

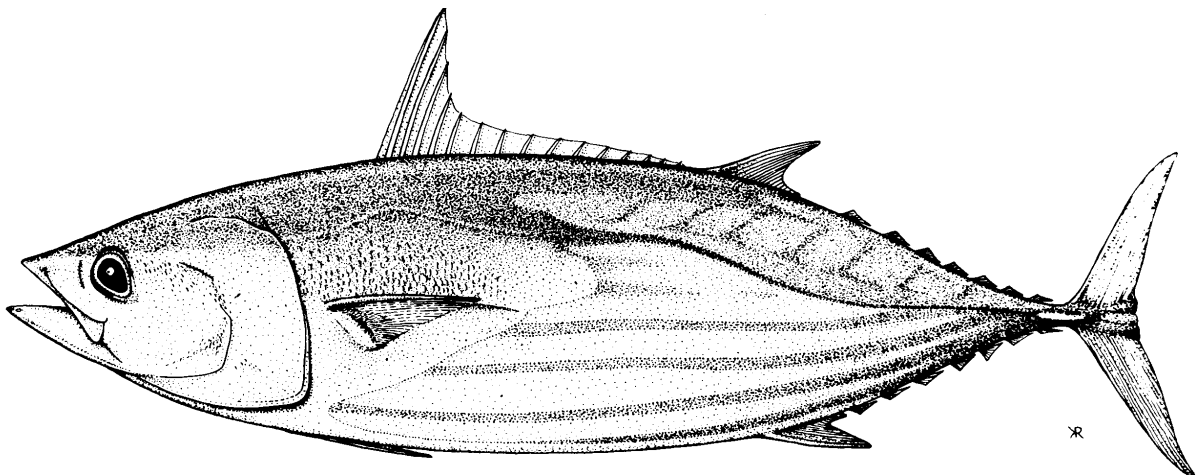


SCTB15 Working Paper

**SWG-1**

## **STATUS OF DATA COLLECTION, COMPILATION AND DISSEMINATION**

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## INTRODUCTION

At its inaugural meeting in June 1998, the Statistics Working Group (SWG) of the Standing Committee on Tuna and Billfish (SCTB) considered procedures for fulfilling the objectives of the SWG, which are to coordinate the collection, compilation and dissemination of tuna fishery data for the western and central Pacific Ocean (Anonymous 1998). The SWG agreed to (a) coordinate data collection by reviewing data collection forms currently in use in the region; (b) coordinate data compilation by reviewing the compilation of annual catch statistics, catch and effort data, and length data, on an annual basis; and (c) coordinate data dissemination by reviewing the instances of the dissemination of data on an annual basis. This paper was prepared by the Coordinator of the SWG in order to report on progress with the coordination of the collection, compilation and dissemination of data.

## COLLECTION OF DATA

At the SWG Session on Data Collection Forms, held at SCTB12 from 14 to 15 June 1999, the Statistics Working Group established minimum standards for catch and effort logsheets and reviewed the logsheets developed by the New Zealand Ministry of Fisheries and the Australian Fisheries Management Authority (Anonymous 1999). A second session was held prior to SCTB13, on 3 July 2000, to review the logsheets developed by the SPC/FFA Tuna Fishery Data Collection Forms Committee, which are widely used in the region. Japanese logsheets for longline, pole-and-line and purse seine were reviewed by four members of the SWG during 2001. Taiwanese logsheets were reviewed by three members of the SWG during 2002.

A SWG session on minimum standards for observer research data forms was held on 18 July 2002, immediately prior to SCTB15.

## COMPILATION OF DATA

Data compilation is reviewed below for each fishing nation. Data items include (a) estimates of annual catches of target species (albacore, bigeye, skipjack and yellowfin); (b) the provision of catch and effort data; (c) the provision of length data; and (d) the provision of observer data.

The information below on catch and effort data and length data that have been provided to the Oceanic Fisheries Programme (OFP) of the Secretariat of the Pacific Community is qualitative. Quantitative measures of data holdings, such as the number of records of fishing operations for catch and effort data and the number of fish sampled for length data, are available in the OFP Data Catalogue, which can be found on the SPC/OFP website ([www.spc.int/oceanfish](http://www.spc.int/oceanfish)). Estimates of coverage rates for logsheet data, unloadings data, port sampling data and observer data held by the OFP are given in the Appendix.

### ***AMERICAN SAMOA***

Longline: 1995–2001. Troll and Handline: 1950–2001.

#### Estimates of Annual Catches and Numbers of Vessels

- Longline: The most recent estimates, for 1988–2001, were provided by the National Marine Fisheries Service on 18 June 2002.
- Troll: The most recent estimates, for 1982–2001, were provided by the National Marine Fisheries Service on 18 June 2002.

- Estimates of troll/handline catches for 1950–1981 are missing.

#### Catch and Effort Data

- Longline: Catch and effort data, grouped by 5x5 and month, have been provided for 1996–1999 by NMFS; the most recent data, for 1998–1999, were provided on 3 October 2000.
- Troll/Handline: Data have been collected by American Samoa Department of Marine and Wildlife Resources through the Commercial Catch Monitoring System from 1982 to 1985 and through the Offshore Creel Survey System since October 1985; these data were requested in June 2002. (During 2000, 19 vessels caught 9 tonnes of skipjack and yellowfin.)

#### Length Data

- Longline: (a) Length data collected by port samplers have been provided by American Samoa for 2000–2001. (b) Length data have been collected by SPC observers for 1998.

#### Observer Data

- Longline: (a) No observer data have been provided by American Samoa. (b) Data have been collected by SPC observers for 1998 and 2001.

### **AUSTRALIA**

Longline: 1985–2001. Pole-and-line: 19??–2001. Purse seine: 19??–2001. Troll: 1992–2001.

#### Estimates of Annual Catches and Numbers of Vessels

- The most recent estimates, for 2001, were provided by the Bureau of Rural Sciences (BRS) on 24 June 2002.
- Missing estimates include:
  - the number of pole-and-line vessels prior to 1976;
  - the number of purse seiners prior to 1978;
  - Australian-Japan longline joint-venture catches of skipjack during 1989–1995;
  - pole-and-line catches of skipjack and yellowfin for 1979–1980 and 1985;
  - purse-seine catches of bigeye from 1975 onwards, skipjack for 1976–1977, and yellowfin for 1975–1977;
  - recreational catches of albacore from 1996 onwards; and
  - troll catches of albacore and skipjack for 1996–1997.

#### Catch and Effort Data

- Longline: Logsheet data have been provided by the Australian Fisheries Management Authority (AFMA) for 1985–2001; the most recent data, for 2000–2001, were received on 29 May 2002.
- Pole-and-line: Logsheet data have been provided by AFMA for 1976–2001; the most recent data, for 2000–2001, were received on 29 May 2002.
- Purse seine: Logsheet data have been provided by AFMA for 1975–2001; the most recent data, for 2000–2001, were received on 29 May 2002.
- Troll: Logsheet data have been provided by AFMA for 1989–2001; the most recent data, for 2000–2001, were received on 29 May 2002.

#### Length Data

- Longliners and pole-and-line: No length data have been provided by Australia, although a length sampling programme for landings by Australian longliners commenced in July 1997.
- Purse seine: (a) No length data have been provided by Australia. (b) Length data collected by port samplers have been provided by SPC member countries for 1998–2000.
- Troll: Length data grouped by 5x5 and month, for 1991–1993, have been provided by AFMA.

#### Observer Data

- Longline: (a) Observer data covering Japanese longliners, for 1980–1998, were provided by AFMA on 3 April 2002. (b) Observer data covering Australian longliners are held by CSIRO, but have not been provided to SPC.

**CANADA**

South Pacific Albacore Troll: 1987–2001.

Estimates of Annual Catches and Numbers of Vessels

- The most recent estimates, for 2001, were provided by Fisheries and Oceans Canada on 27 June 2002.

Catch and Effort Data

- No catch and effort data have been provided by Canada.

Length Data

- No length data have been provided by Canada.

Observer Data

- No observer data have been provided by Canada.

**CHINA**

Longline: 1988–2001.

Estimates of Annual Catches and Numbers of Vessels

- The most recent catch estimates, for 2000, were provided by Shanghai Fisheries University on 6 June 2001.

Catch and Effort Data

- (a) No catch and effort data have been provided by China. (b) Logsheet data have been provided by SPC member countries for 1988–2001.

Length Data

- (a) No length data have been collected by China. (b) Length data collected by port samplers have been provided by SPC member countries for 1991–2001. (c) Length data collected by observers from SPC and SPC member countries have been provided for 1993–2001.

Observer Data

- (a) No observer data have been provided by China. (b) Data collected by observers from the Federated States of Micronesia, the Marshall Islands and SPC have been provided for 1993–2001.

**COOK ISLANDS**

Longline: 1994–2001

Estimates of Annual Catches and Numbers of Vessels

- The most recent estimates of catches, for 1996, were provided by the Ministry of Marine Resources in May 1998.
- The most recent estimate of the number of vessels, for 1999, was taken from Mitchell (1999).

Catch and Effort Data

- Logsheet data have been provided by the Cook Islands for 1994–1996.

Length Data

- (a) No length data have been provided by the Cook Islands. (b) Length data have been collected by SPC observers for 1995–1996.

Observer Data

- (a) No observer data have been provided by the Cook Islands. (b) Data have been collected by SPC observers for 1995–1996.

***FEDERATED STATES OF MICRONESIA***

Longline: 1991–2001. Purse seine: 1991–2001.

Estimates of Annual Catches and Numbers of Vessels

- The most recent estimates, for 2001, were determined from data held by the OFP.

Catch and Effort Data

- Longline: Logsheet data have been provided by SPC member countries for 1991–2001.
- Purse seine: Logsheet data have been provided by SPC member countries for 1991–2001.

Length Data

- Longline: (a) Length data collected by port samplers have been provided by the Federated States of Micronesia, Palau and Samoa for 1991–2001. (b) Length data collected by observers from the Federated States of Micronesia and SPC have been provided for 1994–1998 and 2000.
- Purse seine: (a) Length data collected by port samplers have been provided by the Federated States of Micronesia, Marshall Islands, Papua New Guinea and Solomon Islands for 1993–1999. (b) Length data collected by observers from the Federated States of Micronesia and the FSM Arrangement have been provided for 1993–1996, 1998 and 2000–2001.

Observer Data

- Longline: Data collected by observers from the Federated States of Micronesia and SPC have been provided for 1995–2000.
- Purse seine: Data collected by observers from the Federated States of Micronesia and the FSM Arrangement have been provided for 1993–1996, 1998 and 2000–2001.

***FIJI***

Longline: 1989–2001. Pole-and-line: 1974–2001. Troll: 19??–19??

Estimates of Annual Catches and Numbers of Vessels

- Longline: The most recent estimates, for 2000–2001, were determined from landings data and other information provided by the Fisheries Division.
- Pole-and-Line: The most recent estimates, for 2000, were taken from Tuwai & Lagibalavu (2001).
- Troll: The most recent estimates, for 1997, were provided by the Fisheries Division.
- The following estimates are missing:
  - the number of pole-and-line vessels and pole-and-line catches of skipjack for 1974–1975;
  - albacore catches by trollers for 1983, 1985–1994 and 1997–2000; and
  - yellowfin catches by trollers for 1995–2000.

Catch and Effort Data

- Longline: Logsheet data have been provided by the Fisheries Division for 1989–2001.
- Pole-and-line: Logsheet data have been provided by the Fisheries Division for 1976–1996.
- Troll: No catch and effort data have been provided.

Length Data

- Longline: (a) Length data collected by port samplers have been provided by Fiji and Tonga for 1992–2001. (b) Length data have been collected by SPC observers for 1994–1995 and 1997.
- Pole-and-line: Length data collected by port samplers have been provided by Fiji for 1991, 1994–1997.
- Troll: No length data have been provided.

Observer Data

- Longline: (a) No observer data have been provided by Fiji. (b) Data have been collected by SPC observers for 1994–1995 and 1997.
- Pole-and-line: No observer data have been provided.
- Troll: No observer data have been provided.

**FRENCH POLYNESIA**

Longline: 1989–2001. Pole-and-line: 1975–2001. Troll: 1989–2001. Poti marara: ???–2001

Estimates of Annual Catches and Numbers of Vessels

- The most recent estimates, for 2001, were provided by the *Service des Ressources Marines* on 30 April 2002.
- The following estimates are missing:
  - the number of pole-and-line vessels for 1975–1979;
  - pole-and-line catches of skipjack and yellowfin for 1975–1978; and
  - poti mara catches prior to 1990.

Catch and Effort Data

- Longline: Logsheet data have been provided by SRM for 1992–2001; the most recent data, for 2000–2001, were received on 3 May 2002.
- Pole-and-line (*bonitiers*): Logsheet data for 1997–2001 were provided by SRM; the most recent data, for 2000–2001, were provided on 3 May 2002.
- Poti marara: Logsheet data for 1997–2001 were provided by SRM; the most recent data, for 2000–2001, were provided on 3 May 2002.
- Troll: Logsheet data for 1997–2001 were provided by SRM; the most recent data, for 2000–2001, were provided on 6 June 2001.

Length Data

- Longline: (a) Length data collected by port samplers have been provided by French Polynesia for 1993–1999. (b) Length data have been collected by SPC observers for 1993 and 1997.
- Pole-and-line (*bonitiers*): No length data have been provided.
- Troll: Length data collected by port samplers have been provided by French Polynesia for 1990–1992.

Observer Data

- Longline: Data have been collected by SPC observers for 1993 and 1997.
- Pole-and-line (*bonitiers*): No observer data have been provided.
- Troll: No observer data have been provided.

**GUAM**

Troll and Handline: 1950–2001.

Estimates of Annual Catches and Numbers of Vessels

- The most recent estimates, for 1982–2001, were provided by the National Marine Fisheries Service on 18 June 2002.

- All estimates for 1950–1979 are missing.

#### Catch and Effort Data

- The Guam Division of Aquatic and Wildlife Resources, in collaboration with the National Marine Fisheries Service and the Guam Fishermen's Co-op, has collected commercial landing invoices, which include catch and effort data, since 1982; these data were requested in June 2002. (During 2000, 416 vessels caught 156 tonnes of skipjack and yellowfin.)

### **INDONESIA**

Longline: 19??–2001. Pole-and-line: 19??–2001. Handline: 19??–2001. Domestic purse seine: 19??–2001. Distant-water purse seine: 1984–1990. Unclassified: 19??–2001.

#### Estimates of Annual Catches and Numbers of Vessels

- The most recent estimates, for 1992–2000 were provided by the Directorate General of Capture Fisheries on 10 July 2002; these estimates are for the total catch and are not broken down by gear type.
- Catch estimates, by gear type, are missing for 1992 onwards.

#### Catch and Effort Data

- Longline, pole-and-line, handline, domestic purse seine and unclassified: No catch and effort data have been provided.
- Distant-water purse seine: Logsheet data have been provided by SPC members for 1986–1990.

#### Length Data

- Longline, pole-and-line, handline, domestic purse seine and unclassified: (a) No length data have been provided by Indonesia. (b) Length data were collected in Indonesia by a pole-and-line vessel chartered by SPC for the Regional Tuna Tagging Project in 1991–1992.
- Distant-water purse seine: No length data have been provided.

#### Observer Data

- No observer data have been provided.

### **JAPAN**

Driftnet: 1983–1990. Longline: 1950–2001. Pole-and-line: 1950–2001. Purse seine: 1950–2001. Unclassified: 1950–2001.

#### Estimates of Annual Catches and Numbers of Vessels

- Longline, coastal: The most recent estimates, for 1998, were provided by the National Research Institute of Far Seas Fisheries in June 2000.
- Longline, offshore and distant-water: (a) The most recent estimates provided by NRIFSF are for 1999. (b) Estimates for 2000 were determined by the OFP from 5x5 data provided by NRIFSF.
- Pole-and-line, coastal: The most recent estimates, for 1998, were provided by the NRIFSF in June 2000.
- Pole-and-line, offshore and distant-water: (a) The most recent estimates provided by NRIFSF, for 1998, were taken from Miyabe et al. (2000). (b) Estimates for 1999–2000 were determined by the OFP from 1x1 data provided by NRIFSF.
- Purse seine, coastal: The most recent estimates, for 1998, were provided by the NRIFSF in June 2000.
- Purse seine, offshore and distant-water: (a) The most recent estimates provided by NRIFSF, for 1999, were taken from Miyabe et al. (2000). (b) Estimates for 2000–2001 were determined from 1x1 data provided by NRIFSF.
- Unclassified: The most recent estimates, for 1998, were provided by the NRIFSF in June 2000.

- The following estimates are missing:
  - numbers of coastal, offshore and distant-water longliners for 1950–1952;
  - numbers of coastal, offshore and distant-water pole-and-line vessels for 1950–1952;
  - numbers of coastal, offshore and distant-water purse seiners for 1950–1968;
  - catches by pole-and-line vessels of south Pacific albacore for 1950–1959;
  - catches by coastal longliners vessels of bigeye, skipjack and yellowfin for 1950–1968;
  - catches by offshore and distant-water longliners vessels of bigeye for 1950–1961 and skipjack for 1950–1969;
  - catches by coastal pole-and-line vessels of bigeye and yellowfin for 1950–1968;
  - catches by offshore and distant-water pole-and-line vessels of bigeye and yellowfin for 1950–1971 and skipjack for 1950;
  - catches by coastal purse seiners of bigeye, skipjack and yellowfin for 1950;
  - catches by offshore and distant-water purse seiners of bigeye, skipjack and yellowfin for 1950–1969; and
  - catches by unclassified gear types of bigeye for 1950–1969 and skipjack and yellowfin for 1950.

Note: The estimates of annual catches of albacore, bigeye and yellowfin that have been provided by NRIFSF for 1987–1993 do not agree with estimates determined from catch data grouped by 5x5 that have been provided by NRIFSF. The annual catch estimates determined from the 5x5 data are as low as 34 percent of the annual catch estimates provided by NRIFSF.

Note: The estimate of the longline catch of skipjack for 1983 is 1,134 mt, compared to catches in the range of 4 to 157 tonnes for other years. This estimate “could not be confirmed at this time as it was referred from MAFF Stat. Dept.” (Miyabe, personal communication, May 1999)

Note: NRIFSF has previously advised that bigeye and yellowfin catch estimates for purse seine have been adjusted for the misidentification of bigeye as yellowfin (Miyabe, personal communication, May 1999); however, sampling data presented in Miyabe et al. (2000) indicate that estimates for 1997–1999 (and therefore possibly earlier years) have not been adjusted.

