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CRUISE REPORT

F.R.S. "SCOTIA"

6th - 26th November, 1959.

"Scotia" sailed from Aberdeen on the evening tide of the 7th November, and proceeded north to begin the herring larvae survey. The onset of a severe gale, after three stations had been completed made it expedient to seek shelter in the lee of the Orkneys. On the following morning a number of the crew reported sick, and "Scotia" proceeded to Kirkwall for medical aid. The deck-hand in question having been sent to hospital, and attempts to get a replacement having failed, the vessel left Kirkwall shorthanded on the morning of the 11th.

Thereafter work proceeded uneventfully until the evening of the 13th, when gales again intervened. By this time twenty-two further stations had been completed. After about twenty-four hours dodging it was reported that a steam pipe to the hydrographic winches was leaking and the engine room casing was holed. With no abatement in the weather it was decided to proceed to Leith for repairs. "Scotia" reached the Forth on Sunday morning. As no repairs would be done that day a temporary repair was made, to allow the Nephrops stations to be carried out before docking in Leith. Repairs were completed by the 18th, but weather delayed sailing until the evening of the 20th. Thereafter "Scotia" worked uninterruptedly until the morning of the 25th and completed another 40 stations. A further gale then made further operations impossible, and the vessel proceeded to dock at Grangemouth.

Hydrography:

Surface temperatures ranged from 11.6°C to 9.5°C with the highest temperatures in the north-west and lowest in the south-east parts of the survey area. In general temperature showed very little variation with depth except at the most easterly stations, north of 56°N, where bottom temperatures were 2-3° lower than those of the surface.

Plankton:

Herring larvae, although nowhere abundant, were taken throughout the area surveyed west of the prime meridian. They were present east of this only on the section along 57°50'N, on which small numbers were found out to 2°E.

The overall abundance of zooplankton was rather low with small individuals of Sagitta, euphausiid furcilia and Calanus being the dominant constituents. Clione limacina was of fairly frequent occurrence south of 57°30'N and east of 1°W, and Tima bairdii was also taken in several samples from this area, as well as in the north-eastern corner of the survey grid.

Trawling:

During a considerable part of the time that the ship was at sea a heavy swell precluded trawling. As a result only three tagging hauls were done. The catches from these were very small, resulting in only 71 haddock and 35 whiting being tagged. The routine Nephrops trawls in the Firth of Forth were completed but yielded very few "prawns", the largest haul being of 24 individuals at the most westerly station. Females were taken only at the most easterly position. The fish resulting from these hauls were also worked up. The largest haul was at the most westerly position where two baskets consisting predominantly of whiting less than 20 cms were taken. A total of 32 cod from the Forth hauls were examined for encysted worms, without any being found.

Echo-sounding:

The sounder was run continuously whilst at sea, and the annotated records brought back to the laboratory. The only echoes definitely ascribable to fish were about 15 small herring-like plumes, between 1°W and 0°30'W on the 57°50'N section.

ALAN SAVILLE

8th December, 1959.

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