

**Report of the**

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**FIFTEENTH SESSION OF THE COORDINATING WORKING PARTY  
ON ATLANTIC FISHERY STATISTICS**

**Dartmouth, Nova Scotia, Canada, 8-14 July 1992**



**FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS**

REPORT OF THE FIFTEENTH SESSION OF THE COORDINATING WORKING PARTY

ON

ATLANTIC FISHERY STATISTICS

Dartmouth, Nova Scotia, Canada  
8-14 July 1992

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## PREPARATION OF THIS REPORT

This document is the Report of the Fifteenth Session of the Coordinating Working Party on Atlantic Fishery Statistics (CWP), held in Dartmouth, Nova Scotia, Canada, 8-14 July 1992.

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### ABSTRACT

The Report of the Fifteenth Session of the Coordinating Working Party on Atlantic Fishery Statistics (CWP) held in Dartmouth, Nova Scotia, Canada, 8-14 July 1992, is presented. The participating agencies were: FAO, Eurostat, ICCAT, ICES, OECD, NAFO. Major topics considered were: recommendations and proposals from CWP-14 and progress; agency programmes and publications presenting Atlantic fishery statistics; high seas fisheries statistics; elimination of discrepancies in agency databases; quantities and values of landings; STATLANT questionnaires; misreporting/non-reporting of data; inland fisheries concepts and definitions; aquaculture statistics (separation of aquaculture data from catch data, definition of aquaculture, hatchery data); recreational fisheries; conversion factors; data transmission using electronic and magnetic media; use of ICCAT tuna data by regional agencies; fishing vessel statistics (including world register of tuna vessels); food balance sheets; the publication "Handbook of Fishery Statistics"; STATLANT Newsletter; country and nationality issues; species concepts and definitions; the CWP and its functions.

# COORDINATING WORKING PARTY ON ATLANTIC FISHERY STATISTICS

## Fifteenth Session

NAFO, Dartmouth, Nova Scotia, Canada  
8-14 July 1992

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## COORDINATING WORKING PARTY ON ATLANTIC FISHERY STATISTICS

### Fifteenth Session Dartmouth, Nova Scotia, Canada, 8-14 July 1992

#### 1. PROCEDURAL MATTERS

##### 1.1 Opening of the Session

Mr. T. Amaratunga, Assistant Executive Secretary of NAFO, on behalf of the host agency, welcomed participants to the 15th Session of the Coordinating Working Party on Atlantic Fishery Statistics (CWP). A list of participants is given in Appendix I.

##### 1.2 Election of Officers

Mr. H. P. Cornus, the alternate to the Chairman of NAFO Standing Committee on Research Coordination (STACREC), was elected Chairman of CWP for the 15th Session (proposed by NAFO and seconded by ICES). Dr. R. Grainger was elected Vice-Chairman.

##### 1.3 Agenda and Documentation

The Agenda (Appendix I) was adopted and items were scheduled to accommodate, as far as possible, participants who could not be present for the whole of the meeting. Documents presented to the meeting are listed in Appendix III. Appendix IV contains a list of acronyms used in the report.

#### 2. REVIEW OF THE RECOMMENDATIONS AND PROPOSALS FROM CWP-14 AND PROGRESS (Document CWP-15/3)

2.1 The CWP Secretary (ad interim) reported that in addition to the publication of the FAO Yearbooks of Fishery Statistics, progress had been made during the inter-sessional period with the publication of the *Handbook of Fishery Statistics*, the *FAO Fishery Circular No. 847, "Conversion Factors: Landed weight to live weight"* and the *FAO Fisheries Circular No. 821, Revision 1: "Fish and Fishery Products: World apparent consumption statistics based on food balance sheets (1961-1989)"* and improved reporting categories for statistics on elasmobranchs. Progress has also been made with the elimination of discrepancies between the databases of FAO, ICES and EUROSTAT.

2.2 The definition of inland and marine fisheries had also been reviewed and a proposal prepared for consideration by the Session, as well as proposals toward the eventual separation of aquaculture production from catch data.

2.3 The Session was informed that a recreational fisheries survey had been conducted and the results were included in the documentation of this Session. A programme for the implementation of a system for reporting STATLANT data on electronic media had also been prepared.

2.4 The Secretary (ad interim) reported that no progress had been made in convening a third consultation on global tuna statistics, in reconciling the databases on Atlantic salmon catches, on the processing and publishing of hatchery data, or on dividing FAO species Group 33.

2.5 It was pointed out that several of the recommendations and proposals from earlier CWP Sessions were still under consideration but that no solution could be foreseen. In this context, the necessity was underlined that CWP sets its priorities to its work as much as possible.

3. AGENCY PROGRAMMES AND PUBLICATIONS PRESENTING ATLANTIC FISHERY STATISTICS

NASCO were unable to attend the 15th Session, and although they did not present a paper specifically under the above title, they did provide two technical papers for presentation at the Session (Documents CWP-15/5.C "Fishing for Salmon in International Waters within the NASCO Convention Area" and CWP-15/8.E "Salmon Aquaculture"). In addition to other CWP members, the guest agency SPC also reported.

3.A CCAMLR Fishery Statistical Programme (Document CWP-15/4.A)

3A.1 The report by CCAMLR, who were not present at the meeting, did not arrive in time for the Session.

3B. EUROSTAT Fishery Statistical Programme (Document CWP-15/4.B)

3B.1 EUROSTAT's programme of fishery statistics has continued at about its previous level. However, an important element has been the development of EC legislation covering the reporting of catch and landing statistics with the objective of improving the quality and timeliness of reporting of the basic fisheries data.

3B.2 EUROSTAT's main CRONOS catch data-base has continued to grow. This growth has only been possible by more efficient management of the data-processing with the use of IBM-PC compatible machines.

3B.3 The disruption to the compilation of fishing fleet statistics, due to a change in the method of receiving the basic data, appears to be nearing an end.

3B.4 Publication of EUROSTAT's Yearbook, *"Fisheries Yearly Statistics"* had been resumed. 'User-friendly' software running on IBM-PC compatible machines has been developed for the compilation of catch statistics and fishing fleet statistics.

3B.5 Collaboration with other CWP agencies continues to play an important role. This is particularly evident in the pivotal part played by EUROSTAT in the work to eliminate discrepancies between data-bases.

3C. FAO Fishery Statistical Programme (Document CWP-15/4.C)

3C.1 In spite of a persistent shortage of resources in the whole inter-sessional period, the FAO noted that the time series held in the FAO Fishery Statistical Database (FISHDAB) had continued to expand, through its FISHSTAT and STATLANT based fishery statistical programmes. New activities undertaken in the inter-sessional period included enquiries on recreational fisheries, on tuna fishing vessels and an improved fishery fleet questionnaire to collect statistics on length, power and fishing areas.

3C.2 Concerning publications, it was noted that the most recent volumes of the *FAO Yearbook of Fishery Statistics - "Catches and Landings"*, and the *FAO Fisheries Circular - "Aquaculture Production"* provided longer time series to facilitate trend analysis and easier access to revisions of past records. Similarly, the *FAO Fisheries Circular - "Fish and Fishery Products: World apparent consumption statistics, based on food balance sheets"* included a time series starting from 1961 to facilitate analyses of fish supplies changes and their implications in national food policies. The results of the enquiries made in 1985 and 1988 on national conversion factors from landed weight to live weight were published in *FAO Fisheries Circular No.847 - Conversion factors - landed weight to live weight*.

3C.3 The FAO reported that its fishery data processing capabilities had been enhanced by the acquisition of a Digital VAX 4000 and a series of PCs linked in a Local Area Network. Other developments concerned the dissemination of sub-sets of FISHDAB data on PC diskettes, both as ASCII files and associated to locally developed analytical software, MICROFISH.

3C.4 Temporary help had permitted expanding activities to separate salmon and shrimp aquaculture from the global production statistics and the rescuing of the database of the former International Commission for the Southeast Atlantic Fisheries. There were areas which needed improvements and others for which expansion was urged by persistent user demand, but had suffered from inadequate budgets and staff resources. The establishment of a new professional post to deal with aquaculture statistics was approved by the FAO Conference but the position has now been frozen until the end of 1993. Under the circumstances, no significant expansion of the statistical programme was foreseeable until the resources allocated to fishery statistical work were restored to adequate levels.

3D. ICES Fishery Statistical Programme (Document CWP-15/4.D)

3D.1 Two sets of catch statistics for ICES Fishing Areas are received and maintained by the ICES Secretariat: (1) data officially reported by the national statistical offices and (2) data provided to assessment Working Group meetings by members. All aquaculture statistics are officially reported.

3D.2 ICES publishes *ICES Fishery Statistics* (formerly *Bulletin Statistique*) annually and also produces an *Advance Release* of Tables 1-6 of *ICES Fishery Statistics* each autumn. These include the official statistics on catches (submitted through the STATLANT 27A and 27B returns) and on aquaculture (FISHSTAT AQ). The reports of the assessment Working Groups, which are circulated mainly within ICES, and the reports of the Advisory Committee on Fishery Management (ACFM), which are published as *ICES Cooperative Research Reports*, include the scientists' best estimates of catches, but generally these are given only as a total for each stock (i.e. not specified by country).

3D.3 ICES officially-reported statistics have been compared with those of FAO and some discrepancies have been eliminated. However, there are unresolved problems concerning French, Portuguese and Spanish data (see Section 5). It is expected that discrepancies in the tuna statistics can be removed by revising the ICES data to correspond to the data published by ICCAT which are accepted by ICCAT member countries as being the most reliable data (see Section 15).

3D.4 Two long-standing problems associated with ICES official statistics remain:

- (1) discrepancies (very large in some cases) between these statistics and those reported to and used by the assessment Working Groups; and
- (2) poor adherence to reporting deadlines.

3D.5 There is unease within ICES about publishing the officially-reported statistics in an official ICES publication, without any reference to the fact that these are in some cases not considered reliable so that Working Group estimates are used in preference in assessments (see Section 9).

3D.6 It is hoped that the new EC regulation requiring EC Member States to submit STATLANT 27A data within six months of the end of the year will substantially improve the timeliness of submission of these returns to ICES. This regulation will also be extended to EFTA Member States.

