12,400	12,400
1972	-	-	-	-	19,600	19,600
1973	-	-	-	-	22,300	22,300
1974	-	-	-	-	23,613	23,613
1975	-	-	-	-	23,316	23,316
1976	-	-	-	-	25,338	25,338
1977	-	-	-	-	26,376	26,376
1978	-	-	-	-	29,422	29,422
1979	-	-	-	-	36,310	36,310
1980	-	-	-	-	44,245	44,245
1981	-	-	-	-	46,919	46,919
1982	22,121	-	43	6,199	21,380	49,743
1983	-	-	-	-	64,332	64,332
1984	42,910	-	-	9,152	18,149	70,211
1985	43,999	-	-	10,187	18,132	72,318
1986	48,305	-	-	7,313	13,225	68,843
1987	49,271	-	-	7,459	13,490	70,220
1988	51,735	-	-	7,823	14,165	73,723
1989	64,763	-	-	7,559	14,873	87,195
1990	70,537	-	-	7,994	15,617	94,148
1991	70,537	-	-	7,994	15,617	94,148
YELLOWFIN						
1970	-	-	-	-	5,500	5,500
1971	-	-	-	-	5,700	5,700
1972	-	-	-	-	9,000	9,000
1973	-	-	-	-	10,200	10,200
1974	-	-	-	-	10,165	10,165
1975	-	-	-	-	11,062	11,062
1976	-	-	-	-	8,037	8,037
1977	-	-	-	-	10,859	10,859
1978	-	-	-	-	10,601	10,601
1979	-	-	-	-	14,663	14,663
1980	-	-	-	-	17,550	17,550
1981	-	-	-	-	21,889	21,889
1982	963	-	3,605	1,428	18,344	24,340
1983	-	-	-	-	20,200	20,200
1984	2,282	-	1,670	2,108	20,390	26,450
1985	2,344	-	2,466	2,107	22,670	29,587
1986	2,278	-	2,437	1,650	27,873	34,238
1987	2,323	-	-	1,683	28,430	32,436
1988	2,439	-	-	1,767	29,852	34,058
1989	4,707	2,726	5,124	2,520	31,345	46,422
1990	4,433	3,196	5,508	2,665	32,285	48,087
1991	4,433	3,196	5,508	2,665	32,285	48,087

KEY: BB POLE-AND-LINE  
HAN HANDLINE  
LL LONGLINE  
PS PURSE SEINE  
UNCL UNCLASSIFIED

1. Statistics for 1970—1989 were taken from Indo-Pacific Tuna Programme (1991a) for area F71.
2. Statistics for 1990 were taken from Indo-Pacific Tuna Programme (1991b) for area F71.
3. Estimates for 1990 have been used as preliminary estimates for 1991.



