

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD  
FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND

1975 RESEARCH VESSEL PROGRAMME

REPORT: RV CORELLA: CRUISE 13

(PROVISIONAL: Not to be quoted without prior reference to the author)

STAFF

R J Wood  
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A K Steele  
J Dann  
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DURATION

Left Lowestoft 0800h 4 September

Arrived Lowestoft 0700h 17 September

All times are Greenwich Mean Time

LOCALITY

Orkney and Shetland Islands and north west coast of Scotland.

AIMS

1. To carry out a survey for herring larvae in the vicinity of the Orkney and Shetland Islands, as part of an international survey of the abundance and distribution of autumn-spawned herring larvae in the North Sea and adjacent waters.
2. To continue the examination of the distribution of caesium-137 and caesium-134 in coastal waters of the British Isles.
3. To obtain Plankton Indicator samples for the Institute for Marine Environmental Research, Edinburgh.

NARRATIVE

CORELLA sailed from Lowestoft at 0800h 4 September and set course northwards. "Free flow" calibrations were carried out off the Firth of Forth next day from 0828-0940h using the standard 20 inch high speed sampler. The herring larval survey was commenced near Fair Isle at 1119h the following day; 6 September, a number of water samples for the examination of caesium-137 and caesium-134 levels having been obtained at various locations en route. The standard ICES Orkney/Shetland grid of 68 stations to the east of longitude 4° West was completed by 1412h 10 September and a further 36 stations were then worked off Cape Wrath and the Butt of Lewis before CORELLA put in to Stornoway for water at 1330h

12 September. CORELLA sailed from Stornoway at 0800h next day and a further 4 stations were worked in the North Minch and off the north coast of Scotland before a NW gale forced the abandonment of further herring larval work in the area. Water sampling was however continued along the north Scottish coast, in the Pentland Firth and at various points in both the northern and central North Sea during 13-15 September. A moderation in the weather on 15 September enabled an experiment to determine the vertical distribution of yolk sac herring larvae by day and night to be carried out in both the Longstone and Whitby areas during 15-16 September. A final calibration of the high speed plankton sampler was completed at 1130h 16 September and course then set for Lowestoft, a sample of dinoflagellates for Dr Dodge (London University) being collected off the East Anglian coast en route. CORELLA berthed in Lowestoft at 0700h 17 September.

#### RESULTS

1. Three patches of herring larvae were located during the survey; to the north of Orkney, off the north Scottish coast and off the Butt of Lewis.
2. 25 stations were worked in the North Sea for the joint DHI/FRL RANOSP project where 50 litre samples of sea water were collected and then processed on board. A further 31 stations were also worked off the North of Scotland as part of the study of the distribution of radio caesium in coastal waters. At 5 stations water samples were collected for DHI for subsequent plutonium analysis.
3. Plankton Indicator samples were obtained at almost all of the herring larval stations which were worked off the Scottish coasts.
4. A sample of dinoflagellates was collected off the East Anglian coast.

SEEN IN DRAFT    G S  
                  E J B

INITIALLED    A J L

#### DISTRIBUTION

Basic list +

R J Wood  
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R J Wood  
24 September 1975