R1/5 <u>In confidence:</u> Not to be quoted without reference to the Laboratory.

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CRUISE REPORT

F.R.S. "SCOTIA"

10th-25th November 1964

Harrative

"Scotia" left Aberdeen at 1530 on the 10th November in good weather. Current indicators were released at the four standard positions on Turbot Bank and east of Wick, and ten stations in the Moray Firth, Orkney and Shetland areas were completed before a SN gale forced the ship to shelter at Fetlar on the 13th. Temporary improvements on the 15th and 16th enabled station 58, off Balta, and the two stations on the 61°01'N line to be worked, and on the 17th "Scotia" proceeded to Lerwick.

"Scotia" left Lerwick at 0900 on the 19th but no work was possible due to strong to gale SW winds and shelter was sought south of Mousa. Conditions had improved sufficiently the following day for work to be resumed and during the next four days eleven stations were completed in reasonably good weather. Gales in the evening of the 23rd hampered work but four more stations were occupied before the ship docked at Aberdeen at 1730 on the 25th November.

Hydrography and Chemistry

Full serial temperature observations and salinity samples were taken at a number of selected stations while at the remainder bottom and surface observations only were made. In the Moray Firth, Orkney and Shetland areas, temperatures ranged from 9.6° to 10.6°C, there being little difference through the water column from surface to near bottom; temperature inversion had taken place at some Moray Firth stations. At the offshore stations, surface temperatures ranged from 9.5° to 10.1°C and bottom, from 7.2° to 10.0°C.

Drift bottles were released at 23 stations.

Samples for oxygen, phosphate, nitrate and silicate determination were taken from the surface and bottom at all stations.

Plankton

Gulf III samples were taken at all stations while additional sampling with 1 m 26 mesh nets and standard nets was obtained at selected positions.

Samples were taken from the pumped sea-water supply for chlorophyll estimation.

Trawling

A vinge trawl with a small mesh codend was used throughout; no damage was sustained to the gear. Small haddock and whiting (both 1962 broods) were the predominating species and good catches per one hour haul were obtained at station 67 in El3a (45 baskets), station 49 in El8d (35 baskets), station 48 and Dl8b and 35 in El6b (20 baskets each). Catches of flatfish, cod, small gadoids and other species were, in general, small.

Gall bladders of 20 whiting from each statistical square and eyes of whiting containing <u>Gilquinia squali</u> were preserved. The incidence of <u>Bucephaloides gracilescens</u> in whiting and <u>Porrocaecum decipiens</u> in cod was noted.

General

The echosounder was run as continuously as possible, but nothing of particular interest was seen.

D. J. SYMONDS

11th December, 1964.