3E. ICCAT Fishery Statistical Programme (Document CWP-15/4.E)

3E.1 ICCAT records the best scientific estimates as catch statistics. They can be matched with more detailed catch and effort data (sample) and size data in order to obtain total catches by smaller time-area strata and catch at size. The data are compared with FAO statistics and efforts have been made by both parties to reduce discrepancies. The data are all computerized and are available to member countries on request in the basic form. When so requested by the scientific committee, the Secretariat processes the data into a format which is easier for the scientists to use in their analyses.

3F. NAFO Fishery Statistical Programme (Document CWP-15/4.F)

3F.1 NAFO continues to support the acquisition of fishery statistics for the Northwest Atlantic (FAO Fishing Area 21) through the STATLANT system. The system, which was inherited by NAFO in 1979 when it replaced ICNAF (one of the founding members of the CWP in 1960), involves basically the distribution for NAFO of STATLANT 21A and 21B forms and notes by the CWP Secretary to the statistical offices of all countries known to have fished in the region.

3F.2 STATLANT 21A (Annual Catch Summary): These provisional data represent the initial inventory of nominal catches by species and NAFO division for review and use by the Standing Committee on Fishery Science (STACFIS) for fish stock assessments at the June meeting of the Scientific Council. The submission deadline for these data is 15 April of each year for the preceding year's data.

3F.3 Recently the Scientific Council developed a scheme whereby designated experts were assigned the task of preparing preliminary assessments before the June meeting, to save valuable meeting time. This has not always been achievable due to late submissions of STATLANT 21A reports by a few countries. Consequently, the "Fishery Trends" reports could not be completed for the meeting through 1989-92.

3F.4 STATLANT 21B (Detailed Catch and Effort Data): These data represent the final catch and effort statistics from Member States of Contracting Parties and other countries fishing in the region, which are used in the publication of the *NAFO Statistical Bulletin* and the annual updating of statistics for assessment purposes. Although the deadline for the submission of STATLANT 21B reports has remained 30 June for the preceeding year's data, significant delays in data submission have delayed the publication of the Bulletin significantly. The last Bulletin published was with 1988 data.

3F.5 Monthly Preliminary Catch Reports: The Secretariat receives monthly reports for certain selected stocks from Contracting Parties operating in the Regulatory Area. These preliminary data are not considered adequate for stock assessments, and are often found to differ considerably from the STATLANT submissions.

3F.6 Delinquency in National Reporting of Fishery Statistics: The Scientific Council continues to be greatly concerned about the delinquency in the national reporting of fishery statistics through the STATLANT System. Although the problem had been usually with submission of STATLANT 21B reports, since 1989 there have been exceptional delays in STATLANT 21A submissions. These delays have affected both stock assessment work as well as publication of the Bulletin.

3F.7 The Secretariat regularly sends reminders to the statistical offices and sometimes to national representatives of Contracting Parties. The Scientific Council has also brought this matter to the attention of the Contracting Parties through the Fisheries Commission. This process, however, does not necessarily bring adequate results. There are new initiatives, as mentioned below, being considered to ensure data are submitted on time (e.g. hail system, diplomatic initiatives through Standing Committees).

3F.8 Computer Facilities: The Secretariat replaced the IBM Mainframe with an IBM Compatible PC system in May 1988. With the installation of the new PC system, the data treatment did not change significantly. The major contributors of data (Canada and USA) continue to provide fishery statistics in digital STATLANT 21B form on computer diskettes. Several countries with comparatively small amounts of data, submit computer printouts or the STATLANT forms filled out.

3F.9 Treatment of STATLANT 21 Statistics: Annual nominal catch statistics by species and division are transcribed from the STATLANT 21A forms to standard 80-column coding sheets and thence to computer diskettes. Approximately 2 500 records are involved.

3F.10 The detailed catch and effort statistics, reported on STATLANT 21B forms, are transcribed to 80 column coding sheets and subsequently entered and verified on computer diskettes. Approximately 15 000 records are involved and the tabulated data are archived on hard disks.

3F.11 The update of the computerized database of Northwest Atlantic fishery statistics now includes data for all years back to 1960. The data are available to users in the form of one diskette per year of data. Similarly all above data are made available to users on computer diskettes. A 30-year time series publication is pending.

3F.12 Separate Statistics from the NAFO Regulatory Area: A request from FAO in 1990 that NAFO Scientific Council look into the possibility of keeping separate statistics for the EEZ's and the areas outside the 200-mile zone generated much discussion at the June 1991 meeting. It was felt that the means of providing a separate breakdown could already exist in the databases of some coastal states, and in general, no problem was envisaged in adopting this measure. To implement the reporting of catches and effort inside and outside the Regulatory Area, it was stated that the statistics offices for each reporting party should be contacted and requested to provide this information where possible with STATLANT 21B statistics due to be submitted by June 30 1992. It was hoped the procedure could be adopted by 1993. It was agreed that this should be only the first step in a process that should lead to NAFO statistics being collected on a finer geographic scale.

### 3G. OECD Fishery Statistical Programme (Document CWP-15/4.G)

3G.1 OECD publishes annually (since 1968) the *Review of Fisheries in OECD Member Countries*. The main objective of the Review is to describe major developments and changes in or affecting commercial fisheries during the previous year and to give continuity in statistical reporting. All the information, qualitative as well as quantitative, is submitted directly by Member Countries which are required to provide statistics on:

- Fishing fleet and fishermen;
- TACs, allocations to domestic and foreign fishermen and catches;
- Landings and values;
- Utilization of catch;
- External trade in fish and fish products;
- Imports by major products and by country;
- Aquaculture and inland water fisheries.

3G.2 One of the main aims of the publication has been to provide quickly (usually by September/October of the following year) a large amount of statistical data which allow comparisons with previous years as well as between countries. However, due mainly to the fact that an increasing number of Member Countries have difficulties in providing their country notes in due time, the publication of the Review has been delayed by about six months over the last few years. Thus, the 1990 Review will not be published before August 1992.

3G.3 Fish consumption figures are regularly published in *Food Consumption Statistics*. The latest volume was published in 1991.

### 3H. SPC Fishery Statistical Programme

3H.1 The Tuna and Billfish Assessment Programme of the South Pacific Commission compiles three types of catch and effort data for tuna fisheries in the SPC area (Figure 1, Page 6): (1) daily logbook data; (2) total annual catch and effort; and (3) data by 5° x 5° square and month.

3H.2 Daily catch and effort logbook data are provided to SPC by member countries, which in turn collect the data either from domestic fleets or from distant-water fishing nations under the terms of access agreements. After the data are processed at SPC on behalf of member countries, they are returned on diskette to be incorporated in national databases. In recent years, SPC has received daily logbook data from 16 member countries covering about 900 fishing vessels, including longliners, pole-and-line vessels and purse seiners. Since the logbook data for distant-water fishing nations are collected under access agreements, fishing activities on the high seas in the SPC region are generally not covered. The logbook data are reported by SPC on a quarterly basis in the SPC Regional Tuna Bulletin, which contains tables of monthly catch statistics by vessel nationality and by gear type.

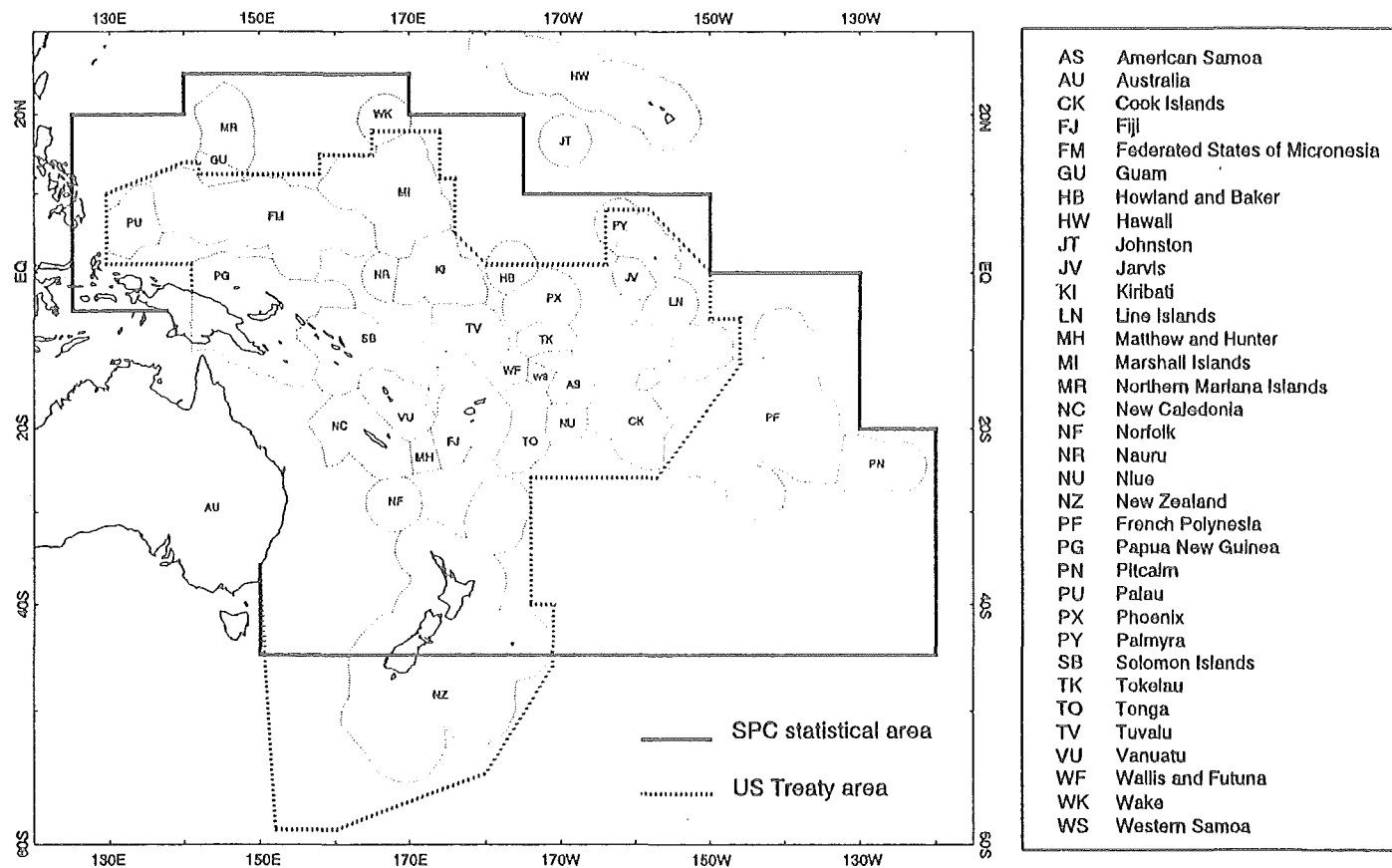


Figure 1. SPC statistical area

3H.3 There is at present no international fisheries organisation of which all Western Pacific tuna fishing nations are members. (The South Pacific Commission and the South Pacific Forum Fisheries Agency have coastal states as members, but not distant-water fishing nations, such as Japan, Korea, the Republic of China and others). Therefore, the collection of annual catch and effort statistics are compiled on an informal basis. When official annual catch estimates are unavailable, SPC uses other sources of information. The total annual catch of the four principal species (skipjack, yellowfin, bigeye and albacore) in the SPC area was over 1 million tonnes in 1991. The catch in the SPC area together with the catch in the waters of the Philippines and eastern Indonesia was over 1.4 million tonnes, or over 50 per cent of the world catch of tuna.

