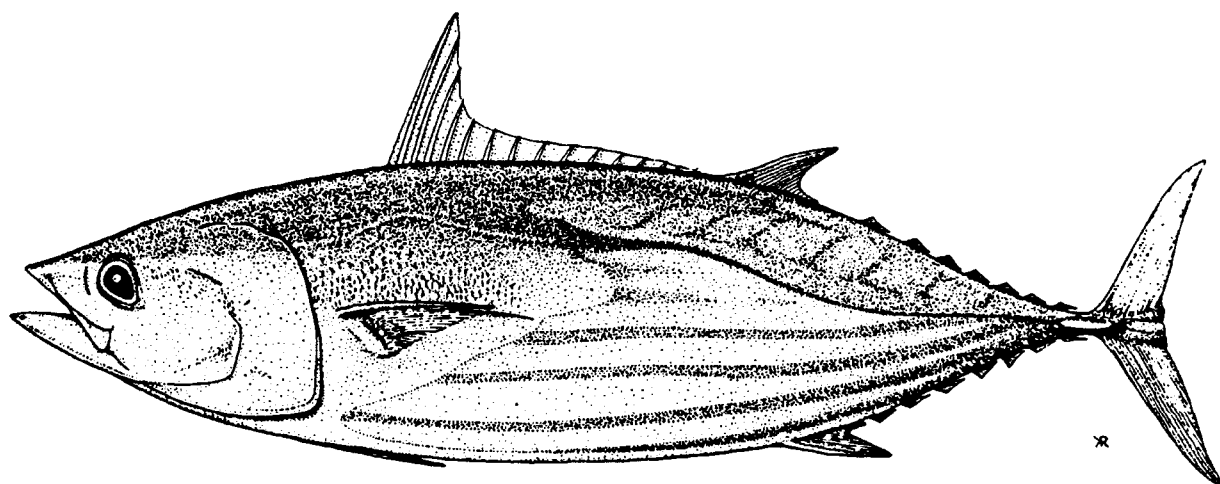


EIGHTH STANDING COMMITTEE ON TUNA AND BILLFISH

16-18 August 1995
Noumea, New Caledonia

Working Paper 4

OPERATION OF THE SCTB DATABASE



Oceanic Fisheries Programme (OFP)
South Pacific Commission
Noumea, New Caledonia

603/95

August 1995

INTRODUCTION

The Standing Committee Database was proposed in 1989 as a means by which catch and effort data aggregated by time-area strata could be made available for research. Since that time, the SPC Oceanic Fisheries Programme has compiled aggregated catch and effort data covering most fleets active in the region. These data have been made available to scientists for research purposes on numerous occasions. The Standing Committee Database can therefore be said to have achieved its primary goal.

In practice, however, aggregated data cannot be released by SPC until SPC has been authorised by the source of the data to release the source's data to the scientist requesting the data. While this requirement has been workable in the past, during the current reporting period, certain requests for aggregated data have been considerably delayed because of the need for SPC to obtain authorisation prior to releasing aggregated data. Furthermore, whenever requests for large sets of aggregated data, which have been provided to SPC by many sources, are received at SPC, SPC must request authorisation to release data from each of the data sources concerned, which can be a time-consuming process.

Therefore, during the current reporting period, SPC has moved to streamline the procedure by which aggregated data are released to scientists. This report documents the historical development of the Standing Committee Database, including the origin of the procedure for releasing data. The report discusses the measures which have been taken to streamline the release of data and proposes additional measures to further streamline the release of data.

BACKGROUND

At the second meeting of the Standing Committee on Tuna and Billfish (SCTB2) held in Suva (Fiji) from 19 to 21 June 1989, the Committee considered the problem of inadequate statistical coverage of the fishing activities of distant-water fishing nations (DWFNs) in the region. It was concluded that *"SPC had succeeded in gathering most of the daily catch and effort logsheet data available through SPC member countries, but these data from local fleets or collected under access agreements, still did not adequately cover the activities by DWFNs in the region."*

SCTB2 therefore discussed the establishment of a common database consisting of aggregated data provided by all fishing nations, including DWFNs, which would be distinct from the logbook data provided to SPC by SPC members. The following points emerged from the discussion:

1. *"The establishment of a common database would be extremely useful and would solve current problems of inadequate coverage of tuna fisheries in the region;"*
2. *"Data should be provided at a level of aggregation consistent with levels of aggregation used by other tuna research organizations, i.e. by five-degree square and month for longliners and gillnetters and by one-degree square and month for other gear types;"*
3. *"Data held in the common database should be made available to all countries that provide data to the common database, subject to the minimum level of aggregation."*

