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CRUISE REPORT

F.R.S. "CLUPEA"

5th March-28th April, 1962

- Objectives
- 1) To study the production and subsequent dispersal of Clyde herring larvae.
 - 2) To take plankton samples for assessment of standing crop in relation to larval conditions.

Larval surveys

No major hatching took place on Ballantrae Bank until the last week of March. Thus compared with 1961 the main hatching in 1962 was about three weeks later. The estimated numbers of newly hatched larvae were considerably lower than in 1961. The best hauls were estimated to contain only two or three thousand larvae compared with hundreds of thousands in the previous year.

There was no indication that any major herring spawning had occurred in any area in the Clyde other than Ballantrae Bank. The drift of larvae from the Bank appeared to be relatively slow. Even at the end of the cruise the larvae were confined mainly to the easterly stations of grid I, close to the Bank. The final survey showed that the highest concentrations of larvae were still on the Bank.

Plankton Indicator samples

Indicator samples were taken regularly at the four corners of Ballantrae Bank and in addition samples were also taken at selected stations on grids I and II for the investigations on the standing crop in relation to larval condition factors. These samples are being worked up by the S.M.B.A. Oceanographic Laboratory at Edinburgh.

Hydrography

Drift bottles were released on Ballantrae Bank each time it was surveyed. Bottom current markers were released at selected positions off the north and south coast of Arran.

Temperature and salinity samples were taken at surface and bottom on grid II which was surveyed between 17th and 20th April. The temperatures at the surface ranged from 6.38°C to 6.86°C and at the bottom from 6.35°C to 6.86°C.

Experimental Work

On Tuesday, 24th April, tests were carried out with two H.I.B. experimental 'buoyant rope' drift nets. Mr. James (Engineer Consultant) and Mr. Duncan (H.I.B.) joined 'Clupea' for these tests which provided some important data on the behaviour and handling of these nets. Further tests will be carried out at a later date.

At the end of the cruise 'Clupea' returned to Buckie.

I. G. BAXTER
G. McPHERSON
D. P. SHARMAN
17th May, 1962.