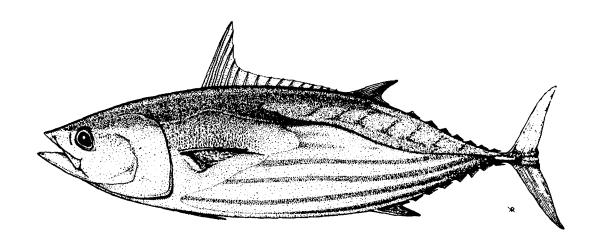
STANDING COMMITTEE ON TUNA AND BILLFISH

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Federated States of Micronesia

WORKING PAPER 2

STATUS OF TUNA FISHERIES IN THE SPC AREA DURING 1992, WITH ANNUAL CATCHES FOR 1922—1938 AND 1952—1992



Tuna and Billfish Assessment Programme South Pacific Commission Noumea, New Caledonia

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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 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 status report covering 1991, which was presented to the fifth meeting of the SCTB, held in Honolulu, Hawaii, from 17 to 19 June 1992, was published as Tuna and Billfish Assessment Programme Technical Report No.29.

The present document covers tuna fisheries in the SPC region during 1992. Historical statistics have not been revised as extensively as in the second status report, covering 1991, which included, in particular, major revisions of estimates of historical catches by the Japanese fleets and others. Revisions of historical statistics in the present document include estimates for the American purse seine fleet for 1981—1985, determined from daily catch and effort logsheet data, which have recently been compiled with assistance from the Inter-American Tropical Tuna Commission, and estimates for Japanese longliners determined from data recently made available by the Japan Fisheries Agency covering 1981—1990.

The reports are arranged by gear type and fishing nation. The industrial fishing methods employed in the SPC region, and discussed herein, include longline, pole-and-line, purse seine and troll. Driftnet fishing in the SPC area ceased in 1991. 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 1992 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.

TABLE OF CONTENTS

| PREFACE | • • • • • • • • • | <i>.</i> | | | | | | | | | | | | • |
|-------------|-------------------|--|---------|-------|------|-------|-------|-------|-----------|-----------|--------------|-----|-----|------|
| LIST OF FIG | GURES | | | | | | | | | | | | | . v |
| LIST OF TA | BLES | | | | | | | | • • • | | | | | . vi |
| INTRODUC' | TION | | | | | | | | | | | | | . 1 |
| JAPANESE | CATCHES IN | N MICRON | NESIA, | 1922 | 2193 | 38 . | | | | | | | | . 1 |
| | • • • • • • • | | | | | | | | | | | | | |
| Japan | | | | | | | | | | | | | | . 2 |
| _ | ι | | | | | | | | | | | | | |
| Taiwa | an | | | | | | | | | · • • | | | | . 2 |
| LONGLINE | | | | | | | | | | | | | | . 2 |
| | alia | | | | | | | | | | | | | |
| | ated States of | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| • | h Polynesia | | | | | | | | | | | | | |
| | ····· | | | | | | | | | | | | | |
| • | 1 | | | | | | | | | | | | | |
| | nall Islands . | | | | | | | | | | | | | |
| | Caledonia | | | | | | | | | | | | | |
| | Zealand | | | | | | | | | | | | | |
| | non Islands | | | | | | | | | | | | | |
| | an | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| | a | | | | | | | | | | | | | |
| Unite | d States | | • • • • | • • • | | • • • | • • • | • • • | • • | . • • | • • | • • | • • | • ' |
| | LINE | | | | | | | | | | | | | |
| Austr | alia | | | | | | | | | | | | | . 8 |
| Fiji | | | | | | | | | | | | | | |
| Frenc | ch Polynesia | | | | | | | | | , | | | | . 8 |
| Japan | | <i>.</i> | | | | | | | | | | | | 8 |
| Kiriba | ati | | | | | | | | | | | | | 9 |
| New | Caledonia . | | | | | | | | | | | | | . 9 |
| New | Zealand | | | | | | | | | | | | | . 9 |
| Palau | | | | | | | | | | | . . . | | | Ç |
| Papua | a New Guinea | | | | | | | | | <i>.</i> | | | | . 9 |
| - | non Islands | | | | | | | | | | | | | |
| Tuval | | | | | | | | | | | | | | |
| DIIDCE CEN | NE | | | | | | | | | | | | | . 11 |
| Austr | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | |
| redei | rated States of | where the state of | a | | | | | | | | | | | I |

| | Indonesia | | | | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
|-------|-----------------|------|-----|---|-----|-----|---|-----|-----|---|-----|---|-----|---|-----|---|---|-----|---|-----|---|-----|-----|---|---|-------|---|-----|----|
| | Japan | | | | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| | Korea | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13 |
| | Marshall Island | is . | | | | | | | | | | | | | | | | | | | | | | | | | | | 13 |
| | Mexico | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13 |
| | New Zealand | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13 |
| | Philippines | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13 |
| | Solomon Island | | | | | | | | | | | | | | | | | | | | | | | | | | | | 14 |
| | Soviet Union . | | | | | | | | | | | | | | | | | | | | | | | | | | | | 14 |
| | Taiwan | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 |
| | United States | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 |
| | | | | | | • | | • | • | • | • | • | | • | • | • | | • | • | • | • | | • | • | • | • | • | | |
| TROL | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | 16 |
| | Australia | | | | | | | | | | | | | | | | | | | | | | | | | | | | 16 |
| | Canada and Fi | | | | | | | | | | | | | | | | | | | | | | | | | | | | 16 |
| | French Polynes | | | | | | | | | | | | | | | | | | | | | | | | | | | | 16 |
| | New Zealand | | | | | | | | | | | | | | | | | | | | | | | | | | | | 16 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 16 |
| | | | | | • | | | . • | | • | | • | | ٠ | | · | | • | • | | • | | • | • | • | - | | | |
| SOUT | H-EAST ASIA | | | | | | | | | | | | | | | | | | | | | | | | | | | | 17 |
| | Indonesia | | | | | | | | | | | | | | | | | | | | | | | | | | | | 17 |
| | Philippines | | | | | | | | | | | | | | | | | | | | | | | | | | | | 17 |
| | 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DISCU | JSSION | | | | | | | | | | | | | | | | | | | | | | | | | | | | 18 |
| | Data quality . | | | | | | | | | | | | | | | | | | | | | | | | | | | | 18 |
| | Driftnet | | | | | | | | | | | | | | | | | | | | | | | | | | | | 18 |
| | Longline | | | | | | | | | | | | | | | | | | | | | | | | | | | | 18 |
| | Pole-and-line. | | | | | | | | | | | | | | | | | | | | | | | | | | | | 18 |
| | Purse seine | | | | | | | | | | | | | | | | | | | | | | | | | | | | 19 |
| | Troll | | | | | | | | | | | | | | | | | | | | | | | | | | | | 19 |
| CONC | LUSION | | | | | | | | | | | | | | | | | | | | | | | | | | | | 19 |
| 00110 | LOUIOIT | | • • | • | • • | • • | • | • • | • • | • | • • | • | • • | • | • • | • | • | • • | • | • • | • | • • | • • | • | • | • | • | • • | 1) |
| ACKN | OWLEDGEME | ENTS | ٠. | | | | | | | • | | | | | | | | | | | | | | | | | | | 20 |
| REFE | RENCES | | | | | | | | | | | | | | | _ | _ | | _ | | | | | | | | _ | | 22 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

LIST OF FIGURES

| 1. | SPC statistical area | X |
|-----|---|----|
| 2. | Australian longline effort, 1992 | 2 |
| 3. | Federated States of Micronesia longline effort, 1992 | 3 |
| 4. | Fiji longline effort, 1992 | 3 |
| 5. | French Polynesian longline effort, 1992 | 4 |
| 6. | Japanese longline effort, 1992 | 4 |
| 7. | Korean longline effort, 1992 | 5 |
| 8. | New Caledonian longline effort, 1992 | 6 |
| 9. | Taiwanese longline effort, 1992 | 7 |
| 10. | Tongan longline effort, 1992 | 7 |
| 11. | American longline effort, 1992 | 8 |
| 12. | Japanese pole-and-line effort, 1992 | 8 |
| 13. | Solomon Islands pole-and-line effort, 1992 | 10 |
| 14. | Australian purse seine effort, 1992 | 11 |
| 15. | Micronesian purse seine effort, 1992 | 12 |
| 16. | Japanese purse seine effort, 1992 | 12 |
| 17. | Korean purse seine effort, 1992 | 13 |
| 18. | Filipino purse seine effort, 1992 | 13 |
| 19. | Solomon Islands purse seine effort, 1992 | 14 |
| 20. | American purse seine effort, 1992 | 15 |
| 21. | Annual catches by species in the SPC statistical area | 15 |
| 22. | Annual catches by gear type in the SPC statistical area | 21 |

LIST OF TABLES

| 1. | Japanese catches in Micronesia during 1922—1938 | 25 |
|-----|---|----|
| 2. | Catches of albacore by driftnet vessels of Japan | 26 |
| 3. | Catches of albacore by driftnet vessels of Korea | 26 |
| 4. | Catches of albacore by driftnet vessels of Taiwan | 27 |
| 5. | Catch statistics for longliners of Australia | 28 |
| 6. | Catch statistics for longliners of the Federated States of Micronesia | 29 |
| 7. | Catch statistics for longliners of Fiji | 29 |
| 8. | Catch statistics for deep-water longliners of French Polynesia | 30 |
| 9. | Catch statistics for coastal longliners of French Polynesia | 30 |
| 10. | Catch statistics for longliners of Japan, excluding vessels based in the SPC region . | 31 |
| 11. | Catch statistics for longliners of Japan based in the SPC region | 32 |
| 12. | Catch statistics for longliners of Korea | 33 |
| 13. | Catch statistics for longliners of the Marshall Islands | 34 |
| 14. | Catch statistics for longliners of New Caledonia | 35 |
| 15. | Catch statistics for longliners of New Zealand | 35 |
| 16. | Catch statistics for longliners of Solomon Islands | 36 |
| 17. | Catch statistics for Taiwanese longliners less than 100 gross tonnes | 37 |
| 18. | Catch statistics for Taiwanese longliners greater than 100 gross tonnes | 38 |
| 19. | Catch statistics for longliners of Tonga | 39 |
| 20. | Catch statistics for longliners of the United States | 39 |
| 21. | Catch statistics for pole-and-line vessels of Australia | 40 |
| 22. | Catch statistics for pole-and-line vessels of Fiji | 41 |
| 23. | Catch statistics for pole-and-line vessels of French Polynesia | 42 |

| 24. | Catch statistics for pole-and-line vessels of Japan | 43 |
|-----|--|----|
| 25. | Catch statistics for pole-and-line vessels of Kiribati | 44 |
| 26. | Catch statistics for pole-and-line vessels of New Caledonia | 45 |
| 27. | Catch statistics for pole-and-line vessels of New Zealand | 45 |
| 28. | Catch statistics for pole-and-line vessels of Palau | 46 |
| 29. | Catch statistics for pole-and-line vessels of Papua New Guinea | 47 |
| 30. | Catch statistics for pole-and-line vessels of Solomon Islands | 48 |
| 31. | Catch statistics for pole-and-line vessels of Tuvalu | 49 |
| 32. | Catch statistics for purse seine vessels of Australia fishing in the Australian Fishing Zone | 50 |
| 33. | Catch statistics for purse seine vessels of Australia fishing outside the Australian Fishing Zone | 51 |
| 34. | Catch statistics for purse seine vessels of the Federated States of Micronesia | 51 |
| 35. | Catch statistics for purse seine vessels of Indonesia licensed to fish in the waters of SPC member countries | 52 |
| 36. | Catch statistics for purse seiners of Japan | 53 |
| 37. | Catch statistics for purse seiners of Korea | 54 |
| 38. | Catch statistics for purse seiners of Mexico | 54 |
| 39. | Catch statistics for purse seiners of New Zealand | 55 |
| 40. | Catch statistics for purse seiners of the Philippines | 55 |
| 41. | Catch statistics for purse seiners of Solomon Islands | 56 |
| 42. | Catch statistics for purse seiners of the Soviet Union | 56 |
| 43. | Catch statistics for purse seiners of Taiwan | 57 |
| 44. | Catch statistics for purse seiners of the United States | 58 |
| 45. | Catches of albacore by trollers of Australia | 59 |
| 46. | Catches of albacore by trollers of Canada and Fiji | 60 |

| 1 7. | Catches of albacore by trollers of French Polynesia | 61 |
|-----------------|--|----|
| 48 <i>.</i> | Catches of albacore by trollers of New Zealand | 62 |
| 49. | Catches of albacore by trollers of the United States | 63 |
| 50. | Catches (mt) from domestic fisheries in Indonesia | 64 |
| 51. | Catches (mt) from domestic fisheries in the Philippines | 65 |
| 52. | Quality of estimates of annual catches presented in Tables 1—51 | 66 |
| 53. | Seasonal catches (mt) by driftnet vessels in the SPC statistical area | 67 |
| 54. | Annual catches (mt) by longliners in the SPC statistical area | 68 |
| 55. | Annual catches (mt) by pole-and-line vessels in the SPC statistical area | 69 |
| 56. | Annual catches (mt) by purse seiners in the SPC statistical area | 70 |
| 57. | Seasonal catches (mt) by troll vessels in the SPC statistical area | 71 |
| 58. | Annual catches (mt) in the SPC statistical area by species | 72 |
| 59. | Annual catches (mt) in the SPC statistical area and the waters of Eastern Indonesia and the Philippines by species | 73 |
| 60. | Annual catches (mt) in the SPC statistical area by fishing nation | 74 |
| 61. | Annual catches (mt) in the SPC statistical area and the waters of Eastern Indonesia and the Philippines | 75 |
| 62. | Fishing nation codes | 76 |

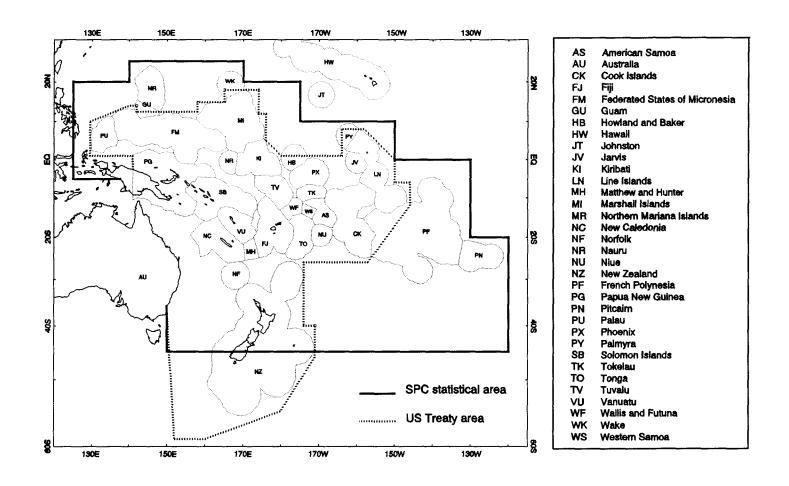


Figure 1. SPC statistical area

INTRODUCTION

Estimates of annual catches, 1922—1938 and 1952—1992, 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 1992, whenever such information is available.

Historical statistics have been revised from those presented in Lawson (1992). In particular, estimates of Japanese longline catches, which previously covered FAO area 71, have been replaced with statistics covering the SPC statistical area, which were determined using data recently provided to SPC by the Fisheries Agency of Japan. Statistics for several domestic fleets, including Federated States of Micronesia purse seiners, Fijian longliners, French Polynesian longliners, Kiribati poleand-line vessels, New Zealand longliners and Palauan pole-and-line vessels, have also been revised. Two tables covering American and Marshall Islands longliners based in Majuro have been added.

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, many estimates for 1992 should be considered as preliminary. Table 52 summarises the quality of the catch statistics for each fleet.

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

JAPANESE CATCHES IN MICRONESIA, 1922—1938

Japanese pole-and-line fishing started in the Central Western Pacific in 1922, with bases on several islands included in the Japanese trusteeship established at the end of World War One (Matsuda and Ouchi 1984). Skipjack fishing was accelerated during the 1920s by the construction of *katsuobushi* processing plants on Saipan, Truk, Pohnpei and Palau. Just prior to World War Two, there were 128 licensed pole-and-line vessels.

During the inter-war period, when Japanese fishermen expanded their fishing grounds into the SPC region, initially skipjack pole-and-line fishing was the dominant form of fishing. However, by 1926 almost all Japanese tuna longliners were converted to power-driven vessels, which resulted in an expansion of longline fishing grounds. In 1932/33, the Japanese government conducted the first mothership operation for tuna longline fishing in the area from the Nicobar Islands to Timor, proving the economic feasability of the operation. By 1939, there were 72 Japan-based tuna longliners fishing in Micronesia, taking yellowfin, bigeye and swordfish.

Catches of skipjack, which are taken primarily by pole-and-line, remained under 1,000 mt from 1922 to 1929 (Table 1). During the 1930s, they grew rapidly, reaching 34,060 mt in 1937

(Table 1). Catches of other tuna species, which are taken primarily by longline, were 681 mt in 1937. In 1938, the most important catches by the Japanese were taken in Palau, followed by Chuuk, Saipan, Pohnpei, Yap and Jaluit.

DRIFTNET

Japan

The fleet of Japanese driftnet vessels targeted albacore in the South Pacific during the 1982/83—1989/90 seasons (Table 2). 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 have operated since the 1989/90 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 3). 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 4). 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 1989/90 season and ceased entirely after the 1990/91 season.

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. During 1991, there were 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

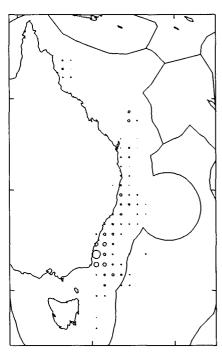


Figure 2. Australian longline effort, 1992

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).

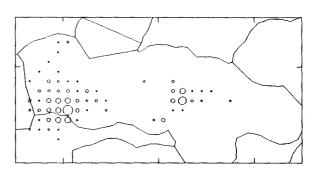


Figure 3. Federated States of Micronesia longline effort, 1992

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 Zealand¹. 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 times².

Statistics for the domestic vessels, including ex-Japanese vessels but excluding charter and joint-venture vessels, are presented in Table 5. Domestic vessels caught an estimated 1,062 mt in 1992.

Federated States of Micronesia

During 1992, eight vessels were active, including four vessels based on Yap, two on Chuuk, one on Pohnpei and one on Kosrae (Table 6). Catch statistics for 1992 are currently unavailable.

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 1992, 23 vessels were licensed. The total catch in 1992 by the 18 vessels for which data are available was 884 mt (Table 7).

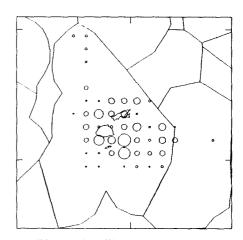


Figure 4. Fiji longline effort, 1992

¹ Australian Fisheries, Volume 50, December 1991

² Australian Fisheries, Volume 50, December 1991

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

French Polynesia

The French Polynesian domestic longline fleet is composed of three types of vessels: deep-water longliners (palangriers hauturiers), which have operated since 1991; coastal longliners (palangriers côtiers), which began fishing in early 1992, and the poti-marara, artisanal vessels which target other species in addition to tuna (Abbes et al 1993).

Two 25 metre deep-water vessels began fishing in 1991. In 1992, they caught a total of 128 mt (Table 8).

The coastal longliner fleet includes over 20 vessels, of which 15 were active throughout 1992 (Table 9). These vessels, which include coverted Tahitian pole-and-line

Figure 5. French Polynesian longline effort, 1992

vessels (bontiers) and new vessels, operate in the Society Islands and soak approximately 500 hooks per set. Detailed catch statistics are unavailable, however, the total catch in 1992 has been estimated at 150 mt.

The exact number of *poti-marara* has been difficult to determine, however, it has been estimated to be over 200. The catch of albacore by the *poti-marara* fleet during 1992 has been estimated at 160—170 mt.

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

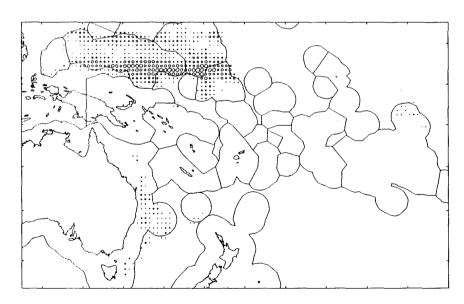


Figure 6. Japanese longline effort, 1992

following World War Two, were lifted in 1952, the number of distant-water vessels in the SPC area increased consistently throughout the 1950s and 1960s. Catches reached 148,887 mt in 1962

(Table 10). 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 61,045 mt in the SPC area during 1990.

