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ICNAF Res.Doc.70/21ANNUAL MEETING - JUNE 1970United Kingdom Research Report: 1969Subareas 1-3A. Status of the Fisheries

Prolific fishing in the northeast Arctic in 1969 attracted that part of the UK fleet which fished in the northwest Atlantic in 1968. As a result fishing effort fell from 30,000 hours in 1968 to 4,000 hours in 1969 and it was carried out by stern freezer trawlers in the first half of the year. Total catches of cod amounted to only 4,500 tons, half of which were caught in Subarea 3, the remaining small quantities coming from Subareas 1 and 2. The amount of fishing was too small to permit valid comparison with the status of the fisheries in 1968.

In view of the reduced fishing sampling of commercial catches from the ICNAF area was minimal.

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B. Special Research StudiesI. Environmental Studies

1. No hydrographic studies were carried out.
2. Plankton Studies

The Survey with Continuous Plankton Recorders, operated from the Oceanographic Laboratory, Edinburgh, continued in 1969 on the same basis as in other years. It was financed by the UK Natural Environment Research Council and by Contract F61052-67-C0091 between the Office of Naval Research, Department of the United States Navy and the Scottish Marine Biological Association.

Recorders are towed at a depth of ten metres, at monthly intervals, along standard routes by cutters of the US Coast Guard and merchant ships from Denmark, Iceland and the United Kingdom. During 1969, Recorders sampled for 1,333 miles in Subarea 1, 2,172 in Subarea 2 and 15,664 in Subarea 3. This sampling forms part of the laboratory's standard survey of the North Atlantic Ocean and the North Sea. Further details may be obtained on application to the Director, Oceanographic Laboratory, Craighall Road, Edinburgh, EH6 4RQ.

The spring outbreak of phytoplankton was extremely abundant over the Grand Banks, with a maximum in April. Numbers of diatoms were also higher than usual in the oceanic region of Subarea 3 in April and May; further north, in Subarea 2 and the southern part of Subarea 1, phytoplankton was scarce until July.

Adults of Calanus finmarchicus (the dominant copepod of this region) were scarce in the southern part of Subarea 1 in April and May, but, in contrast, were abundant in Subarea 3, particularly in March. The young stages of Calanus were below average in numbers.

Young stages of the population of Sebastes spp. found in American shelf and slope waters were abundant in the oceanic area east of the Grand Banks (Subarea 3 M) in April and June. Elsewhere, as in 1968, they were scarce.

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3. No benthic studies were carried out.

II. Biological Studies of Fish

The investigation of the West Greenland salmon fishery was continued by UK scientists in 1969, six of whom took part in a tagging programme at West Greenland during the fishing season.

The tagging programme was divided into two parts. In one of these an attempt was made to assess the viability of salmon caught in shore gill-nets by impounding them for a period after capture, using tagged and untagged fish. In the other part of the programme a further attempt was made to investigate the possibilities of long-lining as a means of catching salmon in a condition suitable for tagging. The results of both investigations were rather disappointing. In all, 26 live fish were caught in the gill-nets and, as the number impounded was also low, no reliable conclusions could be drawn. A total of 65 fish was caught by long-line, of which 43 were tagged in very good condition.

One of the salmon tagged in Greenland in 1968 was recaptured in Canada in 1969.

Investigations of the blood and other biochemical characteristics of West Greenland salmon and of some national and foreign stocks were continued and further observations were made on their parasite fauna.

Further batches of smolts were tagged in home waters during the spring of 1969. In England and Wales, 16,051 smolts (54% natural; 46% hatchery reared) were tagged, from seven river systems and in Scotland, 19,755 smolts (81% natural; 19% hatchery reared) were tagged from four river systems. By December 31, 1969, reports had been received of the recapture of 26 salmon at West Greenland, which had been tagged as smolts in the UK in 1968 (18 tagged in England and Wales and 8 tagged in Scotland).

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Subareas 4 and 5

A. Status of the Fisheries

There was no UK fishery in Subareas 4 and 5 in 1969.

B. Special Research Studies

I. Environmental Studies

1. No hydrographic studies were made.

2. Plankton Studies

The Continuous Plankton Recorder Survey described under Subareas 1-3 was also carried out in Subareas 4 and 5. Recorders sampled for 4,476 miles in Subarea 4 and 744 miles in Subarea 5.

The young stages of Calanus were abundant in the coastal regions of these two subareas in June, that is slightly later than usual.

The young stages of the population of Sebastes spp. were scarce, as in 1968.

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3. No benthic studies were made.