

In Confidence - Not to be quoted without reference to the Laboratory

6ER82

FRV "Explorer"

Cruise 6/82

REPORT

18 June - 8 July 1982

Objectives

- 1 International O-group Gadoid Survey in the North Sea.
- 2 Capture of live whiting for aquarium experiments.

General

"Explorer" left Aberdeen at 1730 h on June 18. Trawling began on June 19 90 miles east of Aberdeen, and work continued without interruption until June 28, when the ship called at Kirkwall for the mid-cruise break. During the first part of the cruise 33 stations were worked. "Explorer" left Kirkwall on June 29 and resumed trawling, east of the Shetlands, on June 30. A further 24 trawling stations were completed successfully during the second part of the cruise. In addition, handline fishing for whiting was undertaken off Aukerry during the night of July 4/5 and in the Moray Firth on the nights of July 5/6 and 6/7. "Explorer" docked at Aberdeen at 1900 on July 7.

Results

1 Trawling

Of the 60 trawling stations planned in the programme, 57 were completed.

a) O-group gadoids

Cod were widely distributed over the offshore part of the northern North Sea but were very scarce west of long. 01°W. The highest catch rates were obtained in the Forties/Fladen area, which is rather more to the south than the usual centre of density of northern North Sea cod. Haddock were, as usual, caught in largest numbers in the area lying between the Northern Isles and Norway. In 1982 only small numbers of haddock were caught west of the Orkney Islands. The highest catch rates of whiting were obtained off the north coast of Scotland, but whiting were also relatively abundant south and east of the Shetland Islands. Catch rates of Norway pout were generally low, compared with other years, and the distribution of this species was further to the east than usual. Saithe were taken mainly on offshore grounds and appeared to be relatively abundant in 1982 (although less so than in 1981). Blue whiting were caught in small numbers in five statistical rectangles, all to the north of lat. 60°N.

b) Other fish

Very few sprats were caught during the survey but the largest catches were made in the vicinity of the Orkney Islands. O-group herring were widely distributed but were generally caught in small numbers. The areas producing the largest catches were the Fladen ground, the Pentland Firth and the Moray Firth. Sandeels made up the largest component of the by-catch, as is usual during the O-group survey. The biggest catches were made east of the Shetlands, in the Fladen area and in the Moray Firth.

c) Macroplankton

- 1 Scyphomedusae: Aurelia aurita (L), Cyanea capillata (L), Cyanea lamarckii (Peron and Lesuer) and Pelagia noctiluca (Forskal) were the species caught.

Aurelia was as in previous years the most abundant species with an inshore distribution. Very large numbers of Aurelia were found in the Moray Firth.

Cyanea lamarckii was distributed inshore and not very abundant in the area surveyed by "Explorer".

Cyanea capillata was more widespread, as expected, and most abundant east and south of Shetland.

Distributions and abundances of Cyanea spp were similar to those in 1981 but Aurelia although distributed similarly was more abundant.

Pelagia noctiluca was caught in small numbers around Orkney and Shetland and east of Shetland. This oceanic species has not been caught in these surveys for a number of years and may indicate an early and strong influence of oceanic water in the northern North Sea.

- 2 Other species: 13 other species were recorded, notably:

Ctenophora: Pleurobrachia pileus, Beroe spp. and Bolinopsis infundibulum

Hydromedusae: Cosmetira pilosella, Laodicea undulata, Staurophoa mertensi and Neoturris pileata

Euphausiacea: Meganyctiphanes norvegicus, Thysanoessa inermis and Thysanoessa raschii

2) Handlining

Handlining was undertaken with considerable success east of the Orkney Islands and in the Moray Firth and approximately 90 live whiting were brought back to the Laboratory.

Seen in draft B A Hall IOC

J R G Hislop

24 August 1982

EXPLORER CRUISE 6/82 (E 6 EP 82)