3H.4 Catch and effort data and length-frequency data on a fine time-area stratification ( $5^{\circ} \times 5^{\circ}$  by month for longliners and  $1^{\circ} \times 1^{\circ}$  by month for surface fleets) are also collected by SPC on an informal basis. These data, which cover the SPC area including high seas areas, have been made available by several distant-water fishing nations for use in ongoing SPC stock assessment research.

3H.5 While no formal obligations exist at present requiring distant-water fishing nations to provide annual catch estimates or complete  $5^{\circ} \times 5^{\circ}$  or  $1^{\circ} \times 1^{\circ}$  data to SPC, considerable progress in access to data has been made in recent years and further progress is anticipated.

#### 4. HIGH SEAS FISHERIES STATISTICS (Documents CWP-15/5 A - D, and 4.F)

4.1 FAO introduced this topic with an account of the history of the development of interest in high seas fisheries and drew particular attention to the forthcoming Technical Consultation on High Seas Fisheries to be held in Rome in September 1992. One session of the Consultation will be devoted to statistics.

4.2 After an introduction of the documents by the Agencies, the CWP discussed the topic at length, the following being the principal points raised:

- In many cases the basic data on high seas fisheries are collected but the processing and reporting of these data receive a lower priority by national authorities than is received by the data on activities in economic zones that are subject to strict management measures.
- Data on high seas fisheries may be included in reports to regional agencies but are not separately identified.
- Certain high seas fisheries are in regions for which there are no regional agencies. For these regions the collection of data in sufficient detail may require a request to countries to report such catches.
- Tuna are the major species caught in high seas fisheries. For the Atlantic tuna fishery, high seas catches receive an equal priority as those from EEZ's. These data, regardless for EEZ's or high seas, are available by  $1^{\circ} \times 1^{\circ}$  grid for surface fisheries and by a  $5^{\circ} \times 5^{\circ}$  grid for longline fisheries. With the identification of those rectangles, there should be few problems in compiling the statistics for high seas tuna fisheries.
- For other species, high seas catches may represent an appreciable proportion of the available stock. In these cases, and particularly where the distribution of the stock straddles the boundary between an economic zone and international waters, the data assume a great importance. NAFO has adopted a hail system to monitor the activities of contracting party vessels in its regulatory area, whereas NEAFC relies on ICES assessment Working Groups to estimate catches by economic and high seas zones.

- Many of the problems of collecting fishery statistics (e.g. flags of convenience, transshipments, landings in foreign ports, processing at sea) are particularly accentuated in high seas fisheries. Thus special effort and collaboration among national authorities, regional and international agencies would be required to ensure a complete and accurate reporting of the data. (The tuna agencies have been particularly attentive to these problems in the past and have developed methods of collecting the data).
- The activities of non-Contracting Parties to regional fisheries organizations are a particular concern as regards the reporting of data on high seas fisheries. For example, non-member fishing was recently estimated at about 40% of the total groundfish quotas in the NAFO regulatory area. Some agencies (e.g. NAFO, NASCO and ICCAT) are taking steps to try to limit the activities of non-contracting parties. Nevertheless data collection from all parties fishing in the high seas is of major importance to these agencies.
- The collection of data on high seas fisheries is closely connected to the collection of data from areas under national jurisdiction. It is known that certain national authorities (for example in the South Pacific region) are opposed to the publication of data for their individual economic zone for confidentiality reasons.
- Foreign trade statistics may, in certain circumstances, be useful in validating data on high seas fisheries or detecting deficiencies in the data.
- If the collection of statistics on high seas fisheries is to be integrated into the STATLANT system for certain regional agencies, it is important to ensure that existing reporting of STATLANT data is not disrupted.

4.3 The CWP concluded that statistics on high seas fisheries are already existing on a national level, but for various reasons, they are not published or reported (except for Atlantic tuna data which are reported on a regional level). CWP recommended that *FAO should survey possibilities to get positive reactions from national authorities especially from those countries highly active in high seas fishery. These data collections should be coordinated with the regional agencies.*

## 5. ELIMINATION OF DISCREPANCIES IN AGENCY DATABASES (Document CWP-15/6 A & B)

5.1 EUROSTAT reported that it had completed a first run of its programs to detect discrepancies between the data in the FAO FISHDAB data-base and those in the regional data-bases. Studies of the discrepancies for some of the regions had indicated that it was possible for the agencies to resolve the problems without having to request help from the national authorities. The great majority of the problems were due to differing methods of processing the data by the agencies.

5.2 For the data for the Northeast Atlantic, a number of discussions had been held between FAO, ICES and EUROSTAT and the great majority of the discrepancies for the period 1973-89 had been eliminated. The data for certain countries, notably France and Spain, still presented problems and special measures would have to be taken with these if progress is to be made.

5.3 For the Northwest Atlantic, a detailed study of the discrepancies will be made by FAO, NAFO and EUROSTAT immediately after the CWP-15 Session. However, a preliminary review indicates that the major problem is that FAO uses the STATLANT 21A data to up-date its data-base while NAFO uses the aggregated STATLANT 21B data.

5.4 For the data for the Eastern Central Atlantic and the Mediterranean, no detailed analysis of the discrepancies has yet been possible but an early indication is that the discrepancies are more apparent than real. For example the *GFCM Bulletin* includes no data on seaweeds and freshwater species caught in brackish waters of the Sea of Azov and the Black Sea, whereas these data are included in the FAO Yearbook.

5.5 For the Southeast Atlantic, the number of discrepancies is relatively small, reflecting the close collaboration between FAO and ICSEAF before its dissolution.

5.6 For the Antarctic FAO, EUROSTAT and CCAMLR have studied the list of discrepancies and these have been resolved.

5.7 The CWP noted that good progress had been made with this project and that the major work in reconciling and revising the historical data (covering the period from about 1973 to 1989) had been largely completed. It was recommended that *the elimination of discrepancies between the databases should become a less demanding and more routine exercise conducted at an interval compatible with the staff and other resources available to the Agencies.*

5.8 The CWP recommended the following procedures to ensure that revisions are made to all relevant agencies' databases:

- a) *FAO should send copies of the revised FISHSTAT NSI return to the regional agencies;*
- b) *FAO should consider the revisions on FISHSTAT NSI provisional, until the regional agencies have been sent the detailed data;*
- c) *the regional agency should contact the national authority in order to obtain detailed data before the final acceptance of the revisions;*
- d) *if the requested data are not provided, FAO and the corresponding agency should decide on the matter;*
- e) *data on aquaculture production should be excluded from FISHSTAT NSI as recommended by CWP-14.*

## 6. QUANTITIES AND VALUES OF LANDINGS (Document CWP-15/9)

6.1 EUROSTAT reported that there is now EC legislation covering the submission of monthly data on the quantities and values of landings of a range of fishery products. The first data for January 1992 should be submitted by August 1992. EUROSTAT will be disseminating the data through a quarterly statistical bulletin.

6.2 On ratification of the treaty establishing the European Economic Area, the EFTA member countries will be submitting the data on landings by, at the latest, 1995. The details of the submissions have been modified to meet the EFTA requirements, and it is anticipated that these modifications will be incorporated in the basic legislation applicable to all the national authorities.

6.3 The CWP welcomed this development and recommended that *to the extent possible, landings data reported by member agencies should be accompanied by the value of landings.*

7. STATLANT CATCH QUESTIONNAIRES (Documents CWP-15/11 A & B, and 4.F)

7.1 The STATLANT system, established by the CWP, is the mechanism through which the countries and the international fishery agencies implement a common and integrated reporting system pertinent to fish catches and fishing effort for all fishing areas and species in the Atlantic. The STATLANT form "A" is a questionnaire for reporting annual statistics on nominal catches broken down by Subareas, Divisions and Subdivisions. The STATLANT form "B" is used for reporting catch and effort by month and vessel category, also by Subareas, Divisions and Subdivisions.

7.2 Some agencies have used "A" returns for their official statistical publications. Other agencies, particularly NAFO for which data availability had been reasonably good until recent times, use the STATLANT form "B" as the source of its data for annual official statistical publications.

7.3 It was noted that the EC recently implemented legislation requiring Member States to make STATLANT 21A and 27A returns, and that this requirement will be extended to EFTA countries. CWP strongly welcomed this development, particularly for the Northeast Atlantic where the 27A returns are used as the final reports, and hopes that the legislation will be extended to include 21B returns in the future. CWP, however, is concerned about a possible delay in submitting data involving an additional agency. EUROSTAT undertook to collaborate with regional agencies to reduce the risk of such a delay.

7.4 CWP noted that different agencies have different requirements. CWP accepted the ICES suggestion that the STATLANT 27B reporting requirement could no longer be justified in the ICES area but proposed that it be replaced by some form of reporting of catches by month (see Section 8).

7.5 Given that (1) there is a need for some new form of reporting of catches by month in the ICES area, (2) standardization of data collection is highly desirable, (3) there are new possibilities of introducing a standardized computerized data collection system, and (4) there is an increasing demand for fishery statistics for high sea zones, CWP recommended that *the STATLANT reporting system for ICES and NAFO should be reviewed early in the inter-sessional period prior to CWP-16 taking into account views of representatives of national reporting offices*. Firm proposals should be developed at the *ad hoc* Inter-Agency Consultation in 1993 which can be considered by CWP members prior to the next CWP meeting when a decision should be made.