While the basic concept was that the common database should be made available to all sources which provide data to the common database, the actual means by which the data should be made

available was not discussed until the third meeting of the Standing Committee on Tuna and Billfish (SCTB3) held in Noumea (New Caledonia) from 6 to 8 June 1990. At SCTB3, the participants considered three possibilities for the exchange of aggregated data:

1. *Any country providing data should have access to all other data.*
2. *More complicated schemes could be devised to limit the data flow, so that the type of data available to the participant would depend on the type of data contributed by the participant.*
3. *Data supply could be on the basis of a request to SPC which would then seek authorisation from the relevant country or countries.*

At the time of SCTB3, there were serious concerns that option (1) would not be workable. For example, if American purse-seine data, which were being collected under the Multilateral Treaty implemented in June 1988, were provided to the common database, then would other purse-seine fishing nations have access to these data, even if the other purse-seine fishing nations did not provide purse-seine data, but only data for their other fleets? (Such concerns were considered to be particularly important five years ago, and they are still relevant. For example, Korea and Taiwan publish catch and effort data for their distant-water longline fleets, but they have not made available aggregated data for their purse-seine fleets.) On the other hand, option (2) was considered to be unworkable because it was too complex.

Since SCTB3 could not agree on a less restrictive policy for the exchange of aggregated data, SPC has operated on the basis of option (3) above, wherein, on receipt of a request for aggregated data, authorisation for the release of the data is sought directly from the source of the data. While this procedure is considerably more time-consuming than the other two options, over the years it has nonetheless resulted in many releases of aggregated data to scientists.

AGGREGATED CATCH AND EFFORT DATA HELD AT SPC

The aggregated data held at SPC are either public domain data (i.e. published data) or non-public domain data (i.e. data that have not been published). The public domain data (Table 1) include those data published by fishing nations in statistical bulletins, including data covering Japanese distant-water longline and pole-and-line prior to 1980, and Korean and Taiwanese distant-water longline up to the present.

The non-public domain data (Table 2) include those data aggregated from logbook data held at SPC, which cover the fleets of SPC members, and, for recent years, the fleets of certain DWFNs, such as the offshore longline fleets of China, Japan and Taiwan, and the purse-seine fleets of Korea and Taiwan.

The non-public domain data also include the aggregated data covering the Japanese longline and pole-and-line fleets from 1981 to the present, and the Japanese purse-seine fleet from 1967 to the present; these data have been provided to SPC by the Fisheries Agency of Japan with updates on an annual basis since 1992.

The non-public domain data held at SPC also include aggregated data covering the American purse-seine fleet prior to the Multilateral Treaty and logbook data covering the American purse-seine fleet

under the Multilateral Treaty; the pre-Treaty aggregated data were provided to SPC by the American Tunaboat Association through the intermediary of the Inter-American Tropical Tuna Commission, and the Treaty logbook data have been provided to SPC by the South Pacific Forum Fisheries Agency.

The public domain and non-public domain data held at SPC cover almost all fleets active in the region. The major fleets and time periods for which data are not held at SPC are listed in Table 3.

REQUESTS FOR AGGREGATED DATA DURING 1994/95

During the current reporting period, the following requests for data were received at SPC:

1. Data provided by the Fisheries Agency of Japan (longline, 1967–1992, by 5° x 5° by month; pole-and-line, 1968–1992, by 1° x 1° by month; and purse seine, 1967–1992, by 1° x 1° by month) were requested by the Micronesian Maritime Authority (MMA) for use by Dr John Sibert, in his role as private consultant to the MMA. The request was received from MMA on 7 October 1994; the data were released with authorisation from the Fisheries Agency of Japan on 8 November 1994.
2. Public domain longline data aggregated by 5° x 5° for Japan (1962–1980), Korea (1975–1992), and Taiwan (1967–1992) were requested by and provided to Erwan Josse, *Institut français de recherche scientifique pour le développement en coopération* (ORSTOM), Papeete, French Polynesia, on 19 January 1995.
3. Data provided by the Fisheries Agency of Japan (purse seine, 1979–1992, by 5° x 5° by month) and by the American Tunaboat Association (purse seine, 1981–1988, by 5° x 5° by month) were requested by a Ph.D. student at the Centre for Applied Economic Research, University of New South Wales, Australia, for a study on the possibility of increasing purse-seine rents in the waters of Papua New Guinea. It was considered that both the Fisheries Agency of Japan and the American Tunaboat Association would almost certainly refuse authorisation to release these data for the stated objective; therefore, SPC did not proceed with the request.
4. Public domain longline data aggregated by 5° x 5° for Japan (1962–1980), Korea (1975–1992), and Taiwan (1967–1992), for an area bounded by 10°S–30°S and 150°E–180°, was released to Sabrina Virly, *Institut français de recherche scientifique pour le développement en coopération*, Centre ORSTOM de Nouméa, and Régis Etaix-Bonin, *Service territoriale de la marine marchande et des pêches maritimes*, Noumea, New Caledonia, on 13 April 1995.
5. A subsequent request for non-public domain Japanese longline data, 1981–1983, aggregated by 5° x 5° by month, for an area bounded by 10°S–30°S and 150°E–180°, for use by Sabrina Virly was received on 9 June 1995. Authorisation to release these data was received from the Fisheries Agency of Japan on 21 June 1995, and the data were released on 22 June 1995.
6. The following data were requested by Dr Alain Fonteneau, *Institut français de recherche scientifique pour le développement en coopération* (ORSTOM) on 29 March 1995, while based at the headquarters of the Inter-American Tropical Tuna Commission (IATTC) in La

