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reference to the laboratory

Cruise Report

FRS Explorer

16 January - 12 February 1973

Objectives

1. To take part in an international survey of young herring in the North Sea.

Narrative

'Explorer' sailed from Aberdeen at 2000 on 16 January and on 17 January the survey was begun to the east of the Orkneys. The survey was continued down the east coast of Scotland, 24 stations being completed before 'Explorer' returned to Aberdeen at 1730 hours on 28 January. 'Explorer' sailed again at 0930 hours on 31 January and on 1 February the survey was continued in the Dogger Bank area. The survey of the Dogger Bank area was completed on 4 February and two additional hauls, one in each of statistical rectangles J8 and J9, were completed before 'Explorer' returned to the east coast of Scotland to resample some of the stations in this area. 'Explorer' docked in Aberdeen at 0800 on 11 February at the end of the cruise.

During the whole cruise conditions were excellent and only two days work were lost because of bad weather.

Results

During the survey 54 trawl hauls were made, each of one hour duration; 35 off the east coast of Scotland and 19 in the Dogger Bank area. On 6 of these hauls the net was severely damaged. Catch rates during the survey were extremely variable, varying from $\frac{1}{8}$ to 99 baskets per one hour haul, with a mean of $14\frac{1}{2}$ baskets per hour. Catch rates were lowest on the Dogger Bank and highest in the Moray Firth.

Catches of herring were generally poor but reasonably good catches were obtained in the southern Moray Firth, the Firth of Forth and on the SE part of the Dogger Bank. The herring caught had a length range of 12-27 cms and were predominantly autumn spawners of the 1970 and 1971 year classes. Sprat catches were also generally poor but occasional good hauls were made off Orkney and in the Moray Firth and on the Dogger Bank. In the latter area the sprats were in advanced stages of maturity with some actually in spawning condition.

Demersal fish catches were composed largely of haddock and whiting with some cod in a few of the hauls. The haddock taken during the survey were mostly in the 25-45 cms length range. Catches of whiting were composed mostly of small fish (length distribution 18-25 cms); one haul in the Moray Firth producing 82 baskets of these small whiting.

The fish counting sonar was operated, at night, during the cruise.

David W McKay
17 April 1973