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FRV *Scotia*

Cruise 0992S

REPORT

13-31 July 1992

Personnel

E J Simmonds	PSO (in charge)
M E Medford (Mrs)	HSO
P J Copland	HSO
M A Bell (Ms)	SO
E Mendieta	British Council Student
D Williams	MSc Student (second part)
T Barton	Sea Birds at Sea
I Gordon	Sea Birds at Sea

Objectives

1. To participate in an ICES - coordinated acoustic and mid-water trawling survey in the north western North Sea and north of Scotland.
2. To obtain samples of herring for biological analysis.

Narrative

Scotia departed from Aberdeen at 1100 on 13 July 1992 and made passage north to Scapa Flow for calibration of the acoustic equipment. This was completed by 0430 on 14 July. The Echo-Integrator Survey was started at 0700, carrying out east-west transects from the Scottish coast to the Norwegian/UK line between 1° and 2°E. The cruise track is attached. The transects were carried out sequentially with a 15 mile spacing in a northerly direction. The western ends of the transects were terminated along the coast of Orkney and Shetland. Fishing was carried out on fish traces detected during the survey. *Scotia* briefly called at Scrabster at 1930 hrs on 16 July to take an additional fishing gear. *Scotia* sailed for a half-landing on 22 July after reaching 60°36'N on the survey grid and docked in Lerwick at 0900.

Scotia sailed from Lerwick at 0900 on 23 July and proceeded to Dales Voe for a second calibration. This was completed by 1200 and we sailed to restart the survey grid at 60°51'N at 1730. The survey progressed north reaching the northern transect limit of 61°51'N on 26 July. *Scotia* then continued the survey southwards following the same transect design to the west of Shetland. The western ends of the transects were terminated at approximately the 500 m depth contour or just short of 4°W which ever was the shorter. The grid was finished at 1600 on 30 July at 59°36'N 2°15'E. *Scotia* sailed to Aberdeen and docked at 0630 on 31 July at the end of the cruise.

Data collection:

The 15 mile spacing survey grid provided 920 Echo Integrator 2.5 mile runs. Twenty four pelagic trawls were carried out to obtain identification and biological samples. Some initial problems with fishing were overcome by the second half of the cruise. From these hauls 12 provided samples of herring which were sampled for length, weight (500 fish), age, sex, maturity and the presence of ichthophonus (1020 fish). In addition surface temperature and salinity readings were logged automatically throughout the cruise. Sea bed type data (RoxAnn) was collected throughout the cruise.

Results

Data on abundance of herring at age, sex and maturity remain to be worked up. The occurrence of ichthophonus was quite low with six of 12 herring samples giving zero incidence and only one haul at greater than 5%.

E J Simmonds
10 September 1992

Seen in draft: Captain P Ramsay