Table 47. Catches (mt) from domestic fisheries in the Philippines

YEAR	BAG	GILL	HOOK	LL	PS	RIN	SEN	UNCL	TOTAL
<b>SKIPJACK</b>									
1970	-	-	-	-	-	-	-	20,000	20,000
1971	-	-	-	-	-	-	-	21,400	21,400
1972	-	-	-	-	-	-	-	23,500	23,500
1973	-	-	-	-	-	-	-	26,400	26,400
1974	-	-	-	-	-	-	-	29,456	29,456
1975	-	-	-	-	-	-	-	31,657	31,657
1976	150	10	-	-	4,518	4,972	165	19,359	29,174
1977	54	-	286	-	16,956	5,164	37	32,593	55,090
1978	1,302	14,286	13,178	2,665	6,987	7,585	14	3,701	49,718
1979	298	4,435	12,069	-	27,050	-	130	1,102	45,084
1980	197	4,908	10,633	-	15,004	-	45	391	31,178
1981	243	2,995	14,406	440	14,048	4,683	102	1,522	38,439
1982	364	2,437	7,735	530	26,607	4,081	80	8,961	50,795
1983	192	1,980	9,816	-	39,971	-	80	5,112	57,151
1984	63	1,221	11,481	652	29,976	-	104	1,174	44,671
1985	1,791	2,183	10,309	735	28,477	14,303	211	2,527	60,536
1986	978	2,851	13,683	590	38,982	18,343	72	1,469	76,968
1987	862	2,656	14,627	2,019	39,125	11,873	59	2,528	73,749
1988	-	-	-	-	-	-	-	55,940	55,940
1989	-	-	-	-	-	-	-	64,654	64,654
1990	1,304	174	1,200	114	49,555	17,558	-	29,800	99,705
1991	...	...	...	...	...	...	...	...	95,594
<b>YELLOWFIN</b>									
1970	-	-	-	-	-	-	-	32,000	32,000
1971	-	-	-	-	-	-	-	35,800	35,800
1972	-	-	-	-	-	-	-	37,200	37,200
1973	-	-	-	-	-	-	-	44,500	44,500
1974	-	-	-	-	-	-	-	51,732	51,732
1975	-	-	-	-	-	-	-	52,793	52,793
1976	270	9	161	1,232	5,902	1,854	2,727	32,323	44,478
1977	407	-	1,407	-	7,821	2,552	71	50,801	63,059
1978	831	6,431	32,607	874	4,188	1,019	849	230	47,029
1979	1,081	2,027	32,887	-	12,301	-	647	281	49,224
1980	651	2,301	32,108	-	12,463	-	68	432	48,023
1981	508	2,655	32,800	1,073	14,546	3,636	5	953	56,176
1982	122	1,386	29,738	1,897	16,347	1,329	48	1,055	51,922
1983	323	1,260	35,878	-	20,779	-	135	3,661	62,036
1984	752	2,161	31,005	1,284	22,989	-	84	649	58,924
1985	1,333	2,040	35,505	1,819	16,753	4,838	680	1,325	64,293
1986	350	2,137	36,188	2,411	12,671	4,920	9	824	59,510
1987	423	2,161	26,408	3,774	15,171	2,916	91	866	51,810
1988	-	-	-	-	-	-	-	57,060	57,060
1989	-	-	-	-	-	-	-	62,146	62,146
1990	694	811	2,746	214	21,571	8,192	-	46,874	81,102
1991	...	...	...	...	...	...	...	...	102,394

KEY: BAG BAG NET PS PURSE SEINE  
 GILL GILLNET RIN RING NET  
 HOOK HOOK AND LINE SEN SEINE NET  
 LL LONGLINE UNCL UNCLASSIFIED

1. Statistics for 1970—1989 were taken from Indo-Pacific Tuna Programme (1991a) for area F71; statistics for 1970—1987 were compiled by the Bureau of Fisheries and Aquatic Resources, while those for 1988—1989 were compiled by the Bureau of Agricultural Statistics.
2. Statistics for 1990 were taken from Indo-Pacific Tuna Programme (1991b) for area F71; these statistics were compiled by the Bureau of Agricultural Statistics.
3. Statistics for 1991 were provided by the Bureau of Fisheries and Aquatic Resources (Arce, personal communication, May 1992) from data compiled by the Bureau of Agricultural Statistics.

