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CRUISE REPORT

F. R. S. "SCOTIA"

November 1954.

NARRATIVE

"Scotia" sailed from Aberdeen on the morning of the 7th November and worked a few stations on the east coast in moderate weather. Following deterioration in weather, operations were confined for a brief spell to sheltered stations within the Moray Firth. Subsequently Scotia was compelled through stress of weather to come to anchor off Deer Ness (Orkney) at mid-day on the 10th where wind speeds up to 105 m.p.h. were recorded on the 11th. On the 12th November a few stations were worked en route to Lerwick where "Scotia" docked on Saturday 13th to take on water and to disburse fortnightly pay to the crew. From the 14th to 17th November, the remaining stations to the east were completed, making 72 in all. The 17 stations that were omitted lay to the west of Orkney, which region "Scotia" was never able to visit owing to the prevailing weather. "Scotia" docked at Aberdeen at 7 p.m. on the 17th November, a day ahead of schedule.

HYDROGRAPHY

Charts of surface temperatures, oxygen and phosphate values are appended. Except for two stations on the prime meridian (58°30'N and 59°30'N) complete mixing had taken place, giving bottom values almost the same as for surface. These two stations, where temperatures and oxygen values at the bottom were lower than at the surface, mark the western boundary of the more stable central North Sea.

Drift bottles were released at 10 stations.

PLANKTON

An aggregate of 138 oblique hauls were made with the 1 m nets (26 and 60 mesh). Collections were from fair to good for this time of the year.

Over the whole area Pleurobrachia, Sagitta elegans and Calanus were predominant. Salpa fusiformis and Galettta australis were noted in area D10b and Limacina retroversa in D16a. Herring larvae of the 15-20 mm size group were in evidence in the southern boundary of the Moray Firth, on Turbot Bank and to the east of the Pentland Firth, although numbers were not outstanding in any collection.

ECHOSOUNDING

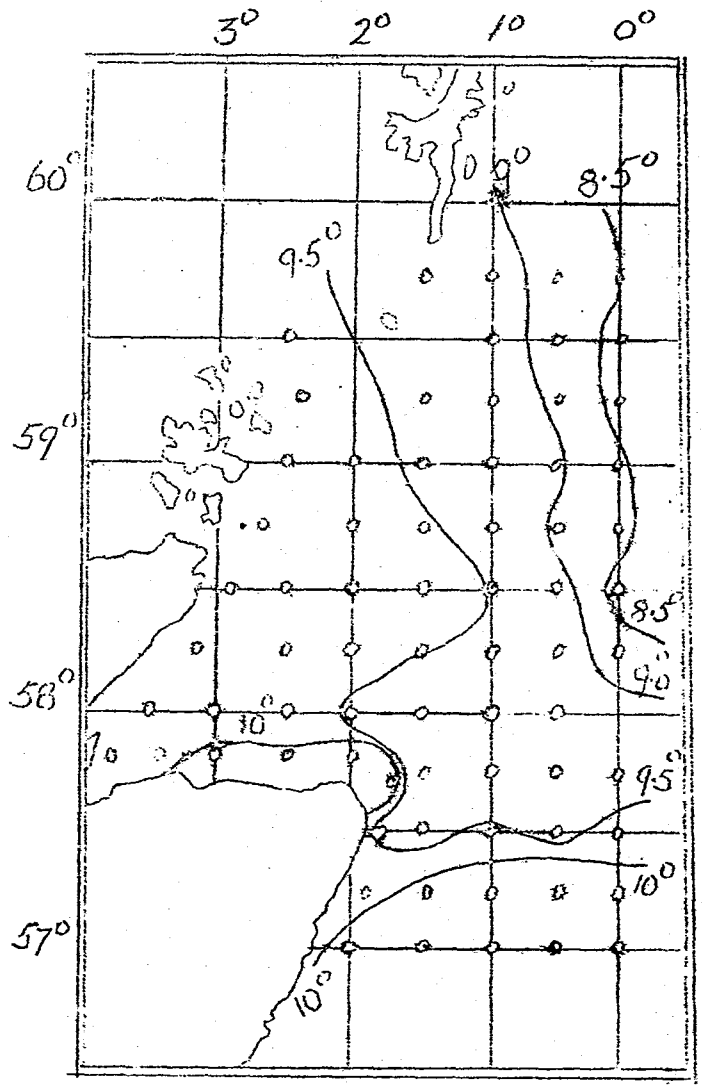
The M.S.24G was kept in operation as often as the very poor weather conditions would allow. The replacement of the converter unit has removed the major interference and although a vertical line interference now persists at about 10 and 40 fm. levels, this probably can be eliminated. Good recording was possible after a few adjustments, although the initial suppression was still slightly excessive. Careful setting of the gain control is necessary. A few clear mid-water traces were obtained and results clearly indicate that this equipment is now greatly improved. Comparison with the results from the modified layout on "Scotia's" next cruise should prove interesting.

