

R1/12

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FRV *Scotia*

Cruise 1201S

**REPORT**

27 July - 19 August 2001

**Personnel**

K A Coull	(In charge)
S P R Greenstreet	
M R Robertson	
M C Mathewson	
J McWilliam	
H Emmerson	
E Jones	
J Drewery	
I Penny	(27 July - 8 August)
J Mair	(8-19 August)
P Nelson	(Visitor - UEA)

**Objectives**

1. To undertake a demersal trawling survey of the North Sea.
2. To obtain temperature and salinity data from surface and sea bed at each trawling location.
3. To carry out benthic sampling along the track of as many trawl stations as time permits.

**Out-turn days per project:** 21 days MFO1t, 3 days MF07n

**Narrative**

*Scotia* sailed from Peterhead on the morning of 27 July and commenced trawling at the station east of Rattray Head. After completing a further station off Macduff, time was spent developing a working procedure for the deployment and recovery of the benthic beam trawl and the Usnel box corer. Two benthic stations were completed successfully during the first night. The vessel then worked in a northerly direction, completing stations in the Moray Firth, Orkney and West Shetland regions. Poor weather conditions during the night of 2 July restricted the use of the box corer. *Scotia* then worked east of Shetland, entering Norwegian waters on the morning of 1 August. The vessel then worked in a southerly direction and completed the stations in Norwegian waters on the evening of 5 August. The vessel docked in Esjberg for the mid cruise break on 8 August. *Scotia* sailed again the following morning and resumed trawling on the stations off the Danish Coast. Weather conditions prevented the use of the box corer at the first station on the evening of 9 August but a gradual decrease in wind speed and swell allowed deployment in the early hours of 10 August. After completing the southern part of the survey area, the vessel worked in a northerly direction on the stations off the east coast of Scotland.

The opportunity to carry out tests on a hydrographic winch was taken when in the vicinity of the Devil's Holes. With the trawl survey area being completed on the morning of 17 August, the vessel then proceeded to the Scalloway Deep area to carry sampling with the box corer. Further sampling with the beam trawl and box corer were carried out in the Orkney and Moray Firth area before *Scotia* docked in Aberdeen on the evening of 18 August.

## Results

The survey area was successfully covered with a total of 87 hauls being completed.

The provisional number of Ø-group haddock and whiting caught per 30 minutes (standard haul duration) in each statistical rectangle are shown in Figures 1 and 2 respectively. Catches of Ø-group haddock were very low with the numbers encountered being the lowest since the survey commenced in 1982. Although the numbers of Ø-group whiting are of the same magnitude as the previous four years, this is mainly due to the high numbers encountered in the southeastern part of the survey area. Numbers in the northwest of the survey area were lower than normally encountered while the numbers in the southeastern part appeared to be much higher. However, it should be noted that this is only the third year that the survey has been extended towards the southeast.

The 1999 haddock year class (two year olds) still appears to be very strong, with the highest numbers being encountered since the series began.

All length frequency data, haul summary information and age data for cod, haddock, whiting, saithe, Norway pout, herring, mackerel and sprat were punched at sea and stored on micro-computer.

The Scanmar system was used throughout the cruise to monitor headline height, wing spread, door spread and distance covered during each haul.

## Hydrography

The ship's thermosalinograph was run continuously throughout the cruise. A CTD was deployed at each trawling station to obtain temperature and salinity profiles.

## Benthic sampling

The two metre benthic beam trawl was deployed at 39 stations during the course of the trip (Fig. 3). The Usnel box corer was deployed between one and three times at 38 of the trawl stations (Fig. 4). Operation of this equipment proved difficult in adverse weather conditions and discussions between FRS and ships staff have been arranged to consider options available for handling this equipment.

