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## CRUISE REPORT

F.R.S. "SCOTIA"

26th April-17th May 1958

"Scotia" sailed from Aberdeen at 1730 hours on the 26th April and proceeded to the first station, east of the Pentland Firth. Work continued uninterruptedly for forty-eight hours when deteriorating weather and a steering defect made it necessary to anchor in Tobermory Bay for a few hours, to carry out repairs.

"Scotia" then began the Clyde survey, and worked continuously until the 5th May, when she proceeded to Campbeltown for water and stores. Mr. Saville joined the ship there, and the survey was resumed on the following day. A call was made at Millport on the 7th to embark the samples taken by "Calanus" on previous herring larvae surveys. The Clyde work was completed by the 13th May, when "Scotia" returned to Campbeltown for stores. Sampling was repeated on the return passage to Aberdeen. A strike of dock engineers there made it necessary to proceed to Leith, where the vessel docked on the afternoon of the 17th May.

### Hydrography

Temperature and salinity observations were made at the standard depths at stations en route to the Clyde. The temperatures were in accordance with the conditions normally prevailing in these waters at this time. Carboys of sea water were filled for Dr. Johnston.

### Plankton

On passage to and from the Clyde samples were taken with 1 metre tow-nets. At the station to the east of the Pentland the catch consisted of almost pure Calanus on both occasions. On the line of stations along the north Scottish coast, on the outward journey, the samples were predominantly Calanus with evidence of a considerable phytoplankton bloom, of which Chaetoceros sp. and Thalassiosira sp. made up the greater part. On this line of stations, three weeks later, Calanus was still present in considerable numbers but was overshadowed by an abundance of euphausian furcilia. No exotics were noticed in any of these collections.

On the Clyde survey sampling was mainly by Gulf III Sampler, although some oblique tow-net hauls were made on a close grid over Ballantrae Bank for comparison with earlier cruises. Within the Clyde the abundance of plankton was generally low compared with that observed on the corresponding cruise last year. The richest plankton was in a patch extending across the Firth, from Kilbrennan Sound to Loch Ryan, in which the population consisted largely of young stages of Calanus, Temora and Meganyctiphanes. Parsiphae was noted at several stations in the North Channel and the entrance to the Firth of Clyde.

Herring larvae proved to be very scarce within the area surveyed. They were taken in small numbers over Ballantrae Bank, at a modal size of about 15 mm. Outside this area the only herring larvae encountered were of a similar size, and were recorded at one station off Irvine. Intensive sampling with the Young Fish Trawl, and some shore seining, also failed to locate any larger larvae of the 1958 brood, although at two stations the Young Fish Trawl gave considerable numbers of sprats at a size of about 7 cm.

Several hauls were made in the Ballantrae area to provide a bulk collection of plankton for Dr. Bentley. Some tows were made over the measured mile to the north of Arran to calibrate the flow-meter.

### Trawling

In all, eight trawl hauls were made on passage to and from the Clyde. On the whole these gave very poor catches, and were disappointing in that they provided very few cod for stomach analyses. A Cuckoo Wrasse was taken in one trawl haul in the South Minch. Two specimens of Crenilabrus melops were caught by shore seine in the upper reaches of Loch Fyne and one Gold-sinny at Otter Ferry.

ALAN SAVILLE.  
R. G. LAWRIE.  
11th June, 1958.