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

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CRUISE REPORT FRV EXPLORER

June 14 - July 6 1977

Personnel: J R G Hislop SSO (in charge)

A W Newton HSO
A P Robb SO
K A Coull SO
S J Hay SO

Objective :

To take part in an international travling survey of pelagic O-group gadoids in the North Sea.

Narrative :

Sailing was delayed until 1400 hours on June 20 because of difficulties in making up a full complement of engine room crew. Two hauls were made in the Buchan Ness area before 'Explorer' was forced to anchor off Clyth Ness whilst leaking condenser tubes were replaced. Work began again on June 22 and continued without interruption until June 27, when a short call was made at Lerwick to allow a crew member to be examined by a doctor. A further 13 hauls were made round the Shetland and Orkney Islands but on June 30 more leaking condenser tubes were discovered and the ship went to anchor in Inganess Bay (Orkneys) for 24 hours. After temporary repairs had been made, the JONSIS hydrographic line was worked and trawling recommenced to the east of the Orkneys. However, it was soon discovered that the condenser was still leaking and, after completing a number of trawling stations in the outer Moray Firth, 'Explorer' proceeded to Aberdeen for repairs, docking at 1100 hours on July 4.

Results:

a) O-group gadoids. Catches of cod, haddock, whiting and Norway pout were low, compared with those in previous surveys. In part this was due to the fact that the statistical rectangles assigned to 'Explorer' were in the western part of the survey area, where catch rates tend to be lower than in the more prolific region to the east of Shetland. The largest catches of cod were in rectangles 49E9 (73 fish) and 46E5 (13 fish, 33 fish). Haddock were scarce in and around the Moray Firth and the highest catches were in rectangles 50, 49, 48 and 44 E9 (24, 340, 28 and 49 fish respectively). Haddock were caught in all rectangles fished to the west of the Orkney and Shetland Islands, though never in large numbers. The largest catches of whiting were made to the west of the Orkneys, elsewhere this species as scarce. Norway pout were caught in small numbers (< 50 fish) in most rectangles, the only sizeble haul (2700 pout) being in 49E9. No blue whiting and only a single saithe were caught.

Samples of O-group gadoids were deep frozen for use by Torry Research Station and the Lowestoft Laboratory.

- b) Other species. The main by-catches were, as usual, sprats and sandeels. Otoliths were collected from both species on an area basis and 86 pairs of sprat ovaries were preserved in formalin for fecundity studies.
- c) Macroplankton. Scyphomedusae were present in most hauls. As in previous years <u>Aurelia aurita</u> was the most abundant species, particularly in the Moray Firth (11550 in 44E7). <u>Cyanea spp.</u> were present generally in low numbers apart from two hauls

where 311 <u>C. capillata were caught east of Shetland (49E9) and 209 <u>C. lamarckii were caught off Buchan Ness (44E8)</u>. The hydromedusa <u>Staurophora mertensi</u> was notably abundant also in 44E8 where approximately 17500 were caught in one haul.</u>

JOHN HISLOP 13 July 1977

Seen in draft : J W GILLON

