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CRUISE REPORT

FRS "EXPLORER"

14 September - 7 October 1972

OBJECTIVES:

1. Herring larval survey off the north and west coasts of Scotland and off the north coast of Ireland.
2. Routine hydrographic and plankton survey in the Clyde.

NARRATIVE:

"EXPLORER" left Aberdeen at 1630 hours on 14 September and sailed to the Stormy Bank area off the north coast of Scotland where the larval survey work was begun on the morning of 15 September. The first survey was completed in exceptionally good weather conditions on 22 September and "EXPLORER" then returned to the north coast of Scotland to begin the second survey. This work was continued until the evening of 27 September when "EXPLORER" made for Ardrossan where Messrs Seaton and Shepherd joined the ship during the afternoon of 28 September.

The routine Clyde hydrographic and plankton sampling was carried out between 29 September and 1 October after which the ship returned to Ardrossan to land Messrs Seaton and Shepherd and make changes in ship's personnel.

In the morning of 2 October "EXPLORER" sailed from Ardrossan to resume the herring larval work. The second survey was completed on 4 October. Between 4 and 6 October, additional stations were worked on Stanton Banks, off the west coast of the outer Hebrides and along the north coast of Scotland to supplement the information obtained during the surveys.

At the end of the cruise "EXPLORER" returned to Aberdeen at 1330 hours on 7 October.

HERRING LARVAL SURVEY

The area surveyed extended from off the north coast of Scotland, west of the Hebrides to off the north west coast of Ireland; between latitudes 59°N and 55°N and longitudes 4°W and 9°W .

Two complete surveys for herring larvae were made in this region, the first from 15-22 September and the second from 22 September to 4 October.

Herring larvae were distributed mainly at stations off the north coast of Scotland from the Stormy Bank area to off the Butt of Lewis and in the coastal region off the west coast of the Hebrides from Lewis to Barra. The main centres of larval production appeared to be in the Cape Wrath area, west of Lewis and off the west coasts of south Uist and Barra, where there were good concentrations of recently hatched larvae.

In the first survey no herring larvae were observed in any of the collections made at stations worked between Barra Head and the north west coast of Ireland but in the second survey in this area, which was completed on 4 October, small numbers of recently hatched herring larvae were taken at stations off the north west coast of Ireland. Concentrations of very

recently hatched larvae were sampled off the west coast of Barra on 5 October suggesting that herring spawning in the Barra - north coast of Ireland area may have been 3-4 weeks later than in the Cape Wrath area, and that hatching in the southern part of the survey area had not reached its peak when the 2nd survey was completed on 4 October.

OTHER WORK

In addition to the larval survey work routine hydrographic and plankton sampling was carried out at selected stations during the first survey.

Collections of herring larvae and salps were made for heavy metal analysis.

The routine environment survey in the Clyde was carried out between 29 September and 1 October.

I G BAXTER

7.11.72