

ANNUAL MEETING - JUNE 1965United Kingdom Research Report, 1964

by C. E. Lucas and R. J. H. Beverton

SUBAREAS 1-5

A. Status of the Fisheries

In 1964 U.K. landings from ICNAF areas increased to 44,000 tons compared with 25,000 tons in 1962 and 35,000 tons in 1963. Landings from Newfoundland (Subarea 3) rose to 15,000 tons and accounted for the greater part of the increase, but the amount of U.K. fishing in the Newfoundland area has more than doubled. Landings from West Greenland (Subarea 1) remained steady at 24,000 tons with the fishing effort concentrated mainly in Divisions 1E and 1F as in 1963. At Labrador (Subarea 2), Nova Scotia (Subarea 4) and New England (Subarea 5), the U.K. fishing effort and landings increased slightly but together these only represent 6% of the U.K. landings from ICNAF areas.

The catch per 100 hours fishing remained steady at West Greenland (Subarea 1) but fell at Newfoundland (Subarea 3).

B. Special Research StudiesI. Environmental Studies

U.K. research vessels did not work in the ICNAF area in 1964, but a number of members of the Lowestoft, Aberdeen and Edinburgh laboratories have been actively engaged in processing, evaluating and reporting upon the material collected during the 1963 NORWESTLANT Surveys. The Continuous Plankton Recorder Survey has been maintained and developed in the ICNAF area, on which a more detailed account by Mr. R. S. Glover is attached.

II. Biological Studies

Routine sampling of landings by conventional trawlers has been continued at Hull and Grimsby and is being extended to the landings of freezer trawlers. Sampling has also been maintained on board the FAIRTRY factory trawlers. The sampling is summarised in Table 1; results will be presented for inclusion in the Sampling Yearbook.

Table 1. Number of fish measured and otolithed (brackets) from the ICNAF area in 1964

Area	Trawler Type				
	Conventional	Factory			Freezer
		Cod	Cod	Haddock	
West Greenland	9,324 (448)	2,003 (34))
Newfoundland	1,390 (34)	31,941 (652)	323 (6)	190) 1,133
Labrador	626)
Nova Scotia		434 (33)	185 (5)	129	
New England			319(11)	105(6)	

(over)

Annex to
United Kingdom Research Report, 1964

By R. S. Glover

The Continuous Plankton Recorder survey was continued on the same basis as in previous years. Danish, Icelandic and British merchant ships, and United States Coast Guard cutters provided nearly 28,000 miles of sampling. Whenever possible samples were taken once in each month on nine standard routes within the ICNAF area, as part of a survey of the North Atlantic Ocean and North Sea which yielded a total of almost 110,000 miles during the year. The programme was supported by a grant from the British Treasury and Contract N62558-3612 between the Office of Naval Research, Department of the United States Navy, and the Scottish Marine Biological Association.

The mileage sampled in 1964 is shown below for each of the ICNAF sub-areas in each month and for the whole year.

Month	Area 1	Area 2	Area 3	Area 4	Area 5	Total	No. of Records
	miles	miles	miles	miles	miles	miles	
Jan.	20	220	2,035	287	-	2,562	9
Feb.	-	230	1,439	155	-	1,824	5
Mar.	520	306	1,399	216	-	2,441	8
Apr.	40	271	787	-	-	1,098	3
May	192	250	1,615	417	127	2,601	10
June	175	542	1,872	255	-	2,844	9
July	659	248	145	210	128	1,390	4
Aug.	828	1,479	426	-	-	2,733	9
Sept.	555	557	1,292	377	130	2,911	8
Oct.	490	878	894	476	122	2,860	9
Nov.	305	680	454	-	-	1,439	6
Dec.	533	905	1,510	200	120	3,268	10
Total	4,317	6,566	13,868	2,593	627	27,971	90

The results will be incorporated into the analysis of the distribution and abundance of the plankton which is the primary objective of the Edinburgh laboratory. Among topics studied during 1964 relating especially to the ICNAF area were:

- a. Analysis of plankton collections made by Danish and German ships (as well as the Plankton Recorder) during the NORWESTLANT surveys.
- b. Studies of the food of larval cod and redfish, especially during the NORWESTLANT surveys. This work has shown that the diet of redfish larvae consists almost exclusively of Calanus eggs but cod larvae from the same area take very few eggs and many nauplii and copepodites. For a given size range, the guts of cod larvae contain fewer but much larger organisms than redfish larvae.
- c. Analysis of parasites, food, fecundity and other biometric characters of adult Sebastes taken at Weather Station ALFA and by Danish research vessels in the NORWESTLANT cruises.
- d. A detailed morphological and ecological study of Calanus finmarchicus and Calanus glacialis. This has shown that there is a continuous morphological series between the two so-called species: there are no firm diagnostic distinctions between them.
- e. The preparation of further publications in the "plankton atlas" series, incorporating results from the western Atlantic, including the ICNAF area.