

## **COORDINATING WORKING PARTY ON FISHERY STATISTICS**

### Eighteenth Session

6–9 July 1999, Luxembourg

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### **AGENCY PROGRAMMES IN FISHERY STATISTICS:**

#### **SECRETARIAT OF THE PACIFIC COMMUNITY**

### **INTRODUCTION**

The Oceanic Fisheries Programme (OFP) of the Secretariat of the Pacific Community (SPC) is concerned with statistics and research on tuna fisheries in the central and western Pacific Ocean (Figure 1). The data compiled by the OFP are used primarily for monitoring trends in catch and effort, and for stock assessment and other research conducted by the OFP and by external scientists. The statistics-related activities of the OFP include:

- compilation of annual catch estimates, by fleet and major species;
- compilation and processing of operational-level catch and effort data (longline and purse-seine sets; pole-and-line and troll days fished) provided by SPC member countries and territories;
- compilation of catch and effort data grouped by time-area strata (5° latitude by 5° longitude and month for longline and troll; 1° latitude by 1° longitude and month for pole-and-line and purse seine) provided by non-SPC member fishing nations;
- collection of tagging and associated data;
- compilation of landings data, and length and other sampling data, from port sampling programmes in 23 ports in 12 SPC member countries and territories;
- compilation of observer data, including data on bycatch and discards, and length data, collected by four OFP scientific observers and observer programmes in eight SPC member countries and territories;
- publication of monthly catch rates in the quarterly SPC Regional Tuna Bulletin and annual catch estimates in the SPC Tuna Fishery Yearbook;
- provision of technical support for national fishery statistics systems, primarily database development and support, in 14 SPC member countries and territories; and

- releases of data to external scientists and provision of other information in response to requests from fisheries officers, universities, other international organisations, consultants and industry.

The OFP is also responsible for providing technical support to the Statistics Working Group of the Standing Committee on Tuna and Billfish (SCTB) and participates in the SPC / FFA Tuna Fishery Data Collection Forms Committee.

## MODIFICATIONS

### Compilation of annual catch estimates

- No modifications. Annual catch estimates continue to be compiled for the major species only, i.e. bigeye, skipjack, yellowfin and South Pacific albacore. Recreational and subsistence fisheries, which are not substantial in the region, are not covered. Annual catches continue to be reported by actual vessel nationality, as determined by the OFP, rather than by flags of convenience, although certain joint-venture operations in SPC member countries (e.g. two Vanuatu-flagged purse seiners under a Vanuatu-Korea joint-venture) could be considered exceptions. Compilation of annual catch estimates from Indonesia and the Philippines, which represent about 20 percent of the catch of major species in the western and central Pacific Ocean, continues to be problematic.

### Compilation and processing of operational-level catch and effort data from SPC members

- No modifications. The catch and effort logsheet database currently covers over 2 million fishing operations by over 6 thousand fishing vessels, dating from 1970 to 1999. The logsheet data cover primarily tuna and billfish. Logsheets data (and catch and effort data grouped by time-area, see below) for longliners usually cover sharks as a species group, and not individual species.

### Compilation of catch and effort data grouped by time-area strata from non-SPC members

- Previously, catch and effort data grouped by 5° x 5° and month were only available in the format in which they were provided to SPC, either raised to represent the total catch and effort or unraised. All catch and effort data grouped by 5° x 5° and month are now available as raised data.
- Catch and effort data grouped by 5° x 5° and month for purse seine are now available stratified by school association (i.e. associated and unassociated).
- Catch and effort data grouped by 5° x 5° and month, for all fishing nations combined, are now available for driftnet, longline, pole-and-line and purse seine on the SPC website at <http://www.spc.org.nc/oceanfish/html/sctb/data/index.htm>. The data are provided in self-extracting zip files containing Microsoft Visual Foxpro Profession Edition Version 5.0 DBF files, together with text files with information on database formats and the sources of the data.

