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9CR63

## CRUISE REPORT

F.R.S. "CLUPEA"

July 22nd - August 2nd, 1963

Objectives

1. Comparative fishing with a Vinge trawl, with and without large mesh extensions to the wings, by day and by night.
2. Photography of fish behaviour in the vicinity of the trawl.
3. Selectivity of polypropylene codend.
4. To rendezvous with the Laboratory divers at Burghead who will examine a fleet of cotton and synthetic drift nets for 'hanging' and relative visibility (held over from previous cruises).

"Clupea" left Buckie at 19.00 hrs on July 22nd and proceeded to Smith Bank where local seine net boats were getting good catches of haddock and whiting. Fishing was centred in this area for the whole of the cruise during which 24 hauls using the Vinge trawl were made. The Laboratory divers came aboard on July 24th and the drift nets were shot and examined at 14.45 hrs 2 mi<sup>1</sup> NNW of Burghead. "Clupea" finally docked at Buckie at 05.30 hrs on August 2nd.

Comparative fishing

Four hauls, two night and two day, were carried out over the same piece of ground during each 24 hour period. For each pair of day and night hauls the Vinge trawl was fished alternately with and without 18" coarse mesh extensions to the wings. The day to day sequence of hauls was changed to take account of tidal changes and other variables.

During the day fishing was poor in this area though good catches of haddock and whiting were obtained at night, consisting mainly of small fish. For this reason the double-nylon codend was used rather than the larger meshed polypropylene one.

The total catches at night were consistently higher when the coarse mesh extensions were used.

Light readings

Light readings were taken every 10 metres to the bottom before and after each haul.

Photography

The trawl camera was attached to the upper spreading wire during the first week and to the middle of the headline during the second week to photograph fish in front of the net and below the headline.

Drift nets

All the nets except the multicolour net appeared to be hanging satisfactorily. The synthetic nets seemed to 'billow' to a greater extent before the tide than the cotton nets. The green Ulstron net was relatively less visible than either the white Ulstron or the brown nylon net (1:1.5) which were about the same.

C. J. CHAPMAN  
7th August, 1963.