

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

2010 RESEARCH VESSEL, PROGRAMME

PROGRAMME: RV ENDEAVOUR; CRUISE 11 A, B & D / 10

STAFF:

Cruise Dates: C END 11A/10 05/06/10 – 15-16/06/09

**Sea bed integrity, CSEMP, Dredge disposal site monitoring surveys
(Departing Lowestoft – change over Hartlepool)**

1. Paul Whomersley (SIC)
2. Roger Coggan (Habitat)
3. Suzanne Ware (Benthic)
4. Andrew Griffith (Benthic)
5. Elke Neubacher (Geochemist)
6. Tom Bell (Geochemist)
7. David Stephens (Acoustics/GIS)
8. Markus Diesing (Acoustics)
9. Clare Jackson (Benthic)
10. Briony Silburn (Sedimentologist)
11. Chris Barrio Frojan (Benthic)
12. Bill Meadows (Ships ops)
13. Simon Pearson (Ships ops)
14. Julia Rance (GIS, Acoustics)
15. Jesse Harrison (PhD, Microbiologist)
16. Dave Sivyver (Geochemist)

Shift 1 12:00 – 00:00

Roger Coggan (Shift leader)
Elke Neubacher
Clare Jackson
Markus Diesing
Andrew Griffith
Simon Pearson
Tom Bell

Shift 2 00:00 – 12:00

Suzanne Ware (Shift leader)
Chris Barrio Frojan
Claire Mason
Jesse Harrison
Julia Rance
Dave Sivyver
Dave Stephens

C END 11B/10 15-16/06/10 – 21/06/10
CSEMP, Dredge disposal monitoring surveys
(Change over Hartlepool - dock Hartlepool)

1. Paul Whomersley (SIC)
2. Roger Coggan (Habitat)
3. Suzanne Ware (Benthic)
4. Andrew Griffith (Benthic)
5. Elke Neubacher (Geochemist)
6. Matthew Curtis (Benthic)
7. David Stephens (Acoustics/GIS)
8. Clare Jackson (Benthic)
9. Louise Webster (Sedimentologist)
10. Chris Barrio Frojan (Benthic)
11. Bill Meadows (Ships ops)
12. Joanna Uzyczak (Chemist)
13. Cheryl Moran (Ecotoxicologist)
14. Jesse Harrison (PhD, Microbiologist)

Shift 1 12:00 – 00:00

Roger Coggan (Shift leader)
Elke Neubacher
Clare Jackson
Andrew Griffith
Joanna Uzyczak
Matthew Curtis

Shift 2 00:00 – 12:00

Suzanne Ware (Shift leader)
Chris Barrio Frojan
Louise Webster
David Stephens
Cheryl Moran
Jesse Harrison

C END 11C/10 21/06/10- 09/07/10
Fish disease, CSEMP
(Depart Hartlepool – Dock Falmouth/Portland)

Paul Whomersley (getting off on 30th or 1st)
Suzanne Ware
Manuel Nicolaus

C END 11D/10 09/07/10 – 15/07/10
(Natural England, Seabed integrity)
Depart Falmouth/Portland - Dock Portland)

1. Paul Whomersley (SIC)
2. Suzanne Ware (Benthic)
3. Chris Barrio Frojan (Benthic)
4. Bill Meadows (Ships ops)
5. Simon Pearson (Ships ops)
6. Nigel Lyman (Ships ops)
7. Tom Breverton (Cetacean observer)
8. Fisheries liaison officer
9. NE representative

DURATION: Part A 05th June – 15-16th June
Part B 15-16th June - 21st June
Part C 21st June - 09th July
Part D 09th July - 15th July

LOCATION: Part A and B North Sea.
Part C North Sea, Channel, Irish Sea
Part B Western approaches

AIMS:

