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

Cruise Report: CO 4910
Vessel: RV *Corystes*
Date: 5th – 9th December 2010
Area: Irish Sea (north); ICES VIIa & VIIg
Survey Type: Biological Oceanography & Mooring Service

Personnel:

B Stewart	SSO	AFBI	5 – 9 December
R Gilmore	SO	AFBI	5 – 9 December
C Smyth	SO	AFBI	5 – 9 December
A Mellor	SSO	AFBI	5 – 9 December
S McClean	Student	QUB	5 – 9 December

Objectives:

i. To maintain an insitu monitoring programme in the Irish Sea and Celtic Sea.

ii. To investigate the distribution of dissolved nutrients and phytoplankton over a grid of stations in the Irish Sea.

iii. To assess the application of MEDIN guidelines to data collected during the survey.

Circulation	✓
DCSO & CSO	✓
Ship Managers	✓
Fisheries Division	
ANIFPO	
NIFPO	

Comments

Signed Head of Branch

Methods:

- Stations were profiled using a Seabird SBE 32 water sampler and SBE 911 CTD

- Vertical zooplankton net hauls were taken using a 200 micron mesh bongo net with a 500mm diameter inlet.

Cruise Narrative:

Sunday 5th December 2010

Shortly after departing Belfast at 2200 hrs the ship's gyro system gave problems and the Corystes returned to dock overnight.

Monday 6th December 2010

Following an inspection of the ship's gyro the Corystes departed Belfast at 1100 hrs and sailed overnight to the CEFAS SmartBuoy in the Celtic Sea.

Tuesday 7th December 2010

Work for the day commenced at 0800 hrs with final instrument checks as the on-board SmartBuoy was readied for deployment. When the Corystes arrived on site the mooring could not be located. An extensive search of the surrounding area was carried out but unfortunately there was no trace of the SmartBuoy mooring. Communication with CEFAS personnel confirmed that they had not received transmissions from the mooring for several days. The on-board SmartBuoy was then rigged with a series of spare wires and an anchor and successfully deployed at 1020 hrs on position 51^0 15^l .240N 006^0 04^l .965W in depth 97 metres. Following deployment of the rosette water sampler and CTD the Corystes sailed in a northerly direction to sample at stations B8, B9, B10 and B11.

Wednesday 8th December 2010

Sampling continued into the small hours at stations 62 and 50 as the Corystes sailed overnight to arrive at station 38A, the AFBI mooring site at 0800 hrs. In strong winds an attempt to recover the mooring was abandoned and following the deployment of the rosette water sampler and zooplankton net the vessel sailed to sample Irish coastal stations 36, 37 and 47D before returning for a second attempt to recover the station 38A mooring. This time in much lighter winds the mooring was successfully recovered to ship deck at 1430 hrs. 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 1615 hrs in depth 92 metres on position 53^0 46^l .884N 005^0 38^l .075W. Following deployment of the rosette water sampler and CTD the Corystes sailed to sample Liverpool Bay transect stations LB08 and LB07 before sailing overnight into Liverpool Bay.

Thursday 9th December 2010

The Corystes arrived on the CEFAS mooring station at 0915 hrs and commenced sampling along the Liverpool Bay transect finishing on LB06 at 1715 hrs. Work continued at station 26, 16 and finished on 4 at 2130 hrs.

Friday 10th December 2010

The Corystes returned to dock in Belfast at 0015 hrs.

Work Completed:

Favourable weather conditions eventually enabled a successful service of the AFBI and Celtic Deep SmartBuoy moorings and full completion of the scheduled sampling survey.

During the survey, data was collated from each sampling station for an assessment of the application of MEDIN data guidelines.

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. Problems were encountered with the ship's gyro but had minimum impact on the overall success of the survey. The hotel and catering service was of an acceptable standard and there was a reasonable 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

Date: 22 February 2011