

R1/12

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FRV *Scotia*

Cruise 0201S

REPORT

18 January - 6 February 2001

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Objective

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

Out-turn days per project: MF01T: 20

Narrative

Scotia sailed from Aberdeen at 1000 hours on Thursday 18 January. Survey work began immediately off the Aberdeenshire coast. The pattern of work during the next few days was to gradually work eastwards, trawling during daylight hours and deploying the Methot net at night. By the following Tuesday the weather had deteriorated and at the same time a fault developed in some of the scientific equipment. The decision was made to temporarily abandon survey stations in the middle North Sea and return to Peterhead to pick up spares for the defunct equipment. The pick up of new equipment coincided with a spell of settled weather and survey work continued rapidly in the Moray Firth, Orkneys and Shetlands. A port call was made at Lerwick on Tuesday 30 January. After Lerwick *Scotia* worked southwards and was in sight of completing the survey when bad weather struck with a vengeance. In an attempt to complete the work the vessel dodged on station for three days waiting for SE 8/9 winds to abate. Finally the remaining trawl stations were surveyed before *Scotia* returned to Aberdeen on 6 February.

Results

A total of 53 half-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 these discs were replaced with 305 mm bobbins for the stations in the northern part of the North Sea. Short sweeps (60 m) were used for all tows. Each tow was monitored for headline height, wing-end and door spread. Table 1 shows the preliminary indices for the principle species sampled during the survey. The index is based on the numbers of fish caught per hour below a pre-defined length selected as a probable delimiter of 1+ fish. These indices are liable to some revision after the ages of the various species have been confirmed by reading the otoliths.

There are mixed results from the provisional indices. Whiting is at approximately the same level as in 2000 whilst, understandably, haddock shows a sharp decline on the extremely high 1999 stock size. Nevertheless the haddock index is twice the mean index for 1996-1999. Herring has 'dipped' slightly over the previous year but in general terms the stock is still holding up well. The one big disappointment is that the North Sea cod stock still shows no sign of recovery and this gives cause for concern.

Eighty-two hauls were made with the Methot net in order to obtain an estimate of the number of pre-metamorphosing herring larvae.

Top and bottom temperatures, salinities, phosphates, nitrates and silicates were taken at all trawling stations using a combination of a Seabird CTD and reverser bottle. In addition the thermosalinograph was run continuously during the survey for data on the surface water.

A W Newton
11 June 2001

Seen in Draft: Capt R Walton

Table 1. Preliminary International Indices from recent IBTS Surveys

| Year | Herring | Cod | Haddock | Whiting | N Pout | Mackerel |
|------|---------|------|---------|---------|--------|----------|
| 2001 | 3075 | 4 | 836 | 835 | 2486 | 43.0 |
| 2000 | 3468 | 6.0 | 3678 | 778 | 8789 | 329.0 |
| 1999 | 707 | 2.0 | 195 | 704 | 3244 | 43.0 |
| 1998 | 2067 | 2.7 | 374 | 556 | 1006 | 27.7 |
| 1997 | 4069 | 40.0 | 860 | 288 | 9752 | 718.8 |
| 1996 | 1735 | 3.5 | 267 | 502 | 923 | 10.4 |

Track of 'Scotia' 18 Jan - 6 Feb 2001

