

PELAGIC FISH (NORTHERN) COMMITTEE

Chairman: Mr. J.J. Zijlstra
Rapporteur: Mr. J. Jakobsson



I. Proceedings

The Committee held three sessions, on the 30th September, 2nd and 3rd October, 1968.

The list of membership was checked, and alterations were noted for Canada and Denmark.

The Chairman expressed his thanks to Mr. A. Saville, The Convener of the Symposium on "The Biology of the Early Stages and Recruitment Mechanisms of Herring", and to the organizing group of this symposium.

The Chairman spoke of the serious illness of Dr. Lishev. A message was sent wishing him a speedy recovery.

II. Publications

The Administrative Report for 1967 was approved with the note that Canada as well as other countries carrying out pelagic fish investigations in the North West Atlantic reported to the ICNAF.

The Committee noted with satisfaction the rapid publication of the Annales Biologiques this year.

In order to gain as comprehensive information on the fisheries and fish stocks as possible the Chairman stressed the urgency that all member countries contribute to the Annales Biologiques.

The Committee recommended that several papers to the meeting, dealing with the same subject as covered in the Annales Biologique should be included there and read by titles only at the present meeting (Docs. Nos. H:2, H:8, H:10, H:11, and H:14).

Expressing great interest in the reports of the joint international surveys on herring larvae and young herring in the North Sea and on the summer distribution of Atlanto-Scandian herring in the Norwegian Sea, the Committee recommended to have their annual reports published in Annales Biologiques (Recommendation B(1)).

The Chairman informed the Committee that the list of Herring Publications for 1965 - 1967 would shortly be published. He invited countries that have not yet contributed to the list to do so before the 1st of November, 1968. The Committee agreed that in future an annual list of Herring Publications should be compiled.

The two general papers Nos. 9 and 10 by Dr. Cushing were presented at the meetings and were received with interest and a lively discussion. Thanks were expressed to Dr. D.H. Cushing.

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Discussing Dr. ~~J. Eggvin's~~ scheme on synoptic oceanographic observations the Committee repeated its opinion that such charts would be useful for scientific purposes rather than immediately for fishing tactics. In addition it was observed that surface temperature charts were at present available to laboratories of most of the member countries.

A verbal report was presented by Messrs. Dragesund and Schubert concerning the possibility to prepare charts of surface temperature and salinity by the Service Hydrographique. After some discussion indicating that information on surface temperatures and salinities was not wanted, the Committee recommended that bottom and sub-surface temperature and salinity charts should be published monthly for five major areas by the Service Hydrographique.

Discussing a contribution by Messrs. Messieh and Tibbo about the comparability of otolith and scale readings in herring, an exchange of otolith and scale material between Canadian and European workers was proposed.

III. Working Groups

Reports were presented on joint international efforts on larval and young herring surveys in the North Sea, in the summer distribution of Atlanto-Scandian herring in the Norwegian Sea, and on O-group abundance of herring in the Barents Sea. The Committee stressed the importance of the results of these internationally coordinated studies. It felt that the larval studies should be intensified both in frequency and in area, whereas the young herring surveys would gain by a northerly extension of the area surveyed. The Committee recommended that these four internationally coordinated studies should be continued (Recommendation C(1)).

The Committee received a verbal report by Mr. Dragesund about the tagging programmes, carried out in the North Sea in 1968. It decided that the Working Group on Tagging Herring should continue its work with the ultimate aim to present a full report in the future.

The Committee was informed about the request by the Liaison Committee to provide information concerning the effect of the fisheries on the state of the Atlanto-Scandian and North Sea herring stocks. It decided to install two Working Groups, on Atlanto-Scandian herring and on North Sea herring, and adopted terms of reference and data requirements for both Working Groups. The Committee decided not to appoint the members of the Working Groups but rather to ask which countries were interested to take part in them. This decision was made because it was felt that countries had many commitments as to Working Groups and would like to decide on nominations at a later date. The Chairman of the Committee, who was appointed Convener of both Working Groups, would receive nominations by interested countries.

Countries, interested to take part in the Atlanto-Scandian Working Group, were: Germany, Iceland, Norway, U.K., U.S.S.R., and possibly Denmark. Countries partaking in the North Sea Working Group were: Denmark, France, Germany, the Netherlands, Norway, Poland, Sweden, U.K., and U.S.S.R..

The Committee adopted a recommendation, covering the installation of the two Working Groups and the terms of reference and data requirements of both Groups (Recommendation B(3)).

