

R1/12

Not to be cited without prior reference to the Marine Laboratory, Aberdeen

FRV *Scotia*

Cruise 0297S

**REPORT**

30 January - 19 February 1997

**Personnel**

A W Newton	SSO
A P Robb	HSO
P Copland	HSO
G I Henderson	SO
C G Davis	SO
D J Tait	ASO
C Stransky	Visitor

**Objective**

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

**Out-turn days per project:** DAC1:16; EAA1:5

**Narrative**

*Scotia* sailed from Aberdeen at 1200 hours on Thursday 30 January with the intention of commencing fishing operations off the Aberdeenshire coast. However, problems with the main net drum meant that trawling could not start until the following day. During the course of the next seven days the weather play a significant role in determining the work pattern and at various times both fishing and Methot net work were curtailed by the adverse conditions. A port call was made to Stavanger on Saturday 8 February and then departure was delayed by 24 hours due to storm warnings. *Scotia* sailed on Monday 10th and spent the following two days dodging in SW 9/10 winds. A lull in the weather enabled work to proceed in the Moray Firth, around the Orkneys and southern Shetland before more storms forces the vessel to shelter off Macduff for a further two days. Trawling was completed off the Buchan coast before docking in Aberdeen at 0600 hours on Wednesday 19 February.

**Results**

A total of 45 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.

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 indices for four of the main species (herring, cod, Norway pout and mackerel) are among the highest seen in the 23 year history of this survey. Some caution must be given to the cod and mackerel results as the final indices are influenced by exceptional large catches made by Danish and Norwegian vessels respectively. These results are subject to further close scrutiny. The haddock index indicates that 1996 was an average recruitment year; the sprat and whiting indices point to below average recruitment.

Sixty two hauls were made with the Methot trawl in order to obtain an estimate of the number of pre-metamorphosing herring larvae. The analysis of these samples has been sent to Peter Monk at DIFMAR who is the international coordinator for 0-group herring data.

Top and bottom temperatures, salinities, phosphates, nitrates and silicates were taken at all trawling stations.

A W Newton  
2 April 1997

Seen in draft: Captain J Nichols

Table 1

Indices of 1+ fish from recent International Bottom Trawl Surveys

Year	Herring	Cod	Haddock	Whiting	Norway pout	Mackerel
1997*	4,318	40.5	862	295	10,409	725.6
1996*	2,463	4.3	280	524	2,083	12.6
1995	1,883	10.6	1,323	584	5,726	0.3
1994	2,416	14.8	229	726	1,868	2.3
1993	1,995	12.7	1,242	1,087	2,681	1.0
1992	2,099	13.0	1,115	916	5,121	16.0

\*Provisional, based on length distributions only.

Track of FRV 'Scotia' Jan/Feb 1997