#### Catch and Effort Data

- Driftnet: Catches of albacore (in numbers of fish) and effort data, grouped by 5x5 and month, for 1983–1990, have been provided by NRIFSF.
- Longline: (a) Data grouped by 5x5 and month for 1962–2000 have been provided by NRIFSF. The most recent data, covering 1998–2000, were received on 28 May 2002. Note: The longline catch data are in numbers of fish only, rather than numbers of fish and weight. (b) Data grouped by 1x1, month and hooks per basket, covering catches of bigeye and yellowfin only, for 1966–2000 have also been provided by NRIFSF; the most recent data, for 1998–2000, were provided on 2 April 2002. (c) Logsheet data have been provided by SPC members for 1978–2001.
- Pole-and-line: (a) Data grouped by 1x1 and month for 1972–2000 have been provided by NRIFSF; data covering 1998–2000 were received on 28 May 2002. (b) Data grouped by sub-area and quarter for 1999 were provided by NRIFSF on 29 January 2001; effort data are standardised, rather than nominal. These data are unraised, although coverage is high. (c) Logsheet data have been provided by SPC members for 1978–2001.
- Purse seine: (a) Data grouped by 1x1 and month for 1967–2001 have been provided by NRIFSF. The most recent data, covering 1999–2001, were received on 28 May 2002. (b) Logsheet data have been provided by SPC members for 1979–2001.

#### Length Data

- Driftnet: Albacore length data, grouped by 5x10 and month, for 1988–1990, have been provided by NRIFSF.
- Longline: (a) The following have been provided by NRIFSF: albacore length data, grouped by year/quarter and 10° latitude by 20° longitude area, in 1 cm intervals from 31 to 130 cm, for 1965–1998; yellowfin length data, grouped by sub-area and year/quarter, in 2 cm intervals, for 1962–2000; and bigeye length data, grouped by 10x20 and year/month, in 2 cm intervals, for 1965–2000. Albacore data for 1965–1998 were received on 8 February 2001. Yellowfin and bigeye length data for 1999–2000 were received on 2 April 2002. (b) Length data from port sampling in Pago Pago, American Samoa, for 1962–1972, have been provided by the National Marine Fisheries Service. (c) Length data collected by port samplers in other SPC member countries have been provided for 1991–2001. (d) Length data collected by observers from Australia, Federated States of Micronesia, New Zealand and SPC have been provided for 1980–2000.

- Pole-and-line: (a) Skipjack length data, grouped by year/quarter and sub-area, in 2 cm intervals, for 1966–1967 and 1970–2001, were provided by NRIFS on 8 March 2002. (b) Length data collected by port samplers in Solomon Islands have been provided for 1996.
- Purse seine: (a) Skipjack length data, grouped by year/quarter and sub-area, in 2 cm intervals, for 1973–1975, 1977–1985, 1988–1989, 1991–1996 and 1998, were provided by NRIFS on 8 March 2002. (b) Length data collected by observers from the Federated States of Micronesia and SPC have been provided for 1993–1997 and 2000.

#### Observer Data

- Driftnet: No observer data have been provided.
- Longline: (a) No observer data have been provided by NRIFS. (b) Data collected by observers from Australia, Federated States of Micronesia, New Zealand and SPC have been provided for 1980–2000.
- Pole-and-line: No observer data have been provided.
- Purse seine: (a) No observer data have been provided by NRIFS. (b) Length data collected by observers from the Federated States of Micronesia and SPC have been provided for 1993–1997 and 2000.

### ***KIRIBATI***

Longline: 1995–1996. Pole-and-line: 1979–1996. Purse seine: 1994–2001.

#### Estimates of Annual Catches and Numbers of Vessels

- Purse seine: The most recent estimates, for 2001, were determined from data held by the OFP.
- All estimates have been provided, although the cessation of fishing by the longline and pole-and-line fleets after 1996 needs to be confirmed.

#### Catch and Effort Data

- Longline: Logsheet data have been provided by SPC members for 1995–1996
- Pole-and-line: Logsheet data have been provided by SPC members for 1986–1990, 1993 and 1995–1996.
- Purse seine: Logsheet data have been provided by SPC members for 1994–2001.

#### Length Data

- Longline: No length data have been provided.
- Pole-and-line: Length data collected by port samplers in Fiji have been provided for 1994–1995.
- Purse seine: (a) Length data collected by port samplers in Fiji and Solomon Islands have been provided for 1996–1997. (b) Length data collected by observers from the Federated States of Micronesia have been provided for 1995.

#### Observer Data

- Purse seine: Data collected by observers from the Federated States of Micronesia have been provided for 1995.

### ***KOREA***

Driftnet: 1989. Longline: 1958–2001. Purse seine: 1980–2001.

#### Estimates of Annual Catches and Numbers of Vessels

- Longline and purse seine: The most recent estimates, for 2001, were provided by the National Fisheries Research and Development Institute (NFRDI) on 9 July 2002.
- The following estimates are missing:
  - longline catches of skipjack for 1958–1974.

#### Catch and Effort Data

- Driftnet: No catch and effort data have been provided.

- Longline: (a) Data for 1975–1988 grouped by 5x5 and month, for 1989–1993 grouped by 5x5 and year, and for 1994–1997 grouped by 5x5 and month have been provided by NFRDI. The most recent data, for 1994–1997, were provided on 15 February 2000. Note: The catch data for 1994–1997 are in units of kilograms only. Catch data in units of numbers of fish were requested on 25 February 2000. (b) Logsheet data have been provided by SPC members for 1979–1999.
- Purse seine: (a) Data grouped by 1x1 and month for 1980–1995 were provided by NFRDI on 9 June 1997. Note: The purse-seine effort data are in units of “days on which a set was made”, rather than “days fished or searched”. Effort data in units of “days fished or searched” were requested on 29 July 1997. (b) Logsheet data have been provided by SPC members for 1980–2001. Note: Catches reported on logsheets for 1980–1992 have been under-reported.

#### Length Data

- Driftnet: No length data have been provided.
- Longline: (a) No length data have been provided by NFRDI. (b) Length data from port sampling in Pago Pago, American Samoa, for 1962–1992, have been provided by the National Marine Fisheries Service. (c) Length data collected by port samplers in American Samoa, Federated States of Micronesia, Fiji, Kiribati and Solomon Islands have been provided for 1992–2001. (d) Length data collected by observers from the Federated States of Micronesia and SPC have been provided for 1992, 1996 and 1998–1999.
- Purse seine: (a) NFRDI has conducted monthly sampling at domestic landing sites since November 1993; however, no length data have been provided. (b) Length data collected by port samplers in the Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Papua New Guinea and Solomon Islands have been provided for 1993–2001. (c) Length data collected by observers from the Federated States of Micronesia, Papua New Guinea and SPC have been provided for 1993–2001.

#### Observer Data

- Longline: Data collected by observers from the Federated States of Micronesia and SPC have been provided for 1992, 1996 and 1998–1999.
- Purse seine: Data collected by observers from the Federated States of Micronesia, Papua New Guinea and SPC have been provided for 1993–2001.

### **MARSHALL ISLANDS**

Longline: 1992–1995. Purse seine: 2000–2001

#### Estimates of Annual Catches and Numbers of Vessels

- Purse seine: The most recent estimates, for 2001, were determined from data held by the OFP.
- All estimates have been provided, although the cessation of fishing by the longline fleet after 1995 needs to be confirmed.

#### Catch and Effort Data

- Longline: Logsheet data for longliners have been provided by the Marshall Islands Marine Resources Authority for 1992–1993 and 1995.
- Purse seine: Logsheet data for purse seiners have been provided by SPC members for 2000–2001.

#### Length Data

- Longline: Length data collected by port samplers in the Marshall Islands have been provided for 1992–1995.
- Purse seine: Length data collected by port samplers in the Marshall Islands have been provided for 2000–2001.

#### Observer Data

- Longline: No observer data have been provided.
- Purse seine: No observer data have been provided.

**NEW CALEDONIA**

Longline: 1983–2001. Pole-and-line: 1981–1983.

Estimates of Annual Catches and Numbers of Vessels

- Longline: The most recent estimates, for 2001, was provided by the *Marine marchande* on 6 June 2002.

Catch and Effort Data

- Longline: Logsheet data have been provided by the *Marine marchande* for 1983–2001.
- Pole-and-line: Logsheet data for longliners have been provided by the *Marine marchande* for 1981–1983.

Length Data

- Longline: (a) Length data collected by port samplers in Fiji and New Caledonia have been provided for 1992–2001. (b) Length data have been collected by SPC observers for 1992, 1996, 1998–1999 and 2001.
- Pole-and-line: No length data have been provided.

Observer Data

- Longline: Data have been collected by SPC observers for 1992, 1996 and 1998–1999 and 2001.

**NEW ZEALAND**

Longline: 1989–2001. Pole-and-line: 1991–2001. Purse seine: 1975–2001. Troll: 1967–2001.

Estimates of Annual Catches and Numbers of Vessels

- Longline, pole-and-line and troll: The most recent estimates, for 1990–2001, were provided by the National Institute of Water and Atmospheric Research Ltd. on 4 July 2002.
- Purse seine: The most recent estimates, for 1990–2001, were determined from statistics provided by the National Institute of Water and Atmospheric Research Ltd. for domestic vessels, on 4 July 2002, and data held by the OFP for distant-water vessels for 2000–2001.
- The following estimates are missing:
  - catches of albacore, skipjack and yellowfin by pole-and-line for 1990–1997;
  - catches of albacore by trollers in 1969 and 1971.

Catch and Effort Data

- Longline: Logsheet data have been provided by the Ministry of Fisheries for 1980–2001; the most recent data, for 2001, were received on 26 June 2002.
- Pole-and-line: Logsheet data have been provided by the Ministry of Fisheries for 1990–2001; the most recent data, for 2001, were received on 26 June 2002.
- Purse seine: Logsheet data have been provided by the Ministry of Fisheries for 1989–2001; the most recent data, for 2001, were received on 26 June 2002.
- Troll: Logsheet data have been provided by the Ministry of Fisheries for 1989–2001; the most recent data, for 2001, were received on 26 June 2002.

Length Data

- Longline: Length data collected by port samplers in Samoa and Solomon Islands have been provided for 1999–2001.
- Pole-and-line: No length data have been provided.
- Purse-seine: (a) Length data for skipjack have been provided by the Ministry of Fisheries for 1978–1981. (b) Length data collected by port samplers in the Marshall Islands have been provided for 2000.
- Troll: Length data for albacore have been provided by the National Institute of Water and Atmospheric Research Ltd. (NIWA) for 1996–2001; the most recent data, for 2000–2001, were provided on 10 October 2001.

Observer Data

- Longline: Observer data covering foreign and domestic longliners, for 1987–1998, were provided by the Ministry of Fisheries on 9 September 2001.
- Purse seine: Observer data were collected by the Ministry of Fisheries in the 1970s and possibly other periods, but they have not been provided.
- Troll: Data were collected by SPC observers in the late 1980s and early 1990s.

***NORTHERN MARIANAS***

Troll: 1950–2001.

Estimates of Annual Catches and Numbers of Vessels

- The most recent estimates, for 1983–2001, were provided by the National Marine Fisheries Service on 18 June 2002.
- Estimates for 1950–1982 are missing.

Catch and Effort Data

- The Division of Fish and Wildlife of the Commonwealth of the Northern Mariana Islands, in collaboration with the National Marine Fisheries Service, has collected fish dealer invoices since 1982; these catch per trip data were requested in June 2002. During 2000, 71 tonnes of skipjack and yellowfin were caught.

***PALAU***

Pole-and-line: 1964–1982 and 1985–1996.

Estimates of Annual Catches and Numbers of Vessels

- Missing data include pole-and-line catches of skipjack and yellowfin for 1993–1996. Cessation of fishing by the single pole-and-line vessel in 1996 needs to be confirmed.

Catch and Effort Data

- No catch and effort data have been provided.

Length Data

- No length data have been provided.

Observer Data

- No observer data have been provided.

***PAPUA NEW GUINEA***

Longline: 1993–2001. Pole-and-line: 1970–1985. Purse seine: 1994–2001.

Estimates of Annual Catches and Numbers of Vessels

- Longline: The most recent estimates, for 2001, were determined from export statistics provided by the National Fisheries Authority on 15 May 2002.
- Purse seine: The most recent estimates, for 2001, were determined from data held by the OFP.

Catch and Effort Data

- Longline: Logsheet data have been provided by SPC members for 1993–2001.
- Pole-and-line: Logsheet data have been provided for 1970–1981 and 1984–1985.
- Purse seine: Logsheet data have been provided by SPC members for 1994–2001.

Length Data

- Longline: (a) Length data collected by port samplers in Papua New Guinea have been provided for 2001. (b) Length data have been collected by SPC observers for 1996, 1999 and 2000.
- Pole-and-line: No length data have been provided.
- Purse seine: (a) Length data collected by port samplers in the Federated States of Micronesia, Marshall Islands, Kiribati, Papua New Guinea and Solomon Islands have been provided by SPC members for 1995–1999. (b) Length data have been collected by observers from the Federated States of Micronesia, the FSM Arrangement, Papua New Guinea, Solomon Islands and SPC for 1995–1999 and 2001.

Observer Data

- Longline: Observer data have been collected by SPC observers for 1996, 1999 and 2000.
- Purse seine: Observer data have been collected by observers from the Federated States of Micronesia, the FSM Arrangement, Papua New Guinea, Solomon Islands and SPC for 1995–1999 and 2001.

**PHILIPPINES**

Longline: 19??–2001. Gillnet: 19??–2001. Handline: 19??–2001. Domestic purse seine and ringnet: 19??–2001. Distant-water purse seine: 1982 and 1984–2001. Unclassified: 19??–2001.

Estimates of Annual Catches and Numbers of Vessels

- Longline, gillnet, handline, domestic purse seine, ringnet and unclassified: The most recent estimates, for 1996–2001, were provided by the Bureau of Agricultural Statistics on 26 June 2002.
- Distant-water purse seine: The most recent estimates, for 2001, were determined from data held by the OFP.
- The following estimates are missing:
  - the number of longliners for 1950–1981;
  - the number of domestic purse seiners and ringnet vessels for 1950–1979 and 1994–1997;
  - longline catches of bigeye, skipjack and yellowfin for 1950–1969;
  - gillnet, handline and unclassified catches of bigeye for 1950–1969; and
  - domestic purse-seine and ringnet catches of bigeye, skipjack and yellowfin for 1950–1969.
- Gillnet, handline and unclassified catches of skipjack and yellowfin for 1950–1969 were estimated by assuming an annual increase equivalent to the average annual increase during 1970–1980 and back-calculating from 1970, and should be considered unreliable.

Catch and Effort Data

- Longline, gillnet, handline, domestic purse seine and ringnet and unclassified: No catch and effort data have been provided.
- Distant-water purse seine: Logsheet data have been provided by SPC members for 1982 and 1984–2001.

Length Data

- Longline, gillnet, handline, domestic purse seine and ringnet and unclassified: (a) Length data collected by the Bureau of Fisheries and Aquatic Resources (BFAR) have been provided for 1980–1987. (b) Length data collected by the Philippines Landed Catch and Effort Monitoring Program (LCEM) have been provided for 1993–1994. (c) Length data collected in the Philippines by a pole-and-line vessel chartered by SPC for the Regional Tuna Tagging Project have been provided for 1990–1992.
- Distant-water purse seine: (a) Length data collected by port samplers in Papua New Guinea and Solomon Islands have been provided for 1994–2000. (b) Length data have been collected by observers from Papua New Guinea and SPC for 1996–1998.

Observer Data

- Distant-water purse seine: Observer data have been collected by observers from Papua New Guinea and SPC for 1996–1998.

***RUSSIA***

Purse seine: 1985–1994.

Estimates of Annual Catches and Numbers of Vessels

- Fishing ceased in 1994.

Catch and Effort Data

- Logsheet data for purse seine have been provided by SPC members for 1985–1986 and 1993–1994.

Length Data

- Length data collected by port samplers in Solomon Islands have been provided for 1994.

Observer Data

- No observer data have been provided.

***SAMOA***

Longline: 1993–2001

Estimates of Annual Catches and Numbers of Vessels

- The most recent estimates, for 2001, was determined from information provided by the Fisheries Division on 6 and 26 March 2002.

Catch and Effort Data

- (a) A small amount of logsheet data are available for 1993–1994. (b) Logsheets for 2001 were provided by the Samoa Fisheries Division on 1 October 2001.

Length Data

- (a) Length data collected by port samplers in Palau and Samoa have been provided for 1998–2001. (b) Length data have been collected by SPC observers for 1998–2000.

Observer Data

- Data have been collected by SPC observers for 1998–2000.

***SOLOMON ISLANDS***

Longline: 1973, 1975–1985 and 1995–2001. Pole-and-line: 1971–2001. Purse seine: 1980–2001.

Estimates of Annual Catches and Numbers of Vessels

- Longline: The most recent estimates, for 2001, were determined from logsheet data held by the OFP.
- Pole-and-line: The most recent estimates, for 2001, were determined from information provided by the Fisheries Division on 17 June 2002.
- Purse seine: The most recent estimates, for 2001, were determined from information provided by the Fisheries Division on 24 June 2002.
- Estimates of the number of pole-and-line vessels for 1971–1972 are missing.

Catch and Effort Data

- Longline: Logsheet data have been provided by the Fisheries Division for 1981–1985, 1992 and 1995–2001. The most recent data, for 2000–2001, were received on 17 June 2002. Data for 1997–2001 are lacking catch estimates in units of numbers of fish.

- Pole-and-line: Logsheet data have been provided by the Fisheries Division for 1981–2001. The most recent data, for 2000–2001, were received on 17 June 2002.
- Purse seine: Logsheet data have been provided by the Fisheries Division for 1985–2001. The most recent data, for 2000–2001, were received on 17 June 2002.

#### Length Data

- Longline: (a) Length data collected by port samplers from Solomon Islands have been provided for 1996–2000. (b) Length data collected by observers from Solomon Islands and SPC have been provided for 1997–1998.
- Pole-and-line: (a) Length data collected by port samplers from Solomon Islands have been provided 1994–1999. (b) Length data collected by observers from Solomon Islands and SPC have been provided for 1998–2000.
- Purse seine: (a) Length data collected by port samplers from the Marshall Islands, Solomon Islands and the United States have been provided for 1994–1996 and 1998–2000. (b) Length data collected by observers from Solomon Islands and SPC have been provided for 1998–1999.