8. STATLANT 27B QUESTIONNAIRES (Document CWP-15/12)

8.1 There has been a long-standing problem of incomplete reporting of STATLANT 27B data. This had been the subject of two ICES Council Resolutions in 1987. At the Statistics Committee Liaison Working Group meeting in 1989, it was recommended that countries should be strongly requested to report at least some STATLANT 27B data according to a set of priorities (with data by month as top priority); further, it was stated that if more countries did not then make 27B returns, that ICES should give "serious consideration to the future collection and publication of 27B data". Following a recommendation from the Statistics Committee and a Council Resolution, the General Secretary wrote to those national offices which had not been submitting these data and strongly urged them to do so. However, the response has been very disappointing with only one office starting to provide the data.

8.2 When the STATLANT 27B reporting system was introduced in the early- 1960s, stock production-type models were being used as a basis to determine appropriate harvesting levels for many fish stocks and 27B data were seen as providing very useful data for such analyses. The stock assessment methods currently employed by the ICES Working Groups (a variety of VPA tuning methods) also utilise catch-per-unit-effort (CPUE) data, but generally in a more disaggregated form than can be provided by the 27B reporting system. Thus data from the 27B database have not been used by assessment Working Groups in recent years. A further reason why the 27B database is not useful to the Working Groups is that it rarely contains data for the last complete data year at the time when the Working Groups meet.

The catch and effort data are, nevertheless, essential for many of the assessments made by the Working Groups. Current practice is for Working Group members to obtain CPUE data for their country's vessels from national sources aggregated according to various specifications which are determined by studies of fleet typology or local knowledge of fleet behaviour. Assessment Working Group members have generally been successful in obtaining such data, including those for the last data year, for use at their meetings from national sources.

8.3 The Statistics Committee Liaison Working Group at its January 1992 meeting therefore recognised that the data from which the STATLANT 27B returns are derived (catch and effort by gear and vessel size) are essential for stock assessment and other purposes, and stressed that the collection (e.g. from logbooks) and processing of CPUE data must continue and, in some cases, be enhanced. However, the Working Group believed that the usefulness of the 27B returns themselves for stock assessment purposes is extremely limited.

8.4 The usefulness of the database for other purposes (e.g. economic studies, studies of fishing effort distribution) is seriously reduced by the incomplete reporting. Denmark and France stopped providing catch data in 1976 and 1965 respectively, and Iceland, the Netherlands and Spain stopped providing catch and effort data in 1982, 1983 and 1981 respectively. The preparation of the 27B return involves a lot of work in the national offices and its maintenance at ICES is also demanding on resources. Very little use is made of the data. Very few requests for catch and effort data by vessel category can be successfully answered because the data are so incomplete.

8.5 At its meeting in January 1992, the Statistics Committee Liaison Working Group stated that the heavy demands at the national level and within the ICES Secretariat which providing and maintaining the 27B returns imposes can no longer be justified given the low level of usage of the data in the 27B form, and therefore recommended that the STATLANT 27B reporting requirement be discontinued forthwith. The Working Group considered the possibility of providing an alternative reporting scheme to partially replace the 27B return. One possibility could be to modify the 27A form or introduce a new form to provide catches by month. However, it was decided not to recommend an alternative at present. The Recommendations of the Statistics Committee Liaison Working Group will be considered by the ICES Statistics Committee at the September 1992 Statutory Meeting.

8.6 CWP endorsed the view that the catch and effort data from which the STATLANT 27B returns are derived are essential for stock assessment purposes and stressed that their collection must continue. However, CWP accepted the ICES suggestion that the STATLANT 27B reporting scheme is not serving the purpose originally intended and that this demanding reporting requirement could no longer be justified in the ICES area. Nevertheless, elements of the scheme (e.g. catches by month) have been very useful and CWP recommended that *the scheme be replaced by some form of reporting of catches by month*. This would be an essential element of the review of the STATLANT reporting system which should take place during the inter-sessional period prior to CWP-16 (see Section 7).

## 9. MISREPORTING AND NON-REPORTING OF DATA (Documents CWP-15/22 A & B)

### 9.1 FISHSTAT NS1 Reports

9.1.1 The CWP noted that the *FAO Yearbook of Fishery Statistics* is considered unique for providing an extensive summary of global and/or regional trends and developments in fisheries, and its reliability of the contents and timeliness of publication is paramount for the international user community.

9.1.2 The major source of information is the computerized questionnaire FISHSTAT NS1 which allows for revisions of the past seven years' catches or production. The questionnaire should be returned by June of the year following the last data year.

9.1.3 The main sources of inaccuracies in the FAO Yearbook, as in the international statistical publications published by regional agencies, are to be attributed to "non-reporting" and "misreporting" of data.

9.1.4 Non-Reporting: For example, although over 200 (202) countries were approached for the compilation of the *FAO Yearbook of Fishery Statistics*, Volume 70, eight months after the deadline for the return of the questionnaire only 60% (121) returned completed questionnaires, reporting a catch corresponding to about 87% of the world total.

9.1.5 Misreporting: It has also been recognized that the catches and production of aquatic animals and plants in various agency and FAO publications might not reflect the real situation. The following are the main reasons for the misreporting of data:

- Reasons of confidentiality; for example when only one firm is engaged in a particular activity, data generally are not reported.
- Nationality of catches; some countries do not report landings by their fishing vessels in foreign ports; other countries include in their catches the landings by foreign vessels in national ports.
- Deliberate over- and under-reporting: the problem of nations who deliberately report incorrect data for political, technical and economic reasons. In both cases FAO has adopted a policy of accepting and publishing best estimates, considering that such estimates are more accurate than data provided by official statistical authorities. Over reporting tends to occur in developing countries whereas under-reporting of catches largely concerns the developed countries and is usually associated with TAC management systems.
- Unintentional misreporting resulting from inadequate or incomplete data collection systems, e.g. inaccurate classification of quantities caught with respect to fishing area, species, time and method of capture.

## 9.2 STATLANT 21 and 27 Reports

9.2.1 Misreporting of official catch statistics has been a contentious matter within agencies such as ICES and NAFO. The problem is more obvious in Fishing Areas 21 and 27 than in most other areas because ICES and NAFO conduct stock assessments and scientists conducting these analyses often use estimates of catches which differ markedly from the official statistics. The scientific estimates are generally accepted as being more reliable than the officially-reported figures.

9.2.2 Two causes of misreporting were noted: a) deliberate distortion of figures either by fishermen or elsewhere in the system, and b) inadequate collection system (e.g. insufficient sampling of mixed species by landings). With the TAC-based management systems applied widely in the ICES and NAFO areas, there is a strong incentive to under-report and/or misreport by species or area.

9.2.3 The general experience of these agencies was that whereas member countries were prepared to accept stock assessments and advice which are based upon statistics provided by scientists, they are generally not prepared to allow those catches as official figures. Unlike the situation concerning FAO publications, for ICES and NAFO only officially-reported statistics are published, even when these are suspect.

9.2.4 CWP recommended that in *ICES and NAFO publications of official fishery statistics* (1) it be clearly stated that the catches presented may differ from those used in stock assessments, and (2) a reference to a publication which contains the total catches used in the assessments be provided.

10. INLAND FISHERIES CONCEPTS AND DEFINITIONS (Document CWP-15/7)

10.1 The difficulties associated with defining brackish water in terms of its discreet identification from freshwater and marine environments were noted.

10.2 CWP believed that for capture fisheries, the proposal to remove brackish water from the questionnaire would not be advisable and that the existing practice be continued.

11. AQUACULTURE STATISTICS (Documents CWP-15/8A-E)

11.1 The Session approved proposals for modifying the FISHSTAT AQ Questionnaire so as to improve the interpretation of the definition of aquaculture and facilitate the completion of the questionnaire by national reporting offices. Particular attention was given to the proposal for aquaculture production to be designated as either inland or coastal thereby eliminating the designation "brackish" from the AQ questionnaire. In this regard the acceptance by the Asian and Pacific countries for such a classification was also considered and the CWP accepted the proposal in principle. The basis for this decision was the fact that the number of species being cultivated was relatively few and the identification of the environment required for these species was readily determinable.

11.2 In reviewing the Annex to the "Instructions for completing AQ Questionnaire" under the heading "Brush Parks and Fish Aggregating Devices", it was recommended that *Fish Aggregating Devices be listed separately and under the capture fisheries designation. At the same time a clearer understanding of the meaning of Brush Parks should be provided by including all activities associated with the impoundment of wild species under the aquaculture designation. A definition of "Valliculture" should also be added.* (See Appendix VI) In order to meet some of the concerns expressed by users, it was proposed to rename "freshwater culture" as "inland aquaculture" and to combine "brackish water culture" with "mariculture" under the new heading "coastal aquaculture".

11.3 CWP noted the increase in practice of "ongrowing" of certain species. The Secretariat was requested to examine the appropriate definition and designation for these activities.

11.4 In the discussion concerning hatchery data, considerable attention was given to the issues of enhancement and ranching. It was recognized that it would be important to separate hatchery production between that directed to farming and that for enhancement and ranching.

11.5 The Session was not convinced that ranching was entirely an aquaculture activity, since it was noted that interceptions outside of the control of the owner of the stocks, could occur and be included as catches. In this connection the Secretariat was requested to review ranching activities and if necessary prepare an appropriate definition to cover the concern mentioned above.

11.6 In the same way, enhancement of stocks by stocking with hatchery-reared fish, while clearly a means of increasing production could have an adverse effect on "natural" stocks. It was recommended that *consideration be given to the necessity of identifying reared stocks from natural stocks.*

11.7 The CWP recommended that *in separating aquaculture production from catch data attention continue to be given to the development of time series for marine species other than shrimp and salmon.* Whereas, the need for a time series for freshwater aquaculture production was equally important, the finalization of a complete time series that would allow separation of this production from catches was considered to be a lengthy process. Given the progress made for the two important marine species, a complete time series for marine aquaculture production might be accomplished in the near future.

## 12. RECREATIONAL FISHERIES (Document CWP-15/10)

12.1 The CWP reviewed the results of the survey of catches from recreational fisheries conducted by FAO in response to a recommendation of CWP-14. These catches were generally not included in the data reported by national authorities under the STATLANT and FISHSTAT Systems on account of difficulties in data collection systems and associated high costs, the availability of data in units of measure not comparable to those used for reporting other catches, and the small impact of the fisheries on stocks except for certain species.

12.2 The increasing economic importance of the recreational fisheries in most developed countries and their potential contribution to Government revenues, coupled with the impact on certain stocks, make it necessary to ascertain the magnitudes involved and to reconsider the approach used in statistical compilations of international agencies.

