

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

1988 CHARTER CRUISE PROGRAMME

REPORT: RV CORYSTES: CRUISE 2  
(PROVISIONAL: not to be quoted without prior reference to the author)

STAFF:

S M Rowlatt (SIC)  
P A West )  
H L Rees )  
W Dore ) part-time  
R Flatt )  
D Limpenny  
M Lambert  
A Clarke

DURATION:

13-26 May  
Left Lowestoft 0900 h 13 May  
Arrived Lowestoft 0630 h 26 May  
All times are Greenwich Mean Time

LOCALITY:

North Sea

AIMS:

1. To collect sediments by grabbing and coring for physical, biological, microbiological and chemical analysis, at the Tyne sewage sludge dumping site.
2. To collect Modiolus and other epifauna off the Humber for biological and chemical analysis.
3. To collect core samples from widely spaced stations for an assessment of regional geochemistry.
4. To collect samples around various fly ash and colliery waste dumpsites to assess waste dispersion.
5. To survey the Tees Bay dredged material dumpsites.
6. To collect samples of plankton for a study of Nephrops larvae (for J Nichols).

NARRATIVE:

Corystes sailed from Lowestoft at 0900 h on 13 May. A new Shipek grab was tested (successfully) at the Humber sewage sludge disposal site that evening and Corystes continued to the Tyne area. On 14 May and 15 a grab survey was conducted at and around the Tyne sewage sludge disposal site. Bacteriological analysis of the samples was carried out on board the ship and samples were taken for chemical and sedimentological analysis later in the laboratory. On the evening of 15 May a grab transect was worked through the Blyth A flyash dumpsite. Preliminary data on the distribution of flyash was used to design a grid survey of the area which was worked on 16 May and 17 May. Transect surveys of the

disposal sites North Tyne (flyash, colliery waste and dredged material), Souter Point (flyash and colliery waste) and Sunderland (colliery waste and flyash) were carried out on 18 May. A grab survey of the two Tees Bay dredged material dumpsites was carried out on 19 May. On 20 May Dr Rees and Mr Flatt joined the ship via the Northumbrian water survey vessel 'Mariner'. Dr West and Mr Dore were put ashore in Hartlepool. Scallop dredges and anchor dredges were used to collect samples of the fauna at the outer Tees Bay dredged material disposal site. At the same time 'Mariner' took samples using Agassiz trawls. The hauls were compared as part of an effort to identify an organism suitable for monitoring metals in biota; Buccinum appears to be appropriate. In the evening of 20 May and morning of 21 May a series of 12 plankton tows were worked for J Nichols. The Underwater TV sledge was deployed to study the benthos of the Tyne sewage sludge disposal ground. A Reineck core sample was then taken from the same area. Mr Flatt was put shore on the morning of 22 May and a series of grab and beam trawl samples were collected from the Tyne disposal ground.

On completion of this work Corystes steamed to the Humber where a series of grab, core and anchor dredge stations were worked around the sewage sludge disposal site on 23 and 24 May. The underwater TV sledge was used at the dumpsite. On 25 May a Granton trawl was used off Mablethorpe and samples of dab, sole and flounder were collected for chemical analysis.

In the evening of 25 May Corystes worked a station north of Cromer as a control site for the Humber survey. The underwater TV sledge was deployed and samples of Modiolus collected for chemical analysis.

Corystes docked in Lowestoft at 0630 h on 26 May.

#### RESULTS

All aims were successfully achieved. In addition:

1. The MAFF underwater TV sledge was used at the Tyne and Humber dumpsites and in an area north of Cromer.
2. Samples of dab, sole and flounder were collected for chemical analysis.

Most of the samples will be analysed later in the laboratory. Charts of the Tyne microbiological survey are attached.

#### NOTE

Corystes is an excellent ship for scientific work and should serve the Ministry well in the future.

