

CEFAS FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND

2002 RESEARCH VESSEL PROGRAMME

REPORT: RV CORYSTES: CRUISE 9/02

STAFF

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DURATION

12th – 22nd July

LOCALITY

North Sea – Outer Thames and Outer Silver Pit

AIMS

1. To study the impact of various types of seabed disturbance on sediment geochemistry (A1224)
2. Service SmartBuoys at the Outer Gabbard and The Warp (AE004)
3. Recover the Waverider at the Warp.

PLAN (all times are Greenwich Mean Time)

Leave Lowestoft on the morning tide of the 12th July and went to Outer Gabbard to service SmartBuoy and exchange the guard buoy. The exchange was completed successfully and we stayed on site for a mini anchor station collecting CTD profiles and water samples. Left the Outer Gabbard for the Warp SmartBuoy. The SmartBuoy, guard buoy and Waverider were recovered during the morning of the 13th. Replacement buoys were deployed and the Waverider was retained for servicing as planned.

On the 14th two new disturbance sites in the Outer Thames were surveyed for suitability. These were subsequently side-scanned and samples collected for in-faunal analysis. Mark Trimmer was picked up from Southend Pier on the morning of Monday 15th. Over the next three days, 6 disturbance sites were surveyed and sampled.

Sampling at each site was by the following:

- Sidescan to assess impact (mainly by trawling)
- NIOZ corer – for sediment assays of nutrient exchange, oxygen profiles and uptake, denitrification, sulphate reduction, interstitial water nutrient profile, PSA, porosity and sediment chl  $\alpha$ .
- Hamon grab – for in-fauna – species and abundance (samples largely preserved)
- Jennings type 2m beam trawl – epi-benthos – species and abundance (samples processed on board)

- CTD – water column profiles of salinity, temperature, suspended solids, chl  $\alpha$  fluorescence, downwelling light

In the early evening of Wednesday 17th Corystes left the Thames for the Outer Silver Pit, arriving after breakfast on Thursday.

A further 6 sites were surveyed around the Outer Silver Pit using the same techniques as described above. Unfortunately 2 of the sites visited during Corystes 10/01 had to be moved as a cable had been laid nearby. We left Outer Silver Pit at 17:00 on 21st to return to Lowestoft on the morning tide docking 07:30 on 22nd as planned.

During the cruise two experiments were conducted on the variability of PSA, porosity and sediment chl  $\alpha$ .

I would like to thank the Master, officers and all the crew for their help and patience during this cruise. The tight schedule could not have been adhered to without the co-operation of all aboard.

Dave Sivyer  
(Scientist-in-Charge)

23/6/02