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Cruise Report

FRS 'Explorer'

16 June - 2 July, 1976

Personnel:

Dr J Hislop	SSO
Mr A S Jermyn	HSO
Mr A P Robb	SO
Mr K A Coull	SO
Mr S J Hay	SO
Mr E Owens-Smith	ASO

Objective

International pelagic trawl survey of young gadoids.

Narrative

Trawling began west of the Orkney on 16 June. After completing five stations, 'Explorer' called at Scrabster on the afternoon of 17 June to land Mr Forbes and pick up Mr Jermyn. Between 18 and 21 June 15 stations were worked to the east of the Orkneys and Shetlands and 'Explorer' put in to Lerwick for the mid-trip break on the morning of 22 June. 'Explorer' left Lerwick on the morning of 23 June, after which two days were spent lying at anchor in Lerwick Bay awaiting the arrival of a replacement crew member. During this period 400 handline-caught haddock were tagged and Messrs Hislop and Robb spent 14 hours working aboard the Netherlands research vessel 'Tridens' which was also taking part in the international survey. Work recommenced on 26 June in the Fladen area and a further 17 hauls were made before 'Explorer' docked at Aberdeen in the evening of 1 July.

Results

Trawling

'Explorer' worked 37 of the 42 trawl survey stations that had been allocated to her. Because the distribution of these stations was rather scattered, it is not possible at this stage to make definitive statements on the abundance or distribution of young gadoids in 1976 as compared with earlier years. However, preliminary impressions are that cod were more abundant than usual and compared with 1976, haddock showed a wider distribution although individual catches were rather low. Whiting were scarce east of 01°E, the largest numbers being taken off the north and east coasts of the mainland of Scotland.

Scyphomedusae taken with the trawl were measured and counted. Aurelia aurita was the most abundant species and was taken in larger numbers than in 1975. Cyanea lamarcki and Cyanea capillata were as numerous as in 1975. North of 58°30'N all three species had wider and more southerly distributions than in 1975. South of this latitude these species were found closer inshore than in 1975. A.aurita was most abundant in the Moray Firth and in statistical rectangle 42EF as was C lamarcki. The latter was more abundant than C capillata at all stations save those off the north coast of Scotland. Pelagia noctiluca was found off the east coast of Scotland, particularly in the Moray Firth. Qualitative data were collected on Hydromedusae, Ctenophores, Euphausiids and other macroplankters encountered. Staurophora mertensi was abundant off the east coast of Scotland and in the Moray Firth.

### Environmental Work

36 hauls were made with the Loch Ewe high speed plankton sampler and 36 chlorophyll *a* samples were taken. Carboys of seawater were collected at a station within the FLEX box.

### General

Samples of sprat, sandeels and O-group gadoids were collected and frozen for the determination of weight-length relationships. Sprat ovaries were preserved for Dr Bailey. Young gadoids were deep frozen for Dr Mackie (TRS). 400 haddock and 15 whiting were caught on handlines, tagged and released and approximately 50 line-caught cod haddock and whiting were brought back alive for use in the aquarium. Seven sightings of cetaceans were made during the cruise, including a school of 9 killer whales seen 30 miles east of Fetlar.

J Hislop  
5 August 1976

Seen in draft - J Main