

R1/12

Not to be cited without prior reference to the Laboratory

FRV *Scotia*

Cruise 2/91

2SR91

REPORT

29 January - 18 February 1991

Personnel

A W Newton	SSO
J A Gauld	HSO
A P Robb	HSO
R D Galbraith	HSO
G I Henderson	SO
D S Beveridge	SO
N S Collie	PTO
P Clark	ASO
J McWilliam (Miss)	ASO
J Simpson (Miss)	ASO
D J Tait	ASO
I Carter	Visitor

Objective

To take part in the ICES International Young Fish Survey in the North Sea.

Narrative

Scotia sailed from Aberdeen at 1130 on Tuesday 29 January and trawling began immediately off the Aberdeenshire coast. The survey proceeded steadily eastwards until the night of 1 February when *Scotia* was forced to steam to Sunderland to undertake essential repairs to the net winch. *Scotia* was back on station on 3 February and work in the eastern North Sea was completed before calling at Stavanger on Friday 8 February. *Scotia* sailed again the following morning and worked westwards and then north to the Shetland Isles, thence south to the Moray Firth. On 15 February, a one hour call was made at Peterhead to pick up extra fishing gear and then the survey was completed by working stations off the Firth of Forth. *Scotia* docked in Aberdeen at 0900 hours on Monday 18 February.

Results

A total of 66 one hour hauls were made using the GOV trawl. Initially the ground gear consisted of the standard set of 152 mm rubber discs but after some initial damage the discs were replaced with 305 mm bobbins. Short (47 m) sweeps were used for all tows

except for a limited number around the Shetland Isles when 97 m sweeps were used. Each haul was monitored for headline height, wingend and door spread and the speed of the net through the water. In addition, turbidity, light levels and bioluminescence were measured at the fishing depth for every haul.

Table 1 shows the preliminary indices for the principal species sampled during the survey. The index is based on the numbers of fish per hour caught below a length selected as a probable upper delimiter of 1+ fish. These indices are liable to some revision after the ages of the various species are confirmed. The preliminary data indicate that whiting continue to show strong recruitment and that while haddock show an improvement over previous years the 1990 year class is not as strong as hoped for. Cod continues to give cause for concern.

Sixty-five hauls were made with the Isaacs-Kidd midwater trawl.

Top and bottom temperatures, salinities, phosphates, nitrates and silicates were taken at all trawling stations and in addition extra hydrographic work was carried out at North Sea Task Force Stations.

A W Newton
15 April 1991

Seen in draft: W MacKenzie, OIC

TABLE 1

Indices of 1+ fish from recent Young Fish Surveys

Year	Herring	Cod	Haddock	Whiting	Norway pout	Mackerel
1991*	2,358	4.3	628	948	2,770	6.8
1990	2,146	3.4	219	509	1,320	35.0
1989	3,468	13.1	210	1,465	2,079	1.1
1988	4,192	3.6	92	394	127	1.2

*Provisional, based on length distributions only

SCOTIA 29/1/91 - 18/02/91 2SP91

