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FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND

1970 RESEARCH VESSEL PROGRAMME

REPORT: R V CORELLA: CRUISE 7 - Larval fish studies
(PROVISIONAL: Not to be quoted without prior reference to the author)
STAFF:

- D Harding
- D S Tungate
- S J Lockwood
- I Lloyd
- A S Oburu (Kenya)

DURATION:

12 - 21 June 1970

LOCALITY:

Southern North Sea

AIMS:

1. To make vertical distribution studies of larvae using the Lowestoft multiple sampler and Boothbay larva net.
2. To make comparative hauls with encased and unencased samplers.
3. To carry out filtration tests with pup samplers.
4. To take photographs of live fish larvae and other plankters.

NARRATIVE:

CORELLA sailed from Lowestoft at 1515 hours, 12 June and commenced gear tests with the changing net in Yarmouth Roads at 1600 hours. Mr Shreeve and Mr Burrage were put ashore by pilot boat at Gorleston once the tests were completed and the gear working satisfactorily. Final tests were made in deep water near the Smiths Knoll lightship before sailing to a position west of Texel Island.

Sampling began on 13 June at 53°07'30"N, 04°15'E and a line of stations worked north to 54°07'N, 04°15'E. Here a 24-hour series of samples was collected with the changing net. On 15 June a pair of 30" samplers, one encased and the other without a case, were fished on a line of stations north-easterly across the Borkum spawning ground. CORELLA put in to Eshjerg in the late afternoon on 16 June and a sick crew member was taken to hospital. The ship sailed again at 0600 hours 17 June and work continued on a line of stations southwards along the Danish coast to Heligoland thence to the centre of the Borkum spawning ground. A 24-hour series of samples was collected at 54°37'30"N, 05°45'E with the changing net on 18 and 19 June.

Gear trials were continued on 19 June to compare: a. the catching efficiency of the 'pup' samplers and b. the efficiency of the changing unit used without a fibreglass case. These trials were completed in the late afternoon on 20 June and gear changed once more. The Boothbay net was rigged and sampling commenced on a line of stations towards Texel Island at 1747 hours. Sampling terminated at 2100 hours when the net hit bottom and was damaged beyond repair. Larvae taken with the Boothbay net were to be photographed, but this proved to be impractical on the ship.

The cruise was therefore concluded and CORELLA steamed back to Lowestoft to dock at 1045 hours, 21 June.

RESULTS:

All the aims of the cruise were successfully completed except the photographing of larval fish which proved impractical at sea.

1. Series of samples were collected with the multiple changing net:
 - a. over two separate 24-hour periods.
 - b. on a line of stations across the main line of larval drift
 - c. without the fibreglass encasement.
2. 20 comparative hauls were made with paired 30" samplers, one of which was standard and the other unencased.
3. Filtration tests were made with five pup samplers fitted with 60, 90, 120, 150 and 200 mpi nylon plankton nets mounted together on a framework and fished midwater. 10 hauls were made for these comparisons.
4. The Boothbay net was used to collect larvae close to the bottom which could then be photographed alive. Unfortunately the net was damaged beyond repair and the photography was not done since it proved impractical at sea.
5. Plankton was collected for Dr Steedman of Bath University and preserved in the various fixatives supplied.
6. Water samples were collected for Dr Woodhead of Hamilton Dock.

D Harding
25 June 1970

Seen in draft: W Craig (Master)

INITIALED: A J L

DISTRIBUTION:

Basic List

Mr Harding

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