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

### CRUISE REPORT

#### FRS "SCOTIA"

#### 6-20 March 1970

## Objective

To take part in the international survey of the distribution and abundance of adolescent herring in the North Sea.

The start of the cruise, originally scheduled for 12 February, had to be postponed for 3 weeks because of delays in "Scotia's" refit. After dropping a dhan off Collieston to mark the position of a current meter "Scotia" completed 15 trawl stations before returning to Aberdeen in the morning of 12 March. While "Scotia" was in Aberdeen further repairs proved necessary and "Scotia" sailed at midday 18 March to pick up the dhan off Collieston. Weather conditions worsened and "Scotia" dodged till late afternoon of the 19th when one further trawl haul was carried out. "Scotia" returned to Aberdeen and docked at midday on 20 March.

#### Trawling

Nine of the trawls were carried out on grounds within 30 miles of the coast between Peterhead and the Tyne and the remainder on grounds further offshore, between 60 and 100 miles.

## a) Herring

Herring were caught in every haul, mostly in small numbers ranging from 4 to 156 per hour. In three hauls larger numbers were taken. Off the mouth of the Firth of Forth (square 11B) 3,618 herring caught, and in the neighbouring square 11C, 410. The other larger catch was in Square 13E in which 456 herring were taken. The dominant group on both inshore and offshore grounds was the 1968 autumn year class with a modal length of 13 to 16 cm: the herring of this group caught on offshore grounds tended to be larger than those caught on the inshore grounds. Fair numbers of the 1967 autumn year class were caught on the inshore grounds but very few on the offshore ones.

# b) Other fish

Sprats were common in all the hauls in which herring were taken. Among the white fish, haddock with a modal length of 27-30 cm was the most abundant species in every haul. Small whiting, modal length 14-17 cm, were caught on the inshore grounds but not on the offshore ones while larger whiting, modal length 25-29 cm, were caught in both areas. Industrial fish were not common in any haul.

GEORGE McPHERSON . 19.5.70

#### Supplementary Note

Part of the delay in the refit of "Scotia" was due to trouble with the steam generator, and when "Scotia" sailed in the early hours of 6 March the steam generator was not working and electricity was supplied by the diesel generator only. This diesel generator broke down while "Scotia" was in Aberdeen in the middle of the trip causing the further delays there, and after sailing again it overheated on the night of 19 March and had to be switched off, making it necessary for "Scotia" to return to Aberdeen on 20 March.