K A Coull  
2 October 2001

Seen in draft: Peter Ramsay, OIC *Scotia*

# Quarter 3 - 2001 Groundfish Survey FRV Scotia

0+ Haddock - number per 30 minutes

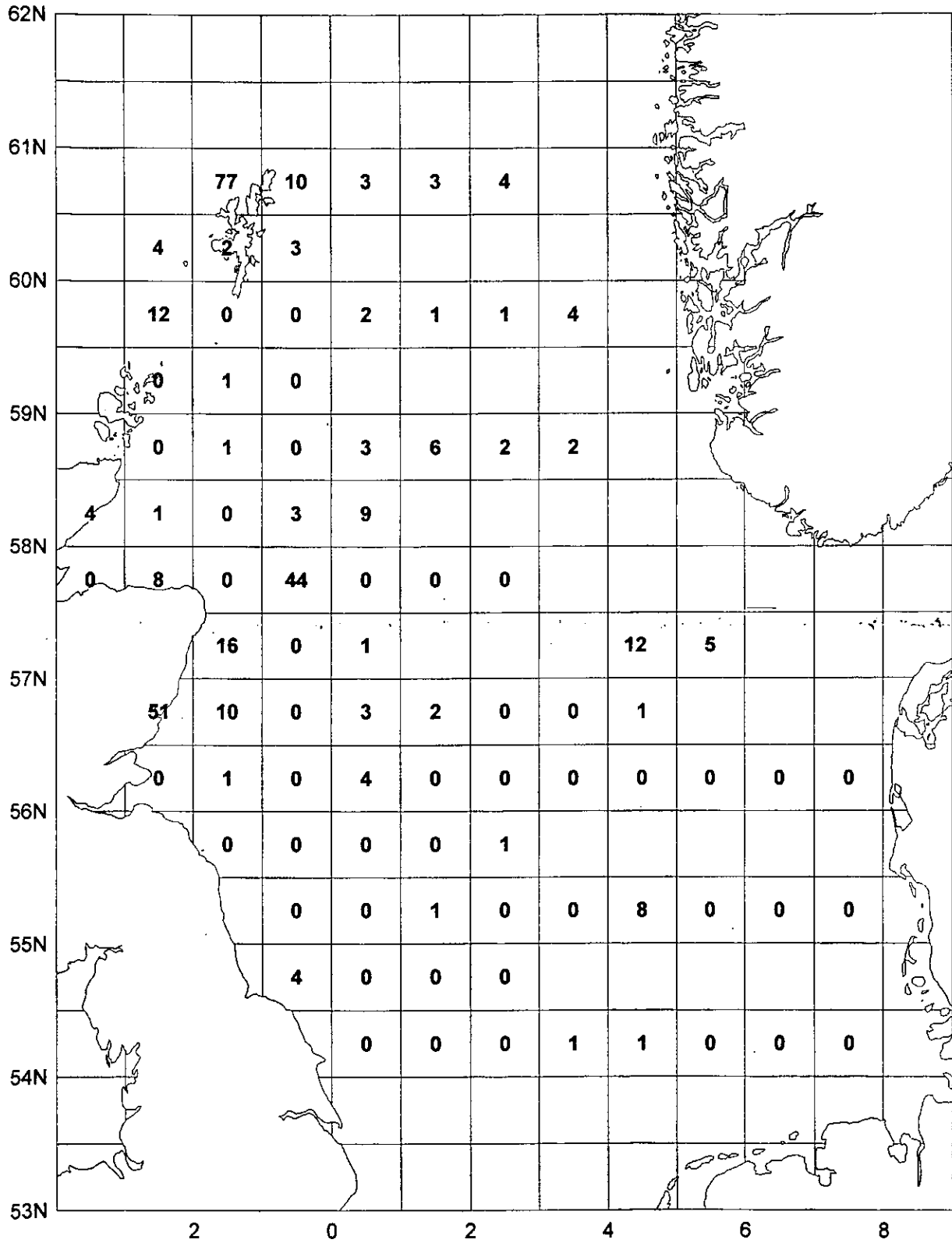


Figure 1

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**0+ Whiting - number per 30 minutes**

