

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

1977 RESEARCH VESSEL PROGRAMME

REPORT: RV CORELLA: CRUISE 13

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

STAFF

R J Wood
J Wooltorton
J Dann
C J Garrod
J A Swainson (Part 1. 8-10 September)
Mrs W A Dawson (Part 2. 10-20 September)

DURATION

Left Lowestoft 1545 h 8 September
Arrived Lowestoft 1320 h 20 September (All times are Greenwich Mean Times)

LOCALITY

Central North Sea

AIMS Part 1

1. To service the JONSIS current meter stations J1, J2 and Spurn.

Part 2

1. To carry out a survey for herring larvae in the western half of the Central North Sea 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 collect samples of spawning herring from the Longstone, Whitby and Dowsing areas in order to obtain information on recruitment to the Bank herring stock in the absence of a directed fishery.

NARRATIVE

CORELLA sailed from Lowestoft at 1545 h 8 September and steamed overnight to JONSIS 1. On arrival the surface toroid was found to be in position and the rig was recovered without incident. During the relaying of this station the rig was laid without the surface toroid, as the final snap shackle released the wire too soon. The station was recovered by dragging during which the acoustic release was lost. The station was relaid by 1103 h and CORELLA proceeded to JONSIS 2. Here again the surface toroid was in position and recovery of the rig was straightforward. This station was relaid by 1757 h and CORELLA steamed overnight to the Spurn current meter station. The weather deteriorated during the early hours of 10 September and the wind increased to 20-30 knots from the southwest. The Spurn surface toroid was found in position and it was decided to attempt recovery of the rig although conditions were marginal for this work. Recovery was completed by 0824 h and the station relaid by 0910 h. CORELLA then steamed to Grimsby and tied up there at 1315 h. All surplus current meter gear was offloaded for transport back to the laboratory, and staff changes effected. After taking on fresh water CORELLA left Grimsby at 1635 h.

The 20 inch high-speed plankton sampler was calibrated in free-flow from 2000-2100 h and the larval survey commenced at 2123 h, 10 September off the River Humber. The survey grid was worked in a northerly direction and consisted of 97 stations. The final station was completed to the north of the Farne Islands at 1435 h, 16 September. A short echo search for fish traces was carried out to the east and south of the Longstone, then with a heavy swell and a fresh-strong northerly wind CORELLA proceeded to Blyth in order to rig for trawling. CORELLA tied up in Blyth at 1835 h, 16 September and sailed again at 0935 h, 17 September.

Although there was a fresh northerly breeze and heavy swell two hauls were made later in the day off the Longstone with the 800 mesh Engel midwater trawl. Overnight CORELLA steamed to the Whitby area and during 18 September an extensive echo survey was carried out over the inshore Whitby spawning grounds. Two hauls with the Engel trawl were made during the afternoon and evening in this area. Next morning 19 September a dawn trawl haul was made off Flamborough Head. An extensive echo survey was then made over the Dowsing spawning area and the last haul with the Engel trawl carried out during evening on the best traces which had been located. Fishing operations were concluded at 2000 h and course set for Lowestoft. CORELLA docked at Lowestoft 1320 h, 20 September.

RESULTS Part 1

1. All three current meter rigs, JONSIS 1, JONSIS 2 and Spurn were recovered intact and relaid.

Part 2

1. The survey for herring larvae comprising a grid of 97 stations was completed in just under 6 days. Small recently hatched larvae were found in some numbers at several stations off Flamborough Head, Whitby and south of the Longstone. Larger herring larvae were distributed over a fairly extensive area off the northeast coast and this year it would appear that production to date is much better than in 1976.
2. Extensive coastal echo traces yielded mainly catches of sprat with an admixture of 0-group herring and anchovies. Few typical herring plume type traces were seen in the areas surveyed and catches of adult herring made with the Engel trawl were very small. The impression gained from fishing was that the overall adult herring abundance was very low in the area covered, which excluded, however, the offshore spawning grounds of the central North Sea.

SEEN IN DRAFT: G S. (Master)
R C N. (Skipper)

R J Wood
26 September 1977

INITIALLED: A J L

DISTRIBUTION: Basic list +

R J Wood
J Woollorton
J Dann
C J Garrod
J A Swainson
Mrs W A Dawson