Since late 1987, smaller vessels (all under 100 gross tonnes, many around 20 gross tonnes) have been based in Guam, and, more recently, Koror, Pohnpei and Yap. These vessels transshipped an estimated 4,734 mt from Guam, Pohnpei and Yap in 1992 (Table 11).

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 in creased only slightly.³

It has also been reported that fishing by Korean longliners targeting southern albacore was poor during the 1990/91 season and that this,

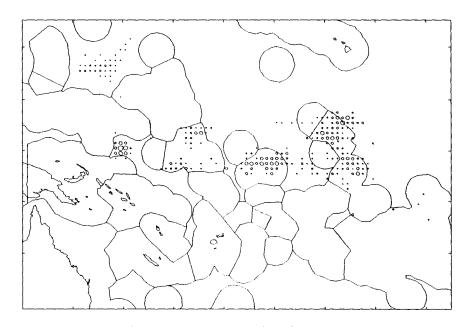


Figure 7. Korean longline effort, 1992

combined with low prices for albacore, forced the fleet to redeploy to target bigeye and yellowfin.⁴ The number of Korean longliners based in Pago Pago, which include most of the vessels targeting albacore, dropped to eight in October 1991,⁵ from 25 vessels in 1989 and 20 vessels in 1990.

The most recent catch statistics available are for 1991, during which Korean longliners caught an estimated 36,274 mt in the Pacific Ocean (Table 11).

³ Katsuo-Maguro Tsushin, No. 6385, 2 October 1991, quoted in Forum Fisheries Agency News Digest, November—December 1991

⁴ Forum Fisheries Agency News Digest, April—May 1990

National Fisheries Research and Development Agency, personal communication, December 1991

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 1992.⁶

About ten other Taiwanese longliners, some of which are registered in the United States but crewed by Taiwanese, fished from Majuro during 1991—1992. These vessels are considered under *Taiwan longline* below.

During 1992, four vessels (Ann 101, Ann 102, Latitude 7 and Samantha) fished during the second half of the year, transshipping 14 mt of bigeye and yellowfin (Table 13).

New Caledonia

The fleet of longliners based in Noumea, New Caledonia, has grown from one vessel in 1983 to seven vessels in 1990. 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 1992, four vessels were active, exporting 930 mt, consisting of 56 per cent albacore, 25 per cent yellowfin and 12 per cent bigeye (Table 14).

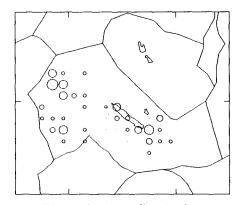


Figure 8. New Caledonian longline effort, 1992

New Zealand

Statistics reported by the Ministry of Agriculture and Fisheries to the fifth meeting of the South Pacific Albacore Research group in March 1993 indicate that 20 New Zealand longliners caught 706 mt of albacore in 1992, an increase from 325 mt caught by 14 vessels in 1991 (Table 15).

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 14).

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

⁶ Forum Fisheries Agency News Digest, March—April 1992

yellowfin and bigeye for sashimi. The distant-water vessels, mostly 150—250 gross tonnes, fish from base ports in American Samoa and Fiji and primarily target albacore for canning.

During 1992, Taiwanese longliners less than 100 gross tonnes transshipped an estimated 6,104 mt from Guam, Koror, Majuro, Pohnpei and Yap (Table 17).

The most recent statistics available for distant-water vessels cover 1990, during which the fleet caught an estimated 9,527 mt in the SPC area (Table 18).

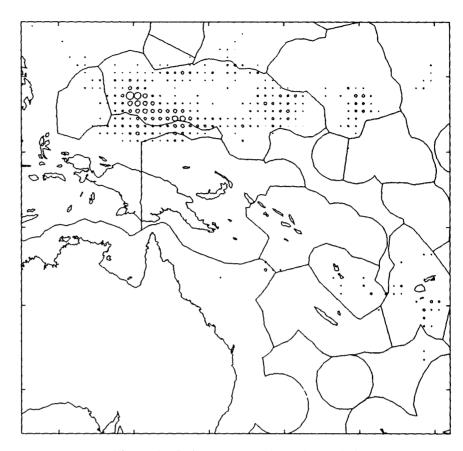


Figure 9. Taiwanese longline effort, 1992

Few data covering the distant-water longliners are held at SPC, therefore Figure 9 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 19). During 1992, 255 mt were caught, including 199 mt of albacore.

United States

Three American longliners fished from Majuro, Marshall Islands, for a short period during 1991 and experienced disappointing catch rates.

During 1992, six vessels fished from Majuro, transshipping 153 mt of bigeye and yellowfin (Table 20).

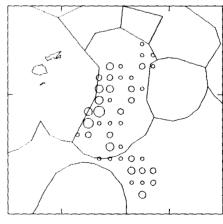


Figure 10. Tongan longline effort, 1992

POLE-AND-LINE

Australia

Based on catches estimated from daily logbook data, raised to account for incomplete coverage, the Australian vessels using pole-and-line caught approxiately 354 mt in 1992, down from an estimated 1,036 mt in 1991 (Table 21).

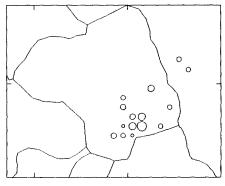


Figure 11. American longline effort, 1992

Fiji

The Fijian pole-and-line fleet has consisted of vessels owned by Ika Corporation, chartered Japanese vessels, and other private vessels. The fishery is seasonal, usually from November to August. During 1992, 11 vessels were active; the 1992 catch of 4,105 mt was slightly less than the 1980—1991 average catch of 4,279 mt (Table 22).

French Polynesia

The bonitier fleet of French Polynesia has been active since at least 1975 (Table 23). Annual catches averaged 918 mt during 1979—1991. The 1992 catch was 575 mt, including 459 mt of skipjack and 87 mt of yellowfin.

Japan

The Japanese pole-andline fishery in the SPC area, which commenced in 1922. peaked at 155,312 mt in 1977 (Table 24). Thereafter, the fishery contracted in response rising costs to fishing and reduced access to fishing grounds resulting from the implementation of EEZs by SPC member

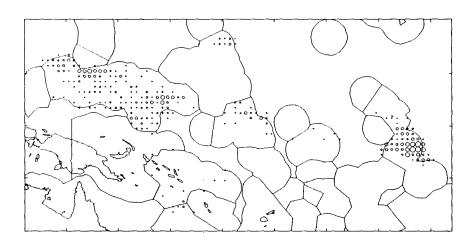


Figure 12. Japanese pole-and-line effort, 1992

countries. Logbook data held at SPC cover 317 vessels in 1980, whereas only 32 vessels were active during 1992. Fishing effort in the SPC area was reduced during 1992, due to poor catch rates. Many vessels fished in temperate waters to the north of the SPC area, catching a greater proportion of albacore than usual.

Kiribati

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, during 1991 fishing effort was reduced; two vessels were active for six months, one vessel was active for two months and one vessel did not fish. During 1992, two vessels were active for the whole year, one vessel was active for four months and one vessel did not fish. The catch during 1992 amounted to 554 mt, including 248 mt of skipjack and 303 mt of yellowfin (Table 25).

New Caledonia

The pole-and-line fleet was established in 1981 with one vessel; it expanded to three vessels in 1982 (Table 26). 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 27), 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 28). Catches grew from 1,178 mt in 1964 to 8,442 mt in 1970; thereafter catches were variable.

A locally-owned 25 gross tonnage pole-and-line vessel has operated in Palau since 1985. The vessel caught 75 mt during 1992.

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 29). 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, 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).

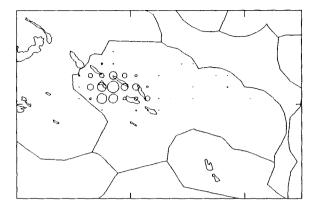


Figure 13. Solomon Islands pole-and-line effort, 1992

The total catch in 1992 was 19,737 mt, considerably below the 1983—1991 average catch of 28,923 mt (Table 30) due to poor catch rates.

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 31). From December 1989 to December 1992, the *Te Tautai* was 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 32), 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. During the 1992 skipjack season, nine vessels fished, catching an estimated 484 mt (Table 32).

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 33). During 1992, five vessels operated in the waters of the Federated States of Micronesia, one of which also fished in the waters of Papua New Guinea. Three of the vessels fished in the Federated States of Micronesia under the Caroline Fishing Company, a three-way joint-venture in the

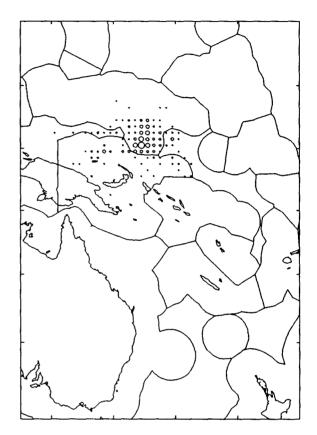


Figure 14. Australian purse seine effort, 1992

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 at least 5,128 mt in 1992.

Federated States of Micronesia

Three purse seiners operated by Yap Fishing Corporation began fishing in 1991 and caught 5,551 mt (Table 34). In 1992, a fourth vessel, which had fished under the United States multilateral treaty until late September 1992, joined the Micronesian fleet. Together, the four vessels caught 9,556 mt in 1992.

⁷ Australian Fisheries Service Tuna Newsletter, May 1991

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.

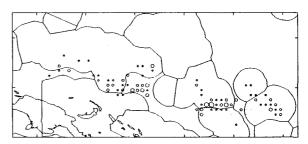


Figure 15. Micronesian purse seine effort, 1992

In 1988, their total annual catch was 13,000 mt (Table 35); 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 years several 550-tonne capacity purse seiners

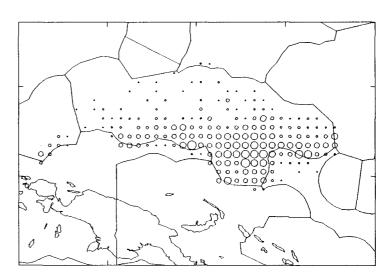


Figure 16. Japanese purse seine effort, 1992

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.

The catch by Japanese seiners in 1992 was 184,105 mt, including 67 per cent skipjack and 30 per cent yellowfin (Table 36). The 1992 catch represents an increase of 13,980 mt, or 8 per cent, over the 1991 catch. The average catch per vessel, for those vessels operating in the SPC area throughout 1992, was 5,948 mt, while the maximum catch per vessel was 8,273 mt.

Korea

During 1992, the Korean purse seine fleet numbered 36 vessels (Table 37) and caught 201,576 mt, considerably less than the 1991 catch of 251,733 mt. The average catch by Korean vessels in 1992 was 5,448 mt, compared to 6,804 mt in 1991. The highest catch per vessel in 1992 was 9,155 mt, compared to 11,990 mt in 1992.

Figure 17. Korean purse seine effort, 1992

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 38).

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 39).

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

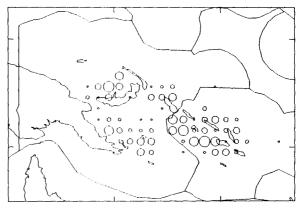


Figure 18. Filipino purse seine effort, 1992

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 37). 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.

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.

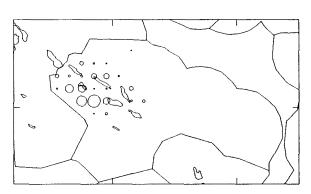


Figure 19. Solomon Islands purse seine effort, 1992

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 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 1992 was 11,179 mt (Table 41). While catch rates dropped considerably during 1992, fishing effort increased, therefore the 1992 catch was similar to the 1991 catch of 10,030 mt.

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 42). 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 43). Taiwan added 9 vessels to the fleet in 1991, resulting in a total of 44 purse seiners. In 1992, 45 vessels were active, catching 220,000 mt, an increase of 25 per cent over the 1991 catch of 176,000 mt.

United States

The American purse seine fleet was firmly established in the SPC area by the time of the agreement concluded in 1980 between the

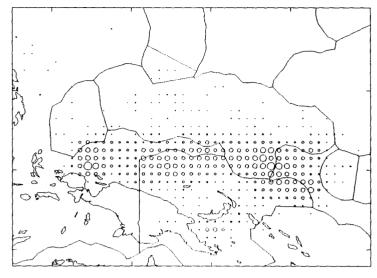


Figure 20. Taiwanese purse seine effort, 1992

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 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. However, no vessels fished under the agreement. Nevertheless, the agreement was renewed in 1992, although as of June 1993, no vessels have yet fished under the agreement.

According to logsheet data currently available at SPC, the fleet of 45 vessels caught 193,956 mt in 1992 (Table 44).

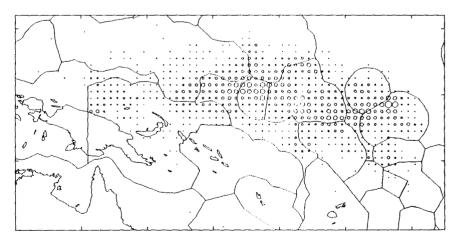


Figure 21. American purse seine effort, 1992

NMFS Office of International Affairs, quoted in National Marine Fisheries Service Tuna Newsletter 103, November 1991

While this figure is expected to increase slightly as the remaining logsheets are compiled, the final estimate will still represent a decrease from the 1991 catch of 214,415 mt.

TROLL

Australia

The Australian troll fleet during the 1991/92 season included 25 vessels targeting southern bluefin off the east coast of Tasmania, an estimated 12 multi-purpose vessels operating off the south-east coast of New South Wales, and two vessels targeting albacore in the coastal waters from the south-east coast of New South Wales to the south-east of Tasmania. During the 1991/92 season, the fleet caught an estimated 100 mt (Table 45).

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 46).

French Polynesia

Trollers based in French Polynesia targeting albacore in the Sub-Tropical Convergence Zone have been active since 1989. During the 1991/92 season, the catch of albacore by four vessels was 72 mt (Table 47).

New Zealand

New Zealand trollers have fished for albacore since at least the 1973/74 season (Table 48). 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 1991/92 season, 247 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—1990/91 averaged 1,725 mt. The preliminary estimate of the 1991/92 catch, 3,856 mt, is well above average.

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 49). During the 1991/92 season, 55 vessels caught 3,016 mt of albacore, a substantial decrease from the 1990/91 catch of 5,540 mt, largely due to low catch rates.

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 are believed to have increased consistently in Indonesia. The preliminary estimates of skipjack and yellowfin in eastern Indonesian waters in 1992, 123,607 mt and 73,837 mt respectively, both represent a 6 per cent increase over 1991 (Table 50).

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 104,933 mt in 1992 (Table 51). Yellowfin catches have followed a similar pattern, increasing from 32,000 mt in 1970 to 95,731 mt in 1992.

DISCUSSION

Data quality

The quality of the estimates of annual catches presented in Tables 1—51 varies considerably (Table 52). 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 52—60.

Driftnet

The driftnet fishery operated from the 1982/83 season until the 1990/91 season. Catches peaked in the 1988/89 season, when 21,955 mt of albacore were caught (Table 53).

Longline

The revision of Japanese longline statistics to reflect catches in the SPC area, rather than FAO area 71, based on data recently provided to SPC by the Fisheries Agency of Japan, resulted in an upwards revision of total longline catches for 1981—1990 of about 10,000 mt above previous estimates (Lawson 1992). The revison of Korean catches for 1985—1989 based on statistics recently provided by the National Fisheries Research and Development Agency also resulted in increased estimates. The total longline catch during 1990, the most recent year for which accurate statistics are available for the distant-water longline fleets, has therefore been revised from 94,335 mt (Lawson 1992) to 111,871 mt.

Given the lag of two to three years in the availability of annual catch statistics for the distant-water longline fleets, and given that estimates for the Korean fleet cover the whole Pacific Ocean rather than the SPC statistical area, estimation of the total longline catch, particularly for recent years, should be treated with caution. Estimates of the total longline catch for 1991—1992 have been strongly influenced by preliminary estimates for the distant-water longline fleets, which have been carried over from previous years, therefore they do not accurately reflect actual trends.

Pole-and-line

Previous estimates of total pole-and-line catches have remained stable, except for 1988, which was revised from 128,542 (Lawson 1992) to 144,229 mt (Table 55). The upward revision of the 1988 estimate is due to the revision of estimates for the Japanese fleet, based on data recently provided

to SPC by the Fisheries Agency of Japan, which indicate a higher amount of fishing effort in the SPC area during 1988.

Though accurate statistics for 1992 catch by the Japanese fleet are not yet available, it is expected that the catch declined considerably from 1991, due to both a decrease in catch rates and a decrease in fishing effort. The total pole-and-line catch for 1992 has been estimated at 75,458 mt (Table 55).

Purse seine

The previous estimate of the total purse seine catch for 1991 has been revised upwards, from 848,907 mt (Lawson 1992) to 870,298 mt (Table 56). The increase was due to revisions of estimates for the Federated States of Micronesia fleet, based on data provided by the Yap Fishing Corporation, and the Korean fleet, based on more accurate statistics provided by an industry source.

The preliminary estimate of the catch by purse seiners during 1992 is 852,803 mt, including 639,607 mt of skipjack and 213,196 mt of yellowfin⁹. The purse seine catch for 1992 represents an decrease of 17,495 mt from the 1991 catch (Table 56). The decline was particularly evident in catches by the Korean fleet, whose total catch dropped 20 per cent, from 251,733 mt in 1991 to 201,576 mt in 1992.

Troll

The total catch of albacore by American trollers during the 1991/92 season decreased to 3,016 mt, from 5,540 mt during the 1990/91 season (Table 49), due largely to poor catch rates. While the American troll catch decreased, the New Zealand catch increased, to 3,856 mt during the 1991/92 season from 2,464 mt during the 1990/91 season. The overall troll catch of albacore decreased during the 1991/92 season, from 8,437 mt during 1990/91 to 7,147 mt during 1991/92 (Table 57).

CONCLUSION

Preliminary estimates of catches in the SPC statistical area for 1991 presented in Lawson (1992) have been revised upwards for longline and purse seine, while the estimate of the pole-and-line and troll catches for 1991 have remained unchanged. Preliminary estimates of catches in Indonesia for 1991 have been revised upwards, while catches in the Philippines for 1991 have been remained unchanged. As a result, the estimate of the 1991 catch in the SPC area, and in the SPC area plus Indonesia and the Philippines, have both increased.

The preliminary estimate of the annual catch in 1992 of the four principal species (albacore, bigeye, skipjack and yellowfin) in the SPC area is 1,049,435 mt (Table 58). The catch during 1992 represents a decrease of 79,593 mt, or 7 per cent, from the catch during 1991 of 1,129,028 mt. The decrease, due primarily to a drop in purse seine catches, is the first decline in the SPC area

⁹ Catches of yellowfin reported for purse seiners may include about 10 per cent bigeye.

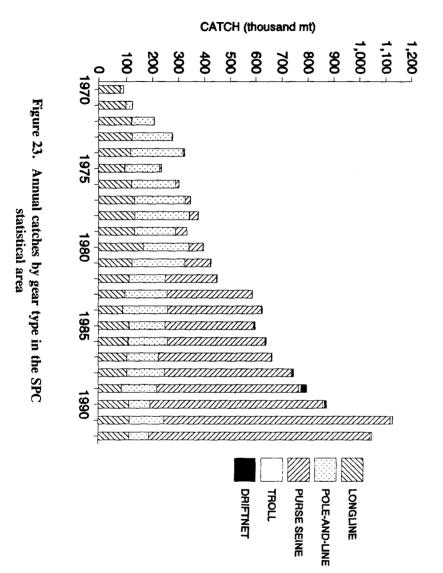
since 1985, when several American purse seiners returned to the Eastern Pacific after fishing in the SPC area during 1983—1984.

The catch in the SPC area together with the catch in the waters of Indonesia and the Philippines reached approximately 1,447,543 mt in 1992, an decrease of 65,918 mt, or 4 per cent, over the 1991 catch of 1,513,461 mt (Table 59).

Trends in the catch by species and in the catch by gear type are shown in Figures 22 and 23 respectively. Trends in the catch by fishing nation are presented in Tables 60 and 61.

