

## Clean Seas Environmental Monitoring Programme (CSEMP)

### C END 11/13

**DURATION:** 20<sup>th</sup> June to 1<sup>st</sup> July 2013

Embark: Lowestoft 20<sup>th</sup> June

Disembark: Lowestoft 1<sup>st</sup> July

At present we plan to board be onboard the Endeavour on the afternoon/evening of the 19<sup>th</sup> June (sail early on the 20<sup>th</sup>). With inductions (for those who haven't been on the Endeavour within the last 6 months) taking place on the 19<sup>th</sup> June at 18:00hrs.

Cabin allocations (see appendix 4)

Name	Berth	Name	Berth
Brett Lyons	SIC cabin	Joanna Uzyczak	Main Sci 6
Sue Ware	Upper Sci 1	Ruth Hicks	Main Sci 7
John Bignell	Upper Sci 2	Manuel Nicolaus	Main Sci 8
Freya Goodsir	Main Sci 1	Trevor Harrison~	Lower Sci 2
Tim Bean	Main Sci 2	Danny Wales*	Lower Sci 3
Clare Askem	Main Sci 3	Harry Harding*	Lower Sci 4
Claire Mason	Main Sci 4		
Grant Stentiford	Main Sci 5		

~ Department of the Environment (Northern Ireland); \*Student berth

**LOCATION:** North Sea and Eastern English Channel.

The data generated during this cruise will be used to meet obligations for reporting of contaminant data to MERMAN and the ICES database and for subsequent assessments for OSPAR and Good Environmental Status (GES descriptors 1, 4, 8, 9 & 10) under the Marine Strategy Framework Directive (MSFD).

#### AIMS:

1. To collect samples of demersal fish for chemical analysis from the North Sea and Eastern English Channel in support of the Clean Seas Environmental Monitoring Programme (CSEMP) (MSFD Descriptor 8 & 9).
2. To collect fish samples at CSEMP sites for fish disease biochemical markers (e.g. EROD and bile metabolites analysis) (MSFD Descriptor 8).
3. To sample representative CSEMP stations using grab, multicore and beam trawl for trace metal contaminants, sediment particle size analysis, PAHs and benthic fauna (MSFD Descriptor 1, 4 & 8).
4. To conduct marine litter surveys (MSFD Descriptor 10).
5. Undertake sampling Tyne/Tees disposal site (SLAB5), see Appendix 3:

**PLAN (subject to change based on prevailing weather conditions):**

- RV Endeavour will sail on the morning tide from Lowestoft on the 20<sup>th</sup> June. Scientific staff travelling from Weymouth will need to arrive in Lowestoft on the afternoon of the 19<sup>th</sup> June.
- The RV *Endeavour* will sail to CSEMP stations off the Wash before proceeding north via the Humber to the Tees and Amble stns to take samples under aims 1 - 5. While in the Tyne/Tee region sampling will take place at dredge disposal sites (SLAB5). RV *Endeavour* will then sail to the Dogger Bank where samples will be taken at the six CSEMP stations in this region under aims 1 - 4. Further sampling will take place at CSEMP stations as *RV Endeavour* steams south to the Gabbard, Indefatigable Bank, Smith Knoll and then through the Dover Straits to Rye bay and Newhaven.
- Sample in the eastern channel for micro-plastics (EU Intereg project)
- After which the RV *Endeavour* will then steam back to Lowestoft and berth on the 1<sup>th</sup> July.

Additional work to be undertaken this year includes

- Sediment sampling for alternate BFRs and Dechloranes (German PhD student)
- Measuring spatial variability in plankton (Essex Uni PhD student)
- Fish disease training: Trevor Harrison (DoENI)

A list of CSEMP stations for the sampling of fish is given in Appendix 1 below.

Draft gear:

1. 2x Agasis trawls + spare nets
2. 2x Simon Jennings type 2m Beam Trawl + spare nets
3. 2x Burnham 2m Beam Trawl + 2 spare nets and beams
4. 2x 3m beam trawls with cod end liners and spare nets
5. Granton trawl with cod end liner + spare trawl and net
6. Fish hopper and sorting/processing tables
7. 2x Day Grabs (+ a length of rope between warp and grab to avoid contamination)
8. Shipek grab
9. Hamon grab
10. SPI Cam
11. 2x sets of Scallop Dredges with beam and spares.
12. Portable fridge and chest freezer
13. Hand held CTD
14. 2x 1.5 kg balances
15. 1x 5kg balance
16. 1x 10kg balance

