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Status of Fisheries and Research Carried Out in Subarea 5 in 1968

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Reports on research were submitted by the following Member Countries: Canada, Federal Republic of Germany /FRG/, Poland, Romania, USSR, UK, and USA.

The following papers are pertiment: Comm. Docs. 69/20, 22; Res. Docs. 69/1, 7, 10, 13, 15, 17, 18, 19, 21, 28, 29, 34, 35, 44, 45, 52, 53, 55, 57, 60, 63, 65, 66, 68, 75, 89, 90, 91.

1. Status of the Fisheries

The total nominal catch rose from 732,000 tons in 1967 to 810,000 tons in 1968 but was less than the high total of 890,000 tons in 1965. Canada took 100,000 tons /81,000 in 1967/, FRG 70,000 tons /28,000 in 1967/, Poland 80,000 tons /41,000 in 1967/, Romania 3,000 tons /2.000 in 1967/, Spain 18,000 tons /16,000 in 1967/, USSR 282,000 tons /268,000 in 1967/, USA 260,000 tons /274,000 in 1967/. Thus all Member Countries fishing the subarea, except USA increased their total catch.

Cod catches increased to 49,000 tons in 1968 from 43,000 tons in 1967 but this was accompanied by a decrease in haddock to 44,000 tons in 1968 from 57,000 tons in 1967 and 127,000 tons in 1966. The decrease is attributed to decreased abundance.

Silver hake again decreased to 80,000 tons in 1968 from 101,000 tons in 1967 and 162,000 tons in 1966. Red hake showed a similar trend to 20,000 tons in 1968 from 45,000 tons in 1967 and 89,000 tons in 1966. Both of these decreases are attributed to decreased abundance with resulting decreased effort.

Yellowtail catches increased to 33,000 tons in 1968 from 26,000 tons in 1967 to be about the same as 31,000 tons in 1966.

Herring catches again increased greatly to 337,000 tons in 1968 from 250,000 tons in 1967 and 166,000 tons in 1966. All Member Countries fishing herring in the area shared in this increase which is attributed to increased effort.

Sea Scallops decreased to 40,000 tons in 1968 from 53,000 tons in 1967 and 49,000 in 1966 while the fishing effort increased slightly.

Redfish continued to decline to 7,000 tons in 1968 from 11.000 tons in 1967 due to decreased effort.

Mackerel increased to 47,000 tons in 1968 from 16,000 tons in 1967 and alewives to 22,000 tons in 1968 from 9,000 tons in 1967.

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2. Work Carried Out

a. Canada

Scallop statistics collection was continued, as was cooperation and exchange of data with USA. Herring research was restricted to studies of larval abundance. Swordfish research was mainly on life history, ecology, distribution, abundance, feeding habits and recruitment. Studies on large pelagics migration were continued with tagging of tuna, sharks, and swordfish. Short-tailed squid were studied on an otter-trawl survey from Georges Bank south. Joint studies at sea were carried out with USA and USSR.

b. FRG

Herring sampling on Georges and Misaine Banks for meristic characters suggest that the stocks are different. The herring on Misaine Bank was of older age composition.

c. Poland

Sampling of herring for length and age indicated that the 1960 year-class made up 41% of the catch.

d. <u>Romania</u>

Sampling of herring catches on Georges Bank showed 92% were 6 and 7 years old in the spawning concentration. Sampling was also done on mackerel, cod, haddock and silver hake. Hydrographic observations indicated warmer water in the summer and autumn than in 1967.

e. <u>USSR</u>

Four seasonal hydrographic surveys were conducted. They showed in general warmer water in the summer and autumn than in 1967 and similar to 1962-3. Plankton surveys were carried out in a joint programme with Canada and USA.

Age studies on fish indicated silver hake predominately 4 years old, haddock 5 and 6 years, red hake 3 to 5 years and herring 7 years.

Joint groundfish studies were made with the USA.

Immunoserological studies on silver hake suggest the Georges Bank stock is different from that on Sable Island Bank and from the Middle Atlantic States. Studies on herring indicated 2 groups of herring distinguished by erythrocyte antigens.

f. <u>UK</u>

Continuous plankton recorder studies extended into Subarea 5.

g. <u>USA</u>

Extensive hydrographic studies were carried out in the Subarea and indicated higher water temperatures than in recent years.

Plankton studies were continued and a joint programme with Canada and USSR carried out.

Special and intensive attention has been given to the status of haddock stocks which are at an all-time low for Subarea 5.

The large increase in herring landings is watched with interest as the increase appears to be due to increased fishing effort.

Studies are being made of the offshore lobster population and the relationship with the inshore populations.

3. Haddock

The all-time low stock density of haddock in Subarea 5 and the absence of a good year-class since 1963 is a matter of major concern. The assessment Subcommittee are giving this matter most urgent consideration with a view to advising Panel 5 and the Commission on the status of the fishery.

4. Herring

The very large increase in herring catch is a matter of great interest. It appears that the increase is the result of greater fishing pressure and not of increased stock and hence an increased fishing mortality rate. There is apparently no good estimate of the size of the exploited stocks. The Assessments Subcommittee is reviewing the available information including the decreased catch per effort for some, but not all, countries. •