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In Confidence: Not to be quoted without reference to the Laboratory

CRUISE REPORT

FRV MARA

29 November - 6 December 1971

Objectives:

1. Hydrographic and plankton survey of Loch Linnhe and Loch Eil.
2. TV camera survey of Loch Eil and parts of Loch Linnhe.
3. Benthos survey of the same two lochs.
4. A hydrographic, plankton, benthos and sediment survey of 11 selected sea lochs south of Oban.

Objective 1 was successfully completed on Tuesday 30 November and on the following day, with personnel from the Pulp Mill and Dunstaffnage Laboratory aboard, the TV camera survey was also successfully undertaken. Objective 3 however on the 2 December was largely abortive due to dense fog that covered both lochs and persisted till well into the afternoon.

On route to Oban on Friday 3 December, the multidepth indicators were worked at three positions in the inner and outer Loch Linnhe.

On Monday 6 December, "Mara" proceeded to Loch Spelve to begin part 4 of the programme. In gale force conditions two stations in the Loch had been completed in all respects, leaving only the 8ft beam trawl to be towed. Unfortunately the gear fouled the propeller causing some damage and the Marine Superintendent ordered "Mara" to return to Buckie and not continue with the cruise.

Results

Following a month of unusually heavy rainfall, the large influx of fresh water into Loch Linnhe and Loch Eil was reflected in lower salinities from surface to bottom, compared with September observations. This and the lower seasonal temperatures raised the oxygen level in Loch Eil particularly to slightly above the September values.

The TV camera showed a difference in the numbers and species of epifauna in the two lochs. A large number of "whitish" patches seen on the bottom of Loch Eil, but not so evident in Loch Linnhe, were identified by Dr Pearson as masses of fungal hyphae.

A report on the results of the benthos survey and of the redox potential determinations is being prepared by Dr T Pearson of the Dunstaffnage Laboratory.

R B BURNS
6 January 1972