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Collaboration Between FAO and ICNAF, 1958/59

The following notes report action taken by FAO Fisheries Division in response to recommendations in the report of the Eighth Annual Meeting of ICNAF and other aspects of the current work of the Division of interest to the Commission.

1. Follow-up of Joint Scientific Meeting of ICNAF/ICES/FAO, Lisbon, 1957

1. 1 Publication of Report and Contributions

Unfortunately progress with this work has been slower than we expected, but the editing of the reports has now been completed, financial provision made for their printing and distribution, and the authors of contributions have returned corrected copies of their manuscripts.

1. 2 Standard Notation and Terminology for Fishery Dynamics

The small Committee established to finalize the notation has finished its work by publication of a report (J. Cons. Int. Expl. Mer 24:239-242, 1959), containing proposed standard notation, with terms in English, Japanese and German. Nearly one thousand reprints of this paper are being distributed to research institutions and editors of periodicals with the request that they consider whether they can act on the recommendations contained therein. Scientific colleagues in many countries have now been asked to supply corresponding lists of terms in other languages in which papers on this subject are published. The response to this request has been most encouraging.

1. 3 An International Journal of Fishery Dynamics

Publication of such a journal has now been discussed with publishers having experience with international scientific periodicals. Negotiations are now in progress with one published regarding the details of format, financing, and selection of editorial board, and it is hoped to begin publication early in 1960.

1. 4 Mathematical tables for simplifying stock assessments are being prepared at Lowestoft Fisheries Laboratory, and FAO is discussing with that Laboratory the question of their publication. Mr. Beverton has used the draft tables in an assessment of fish stocks in African lakes in connection with an FAO Technical Assistance Project in Uganda.

1. 5 Comparative Population Studies

Some progress has been made in compiling and summarizing such data. A study has been made by Mr. Beverton and Mr. Holt of the relations between growth and mortality rates in more than fifty fish species. Within several taxonomic orders there is a highly

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significant correlation between these parameters, which we hope will be useful in simplifying the work of stock assessment. Following the publication by C.C. Taylor of a relation between water temperature and growth rate of cod, a comparative study was made of the growth rates of several scombroid species, and a small advance in understanding of mackerel population dynamics has been made.

## 2. Methodological Manuals

### 2. 1 Sampling Methods

Mr. Gulland has visited sampling sites in some countries of the Middle and Far East, and this experience of varied conditions is proving useful in preparing the draft of this manual. An outline of it was used for instructional purposes at the FAO International Training Centre on the Methodology and Techniques of Research on Mackerel (Rastrelliger), held last autumn in Bangkok.

### 2. 2 Stock Assessment Methods

Draft chapters of this manual, based on the lectures given at the course held in Lowestoft, 1957, were also used for the Bangkok Training Centre. It is expected that a complete draft will be given limited distribution for comment in 1960.

### 2. 3 Field and Laboratory Methods

The first of these has been distributed in mimeographed form to chosen experts for comment and advice on how it could be improved. Canadian research workers have used it experimentally and they and Norwegian and British workers have given us helpful and encouraging opinions; assistance is now coming also from other countries. The second manual will similarly be distributed shortly. They will be revised and printed in 1960.

### 2. 4 Gear Selectivity

At the suggestion of ICNAF, we have undertaken to prepare a manual of methods of studying selectivity. Material for this is now being assembled, and we expect, as for the other manuals, to employ a consultant to prepare a draft. An FAO consultant, Mr. Akyuz, is to participate, on the invitation of the Norwegian participants, in the international experiment to be conducted by several European countries this August in the north-east Atlantic. We hope that some standard methods will be agreed on for that experiment and we will take account of that experience in preparing the manual of this subject.

### 2. 5 Fish Marking

Correspondence has been exchanged with authors designated by the International Association for Limnology to prepare a review on fresh-water fish marking, with a view to preparing a joint manual on experimental design; types of tags and their application; analysis of results. We are awaiting the completion of the IAL draft and then propose to ask consultants to complete the study for marine fish. It is hoped that a first draft will be ready in time for the ICNAF meeting on tagging in the North Atlantic (see also Section 7).

## 3. Co-ordination of fisheries statistics

In September this year a meeting, jointly sponsored by ICES, ICNAF and FAO, is to be held in Edinburgh, at which it is hoped that agreement will then be reached leading to co-ordination of commercial statistics relating to the fisheries of the North Atlantic.

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4. Other meetings

4. 1 A joint paper on "The Measurement of Fishing Power" by Messrs. Holt, Keir and Parrish was prepared for the Second FAO Fishing Boat Congress.

4. 2 Manuscripts of experience, background, and methodological papers are being steadily received for the FAO World Meeting on the Biology of Sardines and Related Species, being convened in Rome in September. A strong participation from the ICNAF member countries is expected. Mr. Donald L. McKernan of the U.S. Fish and Wildlife Service, and Dr. Mario Ruivo of Portugal, and Chairman of ICNAF Committee on Research and Statistics, have accepted our invitation to act as Chairman and Vice-Chairman respectively.

4. 3 FAO Biology Branch is collaborating with SCOR in convening a meeting on fish food populations in connection with the Oceanographical Congress being held in New York in August.

4. 4 Protection of Marine Resources

FAO Fisheries Biology Branch is represented on the Ad Hoc Inter-governmental Panel, established by the International Atomic Energy Agency, on the Disposal of Radioactive Wastes in the Sea and is there keeping fisheries interests to the fore. A report from this Panel, which has already had two meetings, is expected at the end of this year. The IAEA is organizing, in collaboration with FAO, a Conference on the Disposal of Radioactive Wastes at Monaco in November 1959. The fisheries and oceanographic aspects of this matter will be considered there.

The Branch is also participating in the International Conference on the Pollution of the Sea by Oil, being convened at Copenhagen in July.

5. Compilation of biological data on commercial fish species

First attention this year has been given to the clupeoids, in preparation for the Sardine Meeting, which has occupied most of the time of the staff concerned with this. We hope, however, to prepare in due time a synopsis on the biology of the species and stocks of redfish, using the contributions to, and conclusions from, the ICES/ICNAF Redfish Symposium. If the sponsors would find it useful and feasible, the draft of our synopsis could be submitted for revision to scientists studying the biology of this group and publication with the proceedings of the symposium. A large contribution of compiled data has been received from the U.S. National Research Council, and as those synopses are revised, brought up to date, and put into a standard form, we expect to issue them as supplements to our "Current Bibliography for Aquatic Sciences and Fisheries" (see item (6)).

6. "Current Bibliography for Aquatic Sciences and Fisheries"

As announced at the 1958 ICNAF meeting, this monthly periodical is being distributed in mimeographed form. It now reaches over one thousand fisheries institutions, research units and libraries. The coverage has been increased, with the assistance of many collaborators, and sets of reprints have been received from some member countries of the Commission. We hope for further assistance during the next year, when we expect the Bibliography will be issued in printed form, and on a subscription basis. We search regularly the ICNAF "Annotated List of Pertinent Papers", include all the references therein, and list most of them under "Northwest Atlantic" in the monthly and annual geographical indexes of the Current Bibliography.

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7. Analysis of Tagging Results

A method of using all the information concerning growth rate derived from the marking experiments has been worked out with Mr. J. A. Gulland. An account of the method is given by Gulland & Holt in J.Cons.Int.Expl. de la Mer, 1959 (in press)

8. Other matters

Questions connected with the use of nylon gill-nets are being considered by the two organizations.