Table 48. Quality of estimates of annual catches presented in Tables 1—47

FLEET	QUALITY OF ESTIMATES OF ANNUAL CATCHES
<b>DRIFTNET</b>	
JAPAN	GOOD
KOREA	GOOD
TAIWAN	GOOD
<b>LONGLINE</b>	
AUSTRALIA	POOR 1987-1988, GOOD 1989-1991
FEDERATED STATES OF MICRONESIA	GOOD
FIJI	NO DATA 1989-1990, POOR 1991
FRENCH POLYNESIA	GOOD
JAPAN - DISTANT-WATER	POOR 1952-1961, GOOD 1962-1980, POOR 1981-1991
JAPAN - LOCALLY BASED VESSELS	POOR 1987-1989, GOOD 1990, POOR 1991
KOREA	POOR 1958-1991
NEW CALEDONIA	GOOD
NEW ZEALAND	COVERAGE UNKNOWN
SOLOMON ISLANDS	GOOD
TAIWAN - LESS THAN 100 GRT	POOR
TAIWAN - GREATER THAN 100 GRT	NO DATA 1964-1966, GOOD 1967-1991
TONGA	GOOD
<b>POLE-AND-LINE</b>	
AUSTRALIA	POOR
FIJI	GOOD
FRENCH POLYNESIA	GOOD
JAPAN	GOOD 1972-1989, POOR 1990-1991
KIRIBATI	POOR 1979-1982, GOOD 1983-1990, NO DATA 1991
NEW CALEDONIA	GOOD
NEW ZEALAND	COVERAGE UNKNOWN
PALAU	GOOD
PAPUA NEW GUINEA	GOOD
SOLOMON ISLANDS	GOOD
TUVALU	GOOD
<b>PURSE SEINE</b>	
AUSTRALIA - INSIDE AFZ	COVERAGE UNKNOWN 1974-1989, GOOD 1990, POOR 1991
AUSTRALIA - OUTSIDE AFZ	COVERAGE UNKNOWN
FEDERATED STATES OF MICRONESIA	COVERAGE UNKNOWN
INDONESIA	POOR 1984-1987, GOOD 1988, POOR 1989-1990
JAPAN	GOOD 1973-1991
KOREA	GOOD
MEXICO	COVERAGE UNKNOWN
NEW ZEALAND	GOOD
PHILIPPINES	COVERAGE UNKNOWN 1982-1984, GOOD 1985-1987, COVERAGE UNKNOWN 1988-1991
SOLOMON ISLANDS	GOOD
SOVIET UNION	GOOD
TAIWAN	POOR
UNITED STATES	POOR 1976-1980, GOOD 1981-1982, POOR 1983-1988, GOOD 1989-1991
<b>TROLL</b>	
AUSTRALIA	NO DATA 1991
CANADA AND FIJI	GOOD
FRENCH POLYNESIA	GOOD
NEW ZEALAND	GOOD
UNITED STATES	GOOD
<b>SOUTHEAST ASIA</b>	
INDONESIA	COVERAGE UNKNOWN
PHILIPPINES	COVERAGE UNKNOWN

**Table 49. Seasonal catches (mt) by driftnet vessels in the SPC statistical area**

SEASON	ALBACORE	BIGEYE	SKIPJACK	YELLOWFIN	TOTAL
1982/83	32	—	—	—	32
1983/84	1,581	—	—	—	1,581
1984/85	1,928	—	—	—	1,928
1985/86	1,936	—	—	—	1,936
1986/87	919	—	—	—	919
1987/88	5,271	—	—	—	5,271
1988/89	21,955	—	—	—	21,955
1989/90	7,426	—	—	—	7,426
1990/91	821	—	—	—	821

**Table 50. Annual catches (mt) by longliners in the SPC statistical area**

YEAR	ALBACORE	BIGEYE	SKIPJACK	YELLOWFIN	TOTAL
1952	210	—	—	—	210
1953	1,091	—	—	—	1,091
1954	10,200	—	—	—	10,200
1955	8,420	—	—	—	8,420
1956	6,220	—	—	—	6,220
1957	9,764	—	—	—	9,764
1958	21,704	—	—	—	21,704
1959	19,800	—	—	—	19,800
1960	24,366	—	—	—	24,366
1961	25,958	—	—	—	25,958
1962	35,125	29,818	—	53,327	118,270
1963	23,347	27,739	—	49,715	100,801
1964	18,187	20,276	—	41,270	79,733
1965	19,904	23,307	—	43,563	86,774
1966	30,857	21,168	—	49,966	101,991
1967	43,741	20,076	—	28,168	91,985
1968	33,669	16,662	—	38,401	88,732
1969	26,272	21,076	—	37,598	84,946
1970	30,567	17,085	—	33,253	80,905
1971	37,460	23,018	—	40,677	101,155
1972	40,503	33,125	—	48,649	122,277
1973	46,000	28,079	—	49,494	123,573
1974	31,503	38,388	—	49,087	118,978
1975	23,724	35,369	—	38,258	97,351
1976	30,202	44,628	—	48,294	123,124
1977	31,283	43,267	—	59,893	134,443
1978	29,006	29,455	—	75,488	133,949
1979	24,631	40,245	—	68,571	133,447
1980	39,406	42,583	—	87,718	169,707
1981	31,464	25,674	—	61,397	118,535
1982	27,336	26,361	—	48,882	102,579
1983	15,854	21,516	—	49,762	87,132
1984	15,516	22,443	—	36,631	74,590
1985	24,334	27,507	—	40,279	92,120
1986	29,649	33,647	—	36,256	99,552
1987	20,143	44,036	—	36,394	100,573
1988	22,145	24,823	—	29,729	76,697
1989	14,201	30,909	—	33,160	78,270
1990	14,116	41,961	—	38,258	94,335
1991	14,057	39,389	—	38,799	92,245