### Collection of tagging and associated data

- The OFP conducted two large-scale tagging programmes, from 1977 to 1980 and from 1989 to 1992, during which 317,412 skipjack, yellowfin and other species were tagged throughout the tropical and sub-tropical western and central Pacific from pole-and-line vessels. A total of 25,670 tags have been returned, giving an overall return rate of 8.1 percent. The OFP has not conducted a tagging programme since 1992, although tags continue to be returned.

### Port sampling programmes

- The OFP continues to compile port sampling data collected by national programmes. Port sampling forms were modified by the SPC / FFA Tuna Fishery Data Collection Forms Committee (see below).

### Observer programmes

- The OFP continues to compile observer data, including data on bycatch and discards and length data, collected by four OFP scientific observers and by national observer programmes. Observer data collection forms were modified by the SPC / FFA Tuna Fishery Data Collection Forms Committee (see below). Coverage by observer programmes in the region continues to be less than three percent of the total catch, except for the programme managed by the South Pacific Forum Fisheries Agency (FFA), in which coverage of United States purse seiners has been about 20 percent.

### SPC Regional Tuna Bulletin and SPC Tuna Fishery Yearbook

- The Regional Tuna Bulletin and Tuna Fishery Yearbook are now available on the SPC website at <http://www.spc.org.nc/oceanfish/docs/index.htm>. Notification of the availability of each edition of the Tuna Bulletin and the Yearbook, together with a brief summary of the statistics, is sent out via an email list. Both publications continue to be distributed in printed versions.

### National fishery statistics systems

- The OFP continues to provide technical support for fishery statistics systems in SPC member countries and territories. A user-friendly query interface for the catch and effort component of national systems was developed in 1997. New versions of the interface have been distributed to SPC members on CD-ROM during 1998 and again in 1999.

### Releases of data and responses to requests for tuna fishery statistics

- During 1998, the OFP responded to 12 requests for data and to 26 requests for other information. During January – June 1999, the OFP responded to 12 requests for data and to 30 requests for other information.

## **SCTB STATISTICS WORKING GROUP**

The Standing Committee on Tuna and Billfish (SCTB) was established in 1988 as a committee of the SPC Regional Technical Meeting on Fisheries, with the objective of reviewing the status of the stocks on an annual basis. While certain fishing nations that are not members of SPC (e.g. Indonesia, Japan, Korea, Philippines and Taiwan) have participated in the work of the SCTB, it was considered that in order for all SCTB participants to have equal status, and in view of the ongoing Multilateral High-Level Conference on the Conservation and Management of Highly Migratory Fish Stocks in the Central and Western Pacific (MHLCP), the SCTB should be re-established as a body that is independent of SPC. This was accomplished in 1997 with the drafting of new terms of reference, which were subsequently endorsed by the Conference of the Pacific Community. One consequence of the new terms of reference was the establishment of five working groups, including the Statistics Working Group (SWG), which has as its objective to coordinate the collection, compilation and dissemination of tuna fisheries data.

The inaugural session of the Statistics Working Group was held at the Eleventh Meeting of the Standing Committee on Tuna and Billfish, from 28 May to 6 June 1998 in Honolulu, United States of America. Procedures for accomplishing the objective of the SWG were considered and the SWG agreed on the following.

The SWG agreed to coordinate the collection of data (“collection” in this context meaning the recording of raw data by crew, observers or port samplers, rather than the compilation of “collected” data by national or regional agencies), by (a) establishing minimum standards for data collection forms (e.g. catch and effort logsheets, port sampling forms, and observer forms) and reviewing data collection forms that are currently used in the region; (b) developing coverage tables (i.e. tables of annual coverage rates for catch and effort logsheet data, landings data, port sampling data, and observer data) for all fleets and updating them on an annual basis; and (c) developing a regional sampling design for port sampling and observer programmes.

