

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

## 2008 RESEARCH VESSEL REPORT

PROGRAMME: RV Endeavour: CRUISE 1/08

STAFF:

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	Keith Weston (UEA)

DURATION: Thursday 17th January – Tuesday 22nd January

LOCALITY: Thames Estuary, English Channel, Southern Bight, Oyster grounds and Central North Sea, Dogger Bank region

Overall aims of this cruise

1. Recover and re-deploy landers at Sean Gas Field, Oyster Ground and North Dogger.
2. Recover and re-deploy SmartBuoys at Warp, West Gabbard and North Dogger
3. Recover and re-deploy Waveriders at Hastings, Dungeness, Tyne and Dowsing.
4. CTD casts for nutrient samples and deck incubations
5. Underway measurements for nutrient samples and isotopic ratio work from continuous supply.
6. Collect Plankton samples for species composition using vertical nets.
7. Undertake assessment of benthic flora/fauna assemblage using hyperbenthic sledge.
8. Collect sediment profiles, of nutrients, chl-a. (NIOZ corer).
9. Undertake experiments on productivity and grazing the three E3205 sites.
10. Inter-comparison of PAM and PhytoFlash.

The Endeavour sailed Thursday 00:00 and headed for the West Gabbard where the SmartBuoy was deployed, a CTD cast for water and ring nets (200um x 2) were collected. We then steamed to the Warp collecting surface water en-route. The SmartBuoy was serviced and water samples collected before and after for calibration.

Leaving the Thames via the Princes Channel we went round into the Channel to service Waveriders but the wind and sea picked up. It became obvious we would not be able to complete any work at Dungeness or Hastings, so we turned around at 19:30 and steamed back north towards the Sean Gas Field. We stopped at the "Mid Site" and Southern Bight for CTD's and were still collecting hourly surface stations for nutrients and salinity.

We arrived at the Sean Gas Field site and collected a full set of CTD water samples and ring nets. The guard buoy was recovered easily but the lander, although responding as released, did not pop up the recovery floats. We spent 3 hours towing a grapple to hook it manually but without success. It is possible that the wire was snagged once but subsequently parted. The guard buoy was re-laid but not a new lander. It was too rough to attempt using the benthic sledge safely. A 2nd full set of CTD and nets was collected "in the dark" before leaving for the Oyster Ground via Laura's 3 steam through stations.

The forecast Force 9 winds duly arrived, so we had to dodge for 3 hours in the night passage. We arrived at the Oyster Ground at 09:30 on the 19th Jan. The daylight CTD and nets went well, the benthic sledge was used for the first time. The lander popped up on the first time of asking, it was successfully recovered and re-deployed. Sediment samples were collected using the NIOZ corer. Night-time water and nets were collected after tea before a 2nd benthic sledge tow. Endeavour steamed to the North Dogger site overnight, collecting hourly surface water samples for nutrients.

20/1/08 - North Dogger – a day of good weather starting at 06:30 with full CTD and nets followed by the recovery of the SmartBuoy. The lander buoys did not release (subsequently found to have snagged on the release wire) but we picked up the ground wire on the first attempt with the grapnel. The benthic sledge was towed before lunch, then the SmartBuoy and lander went back in after lunch. Mid afternoon the "daylight" full CTD and nets were collected. There was an hour of NIOZ coring after tea, followed by another benthic sledge, then finishing off with a CTD cast at 20:30. The ship then steamed south west at full speed.

21/1/08 CTD at NMP 285 - Off Tyne in the early hours, then a water station transect in to the Tyne waverider which was quickly changed over at 08:30. After a short delay to change the remote wire, the CTD at NMP 245 was collected at 10:00. A short steam to Ben's site off Blyth for a CTD and 2 x 200 um nets + 50um net for Swier. Another short move to Tynemouth for more of Ben's samples, then we headed south for the east coast nutrients monitoring at Tees, Humber and Wash.

22/1/08 – 01:30 Wash CTD. At 08:00 we serviced the waverider at Dowsing then continued with hourly surface water stations until 14:30. As we cleared the decks and labs, the ship jogged slowly back to Lowestoft for the evening tide, picking up the pilot at 19:45, docking at 20:30.

Dave Sivyer

23/1/08

DISTRIBUTION:  
BASIC LIST+ all those on cruise.