

Confidential: Not to be quoted without previous reference to the Laboratory.

S.16

CRUISE REPORT

9 SR 54

F.R.S. "SCOTIA"

26th November - 18th December, 1954

Storms of greater or less intensity almost entirely precluded the scientific work of the projected cruise programme during the above period. "Scotia" remained weather-bound in Aberdeen until Thursday morning, 2nd December. A lull in severe weather conditions, which proved, however, short-lived, prompted sailing early that morning to commence the herring-larvae survey from the southmost section off Aberdeen but after only two stations completed, working conditions became impracticable. "Scotia" returned to Aberdeen where she again remained weather-bound until Monday 6th December.

Acting on the weather conditions then forecast, passage was made to the north-east of Shetland with the object of attempting the 61°01'N latitude hydrographic section to Norway. Much worse conditions were met than was anticipated, but after sheltering for a night in east Shetland waters the section was begun on 8th December. Four stations were completed before south-easterly gales again increased to such intensity that "Scotia" put back to Shetland.

A final attempt on this line was made on the 11th December, but had to be abandoned after only one station was worked.

Thereafter, weather conditions to the north-west of Shetland having improved, the Shetland to Faroe hydrographic section was begun on 13th December. At the third station (the first deep water station) the amidships hydrographic winch failed completely, the deepest reversing water bottle having to be taken in by hand-hauling. Examination of the winch revealed the necessity for a major repair in dock. The section had therefore to be abandoned in the limited time remaining to complete the cruise.

Course was set for the outermost station of the herring larvae survey to the north-west of Orkney, but about half-way to the position south-easterly gales recurred and were forecast to be severe in this region. "Scotia" thereupon put about to Lerwick by way of Yell Sound.

It was obvious by this time, in view of succeeding forecasts of severe weather, that little if any more effective work would be possible before the terminal date of the cruise. It was decided therefore on 14th December, with gale warnings still operating, to make course for Aberdeen where "Scotia" docked at 4 p.m. on the following day.

Sea temperatures of just over 9°C encountered immediately south-eastward of Aberdeen on 2nd December were only slightly lower than those registered from surface to bottom on latitude 61°01'N from the north of Shetland out to longitude 1°E a week later. Fifteen miles further east, on the same latitude, the temperature from surface to bottom was about 1.5°C lower, at about 7.75°C. North-west of Shetland again readings in excess of 9°C to over 9½°C characterised the upper 200 metre water layer.

Plankton collections throughout were relatively poor, comprising for the most part Calanus.

Two tests were made with the Carruthers' Current Cone. At the position 61°01'N 1°00'E a current speed of 0.7 knots from the direction of 321° was registered at about 14.7 metres' depth, that is, at one metre approximately above

the bottom. The second test carried out at 60°56'N 1°00'W in 103 metres, again about one metre above the sea floor, unfortunately failed to register a current speed within the scale of the instrument, namely, 0-3 knots. The angle of the current recorded was 255°.

J. B. TAIT

21st December, 1954.

Circulation:

Capt. C.H. Champness
Mr. Wall, M.A.F., London
Mr. M. Graham
Dr. J. N. Carruthers
Mr. W. K. Rose
Mr. F. S. Russell
Mr. K. M. Rae
Dr. G. Reay
Dr. E. Leloup
Dr. A. Taning
Dr. J. Ancellin
Prof. A. Buckmann
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, W.F.A.
Mr. G. S. Gault, W.F.A.

Dr. Lucas
Dr. Wood
Dr. Tait
Dr. Fraser
Dr. Rae
Mr. Parrish
Mr. Saville
Mr. McIntyre
Mr. Steele
Mr. Sinclair
Mr. Lovegrove
Mr. Seaton
Mr. Baird
Mr. Connolly
Circulation 3
Library
File
Spare 4.
Mr. Jones