

R1/12

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FRV SCOTIA

Cruise 0393S

REPORT

27 March - 12 April 1993

#### Personnel

A Robb	HSO (in charge)
M Bell	SO
J McMillan	ASO
I Afonso Dias	PhD student
W Leiper	Craftsman

Fishing Gear: Modified 48 ft Aberdeen trawl BT101

#### Objectives

1. To survey the species composition, distribution and abundance of anglerfish and megrim on the continental shelf edge between Shetland and the Outer Hebrides.
2. To collect basic biological information on anglerfish and megrim.
3. To quantify the proportion of other important commercial species in the catches.
4. To collect fish samples related to the MV *Braer* incident.

#### Narrative

*Scotia* left Aberdeen at 1100 on 27 March and proceeded to the Fladen area arriving at 2100 to begin sampling at the *Braer* stations. However, major mechanical problems with the portside trawl winch prevented fishing operations and the ship eventually had to divert to Lerwick for repairs arriving at 0800 on 29 March. Whilst in port the second engineer broke a finger during the course of his duties and a replacement engineer had to be flown up from the mainland. Repairs to the winch were completed around 1700 on 30 March but the severe weather delayed sailing and also prevented the arrival of the relief engineer. *Scotia* eventually left Lerwick at 1430 on 31 March and commenced work to the west of Shetland. Trawling continued with only occasional interruption from the weather and the survey was completed at 1700 on 11 April. *Scotia* docked in Aberdeen at 0730 on 12 April.

#### Results

Fifty-two hauls varying in duration from 1-3 hours were made during the cruise. Only two hauls were invalid due to gear damage. Catches varied from 3-45 baskets.

Generally catches of anglerfishes >21 cm were of the same order as in 1992. However, the catch rate of individuals <20 cm was considerably lower. All anglerfishes were processed at sea. Measurements were taken of the total length, tail length, head and jaw dimensions and the mouth gape. Anglers were weighed (total weight, gutted weight, liver weight, head weight) and ilicia, otoliths, vertebrae and teeth collected for age determination in the laboratory. Anglerfish stomach contents were identified and weighed at sea. On the basis of macroscopic criteria their sexual maturity was assessed and some gonads were preserved for histological studies. The majority of mature males had gonads with free flowing milt but several spent individuals were captured. Visible intra-ovarian eggs were seen only in considerably large females. The gonads of one possibly spent female were kept for further examination.

Catch rates of megrims were similar to 1992 and virtually all were *Lepiderhombus whiffiagonis* although a few *L. boscii* were caught. More than 300 megrim were weighed at sea and their sex and maturity recorded.

Lack of time prevented the collection of fish samples related to the *Braer* incident.

A P Robb  
27 April 1993

Seen in draft: P Ramsay

Scotia Cruise 0393

