AGRI-FOOD and BIOSCIENCES INSTITUTE (NI)
Agriculture Food and Environmental Science Division
(Fisheries and Aquatic Systems Branch)

Cruise Report: CO 4406
Vessel: RV *Corystes*
Date: 31st October – 3rd November 2006
Area: Irish Sea (north); ICES div. VIIa & VIa
Survey Type: Biological Oceanography & Mooring service

Personnel:

B Stewart (SIC)	SSO	31 Oct – 3 Nov	AFBI
R Gilmore	SO	31 Oct – 3 Nov	AFBI
M Patterson	ASO	31 Oct – 3 Nov	AFBI
A Mellor	RA	31 Oct – 3 Nov	QUB
A McDougall	RT	31 Oct – 3 Nov	QUB

Objectives:

i. To maintain insitu monitoring at the offshore mooring site in the NW Irish Sea.

ii. To conduct sampling at the AFBI standard stations in the western Irish Sea.

iii. To extend the scope of the NIJAC monitoring programme to include moored instrumentation approximately 15 km north of the Bann estuary.

Circulation	✓
DCSO & CSO	
Ship Managers	
Fisheries Division	
ANIFPO	
NIFPO	

Comments

Signed Head of Branch

Methods:

- Stations 38A and 47D were sampled using a Seabird 911 water sampler and Falmouth Scientific CTD
- Vertical zooplankton net hauls were taken using a 200 micron mesh bongo net with a 500mm diameter inlet.
- Seabed sediment was sampled using a Day grab.
- Throughout the cruise surface salinity and temperature recordings were made using a Sea-bird SBE21Thermosalinograph. For calibration purposes samples were periodically taken for salinity analysis and temperature readings taken manually using a calibrated SIS RTM 4002 digital thermometer.

Cruise Narrative:

Tuesday 31 October

In preparation for the cruise, all DANI scientific crew were onboard by 2000 hrs when mooring components and the automated sampler were prepared for deployment. Following a talk on ship's safety and a demonstration of personal life saving equipment, the RV Corystes departed Belfast at 2100 hrs and sailed overnight in a fresh north westerly wind to the mooring site at station 38A.

Wednesday 1 November

The vessel arrived on the mooring site at 0600 hrs. The weather was dry and bright with a moderate westerly wind. Work for the day commenced after breakfast with the instrument mooring eventually recovered to ship deck at 0820 hrs. The vessel then sailed in a westerly direction to inshore station 47D and whilst in transit the mooring components were inspected for corrosion and replaced where necessary. The thermistors and Sea-bird CTD were removed from the mooring and data downloaded. The McLane automated water sampler was cleansed and following removal of samples the instrument was rebuilt and reprogrammed for deployment. The ship arrived on station 47D at 1215 hrs and following deployment of the water sampler and zooplankton net the ship returned to offshore site 38A. During the return journey the mooring components, thermistors and CTD were then reassembled and on arrival at station 38A the instrument mooring was successfully redeployed at 1430 hrs in depth 94 metres on position 53^0 46^l .914N 5^0 38^l .129W. Following the deployment of the rosette water sampler and zooplankton net the vessel sailed in a northerly direction to the lower North Channel where the Day grab was deployed to sample sediment from a transect of ten stations across the North Channel peaks. Work for the day finished at midnight and the vessel sailed overnight to the proposed mooring site off the Foyle estuary.

Thursday 2 November

The ship arrived on the north coast mooring site at 0815 hrs. The weather was dry and bright with a moderate westerly wind. Work for the day commenced after breakfast when moored instrumentation was prepared for deployment. The single leg mooring was readied and successfully deployed at 0910 hrs on position 55^0 18^l .134N 6^0 44^l .892W in depth 67 m. The rosette water sampler and CTD was then deployed along a transect of seven stations located between the mooring site and the entrance to the Foyle estuary. Following completion of this work the vessel sailed to dock in Belfast at 1945 hrs.

Friday 3 November

Work for the day commenced at 0800 hrs when scientific staff prepared equipment for unloading. Equipment was transferred to Newforge and stored when work for the day finished at 1700hrs.

Work Completed

The calm seas and good weather during the survey enabled scientific staff to comfortably complete all work objectives.

Results
Detailed results of the hydrographic data collected during the cruise will be made available as the data is worked up and interpreted by the laboratory. Samples taken for nutrient analysis were returned to the laboratory and processed for ammoniacal nitrogen, phosphate, total oxidised nitrogen, silicate, nitrite and chlorophyll. Results will be available when the data is fully worked up by the laboratory. Sediment samples were returned to the laboratory and stored for an assessment of the biota content.

Operational aspects of the Ship
During the cruise the A-frame, main trawl winches, both hydrographic winches and the ship's clean seawater supply were used. No problems were encountered with any of the ship's equipment nor indeed with any of the scientific equipment. The hotel and catering service was of the usual high standard and there was a good working relationship between the scientists and the ship's crew. Prior to the ship departing Belfast a comprehensive and detailed safety briefing was delivered to the scientific crew.

Acknowledgements
I am indebted the deck crew of the RV Corystes for their co-operation and assistance during the mooring recovery and deployment operation. The ship's master, officers, engineers and catering staff are also thanked for their co-operation during this cruise.

Scientist in Charge *Master (seen in draft)*
Date: 9 November 2006