

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

**1990 RESEARCH VESSEL PROGRAMME**

**REPORT : RV CORYSTES: CRUISE 11**

(Provisional. Not to be quoted without prior reference to the author).

**STAFF :**

M J Waldock	(SIC)
R J Law	(to 18 Oct)
P M Hudson	
C R Allchin	(to 18 Oct)
D Bucke	(from 18 Oct)
A Franklin	(from 18 Oct)
J A Osborne	
S Bifield	
A J Fagg	

**DURATION :**

Left Lowestoft 1530 h, 12 October  
Arrived Lowestoft 00 h 22 October

(All times are Greenwich Mean Time)

**LOCATION :**

English Channel and North Sea

**AIMS :**

1. To conduct biological effects monitoring studies and associated physical measurements and chemical analyses at stations established by the North Sea Task Force (North Sea), and under the National Monitoring Programme.
2. To collect samples of demersal fish in support to NSTF programmes.
3. To collect water column samples for analysis of polycyclic aromatic hydrocarbons (PAH) along a transect across the Dover Straits as part of the FLUXMANCHE programme.
4. To collect water samples for TBT analysis across the Dover Straits as part of the joint MAFF/DOE programme on organotin.
5. To collect dab in support of NSTF fish disease work.
6. To collect samples of sediment in support of the Joint Monitoring Group baseline survey.

Aim 6. was added after preparation of the Cruise programme.

## NARRATIVE :

After leaving Lowestoft *Corystes* sailed directly to the Dover Straits. Sampling began at 0600h on 13 October at the first of the JMG stations, followed by the FLUXMANCHE transect which included the first of the NSTF stations (#69). Collection of water and sediment samples was completed by 2000h. During the night *CORYSTES* moved into position in Rye Bay and at dawn trawling began for demersal fish. Samples of whiting, plaice, and dab were obtained in two tows, and small dab were collected and preserved for EROD analysis.

A series of grab samples were then taken at JMG stations as *CORYSTES* steamed west to the next NSTF station East of the Solent (#70). Water and sediment samples were collected at the NSTF station at 2100h. Trawling for demersal fish commenced at 0600h on the following morning of 15 October. Few of the required species were present and two tows produced only 12 dabs.

The pattern of collection of grab samples *en route*, followed by sampling for water, sediment and trawling for fish was repeated over the next two days for the two remaining NSTF stations South of Weymouth (#72) and South of Plymouth (#73). Trawls at both sites were of limited success producing mainly scad. On the morning of 18 October at 0600 the trawling gear was changed and attempts were made to collect small dab by 3m beam trawl in Lyme Bay. Two members of the scientific staff were exchanged at Brixham at 1000h and beam trawling then resumed. Dab were generally thin on the ground and only 18 were preserved for EROD analysis.

*CORYSTES* then returned to Rye Bay and trawling resumed on the 19 October at 0600h for fish disease work. Each of four tows produced yielded adequate numbers of fish for examination. The third tow also produced a trigger fish which was retained live. A fifth tow was prevented due to gear damage. Whilst repairs were carried out *CORYSTES* moved on to the outer Thames. Trawling began in the Swin at 0600h on 20 October. The gear was irreparably damaged on the first tow and had to be replaced. Tows continued until 1630 in order to obtain sufficient fish for aim 2. At 0600 h of 21 October trawling continued at the Gabbard. On the first tow the trawl suffered substantial damage to the wings and box section. Since the tow produced no dabs, the time taken to repair the gear was used to move further inshore. Fishing began at 1225h and continued until 16 20h. No dab were found, but further samples of cod, whiting and plaice were obtained.

## RESULTS :

Aim 1. Samples of water, were collected from 4 NSTF stations. Extractions were carried out on board ship for various analytical determinands. Sediment samples could only be obtained from 3 of the 4 South coast NSTF stations. Dab livers for EROD analyses were collected at 2 stations and preserved by storage in liquid nitrogen.

Aim 2. Required species were cod, whiting, dab and flounder/plaice. NSTF station 69 provided all species but cod. Station 70; only flatfish. Station 72; none of the required species. Station 73; whiting. Station 19; whiting and station 25; whiting and a few cod. Other species were also taken and preserved by freezing.

Aim 3. Sub-surface and near bottom samples were collected from all 6 FLUXMANCHE stations, and extracts preserved for analysis.

Aim 4. Surface water samples were collected from all Dover Straits stations and extracted on board ship.

Aim 5. Samples of Dab for fish disease work were obtained from Rye Bay. Examination was completed on board. A low incidence (~1%) of epidermal and liver lesions was recorded.

Aim 6. Of the 48 stations visited for JMG sediment sampling 39 yielded samples.

M.J. Waldock

22 October 1990

SEEN IN DRAFT :

(master) 

INITIALLED :



(fishing skipper) 

DISTRIBUTION :

Basic list +  
R J Law  
C R Allchin  
A Franklin  
J Portmann  
A Fagg

P M Hudson  
D Bucke  
P Matthiessen  
J Osborne  
S Bifield

# CORYSTES CRUISE 11/90 TRACK

SHOWING :  
CRUISE TRACK

