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

Cruise Report: CO 4410
Vessel: RV *Corystes*
Date: 1st – 6th November 2010
Area: Irish Sea (north); ICES VIIa
Survey Type: Biological Oceanography & Mooring Service

Personnel:

B Stewart	SSO	AFBI	1 – 6 November
R Gilmore	SO	AFBI	1 – 6 November
C Smyth	SO	AFBI	1 – 6 November
E Capuzzo		CEFAS	1 – 6 November
J Foden		CEFAS	1 – 6 November

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 levels of primary and secondary production in the Irish and Celtic Sea.

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.
- Primary production was measured using a ^{14}C radio isotope technique.
- Secondary production was measured using an enzymatic method.

Cruise Narrative:

Sunday 31st October 2010

Following a talk on ship's safety and a demonstration of personal life saving equipment, the RV Corystes departed Belfast at 2200 hrs and sailed overnight in a light breeze to the mooring station 38A

Monday 1st November 2010

The vessel arrived on mooring 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, moored CTD and water sampler were down loaded. Samples were removed from the moored water sampler and following a detailed inspection of mooring components instruments were reprogrammed and mooring components reassembled. During the period of mooring service the rosette sampler was deployed to acquire water for primary and secondary production experiments. With southerly winds increasing to gale force the redeployment of the mooring was postponed and the ship sailed to the Irish coast to shelter overnight.

Tuesday 2nd November 2010

Work for the day commenced at 0800 hrs with sampling at Irish coastal stations 36 and 37. Samples for primary and secondary production experiments were taken at coastal station 47D and with persistent southerly gales the vessel remained at shelter off the Irish coast.

Wednesday 3trd November 2010

As winds eased overnight the Corystes sailed to arrive on mooring station 38A at 0730 hrs where the instrument mooring was then successfully redeployed at 0820 hrs in depth 92 metres on position 53^0 46^l .992N 005^0 37^l .012W. Following deployment of the CTD and rosette to collect water samples for primary and secondary production studies, sampling commenced along the Liverpool Bay transect finishing on LB08 at 1930 hrs. As southerly winds increased to gale force the vessel sailed to shelter off the north Wales coast.

Thursday 4th November 2010

Owing to a huge sea swell, deployment of the rosette sampler at the CEFAS mooring site was abandoned and water samples for primary and secondary production studies were taken from the ship's clean seawater supply. Overnight the vessel returned to the Welsh coast for shelter.

Friday 5th November 2010

The ship sailed from shelter to arrive on Liverpool Bay transect station 6 at 1000 hrs. Following deployment of the rosette to collect samples for production studies the Corystes sailed to dock in Belfast at 2215 hrs.

Work Completed:

Windy, often gale force conditions played havoc with the work schedule and abandonment of work at the Celtic Deep SmartBuoy. Despite the poor weather careful planning ensured all other objectives were achieved.

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 the ship's equipment or indeed any of the scientific equipment. 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: 3 December 2010