

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

1971 RESEARCH VESSEL PROGRAMME

REPORT: RV CORELLA: CRUISE 8

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

STAFF

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DURATION

Left Lowestoft 1100 hours 29 April

Arrived Lowestoft 0915 hours 9 May

All times are British Standard Time

LOCALITY

Southern Bight and Flamborough

AIMS

1. To carry out a survey of the distributions of fish eggs and larvae in the Southern Bight and Flamborough spawning grounds in the North Sea.
2. To monitor turbidity, chlorophyll A and temperature continuously in the sea surface water.
3. To record fish traces using a MS 29 echo sounder.
4. To measure temperature/depth profiles and light penetration at selected stations.
5. To collect samples of water for trace element analysis by atomic absorption spectrophotometry.
6. To collect samples of live planktonic copepods.
7. To carry out vertical distribution studies of fish larvae using the Lowestoft changing net sampler.
8. To try out a neuston net for fish larvae living close to the surface.

NARRATIVE

CORELLA sailed from Lowestoft at 1100 hours 29 April and commenced calibrating instruments as soon as the vessel reached deep water. The pump

to be used for collection water samples for trace element analysis was rigged, primed and tested and sampling commenced at 2215 hours in the Straits of Dover. The pump proved difficult to use at depth since the system would not retain suction and there was considerable delays on this line of stations. Once sampling was completed the whole system had to be rebuilt and gave no trouble after this.

Sampling on the standard grid of plankton stations commenced at 0115 hours 30 April and continued without interruption until the Southern Bight survey was completed at 1507 hours 4 May. At this point the bulb on the transparency meter failed and since no replacement was available the instrument was disconnected and stowed away.

An attempt was then made to use the changing net sampler, but both instrument packages failed to work. CORELLA then sailed to 54°40'N 01°07'30"W and work commenced on the grid of stations off Flamborough Head.

On 5 May contact was made with CIROLANA and Mr Shreeve consulted about the instrumentation for the changing net sampler but we were unable to remedy the faults.

Work continued on the grid until 2207 hours 8 May when the last water sample was collected. Plankton samples were then collected and stored in a variety of preservatives for Dr Steedman of Bristol University, the fish tank filled with clean sea water and at 0212 hours 9 May CORELLA steamed for Lowestoft. Recorders were switched off at South Scroby buoy at 0725 hours and the ship docked at Lowestoft at 0915 hours the same morning.

RESULTS

All the objectives except the studies on vertical distribution were completed successfully, despite some minor faults in instruments which were remedied in most cases at sea.

The temperature depth recorder worked satisfactorily until a core in the electric cable parted at station 119, and measurements of temperatures at depth were recorded at many stations on this survey. Light measurements were also taken on several occasions but the instrumentation for these measurements will require modification to obtain good readings of high and low light levels.

Sea bed drifters were released in the Flamborough area and a list of positions is appended.

All spawning of the plaice has now ceased. Larvae were seen in most of the samples to the north east of the Southern Bight grid and again on the northerly stations in the Flamborough area. A neuston net tried out for the first time on this series also produced fair numbers of various fish larvae near the surface the most common being sprat and sand eel larvae.

D Harding
11 May 1971

SEEN IN DRAFT: W Craig (Master)

C Snowling (Fishing Skipper)

INITIALLED: AJL

DISTRIBUTION:

Basic List

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