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

CRUISE REPORT

F.R.V. "MARA"

3rd-29th June, 1968.

Objective

An exploratory fishing survey of the sand eel stocks off the Scottish coast from Buchanness to the Firth of Forth.

Pollution

The "Mara" left Buckie on 3rd June to take water samples from two stations in the region of the Skaw for analysis at the Laboratory, after a report of dead fish being found in this area.

Sand Eels

On 4th June, the programme of trawling for sand eels was begun, but with little success until a haul of 20 baskets in Aberdeen Bay on 6th June, of which an estimated 16 baskets were sand eels comprised entirely of Ammodytes marinus. A basket of this species was delivered to Torry Research Station for biochemical analysis. On 7th June, another good haul was made in Aberdeen Bay, giving an estimated 8 baskets of sand eels, mainly comprised of A. marinus. There were no further significant hauls of sand eels, although small quantities of A. marinus were taken in St. Andrew's Bay.

By-catches

By-catches were composed mainly of whiting and haddock, with mean lengths about 18-19 cm. Whiting were most numerous, averaging about 3,500 per hour haul in 12 trawl hauls in Aberdeen Bay; whereas haddock averaged 600 per hour haul in the same 12 hauls. Also, three good catches of T. esmarkii occurred in 70-90 metres off Aberdeen Bay, averaging 4,000 per hour haul with a mean length of 14 cm. Specimens of this species were kept in a vacuum flask for biochemical analysis at T.R.S.

Two hauls in Aberdeen Bay contained about 8,000 herring with mean lengths of 14-15 cm and 17 cm respectively. A further haul in this area contained about 8,000 sprats. In St. Andrew's Bay, five hauls contained numbers of sprats, averaging about 2,250 per haul. Echo-records suggested that most of these pelagic fish were in mid-water, so that the bottom trawl would only catch a small proportion.

Pollution

On return from St. Abb's on 25th June, sedimentation samples were taken at regular intervals from the Forth to Buckie, to extend the investigation of pollution by "Red Tide" experienced off the east coast earlier.

N. Langham
30th July, 1968