

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

1990 RESEARCH VESSEL PROGRAMME

REPORT : RV CIROLANA : CRUISE 6
(Provisional. Not to be quoted without prior reference to the author).

STAFF :

R J Law	(SIC)
P M Hudson	
C R Allchin	(to 20 June)
J E Thain	(to 20 June)
D A Sheahan	(to 20 June)
R J Chapman	(to 20 June)
Moirá Salmons	(to 20 June)
C Pipe	(to 20 June)
M S Rolfe	(11 to 20 June)
M J Waldock	(from 20 June)
D S Kirkwood	(from 20 June)
Angela Hopkins	(from 20 June)
Alison Reeve	(from 20 June)
M Holt (Shell Research)	(from 20 June)
M Warman (Shell Research)	(from 20 June)

DURATION :

Left Lowestoft 0800h 5th June
Arrived Lowestoft 1130h 27th June
(All times are Greenwich Mean Time)

LOCATION :

North Sea, Irish Sea and English Channel

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 carry out a small-scale survey for atrazine and simazine in coastal/estuarine waters (DOE Red List study).
3. To determine surfactant concentrations in water around the sewage sludge disposal ground in Liverpool Bay.
4. 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.
5. To examine the toxic response of larval invertebrates to organic component extracts of seawater, and compare concentrations of compounds measured analytically in the same samples.

NARRATIVE :

CIROLANA sailed from Lowestoft at 0800h on 5 June and made for the River Tweed where work began on the morning of the 6th. This involved sampling both from the ship at anchor just outside the estuary, and from a number of riverine sites using the ship's Searider. Over the next three days similar sampling was undertaken in the Rivers Tyne (where the Searider's engine seized up during the sampling trip), Wear and Tees. CIROLANA then steamed offshore and, on 10 June, a transect from the Dogger Bank to the River Humber was sampled. On 11 June CIROLANA was anchored in the Humber and the Searider was used both for sampling and to bring Mr. Rolfe to the ship. Sampling was undertaken during 12 June, as CIROLANA continued South, off the Wash, the coast of East Anglia and the Thames Estuary, before CIROLANA passed the Straits of Dover during the evening. Sampling continued along a transect down the English Channel to 48°30'N 8°W, where sampling was undertaken between 1020h and 1340h on 14 June. CIROLANA then proceeded to the Irish Sea, sampling in the Bristol Channel and Cardigan Bay being undertaken en route. A call was also made at Fishguard to exchange the ship's Searider. On 17 June CIROLANA was at anchor just outside the Queen's Channel, and the Searider was used to collect samples from within the River Mersey, after completion of which a further 3 stations were worked in Liverpool Bay. On 18 June the ship was anchored off the Ribble and samples were taken there, but poor visibility precluded use of the Searider on that day. With sampling complete on 18 June CIROLANA proceeded to anchor in Morecambe Bay where sampling from ship and Searider was undertaken on 19 June. CIROLANA docked in Workington at 0830h on 20 June to exchange scientists, sailing again at 0930h on 21 June and returning to the River Mersey, where further sampling from the Searider was carried out during the evening. On 22 June an anchor station was worked by the sewage sludge disposal ground in Liverpool Bay, and on 23 June samples were collected on transects through the site, before leaving the area at 1600h bound for the English Channel. On the morning of 25 June samples were collected both at the Rame Head disposal ground, and from Plymouth Sound by means of the Searider, after which CIROLANA continued east along the Channel. The FLUXMANCHE transect across the Straits of Dover was worked on 26 June despite some fog, and sampling in the outer Thames estuary continued until 2200h, after which CIROLANA proceeded to Lowestoft, where she docked at 1130h on 27 June.

RESULTS :

Aim 1. Samples were collected from 55 stations, and bioassays were carried out on a number of these at sea. Total hydrocarbon concentrations were determined in all samples.

Aim 2. Samples were collected from 46 stations and extracts preserved for analysis.

Aim 3. Samples were collected from 24 stations in Liverpool Bay, and from 23 other sites for comparative purposes.

Aim 4. Subsurface and near bottom samples were collected from all 6 FLUXMANCHE stations, and extracts preserved for analysis.

Aim 5. Samples were collected from 56 stations.

Additional aims (1). 14 samples were collected for analysis of Lindane, along a transect in the Central and Eastern Channel. This is part of the ongoing monitoring effort following the loss of MV PERINTIS in March 1989.

(2). 15 seabed samples were collected around the Rame Head dredged spoil dumping ground. These were sieved and examined for glass and other rubbish which, it has been alleged, are being dumped in this ground in quantity. No signs of such debris were found. Subsamples of the sediments were preserved for analysis.

R J Law
7 September 1990

SEEN IN DRAFT :

MJW (master)
RFG (fishing skipper)

INITIALLED : CEP

DISTRIBUTION :

Basic list +

R J Law
C R Allchin
D A Sheahan
C Pipe
M S Rolfe
D S Kirkwood
Alison Reeve
M Holt (Shell)
J E Portmann
J M Davies (DAFS)
L Cabioch (Roscoff)
J Tronczynski (IFREMER)

P M Hudson
J E Thain
R J Chapman
Moira Salmons
M J Waldock
Angela Hopkins
A Franklin
M Warman (Shell)
R A A Blackman
P C Reid (DoE)
A Abarnou (IFREMER)
P Matthiessen

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62°
60°
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CIROLANA 6/90
CRUISE TRACK
5 TO 27 JUNE

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