#### Observer Data

- Longline: Observer data collected by observers from Solomon Islands and SPC have been provided for 1997–1998.
- Pole-and-line: Observer data collected by observers from Solomon Islands and SPC have been provided for 1998–2000.
- Purse seine: Observer data collected by observers from Solomon Islands and SPC have been provided for 1998–1999.

### **SPAIN**

Purse seine: 2000–2001.

#### Estimates of Annual Catches and Numbers of Vessels

- The most recent estimates, for 2001, were determined from information provided by the *Organización de Productores Asociados de Grandes Atuneros Congeladores* (OPAGAC) on 21 June 2002.

#### Catch and Effort Data

- Logsheet data for purse seine have been provided by OPAGAC for 2000.

#### Length Data

- No length data have been provided.

#### Observer Data

- No observer data have been provided.

### **TAIWAN**

Driftnet: 1988–1991. Distant-Water Longline: 1954–2001. Offshore Longline, Based in Taiwan: 19??–2001. Offshore Longline, Based in Micronesia: 1987–2001. Purse seine: 1983–2001. Unclassified: 19??–2001.

#### Estimates of Annual Catches and Numbers of Vessels

- Longline, distant-water: The most recent estimates, for 2001, were provided by the Overseas Fisheries Development Council (OFDC) on 24 June 2002.
- Longline, offshore, based in Taiwan: The most recent estimates, for 2001, were provided by OFDC on 18 June 2002.
- Longline, offshore, based in Micronesia: The most recent estimates, for 1994–2000, were determined from data held by the OFP; the estimates for 1994–2000 were revised with unloadings data received from Guam.
- Purse seine: The most recent estimates, for 2001, were provided by OFDC on 18 June 2002.

- Unclassified: The most recent estimates, for 1996, were provided by National Taiwan University.
- The following estimates are missing:
  - the numbers of distant-water longliners for 1954–1963 and 1967–1974;
  - the numbers of offshore longliners based in Taiwan for 1950–1969;
  - the numbers of offshore longliners based in Micronesia for 1987–1992;
  - distant-water longline catches of albacore for 1954–1962, bigeye for 1954–1963, and skipjack for 1954–1966;
  - catches by offshore longliners based in Taiwan of bigeye, skipjack and yellowfin for 1950–1969;
  - catches by offshore longliners based in Micronesia of bigeye and yellowfin for 1987–1989 and skipjack for 1987–1998; and
  - catches by unclassified gear types of bigeye, skipjack and yellowfin for 1950–1969.

#### Catch and Effort Data

- Driftnet: Data grouped by 5x5 and month have been provided by National Taiwan University for 1988–1989.
- Longline, distant-water: (a) Data grouped by 5x5 and month have been provided by OFDC for 1967–2000. The most recent data, for 1999–2000, were provided on 14 June 2002. Note: Data for 1967–1993 were raised by NTU on the basis of the number of trips, rather than landings; these data have been raised by the OFP on the basis of landings. (b) Logsheet data have been provided by SPC members for 1980–2001.
- Longline, offshore, based in Taiwan: No data have been provided by OFDC.
- Longline, offshore, based in Micronesia: (a) No data have been provided by OFDC. (b) Logsheet data have been provided by SPC members for 1987–2001.
- Purse seine: (a) No data have been provided by OFDC. (b) Logsheet data have been provided by SPC members for 1983–2001. Note: Catches on logsheets for 1983–1991 have been under-reported.

#### Length Data

- Driftnet: No length data have been provided.
- Longline, distant-water: (a) OFDC holds length data recorded by fishermen covering distant-water longliners from 1981 to the present; these data have not been provided. (b) Length data from port sampling in Pago Pago, American Samoa, for 1964–1997, have been provided by the National Marine Fisheries Service. (c) Length data collected by port samplers in American Samoa and Fiji have been provided for 1992–2001. (d) Length data have been collected by SPC observers for 1996.
- Longline, offshore, based in Taiwan: OFDC holds length data covering offshore longliners from late 1997 to the present; port samplers in Tungking collect samples of 250 to 500 fish per month; these data have not been provided.
- Longline, offshore, based in Micronesia: (a) Length data collected by port samplers in the Federated States of Micronesia, Fiji, Marshall Islands, Palau and Solomon Islands have been provided for 1991–2000. (b) Length data collected by observers from the Federated States of Micronesia and SPC have been provided for 1993–1997.
- Purse seine: (a) No length data have been provided by Taiwan. (b) Length data collected by port samplers in the Federated States of Micronesia, Fiji, Marshall Islands, Kiribati, Papua New Guinea and Solomon Islands have been provided for 1993–2001. (c) Length data collected by observers from the Federated States of Micronesia, Papua New Guinea and SPC have been provided for 1993–2000.

#### Observer Data

- Longline, distant-water: Data have been collected by SPC observers for 1996.
- Longline, offshore, based in Taiwan: No observer data have been provided.
- Longline, offshore, based in Micronesia: Data collected by observers from the Federated States of Micronesia and SPC have been provided for 1993–1997.
- Purse seine: Data collected by observers from the Federated States of Micronesia, Papua New Guinea and SPC have been provided for 1993–2000.

## **TONGA**

Longline: 1982–2001.

Estimates of Annual Catches and Numbers of Vessels

- The most recent estimates, for 2001, were determined from data held by the OFP and information provided by the Ministry of Fisheries.
- Catches for 1996–2000 were determined assuming each vessel caught an average of 100 tonnes per annum and applying the average species composition determined from logsheet data held by the OFP for 1993–2001; these estimates should be considered as unreliable.

Catch and Effort Data

- Logsheet data for longliners have been provided by SPC members for 1982–1994 and 1996–2001.

Length Data

- (a) Length data collected by port samplers in American Samoa, Fiji, Samoa and Tonga have been provided for 1995–2001. (b) Length data have been collected by SPC observers 1995–1996 and 1998–2000.

Observer Data

- Data have been collected by SPC observers 1995–1996 and 1998–2000.

**UNITED STATES OF AMERICA**

Longline, Hawaii: 1950–2001. Longline, Ex-US: 1991–2001. Pole-and-Line, Hawaii: 1995–2001. Purse Seine: 1976–2001. Troll and Handline, Hawaii: 1950–2001. Troll, South Pacific Albacore: 1986–2001.

Note: American Samoa, Guam and the Northern Marianas are presented separately above. ‘Longline, ex-US’ includes fishing in the waters of the Federated States of Micronesia, Fiji, Marshall Islands and Palau.

Estimates of Annual Catches and Numbers of Vessels

- Longline, Hawaii: The most recent estimates, for 1997–2001, were provided by the National Marine Fisheries Service on 18 June 2002.
- Longline, ex-US: The most recent estimates, for 2001, were determined from logsheet and landings data held by the SPC Oceanic Fisheries Programme. During 2001, these vessels fished in the waters of the Federated States of Micronesia.
- Pole-and-Line, Hawaii: The most recent estimates, for 1996–2001, were provided by the National Marine Fisheries Service on 18 June 2002.
- Purse Seine: The most recent estimates, for 2001, were taken from Coan et al. (2002).
- Troll/Handline, Hawaii: The most recent estimates, for 1996–2001, were provided by the National Marine Fisheries Service on 18 June 2002.
- Troll, South Pacific albacore: The most recent estimates, for 1986–2001, were provided by the National Marine Fisheries Service on 18 June 2002.
- The following estimates are missing:
  - number of U.S. pole-and-line vessels during 1950–1994;
  - pole-and-line catches of skipjack during 1950–1978; and
  - pole-and-line catches of yellowfin during 1950–1969.

Catch and Effort Data

- Longline, Hawaii: (a) Data covering Hawaii-based vessels, grouped by 5x5 and quarter, have been provided by the National Marine Fisheries Service for 1991–2000; the most recent data, for 1999–2000, were received on 7 November 2001. (b) Bigeye standard effort data covering Hawaii-based vessels, grouped by month for the Hawaii EEZ, for 1991–2000, were provided by NMFS on 10 May 2002.
- Longline, ex-US: Logsheet data for 1991–2001 have been provided by SPC members.
- Purse seine: (a) Logsheet data have been provided by the Pacific Tuna Development Foundation for 1976–1977, 1979–1980 and 1982–1983. (b) Data grouped by 1x1 and month have been provided by the American Tunaboat

Association for 1980–1988. (c) Logsheet data have been provided by National Marine Fisheries Service through the Forum Fisheries Agency for 1988–2001.

- Troll, South Pacific albacore: Data grouped by 5x5 and month have been provided by National Marine Fisheries Service for 1986–2001. The most recent data, covering 2000–2001, were provided on 20 November 2001; catches for 1991–1995 and 1999–2001 are in units of numbers of fish only and not in tonnes. Finer data can be provided by National Marine Fisheries Service for cooperative studies.

#### Length Data

- Longline, ex-US: (a) Data collected by port samplers for 1992–2001 have been provided by the Federated States of Micronesia, Fiji, Marshall Islands and Palau. (b) Data collected by observers from the Federated States of Micronesia have been provided for 1995–1997. (c) Data have been collected by an SPC observer for 1995.
- Purse-seine: Data collected by observers and port samplers, for 1988–2001, have been provided by the National Marine Fisheries Service through the Forum Fisheries Agency.
- Troll, South Pacific albacore: Port sampling data grouped by 5x10 and month have been provided by National Marine Fisheries Service; the most recent data, covering the 1998/99–2000/01 seasons, were provided on 20 November 2001.

#### Observer Data

- Longline, Hawaii: Observer data covering domestic longliners, for 1991–2001, were provided by National Marine Fisheries Service on 28 November 2001.
- Longline, ex-US: Data collected by observers from the Federated States of Micronesia and SPC have been provided for 1995–1997.
- Purse seine: Observer data have been provided by the Forum Fisheries Agency for 1988–2001.

## ***VANUATU***

Longline: 1995–2001. Purse seine: 1994–2000.

#### Estimates of Annual Catches and Numbers of Vessels

- Longline: The most recent estimates, for 1998, were determined from data held by the OFP.
- Purse seine: The most recent estimates, for 2000, were determined from data held by the OFP.

#### Catch and Effort Data

- Longline: Logsheet data have been provided by SPC members for 1995–1998.
- Purse seine: Logsheet data have been provided by SPC members for 1994–2000.

#### Length Data

- Longline: (a) Length data collected by port samplers in American Samoa, Fiji and Tonga have been provided for 2000–2001. (b) Length data have been collected by an SPC observer for 1995.
- Purse seine: (a) Length data collected by port samplers in the Federated States of Micronesia, Kiribati, Marshall Islands, Papua New Guinea and Solomon Islands have been provided for 1995–2000. (b) Length data have been collected by observers from the Federated States of Micronesia, Papua New Guinea and SPC for 1995–1998.

#### Observer Data

- Longline: Data have been collected by an SPC observer for 1995.
- Purse seine: Data have been collected by observers from the Federated States of Micronesia, Papua New Guinea and SPC for 1995–1998.

***EASTERN PACIFIC OCEAN***

Longline: 1950–2001. Pole-and-line: 1950–2001. Purse seine: 1950–2001. Troll: 1950–2001. Other: 1950–2001.

Estimates of Annual Catches and Numbers of Vessels

- The most recent estimates, for 2001, were provided by the Inter-American Tropical Tuna Commission (IATTC) on 1 July 2002.

Catch and Effort Data

- Pole-and-line: No pole-and-line catch and effort data have been provided.
- Purse seine: (a) Catch and effort data for 1980–1999, grouped by 1x1, year/month and set type, for all fishing nations combined, have been provided by IATTC; the most recent data, covering 1998–1999, were provided on 6 October 2000. The data are unraised, although the coverage is high. The number of sets and catches are given for school, dolphin and log sets, but the number of sets and catches for drifting FADs are not reported separately. (b) Bigeye catch and standard effort data, for 1962–2001, grouped by ‘fishery’ and year/month, were provided by IATTC on 24 April 2001.

Length Data

- (a) Yellowfin length data, grouped by ‘fishery’ and quarter, for 1975–2000, were provided on 14 September 2000.
- (b) Bigeye length data, grouped by ‘fishery’ and quarter, for 1962–2001, were provided on 24 April 2002.

Observer Data

- No observer data have been provided.

**DISSEMINATION OF DATA*****PUBLIC DOMAIN CATCH AND EFFORT DATA ON THE SPC/OFP WEBSITE***

Since May 1999, public domain catch and effort data, grouped by 5° latitude and 5° longitude and month, for all fishing nations combined, have been available on the SPC/OFP website ([www.spc.int/oceanfish](http://www.spc.int/oceanfish)). The following data are available in zip files containing FoxPro Professional Edition Version 5.0 DBF files:

- Driftnet data, grouped by 5x5 and month, for all fishing nations combined, for 1983 to 1990, covering the Pacific Ocean south of the equator.
- Longline data, grouped by 5x5 and month, for all fishing nations combined, for 1958 to 2000, covering the whole Pacific Ocean.
- Pole-and-line data, grouped by 5x5 and month, for all fishing nations combined, for 1972 to 2000, covering the western and central Pacific Ocean (west of 150W).
- Purse-seine data, grouped by 5x5 and month, for all fishing nations combined, for 1967 to 2000, covering the western and central Pacific Ocean (west of 150W).

The public domain catch and effort data were downloaded 42 times during 2001 and 52 times during January–June 2002.

***NON-PUBLIC DOMAIN DATA DISSEMINATED BY THE OFP SINCE JANUARY 2001***

All instances of dissemination of non-public data by the OFP since January 2001 are listed below. During this period, there were 20 instances of dissemination of data.

1. On 20 January 2001, Dr Dale Squires, Industry Economist, National Marine Fisheries Service, La Jolla, United States of America, requested purse-seine gross registered tonnage for individual vessel-years, and well capacity and maximum catch per trip per vessel, without vessel identifiers, by fishing nation, during 1990–2000, for use in a study of vessel capacity in the WCPO; these data were provided on 26 January 2001 and 14 February 2001.
2. On 20 January 2001, Dr Dale Squires, Industry Economist, National Marine Fisheries Service, La Jolla, United States of America, also requested purse-seine catch and effort data, by set type, for individual vessel-trips, with coded vessel identifiers, during 1990–2000, for use in a study of vessel capacity in the WCPO; these data were provided on 16 November 2001, with authorisation from the sources of the data.
3. On 29 January 2001, Mr Fabio Carocci, Marine Resources Service, Fishery Resources and Environment Division, Fisheries Department, Food and Agriculture Organization of the United Nations, Rome, requested longline catch data, grouped by year/quarter and 5° longitude by 5° latitude, for 1958–1998, for use in producing maps for an atlas of commercial tuna catches; these data were released on 5 February 2001.
4. On 8 March 2001, Dr Shui-Kai (Eric) Chang, Director of the Information Division of the Overseas Fisheries Development Council (OFDC), Taipei, Taiwan, requested catch data covering purse seiners in the area to the west of 150°W during 1998–1999, grouped by 5° latitude and 5° longitude and year, for all fishing nations combined; these data were released on 8 March 2001.
5. On 14 March 2001, Mr Fabio Carocci, Marine Resources Service, Fishery Resources and Environment Division, Fisheries Department, Food and Agriculture Organization of the United Nations, Rome, requested pole-and-line catch data for 1990–1999 and purse-seine catch data for 1997–1999, grouped by year/month and 5° longitude by 5° latitude, for use in producing maps for an atlas of commercial tuna catches; these data were released on 15 February 2001.
6. On 4 April 2001, Ms Mereseini Mainaquelevu, a Fijian postgraduate economics student at the National Centre for Development Studies at the Australian National University in Canberra, Australia, requested annual catch and effort data for the Fiji EEZ, by gear type, for a research project in Quantitative International Economics on stock assessment of yellow fin tuna in Fiji; these data were released on 11 April 2001.
7. On 13 April 2001, Dr Shyh-Bin Wang, Overseas Fisheries Development Council, Taiwan, requested longline catch and effort data for the whole Pacific Ocean, for 1998, grouped by quarter and 5° longitude by 5° latitude, to produce maps for the 1998 edition of “Annual Catch Statistics of Taiwanese Distant Water Tuna Longline Fishery”; these data were provided on 18 April 2001.
8. On 22 June 2001, Mr Geoff Tuck, CSIRO Department of Marine Research, Hobart, Tasmania, Australia, requested Taiwanese longline effort data, for the Pacific Ocean south of 30°S, for 1997–1998, grouped by 5° latitude and 5° longitude and quarter, for an update of a study on population dynamics of seabirds and for analysing southern ocean trends in longline effort; these data were released on 26 June 2001.
9. On 1 July 2001, Dr Chilu Sun, National Taiwan University, requested Japanese longline (1998-1999) and purse-seine (1999-2000) data provided by SPC member countries and territories, Korean longline (1998-1999) and purse-seine (1998-2000) data, Taiwanese offshore longline data (1998-2000), United States (Hawaii) longline data (1999), and United States purse-seine data (1998-2000), all grouped by 5° latitude and 5° longitude and month, for production model analyses to be presented at the 14<sup>th</sup> meeting of the Standing Committee on Tuna and Billfish, 9–16 August 2001, Noumea, New Caledonia; these data were released on 17 July 2001, with authorisation from the Forum Fisheries Agency for the release of the United States purse-seine data.
10. On 30 August 2001, Dr Shyh-Bin Wang, Overseas Fisheries Development Council, Taiwan, requested catch and effort data for Taiwanese offshore longliners, grouped by month and 1° longitude by 1° latitude, for 2000–2001; these data were provided on 14 September 2001.
11. On 18 October 2001, Mr Peter Ward, Department of Biology, Dalhousie University, Halifax, Nova Scotia, Canada, requested public domain Japanese longline data for the Pacific Ocean, grouped by 5° latitude and 5° longitude and month, for a masters thesis on global trends in billfish catch rates; these data were provided on 18 October 2001.

