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

2008 RESEARCH VESSEL PROGRAMME/REPORT

REPORT: RV Endeavour: CRUISE 016/08

STAFF:

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DURATION: 5 days.
Approx Sailing Time 03:00 Wednesday 10th September
Approx Docking Time 22:00 Monday 15th September
LOCALITY: Southern Bight and Central North Sea, Dogger Bank region

Specific cruise AIMS (not in priority order)

1. Recover lander at Sean Gas Field
2. Recover the SmartBuoy and lander at the North Dogger site.
3. Deploy sediment flume instrument for resuspension studies
4. Perform scanfish tows north of the Dogger Bank to give context for productivity
5. CTD casts for primary productivity estimates and deck incubations.
6. Collect plankton samples for species composition using vertical nets
7. Deployment of SPI camera
8. Collect core profiles, of nutrients, oxygen, chl-a. (NIOZ corer) and sediment profiles.
9. Deploy Partrac flume.

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

Narrative

The Scanfish was inoperative at 21:00 on Tuesday 9th and was left on the quay. Endeavour sailed at 05:00 on Wednesday 10th September and steamed directly to the Sean Gas Field site. Here a CTD cast was collected to calibrate the lander sensors. The lander was recovered by grappling after several attempts to “pop it up”. The instruments and sensors were badly bio-fouled particularly by barnacles. The rest of the day and night were spent travelling north to the Dogger Transect, starting with Site “D” on Thursday morning. A CTD cast was collected for primary production studies and the SPI camera deployed. Similar work was conducted at Site “A”. The CTD failed during the upcast at the main North Dogger site. The large NIOZ corer was deployed 3 times without success. The small NIOZ corer collected 16 sediment cores for a range of process studies and parameters. The Partrac flume was deployed with a Cefas profiling logger on-board.

The Endeavour turned back north to arrive the top of the transect to collect water samples for primary production studies. As the CTD was a basket case, the SmartBuoy team profiler was used to identify the deep chlorophyll maximum (DCM) and water samples collected via a niskin bottle on the hydro wire. Site “G” and “F” were sampled in this manner. The

weather unfortunately deteriorated beyond the point of safe coring so the ship dodged back to site “C” for more water samples. Next morning (Saturday 13th) it was still blowing hard

The small NIOZ corer collected shallow but successful samples at sites “H” and “I” for general sediment characterisation. The SPI camera was deployed at sites “H” and “I” but the ground was to hard for penetration.

Sunday 14th, the day dawned clear and bright. The SmartBuoy and mid-tether frame were recovered without incident at 06:00. The lander failed to pop the buffs so it was recovered by the now standard method of grappling. Endeavour then went south to site “J” for a sediment process and water site. The SPI camera again could not penetrate the sand. The water samples were collected. The flume was broken so only a limited suite of sediment samples were required for characterisation. We then went north again to make the most of the extra time to extend the sediment transect into the deeper water. NIOZ cores and SPI drops were collected at sites “A” and “B”. All work was completed by 20:30, then we went home.

Dave Sivyer
(Scientist-in-Charge)

17 Sep 2008

DISTRIBUTION:
BASIC LIST+ all those on cruise.