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CRUISE REPORT

F.R.S. "SCOTIA"

21st May - 4th June, 1960.

"Scotia" sailed from Aberdeen at 1000 hours on 21st May and proceeded direct to the Balta grounds commencing the comparative trawling work on arrival there at 1030 hours the following day. With the exception of one day (24th), when a northerly gale stopped operations, the daily trawling scheme was carried out without interruption until the night of the 29th when a call was made at Lerwick for water and stores. Leaving there on the 31st the Foula grounds were then worked until 1400 hours, 2nd June, when passage was made to the Firth of Forth. The nephrops survey of that area was carried out on arrival there at 1900 hours 3rd June until 0400 hours 4th June when "Scotia" proceeded to Leith, docking at 0830 hours.

One of the two hydrographic stations at Flugga and two of the three scheduled plankton stations were occupied.

Comparative Trawling:

The eight-day trawling design was completed, seven at Balta and one at Foula. Two additional hauls were made on the latter grounds to augment plaice for tagging. At Balta initial hauls were not entirely satisfactory but by adding sweeps and with the fortunate departure of dogs which temporarily invaded the grounds, suitable catches of haddock were obtained to carry on tests. Additional haddock data were obtained on the 8th day at Foula. Whiting, both at Balta and Foula, were in too small numbers to provide satisfactory test material. On the other hand, useful codling selection data occurred in some hauls on both grounds. The results are being analysed.

Tagging:

Four hundred plaice (250 on the Balta grounds and 150 at Foula) and 183 spur-dogfish (mostly at Balta) were tagged and released.

Other Requirements:

Standing instructions were duly observed and all other programme and additional requirements attended to. Nematode infestation of cod was high on the Balta grounds (23%), nil at Foula and 15% in the Firth of Forth. At Foula Ammodytes formed the exclusive food of all species including cod: samples were preserved from stomachs to augment the few present in the cover. Small lemon soles ranging from 12 to 23 cm were outstanding in the Foula hauls. Herring (175, range 23-32 cm, and predominantly stage II maturity) occurred in one of the Balta hauls.

Nephrops survey:

Forty-two nephrops, range 29-63 cm, and mostly males, were taken in the four 1 hour hauls; 40 of these occurred at Station 2 (east of May Island). Fish catches were very poor, the best being at Station 2 (codling and small whiting) and plaice at Station 3 (off Fidra). Sprats with an admixture of immature herring occurred at all stations.

Hydrography:

Temperatures at the Flugga Station were 9.81°C at surface and 8.25°C at bottom, with a thermocline between 50 and 70 m.

Plankton:

The two stations north and south of Fair Isle yielded fairly abundant collections of Calanus with an admixture of Anomalocera and young fish.

Echo-sounding:

The MS 24 J was run from Rattray Head to Balta, from Flugga to Balta and from Foula to off Aberdeen. Small traces were observed off Flugga and on the Foula to Aberdeen line.

J. M. LAMONT
17th June, 1960.

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