Jolla, California, for a study comparing tuna fisheries in the Atlantic, Pacific and Indian Oceans:

- Data provided to SPC by the Fisheries Agency of Japan (longline, 1981–1992, by 5° x 5° by month; pole-and-line, 1981–1992, by 5° x 5° by month; and purse seine, 1967–1992, by 5° x 5° by month).
- Data provided to SPC by the American Tunaboat Association (American purse seiners, 1981–1988, by 5° x 5° by month).
- Data provided to SPC by the Forum Fisheries Agency (American purse seiners, 1988–1994, by 5° x 5° by month).

The request was initiated by Dr Fonteneau on 1 February 1995. The Japanese data were released after authorisation was received from the Fisheries Agency of Japan on 11 April 1995.

Authorisation to release the data provided to SPC by the American Tunaboat Association was received through the intermediary of IATTC on 19 June 1995; these data were subsequently provided to Dr Fonteneau by IATTC, which also holds these data.

Authorisation to release the data provided to SPC by the Forum Fisheries Agency was received on 5 July 1995; these data were subsequently provided to Dr Fonteneau by the United States National Marine Fisheries Service, which also holds these data.

7. On 5 June 1995, Dr Fonteneau also requested Filipino purse-seine data provided to SPC by Papua New Guinea and Solomon Islands, aggregated by 5° x 5° by month. Authorisation from Papua New Guinea and Solomon Islands were received by 12 June 1995, and the data were sent by email on 13 June 1995.
8. Data aggregated by 5° x 5° by quarter and by fishing nation (i.e. not for individual fishing nations) for longline, pole-and-line and purse seine were provided on 12 June 1995 to Dr Jacek Majkowski, Fisheries Resource Officer, Food and Agricultural Organization of the United Nations, for use in producing hardcopy maps of catches by species in Pacific tuna fisheries. Public domain data for longline (Japan, 1962–1980; Korea, 1975–1992; Taiwan, 1967–1992) and pole-and-line (Japan, 1972–1980), were also provided to Dr Majkowski.

Dr Majkowski also requested authorisation from SPC to distribute the non-public domain data on diskette to any interested party; however, SPC has denied authorisation to FAO to distribute these data, since it conflicts with the current SPC policy concerning the release of data.

CURRENT AND FUTURE PROCEDURES FOR THE RELEASE OF AGGREGATED DATA

Under the data release procedure that SPC has employed until recently, SPC would first ask the scientist requesting data to provide information concerning the research project for which the data would be used, and the individuals who would have access to the data. The scientist requesting data was encouraged to state that a final report from the research project would be provided to the source of the data. On receipt of this information, SPC would then fax the information verbatim

to the source of the data to request authorisation to release the data. If the source of the data requested further information concerning the research project, then SPC would contact the source on behalf of the source of the data, and repeat the process. On receipt of written authorisation from the source of the data, SPC would then release the data to the scientist, informing the scientist that the data were to be used only for the purpose for which the data were requested.

In order to streamline the data release procedures, SPC has dispensed with faxes in certain cases and has relied on telephone and Peacesat communications to request authorisation for the release of data. However, even though certain sources of data are able to make a decision during the course of a conversation, it can sometimes take a week or more to contact sources in certain island countries by telephone or Peacesat. Other sources are not able to make an immediate decision, for valid reasons. For example, under the terms of the Treaty, the Forum Fisheries Agency should not authorise the release of American purse-seine data until FFA has received the agreement of the United States Tuna Foundation (USTF); FFA must therefore contact USTF concerning each request for the Treaty data. Authorisation to release pre-Treaty data are conveyed to SPC through the intermediary of IATTC, which must contact the American Tunaboat Association on SPC's behalf. Responses to requests for authorisation made to the Fisheries Agency of Japan are usually received within days; however, responses can sometimes be delayed for weeks.

