R1/12

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

FRV *Scotia*

Cruise 1197S

REPORT

1-13 September 1997

Personnel

A W Newton	SSO
K A Coull	SSO
D J Tait	ASO
F Burns	ASO
J Drewery	ASO
I Penny	ASO
E Harris	Aberdeen University
S Cho	Aberdeen University
R White	JNCC

Objective

To undertake a demersal survey on Rockall Plateau.

Out-turn days per project: 13 days DAC1

Narrative

Scotia was due to sail from Aberdeen at 1100 hours on Monday 1 September but engine room repairs necessitated delaying sailing until 1600 hours. On departure passage was made straight to the north end of Rockall Bank and survey work commenced at 1130 hours on Wednesday 3 September. However, work during the next four days was severely disrupted by SW gales and only nine stations were surveyed during this time period. Moderating weather conditions allowed the survey to re-start at the southern tip of Rockall Bank on Monday 8 September and work continued until the vessel had to leave the Plateau at 1030 hours on Thursday 11 September. *Scotia* docked in Aberdeen at 0600 hours on Saturday 13 September.

Results

The bad weather meant that stations on the Empress of Britain Bank had to be abandoned but nevertheless 42 hauls were made on the Plateau using a 48' Aberdeen trawl fitted with a 30 mm small mesh cover. As in previous years the main species encountered included haddock, blue whiting, *Sebastes viviparous* and *Helicolenus dactylopterus*. However, there was a significant difference this year compared to previous surveys with the common occurrence of juvenile mackerel; considerable quantities of the 1996 year class were caught over most of the Rockall Bank. In the previous 12 surveys mackerel have been practically non-existent at Rockall. Other species caught included lemon sole, megrim, grey gurnards, cod, saithe, torsk, argentines and one blue shark.

The fishing gear was continuously monitored for headline height and wing spread and in addition the net carried a remote logger to record sea temperature and depth at one minute intervals.

Table 1 shows a comparison of the youngest year classes of haddock during the survey with the catches in previous surveys. These indices show that although the 1997 year class is below the very strong 1996 year class it is still well above the long term '0' group average. However, it should be noted that indications of a strong '0' group appear to bear little relationship to subsequent year class strength as juvenile haddock appear to have uncertain survival rates in this isolated area. It is very noticeable that the 1996 year class (the highest for 11 years) has not been transformed into a strong one year group; in fact all age groups which currently form the basis for commercial fishing are weak with the result that the spawning stock biomass is lower than it has been for a number of years.

A W Newton
17 September 1997

Seen in Draft: Capt D Fraser

NUMBERS OF HADDOCK PER 10 HOURS, ROCKALL, 1985-1997

Year	Age 0	Age 1	Age 2
1985	489	51284	214
1986	3577	17309	62196
1987	698	11672	2917
1988	8640	8170	5799
1989	23580	10799	3531
1990	16388	10612	1231
1991	14458	16398	4431
1992	20336	44912	14631
1993	15220	37959	15689
1994	23474	13287	11399
1995	16923	16971	6648
1996	33578	19420	5903
1997	28857	10615	2366

Track Chart of 'Scotia' 1-13 September 1997