**Table 51. Annual catches (mt) by pole-and-line vessels in the SPC statistical area**

YEAR	ALBACORE	BIGEYE	SKIPJACK	YELLOWFIN	TOTAL
1964	-	-	1,025	141	1,166
1965	-	-	2,497	173	2,670
1966	-	-	2,615	71	2,686
1967	-	-	3,354	52	3,406
1968	-	-	5,039	17	5,056
1969	-	-	4,629	133	4,762
1970	-	-	10,435	75	10,510
1971	-	-	23,565	263	23,828
1972	-	-	84,083	2,796	86,879
1973	-	-	152,997	2,688	155,685
1974	-	-	198,519	3,180	201,699
1975	-	-	132,257	4,177	136,434
1976	-	-	156,993	11,944	168,937
1977	-	-	190,620	9,759	200,379
1978	-	-	205,665	5,885	211,550
1979	-	-	156,036	5,749	161,785
1980	-	-	174,868	6,891	181,759
1981	-	-	193,831	10,393	204,224
1982	-	-	134,936	4,916	139,852
1983	-	-	159,203	3,580	162,783
1984	-	-	167,939	3,881	171,820
1985	-	-	132,266	7,261	139,527
1986	-	-	148,693	2,864	151,557
1987	-	-	118,116	4,838	122,954
1988	-	-	124,356	4,186	128,542
1989	-	-	132,910	3,456	136,366
1990	-	-	82,819	4,284	87,103
1991	-	-	131,703	2,470	134,173

**Table 52. Annual catches (mt) by purse seiners in the SPC statistical area**

YEAR	ALBACORE	BIGEYE	SKIPJACK	YELLOWFIN <sup>1</sup>	TOTAL
1967	-	-	34	33	67
1968	-	-	140	218	358
1969	-	-	77	3	80
1970	-	-	333	123	456
1971	-	-	667	192	859
1972	-	-	541	188	729
1973	-	-	1,602	504	2,106
1974	-	-	4,321	743	5,064
1975	-	-	4,583	1,664	6,247
1976	-	-	10,853	3,504	14,357
1977	-	-	13,274	4,725	17,999
1978	-	-	22,806	7,306	30,112
1979	-	-	31,772	10,850	42,622
1980	-	-	40,696	10,693	51,389
1981	-	-	55,988	42,055	98,043
1982	-	-	132,688	64,282	196,970
1983	-	-	247,490	81,411	328,901
1984	-	-	277,876	84,564	362,440
1985	-	-	245,337	76,785	322,122
1986	-	-	287,733	90,120	377,853
1987	-	-	289,923	146,660	436,583
1988	-	-	403,693	86,834	490,527
1989	-	-	399,948	147,120	547,068
1990	-	-	501,427	166,318	667,745
1991	-	-	668,385	180,522	848,907

1. Catches of yellowfin may include as much as 10 per cent bigeye.

**Table 53. Seasonal catches (mt) by troll vessels in the SPC statistical area**

SEASON	ALBACORE	BIGEYE	SKIPJACK	YELLOWFIN	TOTAL
1973/74	898	-	-	-	898
1974/75	646	-	-	-	646
1975/76	25	-	-	-	25
1976/77	621	-	-	-	621
1977/78	1,686	-	-	-	1,686
1978/79	814	-	-	-	814
1979/80	1,468	-	-	-	1,468
1980/81	2,085	-	-	-	2,085
1981/82	2,434	-	-	-	2,434
1982/83	744	-	-	-	744
1983/84	2,773	-	-	-	2,773
1984/85	3,253	-	-	-	3,253
1985/86	2,000	-	-	-	2,000
1986/87	2,086	-	-	-	2,086
1987/88	3,809	-	-	-	3,809
1988/89	8,976	-	-	-	8,976
1989/90	6,582	-	-	-	6,582
1990/91	8,320	-	-	-	8,320

