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## CRUISE REPORT

F.R.S. 'SCOTIA'

31st July-21st August, 1959

### Objectives

The primary objective of the cruise was to determine the extent of the Norway lobster grounds off the west coast of Scotland. In addition a limited programme of hydrography and plankton observations was detailed.

### Method

Agassiz trawls were found not to give adequate samples and the investigation was thereafter confined to the use of the otter trawl. Sixty-three hauls of one half-hour duration were made in the North and South Minch.

### Norway Lobsters

Good hauls of Norway lobsters were found throughout the North Minch and Inner Minch. Further wide concentrations were found in the South Minch to the south and south-east of Barra Head, east of Tiree, and to the south-east of Mull. Whilst the number taken per half-hour trawl varied considerably, a high density (205) was found in Eddrachillis Bay, in the northern part of the Inner Minch (156) and south-east of Tiree (170). In all nearly 2,500 Norway lobsters were sexed and measured, about 92% being male. The mean size of the males was 4.2 cm carapace length, that for the females 3.2 cm. The percentage length composition is given in the table below.

Carapace Length (cm)	2.0- 2.4	2.5- 2.9	3.0- 3.4	3.5- 3.9	4.0- 4.4	4.5- 4.9	5.0- 5.4	5.5- 5.9	6.0- 6.4	6.5- 6.9	7.0- 7.4
Males %	-	1.7	8.1	15.9	20.5	18.7	14.3	8.2	3.5	0.9	0.1
Females %	0.3	1.9	3.7	1.8	0.4	0.0	-	-	-	-	-
All Classes %	0.3	3.5	11.8	17.6	20.9	18.8	14.3	8.2	3.5	0.9	0.1

### Trawling

Catches of fish in the trawls were good, comprising mostly marketable sizes. The commonest species taken was whiting (11.4 per half-hour haul) followed by haddock (7.2), hake (5.4) and saithe (4.5) in that order. Whiting were otolithed and other species dealt with in accordance with standing instructions. Contents of cod stomachs were recorded and the flesh examined for parasites.

### Hydrography and Plankton

Temperature and salinity samples were taken at surface and near the bottom at 53 stations. A further 13 stations, 10 in the North Minch and 3 in the South Minch, were sampled at all standard depths. Surface temperatures ranged from 10.14°C off the Shiant Isles to 15.51°C for the west coast of Rhum. Isolated areas of water in excess of 15°C were recorded between Coll and Tiree and off Barra the bottom temperatures ranged from 9.72°C at a position 15 miles south of Barra Head, to 13.70°C between Mull and Collinsay. Plankton samples were taken along a line running North-South through the Minch. Calanus sp. were abundant at all positions.

H. J. THOMAS.  
2nd September, 1959.

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