

MISS THWARD

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

1970 RESEARCH VESSEL PROGRAMME

REPORT: RV TELLINA: CRUISE 4

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

STAFF

- R G J Shelton (part-time)
- P A Ayres (part-time)
- P M Connor (part-time)
- A C Simpson (24 hours only)

DURATION

2-17 April 1970
Left Lowestoft 07.30 hours 2 April
Arrived Lowestoft 14.00 hours 16 April
All times are British Standard Time

LOCALITY

Outer Thames Estuary and Hook of Holland

AIMS

1. To survey the Barrow and Black Deeps of the outer Thames estuary in relation to sewage sludge.
2. To take part in an oil-sinking experiment off the Hook of Holland.

NARRATIVE

TELLINA steamed to Felixstowe during 2 April. R G J Shelton and P M Connor joined the ship at Felixstowe that evening. Bottom sampling was carried out during 3 April, TELLINA putting in to Sheerness. This work continued on the 4th when TELLINA returned to Felixstowe. Bottom sampling continued in the Thames estuary until 11.12 hours 6 April when it was necessary, because of bad weather to return to Felixstowe and thence to Ipswich. A C Simpson joined the cruise that night and P M Connor returned to the Burnham-on-Crouch laboratory.

At 19.30 hours, 7 April, TELLINA left Ipswich and made an overnight passage to an area off the Hook of Holland where the oil sinking experiment was due to take place. During these experiments, carried out during the early afternoon of 8 April, TELLINA carried out grabbing and trawling in the area where oil had been sunk. TELLINA remained at sea during that night and after further trawling and grabbing put in to the Hook of Holland. At 16.00 hours, 9 April, TELLINA left the Hook where Mr Simpson was put ashore and after making further observations on the experimental site and surveying the large, resurfaced, oil slick TELLINA returned to Felixstowe and thence to Ipswich where Dr Shelton

left the cruise to join the patrol vessel JOHN BEARDSWORTH at Menai Bridge.

Messrs Ayres and Connor joined TELLINA that evening (10 April). During 11 April TELLINA refuelled and the crew rested after the long hours worked during the trip to Holland. TELLINA left Ipswich at 05.30 hours, 12 April and after 19 stations had been worked in the Middle and Barrow Deeps, TELLINA put in at Sheerness. 17 more stations were worked from the Warp to the Middle Barrow on 13 April. Nansen bottle profiles were worked at 2 stations in the Warp before returning to Sheerness. Beam trawling and water sampling continued during 14 April, TELLINA docking at Felixstowe that night. Further trawling was carried out on 15 April together with further water sampling. Messrs Ayres and Connor left the cruise on the morning of the 16th when TELLINA returned to Lowestoft.

RESULTS

1. The grab survey of the Outer Thames estuary showed that subsurface anaerobic conditions existed in the Black, Barrow and Middle Deeps but only at one station in the Warp was the surface of the sediment also found to be black and smelling of hydrogen sulphide.
2. The beam trawling showed that small quantities of Crangon crangon were present in the outer estuary at this time. The average size was found to be rather lower than the average for the area as a whole.
3. The water samples have yet to be worked up.
4. The oil experiment showed that it is possible to sink Kuwait, topped, crude oil with amine treated sand. The initial effect was very successful. However, much of the oil was seen to return to the surface, forming a large slick. Trawling trials, carried out over ground where oil was known to be present and where it could be seen resurfacing, did not lead to fouling of the net though slight iridescent smears of oil were found on the ground rope after careful scrutiny. Cod, dab and plaice, caught at this time, were found to be untainted and when eaten tasted quite normal.

R G J Shelton
17 April 1970

SEEN IN DRAFT:

INITIALLED: AJL

DISTRIBUTION:

Basic List

R G J Shelton

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P M Connor

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