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FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND

1975 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE 11A

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

STAFF

- R R Dickson
- R S Millner
- R A Eagle (Burnham)
- J Joyce (NERC Student)
- D O'Donnell (Sandwich Student)

DURATION

Left Lowestoft 1300 h, 14 July  
 Arrived Lowestoft 1500 h, 17 July

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All times Greenwich Mean Time

LOCALITY

Southwestern North Sea

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AIMS

1. Collection of live sandeels for laboratory experiments (Outer Dowsing Shoal).
2. Grab sampling on and around a sandeel spawning ground.
3. Suspended sediment sampling around the sandeel spawning ground.
4. Collection of Pectinaria for Mr Joyce (Southwold).
5. Collection of frozen sandeels in bulk for Mr Burt (Humber Laboratory).

NARRATIVE

CLIONE sailed at 1300 h, 14 July and proceeded to the sandeel spawning ground on the Outer Dowsing Shoal, where the first transect of 6 grab stations was worked between 1946 h and 2110 h. From 0507 h, until 1630 h, 15 July a series of 6 one-hour tows with Granton trawl and sandeel cod-end were made along the crest and flanks of the Shoal and the grab transects were then resumed until 2032 h. The grab survey was continued from 0750 h, 16 July to completion at 1205 h and CLIONE then anchored in the most productive trawling area on the Shoal to carry out half-hourly suspended sediment sampling in the midwater and near-bottom layers over one tide. Current velocities at these two depths were monitored simultaneously by DRCM until sampling ceased at 2000 h. CLIONE then left station to carry out seven echo sounder profiles across the Shoal along the lines of the grab transects from 2040-2315 h. With work at the

Outer Dowsing completed, CLIONE proceeded overnight to the Southwold-Thorpness study area. Between 0742 h and 1330 h, 17 July a total of 28 grab stations were worked in attempts to sample Pectinaria. CLIONE left the area at 1336 h docking at Lowestoft at 1500 h.

#### RESULTS

1. Over 500 live sandeels were returned to the laboratory.
2. Over  $\frac{1}{2}$  ton of sandeels were frozen for the Humber Laboratory and for Dr Purdom.
3. During the grab survey in and around the sandeel spawning ground on the Outer Dowsing, a total of 44 stations were successfully worked along 8 transects and along the crestline of the Shoal. A number showed sandeels buried in the grab sample, and this sediment type was collected in bulk for use in the laboratory experiments.
4. Seven echo sounder profiles of the Shoal were obtained along the grab transects.
5. The suspended sediment sampling was successful and may be considered to have provided fairly typical results for the tidal suspension of sediment in this area since it was conducted in calm conditions in tides intermediate between springs and neaps. (Maximum velocity 80 cm sec<sup>-1</sup> at midwater depth.) These samples await analysis, but it was immediately evident that very little material was in suspension.
6. The collection of Pectinaria off Southwold-Thorpness was only partly successful. The 28 grab samples provided only a quarter of the Pectinaria required.

R R Dickson  
18 August 1975

SEEN IN DRAFT: JRF  
WG

INITIALLED: AJL

#### DISTRIBUTION:

##### Basic List

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R S Millner  
R A Eagle (Burnham)  
J Joyce (NERC Student)  
D O'Donnell  
G C Baxter  
Heriot Watt (3)  
Mr Edwards (Crown Estate Office)  
Mr Burt (Humber Laboratory)