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reference to the laboratory.

CRUISE REPORT

FRS "Explorer"

8 - 30 November 1969

The aim of this cruise was to make comparisons between a standard Granton trawl and an experimental trawl with a large horizontal mouth opening. The first few days were to be devoted to instrumentation trials with the experimental gear in order to make any necessary adjustments or modifications prior to carrying out the comparisons.

Fishing gear, instruments and the Elliott 920C computer were loaded on the 8 November and "Explorer" sailed at 13.00 hours on 9 November to carry out trials off Fraserburgh. Three fully instrumented hauls were made with the experimental gear and one with the standard Granton trawl during the next two-and-a-half days. These hauls indicated that the experimental gear, whilst giving less than the hoped for increase in door and net spread, was behaving sufficiently well to make a comparison of its performance in deep water against that of the Granton trawl worthwhile.

"Explorer" returned to Aberdeen in the early hours of 12 November and, after a change of personnel, sailed for the grounds at Helnes Bank, Norway, on 13 November. "Explorer" called at Tromsø on the evening of 16 November with the intention of sailing next morning. However, owing to trouble with the boiler tubes which necessitated immediate repair, sailing was delayed until the morning of 19 November.

Work was carried out continuously over the period 20-24 November during which time a total of 19 valid hauls were made, 9 with the experimental gear and 10 with the Granton gear. Catches of cod, haddock and redfish were generally good throughout this period and were sufficient to enable useful comparisons between gears to be made. The computer was used during each haul to record a number of quantities including warp divergence and declination.

"Explorer" called at Tromsø on the homeward journey and then proceeded to Aberdeen where she arrived on 30 November.

A detailed analysis of the comparative fishing data is currently being made but overall, the Granton trawl outfished the experimental one throughout the experiment.

JAMES A. POPE
26 January 1970