

R1/2

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FRV *SCOTIA*

Cruise 1596S

REPORT

2-15 September 1996

Personnel

A W Newton	SSO
M R Robertson	HSO
J R G Hutcheon	SO
F Armstrong	SO
K J Peach	SO
C G Davis	ASO
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J Breslin	FRC (Dublin)
P Bloor	JNCC
Miss G Mackay	Aberdeen University
Miss K Nichol	Aberdeen University

Objective: To undertake a demersal survey on Rockall Plateau.

Out-turn days per project: 14 days DAC1

Narrative

Scotia sailed from Aberdeen at 1230 hours on Monday 2 September and made a direct passage to Rockall. The vessel arrived on station at 0930 hours on Wednesday 4 September and began the trawling survey. However, *Scotia* almost immediately suffered a major fault in the engine room and despite attempts by the engineers to affect repairs the vessel was unable to continue trawling. At 2200 hours it was decided to steam to Stornoway to rendezvous with specialised shore engineers. *Scotia* arrived at Stornoway at 0700 hours on Thursday 5th and, after repairs, sailed at 1500 hours on the same day to make passage back to Rockall. The trawling survey finally commenced at 1535 hours on Saturday 7 September and work proceeded on a 24 hour basis until the vessel left the plateau at 1130 hours on Friday 13th. *Scotia* docked in Aberdeen at 0600 hours on Sunday 15 September.

Results

Due to the amount of time spent on making repairs to the vessel the trawling survey had to be curtailed. The reduction in work was achieved by dropping the planned survey on Empress of Britain Bank and deleting some stations on the north west Rockall Bank. Nevertheless 41 hauls were made on the Plateau using a 48' Aberdeen trawl fitted with a 30 mm small mesh cover. The main species caught were haddock, blue whiting, *Sebastes*

viviparous and *Helicolenus dactylopterus*. Other species caught included megrim, lemon sole, long rough dab, grey gurnards, ling, cod, saithe, argentines and skate. However, all these were in the minority compared to the first four named species.

Table 1 shows a comparison of the youngest year classes of haddock caught during this survey with the catches made in previous surveys. It should be noted that the current indices are preliminary as they are based on length groupings which are thought to represent the distribution of the 0, 1 and 2 year classes in the catches. The final indices will be calculated after the ages are determined in the Laboratory. The preliminary indices show that the 1995 year class is stronger than that of the two previous years but it is still 6% below the long term running average. The commercial fishery is being underpinned by the 1991 and 1992 year classes but these are beginning to phase out of the fishery. The index for the 1996 year class is the highest on record (140% higher than the previous high of 1989) but because of the uncertain survival rate of young haddock in this isolated fishing area it is not currently possible to assess the impact of this year class on future commercial fisheries.

The original plan was to conduct a survey of the seabed substrate using Roxann during the hours of darkness when trawling was suspended; in addition it was intended to "ground truth" the Roxann data with grab samples. It was calculated that the Roxann work alone would need 129 hours of ship's time. Due to the engine problems outlined above the time available for this aspect of the work was considerably reduced and in the event no grab samples were made but approximately 56 hours were spent deploying the Roxann along transects over a wide area of the plateau. Unavoidably there are large gaps in the area surveyed but future plans will be considered after the data so far obtained is analysed.

Surface salinities, temperature and fluorescence were continuously monitored and logged during the cruise.

A W Newton
24 September 1996

Seen in draft: Captain J Nichols

TABLE 1

Haddock indices (Nos/10 Hrs) for Rockall 1985-1996

Year	Age		
	0	1	2
1985	489	51,284	214
1986	3,577	17,309	62,196
1987	698	11,672	2,917
1988	8,640	8,170	5,799
1989	23,580	10,799	3,531
1990	16,388	10,612	1,231
1991	14,458	16,398	4,431
1992	20,336	44,912	14,631
1993	15,220	37,959	15,689
1994	23,474	13,287	11,399
1995	16,923	16,971	6,648
1996	33,489	20,446	6,355

Standard Stations at Rockall (GPS - Sept 1993)