All other gear from the Weymouth Laboratory

BELOW:-

Appendix 1: **CSEMP FISHING STATIONS**

Appendix 2: **MAP SHOWING LOCATION OF CSEMP FISHING AND SEDIMENT STATIONS**

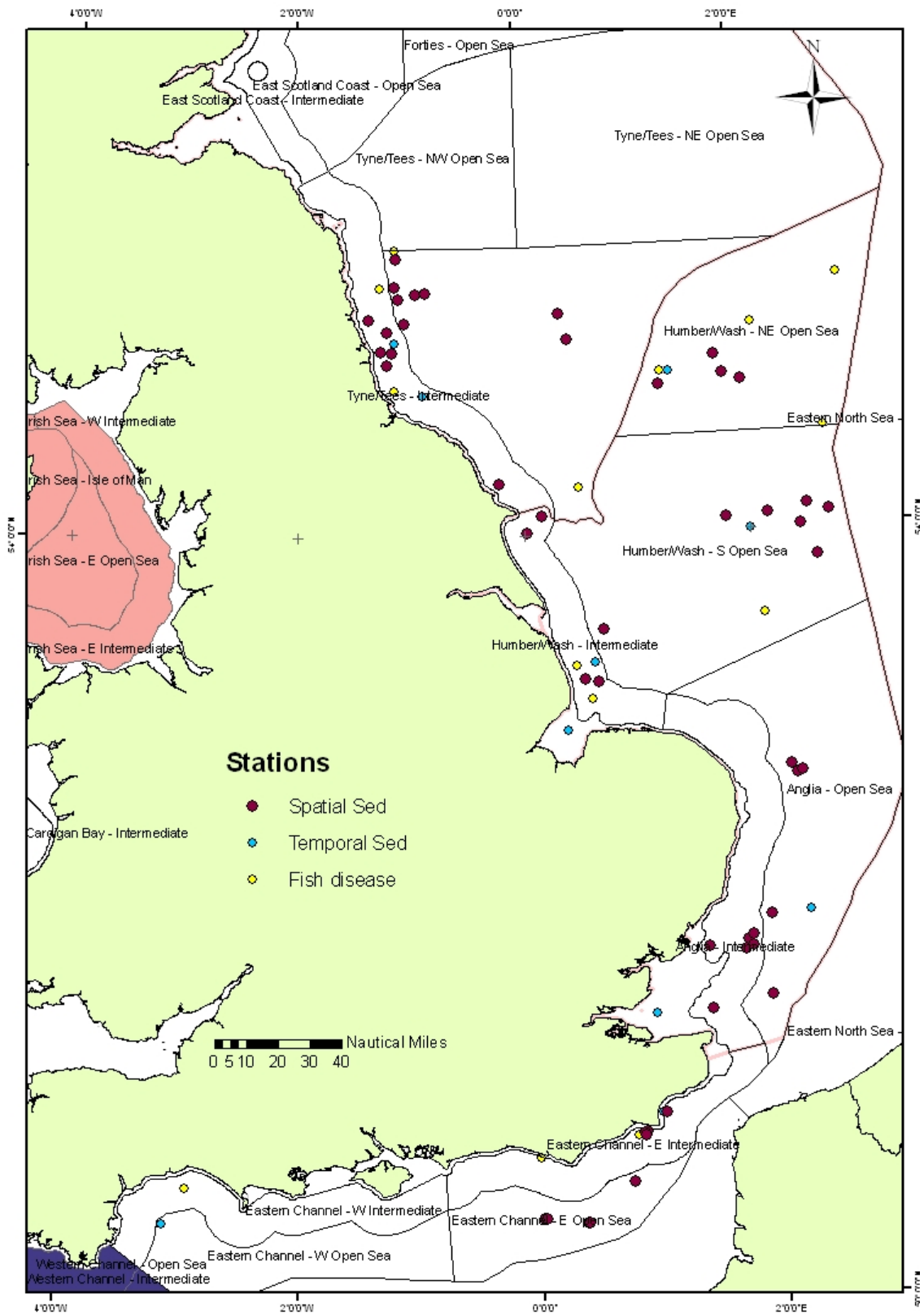
Appendix 3: **SLAB 5 sampling stns**

Appendix 4: **RV Cefas Endeavour cabin layout**

**APPENDIX 1: CSEMP FISHING STATIONS**

<b>CSEMP Number</b>	<b>Location</b>	<b>Mid tow Lat. Long.</b>
Using old NMMP numbering		
244	Amble	55 16.01 N 01 15.26 W
243	Farne	55 29.71 N 01 07.59 W
283	North East Dogger	55 18.05 N 02 53.82 E
284	North Dogger	55 04.08 N 02 05.40 E
286	West Dogger	54 46.76 N 01 17.69 E
287	Central Dogger	54 30.00 N 02 42.53 E
294	Tees Bay	54 45.25 N 01 08.31 W
344	Off Flamborough	54 14.72 N 00 29.91 E
346	Off Humber	54 03.92 N 01 47.46 E
377	Humber	53 19.37 N 00 25.47 E
378	Indefatigable Bank	53 33.40 N 02 04.92 E
387	Wash	53 08.50 N 01 33.30 E
475	Outer Gabbard	52 01.86 N 02 06.57 E
486	Rye Bay	50 46.74 N 00 46.83 E
New	Off Newhaven	50 45.59 N 00 00.00 E
Trend	Smith's Knoll	52 48.67 N 02 45.33 E
Trend	Alternative Smith' Knoll	52 43.91 N 02 27.51 E
Trend	Smith's Knoll Bank	52 46.48 N 02 17.25 E

