

C R U I S E R E P O R T

F.R.S. "S C O T I A"

December, 1953.

OBJECTIVES: 1. Herring larval survey.
 2. Productivity sampling.
 3. Trawling.

NARRATIVE: "SCOTIA" sailed from Aberdeen at midnight of 4th-5th December and two-thirds of the larval survey were completed by the 10th when the ship went into Peterhead to get the echo-sounder repaired. The ship sailed next morning but in the afternoon the weather broke and only three more stations had been worked by the 15th. The ship then returned to Aberdeen for water and repairs to the radar and also the echo-sounder which had again broken down. "SCOTIA" sailed on the morning of the 17th and by the 20th the larval survey was completed and six of the productivity stations had been worked. The ship docked in Aberdeen at 0015 hours on December 21st.

HYDROGRAPHY: Temperature and salinity samples were taken at standard depths at selected stations and at surface and bottom at the remainder. Surface phosphate samples were taken at every station and 180 drift bottles released during the cruise.

PLANKTON: Over two hundred collections were taken using 2 m., 1 m. and high speed nets on the general survey and Hensen mincers at the productivity stations.

The area showed fairly uniform plankton distribution with the collections containing *Sagitta elegans*, *Pleurobrachia*, *Aglantha*, *Thomisto* and young cuphausids.

In the south western part of the grid *Luidia sarsi* appeared in fairly large numbers. *Galetta australia* appeared in the collections taken on the northern legs of the grid.

Herring larvae were generally distributed over the whole area but there was some indication of concentrations in two areas, of which one to the north was situated east of Wick, and the other to the south lay east of Berwick. These features were noted in the November survey.

TRAWLING: At each trawling position one $\frac{1}{2}$ -hour and one 1-hour trawl were required. Four of these were carried out satisfactorily, at one, the second trawl was off bottom; at the sixth position the trawl came fast and the warp parted.

GENERAL: The laboratory echo-sounder Kd.M.S.24 functioned badly throughout the cruise in spite of two efforts to repair it, and no useful traces were obtained.

JOHN H. STEELE
December 21, 1953.

CIRCULATION:

Mr. W. K. Rose (2)
Captain C. H. Champness
Mr. R. G. R. Wall
Mr. M. Graham
Dr. J. N. Carruthers
Mr. K. M. Rae
Dr. F. Devold
Mr. T. C. Jones

Mr. R. Walton
Captain Bruce
Captain McLaren
Mr. Jappy
Master "Silver Scout"
Mr. Smith
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