ACKNOWLEDGEMENTS

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1970 1975 1980 1985 1990

200 8

- NE

CATCH (thousand mt)

600

500

8

1,100

1,000

80 8

700

SKIPJACK

BIGEYE

ALBACORE

YELLOWFIN

Figure 22. Annual catches by species in the SPC statistical area

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Table 1. Japanese catches in Micronesia during 1922—1938

| | SKIP | JACK | TUN | \ | TOTAL | | | |
|------|------------|-----------|---------|----------|------------|-----------|--|--|
| YEAR | MT | YEN | MT | YEN | MT | YEN | | |
| 1922 | 9.713 | 6,770 | ••• | 3,730 | ••• | 10,500 | | |
| 1923 | 7.305 | 5,068 | | 3,673 | ••• | 8,741 | | |
| 1924 | 17.741 | 11,580 | • • • | 5,971 | | 17,551 | | |
| 1925 | 36.319 | 17,520 | | 4,557 | ••• | 22,077 | | |
| 1926 | 92.284 | 42,282 | ••• | 22,423 | | 64,705 | | |
| 1927 | 52.954 | 23,781 | • • • | 24,327 | | 48,108 | | |
| 1928 | 163.714 | 48,644 | • • • | 38,629 | | 87,273 | | |
| 1929 | 469.511 | 126,937 | • • • | 31,825 | | 158,762 | | |
| 1930 | 1,335.720 | 327,861 | • • • | 13,947 | | 341,808 | | |
| 1931 | 2,816.808 | 622,983 | • • • | 29,898 | | 652,881 | | |
| 1932 | 4,861.263 | 944,261 | | 50,801 | | 995,062 | | |
| 1933 | 6,889.401 | 1,512,631 | | 59,861 | | 1,572,492 | | |
| 1934 | 8,956.411 | 2,205,050 | • • • | 116,449 | | 2,321,499 | | |
| 1935 | 11,722.284 | 1,317,919 | | 105,501 | | 1,423,420 | | |
| 1936 | 14,265.772 | 1,468,996 | 587.116 | 110,160 | 14,852.888 | 1,579,156 | | |
| 1937 | 34,060.809 | 2,833,905 | 681.176 | 90,828 | 34,741.985 | 2,924,733 | | |
| 1938 | 14,958.592 | 1,356,969 | 270.889 | 42,934 | 15,229.481 | 1,399,903 | | |

- 1. Tuna includes yellowfin, bigeye and albacore.
- 2. The total catch in 1938, including non-tuna species, was distributed by district as follows: Palau, 47 per cent; Chuuk, 28 per cent; Saipan, 14 per cent; Pohnpei, 9 per cent; Yap, 1 per cent; Jaluit, less than 1 per cent.
- 3. All statistics were taken from South Sea Bureau (1937) and Takehisa (1940), both translated by Masanami Izumi, Fisheries Development Associate, South Pacific Commission, Noumea, New Caledonia.

Table 2. Catches of albacore by driftnet vessels of Japan

| | | | | | CPUE | |
|---------|-------------------|----------------|--------|---------------|--------------------|--------------|
| SEASON | VESSELS ACTIVE | DAYS FISHED | AL8 | 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 |

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).
- 2. The fishery ceased operating at the end of the 1989/90 season.

Table 3. Catches of albacore by driftnet vessels of Korea

| SEASON | VESSELS | DAYS | ALBACORE | | | | |
|---------|---------|--------|----------|-------|--|--|--|
| | ACTIVE | FISHED | 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 4. Catches of albacore by driftnet vessels of Taiwan

| SEASON | VESSELS ACTIVE | DAYS FISHED | ALBA | ORE— |
|--------------------|-------------------|----------------|----------------|------|
| OE/10011 | 7,01172 | 1101125 | | |
| 1987/88 1988/89 | 7 71 | 11,511 | 1,000 8,520 | 0.7 |
| 1989/90 1990/91 | 12 9 | ••• | 1,859 821 | |

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).
- 4. The Taiwanese driftnet fishery in the SPC region ceased at the end of the 1990/91 season.

Table 5. Catch statistics for longliners of Australia

| | VESSELS | | AI | LBACORE- | | В І | GEYE- | | YI | ELLOWFII | \ | -OTHER- | тот | AL |
|------|---------|-------|-----|----------|----|-----|-------|---|-----|----------|----------|---------|-------|------|
| YEAR | ACTIVE | HOOKS | МТ | CPUE | % | MT | CPUE | % | MT | CPUE | % | MT | 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 |
| 1992 | 89 | 1,488 | 154 | | 15 | 15 | | 1 | 726 | | 68 | 167 | 1,062 | |

- 1. All statistics for 1985—1989 were determined from logbook data held at SPC, provided by the Australian Fisheries Management Authority (AFMA). It is estimated that coverage by logbooks was 50 per cent of actual landings during 1987 and 1988, and 70 per cent during 1989 (Dendrinos and Skousen 1991).
- 2. All statistics for 1990—1992 were provided by the Australian Fisheries Management Authority (Skousen, personal communication, May 1992, April 1993). Catch and the number of hooks have been raised from daily catch and effort logbooks provided to AFMA; coverage by logbooks was 85, 90 and 85 per cent during 1990—1992 respectively.
- 3. All statistics for 1985—1992 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 are unraised and exclude joint venture, charter and ex-Japanese domestic vessels.
- 4. Domestic catches of albacore (i.e. excluding charter and joint-venture vessels) in 1986—1992 were reported to SPAR 5 by the Bureau of Rural Resources as 40 mt, 200 mt, 200 mt, 600 mt, 300 mt, 195 mt and 145 mt respectively (South Pacific Commission, in press). 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 5 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 6. Catch statistics for longliners of the Federated States of Micronesia

| | VESSELS | | AI | LBACORE- | | ——В | | | —— | | | -OTHER- | тот/ | AL |
|--------------|---------|-------|----|----------|---|-----|------|---|----|------|----------|---------|------|------|
| YEAR | ACTIVE | HOOKS | MT | CPUE | % | MT | CPUE | % | MT | CPUE | % | ΜT | MT | CPUE |
| 1001 | | 40 | - | _ | | | | | | 4 75 | 0/ | | | 4 (2 |
| 1991 1992 | 2 8 | 12 | | ··· | | | ••• | | | 1.35 | 86 | ••• | | 1.49 |

- 1. All statistics for 1991 were determined from logbook data held at SPC, provided by the Micronesian Maritime Authority, covering one vessel based on Pohnpei and one vessel on Kosrae.
- 2. The vessels active during 1992 include four vessels based on Yap, two on Chuuk, one on Pohnpei and one on Kosrae.

Table 7. Catch statistics for longliners of Fiji

| | VESSELS | | A | LBACORE- | | В | GEYE | | Y | ELLOWFI | N | -OTHER- | TOT/ | 4L |
|------|---------|-------|-----|----------|----|-----|------|----|-----|---------|----|---------|------|------|
| YEAR | ACTIVE | HOOKS | MT | CPUE | % | MT | | % | | | | MT | *** | CPUE |
| 1989 | 4 | | 3 | | 6 | 14 | | 26 | 10 | | 19 | 26 | 53 | |
| 1990 | 6 | | 68 | | 43 | 27 | | 17 | 23 | • • • • | 15 | 39 | 157 | |
| 1991 | 9 | | 208 | | 36 | 123 | | 21 | 106 | | 18 | 136 | 573 | |
| 1992 | 18 | | 243 | | 27 | 187 | | 21 | 202 | | 23 | 252 | 884 | |

1. All statistics were taken from Sharma (1993). The number of vessels active represents the number of vessels for which catch data are available. The Fisheries Division licensed 5, 10, 18 and 23 vessels during 1989—1992 respectively; however, it is uncertain whether all vessels licensed actually fished. These statistics do not cover Taiwanese vessels chartered by the Pacific Fishing Company, which are covered in Table 17.

Table 8. Catch statistics for deep-water longliners of French Polynesia

| | VESSELS | | A | BACORE- | | ——В | GEYE | | Y | ELLOWFII | I —— | -OTHER- | тот | AL |
|------|---------|-------|----|---------|----|-----|------|---|----|----------|-------------|---------|-----|------|
| YEAR | ACTIVE | HOOKS | MT | CPUE | % | MT | CPUE | % | MT | CPUE | % | MT | MT | CPUE |
| 1990 | 2 | | | | | | | | | | | | | |
| 1991 | 3 | 288 | 46 | 0.80 | 21 | | | | | | | 174 | 220 | 2.67 |
| 1992 | 2 | 289 | 23 | 0.40 | 18 | | | | | | | 105 | 128 | 1.72 |

1. All statistics were taken from Abbes et al (1993). These statistics cover the multi-purpose palangriers hauturiers, 22—25 metres in length. Catches of "other" probably include some bigeye and yellowfin.

Table 9. Catch statistics for coastal longliners of French Polynesia

| YEAR | VESSELS ACTIVE | HOOKS | AI | BACORE- CPUE | % | ———В1 МТ | GEYE- | % | ——-YE | LLOWF II | ı— <u> </u> | -OTHER- MT | ——тот <i>і</i> м т | CPUE |
|------|-------------------|-------|----|-----------------|-------|-------------|-------|----|-------|----------|-------------|---------------|------------------------------|------|
| 1992 | 20 | * * * | | 1.77 | | • • • | • • • | •• | • • • | • • • | • • | | | |

1. All statistics were taken from Abbes et al (1993). These statistics cover the small palangriers cotiers operating in the Society Islands. The number of vessels active during 1992 was at least 20 vessels, 15 of which were active throughout the year. The total catch has been estimated at 150 mt during 1992; however, the species breakdown is unavailable.

Table 10. Catch statistics for longliners of Japan, excluding vessels based in the SPC region

| | VESSELS | | | BACORE- | | | GEYE- | | | LLOWFIN | | -OTHER- | TOTA | L |
|--------------|---------|---------|--------|--------------|---|------------------|--------------|----------|---|---------|-----|---------|---|---|
| YEAR | ACTIVE | HOOKS | MT | CPUE | % | MT | CPUE | % | MT | CPUE | % | MT | MT | CPU |
| 1952 | ••• | | 210 | | | | | | | | | | | |
| 1953 | • • • • | • • • • | 1,091 | | :: | | | ••• | • • • • | ••• | •• | • • • • | • | |
| 1954 | ••• | | 10,200 | | | | | | • | | ••• | ••• | • • • • | |
| 1955 | • • • • | | 8,420 | | • | | | :: | | | ••• | ••• | • | • |
| 1956 | ••• | • • • • | 6,220 | | | | | •• | ••• | | ••• | ••• | • • • • | ••• |
| 1957 | | | 9,764 | | • • • | | ••• | •• | | | ••• | • • • • | ••• | • |
| 1958 | • • • • | | 21,558 | | | | | ••• | | ••• | | | | |
| 1959 | • • • • | | 19,344 | | •• | ••• | | • • | • • • • | • • • • | • • | ••• | ••• | • • • |
| 1/2/ | ••• | • • • | | ••• | •• | | ••• | •• | ••• | ••• | •• | ••• | ••• | •• |
| 1960 | • • • | • • • | 23,756 | • • • | | ••• | | • • | • • • | • • • | •• | • • • | • • • | •• |
| 1961 | • • • | 161 070 | 25,628 | 1 55 | 22 | 20 060 | 0.50 | 10 | E1 707 | 1 27 | 7: | 7/ 017 | 1/0 007 | 7 0 |
| 1962 | ••• | 161,070 | 32,628 | 1.55 | 22 | 28,860 | 0.58 | 19 | 51,382 | 1.26 | 35 | 36,017 | 148,887 | 3.89 |
| 1963 | • • • | 152,144 | 20,772 | 1.04 | 16 | 26,849 | 0.57 | 21 | 47,902 | 1.24 | 38 | 32,119 | 127,642 | 3.33 |
| 1964 | • • • | 114,681 | 14,436 | 0.96 | 15 | 19,630 | 0.55 | 20 | 39,767 | 1.37 | 41 | 23,407 | 97,240 | 3.3 |
| 1965 | • • • | 135,561 | 15,503 | 0.87 | 15 | 21,881 | 0.52 | 21 | 40,047 | 1.16 | 38 | 27,465 | 104,896 | 3.0 |
| 1966 | • • • | 130,384 | 18,104 | 1.06 | 19 | 17,681 | 0.44 | 18 | 45,253 | 1.37 | 47 | 15,216 | 96,254 | 3.1 |
| 1967 1968 | • • • | 107,380 | 13,625 | 0.97 0.56 | 21 12 | 14,503 13,520 | 0.43 0.43 | 23 23 | 23,326 | 0.86 | 36 | 12,748 | 64,202 | 2.5 |
| | • • • | 100,691 | 7,355 | | | | | | 27,028 | 1.06 | 46 | 11,326 | 59,229 | 2.2 |
| 1969 | • • • | 101,981 | 5,183 | 0.39 | 9 | 16,955 | 0.54 | 28 | 28,270 | 1.09 | 47 | 9,928 | 60,336 | 2.2 |
| 1970 | | 101,177 | 5,960 | 0.45 | 10 | 13,396 | 0.43 | 22 | 27,225 | 1.06 | 45 | 14,405 | 60,986 | 2.2 |
| 1971 | | 112,483 | 4,622 | 0.31 | 8 | 15,709 | 0.45 | 27 | 25,475 | 0.89 | 44 | 11,910 | 57,716 | 1.8 |
| 1972 | | 123,027 | 3,516 | 0.22 | 6 | 21,618 | 0.57 | 34 | 26,103 | 0.84 | 42 | 11,637 | 62,874 | 1.8 |
| 1973 | | 102,922 | 2,909 | 0.22 | 5 | 14,920 | 0.47 | 26 | 27,758 | 1.06 | 49 | 11,137 | 56,724 | 1.9 |
| 1974 | | 138,433 | 3,292 | 0.18 | 5 | 20,663 | 0.48 | 32 | 27,815 | 0.79 | 44 | 11,850 | 63,620 | 1.6 |
| 1975 | | 113,267 | 2,054 | 0.14 | 4 | 18,715 | 0.53 | 36 | 24,210 | 0.84 | 46 | 7,464 | 52,443 | 1.6 |
| 1976 | | 127,443 | 2,482 | 0.15 | 4 | 21,327 | 0.54 | 35 | 28,101 | 0.87 | 46 | 9,381 | 61,291 | 1.7 |
| 1977 | | 111,865 | 1,427 | 0.10 | 2 | 23,806 | 0.69 | 34 | 38,950 | 1.37 | 55 | 6,020 | 70,203 | 2.28 |
| 1978 | | 123,279 | 1,676 | 0.10 | 2 | 21,400 | 0.56 | 24 | 56,728 | 1.81 | 63 | 9,731 | 89,535 | 2.6 |
| 1979 | ••• | 148,001 | 2,163 | 0.11 | 3 | 26,443 | 0.58 | 31 | 45,570 | 1.21 | 53 | 11,614 | 85,790 | 2.0 |
| 1980 | | 174,461 | 2,981 | 0.13 | 3 | 26,791 | 0.49 | 26 | 58,570 | 1.32 | 56 | 15,797 | 104,139 | 2.1 |
| 1981 | | 176,335 | 4,814 | 0.21 | 6 | 19,336 | 0.35 | 23 | 47,922 | 1.07 | 56 | 13,683 | 85,755 | 1.8 |
| 1982 | • • • | 162,479 | 5,455 | 0.26 | 7 | 21,499 | 0.43 | 27 | 40,451 | 0.98 | 52 | 10,874 | 78,279 | 1.8 |
| 1983 | • • • | 128,714 | 4,815 | 0.29 | 6 | 20,308 | 0.51 | 27 | 41,769 | 1.28 | 56 | 7,732 | 74,624 | 2.2 |
| 1984 | • • • • | 142,463 | 3,288 | 0.18 | 5 | 24,742 | 0.56 | 36 | 32,398 | 0.90 | 47 | 8,633 | 69,061 | 1.7 |
| 1985 | ••• | 146,341 | 3,498 | 0.18 | 5 | 30,187 | 0.66 | 40 | 34,576 | 0.93 | 45 | 7,964 | 76,225 | 1.9 |
| 1986 | | 120,382 | 4,161 | 0.26 | 7 | 24,104 | 0.64 | 38 | 25,976 | 0.85 | 41 | 8,642 | 62,883 | 1.9 |
| 1987 | | 109,793 | 3,282 | 0.23 | 6 | 23,377 | 0.69 | 42 | 22,682 | 0.81 | 41 | 6,451 | 55,792 | 1.8 |
| 1988 | • • • • | 131,546 | 4,971 | 0.29 | 8 | 20,954 | 0.51 | 34 | 26,765 | 0.80 | 44 | 8,156 | 60,846 | 1.7 |
| 1989 | | 128,957 | 4,581 | 0.27 | 8 | 21,307 | 0.53 | 38 | 22,256 | 0.68 | 40 | 7,583 | 55,727 | 1.6 |
| 1990 | • • • | 130,928 | 4,563 | 0.27 | 7 | 26,784 | 0.66 | 44 | 23,401 | 0.70 | 38 | 6,297 | 61,045 | 1.7 |
| 1991 | | 130,720 | 4,563 | 0.27 | 7 | 26,784 | 0.00 | 44 | 23,401 | 0.70 | 38 | 6,297 | 61,045 | |
| 1992 | • • • • | ••• | 4,563 | | 7 | 26,784 | | 44 | 23,401 | • • • • | 38 | 6,297 | 61,045 | •• |
| 1776 | • • • | • • • | 4,505 | • • • | , | 20,104 | • • • | 44 | 23,401 | • • • | 20 | 0,271 | 01,043 | |

- 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, while statistics for 1981—1990 were determined from 5° x 5° data provided directly to SPC. 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 the following average weights (kg):

Table 10 (continued)

| SPECIES W | EIGHT |
|----------------|-------|
| | 25.36 |
| YELLOWFIN | |
| ALBACORE | 13.07 |
| BIGEYE | 31.05 |
| SKIPJACK | 4.46 |
| BLUEFIN | 40.35 |
| STRIPED MARLIN | 77.01 |
| BLUE MARLIN | 58.45 |
| BLACK MARLIN | 33.84 |
| SWORDFISH | 47.35 |
| SAILFISH | 10.98 |
| SHARK | 22.02 |
| OTHER | 47.72 |

3. Catch estimates for 1990 have been used as preliminary estimates for 1991—1992.

Table 11. Catch statistics for longliners of Japan based in the SPC region

| | VESSELS | | A | BACORE- | | В | I GEYE | | —— | ELLOWFI | N | -OTHER- | TOT/ | AL |
|------|---------|-------|----|---------|---|-------|--------|----|-------|---------|----|---------|-------|------|
| YEAR | ACTIVE | HOOKS | MT | CPUE | % | MT | CPUE | % | MT | CPUE | % | MT | MT | CPUE |
| 1987 | • • • | | | | 0 | 1,615 | | 54 | 1,277 | | 43 | 108 | 3,000 | |
| 1988 | ••• | | | | Ō | 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 | |
| 1992 | | | 1 | | 0 | 2,736 | | 58 | 1,760 | | 37 | 237 | 4,734 | |

- 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 catches 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). Transhipment by vessels unloading in Koror, Pohnpei and Yap have been ignored.
- 3. Catches for 1992 were determined from transshipment statistics provided by the Department of Commerce, Guam (Harris, personal communication, April 1993). During January—June 1992, 76 Japanese vessels transshipped 2,323 mt; the total amount transshipped during 1992 was estimated by doubling the amount transshipped during January—June. Small amounts of transshipment by Japanese vessels unloading in Pohnpei and Yap during 1992 have been included. Transhipment by vessels unloading in Koror have been ignored.