**Table 54. Annual catches (mt) in the SPC statistical area by species**

YEAR	ALBACORE <sup>1</sup>	BIGEYE	SKIPJACK	YELLOWFIN	TOTAL
1952	210	—	—	—	210
1953	1,091	—	—	—	1,091
1954	10,200	—	—	—	10,200
1955	8,420	—	—	—	8,420
1956	6,220	—	—	—	6,220
1957	9,764	—	—	—	9,764
1958	21,704	—	—	—	21,704
1959	19,800	—	—	—	19,800
1960	24,366	—	—	—	24,366
1961	25,958	—	—	—	25,958
1962	35,125	29,818	—	53,327	118,270
1963	23,347	27,739	—	49,715	100,801
1964	18,187	20,276	1,025	41,411	80,899
1965	19,904	23,307	2,497	43,736	89,444
1966	30,857	21,168	2,615	50,037	104,677
1967	43,741	20,076	3,388	28,253	95,458
1968	33,669	16,662	5,179	38,636	94,146
1969	26,272	21,076	4,706	37,734	89,788
1970	30,567	17,085	10,768	33,451	91,871
1971	37,460	23,018	24,232	41,132	125,842
1972	40,503	33,125	84,624	51,633	209,885
1973	46,000	28,079	154,599	52,686	281,364
1974	32,401	38,388	202,840	53,010	326,639
1975	24,370	35,369	136,840	44,099	240,678
1976	30,227	44,628	167,846	63,742	306,443
1977	31,904	43,267	203,894	74,377	353,442
1978	30,692	29,455	228,471	88,679	377,297
1979	25,445	40,245	187,808	85,170	338,668
1980	40,874	42,583	215,564	105,302	404,323
1981	33,549	25,674	249,819	113,845	422,887
1982	29,770	26,361	267,624	118,080	441,835
1983	16,630	21,516	406,693	134,753	579,592
1984	19,870	22,443	445,815	125,076	613,204
1985	29,515	27,507	377,603	124,325	558,950
1986	33,585	33,647	436,426	129,240	632,898
1987	23,148	44,036	408,039	187,892	663,115
1988	31,225	24,823	528,049	120,749	704,846
1989	45,132	30,909	532,858	183,736	792,635
1990	28,124	41,961	584,246	208,860	863,191
1991	23,198	39,389	800,088	221,791	1,084,466

1. Catches of albacore include statistics by fishing season for driftnet vessels and trollers, rather than by calendar year; catches were allocated to the calendar year at the end of the season.

**Table 55. Annual catches (mt) in the SPC statistical area and the waters of Eastern Indonesia and the Philippines by species<sup>1</sup>**

YEAR	ALBACORE <sup>1</sup>	BIGEYE	SKIPJACK	YELLOWFIN	TOTAL
1952	210	-	-	-	210
1953	1,091	-	-	-	1,091
1954	10,200	-	-	-	10,200
1955	8,420	-	-	-	8,420
1956	6,220	-	-	-	6,220
1957	9,764	-	-	-	9,764
1958	21,704	-	-	-	21,704
1959	19,800	-	-	-	19,800
1960	24,366	-	-	-	24,366
1961	25,958	-	-	-	25,958
1962	35,125	29,818	-	53,327	118,270
1963	23,347	27,739	-	49,715	100,801
1964	18,187	20,276	1,025	41,411	80,899
1965	19,904	23,307	2,497	43,736	89,444
1966	30,857	21,168	2,615	50,037	104,677
1967	43,741	20,076	3,388	28,253	95,458
1968	33,669	16,662	5,179	38,636	94,146
1969	26,272	21,076	4,706	37,734	89,788
1970	30,567	17,085	42,868	70,951	161,471
1971	37,460	23,018	58,032	82,632	201,142
1972	40,503	33,125	127,724	97,833	299,185
1973	46,000	28,079	203,299	107,386	384,764
1974	32,401	38,388	255,909	114,907	441,605
1975	24,370	35,369	191,813	107,954	359,506
1976	30,227	44,628	222,358	116,257	413,470
1977	31,904	43,267	285,360	148,295	508,826
1978	30,692	29,455	307,611	146,309	514,067
1979	25,445	40,245	269,202	149,057	483,949
1980	40,874	42,583	290,987	170,875	545,319
1981	33,549	25,674	335,177	191,910	586,310
1982	29,770	26,361	368,162	194,342	618,635
1983	16,630	21,516	528,176	216,989	783,311
1984	19,870	22,443	560,697	210,450	813,460
1985	29,515	27,507	510,457	218,205	785,684
1986	33,585	33,647	582,237	222,988	872,457
1987	23,148	44,036	552,008	272,138	891,330
1988	31,225	24,823	657,712	211,867	925,627
1989	45,132	30,909	684,707	292,304	1,053,052
1990	28,124	41,961	778,099	338,049	1,186,233
1991	23,198	39,389	989,830	372,272	1,424,689

1. Catches of albacore include statistics by fishing season for driftnet vessels and trollers, rather than by calendar year; catches were allocated to the calendar year at the end of the season.

