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CEFAS FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND

2000 RESEARCH VESSEL PROGRAMME

RV CORYSTES: CRUISE 3

STAFF

D Sivyer (SIC)
R Parker
J Rees
L Fernand
R Sanders (UEA)
J Read
E Tinton
J Taylor
A Reeve

DURATION

28 February to 4 March

LOCALITY

North Sea

AIMS

1. To deploy a Smartbuoy at the Outer Gabbard (AE004).

2. To recover and re-deploy the A1221 mooring array as necessary (A1221).

3. To collect water samples and CTD profiles at NMP sites in the Southern North Sea (AE004)

4. Collect water samples and trial UEA equipment (at sites yet to be determined) (A1221)

5. Trial the Scanfish when time and sea conditions permit. (A1221)

PLAN (all times are Greenwich Mean Time)

Leave Lowestoft 14:30, go directly to the Warp NMP site (Thames) – mini anchor station. Collect CTD profiles and surface samples on passage to the Outer Gabbard and deploy the "Smartbuoy" mooring at first light. Steam directly to the A1221 mooring to recover, service and re-deploy instruments as necessary.
Collect CTD profiles (anchor stations) and water samples at NMP sites Wash, Humber, Tees, Tyne, Dogger, Silver Pit as time permits. Collect CTD profiles and water sample transects to support the A1221 mooring as time permits. Scanfish wherever possible on the transects.
Docking time to be confirmed (HT ~21:00).

David .....
(Scientist-in-Charge)

24/2/00 .....
(Date)

INITIALLED .....

DISTRIBUTION
Basic List

Interim Cruise Report for Corystes 3/00 28th Feb to 4th March 2000

Sailed from Lowestoft at 15:00 28/2/00 and proceed to the Outer Gabbard NMP 475 (52 00.00N 02 20.00E). The Smartbuoy was deployed, with a CTD cast afterwards. Steamed down to the Warp NMP 465, collecting half-hourly surface water samples en-route arriving at 03:15 29/2/00.

29/2/00 CTD at anchor hourly from 03:30 to 11:30. Up anchor at 12:00 and steam back to the Outer Gabbard collecting surface water samples every half-hour. CTD cast at the Outer Gabbard at 18:20 to coincide with the NAS sampling and micrologger burst. Steam to 52 30.00N 03 00.00E, collecting surface water samples every half hour and CTD ~1.5hrs, then turn N up the main line of the A1221 mooring collecting CTD's at mooring "E" and "D" and surface water samples in between (mooring "E" was noted to have moved 0.9 nautical miles to the north). Arrive at Smartbuoy and Minipod position "C" and collect CTD on the hour until 06:00 1/3/00.

1/3/00 Prepare to recover the moorings.
Recover the Smartbuoy with some difficulty in a heavy swell. The stern gantry failed mid operation and the buoy was hauled in using the HIAB crane. The tether line became caught under the stern and had to be let go. The tether line was recovered within 30 minutes but became caught under the stern once again and eventually parted, leaving the sub-surface buoy and anchor on the sea bed. The pellet above the SSB was seen to be floating free. The Minipod and guard buoy were recovered without incident in a rising swell. Proceed to ADCP mooring "D" to establish acoustically that it was upright and functioning. Brisk 7-9 winds and a rising swell prevented any further mooring work for the rest of the day, although surface water samples were collected and the second ADCP mooring was checked acoustically.

2/3/00 Smartbuoy, Minipod and guard buoy successfully deployed at position "C". CTD and day grab sample collected prior to departure to mooring position "A". The U-shaped mooring at position "A" was successfully deployed in 40kt winds. Steam to Outer Silver Pit NMP 345, taking surface water samples hourly en-route. CTD at OSP then head for Flamborough Head taking surface water samples hourly.
3/3/00 Arrive Flamborough at ~08:00 collect surface water samples and CTD on the Bridlington Bay dump site. Steam south towards the Humber taking surface samples en-route. Anchor station at the Humber NMP 385 site between 13:30 and 16:30. Move into the Bull anchorage and collect a CTD cast. The FSI on the rosette failed and had to be swapped for the unit on the Scanfish. Proceed to the Wash taking CTD's every 5 miles.

4/3/00 An anchor station was proposed at Wash NMP 375 from midnight to 06:30 but was unable to start until 02:30 due to an emergency Mayday request from Great Yarmouth coastguard. A CTD station was collected at Cork Hole in the Wash at 08:00. A transect of surface water samples was collected from Cork Hole to the N side of the Dudgeon Shoal finishing at 11:00.
Corystes turned south towards Lowestoft and deeper water for Scanfish trials off Great Yarmouth before docking at 20:00.

Aims:

1: The Smartbuoy was deployed at the Outer Gabbard.

2: Mooring "A" was deployed successfully.
Mooring "B" was checked acoustically.
Mooring "C" Smartbuoy recovered bar the SSB and anchor – re-deployed as a "single point mooring".
Minipod recovered and re-deployed successfully.
Guard Buoy recovered and re-deployed successfully.
Mooring "D" was checked acoustically.
Mooring "E" was noted to have moved off position (clear of the BT cables), the light was working.
Mooring "F" no attempt was made to recover the remaining sub-surface elements.
Mooring "G" was not visited.

3: This aim was largely achieved with a large number of surface water samples, time-series CTD casts at The Warp, Humber and Wash, and the Smartbuoy was deployed at the Outer Gabbard. Single CTD casts were also made at the Outer Silver Pit and at intervals from Flamborough Head to the centre of the Wash.

4: Water samples were collected at three sites for equipment and experimental protocol evaluation.

5: The Scanfish trials were successfully completed.

The Master, officers and the deck crew are all to be commended for their assistance, co-operation and skill in all aspects of the ships handling during the recovery and deployment of instrumentation in sometimes severe conditions.

Dave Sivyer
SIC

4/3/00