Table 12. Catch statistics for longliners of Korea

| | VESSELS | | AL | BACORE- | | | BIGEYE- | | | YELLOW | F I N | -OTHER- | | TAL |
|------|---------|---|--------|---------|-------|--------|---------|----|--------|---------|-------|---------|--------|---------|
| YEAR | ACTIVE | HOOKS | MT | CPUE | % | MT | CPUE | % | МТ | | | MT | MT | CPU |
| 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 | | 32 | • • • | 6,200 | • |
| 1966 | ••• | | 11,700 | | 66 | 2,900 | | 16 | 3,000 | | 17 | | 17,600 | |
| 1967 | ••• | | 14,900 | | 75 | 3,200 | | 16 | 1,900 | | 10 | | 20,000 | • • • |
| 1968 | | | 10,900 | | 65 | 600 | | 4 | 5,300 | | 32 | | 16,800 | |
| 1969 | • • • • | ••• | 11,000 | | 65 | 2,500 | | 15 | 3,500 | | 21 | • • • • | 17,000 | • • • |
| 1707 | • • • | • • • | 11,000 | • • • | 00 | 2,500 | | ,, | 3,500 | • • • | 21 | • • • | 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 | | 39 | ••• | 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 | • • |
| 17/7 | ••• | ••• | 10,030 | ••• | 20 | 12,217 | ••• | 30 | 10,121 | ••• | 44 | ••• | 41,170 | ••• |
| 1980 | | | 10,389 | | 23 | 12,731 | | 29 | 21,443 | | 48 | | 44,563 | |
| 1981 | | | 17,393 | | 46 | 10,171 | | 27 | 10,662 | | 28 | | 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 | | 35 | 10,881 | | 23 | 10,265 | | 22 | 9.519 | 47,101 | • • |
| 1986 | ••• | • • • • | 18,655 | • • • • | 34 | 15,927 | | 29 | 10,790 | | 20 | 9,378 | 54,750 | • • • • |
| 1987 | ••• | • • • | 8,646 | ••• | 18 | 19,487 | | 41 | 11,513 | ••• | 24 | 8,448 | 48,094 | |
| 1988 | ••• | • | 7,029 | ••• | 18 | 13,649 | | 35 | 11,461 | • • • • | 29 | 7,258 | 39,397 | • • • |
| 1989 | | | 4,996 | | 18 | 11,276 | | 40 | 7,540 | | 27 | 4,254 | 28,066 | |
| 1707 | ••• | • • • | 4,770 | ••• | 10 | 11,210 | • • • | 40 | 1,540 | ••• | 41 | 4,634 | 20,000 | •• |
| 1990 | 182 | | 3,232 | | 10 | 20,730 | | 67 | 6,901 | | 22 | | 30,863 | |
| 1991 | 144 | | 1,531 | | 4 | 19,564 | | 54 | 15,179 | | 42 | | 36,274 | |
| 1992 | 167 | | 1,531 | | 4 | 19,564 | | 54 | 15,179 | | 42 | | 36,274 | |

- 1. Catches of albacore for 1958—1964 were reported at SPAR 2 (South Pacific Commission 1989).
- 2. All catches for 1965—1980 were taken from FAO Yearbooks for the whole Pacific Ocean.
- 3. Catches for 1981—1984 and 1990—1991 were determined as follows: catches for albacore and bigeye were taken from FAO Yearbooks for the whole Pacific Ocean; catches of yellowfin were determined by subtracting catches by purse seiners (Table 35) from catches reported in FAO Yearbooks for the whole Pacific Ocean.
- 4. Catches for 1985—1989 were determined as follows: total catches for the whole Pacific Ocean were provided by the National Fisheries Research and Development Agency (Lee, personal communication, April 1993); catches for albacore and bigeye were taken from FAO Yearbooks for the whole Pacific Ocean; catches of "other" species were taken from National Fisheries Research and Development Agency (1990), Table 4, page 36, for the whole Pacific Ocean; catches of yellowfin were determined by subtracting catches of albacore, bigeye and "other" from the total catch.
- 5. Estimates for 1991 have been used as preliminary estimates for 1992.

Table 12 (continued)

- 6. 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. 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). The number of vessels active in 1992 was reported in Katsuo-Maguro Tsushin No. 6529, 12 May 1992 (quoted in Forum Fisheries Agency News Digest, July—August 1992).
- 7. Unraised catch data aggregated by 5° x 5° by month published by the National Fisheries Research and Development Agency for 1975—1980 and 1983—1987 have not been used to estimate catches within the SPC statistical area because of the lack of species-specific coverage rates for 1975—1980 and 1983—1985. Species-specific coverage rates have been provided for 1986—1987 (Lee, personal communication, April 1993), but have not been used to estimate catches within the SPC statistical area in order to maintain consistency in the area covered by the statistics presented above.

Table 13. Catch statistics for longliners of the Marshall Islands

| | VESSELS | | AI | LBACORE- | | ——В | I GEYE | | Y | LLOWFI | N | -OTHER- | —_тот | <u> </u> |
|------|---------|-------|----|----------|---|-----|--------|---|----|--------|----|---------|-------|----------|
| YEAR | ACTIVE | HOOKS | MT | CPUE | % | MT | CPUE | % | MT | CPUE | % | MT | MT | CPUE |
| 1992 | 4 | ••• | - | | - | | • • • | | 9 | | 64 | - | 14 | ••• |

1. All statistics were determined from transshipment data provided to SPC by the Marshall Islands Marine Resources Authority. The vessels active include Ann 101, Ann 102, Latitude 7 and Samantha. Three additional vessels (Li-Bubu I, Lemiweo II and Charlie's Angels) commenced fishing in December 1992, but transshipment data are not yet available.

Table 14. Catch statistics for longliners of New Caledonia

| | VESSELS | | A | LBACORE- | | В | I GEYE | | Y | ELLOWFII | N | -OTHER- | TOT | AL |
|------|---------|---------|-------|----------|-------------|-----|--------|----|-----|----------|----|---------|-------|------|
| YEAR | ACTIVE | HOOKS | МТ | CPUE | | MT | CPUE | % | MT | CPUE | % | MT | MT | CPUE |
| 1983 | 1 | 89 | 12 | 0.72 | 22 | 1 | 0.02 | 2 | 7 | 0.27 | 13 | 34 | 54 | 1.98 |
| 1984 | 2 | 300 | 112 | 1.90 | 57 | 9 | 0.08 | 5 | 25 | 0.30 | 13 | 49 | 195 | 2.60 |
| 1985 | 3 | 536 | 131 | 1.19 | 33 | 15 | 0.06 | 4 | 119 | 0.81 | 30 | 135 | 400 | 2.53 |
| 1986 | 2 | 646 | 179 | 1.38 | 33 | 17 | 0.07 | 3 | 151 | 0.61 | 28 | 202 | 549 | 2.70 |
| 1987 | 3 | 1,408 | 563 | 1.60 | 42 | 33 | 0.05 | 2 | 448 | 1.01 | 33 | 307 | 1,351 | 3.19 |
| 1988 | 4 | 1,020 | 584 | 3.73 | 45 | 18 | 0.05 | 1 | 436 | 2.00 | 34 | 259 | 1,297 | 6.56 |
| 1989 | 4 | 1,336 | 566 | 1.94 | 49 | 24 | 0.04 | 2 | 248 | 0.69 | 22 | 310 | 1,148 | 3.14 |
| 1990 | 7 | 2,707 | 1,053 | 1.97 | 53 | 54 | 0.04 | 3 | 551 | 0.53 | 28 | 327 | 1,985 | 2.82 |
| 1991 | 6 | 2,641 | 909 | 1.74 | 49 | 54 | 0.05 | 3 | 506 | 0.61 | 28 | 371 | 1,840 | 2.79 |
| 1992 | 4 | • • • • | 520 | | 56 | 110 | | 12 | 230 | | 25 | 70 | 930 | |

- 1. All statistics for 1983—1986 and CPUE for 1983—1991 were determined from logbook data held at SPC, provided by the Service de la marine marchande et des pêches maritimes.
- 2. The number of vessels active and catches for 1987—1992 and the number of hooks for 1987—1991 were provided by the Service de la marine marchande et des pêches maritimes (Etaix-Bonnin, personal communication, June 1991, April 1992, April 1993). Preliminary catch estimates for 1992 were determined from export data.

Table 15. Catch statistics for longliners of New Zealand

| | VESSELS | | A | LBACORE- | | ——В | I GEYE | | Y | ELLOWFI | V | -OTHER- | тот | AL |
|------|---------|-------|-----|----------|---|---------|--------|-----|----|---------|---|---------|-----|---------|
| YEAR | ACTIVE | HOOKS | MT | CPUE | % | MT | CPUE | % | MT | CPUE | % | MT | MT | CPUE |
| 1989 | | | | | | | | | | | | | | |
| 1990 | 13 | | 249 | 0.76 | | • • • • | | • • | | | | | | • • • • |
| 1991 | 14 | | 325 | 0.93 | | | | | | | | | | |
| 1992 | 20 | | 706 | 1.40 | | | | | | | | | | |

Units: CPUE, metric tonnes per day

1. The number of vessels active and the catch of albacore for 1990-1992 were provided by the Ministry of Agriculture and Fisheries to SPAR 5 (Murray 1993). 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 10. The catches are for the fishing year, October—September; in the table above, the catches have been allocated to the latest year (i.e., catches for October 1989 — September 1990 have been allocated to 1990).

Table 16. Catch statistics for longliners of Solomon Islands

| | VESSELS | | A1 | LBACORE- | | В | GEYE- | | YE | ELLOWFII | V | -OTHER- | TOT | AL |
|------|---------|-------|----|----------|---|----|-------|----|-----|----------|----|---------|-----|-------|
| YEAR | ACTIVE | HOOKS | МТ | CPUE | % | MT | CPUE | % | МТ | CPUE | % | MT | MT | CPU |
| 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 | • • • | 3 | 98 | | 12 | 564 | | 69 | 131 | 818 | |
| 1981 | 2 | | 2 | | 1 | 25 | | 12 | 146 | | 70 | 36 | 209 | |
| 1982 | 2 | ••• | 8 | | 2 | 24 | | 6 | 306 | | 76 | 65 | 403 | |
| 1983 | 2 | | 19 | | 3 | 34 | | 6 | 443 | | 80 | 55 | 551 | |
| 1984 | 2 | | 19 | | 5 | 57 | | 16 | 213 | | 58 | 76 | 365 | |
| 1985 | 2 | | 12 | | 5 | 46 | | 19 | 151 | | 62 | 33 | 242 | |

- 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 17. Catch statistics for Taiwanese longliners less than 100 gross tonnes

| | VESSELS | | ———A | LBACORE- | | B1 | GEYE | | Y | ELLOWFI | N | -OTHER- | TOT | AL |
|------|---------|-------|------|----------|-----|-------|-------|-----|-------|---------|-----|---------|-------|-------|
| YEAR | ACTIVE | HOOKS | MT | CPUE | % | MT | CPUE | % | MT | CPUE | % | MT | MT | CPUE |
| 1987 | | | | | | | | | ••• | ••• | | • • • | | |
| 1988 | ••• | ••• | ••• | | •• | ••• | ••• | •• | ••• | ••• | | ••• | | |
| 1989 | • • • | • • • | | • • • | • • | • • • | • • • | • • | • • • | • • • | • • | • • • | ••• | • • • |
| 1990 | | | | | | 2,619 | | 45 | 2,953 | • • • | 51 | 216 | 5,788 | |
| 1991 | | | | | | 1,343 | | 32 | 2,851 | | 67 | 35 | 4,229 | |
| 1992 | | | | | | 2,708 | | 44 | 3,332 | | 55 | 64 | 6,104 | |

- 1. Catches for 1990 were estimated from transshipment statistics provided by the Guam Department of Commerce (Harris, personal communication, June 1991) and the Palau Maritime Authority. These statistics cover transshipment in Guam and Koror.
- 2. Catches for 1991 were estimated from transshipment statistics provided by the Guam Department of Commerce (Fitzgerald, personal communication, June 1992), the Palau Maritime Authority (Rechebei, personal communication, June 1992) and the Micronesian Maritime Authority. These statistics cover transshipment in Guam, Koror and Pohnpei. Transshipment by Taiwanese vessels in Majuro and Yap during 1991 has been ignored.
- 3. Catches for 1992 were estimated from transshipment statistics provided by the Guam Department of Commerce (Harris, personal communication, April 1993), the Micronesian Maritime Authority, the Marshall Islands Marine Resources Authority, and Ting Hong (Yap) Co., Ltd. (Chiu, personal communication, January 1993). These statistics cover transshipment in Guam, Koror, Majuro, Pohnpei and Yap.

Catch statistics for Taiwanese longliners greater than 100 gross tonnes Table 18.

| | VECCEIC | | 19 | DACODE | | | 21 CEVE | | | VELLOUE | N | OTUED | TOT | |
|------|---------|--------|--------|--------|----|-------|---------|-----|--------|---------|----|-------|----------|---------|
| YEAR | ACTIVE | HOOKS | MT | CPUE | * | ₩ | CPUE | % | Σ | MT CPUE | % | MT | <u> </u> | MT CPUE |
| | | | | | | | | | | | | | | |
| 1964 | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
| 66. | : | : | : | : | : | : | : | : | : | : | : | : | : | : |
| 200 | : | | | :: | :; | :: | :; | :: | : 0 | :: | :: | :: | :; | :! |
| 706 | : | 18,2/4 | 14,423 | 7 | C | 1,895 | 0.58 | 2 | 2,059 | 0.52 | 11 | 66 | 19,174 | 5.43 |
| 1968 | : | 21,635 | 14,986 | 3.94 | 3 | 2,093 | 0.29 | 0 | 5,050 | 0.91 | 25 | 1,134 | 23,263 | 5.35 |
| 1969 | : | 15,477 | 9,787 | 3.68 | 26 | 1,058 | 0.21 | 9 | 4,758 | 1.25 | 62 | 938 | 16,541 | 5.50 |
| 1970 | : | | 12.260 | 4.08 | 7 | 772 | 0.22 | 7 | 2 997 | 0.65 | 17 | 1 331 | 17 332 | 5, 22 |
| 1971 | | | 19,669 | 3.47 | 61 | 2.088 | 0.21 | ~ | 8.938 | 1.25 | 58 | 1,311 | 32,006 | 20.0 |
| 1972 | : | 39,480 | 21,182 | 3.31 | 29 | 2,990 | 0.27 | - ∞ | 9,758 | 0.97 | 27 | 1,697 | 35,627 | 75 |
| 1973 | : | | 26,917 | 3.16 | 99 | 3,748 | 0.21 | ٥ | 8,594 | 0.68 | 7 | 1,703 | 40,962 | 4.12 |
| 1974 | : | | 18,388 | 2.45 | 29 | 2,596 | 0.20 | 10 | 5,115 | 97.0 | 19 | 1,155 | 27,254 | 3.17 |
| 1975 | : | | 12,803 | 2.25 | 7 | 1,331 | 0.14 | 7 | 3,085 | 0.37 | 17 | 916 | 18, 135 | 2.78 |
| 1976 | : | | 18,078 | 2.84 | 92 | 1,270 | 0.14 | 7 | 3,399 | 0.33 | 7 | 1,034 | 23,781 | 3.48 |
| 1977 | : | | 17,738 | 3.47 | 2 | 1,046 | 0.10 | 5 | 2,804 | 0.32 | 13 | 735 | 22,323 | 3.96 |
| 1978 | : | | 16,176 | 3.79 | 9 | 296 | 0.11 | 4 | 3,629 | 27.0 | 13 | 6,312 | 27,084 | 4.77 |
| 1979 | : | | 11,484 | 2.71 | 9 | 1,094 | 0.15 | 9 | 3,025 | 0.50 | 16 | 3,396 | 18,999 | 3.61 |
| 1980 | : | | 25,838 | 2.89 | 22 | 2,503 | 0.13 | 7 | 5,128 | 0.37 | 14 | 2.398 | 35.867 | 3.48 |
| 1981 | : | | 10,592 | 2.35 | 23 | 868 | 0.0 | 9 | 1,586 | 0.20 | Ξ | 1,012 | 14,089 | 2.77 |
| 1982 | : | | 6,007 | 2.79 | 85 | 416 | 90.0 | 4 | 792 | 0.13 | ~ | 662 | 10,986 | 3.15 |
| 1983 | : | 16,258 | 7,412 | 3.27 | 87 | 231 | 0.05 | М | 518 | 0.13 | 9 | 370 | 8,531 | 3.56 |
| 1984 | : | | 6,525 | 2.31 | 8 | 327 | 9.0 | 4 | 575 | 0.12 | 7 | 367 | 7,794 | 2.54 |
| 1985 | : | | 5,534 | 2.89 | 8 | 213 | 90.0 | M | 209 | 0.21 | Φ. | 198 | 6,552 | 3.19 |
| 1986 | : | | 8,316 | 4.35 | 6 | 172 | 0.04 | ~ | 513 | 0.15 | • | 179 | 9,180 | 4.57 |
| 1987 | : | | 9,633 | 3.41 | 8 | 185 | 0.03 | 2 | 641 | 0.13 | 9 | 524 | 10,683 | 3.59 |
| 1988 | : | | 12,308 | 3.01 | 87 | 184 | 0.02 | _ | 1,260 | 0.20 | 6 | 370 | 14,122 | 3.27 |
| 1989 | : | | 7,400 | 1.79 | \$ | 338 | 0.03 | 4 | 720 | 0.11 | ω | 345 | 8,833 | 1.95 |
| 1990 | : | 29,747 | 7,410 | 1.55 | 28 | 552 | 0.05 | 9 | 1.154 | 0.15 | 12 | 411 | 9.527 | 1.79 |
| 1991 | : | 29,747 | 7,410 | 1.55 | 28 | 552 | 0.05 | 9 | 1, 154 | 0.15 | 12 | 411 | 9.527 | 1.79 |
| 1992 | : | 29,747 | 7,410 | 1.55 | 78 | 552 | 0.05 | 9 | 1,154 | 0.15 | 12 | 411 | 9,527 | 1.79 |
| | | | | | | | | | | | | | | |

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- 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.
- 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. 7
- Estimates for 1990 have been used as preliminary estimates for 1991-1992. е.
- The catches of albacore above differ slightly from those reported to SPAR meetings (e.g. South Pacific Commission 1991) due to the different areas considered; catches reported above are for the SPC statistical area, while catches reported to SPAR are for the entire South Pacific. 4.

Table 19. Catch statistics for longliners of Tonga

| | VESSELS | | A | LBACORE- | | В | GEYE | | YI | ELLOWFII | N | -OTHER- | тот/ | AL |
|------|---------|-------|-----|----------|----------|----|------|---|----|----------|----|---------|------|------|
| YEAR | ACTIVE | HOOKS | MT | CPUE | <u>%</u> | MT | CPUE | % | MT | CPUE | % | МТ | MT | CPUE |
| 1982 | 1 | | 106 | 0.87 | 42 | 18 | 0.09 | 7 | 81 | 0.45 | 32 | 47 | 252 | 1.76 |
| 1983 | 1 | | 143 | 1.44 | 60 | 17 | 0.10 | 7 | 48 | 0.32 | 20 | 30 | 238 | 2.21 |
| 1984 | 1 | | 135 | 1.49 | 44 | 28 | 0.19 | 9 | 55 | 0.46 | 18 | 89 | 307 | 2.98 |
| 1985 | 1 | | 174 | 1.88 | 47 | 15 | 0.10 | 4 | 44 | 0.34 | 12 | 137 | 370 | 3.32 |
| 1986 | 1 | | 206 | 3.76 | 68 | 12 | 0.12 | 4 | 33 | 0.34 | 11 | 52 | 303 | 4.92 |
| 1987 | 1 | | 252 | 3.36 | 71 | 14 | 0.11 | 4 | 32 | 0.23 | 9 | 57 | 355 | 4.34 |
| 1988 | 1 | | 242 | 3.07 | 76 | 6 | 0.08 | 2 | 26 | 0.23 | 8 | 45 | 319 | 3.94 |
| 1989 | 1 | ••• | 195 | 2.10 | 65 | 12 | 0.09 | 4 | 27 | 0.26 | 9 | 66 | 300 | 3.05 |
| 1990 | 1 | | 153 | 2.06 | 67 | 10 | 0.10 | 4 | 28 | 0.27 | 12 | 39 | 230 | 2.84 |
| 1991 | 1 | | 174 | 2.66 | 75 | 5 | 0.06 | 2 | 19 | 0.23 | 8 | 33 | 231 | 3.39 |
| 1992 | 1 | | 199 | 2.38 | 78 | 4 | 0.05 | 2 | 19 | 0.24 | 7 | 33 | 255 | 3.00 |

Units: CPUE, numbers of fish per 100 hooks

- 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. CPUE for 1982—1992 and catches for 1990—1991 were determined from data held at SPC, provided by the Ministry of Fisheries.