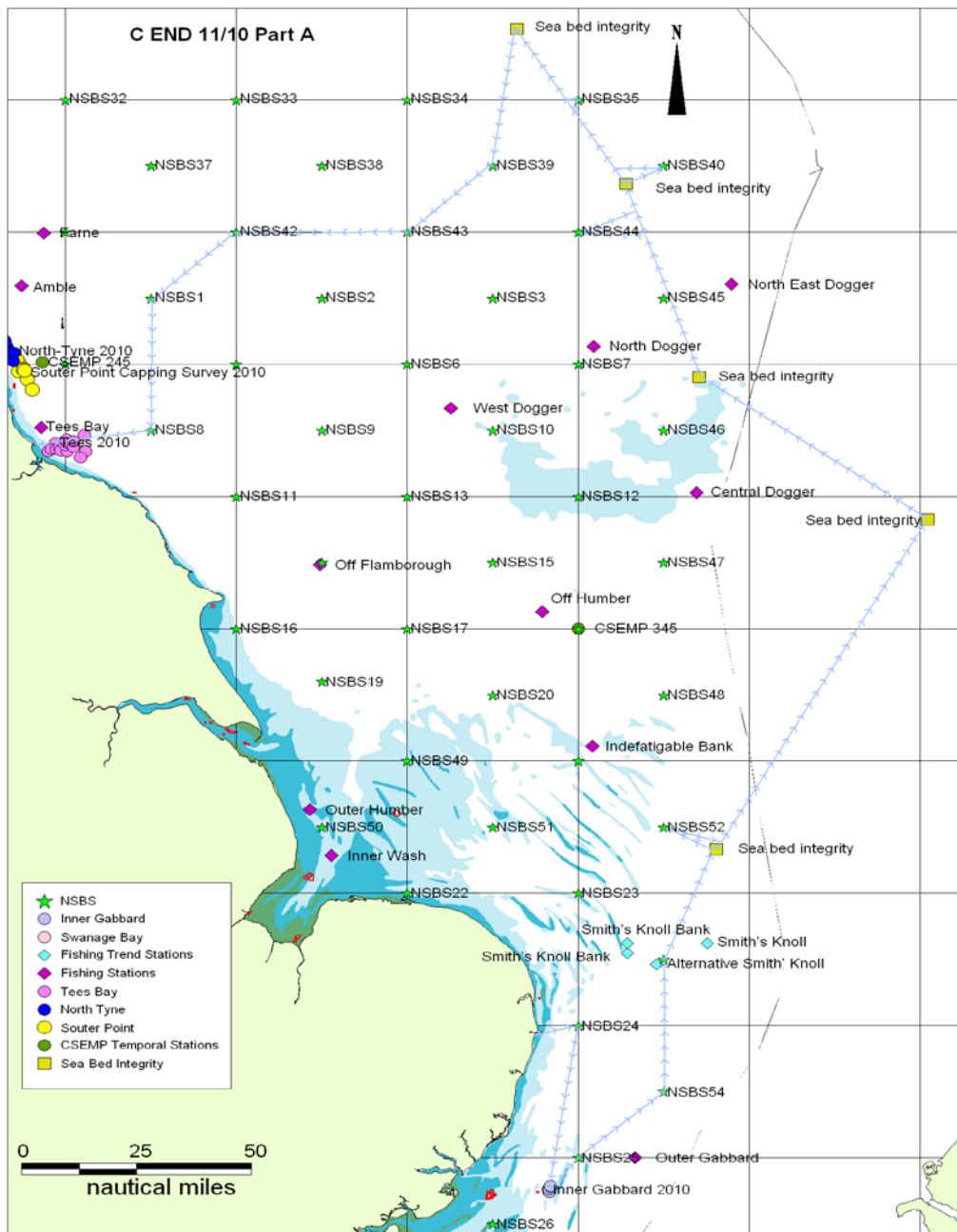
1. To survey dredged material disposal sites at Tees (Inner and Outer), Souter Point, North Tyne for benthos, trace metal and organic contaminants in sediments, using grabbing and coring. At a number of sites various acoustic methods will also be used. Possible effects of Swanage Bay disposal site on the Dorset coast SAC will be assessed using a combination of underwater camera and grab techniques.
2. To sample representative CSEMP stations using grabbing, coring, and trawl methods. Samples will be later analysed for trace metal and organic contaminants, litter and epi-, macro- and meio- fauna.
3. Undertake detailed evaluation of sediment and seawater at three established sites in the North Sea representing different ecohydrodynamic units.
4. Acoustic and underwater camera survey at Cape Bank and the Lizard in partnership with Natural England (NE)
5. To collect biological and physical samples using the Day grab from historical North Sea Benthos Stations

CRUISE PLAN

Part A 05/06/10 – 15-16/06/10 (Figure 1)

After departing Lowestoft (05/06/09) *CEFAS Endeavour* will transit east to collect samples from a North Sea Benthos Station (**Aim 5**) before moving south to the Thames area to carry out an acoustic and biological grab survey at the Inner Gabbard disposal site (**Aim 1**). *CEFAS Endeavour* will then transit North East to the Southern Bight to undertake detailed evaluation of sediment and seawater at five established sites in the North Sea representing different ecohydrodynamic units. Sampling equipment to include NIOZ corer and CTD. Determinations to include salinity, chlorophyll A, nutrients, oxygen profiles, sediment porosity, sediment PSA, total Carbon/Nitrogen and sediment infaunal taxa (**Aim 3**). During this survey opportune North Sea Benthos stations will be collected (**Aim 5**) before docking in Hartlepool on 15-16/06/10.

