

R1/12

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FRV SCOTIA

Cruise 0394S

REPORT

12 February - 5 March 1994

Personnel

A W Newton	SSO
F Armstrong	HSO
J R Hutcheon	SO
G I Henderson	SO
D S Beveridge	SO
N S Collie	PTO
C G Davis	ASO
D J Tait	ASO
G Petrakis	Visitor

Objective

To take part in the ICES International Bottom Trawl Survey in the North Sea.

Out-turn Days Per Project: DAC1 17; EAA1 5.

Narrative

Scotia sailed at 1000 on Saturday 12 February and proceeded to stations off the Aberdeenshire coast. However, SE gales hampered the work and eventually *Scotia* was forced to dodge for two days until the weather moderated. For the following 11 days the weather was much improved and *Scotia* completed all stations in the central North Sea with a mid cruise break in Stavanger on 21 February. The weather deteriorated sharply on Sunday 27 February and the vessel was forced to dodge for three days in severe easterly gales. A lull in the gales allowed *Scotia* to recommence the survey off the Orkneys but further severe gales (now westerly) prevented any survey work being done in the Shetland area. The end of the cruise was spent working in the Moray Firth and *Scotia* docked in Aberdeen at 0500 on Saturday 5 March.

Results

A total of 56 one hour hauls were made using the GOV trawl. During the first part of the survey the ground gear consisted of the standard set of 152 mm rubber discs but the discs were replaced with 305 mm bobbins for the stations in the northern part of the North Sea. Short (60 m) sweeps were used for all tows. 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. Initial analysis of the data show that herring and cod are maintaining recruitment at the same level as for the past three years. On the otherhand there are early indications that the 1993 haddock year class is of low abundance.

Forty-four hauls were made with the Methot Isaacs-Kidd midwater trawl. Top and bottom temperatures, salinities, phosphates, nitrates and silicates were taken at all trawling stations.

A W Newton
17 May 1994

Seen in draft: P Ramsay

TABLE 1

Indices of 1+ fish from recent International Bottom Trawl Surveys

Year	Herring	Cod	Haddock	Whiting	Norway pout	Mackerel
*1994	2367	16.0	230	823	1838	2.8
1993	1995	12.7	1242	1087	2681	1.0
1992	2099	13.0	1115	916	5121	16.0
1991	2433	2.4	679	1014	2497	6.9
1990	2146	3.4	219	509	1320	35.0

*Provisional, based on length distributions only

Track Chart of 'Scotia' 12 February - 5 March 1994 0394S

