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FRV "Scotia"

Cruise 2/90 2SR90

REPORT

1-21 February 1990

Personnel

A W Newton	SSO
J A Gauld	HSO
R D Galbraith	HSO
C D Hall	HSO
G I Henderson	SO
D S Beveridge	SO
P Clark	ASO
J McWilliam (Miss)	ASO
J Dodds	ASO

Objective

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

Narrative

"Scotia" sailed from Aberdeen at 1500 on Thursday 1 February. From the outset the cruise suffered from almost continuous bad weather. During the first nine days there were a succession of south-westerly gales or storms. Therefore, the first half of the cruise concentrated on the western side of the survey area, seeking a lee off the Scottish coast wherever possible. A slight easing in the weather allowed some work to be done in the middle of the North Sea before docking in Stavanger on Monday 12 February. "Scotia" sailed again on Tuesday morning and, with a significant improvement in the weather, stations in the eastern North Sea were worked until Sunday 18 February when further south-westerly storms forced the vessel to seek refuge in the Moray Firth. Further work was severely restricted by the weather until "Scotia" docked in Aberdeen at 0830 on Wednesday 21 February.

Results

A total of 52 one hour hauls were made using the GOV trawl. At the beginning of the cruise the net was rigged with the ground gear consisting of the standard set of 152 mm rubber discs. Due to some initial damage, the discs were replaced with 305 mm bobbins after the fifth haul and this rig, together with 47 m sweeps, was used for the rest of the survey. Each haul was monitored for headline height, wingend and door spread. Other parameters such as speed over the ground, depth and distance towed were logged at the same time. 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 ratified indices for the previous four years are also shown for comparison. The preliminary data show mackerel as exhibiting a fairly strong year class; all other species show a decline when compared to 1989.

Thirty one hauls were made with the Isaacs-Kidd midwater trawl which had been fitted with a redesigned depressor. The latter performed very well and permitted work to be carried out in rougher weather than previously allowed with the original depressor.

Top and bottom temperatures, salinities, phosphates, nitrates and silicates were taken at all but one trawling station.

A W Newton

21 May 1990

Seen in draft: A MacKenzie, OIC

Table 1

Indices of 1+ fish from recent young fish surveys.

YEAR	HERRING	COD	HADDOCK	WHITING	NORWAY POUT	MACKEREL
1990*	2224	4.8	180	547	1527	33.6
1989	3468	13.1	210	1465	2079	1.1
1988	4192	3.6	92	394	127	1.3
1987	5717	8.8	885	669	3023	8.9
1986	3667	17.0	579	456	2043	0.5

* Provisional, based on length distributions only.

SCOTIA 01/02/90 - 21/02/90 2SC90