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IN CONFIDENCE - Not to be quoted without reference to the Laboratory

Cruise Report

FRV "Mara"

Part I 31 July - 9 August 1974

OBJECTIVES

1. To continue the studies of juvenile plaice stocks in the Clyde by the use of a beam trawl.

NARRATIVE

"Mara" left Buckie on the morning of 31 July for the Firth of Clyde by way of the Caledonian Canal. She arrived in time to spend the weekend at Troon and Mr Poxton, Mr Basford and Mr Gallacher were able to join the "Mara" on 4 August.

The beam trawl stations were begun on 5 August in Irvine Bay and good progress was made, working the stations from Girvan - Bennane Hd. (6 August) Whiting Bay and Hds of Ayr (7 August) Culzean Bay and Girvan Bay (8 August) and Irvine Bay again on 9 August. (29 hauls)

An 18 ft. dinghy was used on all occasions to take samples inshore off "Mara" (37 hauls)

Mr Poxton and Mr Gallacher left "Mara" at Troon on 9 August.

RESULTS

Very few juvenile plaice were caught by the "Mara". Some difficulties were experienced with the gear, but nevertheless other flatfish, notably the deeper water species such as dabs, long rough dabs and lemon soles were caught. This tends to suggest that either the plaice reacted in a different manner to the gear or else were not present in the same areas.

The latter suggestion receives support from the inshore catches with the dinghy which succeeded in taking more 1+ and 2+ fish than, the "Mara". This seems to indicate that those plaice which remain in the locality are close inshore. Unfortunately the samples taken by the two vessels did not overlap so it remains a possibility that the real centre of the population went unsampled.

Part II 12 - 22 August 1974

OBJECTIVES

1. To carry out a census of the **macrobenthic** populations by means of a grab.

NARRATIVE

Mr Murison joined "Mara" at Troon on 11 August. During the next five days, work proceeded on the Firth of Clyde macrobenthos survey using 1/10m<sup>2</sup> - Van Veen and Smith - McIntyre grabs. Stations were positioned to include a wide range of depths and two samples were collected at each position. All samples were sieved through a 0.5mm mesh and preserved in 10% formalin for examination on return to the Laboratory. All selected stations sediment samples were retained for grain size analyses.

Despite bad weather on the 15 and 16 August, work proceeded without any major interruption.

Mr Murison left "Mara" at Troon on 17 August to take part in the Irvine Bay intertidal meiobenthos survey. Mr Eleftheriou and Mr F Moore joined "Mara" at Troon on 17 August.

The macrobenthos survey was completed on the afternoon of 19 August by which time more than 150 grab samples had been collected. After unloading gear, "Mara" proceeded to Buckie where she arrived on 22 August.

On leaving "Mara" at Troon, Messrs Eleftheriou, Basford and Moore carried out further work on the Irvine Bay meiobenthos survey.

### RESULTS

Preliminary examination of the grab samples taken showed that they contained a rich benthic fauna. Full information will be provided as soon as these samples have been fully analysed.

A Eleftheriou  
22 January 1975