Table 20. Catch statistics for longliners of the United States

| | VESSELS | | A | BACORE- | | В | | | YI | | | -OTHER- | | AL |
|--------------|---------|-------|-------|---------|----------|----|-------|--------|----|-------|----|---------|---------|-------|
| YEAR | ACTIVE | HOOKS | MT | CPUE | % | MT | CPUE | % | | | % | MT | MT | CPUE |
| | | | | | | | | | | | | | | |
| 1991 1992 | 3 | • • • | • • • | ••• | •• | 72 | • • • | 47 | 79 | | 52 | | 153 | • • • |
| 1772 | 0 | ••• | - | _ | | 12 | • • • | 41 | 19 | • • • | 24 | Z | 123 | ••• |

- 1. All statistics were determined from transshipment data provided to SPC by the Marshall Islands Marine Resources Authority. These statistics cover American vessels based in Majuro. During 1992, these vessels included Captain Peter, Kai Mana, Kanaloa, Mana Iki, Mana Loa and Pan Am II. An additional vessel (Mana Ola) may have been active during 1992, however, transshipment data are not available.
- 2. American longliners based in Honolulu fish outside the SPC statistical area and are therefore not covered in this report.

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

| | VESSELS | DAYS | si | CIPJACK- | ···· | Y | ELLOWFIN | | -OTHER- | ——тот | 4L |
|------|---------|--------|-------|----------|------|----|----------|---|------------------|-------|------|
| YEAR | ACTIVE | FISHED | 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 | 1,196 | 8.9 |
| 1978 | 14 | 205 | 146 | 0.7 | 14 | 16 | 0.1 | 2 | [*] 870 | 1,032 | 5.0 |
| 1979 | 10 | 66 | • | - | 0 | - | - | - | 268 | 268 | 4.1 |
| 1980 | 9 | 62 | - | - | 0 | _ | _ | - | 446 | 446 | 7.2 |
| 1981 | 17 | 192 | 108 | 0.6 | 11 | - | - | - | 867 | 975 | 5.1 |
| 1982 | 20 | 254 | 196 | 0.8 | 24 | 5 | 0.0 | 1 | 626 | 827 | 3.3 |
| 1983 | 13 | 151 | 109 | 0.7 | 44 | - | - | - | 141 | 250 | 1.7 |
| 1984 | 8 | 57 | 78 | 1.4 | 81 | 5 | 0.1 | 5 | 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 | |
| 1992 | | 258 | 201 | 0.8 | 57 | 5 | 0.0 | 1 | 148 | 354 | 1.4 |

- 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. All statistics for 1990—1992 were provided by the Australian Fisheries Management Authority (Skousen, personal communication, May 1992, April 1993). These statistics represent catches reported on logsheets raised assuming coverage rates of 32.5, 22.5 and 55.0 per cent of the actual catch during 1990—1992 respectively. Ten vessels supplied logsheets during 1992.

Table 22. Catch statistics for pole-and-line vessels of Fiji

| | VESSELS | DAYS | Sk | (IPJACK- | | YE | LLOWFIN | | OTHER | ——тот/ | AL |
|------|---------|--------|-------|----------|----------|-----|---------|----|-------|--------|------|
| YEAR | ACTIVE | FISHED | MT | CPUE | <u>%</u> | MT | CPUE | % | MT | 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 | 0.4 | 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 | 2.9 | 88 | 527 | 0.3 | 12 | - | 4,288 | 3.2 |
| 1989 | 8 | • • • | 5,369 | 3.7 | 91 | 507 | 0.4 | 9 | 7 | 5,883 | 4.2 |
| 1990 | 10 | • • • | 3,507 | 2.9 | 87 | 516 | 0.3 | 13 | 6 | 4,029 | 3.2 |
| 1991 | 10 | | 4,069 | 3.0 | 92 | 358 | 0.1 | 8 | - | 4,427 | 3.1 |
| 1992 | 11 | | 3,705 | | 90 | 395 | | 10 | 5 | 4,105 | |

- 1. Estimates of catches for 1976—1992, and the number of vessels in 1976—1978, 1983—1984 and 1990—1992, were provided by the Fisheries Division, Fiji (Sharma, personal communication, May 1990, June 1991, March 1992, April 1993; 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 23 and 29 respectively. Catches by the *lka 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, provided by the Fisheries Division, Fiji.
- 3. The numbers of vessels active for 1979—1982 and 1985—1989 were taken from annual reports of the Fisheries Division, Fiji.

Table 23. Catch statistics for pole-and-line vessels of French Polynesia

| | VESSELS | DAYS | SI | (IPJACK- | | | LLOWFIN | | OTHER | TOT/ | AL |
|------|---------|--------|-----|----------|----|-----|---------|----|-------|-------|------|
| YEAR | ACTIVE | FISHED | МТ | 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 | 16 | 21 | 73 | 769 | 78 |
| 1980 | 46 | 9,964 | 683 | 69 | 69 | 253 | 25 | 26 | 56 | 992 | 100 |
| 1981 | 51 | 9,528 | 529 | 56 | 51 | 472 | 50 | 46 | 34 | 1,035 | 109 |
| 1982 | 46 | 8,764 | 666 | 76 | 62 | 368 | 42 | 34 | 33 | 1,067 | 122 |
| 1983 | 46 | 7,820 | 598 | 76 | 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 | 91 | 87 | 55 | 7 | 7 | 46 | 786 | 105 |
| 1991 | 31 | 6,539 | 614 | 94 | 81 | 105 | 16 | 14 | 41 | 760 | 116 |
| 1992 | •• | 4,977 | 459 | 92 | 80 | 87 | 17 | 15 | 29 | 575 | 116 |

Units: CPUE, kg per day

- 1. Catch estimates and days fished for 1979—1992 and CPUE for 1975—1992 are from Josse et al. (1993). These statistics are for the *bonitier* fleet based in Papeete.
- 2. 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 24. Catch statistics for pole-and-line vessels of Japan

| | VESSELS | DAYS | SI | (IPJACK- | | Ү | LLOWFIN | | OTHER | TOT | AL |
|------|---------|--------|---------|----------|-----------|-------|---------|---|--------|----------|------|
| YEAR | ACTIVE | FISHED | МТ | CPUE | <u></u> % | MT | CPUE | % | MT | MT | CPUE |
| 1972 | ••• | 13,181 | 62,874 | 4.8 | 96 | 1,151 | 0.1 | 2 | 1,359 | 65,384 | 5.0 |
| 1973 | | 18,883 | 116,350 | 6.2 | 98 | 1,478 | 0.1 | 1 | 675 | 118,503 | 6.3 |
| 1974 | | 23,580 | 141,024 | 6.0 | 98 | 1,255 | 0.1 | 1 | 1,252 | 143,531 | 6.1 |
| 1975 | | 23,635 | 101,245 | 4.3 | 97 | 1,887 | 0.1 | 2 | 1,355 | 104,487 | 4.4 |
| 1976 | | 20,075 | 111,192 | 5.5 | 97 | 2,377 | 0.1 | 2 | 1,143 | 114,712 | 5.7 |
| 1977 | | 31,636 | 148,906 | 4.7 | 96 | 4,773 | 0.2 | 3 | 1,633 | 155,312 | 4.9 |
| 1978 | | 21,185 | 130,455 | 6.2 | 98 | 1,453 | 0.1 | 1 | 744 | 132,652 | 6.3 |
| 1979 | ••• | 20,467 | 96,742 | 4.7 | 98 | 1,369 | 0.1 | 1 | 824 | 98,935 | 4.8 |
| 1980 | 317 | 19,643 | 108,945 | 5.5 | 98 | 1,607 | 0.1 | 1 | 766 | 111,318 | 5.7 |
| 1981 | 279 | 25,818 | 130,619 | 5.1 | 95 | 2,283 | 0.1 | 2 | 4,279 | 137, 181 | 5.3 |
| 1982 | 117 | 21,699 | 108,449 | 5.0 | 89 | 2,689 | 0.1 | 2 | 11,308 | 122,446 | 5.6 |
| 1983 | 103 | 17,035 | 123,810 | 7.3 | 94 | 1,736 | 0.1 | 1 | 6,398 | 131,944 | 7.7 |
| 1984 | 94 | 17,040 | 127,861 | 7.5 | 96 | 1,564 | 0.1 | 1 | 3,467 | 132,892 | 7.8 |
| 1985 | 84 | 14,624 | 93,812 | 6.4 | 90 | 4,528 | 0.3 | 4 | 6,091 | 104,431 | 7.1 |
| 1986 | 83 | 11,641 | 106,008 | 9.1 | 96 | 1,269 | 0.1 | 1 | 3,205 | 110,482 | 9.5 |
| 1987 | 77 | 11,973 | 92,919 | 7.8 | 96 | 1,045 | 0.1 | 1 | 2,772 | 96,736 | 8.1 |
| 1988 | 63 | 10,040 | 104,950 | 10.5 | 97 | 906 | 0.1 | 1 | 2,796 | 108,652 | 10.8 |
| 1989 | 59 | 11,230 | 96,714 | 8.6 | 98 | 1,204 | 0.1 | 1 | 1,190 | 99,108 | 8.8 |
| 1990 | 62 | 10,126 | 53,226 | 5.3 | 94 | 1,365 | 0.1 | 2 | 2,099 | 56,690 | 5.6 |
| 1991 | 54 | | 90,663 | 9.3 | 99 | 1,000 | 0.0 | 1 | | 91,663 | 9.3 |
| 1992 | 32 | • • • | 50,000 | 7.7 | 99 | 500 | 0.1 | 1 | ••• | 50,500 | 7.8 |

- 1. All statistics for 1972—1979 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. All statistics for 1980—1990 were determined from data provided to SPC by 1° x 1° square by the Fisheries Agency of Japan, for the SPC statistical area.
- 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 landings of frozen skipjack and probably includes some catches outside the SPC statistical area. The catch of yellowfin in 1991 is a best guess based on catches in previous years.
- 4. Catches for 1992 are best guesses based on logbook data held at SPC, which indicate reduced fishing effort and average catch rates.
- 5. The numbers of vessels active during 1980—1992 and CPUE during 1991—1992 were determined from logbook data held at SPC.

Table 25. Catch statistics for pole-and-line vessels of Kiribati

| | VESSELS | DAYS | Sk | (IPJACK- | | Y | LLOWFIN | | OTHER | тот/ | AL |
|------|---------|--------|-------|----------|----|-----|---------|----|--------|-------|------|
| YEAR | ACTIVE | FISHED | MT | CPUE | % | MT | CPUE | % | MT | MT | CPUE |
| 1979 | 1 | ••• | ••• | | | | ••• | | •• | | |
| 1980 | • • | | | | | | | | | | |
| 1981 | 2 | 264 | 354 | 1.3 | 63 | 210 | 0.8 | 37 | | 564 | 2.1 |
| 1982 | 2 | 272 | 287 | 1.1 | 63 | 170 | 0.6 | 37 | | 457 | 1.7 |
| 1983 | 4 | 783 | 1.355 | 1.7 | 85 | 239 | 0.3 | 15 | | 1,594 | 2.0 |
| 1984 | 4 | 971 | 1,503 | 1.5 | 74 | 528 | 0.5 | 26 | | 2,031 | 2.1 |
| 1985 | 4 | 831 | 216 | 0.3 | 30 | 503 | 0.6 | 70 | | 719 | 0.9 |
| 1986 | 4 | 637 | 693 | 1.1 | 49 | 721 | 1.1 | 51 | • • | 1,414 | 2.2 |
| 1987 | 4 | 445 | 278 | 0.6 | 64 | 156 | 0.4 | 33 | | 434 | 1.0 |
| 1988 | 5 | 616 | 1,089 | 1.8 | 74 | 383 | 0.6 | 25 | | 1,472 | 2.4 |
| 1989 | 6 | ••• | 1,434 | • • • | 63 | 848 | • • • | 37 | •• | 2,282 | ••• |
| 1990 | 5 | 212 | 452 | 2.1 | 76 | 143 | 0.7 | 24 | 1 | 596 | 2.8 |
| 1991 | 3 | 182 | 157 | 0.9 | 69 | 67 | 0.4 | 29 | 4 | 228 | 1.3 |
| 1992 | 3 | 423 | 248 | 0.6 | 45 | 303 | 0.7 | 55 | 4 3 | 554 | 1.3 |

- 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. The number of vessels active, days fished and the total catch for 1981—1989 were provided by Te Mautari Inc. (Tekaata, personal communication, April 1993). The species composition for 1983—1988 was determined from logbook data held at SPC, provided by Te Mautari Inc. The species composition for 1981—1982 and 1989 was estimated as the average species composition during 1983—1988 and 1990—1992.
- 3. All statistics for 1989—1992 were provided by Te Mautari Inc. (Tekaata, personal communication, April 1993).

Table 26. Catch statistics for pole-and-line vessels of New Caledonia

| | VESSELS | DAYS | SK | (IPJACK- | | Y | ELLOWFIN | | OTHER | TOT/ | \L |
|------|---------|--------|-----|----------|----------|----|----------|---|-------|------|------|
| YEAR | ACTIVE | FISHED | MT | CPUE | <u>%</u> | MT | CPUE | % | MT | MT | CPUE |
| 1981 | 1 | 40 | 226 | 5.7 | 99 | 3 | 0.1 | 1 | - | 229 | 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 |

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

Table 27. Catch statistics for pole-and-line vessels of New Zealand

| | VESSELS | DAYS | SI | (IPJACK- | | YE | LLOWFIN | | OTHER | | ۱L |
|------|---------|--------|-------|----------|-----|-------|---------|-----|-------|-------|-------|
| YEAR | ACTIVE | FISHED | МТ | | % | | CPUE | % | MT | MT | CPUE |
| 1990 | 3 | ••• | - | _ | _ | _ | _ | _ | 14 | 14 | |
| 1991 | 4 | ••• | 114 | • • • | 97 | 2 | | 2 | 1 | 117 | ••• |
| 1992 | • • | • • • | • • • | | • • | • • • | • • • | • • | | • • • | • • • |

- 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 28. Catch statistics for pole-and-line vessels of Palau

| | VESSELS | DAYS | sk | IPJACK- | | ——ҮІ | ELLOWFIN | | OTHER | тот/ | \L |
|------|---------|--------|-------|---------|-----|-------|----------|----|-------|-------|------|
| YEAR | ACTIVE | FISHED | МТ | CPUE | % | MT | CPUE | % | MT | MT | CPUE |
| 1964 | 6 | 412 | 1,025 | 2.5 | 87 | 141 | 0.3 | 12 | 12 | 1,178 | 2.9 |
| 1965 | 31 | 1,399 | 2,497 | 1.8 | 91 | 173 | 0.1 | 6 | 72 | 2,742 | 2.0 |
| 1966 | 15 | 1,362 | 2,615 | 1.9 | 89 | 71 | 0.1 | 2 | 250 | 2,936 | 2.2 |
| 1967 | 20 | 1,399 | 3,354 | 2.4 | 95 | 52 | 0.0 | 1 | 123 | 3,529 | 2.5 |
| 1968 | 11 | 1,512 | 5,039 | 3.3 | 99 | 17 | 0.0 | 0 | 43 | 5,099 | 3.4 |
| 1969 | 9 | 1,193 | 4,629 | 3.9 | 88 | 133 | 0.1 | 3 | 497 | 5,259 | 4.4 |
| 1970 | 10 | 1,599 | 8,081 | 5.1 | 96 | 1 | 0.0 | 0 | 360 | 8,442 | 5.3 |
| 1971 | 20 | 1,639 | 2,133 | 1.3 | 92 | 10 | 0.0 | 0 | 175 | 2,318 | 1.4 |
| 1972 | 11 | 1,053 | 1,463 | 1.4 | 76 | 56 | 0.1 | 3 | 394 | 1,913 | 1.8 |
| 1973 | 12 | 1,160 | 2,309 | 2.0 | 84 | 41 | 0.0 | 1 | 399 | 2,749 | 2.4 |
| 1974 | 24 | 1,692 | 6,647 | 3.9 | 96 | 161 | 0.1 | 2 | 122 | 6,930 | 4.1 |
| 1975 | 21 | 1,790 | 5,971 | 3.3 | 90 | 298 | 0.2 | 5 | 346 | 6,615 | 3.7 |
| 1976 | 33 | 1,614 | 4,911 | 3.0 | 92 | 412 | 0.3 | 8 | 25 | 5,348 | 3.3 |
| 1977 | 23 | 1,119 | 3,592 | 3.2 | 89 | 420 | 0.4 | 10 | 32 | 4,044 | 3.6 |
| 1978 | 26 | 2,233 | 9,391 | 4.2 | 97 | 303 | 0.1 | 3 | 31 | 9,725 | 4.4 |
| 1979 | 21 | 1,752 | 5,687 | 3.2 | 100 | 1 | 0.0 | 0 | 4 | 5,692 | 3.2 |
| 1980 | 31 | 1,219 | 5,580 | 4.6 | 85 | 996 | 0.8 | 15 | 20 | 6,596 | 5.4 |
| 1981 | 36 | 1,651 | 6,931 | 4.2 | 73 | 2,480 | 1.5 | 26 | 22 | 9,433 | 5.7 |
| 1982 | 20 | 858 | 3,438 | 4.0 | 78 | 615 | 0.7 | 14 | 327 | 4,380 | 5.1 |
| 1983 | - | - | • | - | - | - | - | - | • | - | - |
| 1984 | - | - | - | - | - | - | - | - | • | - | - |
| 1985 | 1 | | 82 | | 85 | 15 | | 15 | | 97 | |
| 1986 | 1 | | 112 | | 85 | 19 | | 15 | | 131 | |
| 1987 | 1 | | 139 | | 86 | 22 | | 14 | | 161 | |
| 1988 | 1 | | 119 | | 76 | 38 | | 24 | | 157 | |
| 1989 | 1 | ••• | 72 | ••• | 94 | 5 | • • • | 6 | ••• | 77 | |
| 1990 | 1 | ••• | 80 | | 91 | 8 | | 9 | | 88 | |
| 1991 | - | - | - | - | - | - | - | - | - | - | - |
| 1992 | 1 | | 61 | | 81 | 14 | | 19 | | 75 | |

^{1.} Statistics for 1964—1982 cover Okinawan vessels based in Palau; these statistics were determined from logbook data held at SPC.

^{2.} Statistics for 1985—1992 cover a domestic pole-and-line vessel; these statistics were provided by the Palau Maritime Authority (Rechebei, personal communication, May 1993).

Table 29. Catch statistics for pole-and-line vessels of Papua New Guinea

| | VESSELS | DAYS | SI | (IPJACK- | | YE | LLOWFIN | | OTHER | TOT | AL |
|------|---------|--------|--------|----------|----------|-------|---------|----|-------|--------|------|
| YEAR | ACTIVE | FISHED | MT | CPUE | % | MT | CPUE | % | MT | MT | CPUE |
| 1970 | 5 | 511 | 2,354 | 4.6 | 97 | 74 | 0.1 | 3 | 2 | 2,430 | 4.8 |
| 1971 | 29 | 4,060 | 16,862 | 4.2 | 99 | 112 | 0.0 | 1 | 28 | 17,002 | 4.2 |
| 1972 | 45 | 4,950 | 11,785 | 2.4 | 88 | 1,345 | 0.3 | 10 | 202 | 13,332 | 2.7 |
| 1973 | 43 | 7,863 | 27,300 | 3.5 | 96 | 916 | 0.1 | 3 | 280 | 28,496 | 3.6 |
| 1974 | 47 | 9,408 | 40,214 | 4.3 | 96 | 1,416 | 0.2 | 3 | 150 | 41,780 | 4.4 |
| 1975 | 48 | 6,435 | 15,625 | 2.4 | 90 | 1,744 | 0.3 | 10 | 29 | 17,398 | 2.7 |
| 1976 | 40 | 7,901 | 24,358 | 3.1 | 74 | 8,563 | 1.1 | 26 | 93 | 33,014 | 4.2 |
| 1977 | 51 | 9,736 | 20,106 | 2.1 | 82 | 4,009 | 0.4 | 16 | 296 | 24,411 | 2.5 |
| 1978 | 48 | 9,941 | 45,760 | 4.6 | 94 | 3,099 | 0.3 | 6 | 61 | 48,920 | 4.9 |
| 1979 | 45 | 8,184 | 23,976 | 2.9 | 89 | 2,881 | 0.4 | 11 | 88 | 26,945 | 3.3 |
| 1980 | 50 | 9,484 | 30,976 | 3.3 | 91 | 3,018 | 0.3 | 9 | 102 | 34.096 | 3.6 |
| 1981 | 44 | 7,861 | 27,207 | 3.5 | 87 | 4,205 | 0.5 | 13 | - | 31,412 | 4.0 |
| 1982 | 0 | • | · - | - | - | - | - | - | - | • • | - |
| 1983 | 0 | - | - | - | • | - | - | - | - | • | - |
| 1984 | | 683 | 2,470 | 3.6 | 90 | 274 | 0.4 | 10 | | 2,744 | 4.0 |
| 1985 | | | 8,370 | | 90 | 930 | | 10 | | 9,300 | |

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

| | VESSELS | DAYS | sı | (IPJACK- | | YI | LLOWFIN | | OTHER | TOT/ | AL |
|------|---------|--------|--------|----------|----------|-------|---------|------------------|---------|--------|------|
| YEAR | ACTIVE | FISHED | 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 3 | | 7,905 | 2.4 |
| 1973 | 11 | 1,944 | 6,318 | 3.3 | 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 | 2.9 | 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 3 3 3 | • • • • | 12,115 | 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 | 21,557 | 3.5 |
| 1991 | 32 | 6,825 | 35,233 | 5.2 | 97 | 950 | 0.1 | 3 | 29 | 36,212 | 5.3 |
| 1992 | 32 | 6,100 | 18,226 | 3.0 | 92 | 1,246 | 0.2 | 6 | 265 | 19,737 | 3.2 |

- 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—1992 were determined from logbook data held at SPC, provided by the Fisheries Department.

