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<u>In confidence</u>: Not to be quoted without reference to the Laboratory

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Cruise Report

F.R.S. "Mara"

12th July - 21st August, 1965

Objective Purse seine trials and to tag herring caught by purse seine.

During the first week of this six week cruise the purse seine trials were conducted on the Fraserburgh drift-net grounds. Echo-surveys were made covering an area of up to 60 miles radius from north to east of Fraserburgh but few fish traces were recorded. Several hauls were made with the purse seine which, although unsuccessful, provided valuable experience in handling the gear and on the performance of the net under varying conditions of wind and tide.

In the course of these trials the net sustained some damage and the beginning of the second week was spent making repairs to the gear.

The trials were resumed on 21st July on the Fraserburgh grounds. In the late afternoon substantial traces were recorded in mid-water about 28 miles N.N.E. of Fraserburgh. Contact was maintained with these traces which rose towards the surface at dusk. A large plume was located at about 15 fathoms and the purse seine was shot on this trace. With wind and tide in the same direction shooting conditions were ideal and a perfect ring was made.

When hauling was begun it was evident that there was a substantial body of herring in the net. The headline sunk below the water over much of its length and there was a considerable strain on the pursing wire. After the net was pursed large bodies of fish were observed swimming into the net and becoming meshed. One of these large bodies of fish meshed themselves in the net near the ship and carried the net and footrope under the stern, fouling the propeller.

The gear could not be freed from the propeller and great difficulty was experienced in taking the main part of the net on board. The net jammed in the power block because of the large quantities of meshed herring and hauling had to be completed by fleeting/the net with the Gilson and by hand.

Assistance was sought from "Clupca" which was working about 50 miles to the south east and "Mara" was towed to Buckie arriving there about 18.30 on 22nd July.

It was estimated that the total catch was not less than 300 crans; of this about 80 crans were meshed. The herring in the bight end of the haul were in very good condition and provided excellent material for tagging. Under the circumstances it was not possible to tag large numbers but a sample of 100 were tagged with Scottish combination tags.

The remainder of the second week and the whole of the third week were spent in repairing the gear.

The purse seine trials were resumed at the beginning of the fourth week on the Shetland grounds, and continued on the fifth and sixth weeks on the drift-net grounds off Orkney, Frascrburgh and Clythness. Although extensive echo-surveys were carried out during this period very few suitable traces were recorded. A number of hauls were made by the purse seine without success.

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