12. On 22 November 2001, Ms Rachel Attard, Bureau of Rural Sciences, Canberra, Australia, requested length frequency data for bigeye, skipjack and yellowfin, by gear type, and, for purse seine, by school association, grouped by 10° latitude and 20° longitude and month, for 1990–2000, for a study of global tuna fisheries, particularly purse seine; these data were provided on 28 November 2001.
13. On 28 November 2001, Mr Geoff Tuck, CSIRO Division of Fisheries, Hobart, Australia, requested longline effort data, grouped by 5° longitude by 5° latitude and month, for 140°E to 70°W and 30°S to 60°S, for all vessel nationalities combined, for an evaluation of seabird bycatches in longline fisheries in the southern ocean; these data were provided on 2 December 2001.
14. On 15 January 2002, Dr Chilu Sun, National Taiwan University, requested Taiwanese offshore longline data, for 1997–2000, grouped by 5° latitude and 5° longitude and month, for an analysis of swordfish CPUE to be presented at the Third Meeting of the Interim Scientific Committee for Tuna and Tuna-Like Species in the North Pacific Ocean, 28–30 January 2002, Nagasaki, Japan; these data were released on 16 January 2002.
15. On 16 January 2002, Mr Fabio Carocci, Marine Resources Service, Fishery Resources and Environment Division, Fisheries Department, Food and Agriculture Organization of the United Nations, Rome, requested an update of longline, pole-and-line and purse-seine catch data, grouped by year/quarter and 5° longitude by 5° latitude, for the Atlas of Catches of Tunas and Billfishes; these data were released on 21 February 2002.
16. On 22 April 2002, Mr Michael Batty, Managing Director, National Fisheries Authority, Port Moresby, Papua New Guinea, requested that two reports by SPC observers aboard two Papua New Guinea-flagged longliners targeting shark in the Papua New Guinea EEZ be sent to consultant Mr Mike McCoy for use in drafting a shark management plan; these data were released on 22 April 2002.
17. On 6 April 2002, Mr Peter Ward, a student completing an MSc degree at Dalhousie University, Halifax, Canada, requested fine-scale observer longline data, without vessel identification, for a study on soak time and its relationship with species catch. A sample set of this information was first provided on 9 April 2002, with the latest data provided on 27 May 2002.
18. On 29 May 2002, Dr Robert Campbell, CSIRO Department of Marine Research, Hobart, Tasmania, Australia, requested tag release and recapture data from the Regional Tuna Tagging Programme, 1989–1992, for studies that will contribute to the formulation of a management plan, including Total Allowable Catch and Total Allowable Effort, for tuna fisheries in Australia; these data were released on 29 May 2002.
19. On 31 May 2002, Dr Donald Bromhead, Fisheries and Marine Science Section, Bureau of Rural Sciences, Department of Agriculture, Fisheries and Forestry, Australia, requested Japanese longline data, including effort and the catch of striped marlin in the Pacific Ocean, grouped by 5° latitude and 5° longitude and month, for 1962–1980, for a study on the potential interactions between the recreational and commercial fisheries for striped marlin in the Australian Fishing Zone; these data were released on 11 June 2002, with authorisation from the National Research Institute of Far Seas Fisheries of Japan for the release of the non-public domain data (1981–2000).
20. On 26 June 2002, Dr Chilu Sun, National Taiwan University, requested Taiwanese offshore longline data and United States longline data, grouped by 5° latitude and 5° longitude and month, and United States purse-seine data, grouped by 1° latitude and 1° longitude and month, for production model analyses to be presented at the 15<sup>th</sup> meeting of the Standing Committee on Tuna and Billfish, 18–27 July 2002, Honolulu, Hawaii, United States of America. The longline data were released on 26 June 2002. The purse-seine data were released on 27 June 2002, with authorisation from the Forum Fisheries Agency.

### ***REQUESTS FOR STATISTICS AND OTHER INFORMATION PROCESSED BY THE OFP SINCE JANUARY 2001***

The OFP receives numerous requests for tuna fishery statistics and other information that do not require the release of data. The requests received and processed by the OFP since January 2001 are listed below. During this period, there were 57 requests for statistics or other information.

1. On 18 January 2001, Mr Fabio Carocci, Marine Resources Service, Fishery Resources and Environment Division, Fisheries Department, Food and Agriculture Organization of the United Nations, Rome, requested information on the coverage of the 5x5 public domain data for the WCPO that are available on the SPC website; this information was provided on 26 January 2001.

2. On 20 January 2001, Dr Dale Squires, Industry Economist, National Marine Fisheries Service, La Jolla, United States of America, requested estimates of the annual catch by GRT class for purse seiners in the WCPO, during 1990–2000, by fishing nation, for use in a study of vessel capacity; this information was provided on 31 January 2001.
3. On 26 January 2001, Mr Brad Warren, Editor, Pacific Fishing Magazine, requested annual catch estimates for tuna fisheries in the WCPO during 1999; this information was provided on 26 January 2001.
4. On 30 January 2001, Dr Michael Hinton, Inter-American Tropical Tuna Commission (IATTC), requested annual catch statistics for tuna fisheries in the WCPO and EPO; this information was provided on 30 January 2001.
5. On 30 January 2001, Mr Joshua Mitchell, Director of Fisheries Policy and Economic Initiatives, Ministry of Marine Resources, Rarotonga, Cook Islands, requested information on the geographic areas and longline catches, during 1990–1998, in the WCPO and FAO Areas that overlap the WCPO; this information was provided on 31 January 2001.
6. On 1 February 2001, Dr Dale Squires, Industry Economist, National Marine Fisheries Service, La Jolla, United States of America, requested estimates of the annual effort and CPUE by GRT class for purse seiners in the WCPO, during 1990–2000, by fishing nation, for use in a study of vessel capacity; this information was provided on 5 February 2001.
7. On 5 February 2001, Mr Juan Ignacio de Leiva Moreno, Fishery Resources Division, Food and Agriculture Organization of the United Nations, Rome, requested annual catch estimates for albacore in the north and south Pacific Ocean; this information was provided on 5 February 2001.
8. On 23 February 2001, Dr Dale Squires, Industry Economist, National Marine Fisheries Service, La Jolla, United States of America, requested estimates of the annual effort and CPUE by species for purse seiners in the WCPO, during 1990–2000, by GRT class and fishing nation, for use in a study of vessel capacity; this information was provided on 20 March 2001.
9. On 1 March 2001, Mr Len Rodwell, Manager, Economics and Marketing, Forum Fisheries Agency, requested catch estimates for the Spanish purse-seine fleet in the WCPO during 2000; this information was provided on 1 March 2001.
10. On 5 March 2001, Mr Len Rodwell, Manager, Economics and Marketing, Forum Fisheries Agency, requested catch estimates for the Japanese purse-seine fleet in the SPC Statistical Area; this information was provided on 5 March 2001.
11. On 6 March 2001, Mr Len Rodwell, Manager, Economics and Marketing, Forum Fisheries Agency, requested annual longline catch estimates for the WCPO, by species; this information was provided on 6 March 2001.
12. On 23 March 2001, Mr Peter Ward, Bureau of Resource Sciences, Australia, requested maps of longline effort and catches of bigeye and swordfish in the WCPO, for use at a ministerial meeting to consider amendments to the US treaty; this information was provided on 23 March 2001.
13. On 29 March 2001, Mr Steve Beverly, SPC Fisheries Development Officer, requested estimates of longline catch rates in the waters of the Gilbert Islands, Kiribati, for a report on small-scale longline trials conducted by SPC; this information was provided on 29 March 2001.
14. On 2 April 2001, Mr Tim Park, Tuna Biologist, Micronesian Maritime Authority, Federated States of Micronesia, requested estimates of longline, pole-and-line and purse-seine catches during 1997–1999, grouped by EEZ, for a presentation to be made at the 52<sup>nd</sup> Tuna Conference, Lake Arrowhead, 21–24 May 2001; this information was provided on 3 April 2001.
15. On 10 April 2001, Dr Talbot Murray, Project Director, Pelagic Fisheries, National Institute of Water and Atmospheric Research Ltd., New Zealand, and coordinator of the SCTB Albacore Research Group, requested estimates of annual effort and catches of albacore, by gear type and fishing nation, for the meeting of the Albacore Research Group at SCTB14, 9–16 August 2001; this information was provided on 3 May 2001.
16. On 12 April 2001, Mr Len Rodwell, Manager, Economics and Marketing, Forum Fisheries Agency, requested information on coverage by logsheet data of catches within the SPC Statistical Area during 1999; this information was provided on 17 April 2001.
17. On 25 April 2001, Ms Cristelle Pratt, Marine Affairs Adviser, South Pacific Applied Geoscience Commission (SOPAC), Suva, Fiji, requested a map of the distribution of tuna catches in the WCPO during 1999 and a histogram of annual catches, by gear type, from 1970 to 1999; this information was provided on 25 April 2001.

18. On 21 June 2001, Dr Chilu Sun, National Taiwan University, requested requested estimates of purse-seine catches of tuna, by species, by ocean area (WCPO, EPO, Indian Ocean, Atlantic Ocean), for 1996–2000; this information was provided on 25 June 2001.
19. On 4 July 2001, Mr Atilio Coan, Leader, Multispecies Data Collection and Evaluation Programme, Southwest Fisheries Science Center, United States National Marine Fisheries Service, La Jolla, California, requested annual catch statistics covering American longliners in the SPC area, for use in a background paper for the Fourteenth Meeting of the Standing Committee on Tuna and Billfish, 9–16 August 2001, Noumea, New Caledonia; this information was provided on 5 July 2001.
20. On 5 July 2001, Dr Robert Campbell, CSIRO Department of Marine Research, Hobart, Tasmania, Australia, requested a MapInfo file of EEZ coordinates in the SPC region; this information was provided on 6 July 2001.
21. On 23 July 2001, Dr Talbot Murray, Project Director, Pelagic Fisheries, National Institute of Water and Atmospheric Research Ltd., New Zealand, requested annual catch estimates for South Pacific albacore, by fishing nation, in preparation for the Fourteenth Meeting of the Standing Committee on Tuna and Billfish, 9–16 August 2001, Noumea, New Caledonia; this information was provided on 23 July 2001.
22. On 17 August 2001, Mr Mike McCoy, FAO consultant to the Marhsall Islands Marine Resources Authority, requested observer reports covering Chinese and Taiwanese longliners in the Marshall Islands EEZ; this information was provided on 24 August 2001.
23. On 20 August 2001, Mr Edwin Oreihaka, Fisheries Division, Honiara, Solomon Islands, requested catches per vessel per month, for Taiwanese longliners and purse seiners in the Solomon Islands EEZ during 2000; this information was provided on 20 August 2001.
24. On 22 August 2001, Dr Shyh-Bin Wang, Overseas Fisheries Development Council, Taiwan, requested landings statistics, by port, year and species, for Taiwanese longliners; this information was provided on 24 August 2001.
25. On 24 August 2001, Ms Marion Francoual, journalist with Les Nouvelles Calédoniennes, Noumea, New Caledonia, requested information concerning tuna fisheries in the WCPO and the 14<sup>th</sup> meeting of the Standing Committee on Tuna and Billfish; this information was provided on 24 August 2001.
26. On 5 September 2001, Mr Tom Hyland, director of Greater Pacific Seafood Ltd (Fiji) requested longline catch rates for fleets operating in Vanuatu waters during 2001, with authorisation provided by Vanuatu Fisheries (Wesley Obed); this information was provided on 14 September 2001 after recently received logsheet data was processed.
27. On 11 September 2001, Mr Mike McCoy, consultant with Gillett, Preston and Associates, requested information on transshipments of foreign purse seine vessels for a study conducted on behalf of the National Fisheries Authority of Papua New Guinea; this information was provided on 11 September 2001.
28. On 15 September 2001, Mr Arsène Stein, Service des Ressources Marines, Papeete, French Polynesia, requested an estimate of the catch by the Spanish purse-seine fleet during 2000; this information was provided on 17 September 2001.
29. On 17 September 2001, Mr Rimeta Tinga, Fisheries Division, Tarawa, Kiribati, requested estimates of catches by the Spanish purse-seine fleet during the 2000 and 2001 licensing years (20 October to 19 October); this information was provided on 17 September 2001.
30. On 21 September 2001, Mr Pio Manoa, Oceans Campaigner, Greenpeace Pacific, Suva, Fiji, requested information concerning the species of whales responsible for predation of longline catches; this information was provided on 17 September 2001.
31. On 24 September 2001, Mr Xiaojie Dai, Department of Marine Fishery Science and Technology, College of Oceanography, Shanghai Fisheries University, China, requested a list of Chinese longline trips covered by catch and effort logsheet data held at SPC, for 1998–2000, in order to identify gaps in the data held by SPC and SFU; this information was provided on 27 September 2001.
32. On 3 October 2001, Ms Kristen Long, Sea Grant Fellow, Office of Protected Resources, National Marine Fisheries Service, Silver Spring, Maryland, United States, requested information on the number of vessels active and catches by fleet, 1950–1999; this information was provided on 3 October 2001.
33. On 4 October 2001, Ms Kristen Long, Sea Grant Fellow, Office of Protected Resources, National Marine Fisheries Service, Silver Spring, Maryland, United States, requested a summary of observer data covering bycatches in the WCPO; this information was provided on 5 October 2001.

34. On 15 October 2001, Mr Ludwig Kumoro, Tuna Biologist, National Fisheries Authority, Papua New Guinea, requested a summary of purse seine catch and effort statistics for operations in PNG waters for the period 1990–1999; this information was provided on 15 October 2001.
35. On 15 October 2001, Mr Tim Park, Tuna Biologist, Micronesian Fisheries Authority, Federated States of Micronesia, requested estimates of annual purse-seine catches in the WCPO; this information was provided on 15 October 2001.
36. On 22 October 2001, Mr Geoff Tuck, CSIRO Division of Fisheries, Hobart, Australia, requested information concerning the operations of Chinese longliners fishing south of 30°S for a study on interactions between longliners and seabirds; this information was provided on 22 October 2001.
37. On 24 October 2001, Mr Al Coan, National Marine Fisheries Service, La Jolla, California, requested an estimate of the number of purse seiners active in the WCPO during 1985–2000; this information was provided on 24 October 2001.
38. On 26 October 2001, Mr Steve Beverly, SPC Fisheries Development Officer, requested estimates of catches of tuna in the WCPO by flag and species, for a presentation to the *École des métiers de la mer* in Nouméa, New Caledonia; this information was provided on 26 October 2001.
39. On 29 October 2001, Ms Rachel Attard, Bureau of Rural Sciences, Canberra, Australia, requested estimates of annual purse-seine catches of bigeye, skipjack and yellowfin in the WCPO by fishing nation and school association, for a report on fish aggregating devices; this information was provided on 6 November 2001.
40. On 1 November 2001, Mr Paul Dalzell, Western Pacific Regional Fisheries Management Council of the United States, Honolulu, requested catch estimates for the Samoan longline fleet during 2000; this information was provided on 6 November 2001.
41. On 11 December 2001, Mr Chris Reid, Market Advisor, Forum Fisheries Agency, Honiara, Solomon Islands, requested estimates of catches of bigeye, skipjack and yellowfin, by gear type, in the SPC Statistical Area, during 1970–2000; this information was provided on 11 December 2001.
42. On 13 December 2001, Mr Ludwig Kumoro, National Fisheries Authority, Papua New Guinea, requested catch statistics for all fleets fishing in PNG waters for the past five years in preparation for upcoming access negotiations; this information was provided on 14 December 2001.
43. On 2 February 2002, Mr John Hall, M/V Zephyr, requested information on catches and CPUE for albacore by Korean longliners between 0–10S; this information was provided on 21 February 2002.
44. On 6 February 2002, Dr Eugene Sabourenkov, Science Officer, CCAMLR Secretariat, Hobart, Australia, requested information on mitigating bycatch of Southern Ocean seabirds; this information was provided on 21 February 2002.
45. On 15 February 2002, Mr Andrew Richards, Manager Monitoring, Control and Surveillance, Forum Fisheries Agency, Solomon Islands, requested information on the catches of certain Flag of Convenience (FOC) vessels from the Regional Tuna Fishery database; this information was provided on 25 February 2002.
46. On 26 February 2002, Mr Michael McCoy, consultant for Papua New Guinea based in Honolulu, requested information on the use of shark wires by longliners, based on observer reports; this information was provided on 17 April 2002.
47. On 1 March 2002, Mr Juam Rodriguez, ANABAC, Bermeo, Spain, requested information on purse seiners fishing in the WCPO for a study of tuna purse seiners active globally; this information was provided on 5 March 2002.
48. On 11 March 2002, Mr Samuel Resma, Mindanao Economic Development Council, Davao City, Philippines, requested information on catches by domestic and distant-water vessels of the Philippines, for a study of the tuna fisheries of Mindanao and the Philippines; this information was provided on 11 March 2002.
49. On 18 March 2002, Mr Christian Quidet, *Responsable de la filière pêche, Service de la Mer, Direction du Développement Economique et de l'Environnement, Province Nord*, New Caledonia, requested maps of longline CPUE by species; this information was provided on 18 March 2002.
50. On 27 March 2002, Dr Alain Fonteneau, *Institut de Recherche pour le Développement* of France, Victoria, Seychelles, requested information on the size of yellowfin taken by purse seiners in the WCPO; this information was provided on 25 April 2002.

51. On 28 March 2002, Mr Paul Dalzell, Western Pacific Regional Fisheries Management Council of the United States, Honolulu, requested a summary of target and bycatch observer data for longline vessels fishing in the vicinity of American Samoa; this information was provided on 9 April 2002.
52. On 18 May 2002, Mr Russell Ito, National Marine Fisheries Service, Honolulu, Hawaii, United States of America, requested estimates of the annual catches of American longliners in the WCPO, exclusive of Hawaii and American Samoa, during 1991–2001; this information was provided on 4 June 2002.
53. On 27 May 2002, Mr Kolianita Lavemai, Fisheries Officer, Ministry of Fisheries, Tonga, requested information on gamefishing in Tonga, for use in a management plan for charter vessels and gamefishing; this information was provided on 28 May 2002.
54. On 31 May 2002, Mr Mike Batty, Executive Director, National Fisheries Authority, Papua New Guinea, requested an estimate of the average annual total catch per 10,000 sq km of the Papua New Guinea EEZ (minus land and archipelagic waters); this information was provided on 3 June 2002.
55. On 4 June 2002, Mr Glen Joseph, Deputy Director, Marshall Islands Marine Resources Authority, Marshall Islands, requested catch and effort statistics for fleets fishing in the RMI EEZ during recent years; this information was provided on 4 June 2002.
56. On 2 May 2002, Mr Ludwig Kumoro, National Fisheries Authority, Papua New Guinea, requested a summary of catches reported by observers active on longline vessels targeting shark in PNG waters during recent years; 25 observer trips were entered by OFP staff during May 2002 and a summary was provided to Mr Kumoro on 10 June 2002.
57. On 12 June 2002, Mr Peter Ward, a student completing an MSc degree at Dalhousie University, Halifax, Canada, requested a summary of life status by species from the regional observer longline data; this information was provided on 13 June 2002.

