

**DEPARTMENT FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS.  
CEFAS LOWESTOFT LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND.**

**2003 RESEARCH VESSEL, PROGRAMME.**

**PROGRAMME: RV ENDEAVOUR; CRUISE 4B/03.**

**STAFF:** J Thain (SIC)  
J Jones  
W Reynolds  
B Lyons (Lowestoft); 25<sup>th</sup> June - 5<sup>th</sup> July  
G Stentiford (Weymouth); 5<sup>th</sup> July to 18<sup>th</sup> July  
E Garnacho; 25<sup>th</sup> June to 5<sup>th</sup> July  
S Feist (Weymouth); 25<sup>th</sup> June - 5<sup>th</sup> July  
M Longshaw (Weymouth); 25<sup>th</sup> June - 5<sup>th</sup> July  
K Bateman (Weymouth); 5<sup>th</sup> July - 18<sup>th</sup> July  
J Bignall (Weymouth); 5<sup>th</sup> July - 18<sup>th</sup> July  
E Naylor (Weymouth); 25<sup>th</sup> June - 5<sup>th</sup> July  
K Thomas  
S Lincoln  
S Lucas; 25<sup>th</sup> June - 5<sup>th</sup> July  
Paul Roberts - 5<sup>th</sup> July - 18<sup>th</sup> July  
Paul Leonard (Defra); 25<sup>th</sup> - 29<sup>th</sup> June  
Richrad Emmerson (Defra); 7<sup>th</sup> - 14<sup>th</sup> July

All staff from Burnham Laboratory unless indicated otherwise.

**DURATION:**  
25<sup>th</sup> June to 18<sup>th</sup> July, 2003.

**LOCATION:**  
North Sea, Irish Sea, Clyde, Celtic Sea and English Channel.

**AIMS:**

1. To collect samples of demersal fish for chemical analysis from the North Sea, Eastern English Channel and Irish Sea in support of UK National Marine Monitoring Programme (NMMP).
2. To collect water samples for NMMP biological effects studies and to deploy fractionation / bioassay techniques on water samples from offshore and near shore/estuarine locations.
3. To collect sediment samples for biological effects studies (whole sediment and pore water) at NMMP sites and from additional selected sites as appropriate, e.g. Dogger Bank.

4. To collect fish samples at NMMP sites, for fish disease and genetic toxicological analysis (e.g. DNA adducts).
5. To further investigate the use of appropriate biochemical, cytochemical and other biological techniques in support of NMMP.
6. To sample representative offshore NMMP locations using grab, core, and trawl for trace metal contaminants, PAHs and other organic contaminants (including nonylphenols, flame retardants and HCs) and the benthic fauna.
7. To collect biota for determination of imposex and TBT analysis, and sediment for TBT analysis from shipping lanes, anchorages and reference sites in support of OSPAR requirements.

#### **PLAN:**

*RV ENDEAVOUR* will sail from Lowestoft on the evening tide of 25<sup>th</sup> June and sail to the southern North Sea (Smiths Knoll) and take samples under aims 2,3, 5 and 7 and trawl for fish under aims 1 and 4. Further sampling will take place at NMMP stations at Gabbard and the Thames estuary and at anchorages and shipping lanes in the Thames estuary and Dover Straits for aim 7.

*ENDEAVOUR* will then sail to Rye Bay and trawl for fish under aims 1 to 5. After completing this work *ENDEAVOUR* will sail to Weymouth and dock for one day on the 29<sup>th</sup> June in support of the CEFAS Weymouth fish fair. *ENDEAVOUR* will then sail to Cardigan Bay and the Irish Sea taking samples for aims 1-5 and 7 *en route* at Southampton Water, Lyme Bay, Swansea Bay and Milford Haven. On completion of this work *ENDEAVOUR* will take sediment and fish samples (aims 1-5 and 6) at the NMMP stations at Dundrum Bay, Cardigan Bay, Celtic Deep and Liverpool Bay and Morecombe Bay. On completion of this work *ENDEAVOUR* will sail north. Further samples of water, fish and sediments will be taken under aims 1 to 5 as *ENDEAVOUR* steams to the Central North Sea, Dogger Bank, North East Coast and NMMP stations in the Humber and Wash. *ENDEAVOUR* will then sail to Lowestoft to dock on the 18<sup>th</sup> July. Water samples for aim 2 and 7 using the ship Searider will be taken as and when conditions are suitable eg Southampton Water, Fal and Milford Haven.

Change of scientist to take place in the northern Irish Sea (Whithaven / Douglas / Belfast - where appropriate.)

#### **GEAR:**

##### **Endeavour 4B/03 Gear List**

1. 2 x Agasis trawls + spare nets
2. 2 x Simon Jennings type 2m Beam Trawl + spare nets

3. 2 x Burnham (Our type) 2m Beam Trawl with 2 spare nets and spare beams - FROM Burnham.
4. 2 x 3m beam trawls with cod end liners and spare net.
5. Granton Trawl with cod end liner plus spare trawl and spare net
6. Small Portuguese Trawl + spare net if available (may be required for cod fishing in Northern North Sea)
7. Fish processing tables
8. Sextant
9. Reineck Corer and ancillary equipment
10. Rock dredge with chain link bag
11. Two Day Grabs (Could we have a length of rope between warp and grab to avoid contamination).
12. 2 set of 3 fine mesh Scallop Dredges with beam and spares - these have been supplied broken and in poor condition in the past - PLEASE advise on current condition.
13. Searider or equivalent for estuary and "away from boat" work (Approx 5 estuaries)
14. 2 x Hand-held VHF Radios
15. Portable fridge and chest freezer - should be in store in Lowestoft

All other gear from Burnham Laboratory.

John Thain (Scientist In Charge)

1<sup>st</sup> May 2003

**INITIALLED:** Draft seen by AE002 contract leader

**DISTRIBUTION:**

Basic list: +

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J Jones  
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E Garnacho  
S Feist  
M Longshaw

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D Morris