The SWG agreed to coordinate the compilation of data by (a) specifying the data items that should be compiled and (b) reviewing the data that have been compiled on an annual basis. The types of data to be compiled include estimates of annual catches, by species and fleet; catch and effort data; and length data. Regarding catch and effort data, the SWG indicated that they should be compiled at a minimum level of resolution of 5° latitude by 5° longitude by month, and that, where possible, catch and effort data would be compiled at a finer level of resolution, such as 1° latitude by 1° longitude by month or as logsheet data (i.e. by set for longline and purse-seine, and by day fished for pole-and-line and troll). The data are compiled on behalf of SCTB by the OFP.

The SWG agreed to coordinate the dissemination of data by (a) establishing policies for the dissemination of data and (b) reviewing the instances of the dissemination of data on an annual basis. The policies for the dissemination of data were established as follows.

Regarding annual catch estimates, dissemination will be accomplished through publication in the reports of SCTB meetings and on the SCTB page of the SPC website. (Annual catch estimates presented on the website will be in the form of a statistical bulletin in Portable Document Format and both online and downloadable query software.)

Regarding catch and effort data, the policy for dissemination is as follows:

- Catch and effort data grouped by 5° longitude by 5° latitude by month for longline and 1° longitude by 1° latitude by month for surface fisheries, for all fishing nations combined, are considered to be in the public domain. (Catch and effort data grouped by 5° longitude by 5° latitude by month, for all fishing nations combined, are now available on the SCTB page of the SPC website, at the address given above.)
- Catch and effort data grouped by 5° longitude by 5° latitude by month for longline and 1° longitude by 1° latitude by month for surface fisheries, stratified by fishing nation, are available for release at the discretion of the Coordinator of the SCTB Statistics Working Group, for those sources of data which have so authorised the SWG Coordinator. For those sources of data that have not authorised the SWG Coordinator to release data at his discretion, authorisation for the release of data must be obtained from the sources of the data.
- Catch and effort data grouped at a finer level of time-area stratification may be released with authorisation from the sources of the data.

- Catch and effort data are released for research purposes only, and to individuals who can be trusted to use the data responsibly. The person requesting the data is required to provide a description of the research project. The data are released only for use in the specified research project and the data must be destroyed upon completion of the research project. However, catch and effort data may be released for long-term usage for research purposes, such that the data need not be destroyed, with authorisation from the sources of the data.
- The person requesting the data will be asked to provide a report of the results of the research project to the SWG Coordinator, for subsequent forwarding to the sources of the data.

The policy for disseminating length data is similar to the policy for disseminating catch and effort data.

