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

1973 RESEARCH VESSEL PROGRAMME

REPORT: RV CORELLA: CRUISE 2

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

STAFF:

J W Talbot  
G C Baxter  
J Woollorton  
K J Medlar

DURATION:

Left Lowestoft 1730 h 16 January

Arrived Lowestoft 1200 h 24 January

All times are Greenwich Mean Time

LOCALITY

Thames Estuary

AIMS

1. To lay a moored current meter array in the outer estuary.
2. To survey the levels of bed radioactivity as a follow up to the release of labelled sludge made during CORELLA 11/1972.
3. To collaborate with RV TELLINA in a trial continuous release diffusion experiment including testing of the new towed fluorometer.
4. To make further measurements to determine the force due to wind and current on a parachute drogue dahn.

NARRATIVE

- 16 Jan: CORELLA sailed from Lowestoft to Margate Roads. One current meter station was rigged.
- 17 Jan: Three current meter stations laid; one close to Kentish Knock LV and two in the Knock Deep. At these and all other moored meter stations a release of 25 sea-bed drifters was made immediately after laying the rig.
- 18 Jan: Five current meter stations laid; one in Fisherman's Gat, two off Margate and two close to the East Barrow sand bank.
- 19 Jan: Three current meter stations laid; two in Walleet off Frinton and one in East Swin near Gunfleet Old Light House. CORELLA then proceeded to the Barrow Deep where grab samples were taken in the reach from the East Barrow bank to the Oaze Deep.

- 20 Jan: In Ooze small ship anchorage. Tried to prepare depth fluorometer for use but it would not work properly. Made measurements of force on parachute drogue dahn tethered to ship.
- 21 Jan: Worked grab stations in Ooze deep and made measurements of bed radiation levels in Barrow Deep using towed gamma probe.
- 22 Jan: Made further measurements in Barrow Deep with towed gamma probe. Collected about 150 Kg of fine sand from edge of Gunfleet sandbank. Worked a line of grab stations in the Black Deep.
- 23 Jan: Worked grab stations in the southern part of the Thames Estuary. Carried out first trial tow of depth fluorometer and checked visually the outer six moored current meter stations. After sighting the current meter buoy near the Kentish Knock L.V. at 21.05 the ship set course for Lowestoft.

## RESULTS

1. An array of 11 current meter stations has been moored in the outer Thames Estuary.
2. A release of seabed drifters has been made at each moored meter station.
3. Working with TELLINA a grid of grab stations has been worked covering the estuary from Gravesend to the Kentish Flats in the south and to the mouth of the Orwell in the North.
4. Measurements have been made of the force due to wind and current on a parachute drogue dahn.
5. No diffusion measurements were made because the towed fluorometer would not work but some tests were carried out with this unit being towed behind the ship.
6. 150 Kg of fine sand was collected from the edge of the Gunfleet sand bank.
7. Using the towed gamma probe the activity levels on the bed of the Barrow Deep near the East Barrow Sandbank have been measured. A well defined distribution was suggested with its maximum a short distance from that measured in surveys in July and September 1972.

J W Talbot  
7 February 1973

SEEN IN DRAFT: W Craig (Master)  
E T Bridge (Fishing Skipper)

INITIALLED: AJL

DISTRIBUTION:

Basic List  
J W Talbot  
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