MINISTRY OF AGRICULTURE FISHERIES AND FOOD
FISHERIES LABORATORY LOWESTOFT SUFFOLK ENGLAND

1973 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE 10.
(Provisional: Not to be quoted without prior reference to the author).

STAFF

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DURATION

Left Lowestoft 1930 hours 14 June
Arrived Lowestoft 0700 hours 28 June
All times are Greenwich Mean Time

LOCALITY

North Sea and eastern English Channel

AIMS

1. To survey the distribution of selected dissolved and particulate trace metals (cadmium, copper, mercury, nickel and zinc) in the English coastal region of the North Sea, the northern North Sea and the eastern English Channel.

2. To survey the distribution of selected trace metals (cadmium, copper, mercury, zinc, lead and manganese), organic carbon, carbonate and particle size of surface sediments collected at water sampling stations.

3. To measure the ultra-violet absorption of sea water as an index of its dissolved organic content.

4. To collect water samples for the analysis of caesium radioactivity.

5. To release sea bed drifters off Blyth in the sprat fishing area.

NARRATIVE

The trace metal survey grid was commenced at the northern end at 1625 hours 15 June. On 18 June samples were taken over a 13 hour tidal cycle at an anchor station on the southern part of the Dogger Bank. A similar cycle was worked during 23/24 June in the Thames Estuary. The vessel called at Den Helder between 1530 hours 20 June and 1100 hours 21 June to exchange sea water samples for a trace metal intercalibration exercise with the Texel Laboratory of the Netherlands Institute for Sea Research. Nutrient salt sample bottles were collected from the same laboratory to be used during the JONSDAP survey. Fog delayed the trace metal survey in the Straits of Dover on 25 June and CLIONE anchored off Deal between 1200 hours and 1730 hours. The survey was completed at 1440 hours on 27 June. The vessel then returned to Lowestoft and docked at 0700 hours the following day.

RESULTS

All aims were accomplished. The area covered on the trace metal survey is shown on the attached chart. Surface water samples were taken on all stations and bottom water samples were collected mainly on alternate stations. Different sampling techniques (bucket, pump, NIO bottle) were also compared. All water samples were deep frozen and returned to the laboratory for analysis.

Sediment samples were collected by means of a cone dredge at all water sampling stations except in the southern part of the English Channel. These samples will be analysed by the Institute of Geological Sciences, London.

P G W Jones
3 July 1973

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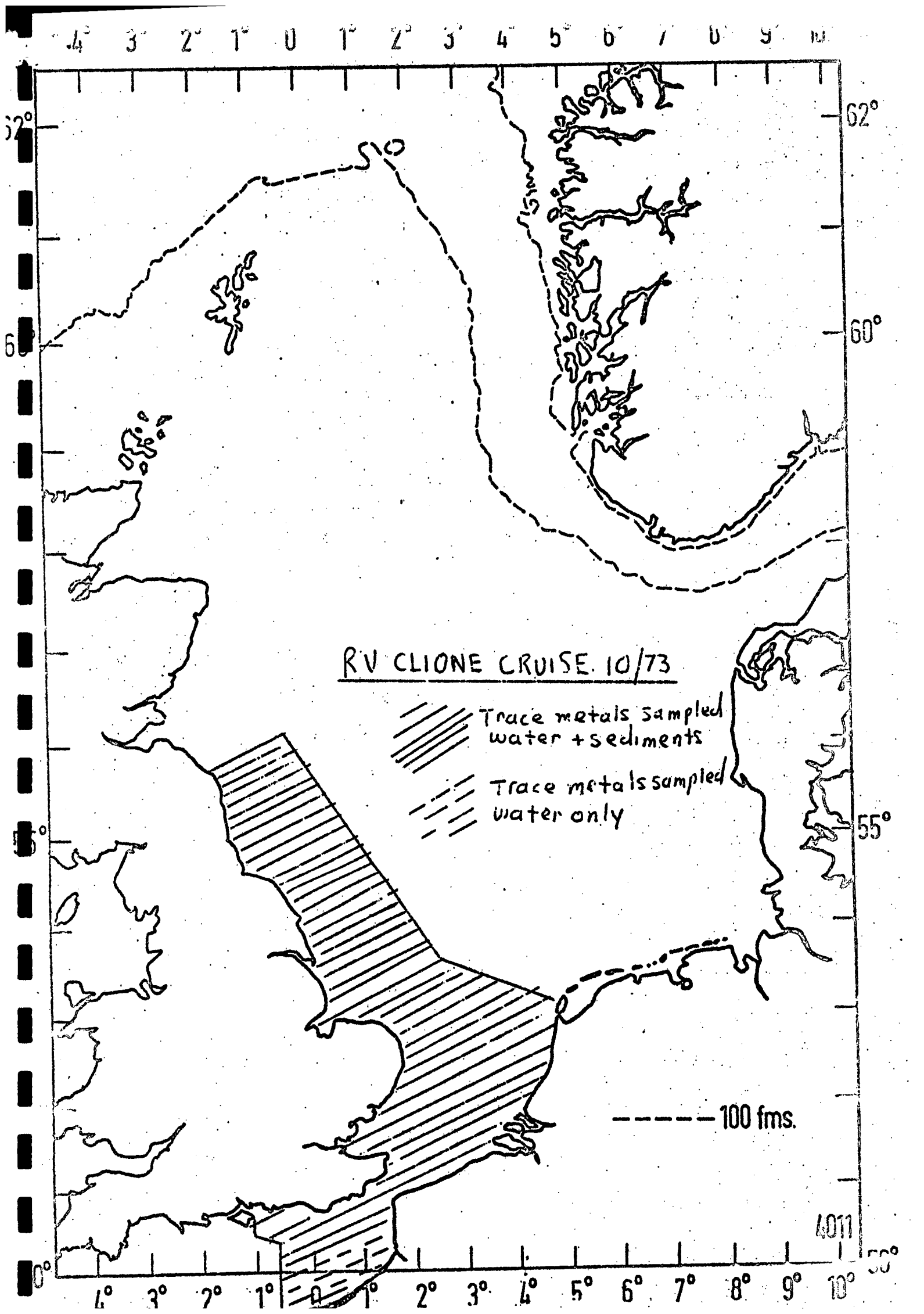
RV CLIONE CRUISE. 10/73
Trace metals sampled water + sediments
Trace metals sampled water only
100 fms.
4011