CIRCULATION

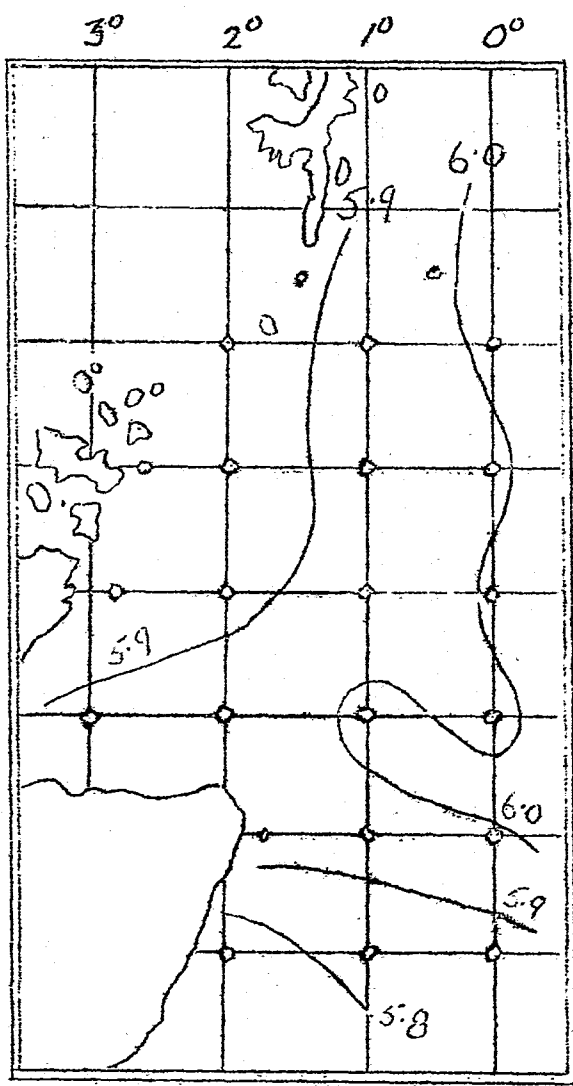
Mr. Wall  
Mr. M. Graham  
Dr. J. N. Carruthers  
Mr. W. K. Rose  
Captain C. H. Champness  
Mr. F. S. Russell  
Mr. K. E. Rae  
Dr. G. Reay  
Dr. E. Leloup  
Dr. A. Taning  
Dr. J. Ancellin  
Prof. A. Bückmann  
Dr. B. HAVINGA

Mr. U. Stefansson  
Mr. G. Rollefson  
Dr. A. R. Molander  
Captain Bruce  
Captain McLaren  
Mr. Jappy  
Mr. Smith  
Mr. T. C. Jones  
Mr. G. S. Gault  
Dr. Lucas  
Dr. Wood  
Dr. Tait  
Dr. Fraser

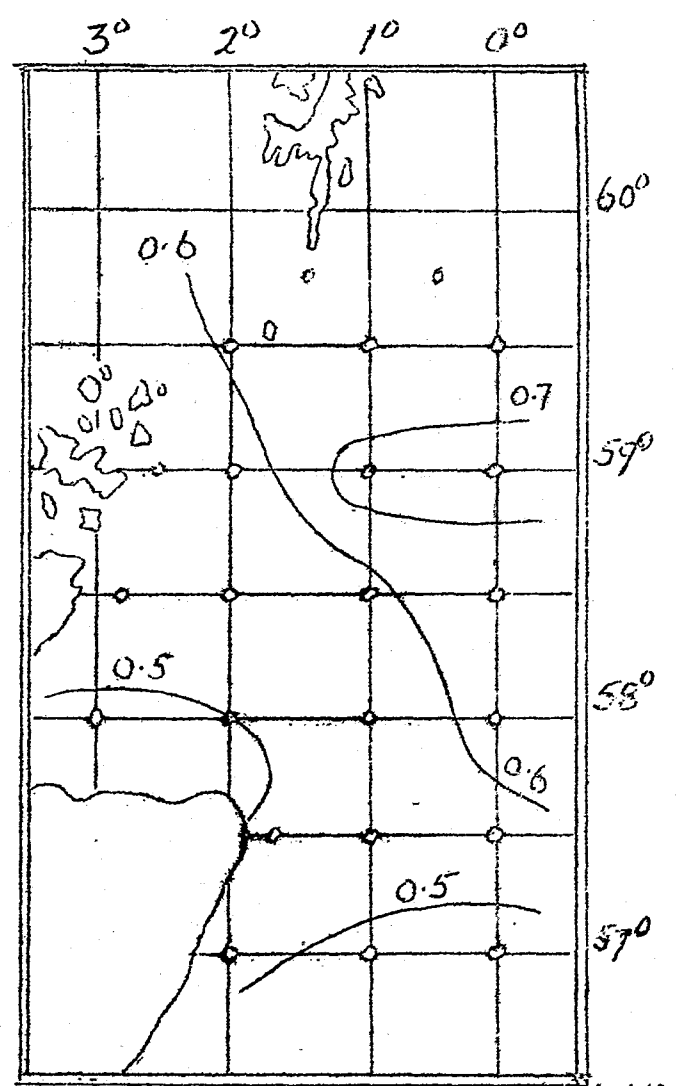
R. B. BURNS  
24th November, 1954  
Mr. Connolly  
File  
Mr. Parrish  
Mr. Saville  
Mr. McIntyre  
Mr. Jones  
Mr. Steele  
Mr. R. B. Burns  
Mr. R. G. Lawrie  
Mr. A. Corrigan  
Circulation 3  
Library  
Spare 4



SURFACE TEMPERATURES



SURFACE OXYGEN IN  
C.C.'s/L



SURFACE PHOSPHATE IN  
μ gm.-a. PO<sub>4</sub> P/L

SCOTIA NOVEMBER 1954.