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CRUISE REPORT

F.R.V. "M A R A"

25th April-27th May, 1960.

The first two weeks were spent seine netting in the Clyde. Measurements were made on the performance of the winch and the engine while heaving, but it soon became apparent that the newly made seine net warp tension recorders required further development work on them.

Attempts to use a greater proportion of the ships available horse power, by using a heavy $4\frac{1}{2}$ " circumference manilla cross-rope next to the net and $1\frac{1}{2}$ " circumference steel trawl warps for the remainder of the set met with little success. Only on the best of hard sand did the gear come, while if the bottom was at all muddy the steel warp sank in and wouldn't move even at full engine power.

On the 9th the vessel left Ayr for Mallaig. A few hauls were made near Coll and at Loch Slappin on the way. The Loch Nevis survey was completed in the remaining days of the week.

Mr. Dickson joined the ship in Mallaig on the 16th bringing more instruments which had been at sea on "Explorer". When these had been installed in the deck laboratory the ship returned to the Moray Firth via the Caledonian Canal. Seining was resumed on the 19th in the Moray Firth. On each of three more attempts with the steel warp the gear came fast. The heavy cross rope in conjunction with the ordinary seine net warps worked all right.

At the beginning of the last week "Mara" and "Clupea" co-operated in Bull Trawling a system, where two boats work the ordinary seine net gear, which is shot in the shape of an open-sided rectangle rather than in a triangle. The boats tow the ends for some distance, bringing them gradually together. Heaving on the winch is done by one boat only. The advantage over pair trawling is that accurate station need not be kept. Much more area is swept than in ordinary seining. Two boats are not required for the whole of the shot, but only for about 20 minutes of it. The heavy cross rope was used to give the gear more weight with the two boats towing it. The experiment was quite successful.

Several shots were also made anchor seining and these worked well enough, although if it were to be a regular practice, better arrangements for raising the anchor gear would need to be made. Measurements of winch and engine performance were made during all these hauls.

W. DICKSON.

16th September, 1960.