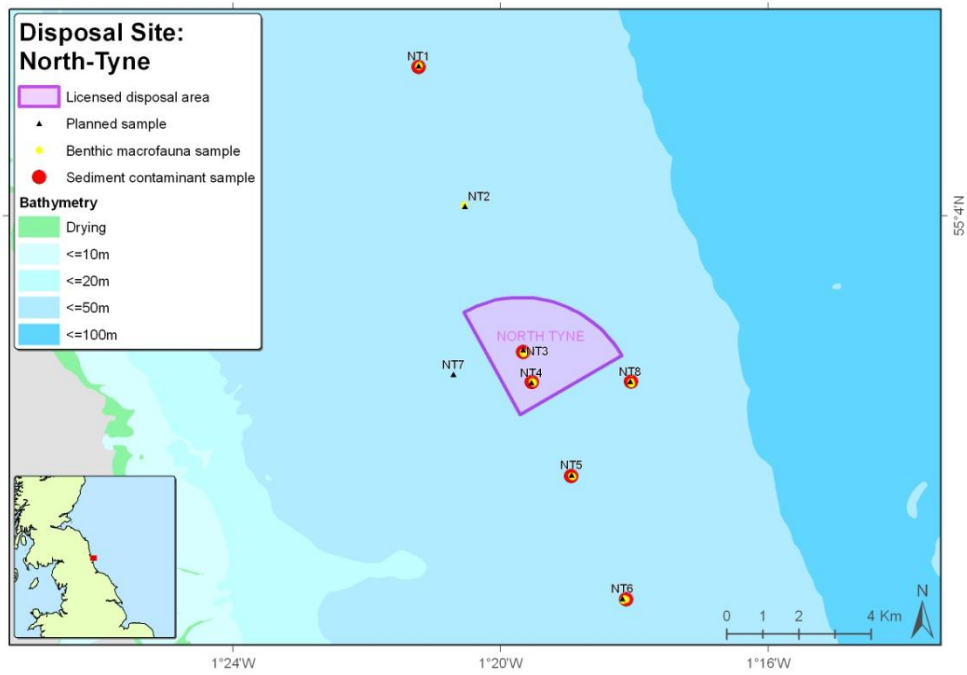
**APPENDIX 2: MAP SHOWING LOCATION OF CSEMP STATIONS**



## APPENDIX 3 SLB5 monitoring

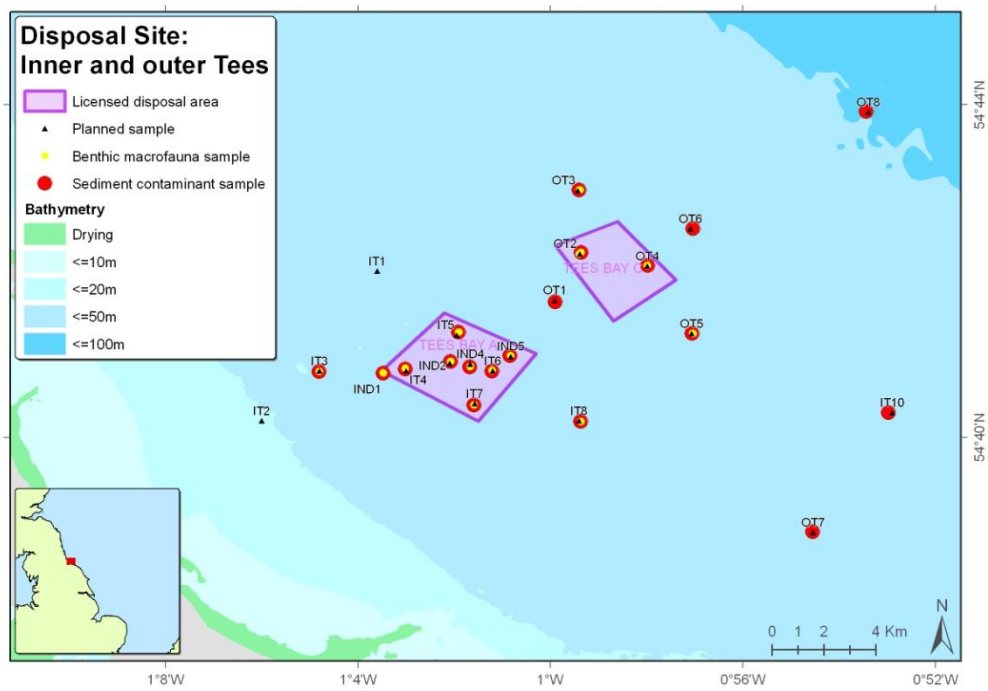
### North Tyne sampling sites

1 Shipek grab at each, 3 Hamon grabs at each.



### Tees (Inner and Outer)

1 Shipek or Day grab grab at each station



**Appendix 4: RV Cefas Endeavour cabin layout**