12.3 The CWP noted that the survey had yielded very partial results. Out of the 200 countries approached, only 30 of the 52 who responded were able to provide complete or partial statistics on their recreational fisheries. According to the survey results in the 30 reporting countries, catches from this sector in 1990 amounted to 476 505 tons of which only 410 500 tons were retained.

12.4 Twenty two countries, which were unable to provide data, identified the lack of global coverage in the national survey, the non-systematic conduct of national surveys, the lack of a centralized administrative competence as the most recurring reasons for the lack of data.

12.5 The representative of the USA underlined the importance of recreational fisheries as a food supplier (1/5 of home consumed finfish was estimated to come from recreational activities) and on certain stock management (e.g. the bluefish fisheries were 80% recreational). There were implications for risk assessment in urban areas, where recreational fisheries are conducted in highly polluted areas. The high cost of the survey, was associated with the difficulty of measuring catch rates and catch compositions for recreational fisheries that are highly dispersed geographically and temporally relative to data gathering for commercial fisheries.

12.6 The OECD noted that in the 1992 *Annual Review of Fisheries* its Member Countries will include information on recreational fisheries, but it is anticipated that the data provided may not be comparable due to varying definitions. This problem was also raised by the representative from Greenland.

12.7 The CWP concurred that, in conducting future surveys, it would be desirable to identify a more acceptable term for this activity. Where recreational fisheries could be identified separately from subsistence fisheries it should be reported accordingly. CWP noted that advances in statistical methodologies for estimating catches by non-commercial fisheries have been made and are referenced in symposia proceedings and methodological handbooks. These could be used by organizations wishing to develop more comprehensive data reporting systems for these fisheries.

12.8 The CWP noted the usefulness of the data, albeit partial, obtained through the enquiry and recommended FAO to continue its follow-up in order to obtain an estimate of the size of the catch. It was agreed to continue for the time being the present practice of including catches from recreational fisheries in world catches only for the most important stocks and to encourage submission of data from countries where statistics are annually available. However, it was recommended that the survey on recreational fisheries should not be repeated.

13. CONVERSION FACTORS (Document CWP-15/13)

13.1 The FAO introduced the document "Conversion Factors - landed weight to live weight" prepared on the basis of the data provided by countries in the enquiries conducted for 1985 and 1988. The publication included three sections of comprehensive tabulations for a wide range of on-board processing methods. The document was based on replies provided by 46 countries, after some quality check of the data submitted, it extended for the first time to areas other than the Atlantic.

13.2 The data are available on floppy discs and organized by country, fishery product, species and type of process.

13.3 The CWP noted that conversion factors from landed to live weight are very critical for national reporting offices, and for certain products they may be factors of high sensitivity. It was recommended that *some analyses of national factors should be undertaken, preferably in consultation with some international supplier of fish processing machinery*. It was also recommended that *FAO evaluate the data obtained requesting reporting countries to provide the source of the information (i.e. survey from processing plants, on-board sampling, etc.), sample size and the methodology for calculating the factors*.

14. DATA TRANSMISSION USING ELECTRONIC AND MAGNETIC MEDIA  
(Document CWP-15/14, and 14 Info.A & B)

14.1 The FAO introduced document CWP-15/14 concerning the exchange of fishery statistical data by means of magnetic and electronic media and reported on follow-up actions with regard to the CWP recommendations in the recent years for standard procedures and formats for the exchange of computerized fishery data. The CWP was presented with a summary of the conclusions of the 14th CWP Meeting in February 1990 in Paris, which indicated that amongst various alternative approaches such as electronic spreadsheets, databases, and other data handling techniques, the most realistic and easy to implement was the proposal by EUROSTAT for the introduction of a standard "flat ASCII" format to be used both by data contributors and data receivers for the recording of catch figures and their basic identifiers.

14.2 The FAO illustrated the use of a PC-based system developed with the purpose of reducing programming effort on the part of data contributors. The "Standardized Exchange of Fishery Statistics" (SEFS) is a user-friendly set of computer procedures which involves four major functions:

- i) Setting-up conversion tables for countries, species and fishing areas, depending on the classification schemes used for the codification of the source data;
- ii) Preparation by users of control tables containing the necessary parameters for the movement and conversion of data from the source file onto the standard ASCII FORMAT;
- iii) Actual conversion of source data and preparation of error lists for unconverted countries, species or areas;
- iv) Aggregation (optional) of source data by country, species, area and preparation of a standard flat ASCII file on diskette (for submission) or hard disk (for transmission).

14.3 The CWP noted that SEFS is a useful software product because it reduces programming effort on the part of data contributors and is flexible enough to handle different types of source formats and coding methods. Its utility is greater in the case of national offices which have to handle a variety of different source files for submissions to various agencies and institutions, whereas international agencies such as EUROSTAT, ICES and NAFO have already established conversion systems for the exchange of fishery data in standard ASCII format.

14.4 Regarding the distribution of SEFS to interested national and international offices, the CWP noted that some further work should be invested in making the system more suitable for its intended use, including:

- i) Output format to become identical to the latest record structure developed by EUROSTAT. Additional data should be recorded on other parts of the record so as not to upset record structures and formats already agreed upon by national and international offices;
- ii) National users should be able to input non-computerized data directly onto standard ASCII outputs;
- iii) The system should be fully documented before its commercialization and distribution to external users.

14.5 In the second part of the presentation of document CWP-15/14, the FAO illustrated the functions of MICROFISH which is a PC-based system integrating fishery time series with data retrieval software and basic statistical functions. The main features of the system are its portability (being independent of resident applications software) and its modularity which allows additional databases to become part of its data scope. The CWP was informed that MICROFISH is at its last phase of implementation which includes production of graphics directly on printer and compressing functions for reducing its distribution media (at present 1.4 Mb 3.5" diskettes).

14.6 In the discussion that followed it was stated that MICROFISH would become a useful tool for the quick retrieval and analysis of fishery time series but at regional and inter-regional, rather than national levels. In connection with its data retrieval and analytical functions the CWP recommended that:

- i) *Its name (MICROFISH) should be changed so as not to be misinterpreted as "microfiche";*
- ii) *Its analytical functions (and especially the computation of trend indicators) should be left with the user and all computational steps should be made transparent to those who use them;*
- iii) *Plotting functions should become more flexible and at the same time require minimum intervention on the part of users.*

14.7 In a general concluding statement, the CWP appreciated the presentation and endorsed the development of the two FAO systems and recommended that *SEFS and MICROFISH be finalized in line with the suggestions made by the meeting during the presentation.*

## 15. USE OF ICCAT TUNA DATA BY REGIONAL AGENCIES (Document CWP-15/15)

15.1 As the effort of eliminating discrepancies in catch statistics between FAO and ICCAT databases has been made in the last several years, the FAO catch data have been modified considerably. Consequently, the FAO catch database has been departing from the ICES base for tunas. Since the 14th Session of CWP, ICES and ICCAT discussed the possibility of ICES adopting ICCAT tuna catch statistics. The remaining difficulties are that the ICCAT database is kept by  $1^{\circ} \times 1^{\circ}$  rectangles which do not always match to ICES statistical area.

15.2 The CWP recognized that the ICCAT database, which is based on the scientists' best estimates, is accepted by ICCAT Member Countries as the most accurate data set for tuna statistics. Hence, CWP recommended that *ICCAT provide tuna and tuna-like fish catch data by  $1^{\circ} \times 1^{\circ}$  rectangles for the ICES area so that ICES can aggregate the data by divisions and sub-divisions.*

16. FISHING VESSEL STATISTICS (Documents CWP-15/16.A, B & C)

16.1 FAO introduced its programme of fishing fleet statistics by commenting that, despite the disparities between the capacity of the fleets and the availability of fishery resources, national authorities appear to be placing little emphasis on the compilation of fishing fleet statistics necessary to develop the policies to redress this imbalance.

16.2 Despite problems in collecting the data for many of the major fishing nations, FAO published a new edition of its *Fishery Fleet Bulletin* at the end of 1991.

16.3 The FAO questionnaire for the collection of 1991 statistics has been enlarged to include a request for data on the length and power of the fishing vessels as well as the areas in which they have been operating.

16.4 EUROSTAT reported that the problems of up-dating its Statistical Register of Fishing Vessels from the EC Commission's administrative file had been largely overcome and it was anticipated that Community fishing fleet statistics would soon become available again.

16.5 EUROSTAT has developed programmes running on IBM-PC compatible computers that permit customised tables to be produced from files of encrypted records of individual vessels. It is hoped that the measures taken to ensure the confidentiality of these records are sufficient to obtain the approval of the national authorities to distribute the programmes and the related data files.

16.6 The CWP noted these developments and expressed concern that comprehensive fishing fleet statistics were not more generally available. It recommended that *national reporting offices take particular attention to the compilation of fishing fleet statistics, including information on the activity of the vessels.*

16.7 FAO reported that its attempts to develop a World Register of Tuna Vessels for the compilation of statistics on the tuna fishing fleets had suffered some setbacks. Some important fishing nations had failed to reply to the enquiry and many of the returns were incomplete.

16.8 ICCAT reported that it collects statistics on fleet size but it was unable to support this register. The major problems were that the tuna fleets are very mobile, move from one ocean to another, change flags often, and change fishing gears, etc. EUROSTAT commented that confidentiality of individual records was almost certainly an important factor in determining the poor level of responses.

16.9 SPC said that information on the tuna purse seine vessels operating in the Pacific were available though there would be difficulties in obtaining the details of other tuna vessels.

16.10 CWP recommended that *further attempts to develop the Register of Tuna Vessels be abandoned.*

17. FOOD BALANCE SHEETS (Documents CWP-15/17.A & B)

17.1 FAO reported that, following the CWP-14 discussions on this topic, a series of discussions had been held between FAO, OECD and EUROSTAT to eliminate discrepancies between the published data sets and to study the basic concepts used in developing food balance sheets. Good progress has been made in reducing the discrepancies between OECD and FAO data for the total balance sheets but greater difficulty has been experienced with the balance sheets for individual product groups. Unfortunately, the discrepancies do not appear to be systematic, rather the different sources of the data and the variable reliability of these data sets are probably the major causes of the discrepancies.

17.2 CWP acknowledged FAO's contribution to the resolution of problems of published data and EUROSTAT reported on an expert study it had commissioned into the feasibility of establishing food balance sheets for fishery products. The results confirmed the difficulties with balance sheets for individual product groups but suggested that it would be possible to establish balance sheets for those species individually identified in the foreign trade nomenclature, provided that adequately-detailed factors were identified to convert the products to a common measure (live weight equivalent).