S M Rowlatt  
SIC  
15 June 1988

SEEN IN DRAFT: J R French (Master)  
P Mackay (Senior Fishing Mate)

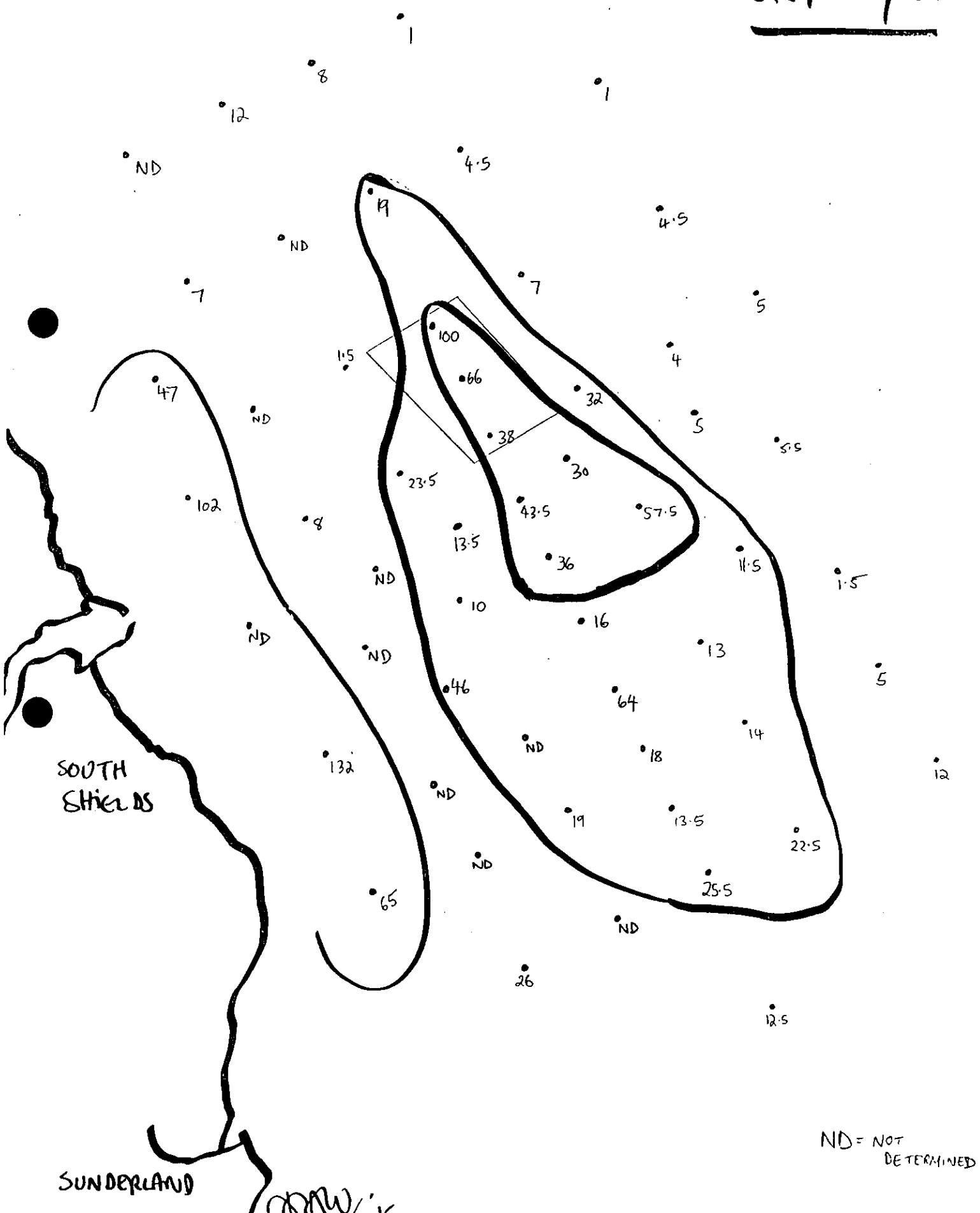
INITIALLED: RJP

Distribution  
Basic List +

P A West            D Limpenny  
H L Rees            M Lambert  
W Dore              A Clarke

