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reference to the Laboratory

CRUISE REPORT

F.R.S. 'Explorer'

28th May - 16th June, 1966

Objectives: (a) West coast herring trawling survey.
(b) Moray Firth current indicator releases.
(c) Collection of ripe lemon sole for rearing experiments.
(d) Cod tagging.

'Explorer' sailed from Aberdeen on Saturday 28th May and the survey was begun at station 14 off the Butt of Lewis on Sunday 29th May. Apart from some banks of dense fog which were encountered during the last week of the cruise, weather conditions were exceptionally favourable and the work continued without any hold ups. Calls were made at Kyle on 7th June and Stornoway on 9th June to effect crew leave changes. The west coast survey was completed on the morning of 15th June when the ship returned to the North Sea to release current indicators at stations off Wick and in the Turbot Bank area. A haul for live fish for the aquarium was made before arriving in Aberdeen at 11 a.m. on 16th June.

Trawling: The area surveyed by trawl extended over the continental shelf from south of the Stanton Banks to west of the Shetlands.

The most prominent species in the hauls were herring, haddock and spurdogs.

No large concentrations of herring were located but they were widely distributed over an area extending from Orkney to the Stanton Banks. The best herring catch was taken about 18 miles NWxN of the Butt of Lewis where 42 baskets were obtained in a one-hour haul. Some good echo-traces were also recorded in this area but most of these were clear of the sea-bed. A catch, 17 miles west of Skerryvore, yielded 25 baskets of herring and a further 15 baskets were taken at a station 8 miles NE of St. Kilda. At most other stations the herring catches were less than two baskets per hour haul.

On the whole the quality of the herring was poor. Most of the hauls contained a considerable proportion of small fish with a modal length of 24cm - 26cm. The larger and older fish were mainly lean, recovering spents with an average length between 29cm and 31cm.

Over 2,000 herring otoliths were collected and K_2 counts and gill rakers were taken from about 900 of these fish.

Cod catches were small. Of those caught 44 were tagged and a good proportion of the rest of the cod catch was examined for nematode infestation.

A haul was made in the Turbot Bank area for live fish for the aquarium and ripe lemon sole for Mr. Symonds.

Hydrography: Temperatures and salinities were taken at surface and bottom at all stations and, in addition, temperatures and salinities were taken at all standard depths at a number of selected stations. Temperatures at the surface ranged from 8.6°C to 11.9°C and at the bottom from 8.6°C to 10.32°C. The highest temperatures were recorded mainly along the western edge of the survey area from St. Kilda to the Stanton Banks.

Plankton: Except for stations along the north coast of Scotland Calanus finmarchicus was abundant over the whole of the area surveyed and very abundant north of Shetland.

Nephrops larvae were taken at stations along the north coast and off the Butt of Lewis.

Phytoplankton samples were richest in the North Minch area. Collections of phytoplankton material were made for Mrs. Reid.

Thirty seven Plankton Indicator samples were taken for the S.M.B.A. Oceanographic Laboratory, Edinburgh.

IAN G. BAXTER
4th July, 1966.