

Not to be cited without prior reference to the Laboratory

FRV SCOTIA

Cruise 0993S

REPORT

10-30 July 1993

Personnel

E J Simmonds	PSO (in charge)
D N MacLennan	DCSO (20-30 July)
M E Medford (Mrs)	HSO
P J Copland	HSO
K Patterson	HSO (10-20 July)
M A Bell (Ms)	SO
J Milne	Visitor (Ireland)
X Challen	Visitor (Ecuador)

Objectives

1. To participate in an ICES coordinated acoustic and mid-water trawling survey in the northwestern North Sea and north of Scotland between 58°30' to 62°N and 4°W to 2°E excluding Faroes waters.
2. To obtain samples of herring for biological analysis, including age, length, maturity and ichthyophonus infection rates.

Narrative

Scotia departed from Aberdeen at 1000 on 10 July 1992 and made passage north to Scapa Flow for a calibration of the acoustic equipment. This was completed by 0330 on 11 July. The echo-integrator survey was started at 0430, carrying out east-west transects from the Scottish coast to 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* sailed for a half-landing on 20 July after reaching 60°35'N on the survey grid and docked in Lerwick at 0830. *Scotia* sailed from Lerwick at 0800 on 21 July and proceeded to Gulberwick Bay for a second calibration. This was completed by 1200 and she sailed to restart the survey grid at 60°35'N at 1600. The survey progressed north reaching the northern transect limit of the area at 61°50'N on 22 July. *Scotia* then continued the survey southwards following a similar transect design to the west of Shetland. The western ends of the transect were terminated at approximately the 300 m depth contour or just short of 4°W whichever was the shorter. The grid was finished at 1430 on 29 July at 58°40'N 03°30'E. *Scotia* sailed to Aberdeen and docked at 0800 on 30 July at the end of the cruise.

Data Collection

The 15 mile spacing survey grid provided 1047 echo integrator 2.5 mile runs. Forty-five pelagic trawl hauls were carried out to obtain identification and biological samples. From these hauls 33 provided samples of herring which were sampled for length, weight (1400 fish), age, sex, maturity and the presence of ichthyophonus (3273 fish). In addition surface temperature and salinity readings were logged automatically throughout the cruise. Sea bed type data (Rox Ann) was collected throughout the cruise.

Results

Data on abundance of herring at age, sex and maturity remain to be worked up. The occurrence of ichthyophonus was quite low, with 19 of 33 herring samples giving zero incidence and only three hauls at greater than 6%.

E J Simmonds
14 September 1993

Seen in draft: Captain P Ramsay

