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FRV *Clupea*

Cruise 1293C

REPORT

14-25 June 1993

Personnel

D Reid	SSO (in charge)
P Copland	HSO
I Gibb	SO
M O'Neill	Visitor
D Burns	Visitor (Marine Microsystems) 14 June

Objectives

1. To carry out installation and testing of Roxann seabed discrimination system
2. To conduct a series of small, detailed acoustic surveys, on herring school structure and location.
3. To collect Roxann data along with acoustic data.

Out-turn days per project: 12 days EDE 1

Narrative

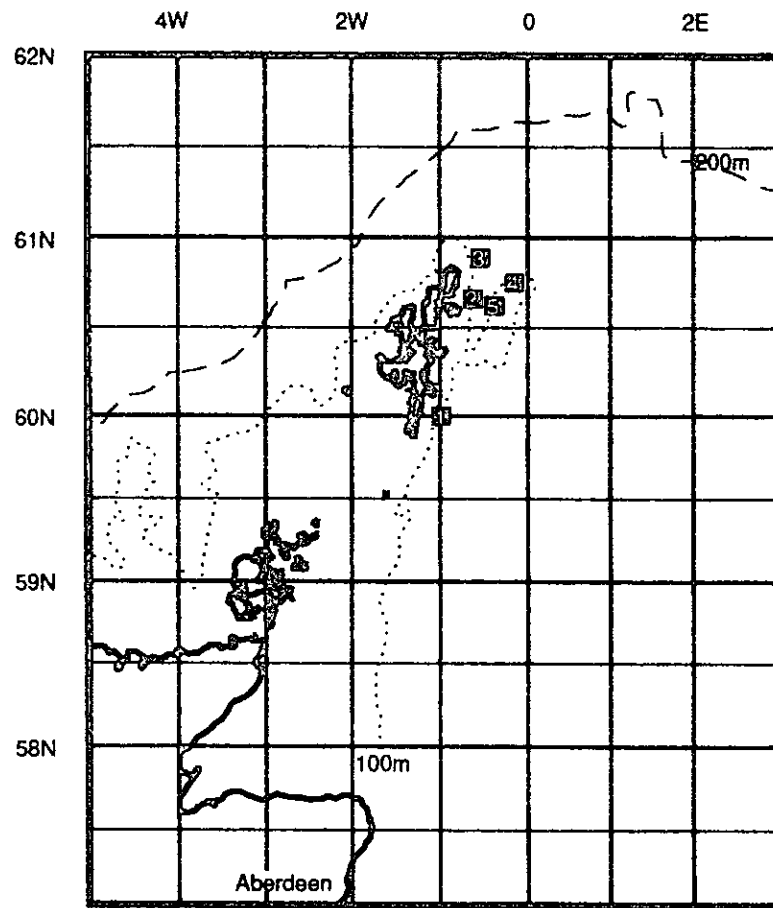
Scientific staff and D Burns joined *Clupea* at Fraserburgh in the morning of 14 June. Roxann gear was installed and tested. The vessel then steamed into deeper waters to test Roxann gear. This was completed by 2400h and D Burns was returned to Peterhead. *Clupea* then steamed to the first work area approximately 10 miles east of Sumburgh, where commercial fishing activity was in progress. A 24 hour survey was carried out. The study involved repeat acoustic surveying over a small area approximately 5 x 5 nm. The vessel then steamed to an area approximately 30 nm east of Fetlar, where an area 10 nm NS and 2 nm EW was surveyed repeatedly over 24 hours. Another area, approximately 15 nm north was then surveyed as there was some fishing activity in the area. After an overnight stop at Lerwick the vessel steamed to an area around Pobie Bank, approximately 25 nm east of Muckle Flugga, and the pattern described above was repeated. The last site studied was about 10 nm further south.

Fishing operations were carried out successfully for herring. Weights, lengths, maturity and otoliths were recorded from each catch. All catches were examined for presence of *Ichthyophonus* infection. The vessel steamed to Fraserburgh for unloading on the morning of 25 July, and scientific staff returned to Aberdeen. Good contact was maintained throughout with the Fisheries Office in Lerwick and with commercial vessels working in the area. This resulted in very little time being spent in searching for suitable areas of herring concentration.

Results

Five different areas, with varying depths and bottom substrate and topography were studied. Concentrations of herring were identified in all the areas, and samples obtained. The data will be used in the study of variation in position and structure of herring schools and the relationship of these to the substratum.

D G Reid
8 April 1994



Survey Sites - Clupea 1293C