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MINISTRY OF AGRICULTURE, FISHERIES AND FOOD  
FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND  
1983 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE 4/83

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

STAFF:

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S M Rowlett  
D S Limpenny  
A N Thompson  
Catherine Wright  
C R Allchin

DURATION:

Left Lowestoft 1903h, 11 March  
Arrived Lowestoft 0916h, 27 March

AIMS:

1. To conduct an 'intensive' monitoring survey of the Bristol Channel disposal area (including the main and bad weather sewage dumping grounds and the Swansea Bay spoil ground) by use of side scanning sonar, grabbing and trawling.
2. To conduct 'routine' monitoring surveys at the Plymouth, western Lyme Bay and Nab Tower dumping areas.
3. To conduct 'intensive' monitoring surveys of (a) the Falls dumping area and (b) the Barrow Deep dumping area.
4. To conduct a sedimentological survey of the Roughs Tower spoil ground.
5. To conduct a side scan survey for FSM3 off Hornsea prior to Mr Howard's lobster release exercise.
6. Additional aim not on programme: To conduct a short monitoring survey of the Falmouth Bay dumping area.

NARRATIVE:

CLIONE sailed north from Lowestoft and a side scanning sonar survey was conducted off Hornsea in calm conditions between 0900h and 1700h, 12 March (Aim 5). CLIONE then made for the Bristol Channel and arrived at 0900h, 15 March when a grab survey was commenced (Aim 1). This was continued on 16 March. On 17 March, three Granton trawl stations were worked on clear ground 4 naut. miles NW of the main dumping area after which eight grab stations were revisited in an attempt to obtain better sediment samples. In addition, a grab station situated in the main dumping ground was sampled at slack water (low) and during full flood tide. Grabbing was completed at 1925h (17 March); no side scanning was considered necessary in the Bristol Channel and CLIONE steamed to Falmouth Bay for Aim 6. This short survey took place between 0938h and 1145h, 18 March and was followed by a similar survey off Plymouth 1435h to 1931h the same day (Aim 2).

CLIONE anchored in Plymouth Sound for the night of 18 March before docking the following morning at 0930h to take on water and fresh provisions. CLIONE left Plymouth at 0915h, 20 March and arrived in Lyme Bay to continue

Aim 2 at 1345h. Grabbing was completed at 2016h and CLIONE then proceeded to Nab Tower. Grabbing was commenced at 0830h, 21 March but stopped by bad weather at 1140h; CLIONE took shelter in Sandown Bay. On the following day, no work was possible until 1814h when the wind veered and moderated. After the grab survey was completed at 2015h (22 March) CLIONE steamed to the Falls area.

In continuing bad weather, grabbing was possible at the Falls (Aim 3) only between 0830h and 1230h on 23 March after which CLIONE sheltered in the Downs anchorage of Deal. On the following day grabbing was possible between 1030h and 1538h; CLIONE then dodged in a northerly wind before proceeding to the Wallet to anchor. A grab survey at Roughs Tower (Aim 4) was commenced on 25 March and again work was interrupted by bad weather, but after CLIONE had sheltered over night off Harwich, the survey was completed on 26 March. Three Granton trawl stations were then worked in the East Swin before CLIONE proceeded towards Lowestoft at 1800h.

**RESULTS:**

The following table summarises the results:

Aim	Working Area	Stations
1	Bristol Channel	61 grab stations 3 trawl stations
2	Plymouth	16 grab stations
	Lyme Bay	21 " " "
	Nab Tower	21 " " "
3	Falls	25 grab stations
	East Swin	3 trawl stations
4	Roughs Tower	48 grab stations
5	off Hornsea	Sidescan survey (2 stns)
6	Falmouth Bay	10 grab stations

Aim 1: The Bristol Channel area was successfully surveyed. Many of the sediment samples were gravelly but semifluid mud was encountered at slack water at a station situated at the main dumping ground; the mud had dispersed when resampled during the flood tide. Microbiological analysis indicated higher levels of faecal bacteria near the dumping area and towards Swansea Bay. Samples of whiting, lesser spotted dogfish, thornbacked and blond ray, brown and pink shrimp were collected for chemical analysis.

Aim 2: Successfully completed.

Aim 3: Because of bad weather only 25 of the planned 38 stations were completed at the Falls area and none at the Barrow Deep area. Samples of cod, dab, flounder and Dover sole were collected from East Swin (outer Thames estuary) for chemical analysis.

Aim 4: Successfully completed.

Aim 5: Successfully completed.

Aim 6: Successfully completed.

M S Rolfe  
27 March 1983

**SEEN IN DRAFT:**

G S  
R C N

DISTRIBUTION:  
Basic List

**INITIALLED:**

H W H

CLIONE 4/83  
(11-27 MARCH 1983)

Aim 5:  
also of Hornsea

Aim 1:  
Bristol  
Channel

Aim 4:  
Roughs Tower

EastSwin  
Aim 3:

Falls  
Aim 3:

Aim 2: Nab Tower

Aim 2:  
Lyme Bay

off Plymouth  
Aim 2:

Aim 6:  
off Falmouth

ENGLISH CHANNEL

