In confidence: Not to be quoted without reference to the Laboratory.

## CRUISE REPORT

## F.R.S. "SCOTIA"

Joint Cruises: - 14th December, 1965 - 22nd December, 1965 7th January, 1966 - 24th January, 1966

The objective of these two cruises was to study the effect on selection of using a large mesh outer Ulstron cover over a normal Courlene cod-end.

## 1) December Cruise

"Scotia" left Aberdeen on 14th December and began trawling in South Deeps off Buckie on the morning of 15th. Initially the cod-end used was approximately 70 mm mesh size, but this was changed to a 100 mm cod-end which promised to yield better selection results as good catches of whiting of modal size 28 cm were being taken. Trawling continued in this area with four hauls of 1½ hours' duration being made each day. After five days, during which time a small mesh cover had been used over the cod-end and outer cover, the small mesh cover was removed, and two days' fishing comparing catches without the small mesh cover were done.

On the morning of 22nd new grounds in Buchan Deeps were fished, but the first haul was fouled, and as weather conditions were deteriorating rapidly it was decided to sail for Aberdeen.

## 2) January Cruise

"Scotia" sailed from Aberdeen on 7th January and after releasing current indicators at Turbot Dank made a passage for grounds off Shetlands. Three additional current indicator stations were completed in the Moray Firth. On the morning of 8th weather conditions prevented "Scotia" completing the passage to Shetlands, and the ship took shelter in North Sound in Orkney, where she was forced to remain until 11th. On the morning of 11th the passage to Shetlands was completed and trawling was begun in Scalloway Deeps on the evening of 11th.

Fishing continued in this area and off Vaila with six hauls of  $1\frac{1}{2}$  hours' duration being done each day, three in daylight and three in darkness. On the morning of 14th successive poor catches made a change of grounds necessary, and trawling was resumed 16 miles E.S.E. of Bard Head, where good catches of haddock (modal length 34 cm) were taken. Fifteen hauls were completed in this area before "Scotia" sailed for Lerwick on 17th where blood samples were despatched to Mr. Wilkins.

After leaving Lerwick on the morning of 18th four trawls were made that day in the same area off Bard Head but freshening easterly winds prevented further trawling, and it was decided to steam to the Moray Firth grounds which had been fished during the December cruise.

Fishing was begun on the morning of 20th on grounds off Buckie and continued in this area until 22nd. The main species caught was whiting, but the bulk of the catch was comprised of small fish, the larger fish caught in December being less abundant. The cod-end used during the last two days was of 85 mm mean mesh size. On 23rd when the weather had improved, grounds 18 miles off Fraserburgh were trawled giving good catches of haddock of modal length 35 cm. "Scotia" left these grounds after completing a full day's work and sailed for Aberdeen where she docked on the afternoon of 24th.

The statistical results obtained from this cruise have been evaluated in a separate report.

J.A. POPE W.B. HALL 31st May, 1966