Agri-Food and Biosciences Institute
Agriculture, Food and Environmental Science Division
Fisheries and Aquatic Ecosystems Branch

Cruise Report: CO 4407
Vessel: RV *Corystes*
Date: 30th Oct – 2nd November 2007
Area: Irish Sea (north); ICES div. VIIa
Survey Type: Biological Oceanography, Mooring Service & Underwater Camera Survey

Personnel:

B Stewart (SIC)	SSO	AFBI	30 Oct – 2 Nov
M Service	PSO	AFBI	30 Oct – 2 Nov
C Smyth	SO	AFBI	30 Oct – 2 Nov
G McNeill	SO	AFBI	30 Oct – 2 Nov
P Irvine	ASO	AFBI	30 Oct – 2 Nov
E Howlett	Student	POL	30 Oct – 2 Nov

Objectives:

i. To maintain an insitu monitoring programme at open sea station 38A.

ii. To investigate the spatial distribution of nutrients along an east – west grid of stations.

iii. To investigate seabed condition at a dredge dump site in the North Channel using an underwater video camera.

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.

Cruise Narrative:

Tuesday 30 October 2007
In preparation for the cruise, all AFBI 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 2140 hrs and sailed overnight in a light westerly wind to mooring station 38A.

Wednesday 31 October 2007
The vessel arrived on station 38A at 0630 hrs. The weather was dry and bright with a light westerly wind when work commenced at 0800hrs with recovery of the instrument mooring to ship deck. Data from thermistors, CTD and water sampler were down loaded; samples were removed from the water sampler; and following a detailed inspection of mooring components instruments were reprogrammed and mooring components reassembled. The instrument mooring was then successfully redeployed at 1130 hrs in depth 92 meters on position 53^0 46^l .868N 005^0 38^l .113W. Following deployment of the rosette water sampler and CTD the vessel sailed towards the Irish coast to sample at stations 37 and 36 before commencing an east – west water sampling transect on station 47D. The survey continued with Liverpool Bay stations 8 and 7 sampled before midnight.

Thursday 1 November 2007
Sampling along the east – west transect continued overnight and finished on Liverpool Bay station 1 before breakfast. The ship then sailed north to arrive on station I at 1015 hrs and continued along a westerly transect sampling at stations H, G, F and finishing on station E at 1600hrs. After dinner the sledge and under water video camera were rigged and tested.

Friday 2 November 2007
Work for the day commenced at 0800 hrs when the water sampler was deployed at two stations BD3 and BD4 over the Beaufort Dyke. The vessel then sailed to the dredge spoil site close to the entrance to Belfast Lough where the sledge and under water video camera was successfully deployed at two locations. Survey work completed the vessel sailed to dock in Belfast at 1530 hrs.

Work Completed:
Comfortable weather conditions during the survey enabled scientific staff to 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. Tidal conditions during the underwater camera survey enabled the capture of good quality footage of the sea bed condition.

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 2007