DEPARTMENT FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS. 2007 RESEARCH VESSEL PROGRAMME: *RV CEFAS ENDEAVOUR* Survey Programme: C END 12/07

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25/05/07-04/06/07

04/06/07-15/06/07

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DURATION:

Part 1 : 25^{th} May -4^{th} June (approx.) **Part 2 :** 4^{th} June (approx.) -15^{th} June

Changeover at sea Lowestoft

LOCALITY:

Sea areas Dogger, Humber, Thames, Channel, Wight, Portland, Plymouth, Lundy Cardigan Bay, Clyde and Argyll

AIMS:

- 1. To sample sediments and water at various stations in the Anglia region for later analysis of macro- and meio- fauna, metals, chlorophyll a, porosity, organic contaminants, nutrients and salinity. This survey forms part of the CESEMP (NMMP) redesign program.
- 2. To carry out post-remediation survey work at aggregate extraction site Area 408, close to the Coal Pit (AE0916).
- To sample representative CESEMP (NMMP) locations using grabbing, coring, and trawl methods. Samples will be later analysed for trace metal and organic contaminants, litter and epi-, macro- and meio- fauna.
- 4. To undertake sampling at the historic sewage sludge disposal site off the river Tyne using grabbing, coring and beam trawls for later analyses of macrofauna, meiofauna, epifauna, metals and organic contaminants.
- 5. To survey dredged material disposal sites at the Blyth, North Tyne, Souter Point (Tyne), Tees Bay (inner and outer), Scarborough Rock, Roughs Tower (off Harwich), Swanage Bay, Rame

Head (off Plymouth), Lantic Bay (Fowey Bay) and Swansea Bay for benthos, trace metal and organic contaminants in sediments, using grabbing and coring. At a number of sites the SPI camera and various acoustic methods will also be used.

- 6. To sample horse-mussels from the Humber/Wash area for later analyses of contaminants in flesh.
- 7. To sample the benthos and sediments for time-series studies using the Hamon grab, in the vicinity of aggregate extraction sites off the Isle of Wight and Lowestoft.
- 8. To undertake a broadscale spatial survey, using grabbing, under water TV and acoustic methods within sea areas Plymouth, Scilly Isles, North Cornwall, Cardigan Bay, Liverpool Bay, Isle of Man, Clyde and Argyll (ME3112).



Survey Track CEnd 12/07

PLAN:

Part A:

CEFAS Endeavour will leave Lowestoft on 25th May (H.W. 17:06) and sail to the Anglia area to begin work on Aim 1. On completion of this work the vessel will sail to area 408 (Aim 2) and then on to NMMP 345 and later to NMMP 295 (off Tees) and NMMP 285 (off Tyne) where samples will be collected for later analysis of benthic and chemical determinants. A number of further surveys will then be carried out in the Tyne area. These include the historic sewage sludge disposal site at North Tyne (Aim 4), the dredged material disposal site at Blyth (Aim 5), the North Tyne Dredging transect (Aim 5), Souter Point (Aim 5) and also the inshore NMMP site 245 (Aim 3). On completion, CEFAS Endeavour will then steam to sites off the Tees for collection of further samples under aim 5. Around the 31st one member of the scientific staff will need to be put ashore, probably around the NE of England. The ship will then continue south to Scarborough Rock to collect sediment samples for trace metal and PAH analysis (Aim 5) and then to the historic Humber sewage sludge disposal site in order to collect Horse Mussels (Aim 6). On completion the ship will steam south to undertake sampling at a further two CESEMP sites. Following completion of sampling at CESEMP (NMMP) sites 376 and 386 in the Wash (Aim 3) further sampling for Horse Mussels will be conducted at a site near the Inner Dowsing (Aim 6). After completing these stations further CESEMP (NMMP) redesign stations will be collected (Aim 1). At a convenient point in the programme, a changeover of scientific staff will take place, on or about 4th June, in the southern North Sea, probably off Lowestoft by small boat (weather permitting).

Part B:

Following the changeover, a number of Hamon grab samples will be collected from temporal sites in the vicinity of the Cross Sand aggregate extraction licensed block (Aim 7) and further CESEMP (NMMP) redesign stations (Aim 3). *CEFAS Endeavour* will then head south to NMMP 475 (Aim 3). On completion the ship will undertake a survey at the Roughs Tower dredging disposal site (Aim 5). The ship will then steam, via CESEMP (NMMP) 466, to complete the CESEMP (NMMP) redesign survey of the Anglia area before sailing into the English Channel to CESEMP (NMMP) site 484. The vessel will then continue westwards and carry out survey work in an area to the east of the Isle of Wight (Aim 7). The ship will then steam to Swannage Bay to continue the assessment of the dredge disposal site and the surrounding area (Aim 5). On completion the ship will steam to CESEMP (NMMP) sites 536 (Lyme Bay) and 575 (Plymouth) (Aim 3). Following this a survey of the Rame Head dredged material disposal site will be carried out. *CEFAS Endeavour* will then begin work on the broadscale spatial survey within sea areas Plymouth, Scilly Isles, North Cornwall, Cardigan Bay, Liverpool Bay, Isle of Man, Clyde and Argyll. (Aim 8) and also CESEMP (NMMP) 605 (Aim 3). On completion of the work the ship complete a survey within Swansea Bay and then dock in Swansea on 15/06/07.

INITIALLED:

P Whomersley K Cooper

18/05/07

DISTRIBUTION:

All scientific cruise personnel + M Waldock S Malcolm L Murray D Morris J Hunt R Jolliffe R Law C Kelly H Rees C Vivian J Thain J Rees D Sivyer J Jones