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## CRUISE REPORT

F.R.S. "SCOTIA"

2nd-22nd November 1960.

Narrative

The ship was delayed by bad weather and left Aberdeen on November 5th at 1400 hrs. It was intended to work the line of inshore stations on the way to the southern part of the herring larval survey area, but after completing only the three nearest stations it was necessary to shelter in Largo Bay. In the morning of the following day, the weather still being bad, it was decided to carry out the regular Nephrops survey in the relatively sheltered waters of the Forth. It proved impossible, however, to work the outer station and the ship returned to Largo Bay at 1500 hrs. Work was resumed at 600 hrs on November 7th. The remaining station of the Nephrops survey was picked up and the main work of the cruise began, to be carried on without interruption till 300 hrs on November 10th. A severe SE gale caught "Scotia" at 56°00'N 1°20'E, some 150 miles from the nearest shelter. A very stormy passage to Aberdeen followed, the ship arriving there at 1800 hrs on the same day. "Scotia" remained weatherbound until November 14th, on which day she left Aberdeen at 0930 hrs. Even then, however, work proved almost impossible and, having completed only two stations, shelter had to be sought in St. Andrews Bay, where the ship anchored and remained till 600 hrs on November 16th. Between the latter time and November 20th work progressed without interruption, although the weather was mainly uncomfortable. A considerable part of the survey area was covered but on November 20th the weather progressively deteriorated and forced interruption of work at 2300 hrs. There having been no prospects of early improvement in weather conditions, it was decided to return to Aberdeen. After a rough passage "Scotia" docked in Aberdeen at 1400 hrs on November 21st.

Herring Larval Survey

The intended programme of 74 Gulf III stations was largely completed, 64 stations having been worked. Only the northernmost line of stations had to be completely abandoned. Samples were collected and are now being examined.

Parasite Studies

Due to the weather conditions and consequent lack of time only 10 out of planned 17 trawl hauls were made. Satisfactory samples of the whiting gall-bladders were collected at most of the stations fished. At all these stations, as well as at the four Nephrops stations, cod was examined for the incidence of Porrocaecum. In the Firth of Forth it reached up to 33%. Outside the Forth the worm was found in cod along the coastal station, but not in the offshore fish.

Hydrography and Chemistry

Temperature, salinity, oxygen, phosphate and silicate samples were collected in accordance with the programme. Vertical differences in temperature were negligible, except in the NE and E of the area sampled. Surface temperatures ranged from 11.40°C in SW to 8.58°C in the East, bottom temperatures from 11.42°C in SW to 7.40°C in the East.

Five hundred bottom current markers and 20 drift indicators were released at 57°02'N 1°00'W and drift bottles were released at 33 stations.

Plankton

Plankton sampling was planned mainly for the northernmost line of the survey stations and had to be abandoned due to rough sea conditions only seven standard samples could be collected. These are now being examined.

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