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

1977 RESEARCH VESSEL PROGRAMME

REPORT: RV CORELLA: CRUISE 1

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

STAFF

- P G W Jones
- A R Folkard
- C W Baker
- T C Doddington
- R Carter

DURATION

Left Lowestoft 0915 h 5 January
Arrived Lowestoft 1215 h 12 January
All times are Greenwich Mean Time

LOCALITY

Southern North Sea and Straits of Dover

AIMS

1. To collect two samples of sea water for the ICES international intercalibration of trace metals.
2. To collect samples between the Thames Estuary and the Hook of Holland for the analysis of trace metals in suspended particulate material and filtered water samples.
3. To survey the distribution of nutrient salts in the southern North Sea in order to monitor trends towards eutrophication.

NARRATIVE

After departing from Lowestoft CORELLA proceeded to a position midway between the Thames Estuary and the Hook of Holland where a large volume of surface water was collected for the ICES international trace metal intercalibration. The vessel then proceeded to the Oaze Deep in the Thames Estuary and anchored between 2250 h 5 January and 0800 h 6 January, during which the water sample was filtered, bottled and deep frozen. Water samples for trace metal and nutrient salt analyses were then taken between the Thames Estuary and the Hook of Holland and the second ICES intercalibration sample was collected off the Hook. The vessel then docked at Scheveningen 0117 h 7 January where the sample was processed. Later that morning representatives of the North Sea Directorate of the Rijkswaterstaat visited CORELLA to collect the intercalibration samples for distribution amongst participants in the Netherlands. The vessel departed from Scheveningen at 1530 h and commenced the nutrient salt survey at 1900 h. Sampling continued without interruption over a grid between the Straits of Dover and the Humber Estuary extending from the English to the Continental coast. The survey was completed at 0200 h 12 January when the vessel returned to Lowestoft.

RESULTS

1. Samples expected to contain 'low' and 'high' concentrations of dissolved trace metals were collected for the ICES intercalibration exercise. Most of these samples will be distributed to participants from the Fisheries Radiobiological Laboratory during the following weeks.
2. Samples for trace metal analysis were collected between the Thames Estuary and the Hook of Holland. Both particulate and filtered water samples were deep frozen for analysis ashore. The data will be used to assess trends in metal levels across the section from several surveys during recent years.
3. Most nutrient salt samples were analysed at sea for phosphate, silicate, nitrate and nitrite by means of the Technicon Auto Analyser. A preliminary assessment of the data indicates levels similar to recent winter surveys. However, the concentration of nutrient salts in the Thames Estuary appears significantly higher than on previous occasions.

P G W Jones

17 January 1977

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DISTRIBUTION

Basic list
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