

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

1976 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE 13/76

PART A

STAFF

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DURATION

Left Lowestoft 2000 h 24 August
Arrived Lowestoft 1330 h 31 August
All times are Greenwich Mean Time

LOCALITY

Off Suffolk coast

AIMS

1. To map the Southwold dredging grounds using MAFF Scanner.
2. To survey benthos and sediments and to sample gut contents of demersal fish species.
3. To record near-bottom velocity shear over a 13 hour period at spring tide.
4. To investigate Data Buoy 1 moorings using the MAFF Scanner.

NARRATIVE

CLIONE proceeded directly to the dredging ground off Southwold where the MAFF Scanner was tested with the ship at anchor. On the following day, 17 stations were sampled for sediment and benthos using a Day grab. The benthic samples were sieved and all material retained on a 1 mm sieve was kept for examination in the laboratory. At the first slack tide after completion of the grab survey, the underwater camera was lowered to photograph the seabed. During the remainder of the trip the camera was used whenever possible over periods of slack tide. On the 26 and 27 August CLIONE surveyed the seabed on and around the dredging grounds using the MAFF Scanner. The Alden recorder, video tape recorder and cine camera were used to record features of particular interest. The survey repeated transects that had been mapped on previous cruises (CLIONE 15/74 and 14/75). The final transects were completed on the 28th after returning to Lowestoft to land an injured crew member and carrying out a brief survey around the site of Data Buoy 1 (DB1) off Benacre. On the 29th CLIONE anchored in the centre of the main dredging

ground in order to measure the near bottom velocity shear over a 13 hour tidal cycle. At the same time a direct reading current meter was used to record a profile of tidal velocity from the surface to the seabed. In order to obtain as complete a coverage as possible of the dredging ground a detailed Scanner survey, in which successive runs were approximately 200 metres apart, was carried out on the 30th. Finally a second survey of the DB1 site was completed before docking at Lowestoft on the afternoon tide of the 31st August.

RESULTS

1. The Scanner surveys of the dredging grounds off Southwold were completed successfully and showed that dredging had greatly increased since previous surveys. There was evidence of dredging outside the licenced grounds but this activity was very slight.
2. A total of 34 benthic and 17 sediment samples were collected from stations on and around the dredging ground but insufficient fish were caught to make the collection of stomachs for gut analysis worthwhile.
3. Measurements of velocity shear, together with a near surface to seabed profile of current velocity, were recorded for more than 13 h during a peak spring tide. Damage to the cable leading from the shear velocity current meter to the recording instruments on the ship occurred at each period of slack water with the result that readings around these periods were incomplete.
4. The surveys of the Data Buoy 1 site showed that a large wreck was present close to the northwest anchor. It was not possible to be certain whether or not cables from the Buoy were snagged around the wreck. The remaining anchors appeared to be free of obstructions although the southerly anchor may have been buried by sand. A strong acoustic signal was received only from the tags attached to the northeast anchor. A survey of the northern sector showed the ground to be a largely featureless seabed and apparently free of obstructions.

R Millner
8 September 1976

SEEN IN DRAFT JRF
RCN