RESTRICTED

INTERNATIONAL COMMISSION FOR THE NORTHWEST ATLANTIC FISHERIES

Serial No. 2091
(D.r)

ICNAF Res. Doc. 68/24

ANNUAL MEETING - JUNE 1968

Report of the ICNAF Working Group of Redfish Experts Lowestoft, 20-22 May 1968

The working group was convened on 20-22 May 1968 at the Fisheries Laboratory Lowestoft, following the recommendation (No. 15) of the Research and Statistics Committee at the ICNAF 1967 Annual Meeting.

Experts from the following member countries were present:-

Canada (St. Johns)	:	Mr. E.J. Sandeman
Denmark	:	Dr. P.H. Hansen
England	:	Mr. R.W. Blacker
Germany	:	Dr. J. Messtorff
		Dr. K. Kosswig
		Dr. F. Mombeck
U.S.A.	:	Mr. R.C. Hennemuth
U.S.S.R.	:	Dr. A. Alexeev
		Mr. Zheltov

Dr. A. Meyer who convened the meeting was unfortunately unable to attend and Dr. Messtorff agreed to be Chairman.

Dr. H.A. Cole welcomed the delegates.

Mr. Sandeman submitted his paper "Age determination and growth rate of redfish (Sebastes sp.) from selected areas around Newfoundland' (ICNAF Res. Doc. 68/29).

There was a short discussion of the problems involved in the determination of redfish age and the group reviewed some of the information available on other methods independent of scale and otolith readings. These included Dr. Hansen's excellent series of data from Godthaab Fjord on length distribution of small redfish (Petersen method) and the tagging experiments of both Dr. Hansen and Mr. Kelly (USA). It was noted that more validation studies are needed and, especially, information on post-larval and pre-settlement stages is required.

The following two days were spent in examination of material brought by the delegates. At present all the experts use otoliths except USSR experts who use scales. Several different techniques for otolith reading are in use: whole otoliths cleared and uncleared and broken otoliths viewed by transmitted or reflected light.

Comparisons were made of cleared whole otoliths, cut otoliths (burnt and unburnt) and scales from the same fish, but scales as well as otoliths were available only for a small number of fish and did not include fish older than twenty years.

It was agreed that the otoliths of S. mentella from Subarea 5 (Gulf of Maine) presented little problem because of their regular growth pattern. The main difficulty in otoliths from other areas was the interpretation of the innermost zones, but scales from small fish were valuable in helping the interpretation of these early growth zones. In fish older than fifteen years the outer zones also caused some difficulty. However, it was found that the discrepancies that did exist, were much smaller than had been anticipated and the differences in age were usually only one or two years.

Thus the basic methods of interpretation seemed to give excellent agreement in ages as determined from otoliths and (or) scales up to fifteen years on these selected samples. It was felt that greater discrepancies would occur in ages as determined by scales and otoliths in older fish and that otoliths were more likely to yield the better estimates of age. An exchange of otoliths and scales is needed to check this and see how far agreement is maintained in representative random samples which cover the complete range of lengths in several stocks. The working group agreed that such an exchange is desirable and the Soviet experts expressed their particular interest in gaining more experience at reading otoliths and that this could be achieved by an exchange of this type.

It is suggested that samples from Subareas 1, 2, 3 and 4 should be exchanged. The samples should include whole otoliths and scales from ten to twelve fish. Germany will provide the sample from Subarea 1, USSR that from Subarea 2 and Canada (St. John's) those from Subareas 3 and 4. Mr. Blacker agreed to prepare photographs to accompany the otoliths and scales and to supervise the exchange, and therefore the samples should be sent to him. The initial exchange should be restricted to members from the working group and every endeavour should be made to complete it so that a report can be submitted to the 1969 ICNAF Annual Meeting.

The group expresses its appreciation and thanks Dr. Cole and his staff, particularly Mr. Blacker and his colleagues who contributed so much to the success of the meeting.