The Secretary General presented, on request of the Chairman, a statement of position on the Bløden Tagging Experiment. The Committee was hereby informed that it was requested to set up a scientific Working Group, which will be responsible for a proper scientific planning, executing and for the final analyses of the material obtained by the Experiment. After some discussion, in which the special need for a statistician in the Group was stressed, the Committee nominated the following scientists:- MM. Ackefors, Burd, Haraldsvik, Nédélec, Pope, Popp Madsen, Schumacher, and Zijlstra. The Chairman of the Committee was appointed as Convener of the Working Group. The Committee felt that the Group could be changed during its existence, and the members could be replaced by other scientists of the same countries.

Mr. Parrish, Convener of the Working Group on the Herring Research Scheme, presented the Final Report of this Group to the Committee. The members of the Committee were then requested to state their interest and plans for the near future for this Scheme, if it would come into existence. Two countries (Germany and Norway) expressed great interest in the Scheme and outlined plans, five countries had no immediate plans or could not take part in the scheme, whereas four countries could not give a definite answer.

On the basis of this information the Committee recommended that the Working Group should outline research projects and that the countries should carefully consider their position vis à vis the draft projects at next year's meeting. The member countries were also invited to propose additional projects. It was recommended to have the final report published as a Cooperative Research Report (Recommendation A(2)).

The Committee decided to postpone full publication of the Report of the Working Group on the 1960-1961 Young Herring Surveys in the Cooperative Research Report, pending a full discussion of the results in the report. Such a discussion should be prepared by the Working Group in the near future and presented at the next year's meeting of the Committee, which could then decide on publication (Recommendation A(2)).

IV. Symposia, future meetings

The Committee was informed about the conclusions of the Symposium on "The Biology of the Early Stages and Recruitment Mechanisms of Herring", which was held prior to the meeting on 26th - 28th September, 1968. The Committee endorsed the recommendations resulting from the Symposium (Recommendations B(2), C(2), C(3)). It recommended that the contributions presented to the Symposium to be published in a special volume of *Rapports et Procès-Verbaux*, and appointed the Convener of the Symposium, Mr. A. Saville, as the Editor (Recommendation A(1)).

A report was presented on a Sprat Symposium, which was held in Lysekill (Sweden) in January 1968.

The Committee was informed about a recent strong increase in the fishing rate on the mackerel stock in the North Sea due to a new Norwegian purse-seine fishery.

It expressed its interest in any changes in this stock, resulting from this increased fishing intensity, and decided to invite scientists, especially from Norway, working on North Sea mackerel, to present papers on this subject to next year's meeting.

Discussing the special day's meeting on biochemical identification of races in fish, which is scheduled for next year's Council Meeting, the Committee felt it was rather more interested in the applications of these methods, with either positive or negative results to the problem of identifying races, than in the methods.

V. Invited papers

The Committee received with great interest the invited contribution dealing with recent changes in spawning grounds and distribution in the Atlanto-Scandian herring, presented by Mr. F. Devold and Mr. J. Jakobsson. A suggestion was made moved by the Committee to propose this subject as suitable for the Open Session of the Council in 1969.

The Committee expressed its thanks to the authors of the contribution.

Terms of Reference and Data Requirements of
Atlanto-Scandian and North Sea Herring Working Groups

At a recent meeting of the Liaison Committee it was felt that, in view of the general concern regarding the state of herring stocks in the North Sea and the Atlanto-Scandian area, Working Groups were required to examine the current position in these areas. The present unsatisfactory yields of the adult stocks in both areas would seem to have largely resulted from the low levels of recruitment to the stocks in recent years. This could have resulted from environmental conditions unfavourable to recruitment; on the other hand it could be the result of the effects of fishing, either directly on the adult stocks, or on young herring prior to recruitment to the adult stocks. Reports of working groups on these topics were presented in 1965 (Cooperative Research Report, Series B, 1965) giving assessments based on data up to 1963/1964. In both areas there have been major changes since these reports were produced both in the intensity of, and the distribution of the fisheries.

The working groups will therefore be primarily required to consider data collected in the period 1963-1968 with aims of providing:-

- 1) Descriptions of recent changes in the fisheries and the exploited stocks.
- 2) Assessments of the impact of the fisheries both for adult and young herring in both areas on the stocks, and on the reproductive potential of the stocks.
- 3) Evaluating the effects of environmental changes on the reproductive efficiency of the stocks and the distribution.

Data required by the Working Groups

To carry out these tasks the working groups will require the following material:-

- 1) Catch and Effort data from all countries with fisheries on juvenile or adult herring in the areas under consideration. Catch and effort data should, as far as possible, be supplied on a statistical square and monthly basis. Catches should be expressed in metric tons. Where statistical square and monthly data are not available the smallest possible break down of the data should be used.
- 2) Stock estimates: These are available in different forms for different stocks and any form of stock estimate would be of value. In particular stock estimates based on photographic techniques, tagging, larval abundance estimates, young herring abundance estimates, and virtual population estimates would be welcome. The virtual population estimates figures of the mean weight of the fish will be required. These should be supplied as mean weight of a fish in the catches for statistical square and month where possible; otherwise for the smallest area and time intervals available.
- 3) Data on catch composition: the basic data required are the age, length, and racial composition (spring/autumn) of the catches; wherever possible by statistical square and month, otherwise by fisheries and months.

