IN CONFIDENCE: Not to be quoted without reference to the Laboratory.

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CRUISE REPORT

F.R.S. "CLUPEA"

June 3rd-15th

## Objectives

Comparative fishing by day and night using a Vinge trawl with wing extensions and underwater camera.

## Results

Thirty-five hauls were made during the two weeks, 21 by day and 14 by night, all in the Moray Firth. In the Smith Bank area the night fishing was 2-3 times better than by day. This was also found by the seine net fleet which were fishing only by night. The main species caught by night was haddock 30-40 cm long and flatfish.

The use of the 18" mesh wing extensions on alternate hauls did not improve the catch, either by day or night, in any consistent way. It seemed possible in these experiments that the larger haddock were avoiding the net as a whole by day. The water was fairly shallow, about 20-30 fms, with good light conditions on the bottom during daytime.

The headline camera was used alternately pointing forwards and downwards and photographs of fish were obtained with the camera in both positions.

The mesh selection data turned out to be rather poor and no day and night differences could be seen with any certainty using a polypropylene cod-end and fine green nylon cover.

J. H. S. Blaxter

22nd August, 1963.