Table 56. Annual catches (mt) in the SPC statistical area by fishing nation

YEAR	AU	CA	FJ	FM	ID	JP	KI	KR	MX	NC	NZ	PF	PG	PH	PU	SB	SU	TO	TV	TW	US	TOTAL
1952	-	-	-	-	-	210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210
1953	-	-	-	-	-	1,091	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,091
1954	-	-	-	-	-	10,200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10,200
1955	-	-	-	-	-	8,420	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,420
1956	-	-	-	-	-	6,220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,220
1957	-	-	-	-	-	9,764	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,764
1958	-	-	-	-	-	21,558	-	146	-	-	-	-	-	-	-	-	-	-	-	-	-	21,704
1959	-	-	-	-	-	19,344	-	456	-	-	-	-	-	-	-	-	-	-	-	-	-	19,800
1960	-	-	-	-	-	23,756	-	610	-	-	-	-	-	-	-	-	-	-	-	-	-	24,366
1961	-	-	-	-	-	25,628	-	330	-	-	-	-	-	-	-	-	-	-	-	-	-	25,958
1962	-	-	-	-	-	117,671	-	599	-	-	-	-	-	-	-	-	-	-	-	-	-	118,270
1963	-	-	-	-	-	99,434	-	1,367	-	-	-	-	-	-	-	-	-	-	-	-	-	100,801
1964	-	-	-	-	-	76,822	-	2,911	-	-	-	-	-	-	1,166	-	-	-	-	-	-	80,899
1965	-	-	-	-	-	80,574	-	6,200	-	-	-	-	-	-	2,670	-	-	-	-	-	-	89,444
1966	-	-	-	-	-	84,391	-	17,600	-	-	-	-	-	-	2,686	-	-	-	-	-	-	104,677
1967	-	-	-	-	-	53,677	-	20,000	-	-	-	-	-	-	3,406	-	-	-	-	18,375	-	95,458
1968	-	-	-	-	-	50,161	-	16,800	-	-	-	-	-	-	5,056	-	-	-	-	22,129	-	94,146
1969	-	-	-	-	-	52,423	-	17,000	-	-	-	-	-	-	4,762	-	-	-	-	15,603	-	89,788
1970	-	-	-	-	-	48,860	-	16,500	-	-	-	-	2,428	-	8,082	-	-	-	-	16,001	-	91,871
1971	-	-	-	-	-	48,419	-	22,900	-	-	-	-	16,974	-	2,143	4,711	-	-	-	30,695	-	125,842
1972	-	-	-	-	-	118,201	-	35,200	-	-	-	-	13,130	-	1,519	7,905	-	-	-	33,930	-	209,885
1973	-	-	-	-	-	168,015	-	36,900	-	-	-	-	28,216	-	2,350	6,624	-	-	-	39,259	-	281,364
1974	1,900	-	-	-	-	199,793	-	39,179	-	-	898	-	41,630	-	6,808	10,332	-	-	-	26,099	-	326,639
1975	-	-	-	-	-	158,511	-	33,495	-	-	646	-	17,369	-	6,269	7,169	-	-	-	17,219	-	240,678
1976	47	-	742	-	-	181,586	-	46,375	-	-	25	-	32,921	-	5,323	15,977	-	-	-	22,747	700	306,443
1977	31	-	1,711	-	-	242,024	-	46,084	-	-	621	-	24,115	-	4,012	12,356	-	-	-	21,588	900	353,442
1978	162	-	2,524	-	-	242,420	-	32,473	-	-	1,686	-	48,859	-	9,694	17,707	-	-	-	20,772	1,000	377,297
1979	-	-	3,494	-	-	211,337	-	41,178	-	-	814	696	26,857	-	5,688	24,401	-	-	-	15,603	8,600	338,668
1980	-	-	2,496	-	-	245,752	-	45,063	-	-	1,468	936	33,994	-	6,576	23,569	-	-	-	33,469	11,000	404,323
1981	447	-	5,821	-	-	259,392	-	39,826	-	229	2,085	1,001	31,412	-	9,411	25,173	-	-	-	13,077	35,013	422,887
1982	302	-	4,658	-	-	268,602	-	46,084	-	868	2,434	1,034	-	1,241	4,053	20,182	-	205	216	10,187	81,769	441,835
1983	219	-	4,183	-	-	319,123	1,734	37,590	-	459	6,564	836	-	-	-	34,478	-	208	337	20,161	153,700	579,592
1984	83	-	4,572	-	-	317,546	2,252	35,094	3,191	146	7,003	1,250	2,744	1,621	-	36,117	-	218	540	31,427	169,400	613,204
1985	-	-	3,943	-	-	294,351	826	47,146	-	265	5,712	836	9,300	12,479	-	30,690	2,111	233	4	34,354	116,700	558,950
1986	157	-	3,111	-	8,562	303,222	240	72,717	-	347	6,786	961	-	8,619	-	44,170	4,175	251	390	49,001	130,189	632,898
1987	1,023	-	3,885	-	13,170	274,355	421	97,818	-	1,044	5,406	878	-	15,902	-	29,770	8,995	298	632	62,459	147,059	663,115
1988	1,660	140	4,288	-	13,000	292,187	1,521	108,600	-	1,038	3,237	715	-	11,775	-	40,441	6,189	274	1,090	90,752	127,939	704,846
1989	2,042	162	5,876	-	12,856	296,504	2,273	139,088	-	838	6,940	844	-	24,258	-	36,061	4,935	234	149	117,008	142,567	792,635
1990	7,089	-	4,023	-	-	277,065	578	196,505	-	1,658	7,417	1,039	-	23,775	-	29,576	2,126	191	90	144,547	167,512	863,191
1991	11,304	103	4,851	633	-	313,732	-	265,847	-	1,550	9,321	1,226	-	16,389	-	46,210	3,715	198	29	189,993	219,365	1,084,466