**REFERENCES**

- Anonymous. 1998. Report of the Eleventh Meeting of the Standing Committee on Tuna and Billfish, 28 May – 6 June 1998, Honolulu, Hawaii, United States of America. Secretariat of the Pacific Community, Noumea, New Caledonia. 108 pp.
- Anonymous. 1999. Report of the Twelfth Meeting of the Standing Committee on Tuna and Billfish, 16 – 23 June 1999, Tahiti, French Polynesia. Secretariat of the Pacific Community, Noumea, New Caledonia. 126 pp.
- Coan, A.L., Jr., G.T. Sakagawa & G. Yamasaki. 2002. The 2001 U.S. purse seine fishery for tropical tunas in the central-western Pacific. Document prepared for the 14<sup>th</sup> Annual Consultation of Parties to the South Pacific Regional Tuna Treaty, 18–19 March 2002, Kiritimati Island, Kiribati. National Marine Fisheries Service, La Jolla, California, United States of America. 13 pp.
- Kim, J.Y. 2000. Korean tuna fisheries in the western Pacific Ocean. Working Paper NFR–11. Thirteenth Meeting of the Standing Committee on Tuna and Billfish, 5–12 July 2000, Noumea, New Caledonia. National Fisheries Research and Development Institute, Busan, Korea. 8 pp.
- Mitchell, J. 1999. Country report: Cook Islands. Working Paper NFR–4. Twelfth Meeting of the Standing Committee on Tuna and Billfish, 16–23 June 1999, Tahiti, French Polynesia. Ministry of Marine Resources, Rarotonga, Cook Islands. 2 pp.
- Miyabe, N., M. Ogura, T. Matsumoto & Y. Nishikawa. 2000. National tuna fisheries report of Japan as of 1999. Working Paper NFR–9. Thirteenth Meeting of the Standing Committee on Tuna and Billfish, 5–12 July 2000, Noumea, New Caledonia. National Research Institute of Far Seas Fisheries, Shimizu, Japan. 19 pp.
- Murray, T. & L. Griggs. 2001. National tuna fishery report 2001 – New Zealand. Working Paper NFR–10. Fourteenth Meeting of the Standing Committee on Tuna and Billfish, 9–16 August 2001, Nouméa, New Caledonia. National Institute of Water and Atmospheric Research Ltd, Wellington, New Zealand. 9 pp.
- Tuwai, I.L. & M. Lagibalavu. 2001. Tuna and billfish fisheries of Fiji's fishing zone. Working Paper NFR–5. Fourteenth Meeting of the Standing Committee on Tuna and Billfish, 9–16 August 2001, Nouméa, New Caledonia. Fisheries Division, Raiwaqa, Fiji Islands. 11 pp.
- Wang, S.B., S.K. Chang & C.L. Kuo. 2000. Tuna fishery of Taiwan in the Pacific region during 1995–1999 period. Working Paper NFR–19. Thirteenth Meeting of the Standing Committee on Tuna and Billfish, 5–12 July 2000, Noumea, New Caledonia. Overseas Fisheries Development Council and the Fisheries Administration, Council of Agriculture, Taipei, Taiwan. 16 pp.



**LONGLINE**

Total retained catches (tonnes) of albacore, bigeye, skipjack and yellowfin in the WCPO are compared to amounts (tonnes and percentage of annual catch) covered by logsheet data, unloadings data, port sampling data, and observer data held by the OFP.

**Table A4. American Samoa longline**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1988	2	-	-	-	-	-	-	-	-
1989	1	-	-	-	-	-	-	-	-
1990	1	-	-	-	-	-	-	-	-
1991	1	-	-	-	-	-	-	-	-
1992	1	-	-	-	-	-	-	-	-
1993	2	-	-	-	-	-	-	-	-
1994	2	-	-	-	-	-	-	-	-
1995	4	-	-	-	-	-	-	-	-
1996	102	-	-	-	-	-	-	-	-
1997	336	-	-	-	-	-	-	-	-
1998	516	-	-	-	-	-	-	-	-
1999	436	-	-	-	-	-	-	-	-
2000	745	-	-	-	-	41	5.5	-	-
2001	3,570	-	-	2,362	66.2	73	2.0	-	-

**Table A5. Australia domestic and chartered longline**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1985	8	5	62.5	-	-	-	-	-	-
1986	14	10	71.4	-	-	-	-	-	-
1987	1,357	890	65.6	-	-	-	-	-	-
1988	1,073	722	67.3	-	-	-	-	-	-
1989	1,530	1,320	86.3	-	-	-	-	-	-
1990	1,089	980	90.0	-	-	-	-	-	-
1991	1,059	961	90.7	-	-	-	-	-	-
1992	1,371	1,222	89.1	-	-	-	-	-	-
1993	1,119	936	83.6	-	-	-	-	-	-
1994	1,797	1,508	83.9	-	-	-	-	-	-
1995	1,942	1,916	98.7	-	-	-	-	-	-
1996	2,361	2,377	100.7	-	-	-	-	-	-
1997	2,965	2,997	101.1	-	-	-	-	-	-
1998	3,686	3,811	103.4	-	-	-	-	-	-
1999	3,014	3,127	103.7	-	-	-	-	-	-
2000	2,799	2,944	105.2	-	-	-	-	-	-
2001	3,813	4,730	124.0	-	-	-	-	-	-

**Table A6. China longline.** Total catches for 1988–1998 have been estimated by the OFP using logsheet and unloadings data; the estimate for 2001 was carried over from 2000.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1988	44	38	86.4	-	-	-	-	-	-
1989	144	126	87.5	-	-	-	-	-	-
1990	453	396	87.4	4	0.9	-	-	-	-
1991	1,007	720	71.5	491	48.8	16	1.6	-	-
1992	2,715	2,350	86.6	350	12.9	217	8.0	-	-
1993	6,419	5,394	84.0	2,240	34.9	2,097	32.7	10	0.2
1994	12,677	10,104	79.7	8,991	70.9	3,996	31.5	8	0.1
1995	10,586	8,165	77.1	9,150	86.4	3,774	35.7	28	0.3
1996	6,026	4,365	72.4	5,369	89.1	2,582	42.8	11	0.2
1997	3,664	2,787	76.1	3,521	96.1	1,693	46.2	28	0.8
1998	3,272	1,816	55.5	2,470	75.5	2,121	64.8	24	0.7
1999	6,795	1,980	29.1	2,496	36.7	1,435	21.1	20	0.3
2000	6,244	2,203	35.3	2,898	46.4	1,427	22.9	22	0.4
2001	6,244	2,167	34.7	3,569	57.2	347	5.6	1	0.0

**Table A7. Cook Islands longline.** Total catches for 1994–1995 have been estimated by the OFP using logsheet and unloadings data.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1994	41	32	78.0	41	100.0	-	-	-	-
1995	71	54	76.1	67	94.4	-	-	-	-
1996	25	16	64.0	-	-	-	-	-	-

**Table A8. Federated States of Micronesia longline.** Total catches have been estimated by the OFP using logsheet and unloadings data.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1991	23	7	30.4	15	65.2	5	21.7	-	-
1992	140	119	85.0	50	35.7	17	12.1	-	-
1993	101	87	86.1	26	25.7	40	39.6	-	-
1994	186	117	62.9	133	71.5	66	35.5	-	-
1995	203	129	63.5	146	71.9	112	55.2	1	0.5
1996	231	132	57.1	120	51.9	170	73.6	1	0.4
1997	452	292	64.6	281	62.2	287	63.5	10	2.2
1998	1,051	600	57.1	893	85.0	537	51.1	9	0.9
1999	885	485	54.8	605	68.4	128	14.5	7	0.8
2000	1,117	599	53.6	825	73.9	283	25.3	11	1.0
2001	731	463	63.3	550	75.2	84	11.5	-	-

**Table A9. Fiji longline.** Total catches for 1989–1999 may have been under-estimated.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1989	27	39	144.4	-	-	-	-	-	-
1990	118	129	109.3	-	-	-	-	-	-
1991	437	283	64.8	-	-	-	-	-	-
1992	632	551	87.2	-	-	138	21.8	-	-
1993	986	533	54.1	21	2.1	4	0.4	-	-
1994	1,716	1,162	67.7	1,271	74.1	1	0.1	2	0.1
1995	2,029	1,326	65.4	1,312	64.7	-	-	20	1.0
1996	3,415	976	28.6	2,268	66.4	32	0.9	-	-
1997	3,221	2,436	75.6	1,637	50.8	184	5.7	8	0.2
1998	3,443	3,505	101.8	1,931	56.1	276	8.0	-	-
1999	3,466	2,539	73.3	1,920	55.4	183	5.3	12	0.3
2000	9,217	6,379	69.2	3,949	42.8	187	2.0	-	-
2001	10,715	8,203	76.6	2,476	23.1	296	2.8	-	-

**Table A10. French Polynesia longline**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1990	30	-	-	-	-	-	-	-	-
1991	263	-	-	-	-	-	-	-	-
1992	402	143	35.6	-	-	-	-	-	-
1993	1,243	95	7.6	-	-	71	5.7	1	0.1
1994	1,353	506	37.4	99	7.3	5	0.4	-	-
1995	1,251	684	54.7	35	2.8	38	3.0	-	-
1996	2,027	1,167	57.6	31	1.5	226	11.1	-	-
1997	3,323	2,255	67.9	54	1.6	122	3.7	78	2.3
1998	4,071	3,222	79.1	26	0.6	59	1.4	-	-
1999	3,612	2,788	77.2	-	-	27	0.7	-	-
2000	5,386	4,379	81.3	-	-	-	-	-	-
2001	5,973	147	2.5	-	-	-	-	-	-



**Table A12. Japan offshore and distant-water longline**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1952	22,953	-	-	-	-	-	-	-	-
1953	34,091	-	-	-	-	-	-	-	-
1954	44,007	-	-	-	-	-	-	-	-
1955	36,908	-	-	-	-	-	-	-	-
1956	28,420	-	-	-	-	-	-	-	-
1957	60,721	-	-	-	-	-	-	-	-
1958	71,472	-	-	-	-	-	-	-	-
1959	68,361	-	-	-	-	-	-	-	-
1960	82,701	-	-	-	-	-	-	-	-
1961	91,594	-	-	-	-	-	-	-	-
1962	114,133	-	-	-	-	-	-	-	-
1963	108,638	-	-	-	-	-	-	-	-
1964	84,243	-	-	-	-	-	-	-	-
1965	81,808	-	-	-	-	-	-	-	-
1966	98,660	-	-	-	-	-	-	-	-
1967	68,531	-	-	-	-	-	-	-	-
1968	56,752	-	-	-	-	-	-	-	-
1969	61,867	-	-	-	-	-	-	-	-
1970	68,676	-	-	-	-	-	-	-	-
1971	63,894	-	-	-	-	-	-	-	-
1972	71,730	-	-	-	-	-	-	-	-
1973	60,991	-	-	-	-	-	-	-	-
1974	67,530	-	-	-	-	-	-	-	-
1975	61,847	-	-	-	-	-	-	-	-
1976	72,146	-	-	-	-	-	-	-	-
1977	86,138	-	-	-	-	-	-	-	-
1978	98,583	429	0.4	-	-	-	-	-	-
1979	88,756	17,338	19.5	-	-	-	-	-	-
1980	100,216	34,621	34.5	-	-	-	-	-	-
1981	84,813	38,350	45.2	-	-	-	-	-	-
1982	82,922	38,265	46.1	-	-	-	-	1	0.0
1983	79,676	35,594	44.7	-	-	-	-	-	-
1984	70,164	35,053	50.0	-	-	-	-	1	0.0
1985	73,687	42,191	57.3	-	-	-	-	-	-
1986	62,248	25,391	40.8	-	-	-	-	-	-
1987	68,880	23,245	33.7	-	-	-	-	15	0.0
1988	66,361	29,504	44.5	-	-	-	-	21	0.0
1989	61,724	28,581	46.3	920	1.5	-	-	12	0.0
1990	67,875	27,936	41.2	4,714	6.9	-	-	47	0.1
1991	47,236	17,952	38.0	5,072	10.7	-	-	215	0.5
1992	57,843	23,667	40.9	3,817	6.6	18	0.0	276	0.5
1993	55,298	19,787	35.8	3,339	6.0	4	0.0	364	0.7
1994	53,177	20,425	38.4	7,025	13.2	51	0.1	218	0.4
1995	49,921	23,207	46.5	3,562	7.1	46	0.1	217	0.4
1996	40,300	13,762	34.1	1,861	4.6	499	1.2	364	0.9
1997	42,395	10,572	24.9	1,446	3.4	151	0.4	367	0.9
1998	37,966	6,293	16.6	2,559	6.7	214	0.6	198	0.5
1999	31,948	9,900	31.0	2,662	8.3	23	0.1	60	0.2
2000	32,814	5,943	18.1	3,352	10.2	99	0.3	9	0.0
2001	31,684	3,642	11.5	924	2.9	5	0.0	-	-

**Table A13. Kiribati longline.** Total catches have been estimated by the OFP using logsheet and unloadings data.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1995	6	5	83.3	-	-	-	-	-	-

**Table A14. Korea longline**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1958	234	-	-	-	-	-	-	-	-
1959	547	-	-	-	-	-	-	-	-
1960	744	-	-	-	-	-	-	-	-
1961	385	-	-	-	-	-	-	-	-
1962	672	-	-	-	-	-	-	-	-
1963	1,861	-	-	-	-	-	-	-	-
1964	3,670	-	-	-	-	-	-	-	-
1965	9,138	-	-	-	-	-	-	-	-
1966	15,105	-	-	-	-	-	-	-	-
1967	18,487	-	-	-	-	-	-	-	-
1968	14,456	-	-	-	-	-	-	-	-
1969	16,776	-	-	-	-	-	-	-	-
1970	16,584	-	-	-	-	-	-	-	-
1971	19,254	-	-	-	-	-	-	-	-
1972	22,262	-	-	-	-	-	-	-	-
1973	26,628	-	-	-	-	-	-	-	-
1974	19,522	-	-	-	-	-	-	-	-
1975	32,000	-	-	-	-	-	-	-	-
1976	43,567	-	-	-	-	-	-	-	-
1977	41,718	-	-	-	-	-	-	-	-
1978	29,972	-	-	-	-	-	-	-	-
1979	40,888	49	0.1	-	-	-	-	-	-
1980	43,969	301	0.7	-	-	-	-	-	-
1981	28,014	582	2.1	-	-	-	-	-	-
1982	23,897	629	2.6	-	-	-	-	-	-
1983	18,864	1,214	6.4	-	-	-	-	-	-
1984	17,230	911	5.3	-	-	-	-	-	-
1985	29,025	4,324	14.9	-	-	-	-	-	-
1986	32,730	3,255	9.9	-	-	-	-	-	-
1987	30,449	4,798	15.8	-	-	-	-	-	-
1988	27,925	4,917	17.6	-	-	-	-	-	-
1989	22,286	5,533	24.8	17	0.1	-	-	-	-
1990	31,747	6,170	19.4	17	0.1	-	-	-	-
1991	21,209	4,633	21.8	543	2.6	-	-	-	-
1992	27,435	5,263	19.2	669	2.4	294	1.1	2	0.0
1993	21,263	6,696	31.5	141	0.7	19	0.1	3	0.0
1994	29,397	18,679	63.5	291	1.0	-	-	-	-
1995	24,880	15,615	62.8	1,047	4.2	2	0.0	-	-
1996	25,862	13,154	50.9	967	3.7	26	0.1	29	0.1
1997	27,463	12,267	44.7	701	2.6	9	0.0	-	-
1998	32,425	13,282	41.0	859	2.6	21	0.1	30	0.1
1999	34,541	15,077	43.6	150	0.4	20	0.1	36	0.1
2000	39,570	14,811	37.4	-	-	12	0.0	-	-
2001	41,472	2,867	6.9	461	1.1	5	0.0	-	-

**Table A15. Marshall Islands longline.** Total catches have been estimated by the OFP using logsheet and unloadings data.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1992	6	6	100.0	-	-	9	150.0	-	-
1993	136	69	50.7	122	89.7	47	34.6	-	-
1994	53	-	-	27	50.9	26	49.1	-	-
1995	31	14	45.2	-	-	9	29.0	-	-

**Table A16. New Caledonia longline.** Total catches for 1983–1986 have been estimated by the OFP using logsheet data.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1983	22	20	90.9	-	-	-	-	-	-
1984	150	146	97.3	-	-	-	-	-	-
1985	281	265	94.3	-	-	-	-	-	-
1986	367	347	94.6	-	-	-	-	-	-
1987	1,102	964	87.5	-	-	-	-	-	-
1988	1,092	684	62.6	-	-	-	-	-	-
1989	871	629	72.2	-	-	-	-	-	-
1990	1,730	962	55.6	-	-	-	-	-	-
1991	1,536	594	38.7	-	-	-	-	-	-
1992	1,092	489	44.8	-	-	1	0.1	-	-
1993	1,294	860	66.5	3	0.2	61	4.7	-	-
1994	1,355	260	19.2	254	18.7	94	6.9	-	-
1995	1,274	493	38.7	535	42.0	157	12.3	-	-
1996	1,201	484	40.3	420	35.0	154	12.8	27	2.2
1997	977	492	50.4	566	57.9	530	54.2	-	-
1998	1,543	1,235	80.0	848	55.0	631	40.9	15	1.0
1999	1,616	1,242	76.9	710	43.9	663	41.0	6	0.4
2000	1,662	1,441	86.7	1,409	84.8	910	54.8	-	-
2001	1,718	1,119	65.1	1,399	81.4	1,175	68.4	9	0.5

**Table A17. New Zealand longline**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1989	15	1	6.7	-	-	-	-	-	-
1990	203	43	21.2	-	-	-	-	-	-
1991	135	107	79.3	-	-	-	-	-	-
1992	261	125	47.9	-	-	-	-	2	0.8
1993	433	309	71.4	-	-	-	-	-	-
1994	736	596	81.0	-	-	-	-	2	0.3
1995	964	631	65.5	-	-	-	-	14	1.5
1996	1,306	751	57.5	-	-	-	-	1	0.1
1997	1,108	814	73.5	-	-	-	-	7	0.6
1998	2,561	1,780	69.5	-	-	-	-	7	0.3
1999	2,672	2,091	78.3	-	-	5	0.2	-	-
2000	1,863	1,532	82.2	-	-	-	-	-	-
2001	2,193	-	-	-	-	5	0.2	-	-

