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In confidence: not to be quoted without reference to the Laboratory

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CRUISE REPORT

F.R.V. "MARA"

July 8th - 26th 1963

Objective: To make preliminary trials with the modified purse seine.

To tag any herring caught with this equipment.

Mara spent the first week in port having the trawl gallows removed and a platform fitted in the stern to facilitate working the purse-seine. The ship put to sea on the 15th July and shot in a position off Portsoy where the depth and tidal conditions were suitable for operating the net. The first three days were spent devising the best arrangement of leads for shooting and hauling the net, and in adjusting the warp lengths to what appeared to give the most efficient operation of the gear. By the end of this time it was clear that the net could be shot and hauled from Mara efficiently enough to give it some chance of operational success. On the other hand further mechanisation of handling is essential if the gear is to be used in anything other than ideal weather conditions.

On the 17th an echo-search was made over the outer Moray Firth to locate herring shoals on which to try the net as a sampling tool. Good traces were located just north of Troup Head. Two attempts were made to ring these when the fish rose towards the surface at dusk. Both were abortive. This may have been because the traces were of small fish which went through the meshes. On the night of the 18th July the weather put a stop to further trials for that week.

At the beginning of the third week of the cruise Mara returned to the Troup Head area. At dusk on the 22nd July a good trace was obtained on the sounder, extending from about 7-15 fathoms in depth, and an attempt was made to ring these fish with the purse seine. The catch consisted of about  $\frac{1}{2}$  doz. small halflin herring meshed in the net. It was then felt that the speed of shooting and pursing the net was still too slow. Further modifications were made to the bridles and headrope which greatly improved the efficiency of the shooting and hauling operations.

The remaining time was spent echosounding for suitable traces to shoot the net on and none were located. Reather conditions deteriorated on the night of the 25th and Mara put into Fraserburgh.

The scientific staff disembarked at Fraserburgh on the morning of 26th July and returned to Aberdeen.

ALAN SAVILLE I. G. BAXTER

12th September, 1963