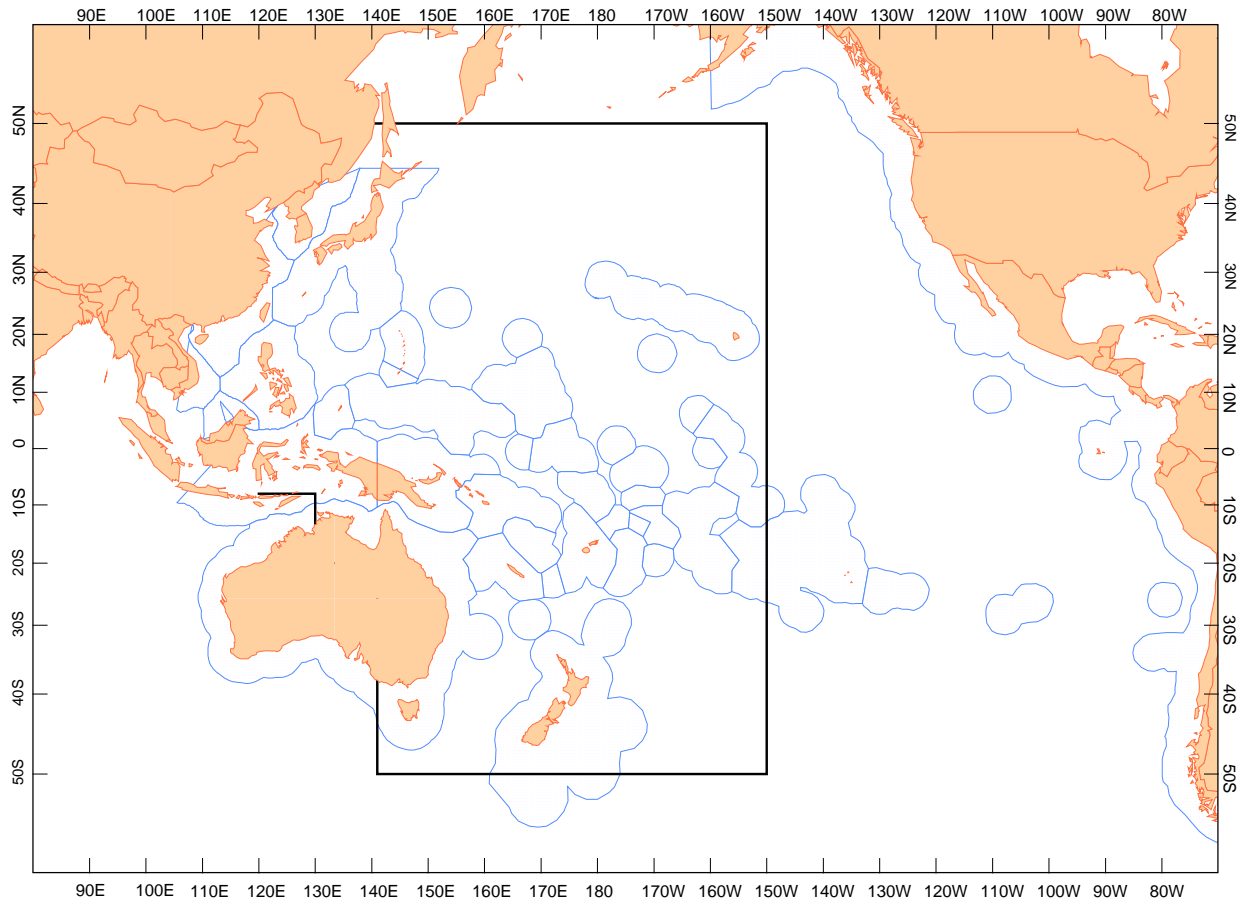
### **SPC / FFA TUNA FISHERY DATA COLLECTION FORMS COMMITTEE**

The Third Meeting of the Tuna Fishery Data Collection Forms Committee took place from 9 to 10 December 1998 in Brisbane, Australia. The meeting was attended by participants from the OFP, FFA and the Micronesian Maritime Authority. The Forms Committee has developed and maintains catch and effort logsheets, port sampling forms and observer forms, which are all widely used in the region. At its third meeting, the Forms Committee reviewed all forms and made extension revisions to certain observer forms and port sampling forms. The report of the meeting, which contains copies of the forms, is available at <http://www.spc.org.nc/oceanfish/docs/index.htm#datacollrep>, and the forms are available separately at <http://www.spc.org.nc/oceanfish/docs/index.htm#dataforms>.

### **VESSEL MONITORING SYSTEMS**

A vessel monitoring system (VMS), based on Inmarsat, is currently being implemented in the region through technical support provided by the Forum Fisheries Agency. Several FFA member countries have enacted legislation that provides for the implementation of VMS, including Federated States of Micronesia, Marshall Islands, Nauru, Papua New Guinea and Solomon Islands. United States purse seiners are expected to fit and operate VMS in the EEZs of those countries from 15 June 1999. The implementation of VMS by 1 July 1999 is a condition of certain bilateral access agreements covering longliners from Korea and Taiwan, and purse seiners from Japan, Korea, Philippines, Taiwan and Vanuatu. It is expected that 105 vessels will be equipped with VMS by the end of 1999 and that 300 vessels will be equipped by the end of 2000 (Richards, personal communication, June 1999).

The VMS provided through FFA is not currently capable of transmitting catch data, although it has been designed to incorporate this enhancement at a later date.



**Figure 1. Western and Central Pacific Ocean**