17.3 A further problem in compiling balance sheets for the individual EC Member states was that the creation of the Single Market in 1993 would have a profound effect on the availability of data on the trade between Member States. While Community balance sheets might be feasible, it was unlikely that the compilation of balance sheets for each Member State would be possible.

17.4 Noting that FAO and OECD fishery food balances are part of an organisation-wide food consumption statistical programme, and the low priority that EUROSTAT attaches to this work, the CWP recommended that *Food Balance Sheets should not be discussed at future meetings of the CWP unless there were major developments to report.*

18. HANDBOOK OF FISHERY STATISTICS (Document CWP-15/18)

18.1 EUROSTAT reported that further sections of the Handbook were nearing completion. Offers to prepare any of the remaining sections would be welcome. FAO said that it would be willing to prepare the section on Trade Classifications once the CCC has finalized the establishment of the Harmonised System Commodity Database. Assistance from the SPC was requested in preparing the descriptions of the Pacific regions. It was also suggested that FAO Fisheries Circular No. 835 Rev.1, "Summary Information on the Role of International Fishery Bodies with Regard to the Conservation and Management of Living Resources of the High Seas", would be a useful addition to the Handbook.

18.2 The CWP, in recognizing the usefulness of the Handbook, welcomed the progress made and particularly noted FAO's work in producing French and Spanish versions. It was also noted that already certain of the published sections required up-dating but it was accepted that this should be achieved on a rotational basis.

19. STATLANT NEWSLETTER (Document CWP-15/19)

19.1 EUROSTAT reported that the STATLANT Newsletter has been produced twice annually for over 10 years. About 200 copies of each edition are distributed worldwide. A survey of the readers had produced an insufficient number of replies to reliably assess their reactions to the Newsletter but early indications are that it is well appreciated.

19.2 The CWP Agencies were requested to provide EUROSTAT with an up-to-date list of their national contacts who might wish to receive the Newsletter. It was suggested that the Newsletter could be made more topical by the inclusion of summary reports of the Agency statistical working groups.

19.3 The CWP recommended that *the publication of the STATLANT Newsletter be continued and gratefully accepted EUROSTAT's offer to retain its editorial function.*

## 20. COUNTRY AND NATIONALITY ISSUES (Document CWP-15/20)

20.1 The CWP noted the modifications required to keep comparability among agencies databases, after adjustments to reflect political changes occurring in Eastern Europe and the former Union of Soviet Socialist Republics. It was recommended that *as far as possible attempts should be made by FAO to seek the collaboration of statisticians from the new Independent States (see Appendix V) to provide marine and inland fishery data.* Recognizing that the USSR used to report its catches identified by individual Republics up to 1973, it was further recommended that *FAO seek to try to maintain continuity in the catch time series by requesting data for the Republics for the period 1973 to 1991.*

## 21. SPECIES CONCEPTS AND DEFINITIONS

21.1 Terms such as "pelagic fish", "demersal fish", "roundfish", "flatfish", "whitefish" and "groundfish" are widely used but ill-defined. When dealing with catch statistics there is generally not a problem as the component species can usually be specified by whoever provides the statistics for these groupings, and if data on such groupings are requested, a more specific request can be demanded.

21.2 A more serious problem concerns the use of such terms in relation to trade and commodities. Without a knowledge of the species concerned, it is not possible to relate trade to landings or to study market substitution. CWP noted that FAO is trying to identify the species in such groupings as used for trade and marketing, but it is likely that the species compositions varies markedly among countries.

21.3 It was also noted that the terms "catches" and "landings" are interpreted differently by fishery scientists and fishery statisticians.

## 22. THE CWP AND ITS FUNCTIONS (Document CWP-15/23)

22.1 The CWP noted that there is a major need for a continuance of the work conducted by the Coordinating Working Party on Atlantic Fishery Statistics. Previous sessions of the CWP had suggested a greater participation by users of statistics and by agencies from outside the Atlantic. The list of participants at the CWP-15 indicated that steps had been taken to achieve this but it was felt that this trend should be reinforced. The majority of CWP-15 agenda items were of global significance. An example of this was the item on high seas fishery statistics where a greater input from agencies from outside the Atlantic in preparation of the Technical Consultation on High Seas Fisheries to be held in Rome on 7-15 September 1992 would have been valuable. Unfortunately, at the present time there is no other CWP-type organisation for the other regions and thus, in order to encourage the greater participation by agencies from these regions and, to more closely reflect the current work of the CWP, it was recommended that *the name of the CWP be changed to the "Coordinating Working Party on Fishery Statistics" and that the member agencies obtain the approval of their appropriate bodies for this change.*

22.2 It was hoped that the CWP Agencies would be able to inform the CWP Secretary of their acceptance of this proposal by the end of 1992 in order to facilitate the participation of non-Atlantic agencies at the next CWP session.

23. ANY OTHER BUSINESS

23.1 It was agreed that for the 16th Session of CWP, it would be beneficial to focus on the matters of highest priority (e.g. high seas fisheries, STATLANT review). This should be taken into consideration when a draft agenda is proposed at the *ad hoc* Inter-Agency Consultations. Consideration should also be given to including primary data collection systems as one agenda item.

24. DATE AND PLACE OF THE 16th SESSION OF THE CWP

24.1 ICCAT extended an invitation for CWP to meet in Madrid for its 16th Session, subject to approval by the Commission, and this was gratefully accepted. It was agreed that the meeting should take place in early July 1994. The duration and dates of the meeting will be decided at the *ad hoc* Inter-Agency Consultations to be held in Dublin from 23-28 September 1993 (in conjunction with the ICES Statutory Meeting).

25. ADOPTION OF THE REPORT OF THE 15th SESSION OF THE CWP

25.1 The final draft of the 15th Session Report was adopted on 14 July 1992. The Chairman, in closing the Session, thanked all participants and the host agency for the excellent facilities and assistance provided during the meeting. The meeting was adjourned at 15:00 pm.

AGENDA

Item:

1. Opening of the Session
2. Review of the Recommendations and Proposals from CWP-14 and Progress
3. Agency Programmes and Publications presenting Atlantic Fishery Statistics
4. High Seas Fisheries Statistics
5. Elimination of Discrepancies in Agency Databases
6. Quantities and Values of Landings
7. STATLANT Catch Questionnaires
8. STATLANT 27B Questionnaires
9. Misreporting/Non-Reporting of Data
10. Inland Fisheries Concepts and Definitions
11. Aquaculture Statistics:
  - (a) separation of aquaculture data from catch data
  - (b) definition of aquaculture
  - (c) hatchery data
12. Recreational Fisheries
13. Conversion Factors
14. Data Transmission using Electronic and Magnetic Media
15. Use of ICCAT Tuna Data by Regional Agencies
16. (a) Fishing Vessel Statistics & (b) World Register of Tuna Vessels
17. Food Balance Sheets
18. Handbook of Fishery Statistics
19. STATLANT Newsletter
20. Country and Nationality Issues
21. Species Concepts and Definitions
22. The CWP and Functions
23. Any Other Business
24. Date and Place of 16th Session of the CWP
25. Adoption of the CWP-15 Report

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LIST OF DOCUMENTS

|           |                          |                                                                                                                                                          |
|-----------|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| CWP-15/A  | FAO                      | General Announcement                                                                                                                                     |
| B         | FAO                      | Agenda                                                                                                                                                   |
| C         | FAO                      | Annotated Agenda                                                                                                                                         |
| D         | FAO                      | List of Documents                                                                                                                                        |
| E         | FAO                      | List of Participants                                                                                                                                     |
| F         | FAO                      | CWP Sessions - Dates, Places, etc.                                                                                                                       |
| G         | FAO                      | List of Acronyms                                                                                                                                         |
| <hr/>     |                          |                                                                                                                                                          |
| CWP-15/ 1 | FAO                      | Report of the 14th Session of the CWP                                                                                                                    |
| 2         | FAO                      | Report of the Ad-Hoc Inter-Agency Consultation on Atlantic Fishery Statistics (La Rochelle, France, 26-27 September 1991)                                |
| 3         | FAO                      | Report by CWP Secretary on CWP-14 Recommendations, Proposals and Progress                                                                                |
| 4         |                          | Reports on Agency Programmes and Publications, presenting Atlantic Fishery Statistics:                                                                   |
|           |                          | A) CCAMLR B) EUROSTAT C) FAO D) ICES<br>E) ICCAT F) NAFO G) OECD                                                                                         |
| 5         | FAO<br>EUROSTAT<br>NASCO | A) High Seas Fisheries Statistics<br>B) High Seas Fisheries Statistics<br>C) Fishing for Salmon in International Waters within the NASCO Convention Area |
|           | ICES                     | D) High Seas Fisheries Statistics                                                                                                                        |
| 6         | EUROSTAT<br>CCAMLR       | A) Elimination of Discrepancies in Agency Databases<br>B) Comparison of CCAMLR and FAO STATLANT Data                                                     |
| 7         | FAO                      | Inland Fisheries Concepts and Definitions                                                                                                                |
| 8         |                          | Aquaculture Statistics                                                                                                                                   |
|           | FAO                      | A) Separation from Catch Data                                                                                                                            |
|           | FAO                      | B) Definition + ADDENDUM                                                                                                                                 |
|           | FAO                      | C) Hatchery Data                                                                                                                                         |
|           | EUROSTAT                 | D) Aquaculture - EUROSTAT                                                                                                                                |
|           | NASCO                    | E) Salmon Aquaculture                                                                                                                                    |
| 9         | EUROSTAT                 | Quantities and Values of Landings                                                                                                                        |
| 10        | FAO                      | Recreational Fisheries                                                                                                                                   |
| 11        | FAO                      | A) STATLANT Catch Questionnaires - FAO                                                                                                                   |
|           | EUROSTAT                 | B) STATLANT Catch Questionnaires - EUROSTAT                                                                                                              |
| 12        | ICES                     | STATLANT 27B Questionnaires                                                                                                                              |
| 13        | FAO                      | Conversion Factors                                                                                                                                       |
| 14        | FAO                      | Data Transmission using Electronic and Magnetic Media                                                                                                    |
| 14 Info.A | FAO                      | SEFS: A PC-Based System for the Standardized Exchange of NS-Type Fishery Information                                                                     |
| 14 Info.B | FAO                      | MICROFISH: A PC-Based System for the Dissemination of Fishery Time Series                                                                                |

|    |           |                                                      |
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| 15 | FAO/ICCAT | Use of ICCAT Tuna Data by Regional Agencies          |
| 16 | FAO       | A. Fishing Vessel Statistics                         |
|    | EUROSTAT  | B. Fishing Fleet Statistics                          |
|    | FAO       | C. World Register of Tuna Vessels                    |
| 17 | FAO       | A. Food Balance Sheets                               |
|    | EUROSTAT  | B. Supply Balance Sheets                             |
| 18 | EUROSTAT  | Handbook of Fishery Statistics                       |
| 19 | EUROSTAT  | STATLANT Newsletter                                  |
| 20 | FAO       | Country and Nationality Issues                       |
| 22 | FAO       | A. Misreporting/Non-Reporting of data                |
|    | ICES      | B. Misreporting of Catch Statistics in the ICES Area |
| 23 | FAO       | The CWP and its Functions                            |