For these reasons, and in order to make the availability of aggregated data held at SPC conform more closely to the original concept behind the Standing Committee Database, SPC plans to approach all sources of data to request authorisation to release their data, in aggregated format and for research purposes, at SPC's discretion. It is anticipated that many, but not all, sources will agree to this request. In the short term, the availability of aggregated data may not change appreciably, since certain sources for which delays have been experienced in the past may not be in a position to agree to SPC's request for authorisation for discretionary sharing of their data. In the long term, however, it is hoped that all sources will eventually agree to share their data in the spirit originally envisaged by the participants at the 1989 meeting of the Standing Committee on Tuna and Billfish.

POINTS FOR DISCUSSION

The meeting may wish to consider the following points for discussion:

1. Operationally, the Standing Committee Database has been treated by SPC staff as those data held at SPC that are potentially available for release to scientists in aggregated format. The meeting may wish to consider whether the Standing Committee Database should be given a more distinct identity, with inclusion of data in the Standing Committee Database dependent on authorisation being given by the source for unrestricted access by scientists. In this regard, the meeting may also wish to consider whether, in the future, SPC should continue to act as an intermediary between scientists requesting data and the sources of data, for the release of data for which unrestricted access by scientists has not been authorised.
2. The meeting may wish to consider whether regular distributions of aggregated catch and effort data would be worthwhile.
3. The meeting may wish to consider whether the time-area strata of data that are released to scientists should be restricted to 5° x 5° by month, in order to more easily obtain authorisation from sources for the release of data.

Table 1. Public domain catch and effort data held at SPC

FISHING NATION	GEAR TYPE	TIME PERIOD	SOURCE
JAPAN	LOGLINE	1962-1980	FISHERIES AGENCY OF JAPAN
JAPAN	POLE-AND-LINE	1969-1980	FISHERIES AGENCY OF JAPAN
KOREA	LOGLINE	1975-1992	NATIONAL FISHERIES RESEARCH AND DEVELOPMENT AGENCY
TAIWAN	LOGLINE	1967-1993	NATIONAL TAIWAN UNIVERSITY

