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IN CONFIDENCE: Not to be quoted without reference to the Laboratory.

CRUISE REPORT

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F.R.S. EXPLORER

8ER74

3 - 18 SEPTEMBER 1974

OBJECTIVE

To carry out a herring larval survey off the north and east coasts of Scotland.

NARRATIVE:--

'Explorer' left Aberdeen on the afternoon of the 3rd September. Poor weather conditions on the first night prevented sampling operations but thereafter very little time was lost.

The Buchan grid was completed on the evening of the 7th September and half the Orkney/Shetland grid was completed by the time of the half landing in Lerwick on the 11th.

During the second half of the cruise contact was made with the Scotia and it was decided, (on completion of the Orkney/Shetland grid), to carry out some additional comparative hauls at different towing speeds in the area of greatest larval abundance. One day was devoted to these additional hauls.

Twenty-one stations from the northern part of the Buchan grid were completed a second time before the 'Explorer' returned to Aberdeen on the morning of Wednesday 18th September.

RESULTS

Preliminary observation of the plankton samples indicate rather poor herring larval production in the Buchan area. The greatest numbers of small larvae were taken (on both the first and second run over the grid) at the three inshore stations off the east Aberdeenshire coast. Elsewhere small larvae appeared to be very scarce or absent.

Larval production was higher in the Orkney/Shetland area with the greatest numbers of small larvae being taken in South Orkney waters on both sides of the Pentland firth, but more especially on the west side. There were also some indications of small larvae to the north west of Fair Isle.

The area of greatest larval production appeared to be to the west of the Orkney/Shetland grid and 60 comparative hauls were carried out here at the position 58° 45'N 04° 40'W.

Forty plankton indicator tows were made during the course of the cruise with at least one haul in each statistical square sampled.

M WALSH

24 September 1974