IN CONFIDENCE: Not to be quoted without reference to the Laboratory.

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CRUISE REPORT

F.R.S. "S C O T I A"

4th-31st July, 1964.

Narrative

F.R.S. "Scotia" sailed from Aberdeen on the 4th July and on passage to the Firth of Clyde worked the plankton and hydrographic stations detailed in the station list. Sampling of Norway lobster stocks and further plankton and hydrographic investigations were undertaken in this area, and subsequently in the Sound of Jura, South Minch, Inner Minch, North Minch, Noup Deep, Moray Firth and the Firth of Forth. The cruise concluded at Granton on the 31st July.

Method

Norway lobsters and white fish were sampled by a Nephrops trawl of about 70 mm mesh in the wings and bag. The cod-end mesh averaged 68 mm. The net was rigged with a minimum number of floats on the headrope and towing speed was reduced as far as possible. A courlene whole cover was attached to the cod-end. A total of 122 half-hour trawl hauls was made.

Norway lobsters were tagged by means of a plastic disc fixed to the basal joint of the chela.

Norway lobsters

Investigations were undertaken in all the main areas of Norway lobster distribution quoted above. A total of over 51,000 Norway lobsters were measured and classified as to sex and condition. The stock composition of male Norway lobsters by areas is shown in Table 1.

Tagged Norway lobsters were released in the Clyde (1000), South Minch (400), North Minch (1000) and Moray Firth (2300).

Underwater photographs were taken on the Norway lobster grounds both with the moored camera and with a camera attached to the trawl headrope.

The stomach contents of white fish, taken in hauls where the catch of Norway lobsters was high, were examined.

White fish

The most common of the commercial white fish species taken in the Clyde was whiting (1283), hake (214), witch (35), cod (26) and haddock (26). On the west coast grounds the most common species were whiting (2875), haddock (2237), witch (826), hake (207), megrim (99), cod (78) and lemon sole (54). Haddock (640) predominated on the Noup grounds followed by whiting (229), megrim (185), witch (84), lemon sole (63), cod (24) and hake (5). Haddock (4233) also predominated in the Moray Firth, again followed by whiting (2688), plaice (234), witch (207), lemon sole (201), cod (87) and hake (81). For the Firth of Forth the order was whiting (4417), haddock (2345), plaice (1124), cod (759) and lemon sole (248).

Cod were examined for nematode parasites and other species were dealt with according to standing instructions.

Routine echo-sounding was undertaken throughout the cruise.

Hydrography

Temperature and salinity samples were taken from standard depths in all areas. Current indicators were released at 57°25'N 00°50'W.

Plankton

The samples taken off the N.E. coast were poor in crustaceous material. The dominant organisms were Pleurobrachia, Beroe and Coshetira. On the N. coast and in the Northern Minch Salpa fusiformis was present in fair numbers and although Medusae were abundant in these areas Calanus and the smaller copepods Acartia, Temora and Oithona were well represented in the collections.

Salpa fusiformis had also penetrated to the inshore stations on the W. coast along with a flourishing and varied medusoid population.

H. J. THOMAS
2nd December, 1964.

TABLE 1

F.R.S. "S C O T I A" JULY 1964

The percentage size composition in 5 mm carapace length groups of male Norway lobsters in specified areas round Scotland, together with the number of individuals sampled and the mean carapace length in mm.

Area	No. in sample	10–14	15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54	55–59	60–64	65–69	70–74	Mean
Firth of Clyde	6601	+	1.7	15.0	33.0	27.0	13.4	6.6	2.5	0.8	0.1	-	-	-	30.1
West of Scotland	3885	-	2.0	21.2	33.6	23.7	11.6	4.8	2.1	0.9	0.2	+	-	-	29.6
North Minch	6085	-	+	3.9	17.8	25.2	21.9	15.6	8.7	4.2	1.8	0.7	0.2	+	36.2
Noup	1571	-	-	0.1	9.3	36.8	25.5	17.2	7.1	2.8	1.0	0.1	-	-	36.4
Moray Firth	7740	-	1.6	20.1	39.3	19.0	14.3	4.5	1.1	0.2	+	-	-	-	29.2
Firth of Forth	1002	-	4.7	9.7	17.9	15.6	14.8	13.7	11.3	9.1	2.7	0.7	-	-	35.9