

R1/4

IN CONFIDENCE - NOT TO BE QUOTED WITHOUT REFERENCE TO LABORATORY

FRV 'EXPLORER'

ADDITIONAL CRUISE 1981

REPORT

8-23 April 1981

OBJECTIVE

A routine demersal fish survey in the Northern North Sea.

NARRATIVE

'Explorer' sailed from Aberdeen at 1700 hours on Wednesday, 8 April. Work started off the Aberdeenshire coast and then, taking advantage of settled weather, 'Explorer' steamed to pick up stations on the eastern limit of the survey area. Trawling continued until the night of Wednesday 15th when engine trouble caused the ship to dock at Kirkwall. At this point Mr Coull left the survey and was replaced by Mrs Brown. 'Explorer' sailed again at 0900 on Friday, 17th but further engine trouble made it imperative to anchor almost immediately after departure. Survey work finally recommenced on Friday evening and after working stations to the east of Orkney 'Explorer' steamed north to work off the Shetlands. On the way back to Aberdeen 2 days were spent working in the Moray Firth. 'Explorer' docked in Aberdeen at 0200 hours on Thursday, 23 April.

RESULTS

A total of 44 hauls of 1 hour duration were made using the GOV trawl fitted with rubber bobbins. The survey was carried out between the latitudes 57°00'N and 61°00'N and longitudes 4°E and 4°W. The average number of baskets per haul was 15 but 4 hauls yielded catch rates well in excess of this figure viz. 53 baskets in square 45E9, 42 baskets in square 48F1, 120 baskets in square 47E7 and 45 baskets in square 46E8. The bulk of these catches consisted of haddock and whiting, the former being the dominant species. The majority of the haddock catches consisted of the 1979, 1978 and 1977 year-classes but in the area extending north of 58° and bounded by 2°E and 2°W the 1980 year-class made a strong impact on the haddock catch composition (north of the Bressay Ground 60% of the haddock were 1+). Whiting were not as numerous as haddock and again the catches were dominated by the 1979, 1978 and 1977 year-classes. Unlike haddock the 1980 year-class did not make a strong impact; significant numbers of 1+ fish were only found in 3 small areas - the southern edge of the Moray Firth, Aberdeen Bank and the Fladen Ground.

The biggest haul of herring (3708 fish) was obtained 50°E Wick, two smaller hauls were made in the Buchan Deep. Numbers of juvenile herring were encountered in the inner Moray Firth where pyloric caecae were taken. A total of 805 herring were otolithed during the course of the cruise.

The main distribution of T.esmarkii tended to be north of 59°N and to the east of the Shetlands although 1 haul 50' east Wick yielded 12 baskets of T.esmarkii for a 1 hour tow.

Flatfish tended to be incidental to the other demersal fish and no large concentrations of lemon sole or plaice were found. Significant numbers of Long Rough Dabs were obtained in the Moray Firth and on the Bergen and Ling Banks.

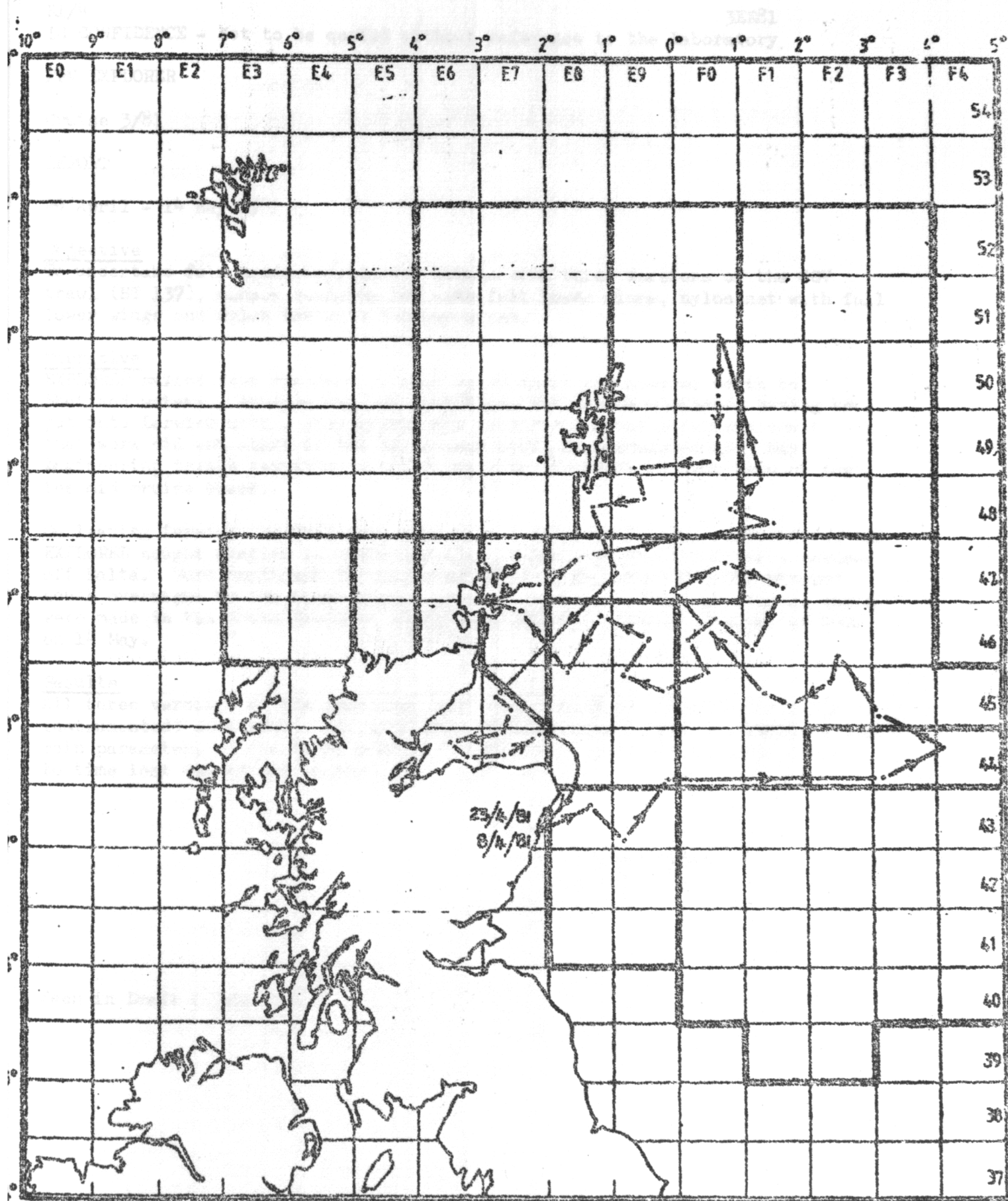
As a contribution to the ICES stomach sampling programme the stomachs of 6312 cod, haddock, whiting and saithe were examined and over 4000 stomachs were preserved for further analysis in the Laboratory.

Whilst working in the vicinity of the Beryl oilfield liver samples from cod, haddock and whiting were obtained and stored in liquid nitrogen.

During the cruise trials were made with the system recently developed to weigh individual fish at sea. The system proved to be rugged and capable of functioning without defect in a fairly hostile environment. It was used as a 'one-man operation' and in this way the total weights and gutted weights of 728 haddock were determined.

A W NEWTON
20 May 1981

Seen in draft: J ROSS
Act CO



FRV. Explorer 8/4 — 23/4/81