LIST OF ACRONYMS USED IN THIS REPORT

|           |                                                                                                                                 |
|-----------|---------------------------------------------------------------------------------------------------------------------------------|
| ACFM      | Advisory Committee on Fishery Management (ICES)                                                                                 |
| ASCCII    | American Standard Code for Information Interchange                                                                              |
| CCAMLR    | Commission for the Conservation of Antarctic Marine Living Resources                                                            |
| CCC       | Customs Cooperation Council                                                                                                     |
| CECAF     | Fishery Committee for the Eastern Central Atlantic (FAO Regional Body)                                                          |
| CRONOS    | EUROSTAT Database                                                                                                               |
| CPPS      | Comisión Permanente del Pacífico Sur                                                                                            |
| CPUE      | Catch per unit of effort                                                                                                        |
| CWP       | Coordinating Working Party on Atlantic Fishery Statistics                                                                       |
| DDS       | Data Dissemination System                                                                                                       |
| EC        | European Communities                                                                                                            |
| EEZ       | Exclusive Economic Zone                                                                                                         |
| EIFAC     | European Inland Fishery Advisory Commission (FAO Regional Body)                                                                 |
| EFTA      | European Free Trade Association                                                                                                 |
| EUROSTAT  | Statistical Office of the European Communities                                                                                  |
| FAO       | Food and Agriculture Organization of the United Nations                                                                         |
| FFA       | Forum Fisheries Agency                                                                                                          |
| FIDI      | Fishery Information, Data and Statistics Service (Fisheries Department, FAO)                                                    |
| FISHDAB   | Fishery Statistical Database (Fisheries Department, FAO)                                                                        |
| GFCM      | General Fisheries Council for the Mediterranean (FAO Regional Body)                                                             |
| GRT       | Gross Registered Tonnage                                                                                                        |
| IATTC     | Inter-American Tropical Tuna Commission                                                                                         |
| ICCAT     | International Commission for the Conservation of Atlantic Tunas                                                                 |
| ICES      | International Council for the Exploration of the Sea                                                                            |
| ICSEAF    | International Commission for the Southeast Atlantic Fisheries<br>(ceased: 1990)                                                 |
| IPFC      | Indo-Pacific Fisheries Commission (FAO Regional Body)                                                                           |
| IPTP      | Indo-Pacific Tuna Programme (FAO Regional Body)                                                                                 |
| ISSCAAP   | International Standard Statistical Classification of Aquatic Animals and Plants                                                 |
| ISSCFG    | International Standard Statistical Classification of Fishing Gears                                                              |
| ISSCFV    | International Standard Statistical Classification of Fishery Vessels                                                            |
| MICROFISH | Micro-computer system for fisheries time series (FAO)                                                                           |
| NAFO      | Northwest Atlantic Fisheries Organization (previously ICNAF - International Commission for the<br>Northwest Atlantic Fisheries) |
| NASCO     | North Atlantic Salmon Conservation Organization                                                                                 |
| NEAFC     | North-East Atlantic Fisheries Commission                                                                                        |
| OECD      | Organization for Economic Cooperation and Development                                                                           |
| PICES     | Pacific ICES - North Pacific Marine Science Organization (established 24 March 1992)                                            |
| SEFS      | Standardized Exchange of Fishery Statistics (FAO)                                                                               |
| SPC       | South Pacific Commission                                                                                                        |
| STACFAC   | Standing Committee on Fishery Activities of Non-Contracting Parties (NAFO)                                                      |
| STACFIS   | Standing Committee on Fishery Science (NAFO)                                                                                    |
| STACREC   | Standing Committee on Research Coordination (of Scientific Council of NAFO)                                                     |
| STACTIC   | Standing Committee on International Control (NAFO)                                                                              |
| STATLANT  | STATistical Programme for the ATLANTic Fisheries (previously STANA)                                                             |
| TAC       | Total Allowable Catch                                                                                                           |
| VPA       | Virtual Population Analysis                                                                                                     |

LIST OF INDEPENDENT STATES OF THE FORMER USSR

|                    | Fishery<br>Statistics | Code | Alpha-2 | Alpha-3 |
|--------------------|-----------------------|------|---------|---------|
|                    | Marine Inland         |      |         |         |
| Estonia            | * *                   | 233  | EE      | EST     |
| Latvia             | * *                   | 428  | LV      | LVA     |
| Lithuania          | * *                   | 440  | LT      | LTU     |
| Belarus            | * *                   | 112  | BY      | BYS     |
| Rep. of Moldova    | * *                   | 498  | MD      | MDA     |
| Russian Federation | * *                   | 643  | RU      | RUS     |
| Ukraine            | * *                   | 804  | UA      | UKR     |
| Armenia            | * *                   | 051  | AM      | ARM     |
| Azerbaijan         | * *                   | 031  | AZ      | AZE     |
| Georgia            | * *                   | 268  | GE      | GEO     |
| Kazakhstan         | * *                   | 398  | KZ      | KAZ     |
| Kyrgyzstan         | * *                   | 417  | KG      | KGZ     |
| Tajikistan         | * *                   | 762  | TJ      | TJK     |
| Turkmenistan       | * *                   | 795  | TM      | TKM     |
| Uzbekistan         | * *                   | 860  | UZ      | UZB     |

**GUIDE FOR THE DESIGNATION OF TYPE OF FISHERIES**

| PRODUCTION OUTPUT FROM                                                  | DESIGNATION |                   |
|-------------------------------------------------------------------------|-------------|-------------------|
|                                                                         | Aquaculture | Capture Fisheries |
| Hatcheries                                                              | X           |                   |
| Ponds                                                                   | X           |                   |
| Cages                                                                   | X           |                   |
| Tanks                                                                   | X           |                   |
| Raceways                                                                | X           |                   |
| Temporary barrages                                                      | X           |                   |
| Permanent lakes & reservoirs, fish harvested by owners                  | X           |                   |
| Permanent lakes & reservoirs with open fishery, whether enhanced or not |             | X                 |
| Anadromous fish returning to release site (ranching)                    | X           |                   |
| Anadromous fish not caught by those releasing juveniles (= enhancement) |             | X                 |
| Fish and crustacea caught in open waters                                |             | X                 |
| Privately owned sport fisheries (enclosed systems)                      | X           |                   |
| Brush parks (empoundments)                                              | X           |                   |
| FADs (Fish Aggregating Devices)                                         |             | X                 |
| Artificial reefs                                                        |             | X                 |
| Molluscs subject to open fishery                                        |             | X                 |
| Molluscs from owned and managed grow-out site                           | X           |                   |
| Enhanced marine fisheries                                               |             | X                 |
| Harvest of natural seaweed beds                                         |             | X                 |
| Harvest of planted and suspended seaweed                                | X           |                   |
| Integrated aquaculture (e.g. rice - fish culture)                       | X           |                   |
| Coastal lagoon management                                               |             | X                 |
| Valliculture                                                            | X           |                   |
| Private tidal pond culture (tambaks)                                    | X           |                   |

LIST OF MAJOR MARINE FISHING AREAS FOR STATISTICAL PURPOSES

| Code |                                         |
|------|-----------------------------------------|
|      | <i>Atlantic Ocean and adjacent seas</i> |
| 18   | Arctic Sea                              |
| 21   | Atlantic, Northwest                     |
| 27   | Atlantic, Northeast                     |
| 31   | Atlantic, Western Central               |
| 34   | Atlantic, Eastern Central               |
| 37   | Mediterranean and Black Sea             |
| 41   | Atlantic, Southwest                     |
| 47   | Atlantic, Southeast                     |
| 48   | Atlantic, Antarctic                     |
|      | <i>Indian Ocean and adjacent seas</i>   |
| 51   | Indian Ocean, Western                   |
| 57   | Indian Ocean, Eastern                   |
| 58   | Indian Ocean, Antarctic                 |
|      | <i>Pacific Ocean and adjacent seas</i>  |
| 61   | Pacific, Northwest                      |
| 67   | Pacific, Northeast                      |
| 71   | Pacific, Western Central                |
| 77   | Pacific, Eastern Central                |
| 81   | Pacific, Southwest                      |
| 87   | Pacific, Southeast                      |
| 88   | Pacific Antarctic                       |
|      |                                         |
|      |                                         |

CWP SESSIONS: DATES, PLACES & REPORTS

Continuing Working Party on Fishery  
Statistics in the North Atlantic Area

| Session | Date       | Place              | FAO Fisheries<br>Report No |
|---------|------------|--------------------|----------------------------|
| 1       | 25-26.5.60 | Bergen, Norway     | a/                         |
| 2       | 6-8.6.61   | Washington DC, USA | b/                         |
| 3       | 18-21.3.63 | Rome, Italy        | 7                          |
| 4       | 9-12.3.65  | Rome, Italy        | 21                         |
| 5       | 10-14.4.67 | Aberdeen, Scotland | 45                         |

Coordinating Working Party on  
Atlantic Fishery Statistics

|       |             |                         |     |
|-------|-------------|-------------------------|-----|
| 6     | 3-7.2.69    | Copenhagen, Denmark     | 70  |
| 7     | 10-16.11.71 | Rome, Italy             | 121 |
| 8     | 12-20.9.74  | Paris, France           | 156 |
| 9     | 17-23.8.77  | Dartmouth, Canada       | 197 |
| 10    | 22-29.7.80  | Madrid, Spain           | 242 |
| 11    | 21-28.7.82  | Luxembourg, Grand Duchy | 274 |
| 12    | 25.7/1.8.84 | Copenhagen, Denmark     | 316 |
| 13    | 11-18.2.87  | Rome, Italy             | 379 |
| 14    | 5-9.2.90    | Paris, France           | 429 |
| 15    | 8-14.7.92   | Dartmouth, Canada       | 473 |
| 16 c/ | 7.94        | Madrid, Spain           |     |

a/ Annexe J of FAO Fisheries Report N.3

b/ Annexe K of FAO Fisheries Report N.3

c/ Proposals for 16th Session as made by the CWP (15th Session)