**Table A18. Papua New Guinea longline.** Total catches for 1993—2000 have been estimated by the OFP using logsheet data; total catches for these years have been under-estimated.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1993	0	8	0.0	-	-	-	-	-	-
1994	30	30	100.0	-	-	-	-	-	-
1995	174	45	25.9	-	-	-	-	-	-
1996	235	150	63.8	-	-	-	-	7	3.0
1997	613	542	88.4	-	-	-	-	-	-
1998	395	343	86.8	-	-	-	-	-	-
1999	457	336	73.5	-	-	-	-	1	0.2
2000	966	444	46.0	-	-	-	-	19	2.0
2001	2,112	993	47.0	-	-	77	3.6	-	-

**Table A19. Samoa longline**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1993	297	23	7.7	-	-	-	-	-	-
1994	728	7	1.0	-	-	-	-	-	-
1995	2,139	-	-	-	-	-	-	-	-
1996	2,375	-	-	-	-	-	-	-	-
1997	5,498	-	-	-	-	-	-	-	-
1998	5,877	-	-	-	-	904	15.4	1	0.0
1999	4,991	-	-	-	-	897	18.0	1	0.0
2000	5,364	23	0.4	1	0.0	151	2.8	9	0.2
2001	5,475	1,991	36.4	125	2.3	115	2.1	-	-

**Table A20. Solomon Islands longline**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1973	111	-	-	-	-	-	-	-	-
1974	-	-	-	-	-	-	-	-	-
1975	-	-	-	-	-	-	-	-	-
1976	177	-	-	-	-	-	-	-	-
1977	241	-	-	-	-	-	-	-	-
1978	252	-	-	-	-	-	-	-	-
1979	600	-	-	-	-	-	-	-	-
1980	687	-	-	-	-	-	-	-	-
1981	173	77	44.5	-	-	-	-	-	-
1982	338	296	87.6	-	-	-	-	-	-
1983	496	497	100.2	-	-	-	-	-	-
1984	289	290	100.3	-	-	-	-	-	-
1985	209	210	100.5	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-
1989	-	-	-	-	-	-	-	-	-
1990	-	-	-	-	-	-	-	-	-
1991	-	-	-	-	-	-	-	-	-
1992	-	-	-	-	-	-	-	-	-
1993	-	-	-	-	-	-	-	-	-
1994	-	-	-	-	-	-	-	-	-
1995	523	517	98.9	-	-	-	-	-	-
1996	1,036	1,017	98.2	-	-	16	1.5	-	-
1997	1,717	2,084	121.4	-	-	329	19.2	33	1.9
1998	1,753	898	51.2	-	-	182	10.4	58	3.3
1999	1,138	553	48.6	-	-	190	16.7	-	-
2000	1,017	544	53.5	-	-	220	21.6	-	-
2001	176	176	100.0	-	-	-	-	-	-



**Table A22. Taiwan offshore longline, based in Micronesia.** Total catches have been estimated by the OFP using logsheet and unloadings data.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1990	6,553	1,117	17.0	4,490	68.5	-	-	-	-
1991	4,932	1,427	28.9	2,043	41.4	72	1.5	-	-
1992	6,517	3,603	55.3	3,986	61.2	983	15.1	-	-
1993	5,836	3,479	59.6	5,575	95.5	1,649	28.3	17	0.3
1994	11,624	3,802	32.7	11,172	96.1	1,549	13.3	55	0.5
1995	12,162	2,178	17.9	11,596	95.3	993	8.2	16	0.1
1996	11,573	2,116	18.3	11,202	96.8	925	8.0	-	-
1997	8,038	3,957	49.2	5,570	69.3	2,092	26.0	7	0.1
1998	6,976	2,479	35.5	5,700	81.7	1,182	16.9	-	-
1999	7,114	2,622	36.9	5,361	75.4	1,144	16.1	-	-
2000	9,365	3,301	35.2	7,599	81.1	905	9.7	-	-
2001	9,365	2,410	25.7	1,641	17.5	272	2.9	-	-

**Table A23. Taiwan distant-water longline**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1963	608	-	-	-	-	-	-	-	-
1964	806	-	-	-	-	-	-	-	-
1965	2,703	-	-	-	-	-	-	-	-
1966	9,702	-	-	-	-	-	-	-	-
1967	9,395	-	-	-	-	-	-	-	-
1968	14,099	-	-	-	-	-	-	-	-
1969	14,318	-	-	-	-	-	-	-	-
1970	16,911	-	-	-	-	-	-	-	-
1971	19,826	-	-	-	-	-	-	-	-
1972	21,453	-	-	-	-	-	-	-	-
1973	19,782	-	-	-	-	-	-	-	-
1974	15,679	-	-	-	-	-	-	-	-
1975	14,500	-	-	-	-	-	-	-	-
1976	14,874	-	-	-	-	-	-	-	-
1977	19,205	-	-	-	-	-	-	-	-
1978	20,646	-	-	-	-	-	-	-	-
1979	17,004	-	-	-	-	-	-	-	-
1980	20,444	40	0.2	-	-	-	-	-	-
1981	12,668	207	1.6	-	-	-	-	-	-
1982	8,934	1,257	14.1	-	-	-	-	-	-
1983	10,403	650	6.2	-	-	-	-	-	-
1984	10,831	3,216	29.7	-	-	-	-	-	-
1985	7,829	2,232	28.5	-	-	-	-	-	-
1986	9,311	91	1.0	-	-	-	-	-	-
1987	10,950	41	0.4	287	2.6	-	-	-	-
1988	14,252	1,938	13.6	1,142	8.0	-	-	-	-
1989	9,400	366	3.9	1,671	17.8	-	-	-	-
1990	11,420	147	1.3	7,364	64.5	-	-	-	-
1991	16,919	912	5.4	10,753	63.6	-	-	-	-
1992	14,101	1,237	8.8	13,600	96.4	39	0.3	-	-
1993	11,013	4,434	40.3	18,835	171.0	102	0.9	-	-
1994	18,171	3,591	19.8	5,666	31.2	61	0.3	-	-
1995	13,701	4,175	30.5	3,997	29.2	87	0.6	-	-
1996	10,786	3,622	33.6	1,876	17.4	92	0.9	63	0.6
1997	13,496	3,401	25.2	4,469	33.1	122	0.9	25	0.2
1998	14,040	2,920	20.8	3,135	22.3	136	1.0	-	-
1999	14,787	1,779	12.0	434	2.9	106	0.7	-	-
2000	16,490	5,501	33.4	8,170	49.5	333	2.0	-	-
2001	22,038	1,964	8.9	19,250	87.3	245	1.1	-	-

**Table A24. Tonga longline**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1982	205	113	55.1	-	-	-	-	-	-
1983	208	118	56.7	-	-	-	-	-	-
1984	218	100	45.9	-	-	-	-	-	-
1985	233	72	30.9	-	-	-	-	-	-
1986	252	203	80.6	-	-	-	-	-	-
1987	299	269	90.0	-	-	-	-	-	-
1988	276	240	87.0	-	-	-	-	-	-
1989	235	208	88.5	-	-	-	-	-	-
1990	192	190	99.0	-	-	-	-	-	-
1991	197	195	99.0	-	-	-	-	-	-
1992	225	222	98.7	-	-	-	-	-	-
1993	329	63	19.1	-	-	-	-	-	-
1994	411	376	91.5	-	-	-	-	-	-
1995	461	-	-	14	3.0	15	3.3	10	2.2
1996	579	20	3.5	23	4.0	43	7.4	2	0.3
1997	662	169	25.5	85	12.8	74	11.2	-	-
1998	827	155	18.7	260	31.4	54	6.5	22	2.7
1999	1,076	252	23.4	53	4.9	26	2.4	13	1.2
2000	1,157	723	62.5	8	0.7	265	22.9	11	1.0
2001	1,718	1,190	69.3	167	9.7	89	5.2	-	-

**Table A25. United States of America longline, excluding American Samoa and Hawaii.**

Total catches have been estimated by the OFP using logsheet and unloadings data.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1991	36	1	2.8	35	97.2	-	-	-	-
1992	176	133	75.6	9	5.1	106	60.2	-	-
1993	143	50	35.0	121	84.6	40	28.0	-	-
1994	124	3	2.4	116	93.5	11	8.9	-	-
1995	374	161	43.0	250	66.8	20	5.3	17	4.5
1996	406	254	62.6	264	65.0	107	26.4	1	0.2
1997	153	101	66.0	88	57.5	79	51.6	4	2.6
1998	158	89	56.3	29	18.4	105	66.5	-	-
1999	108	90	83.3	30	27.8	32	29.6	-	-
2000	167	88	52.7	142	85.0	7	4.2	-	-
2001	79	45	57.0	24	30.4	-	-	-	-

**Table A26. United States of America longline, Hawaii.** Observer data have been provided, but have not yet been not incorporated into the OFP database.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1950	1,111	-	-	-	-	-	-	-	-
1951	1,245	-	-	-	-	-	-	-	-
1952	1,435	-	-	-	-	-	-	-	-
1953	1,479	-	-	-	-	-	-	-	-
1954	1,452	-	-	-	-	-	-	-	-
1955	1,364	-	-	-	-	-	-	-	-
1956	1,148	-	-	-	-	-	-	-	-
1957	860	-	-	-	-	-	-	-	-
1958	841	-	-	-	-	-	-	-	-
1959	809	-	-	-	-	-	-	-	-
1960	708	-	-	-	-	-	-	-	-
1961	626	-	-	-	-	-	-	-	-
1962	669	-	-	-	-	-	-	-	-
1963	549	-	-	-	-	-	-	-	-
1964	516	-	-	-	-	-	-	-	-
1965	501	-	-	-	-	-	-	-	-
1966	513	-	-	-	-	-	-	-	-
1967	446	-	-	-	-	-	-	-	-
1968	367	-	-	-	-	-	-	-	-
1969	439	-	-	-	-	-	-	-	-
1970	475	-	-	-	-	-	-	-	-
1971	415	-	-	-	-	-	-	-	-
1972	394	-	-	-	-	-	-	-	-
1973	293	-	-	-	-	-	-	-	-
1974	324	-	-	-	-	-	-	-	-
1975	285	-	-	-	-	-	-	-	-
1976	328	-	-	-	-	-	-	-	-
1977	438	-	-	-	-	-	-	-	-
1978	415	-	-	-	-	-	-	-	-
1979	282	-	-	-	-	-	-	-	-
1980	575	-	-	-	-	-	-	-	-
1981	774	-	-	-	-	-	-	-	-
1982	1,175	-	-	-	-	-	-	-	-
1983	836	-	-	-	-	-	-	-	-
1984	872	-	-	-	-	-	-	-	-
1985	911	-	-	-	-	-	-	-	-
1986	951	-	-	-	-	-	-	-	-
1987	1,214	-	-	-	-	-	-	-	-
1988	2,154	-	-	-	-	-	-	-	-
1989	2,715	-	-	-	-	-	-	-	-
1990	2,810	-	-	-	-	-	-	-	-
1991	2,643	-	-	-	-	-	-	-	-
1992	2,194	-	-	-	-	-	-	-	-
1993	3,222	-	-	-	-	-	-	-	-
1994	2,998	-	-	-	-	-	-	93	3.1
1995	4,009	-	-	-	-	-	-	154	3.8
1996	3,655	-	-	-	-	-	-	137	3.7
1997	5,410	-	-	-	-	-	-	162	3.0
1998	5,190	-	-	-	-	-	-	202	3.9
1999	4,880	-	-	-	-	-	-	170	3.5
2000	4,873	-	-	-	-	-	-	466	9.6
2001	4,951	-	-	-	-	-	-	729	14.7

**Table A27. Vanuatu longline.** Total catches have been estimated by the OFP using logsheet and unloadings data.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1995	176	176	100.0	153	86.9	-	-	-	-
1996	535	533	99.6	86	16.1	-	-	-	-
1997	463	518	111.9	-	-	-	-	-	-
1998	88	89	101.1	-	-	-	-	-	-

### ***POLE-AND-LINE***

Total retained catches (tonnes) of albacore, bigeye, skipjack and yellowfin in the WCPO are compared to amounts (tonnes and percentage of annual catch) covered by logsheet data, unloadings data, port sampling data, and observer data held by the OFP.

**Table A28. Australia pole-and-line**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1976	47	1	2.1	-	-	-	-	-	-
1977	31	-	-	-	-	-	-	-	-
1978	162	31	19.1	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-
1980	-	-	-	-	-	-	-	-	-
1981	108	-	-	-	-	-	-	-	-
1982	201	5	2.5	-	-	-	-	-	-
1983	109	-	-	-	-	-	-	-	-
1984	83	11	13.3	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-
1986	77	14	18.2	-	-	-	-	-	-
1987	59	-	-	-	-	-	-	-	-
1988	490	2	0.4	-	-	-	-	-	-
1989	462	13	2.8	-	-	-	-	-	-
1990	1,199	10	0.8	-	-	-	-	-	-
1991	1,052	38	3.6	-	-	-	-	-	-
1992	801	12	1.5	-	-	-	-	-	-
1993	462	54	11.7	-	-	-	-	-	-
1994	324	501	154.6	-	-	-	-	-	-
1995	220	673	305.9	-	-	-	-	-	-
1996	838	735	87.7	-	-	-	-	-	-
1997	528	726	137.5	-	-	-	-	-	-
1998	266	-	-	-	-	-	-	-	-
1999	0	27	0.0	-	-	-	-	-	-
2000	0	30	0.0	-	-	-	-	-	-
2001	0	14	0.0	-	-	-	-	-	-

**Table A29. Fiji pole-and-line**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1974	12	-	-	-	-	-	-	-	-
1975	11	-	-	-	-	-	-	-	-
1976	742	679	91.5	15	2.0	-	-	-	-
1977	1,711	1,509	88.2	30	1.8	-	-	-	-
1978	2,524	2,290	90.7	-	-	-	-	-	-
1979	3,494	2,753	78.8	-	-	-	-	-	-
1980	2,496	824	33.0	-	-	-	-	-	-
1981	5,836	1,523	26.1	-	-	-	-	-	-
1982	4,428	4,333	97.9	-	-	-	-	-	-
1983	3,738	2,852	76.3	-	-	-	-	-	-
1984	4,572	3,221	70.5	-	-	-	-	-	-
1985	3,943	2,391	60.6	-	-	-	-	-	-
1986	3,111	2,122	68.2	-	-	-	-	-	-
1987	3,862	2,825	73.1	-	-	-	-	-	-
1988	3,869	2,300	59.4	-	-	-	-	-	-
1989	5,121	3,035	59.3	-	-	-	-	-	-
1990	3,674	2,059	56.0	-	-	-	-	-	-
1991	4,826	3,190	66.1	-	-	-	-	-	-
1992	4,100	3,039	74.1	-	-	-	-	-	-
1993	3,806	3,855	101.3	-	-	-	-	-	-
1994	4,139	2,282	55.1	3,362	81.2	-	-	-	-
1995	4,885	2,487	50.9	4,770	97.6	-	-	-	-
1996	3,289	1,602	48.7	3,298	100.3	-	-	-	-
1997	1,033	-	-	875	84.7	-	-	-	-
1998	466	-	-	204	43.8	-	-	-	-
1999	507	-	-	-	-	-	-	46	9.1
2000	345	-	-	-	-	-	-	-	-

**Table A30. French Polynesia pole-and-line (*bonitiers*)**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1979	696	-	-	-	-	-	-	-	-
1980	936	-	-	-	-	-	-	-	-
1981	1,001	-	-	-	-	-	-	-	-
1982	1,034	-	-	-	-	-	-	-	-
1983	836	-	-	-	-	-	-	-	-
1984	1,250	-	-	-	-	-	-	-	-
1985	836	-	-	-	-	-	-	-	-
1986	961	-	-	-	-	-	-	-	-
1987	878	-	-	-	-	-	-	-	-
1988	715	-	-	-	-	-	-	-	-
1989	754	-	-	-	-	-	-	-	-
1990	1,561	-	-	-	-	-	-	-	-
1991	1,505	-	-	-	-	-	-	-	-
1992	1,370	-	-	-	-	-	-	-	-
1993	901	-	-	-	-	-	-	-	-
1994	1,165	-	-	-	-	-	-	-	-
1995	1,556	-	-	-	-	-	-	-	-
1996	1,071	-	-	-	-	-	-	-	-
1997	840	614	73.1	-	-	-	-	-	-
1998	902	624	69.2	-	-	-	-	-	-
1999	686	514	74.9	-	-	-	-	-	-
2000	550	302	54.9	-	-	-	-	-	-
2001	767	640	83.4	-	-	-	-	-	-



**Table A32. Japan offshore and distant-water pole-and-line.** The estimate of the total catch for 2000 has been carried over to 2001.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1969	155,583	-	-	-	-	-	-	-	-
1970	181,201	-	-	-	-	-	-	-	-
1971	152,339	-	-	-	-	-	-	-	-
1972	148,147	-	-	-	-	-	-	-	-
1973	216,442	-	-	-	-	-	-	-	-
1974	224,832	-	-	2,407	1.1	-	-	-	-
1975	187,794	-	-	682	0.4	-	-	-	-
1976	231,679	-	-	1,031	0.4	-	-	-	-
1977	258,543	-	-	979	0.4	-	-	-	-
1978	249,083	298	0.1	124	0.0	-	-	-	-
1979	219,887	26,450	12.0	29	0.0	-	-	-	-
1980	244,727	46,174	18.9	2,985	1.2	-	-	-	-
1981	212,111	36,823	17.4	3,615	1.7	-	-	-	-
1982	213,463	16,798	7.9	1,525	0.7	-	-	-	-
1983	237,640	43,060	18.1	-	-	-	-	-	-
1984	296,408	30,357	10.2	-	-	-	-	-	-
1985	176,081	19,397	11.0	-	-	-	-	-	-
1986	244,652	55,372	22.6	-	-	-	-	-	-
1987	188,788	22,639	12.0	-	-	-	-	-	-
1988	206,507	63,815	30.9	-	-	-	-	-	-
1989	191,555	47,504	24.8	-	-	-	-	-	-
1990	132,140	21,889	16.6	-	-	-	-	-	-
1991	157,974	28,789	18.2	-	-	-	-	-	-
1992	126,001	16,333	13.0	-	-	-	-	-	-
1993	168,048	14,014	8.3	-	-	-	-	-	-
1994	113,692	16,128	14.2	-	-	-	-	-	-
1995	134,558	28,844	21.4	12	0.0	-	-	-	-
1996	98,676	8,649	8.8	24	0.0	-	-	-	-
1997	121,268	8,057	6.6	-	-	-	-	-	-
1998	126,996	19,487	15.3	-	-	-	-	-	-
1999	108,203	7,580	7.0	-	-	-	-	-	-
2000	128,348	12,246	9.5	-	-	-	-	-	-
2001	128,348	17,227	13.4	-	-	-	-	-	-









**PURSE SEINE**

Total retained catches (tonnes) of skipjack, yellowfin and bigeye in the WCPO are compared to amounts (tonnes and percentage of annual catch) covered by logsheet data, unloadings data, port sampling data, and observer data held by the OFP.