# COUNTS OF GROUP D FACIAL STREPTOCOCCI per ml SEDIMENT

CORY 2/88

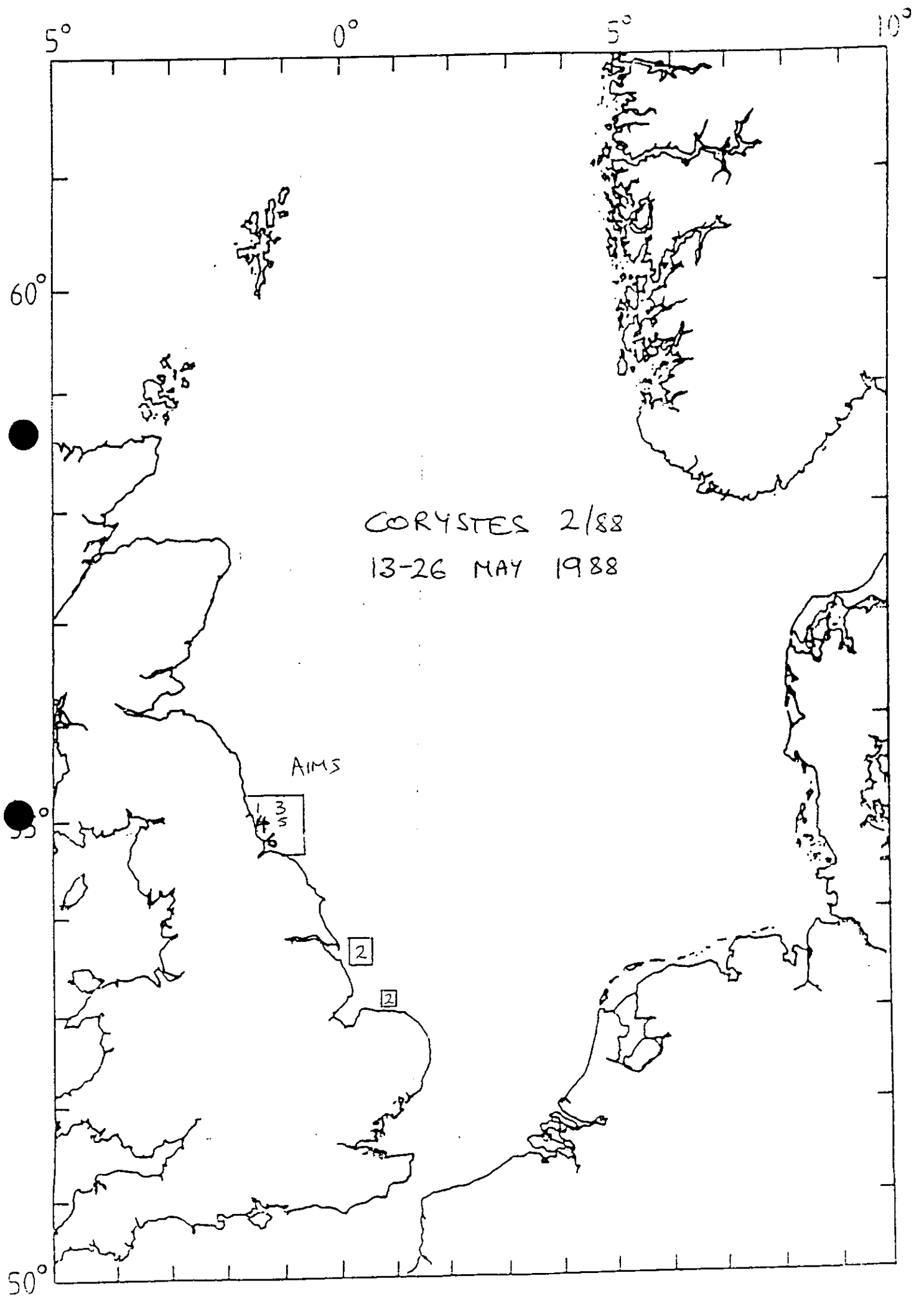


ND = NOT DETERMINED

SUNDERLAND

ADW/ik





CORYSTES 2/88  
13-26 MAY 1988

AIMS

1  
3  
5  
6

2

2