Table 31. Catch statistics for pole-and-line vessels of Tuvalu

| | VESSELS | DAYS | SK | IPJACK- | | YE | LLOWFIN | | OTHER | TOT/ | 4L |
|------|---------|--------|-------|---------|------------|----|---------|----|-------|-------|-------|
| YEAR | ACTIVE | FISHED | MT | CPUE | % | MT | CPUE | % | MT | MT | CPUE |
| 1982 | 1 | 68 | 163 | 2.4 | <i>7</i> 5 | 53 | 0.8 | 25 | - | 216 | 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 | 1,091 | 5.7 |
| 1989 | 1 | | 142 | • • • | 95 | 7 | ••• | 5 | - | 149 | • • • |
| 1990 | 1 | 198 | 64 | 0.3 | 65 | 26 | 0.1 | 27 | 8 | 98 | 0.5 |
| 1991 | 1 | 221 | 23 | 0.1 | 62 | 6 | 0.0 | 16 | 8 | 37 | 0.2 |
| 1992 | 1 | 164 | 6 | 0.0 | 67 | 2 | 0.0 | 22 | 1 | 9 | 0.1 |

- 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—1992 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 32. Catch statistics for purse seine vessels of Australia fishing in the Australian Fishing Zone

| | VESSELS | DAYS | si | CIPJACK- | | Y | ELLOWFIN | | OTHER- | ———тот | AL |
|------|---------|---------|---------|----------|-----|---------|----------|----|--------|--------|-------|
| YEAR | ACTIVE | FISHED | MT | CPUE | % | MT | CPUE | % | MT | MT | CPUE |
| 1974 | | | 1,900 | | 100 | | | | | 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 |
| 1992 | 9 | 80 | 453 | 5.7 | 94 | - | - | - | 31 | 484 | 6.1 |

- 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—1992 were provided by the Australian Fisheries Management Authority (Skousen, personal communication, May 1992, April 1993). These statistics represent catches reported on logsheets raised assuming a coverage rate of 85 per cent of the actual catch during 1990, 32.5 per cent during 1991 and 90 per cent during 1992. 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 33. Catch statistics for purse seine vessels of Australia fishing outside the Australian Fishing Zone

| | VESSELS | DAYS | SI | KIPJACK- | | Y | ELLOWFIN | | OTHER | TOT | AL |
|------|---------|--------|-------|----------|-----------|-------|----------|-------------|-------|-------|------|
| YEAR | ACTIVE | FISHED | MT | CPUE | <u> %</u> | 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 | 400 | 3,876 | 9.7 | 72 | 1,353 | 3.4 | 25 | 140 | 5,369 | 13.4 |
| 1992 | 5 | 360 | 3,362 | 9.3 | 66 | 1,766 | 4.9 | 34 | - | 5,128 | 14.2 |

- 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 at SPC.
- 2. All statistics for 1989—1992 were determined from logbook data held at SPC. They represent vessels which fished in the waters of the Federated States of Micronesia and Papua New Guinea. Catches by vessels operating under the Caroline Fishing Company, an Australia Federated States of Micronesia joint-venture, are included. Coverage of the Australian fleet outside the AFZ by logsheet data held at SPC is unknown.

Table 34. Catch statistics for purse seine vessels of the Federated States of Micronesia

| | VESSELS DAYS ——SKIPJACK—— | | | | Y | ELLOWFIN | | OTHER | TOTAL | | |
|------|---------------------------|--------|--------|------|----------|----------|----------|-------|-------|-------|------|
| YEAR | ACTIVE | FISHED | MT | CPUE | % | MT | CPUE | % | MT | MT | CPUE |
| | | | ······ | | <u> </u> | <u> </u> | <u> </u> | | | | |
| 1991 | 3 | 454 | 4,366 | 9.6 | 79 | 1,185 | 2.6 | 21 | • • • | 5,551 | 12.2 |
| 1992 | 4 | 802 | 7,255 | 9.0 | 76 | 2,301 | 2.9 | 24 | • • • | 9,556 | 11.9 |

Units: CPUE, metric tonnes per day

1. All statistics were provided by Yap Fishing Corporation (McCoy, personal communication, April 1993).

Table 35. Catch statistics for purse seine vessels of Indonesia licensed to fish in the waters of SPC member countries

| | VESSELS | DAYS | SI | (IPJACK- | | YI | ELLOWFI | V | —OTHER— | ——тот | AL |
|------|---------|--------|--------|----------|-----|-------|---------|-------|---------|--------|------|
| YEAR | ACTIVE | FISHED | 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 | 80 | 2,543 | 3.0 | 20 | | 12,856 | 15.6 |
| 1990 | 3 | •• | • • • | | ••• | ••• | | • • • | | ••• | |

- 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 36. Catch statistics for purse seiners of Japan

| | VESSELS | DAYS | sı | (IPJACK- | | YI | ELLOWFIN | | OTHER- | тот | AL |
|------|---------|--------|---------|----------|-----------|--------|----------|----|--------|---------|------|
| YEAR | ACTIVE | FISHED | MT | CPUE | <u></u> % | MT | CPUE | % | MT | MT | CPUE |
| 1967 | | 8 | 34 | 4.3 | 51 | 33 | 4.1 | 49 | - | 67 | 8.4 |
| 1968 | • • | 51 | 140 | 2.7 | 39 | 217 | 4.3 | 61 | 1 | 358 | 7.0 |
| 1969 | | 17 | 77 | 4.5 | 96 | 3 | 0.2 | 4 | - | 80 | 4.7 |
| 1970 | | 78 | 333 | 4.3 | 73 | 123 | 1.6 | 27 | - | 456 | 5.8 |
| 1971 | | 101 | 667 | 6.6 | 75 | 192 | 1.9 | 21 | 35 | 894 | 8.9 |
| 1972 | | 54 | 539 | 10.0 | 69 | 188 | 3.5 | 24 | 55 | 782 | 14.5 |
| 1973 | 6 | 209 | 1,602 | 7.7 | 70 | 504 | 2.4 | 22 | 177 | 2,283 | 10.9 |
| 1974 | 7 | 382 | 2,436 | 6.4 | 72 | 743 | 1.9 | 22 | 213 | 3,392 | 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 | 291 | 13,948 | 16.6 |
| 1977 | 13 | 960 | 13,434 | 14.0 | 71 | 4,956 | 5.2 | 26 | 483 | 18,873 | 19.7 |
| 1978 | 16 | 1,445 | 23,249 | 16.1 | 74 | 7,654 | 5.3 | 24 | 447 | 31,350 | 21.7 |
| 1979 | 16 | 1,749 | 24,875 | 14.2 | 68 | 10,671 | 6.1 | 29 | 804 | 36,350 | 20.8 |
| 1980 | 18 | 1,548 | 30,571 | 19.7 | 75 | 9,385 | 6.1 | 23 | 626 | 40,582 | 26.2 |
| 1981 | 28 | 2,743 | 36,735 | 13.4 | 62 | 21,528 | 7.8 | 36 | 994 | 59,257 | 21.6 |
| 1982 | 39 | 4,091 | 70,000 | 17.1 | 70 | 28,777 | 7.0 | 29 | 1,607 | 100,384 | 24.5 |
| 1983 | 41 | 6,585 | 109,830 | 16.7 | 80 | 26,191 | 4.0 | 19 | 1,451 | 137,472 | 20.9 |
| 1984 | 48 | 7,263 | 110,052 | 15.2 | 78 | 30,836 | 4.2 | 22 | 521 | 141,409 | 19.5 |
| 1985 | 40 | 7,210 | 103,585 | 14.4 | 74 | 34,724 | 4.8 | 25 | 834 | 139,143 | 19.3 |
| 1986 | 40 | 6,303 | 108,846 | 17.3 | 73 | 39,724 | 6.3 | 27 | 607 | 149,177 | 23.7 |
| 1987 | 37 | 6,451 | 88,442 | 13.7 | 68 | 40,262 | 6.2 | 31 | 1,236 | 129,940 | 20.1 |
| 1988 | 40 | 7,071 | 140,573 | 19.9 | 84 | 25,485 | 3.6 | 15 | 507 | 166,565 | 23.6 |
| 1989 | 36 | 7,190 | 104,388 | 14.5 | 75 | 33,409 | 4.6 | 24 | 1,013 | 138,810 | 19.3 |
| 1990 | 38 | 6,665 | 126,424 | 19.0 | 79 | 31,137 | 4.7 | 20 | 1,899 | 159,460 | 23.9 |
| 1991 | 44 | 6,356 | 124,536 | 19.6 | 73 | 44,362 | 7.0 | 26 | 1,227 | 170,125 | 26.8 |
| 1992 | 34 | •••• | 123,350 | | 67 | 55,232 | | 30 | 5,523 | 184,105 | |

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. Days fished, catch statistics and CPUE for 1967—1991 were determined from daily logbook data aggregated by 1°x1° by month, provided by the National Research Institute of Far Seas Fisheries, Shimizu, Japan.
- 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.
- 4. The number of vessels active and the total catch for 1992 were provided by an industry source. The species composition for 1992 was determined from logbook data held at SPC.

Table 37. Catch statistics for purse seiners of Korea

| | VESSELS | DAYS | SI | (IPJACK- | | YI | ELLOWFIN | | -OTHER- | ——тот. | AL |
|------|---------|--------|---------|----------|-----|--------|----------|----|---------|----------------|---------|
| YEAR | ACTIVE | FISHED | 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 | | 33 | | 60,000 | |
| 1988 | 23 | | 62,056 | | 79 | 16,496 | | 21 | | 78, 552 | |
| 1989 | 30 | • • • | 81,028 | • • • | 70 | 34,726 | • • • | 30 | *** | 115,754 | |
| 1990 | | | 131,741 | | 76 | 41,602 | | 24 | | 173,343 | |
| 1991 | 37 | | 201,386 | | 80 | 50,347 | | 20 | ••• | 251,733 | |
| 1992 | 36 | | 161,261 | | 80 | 40,315 | | 20 | ••• | 201,576 | |

- 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 number of vessels active and the total catch for 1991—1992 were provided by an industry source.
- 4. The species composition for 1991 was determined from logbook data held at SPC. The species composition for 1991, determined from logbook data held at SPC, was used as a preliminary estimate of the species composition for 1992.

Table 38. Catch statistics for purse seiners of Mexico

| Name and Address of the Owner, where the Owner, which is the Owner, where the Owner, which is the Own | VESSELS | DAYS | SI | | | | ELLOWFIN | | —OTHER— | ——тот/ | |
|--|---------|--------|-------|------|----|-------|----------|----|---------|--------|------|
| YEAR | ACTIVE | FISHED | MT | CPUE | % | MT | CPUE | % | MT | MT | CPUE |
| 1984 | 2 | 167 | 2,017 | 12.1 | 63 | 1,174 | 7.0 | 37 | ••• | 3,191 | 19.1 |

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

Table 39. Catch statistics for purse seiners of New Zealand

| | VESSELS | DAYS | SI | (IPJACK- | | YI | ELLOWFIN | | OTHER | TOT/ | AL |
|------|---------|--------|-------|----------|----|-----|----------|-----|-------|-------|------|
| YEAR | ACTIVE | FISHED | MT | CPUE | % | MT | CPUE | % | MT | MT | CPUE |
| 1983 | 7 | 277 | 5,581 | 20.1 | 96 | 239 | | 4 | 5 | 5,825 | 21.0 |
| 1984 | 5 | 226 | 3,999 | 17.7 | 91 | 231 | | 5 | 159 | 4,389 | 19.4 |
| 1985 | 5 | 164 | 2,289 | 14.0 | 78 | 170 | | 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 | | | | 429 | 4,607 | 29.3 |
| 1988 | 4 | 166 | 2,907 | 17.5 | 79 | | | | 565 | 3,472 | 20.9 |
| 1989 | 5 | *** | 1,778 | • • • | 70 | ••• | • • • | • • | ••• | 1,778 | ••• |
| 1990 | 5 | | 4,879 | | 76 | | | •• | | 4,879 | |
| 1991 | 5 | | 6,720 | | 80 | | | | • • • | 6,720 | |
| 1992 | 5 | | 6,720 | | 80 | | | | ••• | 6,720 | |

- 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 41.
- 3. Statistics for 1991 were used as preliminary estimates for 1992.

Table 40. Catch statistics for purse seiners of the Philippines

| | VESSELS | DAYS | SI | KIPJACK- | | YI | ELLOWFIN | | OTHER | ——тот | AL | |
|--------------|---------|--------|--------|----------|------------|-------|----------|----|-------|--------|------|--|
| YEAR | ACTIVE | FISHED | MT | CPUE | % | тм | CPUE | % | MT | MT | CPUE | |
| 1000 | 4 | 440 | 744 | | F0 | / 7E | | 74 | 00 | 4 774 | 44 7 | |
| 1982 1983 | 0 | 118 | 766 | 6.5 | 58 | 475 | 4.0 | 36 | 90 | 1,331 | 11.3 | |
| | | - | | | , <u> </u> | 0/4 | | | - | 4 (04 | | |
| 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 | 5.4 | |
| 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 | 79 | 3,419 | 4.2 | 29 | 114 | 11,889 | 14.6 | |
| 1989 | 14 | 1,671 | 16,668 | 10.0 | 70 | 7,590 | 4.5 | 30 | 995 | 25,253 | 15.1 | |
| 1990 | 13 | 1,811 | 16,510 | 9.1 | 76 | 7,317 | 4.0 | 30 | 255 | 24,082 | 13.3 | |
| 1991 | 15 | 1,814 | 16,889 | 9.3 | 80 | 8,174 | 4.5 | 32 | 354 | 25,417 | 14.0 | |
| 1992 | •• | ••• | 16,889 | ••• | 80 | 8,174 | ••• | 32 | 354 | 25,417 | ••• | |

- 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.
- 3. Catches for 1991 were used as preliminary estimates for 1992.

Table 41. Catch statistics for purse seiners of Solomon Islands

| | VESSELS | SELS DAYSSKIPJACK | | | ——ҮІ | ELLOWFIN | | OTHER- | tot/ | AL | |
|------|---------|-------------------|-------|------|------|----------|------|--------|-------|--------|------|
| YEAR | ACTIVE | FISHED | MT | CPUE | % | мт | CPUE | % | MT | MT | CPUE |
| 1980 | 1 | 60 | 497 | 8.3 | 52 | 449 | 7.5 | 47 | 16 | 962 | 16.0 |
| 1981 | i | 129 | 1,486 | 11.5 | 52 | 1,342 | 10.4 | 47 | 45 | 2,873 | 22.3 |
| 1982 | i | 127 | 1,598 | 12.6 | 52 | 1,444 | 11.4 | 47 | 49 | 3,091 | 24.3 |
| 1983 | i | 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 | 13.5 | 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 | 18.5 | 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 | 38.2 |
| 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 |
| 1992 | 3 | 402 | 5,993 | 14.9 | 54 | 5,093 | 12.7 | 46 | 93 | 11,179 | 27.8 |

- 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—1992 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—1992.

Table 42. Catch statistics for purse seiners of the Soviet Union

| | VESSELS ACTIVE | DAYS | SI | KIPJACK- | | YI | ELLOWFIN | | OTHER | ——тот | AL |
|------|-------------------|--------|-------|----------|-----|-------|----------|----|-------|-------|-------|
| YEAR | | FISHED | MT | CPUE | % | MT | CPUE | % | MT | MT | CPUE |
| 1985 | 5 | 344 | 1,541 | 4.5 | 177 | 570 | 1.7 | 27 | | 2,111 | 6.1 |
| 1986 | 8 | 593 | 3.743 | 6.3 | 134 | 432 | 0.7 | 10 | 16 | 4,191 | 7.1 |
| 1987 | 5 | 738 | 5,614 | 7.6 | 59 | 3,381 | 4.6 | 38 | 15 | 9,010 | 12.2 |
| 1988 | 5 | 568 | 5,339 | 9.4 | 79 | 850 | 1.5 | 14 | | 6,189 | 10.9 |
| 1989 | 5 | 385 | 3,400 | 8.8 | 70 | 1,535 | 4.0 | 31 | | 4,935 | 12.8 |
| 1990 | 5 | 318 | 1,505 | 4.7 | 76 | 621 | 2.0 | 29 | 41 | 2,167 | 6.8 |
| 1991 | 4 | 218 | 2.601 | 11.9 | 80 | 1,114 | 5.1 | 30 | | 3.715 | 17.0 |
| 1992 | | ••• | 2,601 | ••• | | 1,114 | ••• | •• | ••• | 3,715 | • • • |

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.
- 2. Catches for 1991 were used as preliminary estimates for 1992.

Table 43. Catch statistics for purse seiners of Taiwan

| YEAR | VESSELS | DAYS | SI | (IPJACK- | | Y1 | YELLOWFIN | | OTHER | TOT | AL |
|------|---------|--------|---------|----------|----|--------|-----------|----|-------|---------|-------|
| | ACTIVE | FISHED | MT | CPUE | % | MT | CPUE | % | MT | 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 | |
| 1992 | 45 | | 162,800 | | 74 | 55,000 | | 25 | 2,200 | 220,000 | |

- 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.
- 4. The total catch for 1992 was provided by an industry source. The number of vessels active and the species composition for 1992 were determined from logbook data held at SPC.

Table 44. Catch statistics for purse seiners of the United States

| | VESSELS | DAYS | SI | KIPJACK- | | Y | LLOWFIN | | -OTHER- | тот | AL |
|------|------------|--------|---------|----------|----|--------|---------|----|---------|---------|-------|
| YEAR | ACTIVE | FISHED | MT | CPUE | % | MT | CPUE | % | MT | MT | CPUE |
| 1976 | 3 | ••• | 500 | | 71 | 200 | | 29 | | 700 | |
| 1977 | 1 | • • • | 700 | ••• | 78 | 200 | • • • • | 22 | ••• | 900 | |
| 1978 | 2 | ••• | 800 | | 80 | 200 | | 20 | ••• | 1,000 | |
| 1979 | 8 | ••• | 8,000 | ••• | 93 | 600 | ••• | 7 | 20 | 8,620 | • • • |
| 1980 | 14 | | 9,900 | | 90 | 1,100 | | 10 | | 11,000 | |
| 1981 | 18 | 2,458 | 17,993 | 7.3 | 49 | 18,405 | 7.5 | 51 | | 36,398 | 14.8 |
| 1982 | 29 | 4,447 | 51,622 | 11.6 | 62 | 32,006 | 7.2 | 38 | | 83,628 | 18.8 |
| 1983 | 39 | 8,292 | 113,576 | 13.7 | 66 | 57,843 | 7.0 | 34 | • • • | 171,419 | 20.7 |
| 1984 | 52 | 10,459 | 116,971 | 11.2 | 68 | 54,985 | 5.3 | 32 | | 171,956 | 16.4 |
| 1985 | 39 | | 87,700 | 12.8 | 75 | 29,012 | 3.8 | 25 | | 116,712 | 16.6 |
| 1986 | 36 | | 93,500 | 17.9 | 72 | 36,608 | 8.4 | 28 | | 130,108 | 26.3 |
| 1987 | 3 5 | | 79,800 | 11.6 | 55 | 66,359 | 12.0 | 45 | • • • | 146,159 | 23.6 |
| 1988 | 32 | | 99,400 | 14.8 | 80 | 25,211 | 3.1 | 20 | • • • • | 124,611 | 17.9 |
| 1989 | 36 | 6,629 | 92,210 | 13.9 | 66 | 46,794 | 7.1 | 33 | 861 | 139,865 | 21. |
| 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 |
| 1992 | 45 | 6,876 | 148,923 | 21.7 | 77 | 44,201 | 5.7 | 23 | 832 | 193,956 | 28.2 |

- 1. Catch estimates for 1976—1980 and 1985—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—1984 and the number of vessels during 1985 were determined from data aggregated by 5°x5° by month provided by the American Tunaboat Association.
- 3. Catch estimates for 1989—1992, CPUE estimates for 1976—1980 and 1985—1992, and the numbers of vessels active for 1988—1992 were determined from logbook data held at SPC.