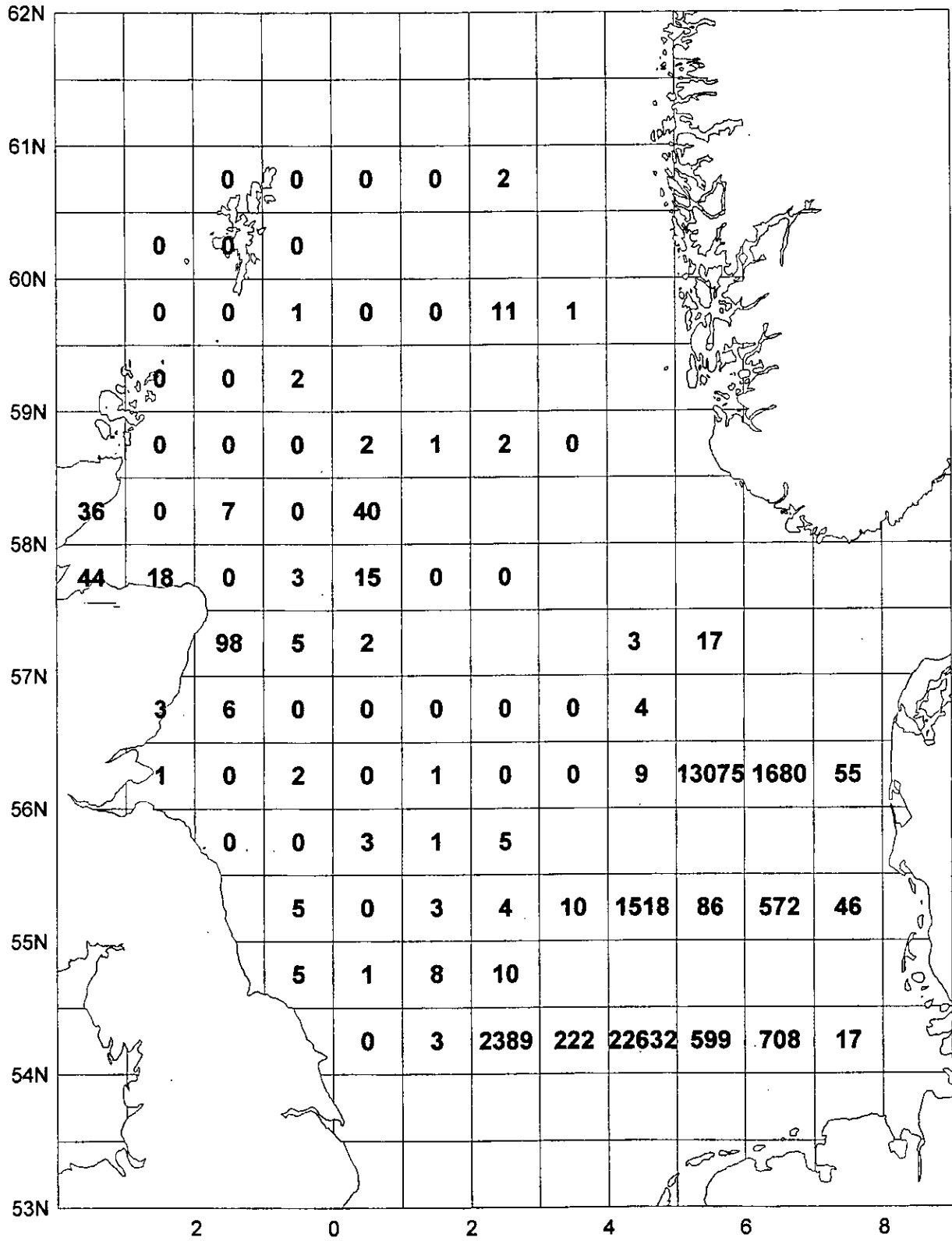


Figure 2

# Quarter 3 - Groundfish Survey FRV Scotia

## Location of Box Corer Sampling

