

IN CONFIDENCE: NOT TO BE QUOTED WITHOUT REFERENCE TO THE LABORATORY 7

CRUISE REPORT

FRS "EXPLORER"

1-21 October 1970

OBJECTIVES:

The objectives of this cruise were (a) to compare the catches of a wide-opening trawl with those of a standard Granton trawl; (b) to obtain selectivity data for the ICES/ICNAF recommended codend material.

NARRATIVE:

"Explorer's" sailing date from Aberdeen was delayed by the visit of HRH the Duke of Edinburgh to the laboratory until the afternoon tide of 1 October when course was set for fishing grounds to the north of Norway. "Explorer" called at Tromso on the morning of 5 October where repairs to the echo sounders were made. The ship left Tromso on the afternoon of 5 October and proceeded to the fishing grounds off the North Cape.

Fishing with the Granton trawl on the port side began at Helnes Bank in the afternoon of 6th and four hauls were done with this gear before the change over to the wide mouthed trawl was made. Five hauls with this gear on the starboard side were made on 7 October but boiler tube leaks in the engine-room prevented further trawling and the ship returned to Tromso to effect engine room repairs.

These repairs were completed by the morning of 11th and "Explorer" returned to Helnes Bank, arriving there on 12 October. Weather conditions permitted only one haul with the Granton gear on 12th and four more hauls were made with this gear on 13th. On 14th the first haul with the wide-mouthed trawl resulted in considerable damage to the gear and much of the rest of the day was spent in putting on a new trawl. Only one more haul was made with this trawl when recurring boiler tube leaks forced the ship to return again to Tromso for repairs.

These repairs were completed on the evening of 16th and "Explorer" sailed south from Tromso on the morning of 17th with a view to having a day's trawling on some suitable ground. Severe northerly winds on the passage south gave no opportunity for further work and "Explorer" sailed directly to Aberdeen arriving on the morning of 21 October.

RESULTS:

Only sixteen hauls were made during this cruise and of these, fourteen were valid. Catches were very poor and were considerably lower than those taken in previous cruises in this area. The average number of cod per haul in the codend for the light Granton trawls was 57 and for the six wide-mouth hauls 20. The average haddock catch in the codend was less than 10 fish per haul for both gears although on occasion reasonable numbers of haddock ranging from 14 to 30 cm were taken in the cover. Sebastes catches were at the same level as those of cod.

The 920C computer was used for every haul and gave few running problems throughout the cruise. A full logging procedure for comparative fishing hauls was carried out, with the exception of divergence meter readings for the Granton trawl as it was not possible to put the meter on the port side during trawling.

The wide opening trawl appeared to be fishing properly although the catches on the only full day's work were about $\frac{1}{3}$ of those of the Granton trawl. After the first day's trawling it was decided to change the bridle arrangement, but insufficient data were collected with this new rig to assess its effect on catch rates.

Due to the scarcity of fish of all species accurate selection results were not obtained for the codend material being studied.

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