**Table A41. Australia purse seine, inside the Australian Fishing Zone**

Year	Total	Logsheets	%	Landings	%	Port	%	Observer	%
1975	1,900	-	-	-	-	-	-	-	-
1976	-	-	-	-	-	-	-	-	-
1977	-	-	-	-	-	-	-	-	-
1978	113	-	-	-	-	-	-	-	-
1979	-	-	-	-	-	-	-	-	-
1980	17	-	-	-	-	-	-	-	-
1981	244	-	-	-	-	-	-	-	-
1982	31	-	-	-	-	-	-	-	-
1983	114	-	-	-	-	-	-	-	-
1984	56	-	-	-	-	-	-	-	-
1985	-	-	-	-	-	-	-	-	-
1986	-	-	-	-	-	-	-	-	-
1987	-	-	-	-	-	-	-	-	-
1988	-	-	-	-	-	-	-	-	-
1989	624	19	3.0	-	-	-	-	-	-
1990	121	-	-	-	-	-	-	-	-
1991	1,954	-	-	-	-	-	-	-	-
1992	6,158	39	0.6	-	-	-	-	-	-
1993	3,861	858	22.2	-	-	-	-	-	-
1994	3,219	1,565	48.6	-	-	-	-	-	-
1995	4,086	1,075	26.3	-	-	-	-	-	-
1996	1,989	1,799	90.4	-	-	-	-	-	-
1997	4,217	3,398	80.6	-	-	-	-	-	-
1998	1,014	718	70.8	-	-	-	-	-	-
1999	4,164	4,217	101.3	-	-	-	-	-	-
2000	3,955	6,558	165.8	-	-	-	-	-	-
2001	492	336	68.3	-	-	-	-	-	-

**Table A42. Australia distant-water purse seine.** Total catches have been estimated by the OFP using logsheet and unloadings data.

Year	Total	Logsheets	%	Landings	%	Port	%	Observer	%
1988	131	79	60.3	-	-	-	-	-	-
1989	163	163	100.0	-	-	-	-	-	-
1990	4,496	4,278	95.2	-	-	-	-	-	-
1991	5,229	5,369	102.7	-	-	-	-	-	-
1992	1,062	1,065	100.3	-	-	-	-	-	-
1993	1,710	1,710	100.0	315	18.4	-	-	-	-

**Table A43. Federated States of Micronesia purse seine.** Total catches have been estimated by the OFP using logsheet and unloadings data.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1991	11,315	779	6.9	-	-	-	-	-	-
1992	15,332	14,242	92.9	2,691	17.6	-	-	-	-
1993	16,687	16,146	96.8	6,758	40.5	6	0.0	645	3.9
1994	21,510	18,483	85.9	8,704	40.5	1	0.0	1,109	5.2
1995	6,286	6,310	100.4	2,567	40.8	4	0.1	1,137	18.1
1996	7,588	7,163	94.4	2,379	31.4	1	0.0	329	4.3
1997	8,324	7,801	93.7	3,975	47.8	2	0.0	-	-
1998	14,180	13,124	92.6	9,999	70.5	15	0.1	1,477	10.4
1999	10,501	10,037	95.6	906	8.6	12	0.1	365	3.5
2000	21,145	20,293	96.0	1,375	6.5	-	-	2,221	10.5
2001	15,777	16,647	105.5	2,385	15.1	-	-	1,189	7.5

**Table A44. Indonesia distant-water purse seine**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1986	8,562	1,404	16.4	-	-	-	-	-	-
1987	13,170	2,922	22.2	-	-	-	-	-	-
1988	13,000	3,857	29.7	-	-	-	-	-	-
1989	12,856	2,607	20.3	-	-	-	-	-	-



**Table A46. Japan offshore and distant-water purse seine**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1970	567	-	-	-	-	-	-	-	-
1971	10,913	-	-	-	-	-	-	-	-
1972	16,464	-	-	-	-	-	-	-	-
1973	20,702	-	-	-	-	-	-	-	-
1974	15,280	-	-	-	-	-	-	-	-
1975	12,666	-	-	-	-	-	-	-	-
1976	25,780	-	-	-	-	-	-	-	-
1977	25,772	-	-	-	-	-	-	-	-
1978	34,953	-	-	-	-	-	-	-	-
1979	48,503	5,784	11.9	-	-	-	-	-	-
1980	69,461	18,327	26.4	-	-	-	-	-	-
1981	73,237	29,991	41.0	-	-	-	-	-	-
1982	107,358	71,895	67.0	-	-	-	-	-	-
1983	149,336	89,336	59.8	-	-	-	-	-	-
1984	168,339	108,508	64.5	-	-	-	-	-	-
1985	168,621	87,211	51.7	-	-	-	-	-	-
1986	176,898	118,266	66.9	-	-	-	-	-	-
1987	161,741	100,566	62.2	-	-	-	-	-	-
1988	214,309	107,767	50.3	-	-	-	-	-	-
1989	164,441	95,880	58.3	-	-	-	-	-	-
1990	179,980	101,161	56.2	-	-	-	-	-	-
1991	200,517	108,407	54.1	-	-	-	-	-	-
1992	195,823	93,875	47.9	410	0.2	-	-	-	-
1993	196,860	92,847	47.2	960	0.5	-	-	2,700	1.4
1994	201,695	97,239	48.2	651	0.3	-	-	2,943	1.5
1995	189,981	112,535	59.2	-	-	-	-	2,928	1.5
1996	178,648	110,333	61.8	-	-	-	-	2,284	1.3
1997	210,932	91,626	43.4	-	-	-	-	2,836	1.3
1998	270,789	97,012	35.8	-	-	-	-	2,093	0.8
1999	186,488	92,096	49.4	-	-	-	-	1,455	0.8
2000	213,022	84,838	39.8	-	-	-	-	566	0.3
2001	219,762	27,395	12.5	-	-	-	-	-	-

**Table A47. Kiribati purse seine.** Total catches have been estimated by the OFP using logsheet and unloadings data.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1994	1,123	446	39.7	677	60.3	-	-	-	-
1995	2,998	2,998	100.0	-	-	-	-	692	23.1
1996	4,819	4,301	89.3	2,544	52.8	1	0.0	-	-
1997	5,203	3,807	73.2	4,576	87.9	3	0.1	-	-
1998	7,719	6,498	84.2	6,772	87.7	-	-	-	-
1999	6,073	6,183	101.8	-	-	-	-	463	7.6
2000	4,973	5,088	102.3	-	-	-	-	173	3.5
2001	4,619	4,689	101.5	-	-	-	-	-	-

**Table A48. Korea purse seine**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1980	544	70	12.9	-	-	-	-	-	-
1981	2,044	413	20.2	-	-	-	-	-	-
1982	12,209	1,129	9.2	-	-	-	-	-	-
1983	16,216	3,627	22.4	-	-	-	-	-	-
1984	14,183	4,320	30.5	-	-	-	-	-	-
1985	11,279	3,814	33.8	-	-	-	-	-	-
1986	27,732	5,659	20.4	-	-	-	-	-	-
1987	58,711	18,250	31.1	-	-	-	-	-	-
1988	79,397	14,061	17.7	-	-	-	-	-	-
1989	115,669	25,467	22.0	-	-	-	-	-	-
1990	173,343	26,105	15.1	-	-	-	-	-	-
1991	227,371	24,051	10.6	-	-	-	-	-	-
1992	182,287	29,895	16.4	-	-	-	-	-	-
1993	126,648	68,111	53.8	52,466	41.4	58	0.0	1,213	1.0
1994	195,004	111,498	57.2	108,581	55.7	95	0.0	5,038	2.6
1995	175,464	151,704	86.5	66,689	38.0	78	0.0	1,492	0.9
1996	148,816	129,044	86.7	69,856	46.9	41	0.0	5,268	3.5
1997	158,974	151,271	95.2	75,937	47.8	88	0.1	4,875	3.1
1998	200,905	214,397	106.7	65,957	32.8	981	0.5	9,629	4.8
1999	141,846	139,193	98.1	55,970	39.5	246	0.2	4,581	3.2
2000	170,025	147,946	87.0	22,635	13.3	9	0.0	3,956	2.3
2001	177,820	170,984	96.2	20,270	11.4	-	-	514	0.3

**Table A49. Marshall Islands purse seine.** Total catches have been estimated by the OFP using logsheet data and landings data.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
2000	7,655	7,560	98.8	1,625	21.2	64	0.8	-	-
2001	36,598	35,044	95.8	6,510	17.8	26	0.1	-	-

**Table A50. Mexico purse seine.** Total catches have been estimated by the OFP using logsheet data.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1983	468	468	100.0	-	-	-	-	-	-
1984	6,600	6,600	100.0	-	-	-	-	-	-

**Table A51. New Zealand purse seine**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1983	5,820	5,820	100.0	-	-	-	-	-	-
1984	4,230	4,230	100.0	-	-	-	-	-	-
1985	2,459	2,459	100.0	-	-	-	-	-	-
1986	4,875	4,875	100.0	-	-	-	-	-	-
1987	3,763	4,179	111.1	-	-	-	-	-	-
1988	3,509	2,907	82.8	-	-	-	-	-	-
1989	5,424	55	1.0	-	-	-	-	-	-
1990	3,959	6,198	156.6	-	-	-	-	-	-
1991	5,256	6,919	131.6	-	-	-	-	-	-
1992	985	1,071	108.7	-	-	-	-	-	-
1993	937	905	96.6	-	-	-	-	-	-
1994	3,088	2,783	90.1	-	-	-	-	-	-
1995	1,654	1,385	83.7	-	-	-	-	-	-
1996	3,497	3,178	90.9	-	-	-	-	-	-
1997	6,510	6,001	92.2	-	-	-	-	-	-
1998	8,118	7,023	86.5	-	-	-	-	-	-
1999	5,656	5,532	97.8	-	-	-	-	-	-
2000	13,635	13,118	96.2	-	-	24	0.2	-	-
2001	8,967	5,346	59.6	857	9.6	-	-	-	-

**Table A52. Papua New Guinea purse seine.** Total catches have been estimated by the OFP using logsheet and unloadings data.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1994	1,351	1,351	100.0	-	-	-	-	-	-
1995	12,526	7,823	62.5	9,595	76.6	4	0.0	1,046	8.4
1996	10,336	7,809	75.6	6,847	66.2	-	-	337	3.3
1997	18,853	9,347	49.6	7,837	41.6	9	0.0	526	2.8
1998	50,101	41,785	83.4	9,577	19.1	88	0.2	2,053	4.1
1999	38,302	38,159	99.6	5,837	15.2	18	0.0	657	1.7
2000	67,456	64,731	96.0	4,775	7.1	23	0.0	2,748	4.1
2001	87,696	88,181	100.6	12,943	14.8	-	-	2,274	2.6

**Table A53. Philippines distant-water purse seine.** Total catches for 1982, 1984, 1988–1991 and 1999–2001 have been estimated by the OFP using logsheet and unloadings data.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1982	1,241	1,241	100.0	-	-	-	-	-	-
1983	-	-	-	-	-	-	-	-	-
1984	1,621	1,621	100.0	-	-	-	-	-	-
1985	12,479	4,182	33.5	-	-	-	-	-	-
1986	8,619	1,829	21.2	-	-	-	-	-	-
1987	15,902	7,659	48.2	-	-	-	-	-	-
1988	11,784	11,784	100.0	-	-	-	-	-	-
1989	24,324	24,324	100.0	-	-	-	-	-	-
1990	24,001	24,001	100.0	-	-	-	-	-	-
1991	26,542	26,543	100.0	-	-	-	-	-	-
1992	38,839	33,158	85.4	-	-	-	-	-	-
1993	29,734	11,933	40.1	-	-	-	-	-	-
1994	19,659	3,338	17.0	760	3.9	1	0.0	-	-
1995	27,873	8,410	30.2	4,596	16.5	1	0.0	-	-
1996	34,040	12,207	35.9	5,338	15.7	7	0.0	437	1.3
1997	35,018	29,120	83.2	14,929	42.6	3	0.0	3,952	11.3
1998	43,854	34,151	77.9	16,164	36.9	35	0.1	1,585	3.6
1999	35,451	30,053	84.8	4,204	11.9	8	0.0	-	-
2000	28,342	32,156	113.5	-	-	1	0.0	527	1.9
2001	12,294	12,541	102.0	1,469	11.9	-	-	-	-

**Table A54. Russia purse seine**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1985	2,111	1,947	92.2	-	-	-	-	-	-
1986	4,175	3,564	85.4	-	-	-	-	-	-
1987	8,995	-	-	-	-	-	-	-	-
1988	6,189	-	-	-	-	-	-	-	-
1989	4,935	-	-	-	-	-	-	-	-
1990	2,126	-	-	-	-	-	-	-	-
1991	3,715	-	-	-	-	-	-	-	-
1992	2,126	-	-	-	-	-	-	-	-
1993	8,714	4,837	55.5	1,599	18.3	-	-	-	-
1994	6,722	4,732	70.4	3,896	58.0	6	0.1	-	-

**Table A55. Solomon Islands purse seine.** Total catches for 1989–2000 have been estimated by the OFP using logsheet and unloadings data.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1980	946	-	-	-	-	-	-	-	-
1981	2,828	-	-	-	-	-	-	-	-
1982	3,042	-	-	-	-	-	-	-	-
1983	5,330	-	-	-	-	-	-	-	-
1984	5,447	3,545	65.1	-	-	-	-	-	-
1985	5,706	2,435	42.7	-	-	-	-	-	-
1986	5,525	5,153	93.3	-	-	-	-	-	-
1987	7,417	6,421	86.6	-	-	-	-	-	-
1988	10,711	6,756	63.1	-	-	-	-	-	-
1989	10,218	10,218	100.0	-	-	-	-	-	-
1990	8,085	8,085	100.0	-	-	-	-	-	-
1991	10,695	10,695	100.0	-	-	-	-	-	-
1992	11,086	11,086	100.0	-	-	-	-	-	-
1993	10,318	10,318	100.0	-	-	-	-	-	-
1994	12,768	12,768	100.0	1,910	15.0	1	0.0	-	-
1995	17,827	17,827	100.0	2,057	11.5	2	0.0	-	-
1996	16,571	16,571	100.0	3,145	19.0	-	-	-	-
1997	24,104	24,104	100.0	5,527	22.9	-	-	-	-
1998	23,321	23,321	100.0	13,649	58.5	34	0.1	842	3.6
1999	25,220	25,220	100.0	3,868	15.3	20	0.1	1,140	4.5
2000	9,011	9,011	100.0	-	-	6	0.1	1,113	12.4
2001	12,743	3,870	30.4	-	-	-	-	-	-

**Table A56. Spain purse seine.** The total catches for 1999–2000 have been estimated by the OFP using logsheet data.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1999	8,613	8,613	100.0	-	-	-	-	-	-
2000	12,896	12,896	100.0	-	-	-	-	-	-
2001	2,402	-	-	-	-	-	-	-	-

**Table A57. Taiwan purse seine**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1983	12,000	3,663	30.5	-	-	-	-	-	-
1984	24,000	5,252	21.9	-	-	-	-	-	-
1985	28,000	10,428	37.2	-	-	-	-	-	-
1986	40,000	11,148	27.9	-	-	-	-	-	-
1987	52,000	13,802	26.5	-	-	-	-	-	-
1988	76,000	17,288	22.7	-	-	-	-	-	-
1989	100,800	19,949	19.8	-	-	-	-	-	-
1990	128,000	26,387	20.6	-	-	-	-	-	-
1991	176,000	34,219	19.4	-	-	-	-	-	-
1992	220,000	87,021	39.6	1,437	0.7	-	-	-	-
1993	170,699	136,912	80.2	100,524	58.9	20	0.0	1,095	0.6
1994	179,559	165,381	92.1	196,825	109.6	11	0.0	2,705	1.5
1995	182,495	166,135	91.0	150,459	82.4	21	0.0	4,380	2.4
1996	179,155	177,470	99.1	133,590	74.6	23	0.0	8,645	4.8
1997	167,196	161,231	96.4	172,233	103.0	80	0.0	4,790	2.9
1998	258,693	260,913	100.9	187,811	72.6	1,456	0.6	17,851	6.9
1999	205,730	210,085	102.1	47,126	22.9	1,043	0.5	7,629	3.7
2000	234,978	226,171	96.3	44,695	19.0	191	0.1	6,648	2.8
2001	230,668	223,094	96.7	47,028	20.4	35	0.0	-	-

**Table A58. United States of America purse seine**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1976	700	-	-	-	-	-	-	-	-
1977	900	-	-	-	-	-	-	-	-
1978	1,000	-	-	-	-	-	-	-	-
1979	8,620	-	-	-	-	-	-	-	-
1980	11,000	-	-	-	-	-	-	-	-
1981	37,781	-	-	-	-	-	-	-	-
1982	72,695	-	-	-	-	-	-	-	-
1983	179,365	618	0.3	-	-	-	-	-	-
1984	159,567	19,775	12.4	-	-	-	-	-	-
1985	107,954	22,383	20.7	-	-	-	-	-	-
1986	121,151	16,484	13.6	-	-	-	-	-	-
1987	141,203	13,206	9.4	-	-	-	-	-	-
1988	114,416	74,774	65.4	79,024	69.1	-	-	-	-
1989	140,334	139,226	99.2	144,183	102.7	-	-	-	-
1990	163,895	163,793	99.9	171,232	104.5	-	-	-	-
1991	216,269	215,120	99.5	223,920	103.5	-	-	-	-
1992	203,071	203,567	100.2	269,088	132.5	-	-	-	-
1993	198,161	203,100	102.5	242,433	122.3	-	-	-	-
1994	209,623	203,585	97.1	233,768	111.5	4	0.0	15,337	7.3
1995	167,553	160,608	95.9	173,910	103.8	31	0.0	19,086	11.4
1996	149,404	148,403	99.3	162,606	108.8	4	0.0	28,182	18.9
1997	144,082	145,283	100.8	150,086	104.2	8	0.0	29,882	20.7
1998	174,628	173,744	99.5	139,510	79.9	11	0.0	37,510	21.5
1999	182,485	184,860	101.3	200,074	109.6	69	0.0	35,811	19.6
2000	125,351	123,035	98.2	125,475	100.1	-	-	28,530	22.8
2001	112,240	93,665	83.5	128,434	114.4	-	-	28,651	25.5

