

IN CONFIDENCE: NOT TO BE QUOTED WITHOUT REFERENCE TO THE LABORATORY  
CRUISE REPORT

FRV "MARA"

25 February - 23 March 1974

OBJECTIVES:

1. To assess the strength of juvenile plaice stocks by the use of a beam trawl.
2. To make a survey of the Firth of Clyde for Plaice eggs.
3. To make repeat surveys over the Ballantrae Bank for herring larvae.
4. To collect water over the Ballantrae Bank and in Irvine Bay.
5. To take grab samples off the Mull of Kintyre.

"Mara" left Buckie about 0900 hours on 25 February for the Firth of Clyde by way of the Caledonian canal. Excellent progress was made in good weather conditions and Mr Poxton and Mr Robertson were able to join the "Mara" at Troon on 27 February.

The beam trawl stations were begun on 28 February and despite poor weather good progress was made in Irvine Bay and later in Ayr Bay.

On Monday 4 March "Mara" proceeded to Ballantrae Bank where 50 carboys of water were collected. The greater part of the Herring larval grid was also completed.

The beam trawl stations were completed as far as was possible working Girvan - Bennane Head (5 March) Culzean Bay - Head of Ayr (6 March) and Irvine Bay (7 March).

"Mara" again proceeded to Ballantrae Bank, on 8 March, where the Herring larval grid was covered for the second time, Water was again collected.

Messrs. Poxton and Robertson left "Mara" at Troon on 7 March and Mr Nicoll joined on Sunday 10 March.

"Mara" covered the herring grid on Ballantrae Bank again on 11 March. The plaice egg/larval grid was also commenced. The greater part of this grid was completed between the 12th and 14th March despite some delay due to a cracked oil filter.

Water was collected in Irvine Bay on 12 March and the herring grid on Ballantrae Bank was completed for the last time on 15 March.

SE gales prevented work on Monday 18 March. Messrs Nicoll and MacDonalld left "Mara" at Troon.

"Mara" left Troon on 19 March to arrive back in Buckie on 21 March.

RESULTS:

Beam trawl for Plaice

Very few juvenile plaice were caught despite the fact that a great many hauls were taken in many different areas and depths. This may have been due to the fish leaving the bottom in anticipation of the gales that were experienced. However, since older fish were caught it did seem possible that the young fish may have migrated

away from the nursery areas.

### Plaice Eggs

The greater part of the sampling grid was covered especially to the East and South of Arran. Extra samples were also taken in the region of Ayr Bay where spawning plaice had been caught in the beam trawl.

The standing crop of zooplankton seemed relatively high but no detailed examination of the samples has been possible so far.

### Herring Larvae

The greater part of the herring grid on Ballantrae Bank was successfully sampled on the Monday and Friday of each week. Some difficulty was experienced due to the presence of Trammel nets inshore which prevented some stations from being sampled.

Although no detailed analysis of the samples has been made as yet, preliminary observations showed that larvae appeared to be very scarce throughout the surveys done on the 4th and 8th. Larger numbers of clupeoid larvae were noted on the 11th and 15th, with the greatest numbers occurring on the southern part of Ballantrae Bank.

### Grabbing

It was decided not to attempt any grabbing on this occasion, but to transfer this part of the cruise programme to "Clupea".

M G Poxton  
2 April 1974