LIST OF RECOMMENDATIONS/PROPOSALS CONTAINED IN THIS REPORT

4. High Seas Fishery Statistics (Page 7)

4.3 The CWP concluded that statistics on high seas fisheries are already existing on a national level, but for various reasons, they are not published or reported (except for Atlantic tuna data, which are reported on a regional level). The CWP recommended that *FAO should survey possibilities to get positive reactions from national authorities especially from those countries highly active in high seas fishery. These data collections should be coordinated with the regional agencies.*

5. Elimination of Discrepancies in Agency Databases (Page 8)

5.7 The CWP noted that good progress had been made with this project and that the major work in reconciling and revising the historical data (covering the period from about 1973 to 1989) had been largely completed. It was recommended that *the elimination of discrepancies between the databases should become a less demanding and more routine exercise conducted at an interval compatible with the staff and other resources available to the Agencies.*

5.8 The CWP recommended the following procedures to ensure that revisions are made to all relevant agencies' databases:

- a) *FAO should send copies of the revised FISHSTAT NSI return to the regional agencies;*
- b) *FAO should consider the revisions on FISHSTAT NSI provisional, until the regional agencies have been sent the detailed data;*
- c) *the regional agency should contact the national authority in order to obtain detailed data before the final acceptance of revisions;*
- d) *if the requested data are not provided, FAO and the corresponding agency should decide on the matter;*
- e) *data on aquaculture production should be excluded from FISHSTAT NSI as recommended by CWP-14.*

6. Quantities and Values of Landings (Page 9)

6.3 The CWP welcomed this development and recommended that *to the extent possible, landings data reported by member agencies should be accompanied by the value of landings.*

7. STATLANT Catch Questionnaires (Page 10)

7.5 Given that (1) there is a need for some new form of reporting of catches by month in the ICES area, (2) standardization of data collection is highly desirable, (3) there are new possibilities of introducing a standardized computerized data collection system, and (4) there is an increasing demand for fishery statistics for high sea zones, the CWP recommended that *the STATLANT reporting system for ICES and NAFO should be reviewed early in the inter-sessional period prior to CWP-16 taking into account views of representatives of national reporting offices.* Firm proposals should be developed at the *ad hoc* Inter-Agency Consultation in 1993 which can be considered by CWP members prior to the next CWP meeting when a decision should be made.

8. STATLANT 27B Questionnaires (Page 10)

8.6 CWP endorsed the view that the catch and effort data from which the STATLANT 27B returns are derived are essential for stock assessment purposes and stressed that their collection must continue. However, the CWP accepted the ICES suggestion that the STATLANT 27B reporting scheme is not serving the purpose originally intended and that this demanding reporting requirement could no longer be justified in the ICES area. Nevertheless, elements of the scheme (e.g. catches by month) have been very useful and CWP recommended that *the scheme be replaced by some form of reporting catches by month*. This would be an essential element of the review of the STATLANT reporting system which should take place during the inter-sessional period prior to CWP-16.

9. Misreporting and Non-Reporting of Data (Page 11)

9.2 STATLANT 21 and 27

9.2.4 CWP recommended that in ICES and NAFO publications of official fishery statistics (1) it be clearly stated that the catches presented may differ from those used in stock assessments, and (2) a reference to a publication which contains the total catches used in the assessments be provided.

10. Inland Fisheries Concepts and Definitions (Page 13)

10.2 The CWP believed that for capture fisheries, the proposal to remove brackish water from the questionnaire would not be advisable and that the existing practice be continued.

11. Aquaculture Statistics (Page 13)

11.2 In reviewing the Annex to the "Instructions for completing AQ Questionnaire" under the heading "Brush Parks and Fish Aggregating Devices", it was recommended that *Fish Aggregating Devices be listed separately and under the capture fisheries designation. At the same time a clearer understanding of the meaning of Brush Parks should be provided by including all activities associated with the impoundment of wild species under the aquaculture designation. A definition of "Valliculture" should also be added.* (See Appendix VI) In order to meet some of the concerns expressed by users, it was proposed to rename "freshwater culture" as "inland aquaculture" and to combine "brackish water culture" with "mariculture" under the new heading "coastal aquaculture".

11.3 CWP noted the increase in practice of "ongrowing" of certain species. The Secretariat was requested to examine the appropriate definition and designation for these activities.

11.4 In the discussion concerning hatchery data, considerable attention was given to the issues of enhancement and ranching. It was recognized that it would be important to separate hatchery production between that directed to farming and that for enhancement and ranching.

11.5 The Session was not convinced that ranching was entirely an aquaculture activity, since it was noted that interceptions outside of the control of the owner of the stocks, could occur and be included as catches. In this connection the Secretariat was requested to review ranching activities and if necessary prepare an appropriate definition to cover the concern mentioned above.

11.6 In the same way, enhancement of stocks by stocking with hatchery-reared fish, while clearly a means of increasing production could have an adverse effect on "natural" stocks. It was recommended that *consideration be given to the necessity of identifying reared stocks from natural stocks.*

11.7 The CWP recommended that *in separating aquaculture production from catch data attention continue to be given to the development of time series for marine species other than shrimp and salmon*. Whereas, the need for a time series for freshwater aquaculture production was equally important, the finalization of a complete time series that would allow separation of this production from catches was considered to be a lengthy process. Given the progress made for the two important marine species, a complete time series for marine aquaculture production might be accomplished in the near future.

12. Recreational Fisheries (Page 14)

12.8 The CWP noted the usefulness of the data, albeit partial, obtained through the enquiry and recommended *FAO to continue its follow-up in order to obtain an estimate of the size of the catch*. It was agreed to continue for the time being the present practice of including catches from recreational fisheries in world catches only for the most important stocks and to encourage submission of data from countries where statistics are annually available. However, it was recommended that *the survey on recreational fisheries should not be repeated*.

13. Conversion Factors (Page 15)

13.3 The CWP noted that conversion factors from landed to live weight are very critical for national reporting offices, and for certain products they may be factors of high sensitivity. It was recommended that *some analyses of national factors should be undertaken, preferably in consultation with some international supplier of fish processing machinery*. It was also recommended that *FAO evaluate the data obtained requesting reporting countries to provide the source of the information (i.e. survey from processing plants, on-board sampling, etc.), sample size and the methodology for calculating the factors*.

14. Data Transmission Using Electronic and Magnetic Media (Page 15)

14.6 In the discussion that followed it was stated that MICROFISH would become a useful tool for the quick retrieval and analysis of fishery time series but at regional and inter-regional, rather than national levels. In connection with its data retrieval and analytical functions, the CWP recommended that:

- i) *its name (MICROFISH) should be changed so as not to be misinterpreted as "microfiche";*
- ii) *its analytical functions (and especially the computation of trend indicators) should be left with the user and all computational steps should be made transparent to those who use them;*
- iii) *plotting functions should become more flexible and at the same time require minimum intervention on the part of users.*

14.7 In a general concluding statement, the CWP appreciated the presentation and endorsed the development of the two FAO systems and recommended that *SEFS and MICROFISH be finalized in line with the suggestions made by the meeting during the presentation*.

15. Use of ICCAT Tuna Data by Regional Agencies (Page 16)

15.2 The CWP recognized that the ICCAT database, which is based on the scientists' best estimates, is accepted by ICCAT Member Countries as the most accurate data set for tuna statistics. Hence, the CWP recommended that *ICCAT provide tuna and tuna-like fish catch data by 1° x 1° rectangles for the ICES area so that ICES can aggregate the data by divisions and sub-divisions*.

16. Fishing Vessel Statistics (Page 17)

16.6 The CWP noted these developments and expressed concern that comprehensive fishing fleet statistics were not more generally available. It recommended that *national reporting offices take particular attention to the compilation of fishing fleet statistics, including information on the activity of the vessels.*

16.10 The CWP recommended that *further attempts to develop the Register of Tuna Vessels be abandoned.*

17. Food Balance Sheets (Page 18)

17.4 Noting that FAO and OECD fishery food balances are part of an organization-wide food consumption statistical programme, and the low priority that EUROSTAT attaches to this work, the CWP recommended that *Food Balance Sheets should not be discussed at future meetings of the CWP unless there were major developments to report.*

19. STATLANT Newsletter (Page 18)

19.3 The CWP recommended that *the publication of the STATLANT Newsletter be continued and gratefully accepted EUROSTAT's offer to retain its editorial function.*

20. Country and Nationality Issues (Page 19)

20.1 The CWP noted the modifications required to keep comparability among agencies' databases, after adjustments to reflect political changes occurring in Eastern Europe and the former Union of Soviet Socialist Republics. It was recommended that *as far as possible attempts should be made by FAO to seek the collaboration of statisticians from the Independent States (See Appendix V) to provide marine and inland fishery data.* Recognizing that the USSR used to report its catches identified by individual Republics up to 1973, it was further recommended that *FAO seek to try to maintain continuity in the catch time series by requesting data for the Republics for the period 1973 to 1991.*

22. The CWP and its Functions (Page 19)

22.1 The CWP noted that there is a major need for continuance of the work conducted by the Coordinating Working Party on Atlantic Fishery Statistics. Previous sessions of the CWP had suggested a greater participation by users of statistics and by agencies from outside the Atlantic. The list of participants at the CWP-15 indicated that steps had been taken to achieve this, but it was felt that this trend should be reinforced. The majority of CWP-15 agenda items were of global significance. An example of this was the item on high seas fishery statistics where a greater input from agencies from outside the Atlantic, in preparation of the Technical Consultation on High Seas Fisheries to be held in Rome in September 1992, would have been valuable. Unfortunately, at the present time there is no other CWP-type organization for the other regions and thus, in order to encourage the greater participation by agencies from these regions and, to more closely reflect the current work of the CWP, it was recommended that *the name of the CWP be changed to the "Coordinating Working Party on Fishery Statistics" and that the member agencies obtain the approval of their appropriate bodies for this change.*