**Table A59. Vanuatu purse seine.** Total catches have been estimated by the OFP using logsheet and unloadings data.

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1994	820	770	93.9	250	30.5	-	-	-	-
1995	6,751	4,685	69.4	2,308	34.2	3	0.0	232	3.4
1996	8,870	8,292	93.5	3,775	42.6	2	0.0	461	5.2
1997	26,096	23,096	88.5	3,530	13.5	6	0.0	573	2.2
1998	39,090	41,515	106.2	6,125	15.7	405	1.0	1,463	3.7
1999	47,657	46,672	97.9	1,120	2.4	303	0.6	1,500	3.1
2000	35,630	37,470	105.2	965	2.7	151	0.4	-	-







**Table A66. Longline**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1950	1,111	-	-	-	-	-	-	-	-
1951	1,245	-	-	-	-	-	-	-	-
1952	24,710	-	-	-	-	-	-	-	-
1953	35,570	-	-	-	-	-	-	-	-
1954	46,906	-	-	-	-	-	-	-	-
1955	41,150	-	-	-	-	-	-	-	-
1956	31,945	-	-	-	-	-	-	-	-
1957	64,043	-	-	-	-	-	-	-	-
1958	74,477	-	-	-	-	-	-	-	-
1959	71,612	-	-	-	-	-	-	-	-
1960	85,708	-	-	-	-	-	-	-	-
1961	95,506	-	-	-	-	-	-	-	-
1962	121,278	-	-	-	-	-	-	-	-
1963	117,072	-	-	-	-	-	-	-	-
1964	95,056	-	-	-	-	-	-	-	-
1965	101,549	-	-	-	-	-	-	-	-
1966	134,003	-	-	-	-	-	-	-	-
1967	103,625	-	-	-	-	-	-	-	-
1968	93,943	-	-	-	-	-	-	-	-
1969	102,118	-	-	-	-	-	-	-	-
1970	115,105	-	-	-	-	-	-	-	-
1971	113,564	-	-	-	-	-	-	-	-
1972	125,657	-	-	-	-	-	-	-	-
1973	123,751	-	-	-	-	-	-	-	-
1974	116,735	-	-	-	-	-	-	-	-
1975	133,492	-	-	-	-	-	-	-	-
1976	155,535	-	-	-	-	-	-	-	-
1977	175,821	-	-	-	-	-	-	-	-
1978	182,169	429	0.2	-	-	-	-	-	-
1979	182,783	17,387	9.5	-	-	-	-	-	-
1980	193,839	34,790	17.9	-	-	-	-	-	-
1981	153,433	39,133	25.5	-	-	-	-	-	-
1982	143,324	40,253	28.1	-	-	-	-	1	0.0
1983	139,726	37,667	27.0	-	-	-	-	-	-
1984	128,393	39,056	30.4	-	-	-	-	1	0.0
1985	138,674	46,972	33.9	-	-	-	-	-	-
1986	128,984	27,245	21.1	-	-	-	-	-	-
1987	140,582	27,772	19.8	287	0.2	-	-	15	0.0
1988	141,704	34,847	24.6	1,142	0.8	-	-	21	0.0
1989	125,770	35,371	28.1	2,608	2.1	-	-	12	0.0
1990	150,638	36,108	24.0	16,589	11.0	-	-	47	0.0
1991	123,353	25,804	20.9	18,952	15.4	93	0.1	215	0.2
1992	142,420	37,850	26.6	22,481	15.8	1,822	1.3	280	0.2
1993	134,039	41,710	31.1	30,423	22.7	4,134	3.1	395	0.3
1994	159,865	55,958	35.0	35,086	21.9	5,860	3.7	378	0.2
1995	150,735	55,676	36.9	31,864	21.1	5,253	3.5	477	0.3
1996	138,627	40,633	29.3	24,487	17.7	4,872	3.5	643	0.5
1997	147,789	40,849	27.6	18,418	12.5	5,672	3.8	729	0.5
1998	150,426	37,084	24.7	18,710	12.4	6,422	4.3	566	0.4
1999	148,353	38,828	26.2	14,421	9.7	4,879	3.3	326	0.2
2000	162,540	42,588	26.2	28,353	17.4	4,967	3.1	547	0.3
2001	182,722	30,741	16.8	32,948	18.0	2,967	1.6	739	0.4

**Table A67. Pole-and-line**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1951	96,214	-	-	-	-	-	-	-	-
1952	83,213	-	-	-	-	-	-	-	-
1953	73,174	-	-	-	-	-	-	-	-
1954	94,441	-	-	-	-	-	-	-	-
1955	100,507	-	-	-	-	-	-	-	-
1956	100,749	-	-	-	-	-	-	-	-
1957	99,025	-	-	-	-	-	-	-	-
1958	138,575	-	-	-	-	-	-	-	-
1959	151,266	-	-	-	-	-	-	-	-
1960	73,845	-	-	-	-	-	-	-	-
1961	132,070	-	-	-	-	-	-	-	-
1962	157,412	-	-	-	-	-	-	-	-
1963	98,644	-	-	-	-	-	-	-	-
1964	143,279	-	-	1,414	1.0	-	-	-	-
1965	134,667	-	-	2,488	1.8	-	-	-	-
1966	218,892	-	-	2,829	1.3	-	-	-	-
1967	174,771	-	-	3,408	2.0	-	-	-	-
1968	167,385	-	-	4,849	2.9	-	-	-	-
1969	172,498	-	-	5,010	2.9	-	-	-	-
1970	201,598	2,429	1.2	8,043	4.0	-	-	-	-
1971	184,612	16,975	9.2	2,031	1.1	-	-	-	-
1972	182,176	13,195	7.2	1,428	0.8	-	-	-	-
1973	261,921	28,241	10.8	2,404	0.9	-	-	-	-
1974	297,632	41,630	14.0	7,262	2.4	-	-	-	-
1975	227,506	17,368	7.6	6,946	3.1	-	-	-	-
1976	296,783	33,601	11.3	5,656	1.9	-	-	-	-
1977	312,732	25,806	8.3	3,921	1.3	-	-	-	-
1978	346,445	51,512	14.9	9,747	2.8	-	-	-	-
1979	295,569	56,094	19.0	5,649	1.9	-	-	-	-
1980	325,996	80,996	24.8	7,226	2.2	-	-	-	-
1981	293,170	89,817	30.6	9,447	3.2	-	-	-	-
1982	256,169	38,913	15.2	4,371	1.7	-	-	-	-
1983	286,574	74,294	25.9	-	-	-	-	-	-
1984	351,307	65,226	18.6	-	-	-	-	-	-
1985	226,149	48,089	21.3	-	-	-	-	-	-
1986	302,050	94,688	31.3	-	-	-	-	-	-
1987	227,259	48,488	21.3	-	-	-	-	-	-
1988	258,129	98,276	38.1	-	-	-	-	-	-
1989	235,559	76,120	32.3	-	-	-	-	-	-
1990	166,335	42,939	25.8	-	-	-	-	-	-
1991	209,589	68,326	32.6	-	-	-	-	-	-
1992	161,006	38,857	24.1	-	-	-	-	-	-
1993	202,346	35,691	17.6	-	-	-	-	-	-
1994	149,489	40,077	26.8	3,487	2.3	-	-	-	-
1995	180,835	63,601	35.2	5,558	3.1	-	-	-	-
1996	132,688	32,097	24.2	3,913	2.9	-	-	-	-
1997	153,491	30,736	20.0	875	0.6	46	0.0	-	-
1998	159,956	43,023	26.9	21,337	13.3	83	0.1	554	0.3
1999	137,046	27,168	19.8	14,555	10.6	54	0.0	192	0.1
2000	139,626	14,783	10.6	-	-	-	-	1	0.0
2001	141,895	17,395	12.3	-	-	-	-	-	-

**Table A68. Purse seine**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1951	3,781	-	-	-	-	-	-	-	-
1952	7,320	-	-	-	-	-	-	-	-
1953	5,250	-	-	-	-	-	-	-	-
1954	8,895	-	-	-	-	-	-	-	-
1955	6,135	-	-	-	-	-	-	-	-
1956	3,777	-	-	-	-	-	-	-	-
1957	4,358	-	-	-	-	-	-	-	-
1958	14,084	-	-	-	-	-	-	-	-
1959	21,293	-	-	-	-	-	-	-	-
1960	5,224	-	-	-	-	-	-	-	-
1961	14,533	-	-	-	-	-	-	-	-
1962	18,822	-	-	-	-	-	-	-	-
1963	11,875	-	-	-	-	-	-	-	-
1964	28,942	-	-	-	-	-	-	-	-
1965	8,623	-	-	-	-	-	-	-	-
1966	16,821	-	-	-	-	-	-	-	-
1967	14,409	-	-	-	-	-	-	-	-
1968	14,556	-	-	-	-	-	-	-	-
1969	8,305	-	-	-	-	-	-	-	-
1970	8,320	-	-	-	-	-	-	-	-
1971	13,247	-	-	-	-	-	-	-	-
1972	17,959	-	-	-	-	-	-	-	-
1973	22,846	-	-	-	-	-	-	-	-
1974	16,677	-	-	-	-	-	-	-	-
1975	14,889	-	-	-	-	-	-	-	-
1976	28,014	-	-	-	-	-	-	-	-
1977	27,137	-	-	-	-	-	-	-	-
1978	37,480	-	-	-	-	-	-	-	-
1979	58,090	5,784	10.0	-	-	-	-	-	-
1980	83,567	18,397	22.0	-	-	-	-	-	-
1981	117,087	30,404	26.0	-	-	-	-	-	-
1982	197,394	74,265	37.6	-	-	-	-	-	-
1983	368,898	103,532	28.1	-	-	-	-	-	-
1984	384,393	153,851	40.0	-	-	-	-	-	-
1985	338,882	134,859	39.8	-	-	-	-	-	-
1986	397,958	168,382	42.3	-	-	-	-	-	-
1987	463,146	167,005	36.1	-	-	-	-	-	-
1988	529,493	239,273	45.2	79,024	14.9	-	-	-	-
1989	579,852	317,908	54.8	144,183	24.9	-	-	-	-
1990	688,072	360,008	52.3	171,232	24.9	-	-	-	-
1991	885,089	432,088	48.8	223,920	25.3	-	-	-	-
1992	876,902	475,019	54.2	273,626	31.2	-	-	-	-
1993	764,471	547,677	71.6	405,055	53.0	84	0.0	5,653	0.7
1994	856,206	623,875	72.9	556,022	64.9	119	0.0	27,132	3.2
1995	795,682	641,454	80.6	412,181	51.8	144	0.0	30,993	3.9
1996	743,753	626,570	84.2	390,080	52.4	79	0.0	45,943	6.2
1997	809,530	656,076	81.0	438,630	54.2	199	0.0	47,434	5.9
1998	1,092,580	914,201	83.7	455,564	41.7	3,025	0.3	74,503	6.8
1999	898,354	800,783	89.1	319,105	35.5	1,719	0.2	53,601	6.0
2000	948,242	790,871	83.4	201,545	21.3	469	0.0	46,482	4.9
2001	922,246	681,792	73.9	219,896	23.8	61	0.0	32,628	3.5







**Table A72. Domestic fleets of the Philippines**

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1950	12,132	-	-	-	-	-	-	-	-
1951	12,774	-	-	-	-	-	-	-	-
1952	13,454	-	-	-	-	-	-	-	-
1953	14,174	-	-	-	-	-	-	-	-
1954	14,937	-	-	-	-	-	-	-	-
1955	15,747	-	-	-	-	-	-	-	-
1956	16,605	-	-	-	-	-	-	-	-
1957	17,514	-	-	-	-	-	-	-	-
1958	18,477	-	-	-	-	-	-	-	-
1959	19,501	-	-	-	-	-	-	-	-
1960	20,585	-	-	-	-	-	-	-	-
1961	21,735	-	-	-	-	-	-	-	-
1962	22,957	-	-	-	-	-	-	-	-
1963	24,252	-	-	-	-	-	-	-	-
1964	25,626	-	-	-	-	-	-	-	-
1965	27,084	-	-	-	-	-	-	-	-
1966	28,632	-	-	-	-	-	-	-	-
1967	30,275	-	-	-	-	-	-	-	-
1968	32,021	-	-	-	-	-	-	-	-
1969	33,875	-	-	-	-	-	-	-	-
1970	52,000	-	-	-	-	-	-	-	-
1971	57,200	-	-	-	-	-	-	-	-
1972	60,700	-	-	-	-	-	-	-	-
1973	70,900	-	-	-	-	-	-	-	-
1974	81,188	-	-	-	-	-	-	-	-
1975	84,450	-	-	-	-	-	-	-	-
1976	73,653	-	-	-	-	-	-	-	-
1977	118,149	-	-	-	-	-	-	-	-
1978	87,319	-	-	-	-	-	-	-	-
1979	94,308	-	-	-	-	-	-	-	-
1980	77,505	-	-	-	-	-	-	-	-
1981	94,616	-	-	-	-	-	-	-	-
1982	102,806	-	-	-	-	-	-	-	-
1983	118,529	-	-	-	-	-	-	-	-
1984	103,596	-	-	-	-	-	-	-	-
1985	124,829	-	-	-	-	-	-	-	-
1986	136,478	-	-	-	-	-	-	-	-
1987	125,559	-	-	-	-	-	-	-	-
1988	113,002	-	-	-	-	-	-	-	-
1989	126,800	-	-	-	-	-	-	-	-
1990	180,807	-	-	-	-	-	-	-	-
1991	197,988	-	-	-	-	-	-	-	-
1992	128,206	-	-	-	-	-	-	-	-
1993	106,280	-	-	-	-	-	-	-	-
1994	148,640	-	-	-	-	-	-	-	-
1995	171,068	-	-	-	-	-	-	-	-
1996	171,284	-	-	-	-	-	-	-	-
1997	177,439	13	0.0	18	0.0	14	0.0	-	-
1998	195,888	1	0.0	1	0.0	2	0.0	-	-
1999	199,131	-	-	-	-	14	0.0	-	-
2000	203,339	-	-	-	-	8	0.0	-	-
2001	211,651	-	-	867	0.4	10	0.0	-	-

Table A73. All gears

Year	Total	Logsheet	%	Landings	%	Port	%	Observer	%
1950	53,874	-	-	-	-	-	-	-	-
1951	154,669	-	-	-	-	-	-	-	-
1952	206,684	-	-	-	-	-	-	-	-
1953	199,248	-	-	-	-	-	-	-	-
1954	224,601	-	-	-	-	-	-	-	-
1955	215,701	-	-	-	-	-	-	-	-
1956	221,564	-	-	-	-	-	-	-	-
1957	265,614	-	-	-	-	-	-	-	-
1958	299,833	-	-	-	-	-	-	-	-
1959	306,989	-	-	-	-	-	-	-	-
1960	241,180	-	-	-	-	-	-	-	-
1961	315,501	-	-	-	-	-	-	-	-
1962	359,859	-	-	-	-	-	-	-	-
1963	306,685	-	-	-	-	-	-	-	-
1964	349,917	-	-	1,414	0.4	-	-	-	-
1965	343,943	-	-	2,488	0.7	-	-	-	-
1966	466,806	-	-	2,829	0.6	-	-	-	-
1967	406,561	-	-	3,408	0.8	-	-	-	-
1968	372,220	-	-	4,849	1.3	-	-	-	-
1969	394,448	-	-	5,010	1.3	-	-	-	-
1970	448,207	2,429	0.5	8,043	1.8	-	-	-	-
1971	460,988	16,975	3.7	2,031	0.4	-	-	-	-
1972	506,635	13,195	2.6	1,428	0.3	-	-	-	-
1973	614,515	28,241	4.6	2,404	0.4	-	-	-	-
1974	646,641	41,630	6.4	7,262	1.1	-	-	-	-
1975	572,442	17,368	3.0	6,946	1.2	-	-	-	-
1976	705,316	33,601	4.8	5,656	0.8	-	-	-	-
1977	733,218	25,806	3.5	3,921	0.5	-	-	-	-
1978	791,504	51,941	6.6	9,747	1.2	-	-	-	-
1979	761,998	79,265	10.4	5,649	0.7	-	-	-	-
1980	825,769	134,183	16.2	7,226	0.9	-	-	-	-
1981	796,056	159,354	20.0	9,447	1.2	-	-	-	-
1982	853,452	153,431	18.0	4,371	0.5	-	-	1	0.0
1983	1,061,642	215,493	20.3	-	-	-	-	-	-
1984	1,142,093	258,133	22.6	-	-	-	-	1	0.0
1985	998,933	229,920	23.0	-	-	-	-	-	-
1986	1,133,300	290,315	25.6	-	-	-	-	-	-
1987	1,135,329	243,265	21.4	287	0.0	-	-	15	0.0
1988	1,234,103	372,396	30.2	80,166	6.5	-	-	21	0.0
1989	1,291,514	429,399	33.2	146,791	11.4	-	-	12	0.0
1990	1,415,489	439,055	31.0	187,821	13.3	-	-	47	0.0
1991	1,652,374	526,218	31.8	242,872	14.7	93	0.0	215	0.0
1992	1,602,559	551,726	34.4	296,107	18.5	1,822	0.1	280	0.0
1993	1,472,598	625,078	42.4	435,478	29.6	4,218	0.3	6,048	0.4
1994	1,610,554	719,910	44.7	594,875	36.9	5,979	0.4	27,510	1.7
1995	1,614,412	760,731	47.1	449,918	27.9	5,397	0.3	31,470	1.9
1996	1,539,947	699,300	45.4	418,576	27.2	4,951	0.3	46,586	3.0
1997	1,655,340	727,674	44.0	457,941	27.7	5,931	0.4	48,163	2.9
1998	2,038,612	994,309	48.8	495,612	24.3	9,532	0.5	75,623	3.7
1999	1,842,966	866,779	47.0	348,081	18.9	6,666	0.4	54,119	2.9
2000	1,908,933	848,242	44.4	229,898	12.0	5,444	0.3	47,030	2.5
2001	1,914,161	729,928	38.1	253,711	13.3	3,038	0.2	33,367	1.7