Table 45. Catches of albacore by trollers of Australia

| | VESSELS | DAYS | ALBACORE | | |
|---------|---------|--------|----------|------|--|
| SEASON | ACTIVE | FISHED | MT | CPUE | |
| 1980/81 | • • | | 50 | | |
| 1981/82 | | | 50 | | |
| 1982/83 | | | 50 | | |
| 1983/84 | • • | | 50 | | |
| 1984/85 | | | 50 | | |
| 1985/86 | | | 50 | | |
| 1986/87 | • • | | 50 | | |
| 1987/88 | • • | | 50 | | |
| 1988/89 | | | 50 | | |
| 1989/90 | | | 50 | | |
| 1990/91 | • • | | 50 | | |
| 1991/92 | 39 | | 100 | | |

SOURCES

- 1. All statistics were presented to the Fifth Meeting of the South Pacific Albacore Research Group (South Pacific Commission, in press).
- 2. The Australian troll fleet during the 1991/92 season included 25 vessels targeting southern bluefin off the east coast of Tasmania, an estimated 12 multi-purpose vessels operating off the south-east coast of New South Wales and two troll vessels targeting albacore in the coastal waters from the south-east coast of New South Wales to the south-east of Tasmania.

Table 46. Catches of albacore by trollers of Canada and Fiji

| | VESSELS | DAYS | ALBA | |
|---------|---------|--------|------|-------|
| SEASON | ACTIVE | FISHED | MT | CPUE |
| 1987/88 | 1 | | 140 | |
| 1988/89 | 2 | ••• | 162 | |
| 1989/90 | 2 | | _ | |
| 1990/91 | 3 | • • • | 103 | • • • |
| 1991/92 | •• | ••• | 103 | ••• |

- 1. Catch estimates were taken from Coan and Resnick (1991), wherein catches for Canada and Fiji were combined.
- 2. The 1990/91 catch was used as a preliminary estimate of the 1991/92 catch.
- 3. The numbers of Canadian vessels during the 1988/89—1990/91 seasons were 2,2 and 1 respectively. The numbers of Fijian vessels during the 1987/88—1991/92 seasons were 1, 0, 0, 2 and 2 respectively (South Pacific Commission, in press).

Table 47. Catches of albacore by trollers of French Polynesia

| | VESSELS | DAYS | ALBACORE | | |
|---------|---------|--------|----------|-------|--|
| SEASON | ACTIVE | FISHED | MT | CPUE | |
| 1988/89 | 2 | | 90 | | |
| 1989/90 | 3 | ••• | 359 | • • • | |
| 1990/91 | 4 | | 326 | | |
| 1991/92 | 4 | | 72 | | |

- 1. All statistics for the 1988/89—1989/90 seasons were provided by the United States National Marine Fisheries Service (South Pacific Commission, in press).
- 2. All statistics for the 1990/91—1991/92 seasons were provided by Établissement pour la valorisation des activités aquacoles et maritimes (EVAAM) (Yen, personal communication, May 1992; South Pacific Commission, in press).

Table 48. Catches of albacore by trollers of New Zealand

| | VESSELS | DAYS | | CORE |
|---------|---|--------|-------|-------|
| SEASON | ACTIVE | FISHED | 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 | 229 | ••• | 2,464 | 174 |
| 1991/92 | 247 | ••• | 3,856 | • • • |

Units: CPUE, kilogrammes per day

- 1. All statistics were provided by the Ministry of Agriculture and Fisheries (McKoy, personal communication, June 1990; Murray 1993; South Pacific Commission, in press).
- 2. The catch for the 1991/92 season includes a provisional estimate of the catch in the Sub-Tropical Convergence Zone of 700 mt (South Pacific Commission, in press).
- 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 49. Catches of albacore by trollers of the United States

| | | W | | |
|---|--------------------------------------|----------------|--|---|
| YEAR | VESSELS ACTIVE | DAYS FISHED | ALBAC | ORE— CPUE |
| 1986 1987 1988 1989 1990 1991 1992 | 2 7 35 38 38 58 58 | | 89 859 3,339 3,563 3,758 5,494 | |
| SEASON | VESSELS ACTIVE | DAYS FISHED | ALBAC MT | ORE CPUE |
| 1985/86 1986/87 1987/88 1988/89 1989/90 1990/91 1991/92 | 2 7 35 38 38 58 58 | | 89 751 3,253 3,068 3,898 5,540 3,016 | 117 339 238 236 262 195 132 |

Units: CPUE, fish per day

1. All statistics were provided by the United States National Marine Fisheries Service (Sakagawa, personal communication, June 1991; Coan and Resnick, 1991; National Marine Fisheries Service, 1993; South Pacific Commission, in press).

Table 50. Catches (mt) from domestic fisheries in Indonesia

| YEAR | ВВ | HAN | LL | PS | UNCL | TOTAL |
|--------------|-----------------|-------|--------------|--------|--------|------------------|
| SKIPJAC | ck | | | | | |
| 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 <i>,7</i> 35 | _ | _ | 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 | • • • | | | | | 116,721 |
| 1992 | • • • | ••• | ••• | • • • | ••• | 123,607 |
| YELLOWF | IN | | | | | |
| 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 | 2 724 | E 43/ | 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 1992 | • • • • | ••• | ••• | • • • | • • • | 69,724 73,837 |
| | | | | | | |

KEY: BB pole-and-line; HAN handline; LL longline; PS purse seine; UNCL unclassified

^{1.} Statistics for 1970—1990 were taken from Indo-Pacific Tuna Programme (1991a, 1991b) for area F71.

^{2.} Estimates for 1991—1992 were provided by the Directorate General of Fisheries (Muranto, personal communication, May 1993). Estimates of the catch of yellowfin for 1991—1992 may include other tunas.

Table 51. Catches (mt) from domestic fisheries in the Philippines

| YEAR | BAG | GILL | ноок | LL | PS | RIN | SEN | UNCL | TOTAL |
|----------|-------|--------|--------------|---------|-----------------|----------------|-------|--------|----------------|
| SKIPJACK | (| | | | | | | | |
| 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 | 31,65 |
| 1976 | 150 | 10 | _ | _ | 4,518 | 4,972 | 165 | 19,359 | 29,17 |
| 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 | 50,79 |
| 1983 | 192 | 1,980 | 9,816 | - | 39,971 | _ | 80 | 5,112 | 57,15 |
| 1984 | 63 | 1,221 | 11,481 | 652 | 29,976 | _ | 104 | 1,174 | 44,67 |
| 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 | 002 | 2,000 | 14,021 | 2,017 | 37,123 | 11,013 | - | 55,940 | 55,940 |
| 1989 | _ | _ | | _ | _ | | _ | 64,654 | 64,654 |
| | 4 70/ | 174 | 1 200 | 114 | 49,555 | 17,558 | _ | 29,800 | 99,70 |
| 1990 | 1,304 | | 1,200 192 | 612 | 57,838 | 13,614 | - | 30,058 | 102,394 |
| 1991 | 79 | 1 | | | - | 13,014 | | 30,030 | 104,93 |
| 1992 | • • • | ••• | ••• | | ••• | ••• | ••• | ••• | 104,33. |
| YELLOWF | IN | | | | | | | | |
| 1970 | _ | _ | _ | - | - | - | _ | 32,000 | 32,00 |
| 1971 | _ | - | _ | - | - | - | _ | 35,800 | 35,80 |
| 1972 | _ | _ | | - | - | _ | - | 37,200 | 37,20 |
| 1973 | _ | - | _ | - | - | - | | 44,500 | 44,50 |
| 1974 | - | - | - | - | - | _ | _ | 51,732 | 51,73 |
| 1975 | - | - | | <u></u> | | - - | | 52,793 | 52,79 |
| 1976 | 270 | 9 | 161 | 1,232 | 5,902 | 1,854 | 2,727 | 32,323 | 44,47 |
| 1977 | 407 | - | 1,407 | | 7,821 | 2,552 | 71 | 50,801 | 63,05 |
| 1978 | 831 | 6,431 | 32,607 | 874 | 4,188 | 1,019 | 849 | 230 | 47,02 |
| 1979 | 1,081 | 2,027 | 32,887 | _ | 12,301 | - | 647 | 281 | 49,22 |
| 1980 | 651 | 2,301 | 32,108 | · - | 12,463 | | 68 | 432 | 48,02 |
| 1981 | 508 | 2,655 | 32,800 | 1,,073 | 14,546 | 3,636 | 5 | 953 | 56,17 |
| 1982 | 122 | 1,386 | 29,738 | 1,897 | 16,347 | 1,329 | 48 | 1,055 | 51,92 |
| 1983 | 323 | 1,260 | 35,878 | - | 20,779 | _ | 135 | 3,661 | 62,03 |
| 1984 | 752 | 2,161 | 31,005 | 1,284 | 22,989 | | 84 | 649 | 58,92 |
| 1985 | 1,333 | 2,040 | 35,505 | 1,819 | 16, <i>7</i> 53 | 4,838 | 680 | 1,325 | 64,29 |
| 1986 | 350 | 2,137 | 36,188 | 2,411 | 12,671 | 4,920 | 9 | 824 | 59,51 |
| 1987 | 423 | 2,161 | 26,408 | 3,774 | 15,171 | 2,916 | 91 | 866 | 51,81 |
| 1988 | - | - | · | _ | _ | _ | _ | 57,060 | 57,06 |
| 1989 | _ | _ | - | _ | - | - | _ | 62,146 | 62,14 |
| 1990 | 694 | 811 | 2,746 | 214 | 21,571 | 8,192 | _ | 46,874 | 81,10 |
| 1991 | 13 | 21 | 22,872 | 255 | 23,981 | 2,977 | - | 45,475 | 95,59 |
| 1992 | ••• | ••• | • | | ••• | • • • | | | 95 <i>,7</i> 3 |
| | | | | | | | | | |

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) and, for 1991, from Ardill (personal communication to Perotti, Food and Agriculture Organization of the United Nations, January 1993) for area F71; these statistics were compiled by the Bureau of Agricultural Statistics.

Table 52. Quality of estimates of annual catches presented in Tables 1—51

| TABLE | FLEET | QUALITY OF ESTIMATES OF ANNUAL CATCHES |
|-------|---|--|
| 1 | JAPAN, 1922-1938 | COVERAGE UNKNOWN |
| 2 | DRIFTNET, JAPAN | GOOD |
| 3 | DRIFTNET, KOREA | GOOD |
| 4 | DRIFTNET, TAIWAN | GOOD |
| 5 | LONGLINE, AUSTRALIA | 1987-1988 POOR, 1989-1992 GOOD |
| 6 | LONGLINE, FEDERATED STATES OF MICRONESIA | 1991 COVERAGE UNKNOWN, 1992 POOR |
| 7 | LONGLINE, FIJI | 1989-1990 COVERAGE UNKNOWN, 1991-1992 GOOD |
| 8 | LONGLINE, FRENCH POLYNESIA, DEEP-WATER | GOOD |
| 9 | LONGLINE, FRENCH POLYNESIA, COASTAL | POOR |
| 10 | LONGLINE, JAPAN, DISTANT-WATER | 1952-1961 POOR, 1962-1990 GOOD, 1991-1992 POOR |
| 11 | LONGLINE, JAPAN, LOCALLY BASED VESSELS | 1987-1989 POOR, 1990 GOOD, 1991-1992 POOR |
| 12 | LONGLINE, KOREA | 1958–1992 POOR |
| 13 | LONGLINE, MARSHALL ISLANDS | GOOD |
| 14 | LONGLINE, NEW CALEDONIA | GOOD |
| 15 | LONGLINE, NEW ZEALAND | ALBACORE GOOD, OTHER SPECIES POOR |
| 16 | LONGLINE, SOLOMON ISLANDS | GOOD |
| 17 | LONGLINE, TAIWAN, LESS THAN 100 GRT | POOR |
| 18 | LONGLINE, TAIWAN, GREATER THAN 100 GRT | 1964-1966 NO DATA, 1967-1990 GOOD, 1991-1992 POOR |
| 19 | LONGLINE, TONGA | G000 |
| 20 | LONGLINE, UNITED STATES | GOOD |
| 21 | POLE-AND-LINE, AUSTRALIA | POOR |
| 22 | POLE-AND-LINE, FIJI | GOOD |
| 23 | POLE-AND-LINE, FRENCH POLYNESIA | GOOD |
| 24 | POLE-AND-LINE, JAPAN | 1972-1990 GOOD, 1991-1992 POOR |
| 25 | POLE-AND-LINE, KIRIBATI | 1979–1980 POOR, 1981–1992 GOOD |
| 26 | POLE-AND-LINE, NEW CALEDONIA | GOOD |
| 27 | POLE-AND-LINE, NEW ZEALAND | COVERAGE UNKNOWN |
| 28 | POLE-AND-LINE, PALAU | GOOD |
| 29 | POLE-AND-LINE, PAPUA NEW GUINEA | GOOD |
| 30 | POLE-AND-LINE, SOLOMON ISLANDS | GOOD |
| 31 | POLE-AND-LINE, TUVALU | G000 |
| 32 | PURSE SEINE, AUSTRALIA, INSIDE AFZ | 1974-1989 COVERAGE UNKNOWN, 1990 GOOD, 1991 POOR, 1992 GOO |
| 33 | PURSE SEINE, AUSTRALIA, OUTSIDE AFZ | COVERAGE UNKNOWN |
| 34 | PURSE SEINE, FEDERATED STATES OF MICRONESIA | GOOD |
| 35 | PURSE SEINE, INDONESIA | 1984-1987 POOR, 1988 GOOD, 1989-1990 POOR |
| 36 | PURSE SEINE, JAPAN | 1973-1992 GOOD |
| 37 | PURSE SEINE, KOREA | GOOD |
| 38 | PURSE SEINE, MEXICO | COVERAGE UNKNOWN |
| 39 | PURSE SEINE, NEW ZEALAND | 1983-1991 GOOD, 1992 POOR |
| 40 | PURSE SEINE, PHILIPPINES | 1982-1984 POOR, 1985-1987 GOOD, 1988-1992 POOR |
| 41 | PURSE SEINE, SOLOMON ISLANDS | GOOD |
| 42 | PURSE SEINE, SOVIET UNION | 1985-1991 GOOD, 1992 POOR |
| 43 | PURSE SEINE, TAIWAN | POOR |
| 44 | PURSE SEINE, UNITED STATES | 1976-1980, 1985-1988 POOR; 1981-1984, 1989-1992 GOOD |
| 45 | TROLL, AUSTRALIA | POOR |
| 46 | TROLL, CANADA AND FIJI | 1987/88-1990/91 GOOD, 1991/92 POOR |
| 47 | TROLL, FRENCH POLYNESIA | GOOD |
| 48 | TROLL, NEW ZEALAND | GOOD |
| 49 | TROLL, UNITED STATES | GOOD |
| 50 | INDONESIA | COVERAGE UNKNOWN |
| 51 | PHILIPPINES | COVERAGE UNKNOWN |

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

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

Table 54. 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 | 33,227 | 28,860 | - | 51,382 | 113,469 |
| 1963 | 22,139 | 26,849 | _ | 47,902 | 96,890 |
| 1964 | 17,347 | 19,630 | - | 39,767 | 76,744 |
| 1965 | 19,003 | 22,581 | | 42,047 | 83,631 |
| 1966 | 29,804 | 20,581 | - | 48,253 | 98,638 |
| 1967 | 42,948 | 19,596 | | 27,285 | 89,829 |
| 1968 | 33,241 | 16,213 | - | 37,378 | 86,832 |
| 1969 | 25,970 | 20,513 | ~ | 36,528 | 83,011 |
| 1970 | 30,220 | 16,640 | - | 32,222 | 79,082 |
| 1971 | 37,191 | 22,497 | - | 39,713 | 99,401 |
| 1972 | 40,298 | 32,408 | - | 47,661 | 120,367 |
| 1973 | 45,830 | 27,584 | _ | 48,443 | 121,857 |
| 1974 | 31,311 | 37,703 | - | 48,034 | 117,048 |
| 1975 | 23,604 | 34,748 | _ | 37,341 | 95,693 |
| 1976 | 30,058 | 43,921 | _ | 47,230 | 121,209 |
| 1977 | 31,200 | 42,478 | - | 58,418 | 132,096 |
| 1978 | 28,909 | 30,416 | | 73,976 | 133,301 |
| 1979 | 24,506 | 39,842 | - | 67,209 | 131,557 |
| 1980 | 39,233 | 42,123 | - | 85,705 | 167,061 |
| 1981 | 32,801 | 30,431 | | 60,316 | 123,548 |
| 1982 | 29,080 | 31,918 | _ | 51,171 | 112,169 |
| 1983 | 18,322 | 27,707 | _ | 51,338 | 97,367 |
| 1984 | 16,765 | 32,641 | - | 40,596 | 90,002 |
| 1985 | 25,785 | 41,357 | _ | 45,762 | 112,904 |
| 1986 | 31,517 | 40,232 | _ | 37,471 | 109,220 |
| 1987 | 22,470 | 44,744 | | 37,336 | 104,550 |
| 1988 | 25,216 | 36,988 | _ | 42,153 | 104,357 |
| 1989 | 17,836 | 35,237 | _ | 33,321 | 86,394 |
| 1990 | 16,803 | 56,245 | _ | 38,823 | 111,871 |
| 1991 | 15,189 | 52,379 | _ | 47,507 | 115,075 |
| 1992 | 15,350 | 52,665 | _ | 46,012 | 114,027 |

Table 55. 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 | _ | - | 83,790 | 2,789 | 86,579 |
| 1973 | _ | - | 152,277 | 2,630 | 154,907 |
| 1974 | - | - | 197,907 | 3,142 | 201,049 |
| 1975 | _ | - | 129,795 | 4,144 | 133,939 |
| 1976 | - | _ | 156,491 | 11,911 | 168,402 |
| 1977 | _ | _ | 185,947 | 9,716 | 195,663 |
| 1978 | _ | _ | 204,798 | 5,804 | 210,602 |
| 1979 | - | _ | 153,118 | 5,529 | 158,647 |
| 1980 | _ | _ | 169,725 | 6,765 | 176,490 |
| 1981 | - | _ | 193,103 | 10,517 | 203,620 |
| 1982 | - | - | 134,435 | 4,992 | 139,427 |
| 1983 | _ | ~ | 158, 185 | 3,511 | 161,696 |
| 1984 | _ | - | 167,225 | 3,801 | 171,026 |
| 1985 | ~ | - | 130,888 | 7,126 | 138,014 |
| 1986 | _ | | 148,644 | 3,434 | 152,078 |
| 1987 | _ | - | 117,622 | 4,838 | 122,460 |
| 1988 | - | - | 139,829 | 4,400 | 144,229 |
| 1989 | _ | | 129,839 | 4,265 | 134,104 |
| 1990 | ~ | - | 77,707 | 4,429 | 82,136 |
| 1991 | _ | | 131,860 | 2,537 | 134,397 |
| 1992 | _ | - | 72,906 | 2,552 | 75,458 |

