

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

1988 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE 1  
(PROVISIONAL: Not to be quoted without prior reference to the author)

STAFF

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DURATION

5-13 January part 1  
14-21 January part 2

LOCALITY

Southern and Central North Sea/Eastern English Channel

AIMS

1. To participate in the ICES co-ordinated herring larval survey of regions IVC and VIID.
2. To sample herring larvae and their potential food organisms in a study of their diet and feeding status.
3. To run the MS44 echo sounder continuously and to note potential adult herring concentrations.
4. To participate in the Autumn Circulation Experiment (ACE) sampling programme, with two rows of MIK trawl net stations along latitudes 55°15'N (10 stations) and 54°15'N (9 stations).
5. To recover the Argos buoy rigs which remain in the area from the autumn herring larvae survey.

NARRATIVE

RV CLIONE sailed from Lowestoft at 1025h 5 January and steamed to the Smiths Knoll area to conduct a series of performance trials with the 53cm sampler using a variety of depressors. The herring larvae survey grid was started on completion of these trials at 2015h. By 0800h on the following day the weather had deteriorated and the vessel was hove to in a severe westerly gale. Slow progress was made towards the East Anglian coast in storm force winds and it was 0730h 7 January before shelter was reached off Aldeburgh. By midnight the weather had improved and a further seventeen hours of plankton sampling was achieved before shelter was sought in Margate Roads from a southerly gale forecast. RV CLIONE left the anchorage there at 0100h 9 January and restarted the larvae survey, completing a modified grid in the Southern Bight by 0800h 11 January, (Figure 1). In view of the lost time the

standard survey grid in the eastern Channel was reduced and more of the stations in the Bay of the Seine were attempted. The remaining grid of twenty five stations was completed off Dover by 0330h 13 January when course was set for Lowestoft arriving there at 1300h.

CLIONE sailed again at 1400h on 14 January, making straight for Texel to begin a line of stations along 53°15'N using the Methot Isaacs Kidd (MIK) trawl. A decision to concentrate in the area south of 54°15'N had been made prior to the cruise, after consultation with Mike Heath (DAFS) about his plans to sample along 54°15'N and 55°15'N on RV CHALLENGER in the days immediately prior to our survey. <sup>Nine</sup> MIK stations were worked during the 15-18 January in good weather conditions and preliminary results were produced during the cruise (see cruise plan for positions and results). By 1000h on 18 January, when deteriorating weather conditions made further sampling impossible, all but two of the intended survey stations for Aim 4 had been completed.

Because of the poor weather outlook there was no prospect of recovering the one remaining Argos buoy, which was by now 170 miles north of our position, but RV CHALLENGER had agreed to spend a short time trying to make the recovery, since she would be working closer to the position and had direct contact with Toulouse.

CLIONE steamed for shelter to a position off Spurn Point, where two MIK hauls were made early on 19 January to investigate the vertical distribution of larvae. Several attempts were then made to use the 2m<sup>2</sup> Lowestoft frame trawl to catch larvae close to the sea bed, but these were not successful, because the Scanmar altimeter could not be rigged in a position which gave a steady reading and because the cod end needs to be altered to take a plankton sampling bucket. With continuing fresh to strong southerly winds the prospects of obtaining useful vertical profile results were poor and CLIONE sailed overnight to the Wash, where a series of 6 MIK hauls was carried out on 20 January to study the distribution of herring larvae in that area. Work was completed by 1800h when course was set for Lowestoft arriving at 0800h 21st January.

## RESULTS

1. A restricted sampling grid in the Southern Bight and eastern Channel was completed, which satisfactorily covered the main herring larvae hatching areas as defined by surveys in recent years. Weather conditions were not suitable for preliminary shipboard enumeration, but the few samples examined showed a small reduction in larvae abundance, both in the Southern Bight and eastern Channel, compared with last year.

The sampler performance trials showed that the body is now laterally unstable and also that, with the present towing position, a satisfactory dive profile can only be achieved by heavy weight depression. A standard Scripps depressor and lead weights were therefore used for the survey stations.

2. No additional sampling of herring larvae for feeding status studies was attempted.
3. The MS44 echo sounder was run continuously throughout the larvae survey. No traces which could be attributed to concentrations of adult herring were seen.
4. Three rows of MIK trawl stations were worked along latitudes 53°15'N (5 stations) 53°45'N (7 stations) and 54°15'N (7 stations). Preliminary results are shown on the attached chart. Nearly 10,000 herring larvae were caught in one haul off the Dutch coast. Six additional MIK stations were worked in the Wash and off the North Norfolk coast.

