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R.V. CORELLA

Report on Cruise 6/1969

Staff:

- J. W. Talbot
- D. Harding
- J. H. Nichols
- L. Emerson
- J. Wooltorton

Duration:

31 March-9 April

Aims

1. To survey the distribution of plaice ova and larvae in the southern North Sea with particular reference to larvae of an age such that they might have developed from the ova whose distribution was measured during CORELLA/CLIONE Cruises 2 and 3/1969.
2. To locate an area containing appreciable numbers of larvae and to measure the vertical distribution of these using the changing net system.
3. To conduct trials using a standard Tin Tow net and a changing net sampler.
4. To conduct trials using a Boothbay net.

Procedure

CORELLA left Lowestoft 0930 hours, 31 March. E. Shreeve and B. Riches sailed with the ship in order that they could attempt to remedy an electrical fault in the Tin Tow net system. After correcting the fault they left the ship at 1200 hours, returning to Yarmouth by the pilot boat.

CORELLA then proceeded to position $53^{\circ}25'N$, $04^{\circ}13'E$ where she commenced working a grid of stations for plankton and salinity samples and measurement of temperature. Sampling commenced at 2235 hours, 31 March. Work was interrupted from 2105 hours, 1 April until 0620 hours, 2 April when the ship dodged in a heavy northwesterly swell, but after this sampling continued until 0130 hours, 6 April. At all stations the normal 60 mesh per inch plankton net was used and at a small number of stations an Icelandic net was also used for trials purposes. A total of 136 stations were worked within the Southern Bight.

On 6 April attempts were made to make measurements of the vertical distribution of larvae but difficulties were encountered with the electrical equipment. The trouble was diagnosed as a fault in the towing cable and since it was not possible to remedy this at sea the plan to make measurements of vertical distributions had to be abandoned. Trials were carried out on the same day using a modified Tin Tow net and also with a Boothbay net.

On 7 April a series of stations was worked using the Boothbay net. These stations extended between positions $52^{\circ}45'N$, $04^{\circ}11'E$ and $52^{\circ}42'N$, $02^{\circ}17'E$. On completion of this work at 2310 hours the ship lay for the night and returned to Lowestoft the next morning docking at 1330 hours.

Results

1. Numbers of late stage plaice larvae were lower than had been hoped but there was evidence of a patch in the region about $53^{\circ}05'N$, $03^{\circ}30'E$. After completing the main sampling grid additional stations were sampled in this region in order to define the patch as accurately as possible.
2. The electrical fault, diagnosed as being in the towing cable, made it impossible to make measurements of the vertical distribution of larvae.
3. The trials carried out using a modified Tin Tow net should lead to a quantitative comparison of its efficiency against the standard net.
4. The trials with the Boothbay net produced apparently good samples containing species associated with all depths including those living very close to the bottom.

J. W. Talbot
8/1/69

Seen in draft: W. B.

Initialed: A. J. L.

Distribution: Basic list, plus the following:-

J. W. Talbot
D. Harding
J. H. Nichols
L. Emerson
J. Woollorton