See Table 58 for fishing nation codes



**Table 57. Annual catches (mt) in the SPC statistical area and the waters of Eastern Indonesia and the Philippines by fishing nation**

YEAR	AU	CA	FJ	FM	ID	JP	KI	KR	MX	NC	NZ	PF	PG	PH	PU	SB	SU	TO	TV	TW	US	TOTAL
1952	-	-	-	-	-	210	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	210
1953	-	-	-	-	-	1,091	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,091
1954	-	-	-	-	-	10,200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10,200
1955	-	-	-	-	-	8,420	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,420
1956	-	-	-	-	-	6,220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,220
1957	-	-	-	-	-	9,764	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9,764
1958	-	-	-	-	-	21,558	-	146	-	-	-	-	-	-	-	-	-	-	-	-	-	21,704
1959	-	-	-	-	-	19,344	-	456	-	-	-	-	-	-	-	-	-	-	-	-	-	19,800
1960	-	-	-	-	-	23,756	-	610	-	-	-	-	-	-	-	-	-	-	-	-	-	24,366
1961	-	-	-	-	-	25,628	-	330	-	-	-	-	-	-	-	-	-	-	-	-	-	25,958
1962	-	-	-	-	-	117,671	-	599	-	-	-	-	-	-	-	-	-	-	-	-	-	118,270
1963	-	-	-	-	-	99,434	-	1,367	-	-	-	-	-	-	-	-	-	-	-	-	-	100,801
1964	-	-	-	-	-	76,822	-	2,911	-	-	-	-	-	-	1,166	-	-	-	-	-	-	80,899
1965	-	-	-	-	-	80,574	-	6,200	-	-	-	-	-	-	2,670	-	-	-	-	-	-	89,444
1966	-	-	-	-	-	84,391	-	17,600	-	-	-	-	-	-	2,686	-	-	-	-	-	-	104,677
1967	-	-	-	-	-	53,677	-	20,000	-	-	-	-	-	-	3,406	-	-	-	-	18,375	-	95,458
1968	-	-	-	-	-	50,161	-	16,800	-	-	-	-	-	-	5,056	-	-	-	-	22,129	-	94,146
1969	-	-	-	-	-	52,423	-	17,000	-	-	-	-	-	-	4,762	-	-	-	-	15,603	-	89,788
1970	-	-	-	-	17,600	48,860	-	16,500	-	-	-	-	2,428	52,000	8,082	-	-	-	-	16,001	-	161,471
1971	-	-	-	-	18,100	48,419	-	22,900	-	-	-	-	16,974	57,200	2,143	4,711	-	-	-	30,695	-	201,142
1972	-	-	-	-	28,600	118,201	-	35,200	-	-	-	-	13,130	60,700	1,519	7,905	-	-	-	33,930	-	299,185
1973	-	-	-	-	32,500	168,015	-	36,900	-	-	-	-	28,216	70,900	2,350	6,624	-	-	-	39,259	-	384,764
1974	1,900	-	-	-	33,778	199,793	-	39,179	-	-	898	-	41,630	81,188	6,808	10,332	-	-	-	26,099	-	441,605
1975	-	-	-	-	34,378	158,511	-	33,495	-	-	646	-	17,369	84,450	6,269	7,169	-	-	-	17,219	-	359,506
1976	47	-	742	-	33,375	181,586	-	46,375	-	-	25	-	32,921	73,652	5,323	15,977	-	-	-	22,747	700	413,470