5. No attempt was made to recover the one remaining Argos buoy because of bad weather and the long distance involved, but arrangements were made with RV CHALLENGER to try a recovery.

J H Nichols  
K M Brander  
8 February 1988

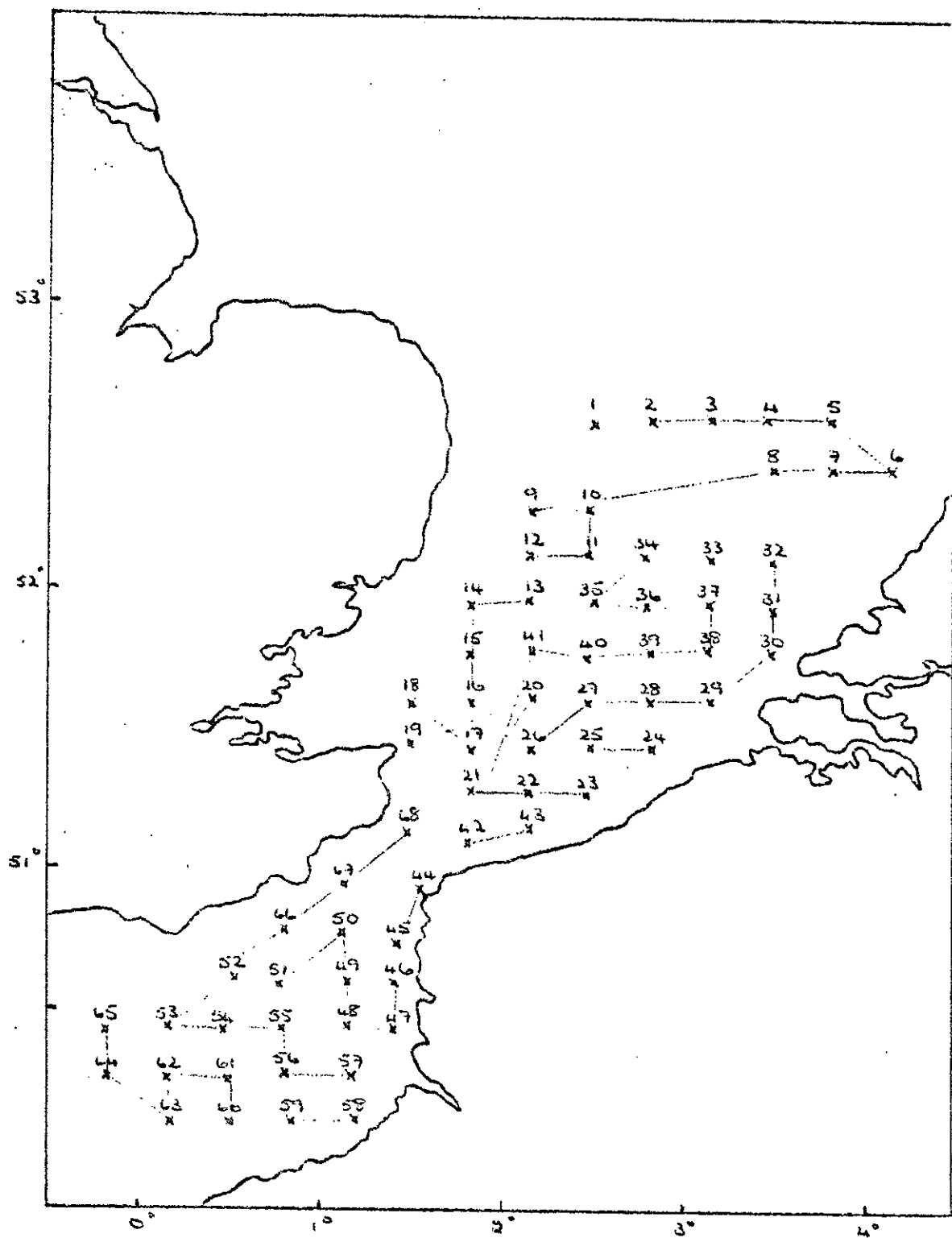
SEEN IN DRAFT: B A Chapman, Master, P Mackay, Skipper

INITIALLED: DJG

DISTRIBUTION:

Basic List +  
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# CRUISE TRACK FOR CLIONE 1/58



# CRUISE TRACK CLIONE 1/88 PART 2

X = MIK net station

Numbers are herring larvae / 10 m<sup>2</sup>  
(in brackets are numbers caught by R.V. Challenger)

