

CENTRE FOR ENVIRONMENT, FISHERIES AND AQUACULTURE SCIENCE,
LOWESTOFT, SUFFOLK, ENGLAND

DRAFT 2008 RESEARCH VESSEL PROGRAMME

PROGRAMME: RV Endeavour: CRUISE 08/08

STAFF:

Dr Liam Fernand (SIC) (CEFAS)	Mr Ben Kurten (Newcastle University)
Dr Ruth Parker (CEFAS)	Ms Celine. Vignot (Newcastle University)
Mr Neil Needham (CEFAS)	Ms Elke Neubacher (Queen Mary College)
Mr Paul Buckley (CEFAS)	Dr Rob Wittbard (NIOZ)
Dr Keith Weston (UEA)	Dr Kevin Black (Par Track)
Dr Gary Fones (Portsmouth Uni)	AN Other (Par Track)
Ms Fay Couceiro (Portsmouth Uni)	Dr Inmar Frutos
Ms Melanie Sapp (Tbs) (CEFAS)	

DURATION: Monday 21st April – Tuesday 29th April

Approx Sailing Time 22:00 BST on board for 21:00

Approx Docking Time 1500 BST on 28th

LOCALITY: Southern Bight, Oyster grounds and Central North Sea, Dogger Bank region

Background: This is the 7th cruise of a series of cruises that form an essential part of a project addressing the source, cycling and fate of nutrients (i.e. carbon, nitrogen, silicon, oxygen) in UK Shelf Seas, specifically the North Sea. It will examine the relative importance of the various ecosystem components, their degree of connectivity and their susceptibility to change due to environmental or human pressures. The project combines an intensive observational programme in the North Sea, with model development and operation. Three representative sites have been selected for detailed process studies of pelagic (water column) and benthic (seabed) food webs, with horizontal and vertical spatial sampling over a broader area being achieved using a variety of towed instruments, and the temporal range being extended using autonomous buoys and bottom landers. These cruises have significant involvement from partners, through the existing University links but also through the NERC collaborations and through NIOZ.

Specific cruise AIMS (not in priority order)

1. Recover and redeploy landers at the three sites and additionally the smart buoys at the north dogger site.
2. Deploy sediment flume instrument for resuspension studies
3. Perform scanfish tows North of the Dogger Bank to give context for productivity
4. CTD casts for Primary productivity estimates and deck incubations using N15 uptake.
5. Undertake experiments on productivity and grazing at the three sites.
6. Underway measurements for isotopic ratio work from continuous supply.
7. Collect Plankton samples for species composition using vertical nets
8. Deployment of SPI camera to investigate the impact of trawling
9. Collect core profiles, of nutrients, oxygen, chl-a. (NIOZ corer) and sediment profiles.
10. Deploy BIONESS multinet sampler for zoo plankton at selected sites.

PLAN (all times GMT) however, work will vary and all timings are approximate and liable to change:

Weather permitting Endeavour will sail at approximately 21:00 (GMT) on 21st April and head for the Sean Gas Field site. Work will commence here, Tuesday 22nd

First an attempt will be made to recover the mooring using the granton trawl. The following activities will be undertaken in roughly this order

CTD and nets.

NIOZ cores

Sediment Flume studies

Mooring deployment

Sediment Flume studies

Hyperbenthic sledge

Flume studies

SPI camera deployment.

CTD and NETs

Aiming to finish by approx 20:00

Wednesday 23

There would be direct passage to the Oyster ground site arriving approx 04:00

CTD and nets.

Mooring recovery (lander only)

Sediment Flume studies

Mooring deployment (lander only)

Hyperbenthic sledge

CTD and NETs

Sediment Flume studies

BIONESS :- MultiNet

SPI camera deployment.

NIOZ

Sediment Flume studies

CTD and NETs

Aiming to finish by approx 22:00 (Wednesday)

Passage on to the Dogger Bank with a scanfish section starting on the Dogger Bank.

Thursday 24th Approx (0600)

A long – Scanfish section North would be continued for approx 16 hrs (112 nm).

Friday 25th

Approx 12 CTDS for productivity and SPI would be undertaken back along taking approx (18 hrs)

Sediment Flume studies on site at Dogger

Saturday 26th

CTD and NETs

Mooring recovery (Smart buoy and lander)

Sediment Flume studies

SPI camera deployment.

NIOZ

Mooring deployment (Smart buoy and lander)

Hyperbenthic sledge

BIONESS :- MultiNet

Sediment Flume studies

CTD and NETs

Sunday 27th

Survey of area with NIOZ and SPI for comparative impact of trawl work.

Monday 28th 1600 :- depart for Lowestoft

Tuesday 29th 1600 arrive Lowestoft.

Liam Fernand
(Scientist-in-Charge)
2 Apr 2008

DISTRIBUTION:
BASIC LIST+ all those on cruise.