1977	31	-	1,711	-	37,235	242,024	-	46,084	-	-	621	-	24,115	118,149	4,012	12,356	-	-	-	21,588	900	508,826
1978	162	-	2,524	-	40,023	242,420	-	32,473	-	-	1,686	-	48,859	96,747	9,694	17,707	-	-	-	20,772	1,000	514,067
1979	-	-	3,494	-	50,973	211,337	-	41,178	-	-	814	696	26,857	94,308	5,688	24,401	-	-	-	15,603	8,600	483,949
1980	-	-	2,496	-	61,795	245,752	-	45,063	-	-	1,468	936	33,994	79,201	6,576	23,569	-	-	-	33,469	11,000	545,319
1981	447	-	5,821	-	68,808	259,392	-	39,826	-	229	2,085	1,001	31,412	94,615	9,411	25,173	-	-	-	13,077	35,013	586,310
1982	302	-	4,658	-	74,083	268,602	-	46,084	-	868	2,434	1,034	-	103,958	4,053	20,182	-	205	216	10,187	81,769	618,635
1983	219	-	4,183	-	84,532	319,123	1,734	37,590	-	459	6,564	836	-	119,187	-	34,478	-	208	337	20,161	153,700	783,311
1984	83	-	4,572	-	96,661	317,546	2,252	35,094	3,191	146	7,003	1,250	2,744	105,216	-	36,117	-	218	540	31,427	169,400	813,460
1985	-	-	3,943	-	101,905	294,351	826	47,146	-	265	5,712	836	9,300	137,308	-	30,690	2,111	233	4	34,354	116,700	785,684
1986	157	-	3,111	-	111,643	303,222	240	72,717	-	347	6,786	961	-	145,097	-	44,170	4,175	251	390	49,001	130,189	872,457
1987	1,023	-	3,885	-	115,826	274,355	421	97,818	-	1,044	5,406	878	-	141,461	-	29,770	8,995	298	632	62,459	147,059	891,330
1988	1,660	140	4,288	-	120,781	292,187	1,521	108,600	-	1,038	3,237	715	-	124,775	-	40,441	6,189	274	1,090	90,752	127,939	925,627
1989	2,042	162	5,876	-	146,473	296,504	2,273	139,088	-	838	6,940	844	-	151,058	-	36,061	4,935	234	149	117,008	142,567	1,053,052
1990	7,089	-	4,023	-	142,235	277,065	578	196,505	-	1,658	7,417	1,039	-	204,582	-	29,576	2,126	191	90	144,547	167,512	1,186,233
1991	11,304	103	4,851	633	142,235	313,732	-	265,847	-	1,550	9,321	1,226	-	214,377	-	46,210	3,715	198	29	189,993	219,365	1,424,689

See Table 58 for fishing nation codes

**Table 58. Fishing nation codes**

CODE	FISHING NATION
AU	Australia
CA	Canada
FJ	Fiji
FM	Federated States of Micronesia
ID	Indonesia
JP	Japan
KI	Kiribati
KR	Republic of Korea
MX	Mexico
NC	New Caledonia
NZ	New Zealand
PF	French Polynesia
PG	Papua New Guinea
PH	Philippines
PU	Palau
SB	Solomon Islands
SU	Russia
TO	Tonga
TV	Tuvalu
TW	Republic of China (Taiwan)
US	United States of America