

R1/12

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

FRV *Scotia*

Cruise 1499S

## REPORT

27 August - 10 September 1999

### Personnel

A W Newton	(In charge)
G I Henderson	
K J Peach	
C J Davis	
R Watret	
J McWilliam	
C Lordan	Visitor (MIA, Dublin)
M Mackey	Visitor (UCC, Cork)
C Cronin	Visitor (UCC, Cork)

### Objectives

1. To undertake a demersal survey on Rockall Plateau.
2. To compare the fishing capabilities of two different trawls.
3. To investigate the distribution of monkfish and megrim in deeper waters.

Out-turn days per project: 15 days, MOIT

### Narrative

*Scotia* sailed on schedule at 1000 hours on Friday 27 August. Passage to Rockall was delayed whilst a manufacturer's engineer carried out tests on a variety of the ship's winches in deep water east of Aberdeen. On completion of these tests the engineer was returned to Aberdeen and passage made to the designated fishing grounds. *Scotia* arrived at the first trawling station at 0930 hours on Sunday and the survey started immediately. During the next 11 days the weather was very unsettled and whilst there was no serious disruption to the work programme, some elements of the survey were restricted due to inclement conditions. The survey was halted on am Wednesday 8 September by a SE severe gale and passage made for Aberdeen. *Scotia* docked at 0600 hours on Friday 10 September.

### Results

#### 1. Demersal survey

In previous years this survey has been made with the Aberdeen 48' trawl fitted with a small mesh cover. However, this gear is being phased out and for the first time the GOV trawl (ground gear C) was used at Rockall. Forty-three of the standard 45 trawling stations were completed with this gear. As in previous years the main species encountered were haddock, blue whiting, *Sebastes viviparous*, *Helicolenus dactylopterus* and grey gurnard. Other species caught included megrim, monkfish, long rough dab, lemon sole, argentines and *Trisopterus minutus*. The primary objective of this survey is to assess the state of the haddock stocks at Rockall;

normally this is done by comparing the strength of the respective year classes in the current year with previous surveys. Table 1 summarises preliminary results from this survey and the final results from past years. However, this year the results must be treated with caution as a new vessel and gear were used and the impact of these changes has still to be assessed.

## 2. Comparative fishing

With the change in fishing gear, it was desirable to compare the fishing capabilities of the two nets. To achieve this objective, part of the survey was devoted to sampling selected stations with both the Aberdeen 48' trawl and with the GOV trawl. Unfortunately, bad weather restricted operations and only 13 pairs of comparable hauls were made. An analysis of the results will be undertaken at the Laboratory but provisional findings suggest that the Aberdeen 48' trawl is unsuitable for deployment from *Scotia*.

## 3. Distribution of monkfish and megrim

In addition to sampling these species during the standard part of the survey, further trawling was done in deeper waters. Sampling for post larval monkfish was also done by using a Methot net. Working on unknown grounds to the west, two transects were made down to 800 metres to test the hypothesis that mature monkfish tended to inhabit deeper water. The results were disappointing as the number of individuals caught was small and only one *Lophius piscatorius* was found below 600 metres. Large numbers of *Lepidorhombus whiffiagonis* were caught at 400 metres, together with significant amounts of *L. boscii*; at 600 metres only the latter were found. No megrim were discovered at 800 metres.

Thirteen hauls were made with the Methot net and although no post larval *L. piscatorius* were found, one live specimen of approximately 20 cm was recovered at least 70 metres above the seabed.

A W Newton  
23 September 1999

Seen in draft: Captain D Dodge

TABLE 1

Numbers of haddock per 10 hours - Rockall. 1991-1999									
Year	Age								
	0	1	2	3	4	5	6	7	8
1991	14,458	16,398	4,431	683	315	228	37	64	3
1992	20,336	44,912	14,631	3,150	647	127	200	4	35
1993	15,220	37,959	15,689	3,716	1,104	183	38	73	21
1994	23,474	13,287	11,399	4,314	969	203	30	12	4
1995	16,923	16,971	6,648	5,993	1,935	483	200	16	-
1996	33,578	19,420	5,903	1,940	1,317	325	69	6	1
1997	28,897	10,693	2,384	538	292	281	71	9	1
1998*									
1999	9,934	9,708	2,603	779	291	186	103	66	23

\*No survey in 1998

# Standard Stations at Rockall (GPS - Sept 1993)

