

CRUISE REPORTF.R.S. "SCOTIA"March 1954

"Scotia" left Aberdeen at 2100 hours on March 13 and started work at the southern end of the North Sea grid. Six days later the weather broke and the ship anchored in Pierowall Bay for two days. On the 22nd, with gales forecast, "Scotia" went to Lerwick for water. On the 24th the weather moderated and work was resumed. By March 29, when high winds again stopped work, the North Sea survey was completed except for three stations; these were worked on the 31st and on the last day ten stations of the North-west survey were done before "Scotia" returned to Aberdeen, docking at 1030 hours on April 2.

Hydrography

Except in the Norwegian Deeps, the temperatures were approximately uniform from surface to bottom. The horizontal differences showed the presence of the usual two incursions of warmer ($>7^{\circ}\text{C}$.) Atlantic water; one directed down the prime meridian and the other occurring at mid-water in the Norwegian Deeps. Between these the temperatures were about 6.1 to 6.9°C . In the surface layers over the Norwegian Deeps and in the south-east corner of the area surveyed there was the cold (2° to 5°C .) run-off from the Baltic and Norwegian Coast.

Plankton

The main feature of the chlorophyll estimates was the presence of very dense concentrations in the cold water above the Norwegian Deeps. The flowering appeared to consist almost entirely of *Chaetoceros* species. Elsewhere there was a uniformly low chlorophyll concentration.

In the zooplankton, *Calanus* were comparatively abundant for the time of year. *Euphausiids* and *Sagitta elegans* were present in small numbers in most of the North Sea collections.

Clupeoid larvae were found in great abundance within, and to the west of, the Orkney-Shetland Channel. There was also an isolated collection containing many clupeoids in statistical square J21c (off the Norwegian coast). Of note was a collection in C17d composed entirely of fish eggs, mainly cod or haddock.

General

During the night of March 28, a large number of herring drifters, national unknown, were encountered in H19c. In an oblique plankton haul made at this time a herring, 16.7 cm. in length, was caught.

Towards the end of the trip the echo-sounder developed a fault, the trace disappearing for a few minutes and then returning, both occurring without any discoverable cause.

JOHN STEELE

12th April 1954Circulation:

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