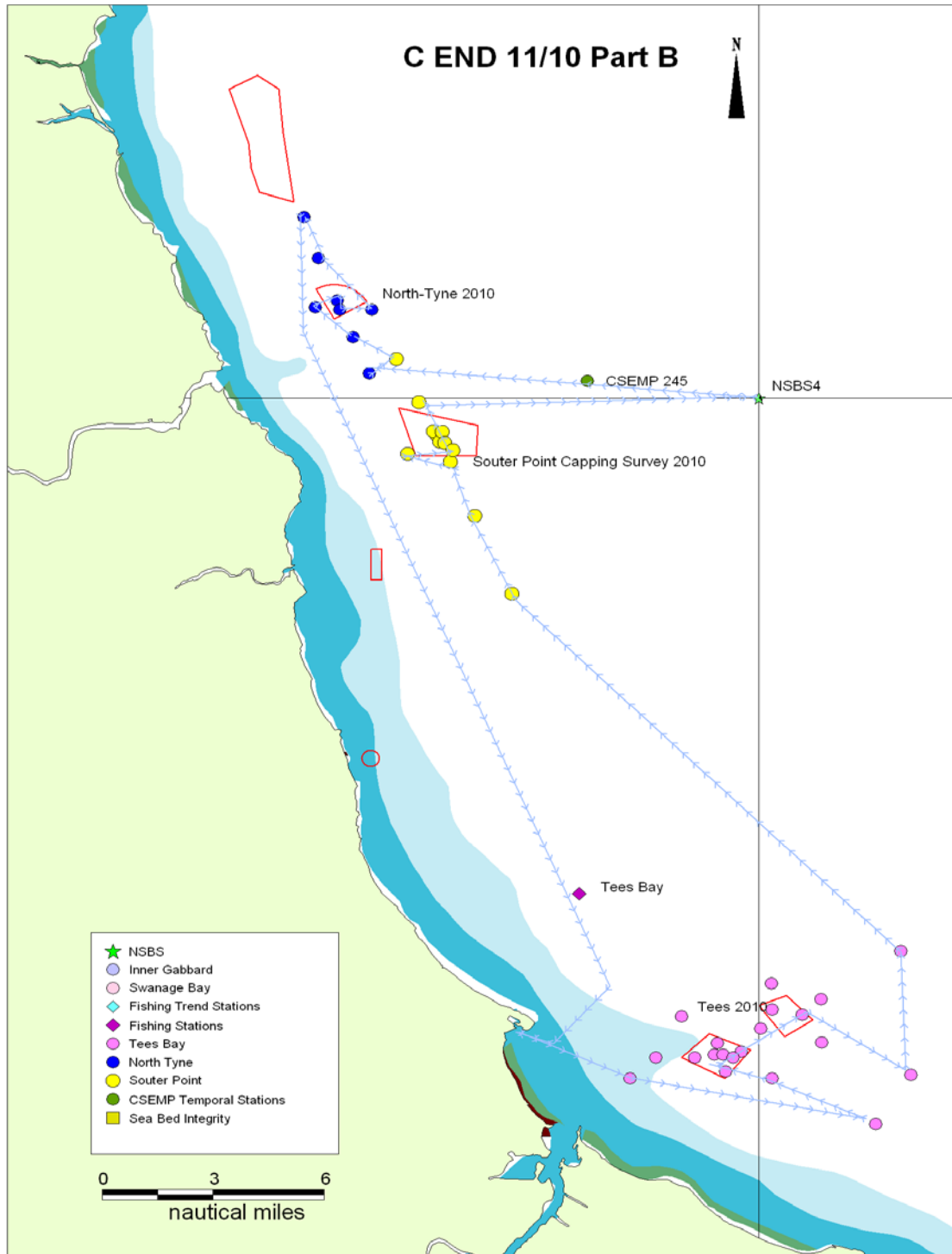
Figure 1 Suggested cruise track for part A



Part B 15-16/06/10 – 21/06/10 (Figure 2)

CEFAS Endeavour will then proceed south east to the Tees area to carry out an acoustic and biological survey and then North where a number of surveys will be carried out in the Tyne area. These include dredge disposal sites at Souter Point and North Tyne (**Aim 1**) During these surveys CSEMP station 245 (**Aim 2**) and a North Sea Benthos Station (**Aim 5**) will be collected. Following the completion of these surveys at the dredge disposal sites *CEFAS Endeavour* will dock in Hartlepool on the 21/06/09.

Figure 2 Suggested cruise track for part B



Part C (21/06/10 – 05/07/10)

See Brett Lyons programme of work. In addition to the primary aim of assessing fish disease, several benthic CSEMP temporal monitoring stations will be collected (345, 605, 715 and 805) (**Aim 2**), opportunistic sampling of historic North Sea Benthos Stations (**Aim 5**) and a biological case study carried out on the Dogger Bank.

Part D (Figure 3)

CEFAS Endeavour will leave Falmouth on the 9th of July and sail to Cape Bank / Lizard to carry out camera and acoustic surveys in partnership with Natural England (survey still to be designed) (**Aim 4**). On completion of this work *CEFAS Endeavour* will transit east to Swanage Bay to carry out an acoustic, camera and biological survey at Swanage Bay dredge disposal site (**Aim 1**). On completion of this work *CEFAS Endeavour* will dock in Portland no later than the 15th of July.

Figure 3 Suggested cruise track for part D.

