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Summary of Research Work Carried out in Subarea 2 in 1960

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Researches

It is gratifying to note the rapid increase in fisheries research information from Subarea 2, since only a few years ago relatively little fisheries research was done in this subarea.

The Canadian sampling of the inshore cod catch and also of the offshore cod population was intensified and considerably more work was done on age and growth of cod (Document No. 10). Older cod were more numerous in the 1960 samples than in those of 1959. Growth curves from the inshore cod showed the usual picture of slow growth for the area and slower growth in the north than in the south. The area of the southern two-thirds of the Labrador Shelf was surveyed for redfish and cod and interesting results were obtained on the presence and distribution of marinus and mentella forms of redfish. The usual hydrographic section off southern Labrador was taken in early August, and other hydrographic work in the area carried out in August and September. For the second time since 1950 (the other occasion was in 1957) temperatures higher than 4°C (4.1 - 4.4°C) were present in the offshore deep water of this section. A list of the locations and times of Canadian oceanographic observations in the subarea is given in Document No. 21.

Spain has carried out length measurements of cod (Document No. 15) and reported results on age and growth of cod in Document No. 18. The usual low growth rate for this subarea was found.

A considerable amount of cod sampling and age reading was done by Portugal (Document No. 17). The stock of this subarea continues to be characterised by relatively old cod of small size, with a low growth rate and with no great differences in year-class strength. Studies were also carried out on the stages of sexual maturity, age at first maturity, total weight, and weight of livers, gonads and other viscera of cod.

West Germany carried out racial investigations of redfish and sent a scouting trawler to the subarea in May. German trawlers found successful fishing for cod in the southern part of the area from December 1960 to February 1961 (Document No. 26).

In the U.S.S.R. investigations (Document No. 27) one research vessel and five scouting trawlers with research scientists on board made a total of 13 cruises to different parts of the ICNAF Area. In these cruises very large numbers of cod and redfish were measured and large samples of otoliths collected for ageing. Sizes of marinus-type redfish measured on research and exploratory vessels were larger, and of mentella-type redfish smaller, and sizes of cod were smaller in Subarea 2 than in the northern part of Subarea 3. The U.S.S.R. has contributed valuable information on division of stocks of mentella-type redfish and presented a hypothesis of larval drift to account for the distribution of these stocks of redfish in Subareas 2 and 3. They have noted that extrusion of redfish larvae takes place on the eastern slope of Hamilton Inlet Bank in May and at the beginning of June.

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Iceland (Document No. 30) had two research cruises in July and September by chartered trawler to the southern part of the subarea. Cod and redfish were sampled for length and age. In cod there was no exceptional predominance of individual year-classes.

Landings

The Cod landings from Subarea 2 in 1960 were 188 thousand metric tons plus the Icelandic landings, more than three times as great as the 60 thousand metric tons landed in 1959. These are by far the greatest landings in the subarea for the period 1936-1960 during which the previous highest catches were 111 thousand metric tons in 1953 and 78 thousand metric tons in 1938. The increased landings were entirely due to a great increase in the trawl fishery.

For redfish the landings from Subarea 2 in 1960 were 59 thousand metric tons plus the Icelandic landings. The 1959 landings were 50 thousand metric tons, of which Iceland landed 6 thousand metric tons. The landings in 1958 were 78 thousand metric tons, of which the Icelandic landings were 33 thousand metric tons. In addition to these landings there are landings by the U.S.S.R. of 35 thousand metric tons, as yet unassigned by species or subarea.