

DEPARTMENT FOR ENVIRONMENT, FOOD AND RURAL AFFAIRS.

2005 RESEARCH VESSEL PROGRAMME

PROGRAMME: *RV CEFAS ENDEAVOUR*: CRUISE 9

STAFF:

Part 1 :

Keith Cooper(SIC)
David Limpenny
Paul Whomersley
Jackie Eggleton
Sam Vize
Stefan Bolam
Koen Vanstaen
Sue Ware
Chemist
Bill Meadows
Michaela Schratzberger
Nigel Lyman

Part 2 :

Keith Cooper (SIC)
Paul Whomersley
Koen Vanstaen
Sue Ware
Sam Vize
Becky Smith
Silvana Birchenough
Matt Curtis
Caroline Limpenny
Bill Meadows
Annie Meadows
Stacey Faire

DURATION:

Part 1 : 29th May – 5th June (approx.)

Part 2 : 5th June (approx.) – 14th June

Changeover at sea off Thames or Lowestoft

LOCALITY:

North Sea/English Channel/Bristol Channel

AIMS:

1. To undertake a baseline survey at aggregate extraction area 408, using a range of techniques, prior to restoration action being undertaken later in the year.
2. To survey dredged material disposal sites at the Blyth, Souter Point (Tyne), Tees Bay, Inner Gabbard and Inner Gabbard East (outer Thames estuary), Roughs Tower (off Harwich), Nab Tower and Needles (Isle of Wight), Rame Head (off Plymouth) and Swansea Bay for benthos and for trace metal and organic contaminants in sediments, using grabbing, coring and acoustic methods.
3. To sample representative NMMP locations using grabbing, coring, acoustic and trawl methods for trace metal and organic contaminants, litter and the epi-, macro-, meio-, and micro fauna.
4. To sample surface waters at representative offshore and intermediate NMMP locations for salinity, nutrients and chlorophyll.
5. 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, Lowestoft and in the Eastern English Channel.
6. To sample horse-mussels from the Humber/Wash area for later analyses of contaminants in flesh.
7. To carry out a short sidescan sonar survey at an aggregate extraction site in the outer Wash.

PLAN:

Part A:

CEFAS Endeavour will leave Lowestoft on 29th May and sail to Area 408 (Coal Pit), where a range of sampling techniques will be employed under aim 1. On completion of this work the vessel will sail to NMMP 345 and later to NMMP 285 (off Tyne) where samples will be collected for later analysis of benthic and chemical determinants. A number of further aims will then be carried out in the Tyne area. These include the dredged material disposal site at Blyth, the historic sewage sludge disposal site at North Tyne and also at an inshore NMMP site (Aims 2, 3, 4). On completion, *CEFAS Endeavour* will then steam to sites off the Tees for collection of samples under aim 2 and also for the recovery of a data collection buoy for colleagues at Lowestoft. The ship will then continue south to collect water and sediment samples

at an NMMP site south of the Humber (Aims 3 and 4) and we will also seek to collect a sample of Horse Mussels from the historic Humber sewage sludge disposal site (Aim 7).

Following sampling at an NMMP site in the Wash (Aims 3 and 4) and a short sidescan survey (Aim 9) close to the Docking Shoal, further sampling for Horse Mussels will be conducted at a site near the Inner Dowsing (Aim 6). Hamon grab samples will then be collected from a number of temporal sites in the vicinity of the Cross Sand aggregate extraction licence block (Aim 5). Endeavour will head south to conduct multidisciplinary surveys at a number of locations in the vicinity of the Inner Gabbard (Aims 1, 3 and 4) before carrying out acoustic and sampling surveys at the Roughs Tower dredged material disposal site (Aim 2). An NMMP site in the Warp (Thames Estuary) will then be sampled.

At a convenient point in the programme a changeover of scientific staff will take place, on or about 5th June, in the southern North Sea either at Lowestoft, or at a suitable location in the Thames Estuary.

Part B:

CEFAS Endeavour will sail into the English Channel and carry out sampling at an NMMP site off Dungeness (Aims 3 and 4). The vessel will continue westwards and carry out survey work in the eastern English Channel, in an area to the east of the Isle of Wight (Aim 5) and at the Nab Tower and Needles dredged material disposal sites (Aim 2).

Sampling at the dredged material disposal site in Swanage bay will be conducted prior to routine sampling at NMMP 536 in Lyme Bay and at a further NMMP site off Plymouth. Following this a survey of the Rame Head dredged material disposal site will be carried out. An inshore survey may also be carried out at Rame Head using *Endeavour's* small boat. *CEFAS Endeavour* will then sail to NMMP 605 in the Celtic Deep and carry out routine survey work under Aims 3 and 4. Finally, sampling will be carried out off Milford Haven and at the Swansea Bay dredged material disposal sites prior to the vessel docking in Swansea on 14th June.

K Cooper
11.5.04

INITIALLED:

DISTRIBUTION:

Basic list +
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