

R1/4

FRV "Explorer"

Cruise 1/78

REPORT

20-24 January 1978

Objective

To carry out mid-water trawling to identify pelagic fish echo traces in collaboration with FRV "Scotia" in the north western North Sea.

Narrative

"Explorer" left Aberdeen on the afternoon of 20 January 1978 and proceeded to the St Ab's Head area. The Simrad EK50 echo-sounder was run continuously. Regular radio contact was maintained with FRV "Scotia" during the cruise. Efforts were made, time and weather permitting, to fish areas of dense mid-water echo-traces previously located by FRV "Scotia". A total of eight trawl hauls were made using a 600 HP Small Gadoid mid-water trawl with a 16 mm knotted nylon cod-end. Hauls were of 1 to 2 hours duration and were made at depths ranging from 3 m below the surface by night to 3 m off the bottom by day.

"Explorer" returned to Aberdeen in the evening of 24 January.

The short duration of this cruise was related to refitting problems experienced by the vessel at Grangemouth.

Results:

Three areas of dense echo-traces were identified:-

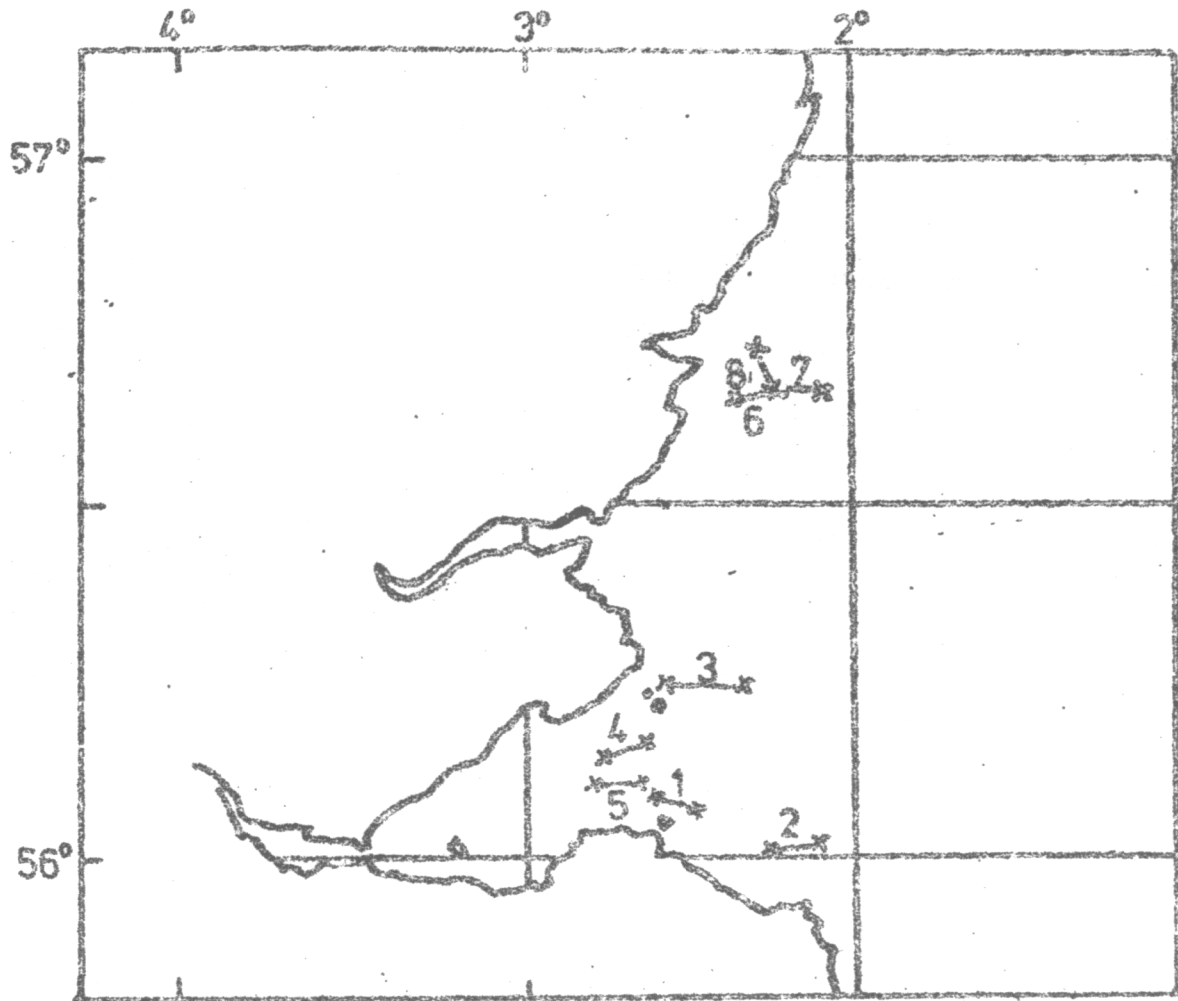
- a) 3 miles off Dunbar
- b) within the outer reaches of the Forth estuary
- c) 3-15 miles off Montrose.

Trawl hauls were made in each of these areas. All hauls contained large numbers of "yearling" sprats in the size range 5 cms to 8 cms with a mode at approx. 6.5 cms. A few larger sprats and sundry other fish species were also present. Off Dunbar large numbers of Euphausiids were taken whilst off Montrose; 1+ whittings and Pandalids figured in the catch. Catches were small, averaging  $\ll \frac{1}{2}$  basket and this can be related to the relatively large size of cod-end mesh (16 mm) and the small size of the sprats (6.5 cm).

Samples of 1+ whiting stomachs were collected for analyses at the Laboratory.

J Gauld  
6 February 1978

Seen in draft: J W Gillon



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