- 4) Data for estimation of mixing of stocks:- Where fisheries are carried on in areas where the catches are, or may be, for populations of mixed stock composition data should be supplied which will be useful in assessing the stock composition of the population. This can be of two types (a) tagging data, (b) meristic character data. Meristic character data are required both for pure stocks and for mixed populations. For pure stocks meristic characters should be given as mean values and variances for year-classes by fishing areas for each year. For mixed populations meristic character data should be supplied for year-classes, by fishing areas and months.
- 5) Evaluation of the effects of natural changes on recruitment will be based on compiled or published material.

Dates, Venues and Participation

It is envisaged that both Working Groups will meet in Copenhagen. The North Sea Herring Working Group must meet prior to the next meeting of the Liaison Committee and accordingly will be held for 5 - 6 days in the first half of January 1969.

The Atlanto-Scandian Working Group cannot meet in the first two months of 1969, and a meeting of 5 - 6 days in the second half of April would appear to be most generally acceptable.

It will be open to all member countries to send one representative to each of these working groups. Where desirable, with the permission of the Convener, a second representative may be permitted in exceptional circumstances.

A-Recommendations from the Pelagic Fish (Northern) Committee

- A(1) The Pelagic Fish (Northern) Committee strongly recommends that the papers presented at the Symposium on the Biology of the Early Stages and Recruitment Mechanisms of Herring should be published as a special volume of "Rapports et Procès-Verbaux". In the light of financial limitations it may be necessary to restrict publication to papers most relevant to the topics of the Symposium. Papers which will be published elsewhere in full should appear in the volume as ~~extended~~ summaries only. For this purpose the Committee nominates the Convener of the Symposium, Mr. A. Saville, as the Editor.
- BA
A(2) The Pelagic Fish (Northern) Committee received with great interest the report of the North Sea Young Herring Working Group. Appreciating that the conclusions of this report had been very hurriedly compiled, without adequate discussion, the Committee recommends that this Working Group should have one further meeting in the near future to consider the conclusions more fully. In view of the fact that the major part of this report is now completed, apart from editorial corrections, the Committee recommends that the first four chapters be printed in the near future for publication in the Cooperative Research Reports. These chapters could then be held pending approval by the Committee of the chapter embodying the conclusions accepted.
- RY
A(3) The Pelagic Fish (Northern) Committee recommends that the Working Group on the Establishment of an International Herring Research Scheme should outline research projects for international cooperation along the lines given in the final report, p. 10, items (i) to (iii).
The drafts of research projects should be submitted to the members of the Pelagic Fish (Northern) Committee for consideration of their interest and of the possibility of their participation.
Members of the Pelagic Fish (Northern) Committee should report their position vis à vis the draft projects at next year's meeting.
Members of the Pelagic Fish (Northern) Committee should also be invited to propose further studies.
- A2
The Pelagic Fish (Northern) Committee recommends that the final report should be brought to the knowledge of the Government of Norway and should be published as a Cooperative Research Report.

B-Recommendations from the Pelagic Fish (Northern) Committee

- C5
- B(1) The Pelagic Fish (Northern) Committee, noting with great interest the results of the joint international surveys on larvae and young herring in the North Sea, as well as on the summer distribution of the Atlanto-Scandian herring recommends that the annual reports on these surveys should be published in the "Annales Biologiques".
- B(2) In view of the evidence presented to the Herring Recruitment Symposium on the importance of predation on herring spawn, a list of abundant fish which feed on herring spawn should be established, giving the size range over which these fish prey on herring spawn. Experimental and field observations of daily ration, food selection, and of abundance of these fish on the spawning grounds, are required to estimate the predation rates. The Demersal Fish (Northern) Committee is invited to assist in the provision of such data.
- Unpublished.*
B(3) With reference to the request of the Liaison Committee concerning the urgent need for information on the state of the two major herring stocks in the North-East Atlantic, the Pelagic Fish (Northern) Committee recommends to set up two Working Groups. It is proposed that the North Sea Working Group will meet in January 1969, the meeting of the Atlanto-Scandian Working Group is scheduled in April 1969. The terms of reference for these Working Groups and the data required are presented in Appendix A to the report of the Pelagic Fish (Northern) Committee.