Table 56. Annual catches (mt) by purse seiners in the SPC statistical area

| TOTAL | YELLOWFIN' | SKIPJACK | BIGEYE | ALBACORE | YEAR |
|---------|------------|----------|--------|----------|------|
| 6 | 33 | 34 | _ | _ | 1967 |
| 357 | 217 | 140 | _ | - | 1968 |
| 80 | 3 | 77 | - | - | 1969 |
| 456 | 123 | 333 | _ | _ | 1970 |
| 859 | 192 | 667 | _ | _ | 1971 |
| 727 | 188 | 539 | - | _ | 1972 |
| 2,10 | 504 | 1,602 | _ | _ | 1973 |
| 5,079 | 743 | 4,336 | _ | _ | 1974 |
| 6,247 | 1,664 | 4,583 | _ | _ | 1975 |
| 14,35 | 3,504 | 10,853 | _ | _ | 1976 |
| 19,29 | 5,156 | 14,134 | | _ | 1977 |
| 31,90 | 7,854 | 24,049 | _ | _ | 1978 |
| 44,140 | 11,271 | 32,875 | - | _ | 1979 |
| 52,40 | 10,934 | 41,468 | _ | _ | 1980 |
| 98,043 | 42,055 | 55,988 | _ | _ | 1981 |
| 196,930 | 64,274 | 132,656 | _ | | 1982 |
| 328,98 | 81,420 | 247,561 | _ | _ | 1983 |
| 362,37 | 84,524 | 277,853 | _ | - | 1984 |
| 344,06 | 76,757 | 267,307 | _ | _ | 1985 |
| 378,120 | 90,085 | 288,041 | | _ | 1986 |
| 436,56 | 146,648 | 289,919 | _ | | 1987 |
| 489,92 | 86,794 | 403,129 | _ | - | 1988 |
| 546,84 | 147,022 | 399,825 | _ | _ | 1989 |
| 667,54 | 166,283 | 501,259 | - | _ | 1990 |
| 870,29 | 185,521 | 684,777 | _ | | 1991 |
| 852,80 | 213, 196 | 639,607 | _ | - | 1992 |

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

Table 57. 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 | 2,135 | | _ | - | 2,135 |
| 1981/82 | 2,484 | _ | _ | _ | 2,484 |
| 1982/83 | 794 | - | _ | - | 794 |
| 1983/84 | 2,823 | _ | _ | - | 2,823 |
| 1984/85 | 3,303 | _ | _ | _ | 3,303 |
| 1985/86 | 2,050 | - | - | _ | 2,050 |
| 1986/87 | 2,136 | - | _ | _ | 2,136 |
| 1987/88 | 3,859 | _ | - | - | 3,859 |
| 1988/89 | 9,026 | _ | - | - | 9,026 |
| 1989/90 | 6,692 | _ | | _ | 6,692 |
| 1990/91 | 8,437 | _ | - | | 8,437 |
| 1991/92 | 7,147 | _ | _ | - | 7,147 |

Table 58. Annual catches (mt) in the SPC statistical area by species

| YEAR | ALBACORE ¹ | 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 | - | | <u></u> | 9,764 |
| 1958 | 21,704 | | | _ | 21,704 |
| 1959 | 19,800 | - | - | _ | 19,800 |
| 1960 | 24,366 | _ | _ | _ | 24,366 |
| 1961 | 25,958 | _ | _ | _ | 25,958 |
| 1962 | 33,227 | 28,860 | _ | 51,382 | 113,469 |
| 1963 | 22,139 | 26,849 | - | 47,902 | 96,890 |
| 1964 | 17,347 | 19,630 | 1,025 | 39,908 | 77,910 |
| 1965 | 19,003 | 22,581 | 2,497 | 42,220 | 86,301 |
| 1966 | 29,804 | 20,581 | 2,615 | 48,324 | 101,324 |
| 1967 | 42,948 | 19,596 | 3,388 | 27,370 | 93,302 |
| 1968 | 33,241 | 16,213 | 5,179 | 37,612 | 92,245 |
| 1969 | 25,970 | 20,513 | 4,706 | 36,664 | 87,853 |
| 1970 | 30,220 | 16,640 | 10,768 | 32,420 | 90,048 |
| 1971 | 37,191 | 22,497 | 24,232 | 40,168 | 124,088 |
| 1972 | 40,298 | 32,408 | 84,329 | 50,638 | 207,673 |
| 1973 | 45,830 | 27,584 | 153,879 | 51,577 | 278,870 |
| 1974 | 32,209 | 37,703 | 202,243 | 51,919 | 324,074 |
| 1975 | 24,250 | 34,748 | 134,378 | 43,149 | 236,525 |
| 1976 | 30,083 | 43,921 | 167,344 | 62,645 | 303,993 |
| 1977 | 31,821 | 42,478 | 200,081 | 73,290 | 347,670 |
| 1978 | 30,595 | 30,416 | 228,847 | 87,634 | 377,492 |
| 1979 | 25,320 | 39,842 | 185,993 | 84,009 | 335,164 |
| 1980 | 40,701 | 42,123 | 211,193 | 103,404 | 397,421 |
| 1981 | 34,936 | 30,431 | 249,091 | 112,888 | 427,346 |
| 1982 | 31,564 | 31,918 | 267,091 | 120,437 | 451,010 |
| 1983 | 19,148 | 27,707 | 405,746 | 136,269 | 588,870 |
| 1984 | 21,169 | 32,641 | 445,078 | 128,921 | 627,809 |
| 1985 | 31,016 | 41,357 | 398,195 | 129,645 | 600,213 |
| 1986 | 35,503 | 40,232 | 436,685 | 130,990 | 643,410 |
| 1987 | 25,525 | 44,744 | 407,541 | 188,822 | 666,632 |
| 1988 1989 | 34,346 48,817 | 36,988 35,237 | 542,958 529,664 | 133,347 184,608 | 747,639 798,326 |
| 1990 | 30,921 | 56,245 | 578,966 | 209,535 | 875,667 |
| 1991 | 24,447 | 52,379 | 816,637 | | 1,129,028 |
| 1992 | 22,497 | 52,665 | 712,513 | 235,565 261,760 | 1,049,435 |
| 1774 | 22,471 | 72,003 | 112,513 | 201,100 | 1,047,432 |

^{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.

Annual catches (mt) in the SPC statistical area and the waters of Eastern Indonesia and the Philippines by species¹ Table 59.

| | ALBACORE1 | BIGEYE | SKIPJACK | YELLOWFIN | TOTAL |
|--|--|--|--|--|---|
| 1952 1953 1954 1955 1956 1957 | 210 1,091 10,200 8,420 6,220 9,764 21,704 19,800 | | 11111111 | 1111111 | 210 1,091 10,200 8,420 6,220 9,764 21,704 19,800 |
| 1960 1961 1962 1964 1965 1966 1968 | 24,366 25,958 33,227 22,139 17,347 19,003 29,804 42,948 33,241 25,970 | 28,860 26,849 19,630 22,581 20,581 16,596 16,213 | 1,025 2,497 2,497 2,615 3,388 5,179 4,706 | 51,382 47,902 39,908 42,220 48,324 27,370 37,612 36,664 | 24,366 25,958 113,469 96,890 77,910 86,301 101,324 93,302 92,245 |
| 1970 1971 1972 1973 1974 1976 1978 | 30,220 37,191 40,298 45,830 32,209 34,820 31,821 30,595 25,320 | 16,640 22,497 32,408 37,584 37,703 34,748 43,921 42,478 30,416 39,416 | 42, 868 58,032 127,429 202,579 225,312 189,531 221,856 281,547 307,987 | 69,920 81,668 96,838 106,277 113,816 107,004 147,208 145,264 147,896 | 159, 648 199, 388 296, 973 382, 270 439, 040 355, 353 411, 020 503, 054 514, 262 480, 445 |
| 1980 1982 1983 1984 1986 1987 1989 1990 1991 | 40,701 34,936 31,564 19,148 21,169 31,016 35,525 34,346 48,817 20,921 22,497 | 42, 123 30, 431 31, 918 32, 641 41, 357 40, 232 44, 232 44, 232 44, 232 35, 988 35, 237 56, 245 52, 379 52, 665 | 286,616 334,449 367,629 527,229 559,960 531,049 582,496 551,510 672,621 681,513 772,819 1,035,752 | 168,977 190,953 196,699 218,505 214,295 223,525 224,738 273,068 224,765 293,176 338,724 400,883 | 538,417 590,769 627,810 792,589 828,065 826,947 882,969 894,847 968,420 1,058,743 1,198,709 1,513,461 1,447,543 |

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.

 $\vec{-}$

Table 60. Annual catches (mt) in the SPC statistical area by fishing nation

| YEAR | ΑU | CA | FJ | FM | ID | JI | , KI | KR | ΜI | МХ | NC | NZ | PF | PG | PH | Pl |) SB | SU. | то | τv | TW | us | TOTAL |
|--------------|----------------|----|----------------|-----|--------|--------------------|------|------------------|----|------|----------------|----------------|-------|------------------|------------------|---------|----------------------|-------|------------|-----|------------------|----------------|--------------------|
| 1952 | _ | _ | | _ | _ | 210 |) – | _ | _ | _ | _ | _ | | | | | | | _ | _ | _ | _ | 210 |
| 1953 | _ | _ | ~ | _ | _ | 1,09 | – ا | | - | - | | | | | | | | | _ | - | - | _ | 1,091 |
| 1954 | - | _ | ~ | _ | - | 10,200 | | _ | | | - | _ | _ | · - | - | | | - | _ | - | - | _ | 10,200 |
| 1955 | - | _ | - | - | | 8,420 | | - | - | - | - | _ | - | | | | | | _ | - | - | _ | 8,420 |
| 1956 | - | - | | - | _ | 6,220 | | _ | - | - | - | - | _ | - | | | | - | - | - | - | - | 6,220 |
| 1957 | _ | - | ~ | _ | - | 9,764 | | 444 | _ | _ | - | - | _ | - | • | | | | | _ | _ | | 9,764 |
| 1958 | _ | _ | _ | _ | _ | 21,558 | | | | - | _ | | | | • | | | - | _ | _ | - | - | 21,704 |
| 1959 | _ | _ | _ | _ | | 19,344 | , - | 456 | | | _ | _ | _ | | • | | | - | _ | _ | _ | _ | 19,800 |
| 1960 | - | - | - | - | | 23,756 | | | | _ | - | _ | - | · - | - | | | - | - | - | _ | | 24,366 |
| 1961 | - | _ | - | - | | 25,628 | | 330 | | _ | - | _ | _ | _ | - | | | - | | _ | - | - | 25,958 |
| 1962 | ~ | _ | _ | - | | 112,870 | | | | _ | _ | | | - | • | | - | - | _ | - | | - | 113,469 |
| 1963 1964 | _ | _ | - | ~ | | 95,523 73,833 | | | | _ | _ | _ | | | • | - 1,166 | | _ | _ | _ | _ | _ | 96,890 77,910 |
| 1965 | _ | _ | _ | _ | | 77,431 | | | | _ | _ | _ | _ | _ | | - 2,670 | | | _ | _ | _ | | 86,301 |
| 1966 | _ | _ | _ | _ | _ | 81,038 | | 17,600 | | _ | _ | _ | _ | _ | | - 2,686 | | _ | _ | _ | _ | _ | 101,324 |
| 1967 | - | _ | _ | | _ | 51,521 | | | | _ | _ | _ | _ | | | - 3,406 | | | _ | _ | | _ | 93,302 |
| 1968 | - | _ | _ | | _ | 48,260 | | | | _ | _ | _ | _ | | | - 5,056 | | | _ | _ | | _ | 92,245 |
| 1969 | - | - | - | | | 50,488 | | 17,000 | - | _ | - | - | - | - | - | - 4,762 | : – | - | - | - | 15,603 | - | 87,853 |
| 1970 | - | _ | _ | - | _ | 47,037 | , _ | 16,500 | _ | _ | _ | _ | _ | 2,428 | _ | - 8,082 | | _ | _ | | 16,001 | _ | 90,048 |
| 1971 | - | _ | _ | ~ | | 46,665 | | 22,900 | | _ | _ | _ | | 16,974 | | - 2,143 | | ~ | - | _ | | _ | 124,088 |
| 1972 | - | _ | _ | - | | 115,989 | | 35,200 | _ | _ | _ | _ | _ | 13,130 | | - 1,519 | | | - | _ | 33,930 | - | 207,673 |
| 1973 | - | - | - | - | | 165,521 | | 36,900 | _ | _ | - | - | | 28,216 | - | - 2,350 | 6,624 | - | ~ | _ | 39,259 | - | 278,870 |
| 1974 | 1,900 | _ | - | - | | 197,228 | | 39,179 | | _ | - | 898 | | 41,630 | | | 10,332 | | ~ | - | 26,099 | - | 324,074 |
| 1975 | | _ | | - | | 154,358 | | 33,495 | | _ | _ | 646 | | 17,369 | | | 7,169 | | ~ | _ | 17,219 | | 236,525 |
| 1976 | 47 | - | 742 | _ | | 179,136 | | , | | _ | - | 25 | | 32,921 | | | 15,977 | | - | - | , | 700 | 303,993 |
| 1977 1978 | 31 142 | | 1,711 | _ | | 236,252 242,615 | | , | | _ | - | 621 1,686 | | 24,115 | | | 12,356 | | ~ | | , | 900 | 347,670 377,492 |
| 1979 | 162 | | 2,524 3,494 | _ | | 207,833 | | 32,473 41.178 | _ | _ | _ | 814 | | 48,859 26,857 | | | , 17,707 3 24,401 | | _ | | 20,772 15,603 | 1,000 8,600 | 335,164 |
| 17/7 | _ | _ | 3,474 | _ | _ | 201,033 | , – | 41,170 | _ | _ | _ | 014 | 070 | 20,651 | • | - 5,000 | 24,401 | _ | _ | _ | 15,005 | 8,800 | 333,104 |
| 1980 | _ | | 2,496 | _ | | 238,850 | | 45,063 | | - | | 1,468 | | 33,994 | | | 23,569 | | - | - | 33,469 | | 397,421 |
| 1981 | 497 | | 5,821 | _ | | 263,237 | | | - | - | 229 | | | 31,412 | | | 25,173 | | - | | | | 427,346 |
| 1982 | 352 | | 4,658 | _ | | 277,270 | | | _ | _ | 868 | | 1,034 | | 1,24 | | 20,182 | | 205 | | | | 451,010 |
| 1983 | 269 | | 4,183 | _ | | 328,491 | | | | - | 459 | 6,564 | 836 | | 4 40 | | 34,478 | | 208 | 337 | | 153,700 | 588,870 |
| 1984 | 133 | | 4,572 | _ | | 332,322 | | 35,094 | | ,191 | 146 | 7,003 | | | | | - 36,117 | | 218 | | 31,427 | | 627,809 |
| 1985 | 50 | | 3,943 | - | | 333,838 | | 48,882 | - | - | 265 | 5,712 | | • | | | 30,690 | | 233 | 700 | | 116,700 | 600,213 |
| 1986 | 207 | | 3,111 | _ | 13,170 | 312,024 | | 73,072 99,646 | _ | _ | 347 | | | | -, | | 44,170 29,770 | | 251 298 | | 49,001 62,459 | | 643,410 |
| 1987 1988 | 1,073 1,710 | | 3,885 | | | | | 110,691 | | | 1,044 1,038 | 5,406 3,237 | | | 15,902 11,775 | | 40,441 | | | | 90,752 | | 666,632 747,639 |
| 1989 | 2,092 | | | | | | | 139,738 | | _ | | 6,939 | | | 24,258 | | 36,061 | | 234 | | 117,008 | | 798,326 |
| 1990 | 7,139 | | 4,141 | _ | | 281,219 | 505 | 204,206 | | | 1 458 | 7,653 | 1 000 | | 23,827 | | 29,576 | 2 124 | 191 | on | 144,547 | 167 512 | 875,667 |
| | 10,284 | | | | | 323,028 | | 288,007 | | | | 9,625 | | | 25,063 | | - 46,210 | | 198 | | | 219,432 | 1,129,028 |
| | 6,782 | | | | | 288,327 | | 237,850 | | | | 11,282 | | | 25,063 | | 30,558 | | 222 | | 232,956 | | 1,049,435 |
| .,,_ | ٠,.٠. | | ., | . , | | , | | ,0_0 | | | -55 | , | -, 1 | | , | | ,0 | -, | | J | ,,,, | , | .,,,, |

Table 61. Annual catches (mt) in the SPC statistical area and the waters of Eastern Indonesia and the Philippines

| YEAR | AU | CA | FJ | FM | ID | J | P KI | KR | MI | MX | NC | NZ | PF | PG | PH | PI | J S | B SU | TO | τv | TW | us | TOTAL |
|--|--|------------------------------|--|------------------|--|--|--|--|---------------------------------|------------------|--|---|--|--|--|--|--|---|--|---|---|--|--|
| 1952 1953 1954 1955 1956 | - - - - | - - - | - - - - | - - - - | - - - | 21 - 1,09 - 10,20 - 8,42 - 6,22 | 1 - 0 - 0 - | · <u>-</u> | - | - - - - | - - - - | - | - - - | | | | - - - - | | - - - | - - - | - - - - | - - - - | 210 1,091 10,200 8,420 6,220 |
| 1957 1958 1959 | - - - | - - - | - - - | | - - - | 9,76 | 4 - 8 - | | | - - - | - - - | - | - | - | | | - | | - - - | - | - - - | - - - | 9,764 21,704 19,800 |
| 1960 1961 1962 1963 1964 1965 1966 1967 1968 1969 | | | - - - - - - | | _ | 81,03 51,52 48,26 | 8 - 00 - 33 - 11 - 8 - 11 - | 330 599 1,367 2,911 | | | | - - - - - - | - - - - - - - | - - - - - - - - | | - 1,160 - 2,670 - 2,680 - 3,400 - 5,050 - 4,760 |) 5 5 | | - - - - - - | | - - - - - 18,375 22,129 15,603 | - - - - - - - | 24,366 25,958 113,469 96,890 77,910 86,301 101,324 93,302 92,245 87,853 |
| 1970 1971 1972 1973 1974 1975 1976 1977 1978 1979 | 1,900 - 47 31 162 | _ | - - - - 742 1,711 2,524 3,494 | | 18,100 28,600 32,500 33,778 34,378 33,375 37,235 40,023 | 47,03 46,66 115,98 165,52 197,22 154,35 179,13 236,25 242,61 207,83 | 5 - 9 - 1 - 8 - 8 - 6 - 2 - | 16,500 22,900 35,200 36,900 39,179 33,495 46,375 46,084 32,473 41,178 | | | | 898 646 25 621 1,686 814 | - - - - - | 16,974 13,130 28,216 41,630 17,369 32,921 24,115 48,859 | | 0 2,143 0 1,519 0 2,350 8 6,800 0 6,269 2 5,323 9 4,012 7 9,694 | 4,71 7,90 6,62 3 10,33 7,16 3 15,97 2 12,35 17,70 | 5 - 4 - 2 - 9 - 7 - 6 - 7 - | - - - - - - - | - - - | 16,001 30,695 33,930 39,259 26,099 17,219 22,747 21,588 20,772 15,603 | 700 900 1,000 8,600 | 159,648 199,388 296,973 382,270 439,040 355,353 411,020 503,054 514,262 480,445 |
| 1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 | 497 352 269 133 50 207 1,073 1,710 2,092 | - - - - - 140 | | | 68,808 74,083 84,532 96,661 101,905 111,643 115,826 120,781 | 332,32 333,83 312,02 275,82 332,73 | 7 564 0 457 1 1,594 2 2,031 8 719 4 1,414 0 434 1 1,472 | 45,063 39,826 46,084 37,590 35,094 48,882 73,072 99,646 110,691 139,738 | - - - - 3 - - | - - - 1 | 229 868 459 146 265 347 1,044 1,038 | 2,434 6,564 | 1,001 1,034 836 1,250 836 961 878 715 | 31,412 - 2,744 9,300 - - | 79,20 94,61 103,95 119,18 105,21 137,30 145,09 141,46 124,77 151,05 | 5 9,41° 8 4,053 7 - 6 - 8 97 7 13° 1 16° 5 157 | 25,17 20,18 34,47 36,11 30,69 44,17 29,77 40,44 | 3 – 2 – 8 – | 205 208 218 233 251 298 274 234 | 216 337 540 4 390 632 1,090 | 33,469 13,077 10,187 20,161 31,427 34,354 49,001 62,459 90,752 117,008 | 35,013 81,769 153,700 169,400 116,700 130,189 147,059 127,939 | 538,417 590,769 627,810 792,589 828,065 826,947 882,969 894,847 968,420 1,058,743 |
| 1991 | | 103 | 4,862 | 5,557 | 186,445 | 281,219 323,029 288,32 | 3 224 | 204,206 288,007 237,850 | _ | - 1 | ,469 | 7,653 9,625 11,282 | | _ | 204,63 223,05 225,72 | 1 - | - 46,21 | 6 2,126 0 3,715 B 3,715 | 191 198 222 | 29 | 190,131 | 219,432 | 1,198,709 1,513,461 1,447,543 |

Table 62. Fishing nation codes

| CODE | FISHING NATION |
|------|--------------------------------|
| AU | Australia |
| CA | Canada |
| FJ | Fiji |
| FM | Federated States of Micronesia |
| ID | Indonesia |
| JP | Japan |
| ΚI | 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 |