

R1/12

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

FRV *Scotia*

Cruise 0298S

## REPORT

20 January - 10 February 1998

**Half Landing:** Lerwick

### Personnel

A P Robb	HSO
P J Copland	HSO
G I Henderson	SO
C G Davis	SO
P L Clark	ASO
D J Tait	ASO
I Penny	ASO

### Gear

GOV Trawl (BT137) with ground gear A/B and 20 mm cod end; Methot net (PT 166)

### Objective

To participate in the ICES International Bottom Trawl Survey in the North Sea

**Out-turn days per project :** DAC1: 16, EAA1: 6

### Narrative

*Scotia* sailed from Aberdeen at 0900 hours on Tuesday 20 January and work commenced soon afterwards at the positions off the Aberdeenshire coast. Over the next 10 days weather conditions were favourable and work proceeded eastwards and northwards.

Generally, the fishing operations were conducted between 0700 hours and 2300 hours and the Methot net was deployed during the intervening period. Because good progress was achieved, the half landing port was re-scheduled for Lerwick and *Scotia* docked there at 0900 hours on 30 January.

The following day the ship sailed at 0900 hours and work recommenced at the stations east of Shetland. However, progress around the Fair Isle area was short-lived as bad weather conditions interrupted operations on 2 February. After a short period of dodging, the ship worked southwards to the Moray Firth area. On 4 February, prior to heading back offshore the opportunity was taken to collect additional Methot nets which had been delivered to Lossiemouth.

Over the next few days, weather conditions were not good and the ship had to spend a further period dodging on 7 February. Despite deteriorating weather conditions the ship managed to keep working and during the early hours of 8 February the remainder of the survey was completed .

*Scotia* then proceeded inshore to the Moray Firth and east Aberdeen grounds where additional trawl and Methot net sampling was carried out, before the ship docked in Aberdeen at 2000 hours on 9 February.

## **Results**

Despite some interruptions from bad weather, a total of 56 valid hauls were made with the GOV trawl. These consisted of 45 one hour, and 11 half hour tows. During the first (southern) part of the survey, the ground gear used was the standard set of 152 mm rubber discs. This was replaced with 305 mm bobbins for the stations in the more northerly areas of the North Sea. Short (60 mm) sweeps were used for all tows and each haul was monitored for headline height, wing end and door spread, and the speed of the net through the water. Table 1 shows the preliminary indices for the principal species caught during the survey. The current indices are length based and will be subject to further revision once ages of the various species are determined.

The indices for herring and Norway pout suggests that there is an above average year class recruiting to the fishery, whereas for cod, haddock, whiting and mackerel the indices point toward below average recruitment.

One hundred and two hauls were made with the Methot trawl to estimate the abundance of pre-metamorphosing herring larvae. The results of the sample analysis have been sent to DIFMAR who are responsible for evaluating the O-group herring data.

Surface and bottom temperatures, salinity, phosphate, nitrate and silicate samples were collected at all trawling positions.

A variety of fish samples were deep frozen and brought back to the laboratory for analysis . These included haddock for calorimetric determination, and cod, herring, sprat and poor cod for genetics studies.

A P Robb  
25 March 1998

Seen in draft : Captain P Ramsay

Table 1 Indices of 1+ fish from recent International Bottom Trawl Surveys

Year	Herring	Cod	Haddock	Whiting	Norway Pout	Mackerel
1998*	2286	9	356	503	3529	26
1997	4069	40	860	288	9752	719
1996	2145	4.4	304	573	2148	12.8
1995	1883	10.6	1323	584	5726	0.3
1994	2416	14.8	229	726	1868	2.3
1993	1995	12.7	1242	1087	2681	1
1992	2099	13	1115	916	5121	16

\* Provisional indices, based on length distribution data.

IBTS Scotia Jan 1998