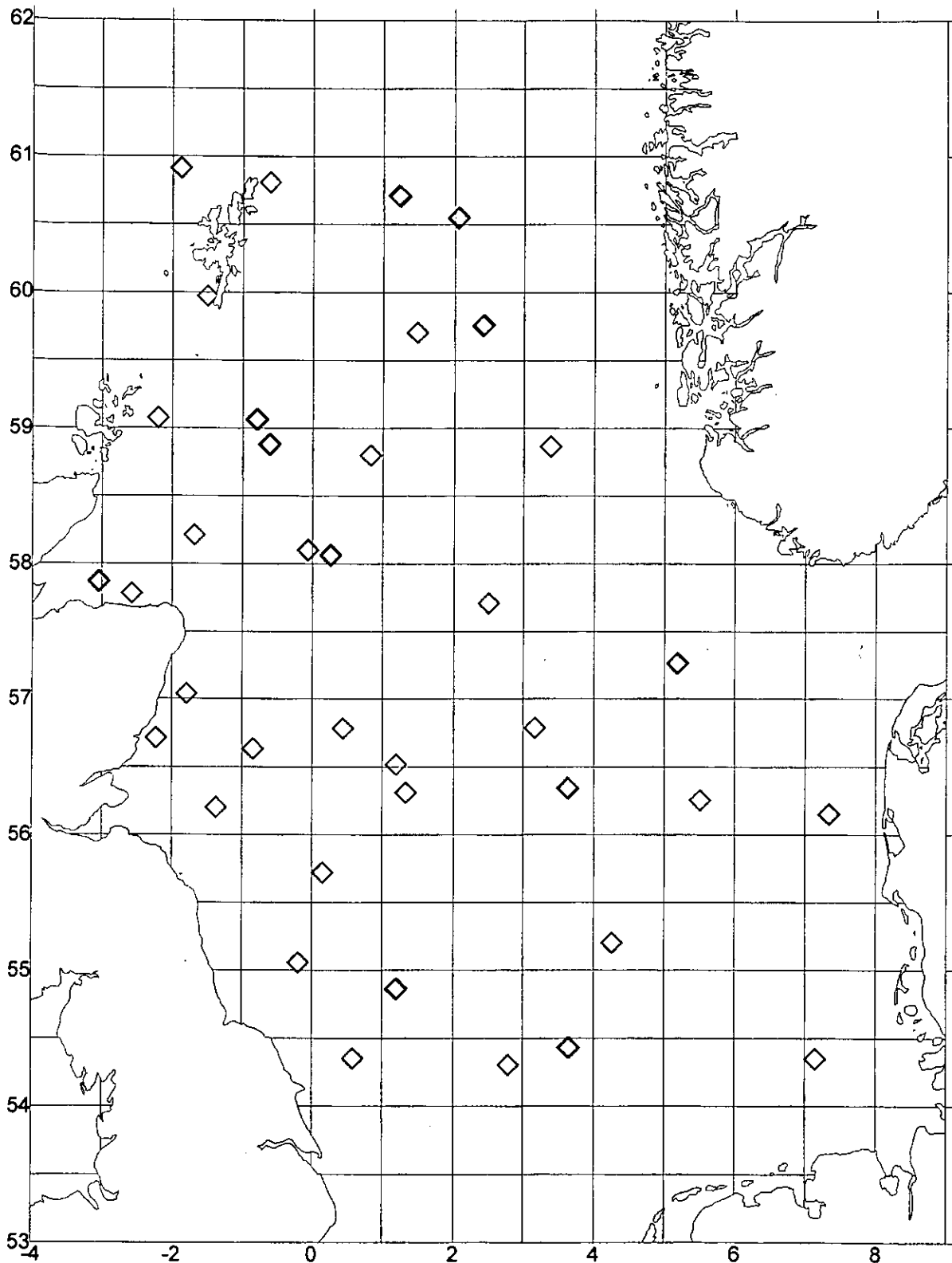


Figure 4

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## Station Positions - Track