Table 2. Non-public domain catch and effort data held at SPC

FISHING NATION	GEAR TYPE	TIME PERIOD	SOURCE
AUSTRALIA	LONGLINE	1985-1994	AUSTRALIAN FISHERIES MANAGEMENT AUTHORITY
AUSTRALIA	POLE-AND-LINE	1975-1994	AUSTRALIAN FISHERIES MANAGEMENT AUTHORITY
AUSTRALIA	PURSE SEINE	1976-1994	AUSTRALIAN FISHERIES MANAGEMENT AUTHORITY
CHINA	LONGLINE	1988-1994	MICRONESIAN MARITIME AUTHORITY, MARSHALL ISLANDS MARINE RESOURCES AUTHORITY, PALAU MARITIME AUTHORITY
COOK ISLANDS	LONGLINE	1994	COOK ISLANDS MINISTRY OF MARINE RESOURCES
FSM	LONGLINE	1991-1994	MICRONESIAN MARITIME AUTHORITY
FSM	PURSE SEINE	1991-1994	MICRONESIAN MARITIME AUTHORITY
FIJI	LONGLINE	1988-1994	FIJI FISHERIES DIVISION
FIJI	POLE-AND-LINE	1976-1994	FIJI FISHERIES DIVISION
FRENCH POLYNESIA	LONGLINE	1992	FRENCH POLYNESIA EVAAM
JAPAN	DRIFTNET	1988/89-1989/90	FISHERIES AGENCY OF JAPAN
JAPAN	LONGLINE	1981-1993	FISHERIES AGENCY OF JAPAN
JAPAN	POLE-AND-LINE	1981-1992	FISHERIES AGENCY OF JAPAN
JAPAN	PURSE SEINE	1967-1994	FISHERIES AGENCY OF JAPAN
KIRIBATI	POLE-AND-LINE	1986-1993	KIRIBATI FISHERIES DIVISION, TE MAUTARI LTD
MARSHALL ISLANDS	LONGLINE	1989-1993	MARSHALL ISLANDS MARINE RESOURCES AUTHORITY
NEW CALEDONIA	LONGLINE	1983-1994	NEW CALEDONIA MARINE MARCHANDE
NEW CALEDONIA	POLE-AND-LINE	1981-1983	NEW CALEDONIA MARINE MARCHANDE
NEW ZEALAND	LONGLINE	1989-1991	NEW ZEALAND MINISTRY OF AGRICULTURE AND FISHERIES
NEW ZEALAND	PURSE SEINE	1975-1988	NEW ZEALAND MINISTRY OF AGRICULTURE AND FISHERIES
NEW ZEALAND	TROLL	1982/83-1990/91	NEW ZEALAND MINISTRY OF AGRICULTURE AND FISHERIES
PALAU	POLE-AND-LINE	1964-1982	PALAU MARITIME AUTHORITY
PAPUA NEW GUINEA	POLE-AND-LINE	1970-1981	PNG DEPARTMENT OF FISHERIES AND MARINE RESOURCES
PAPUA NEW GUINEA	POLE-AND-LINE	1984-1985	PNG DEPARTMENT OF FISHERIES AND MARINE RESOURCES
PAPUA NEW GUINEA	LONGLINE	1993-1994	PNG DEPARTMENT OF FISHERIES AND MARINE RESOURCES
PHILIPPINES	PURSE SEINE	1982-1994	PNG DEPARTMENT OF FISHERIES AND MARINE RESOURCES, SOLOMON ISLANDS FISHERIES DIVISION
SOLOMON ISLANDS	LONGLINE	1981-1985	SOLOMON ISLANDS FISHERIES DIVISION
SOLOMON ISLANDS	POLE-AND-LINE	1981-1994	SOLOMON ISLANDS FISHERIES DIVISION
SOLOMON ISLANDS	PURSE SEINE	1985-1994	SOLOMON ISLANDS FISHERIES DIVISION
TAIWAN	DRIFTNET	1988/89	NATIONAL TAIWAN UNIVERSITY
TONGA	LONGLINE	1982-1992	TONGA MINISTRY OF FISHERIES
TUVALU	POLE-AND-LINE	1982-1984	FIJI FISHERIES DIVISION
TUVALU	POLE-AND-LINE	1986-1988	SOLOMON ISLANDS FISHERIES DIVISION
TUVALU	POLE-AND-LINE	1990-1991	SOUTH PACIFIC COMMISSION
UNITED STATES	LONGLINE	1993-1994	MARSHALL ISLANDS MARINE RESOURCES AUTHORITY, FIJI FISHERIES DIVISION
UNITED STATES	PURSE SEINE	1981-1987	AMERICAN TUNABOAT ASSOCIATION
UNITED STATES	PURSE SEINE	1988-1994	SOUTH PACIFIC FORUM FISHERIES AGENCY
UNITED STATES	TROLL	1986/87-1991/92	UNITED STATES NATIONAL MARINE FISHERIES SERVICE
WESTERN SAMOA	LONGLINE	1993-1994	WESTERN SAMOAN FISHERIES DIVISION

Table 3. Major sets of aggregated catch and effort data not held at SPC

FISHING NATION	GEAR TYPE	TIME PERIOD	SOURCE
FRENCH POLYNESIA	POLE-AND-LINE	1988-1994	FRENCH POLYNESIA EVAAM
KOREA	LONGLINE	1993	NATIONAL FISHERIES RESEARCH AND DEVELOPMENT AGENCY
KOREA	PURSE SEINE	1980-1993	NATIONAL FISHERIES RESEARCH AND DEVELOPMENT AGENCY
JAPAN	POLE-AND-LINE	1993-1994	FISHERIES AGENCY OF JAPAN
NEW ZEALAND	LONGLINE	1992-1994	NEW ZEALAND MINISTRY OF AGRICULTURE AND FISHERIES
NEW ZEALAND	PURSE SEINE	1989-1994	NEW ZEALAND MINISTRY OF AGRICULTURE AND FISHERIES
NEW ZEALAND	TROLL	1991/92-1993/94	NEW ZEALAND MINISTRY OF AGRICULTURE AND FISHERIES
RUSSIA	PURSE SEINE	1985-1994	TINRO
TAIWAN	DRIFTNET	1989/90-1990/91	NATIONAL TAIWAN UNIVERSITY
TAIWAN	PURSE SEINE	1983-1993	NATIONAL TAIWAN UNIVERSITY
TONGA	LONGLINE	1993-1994	TONGA MINISTRY OF FISHERIES
UNITED STATES	TROLL	1992/93-1993/94	UNITED STATES NATIONAL MARINE FISHERIES SERVICE