



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

**Cruise Report:** CO 1310

**Vessel:** RV *Corystes*

**Date:** 29<sup>th</sup> March – 2<sup>nd</sup> April 2010

**Area:** Irish Sea (north); ICES VIIa & VIIg

**Survey Type:** Biological Oceanography & Mooring Service

**Personnel:**

B Stewart	SSO	AFBI	28 March – 2 April
R Gilmore	SO	AFBI	28 March – 2 April
C Smyth	SO	AFBI	28 March – 2 April
G Hamilton	ASO	AFBI	28 March – 2 April

**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 in the water column in the Irish Sea.
- iii. To investigate the distribution of dissolved nutrients over the standard Liverpool Bay and IOM grid of stations.

<b><u>Circulation</u></b>	<input checked="" type="checkbox"/>	<b><u>Comments</u></b>   <hr/> <p style="text-align: center;">Signed Head of Branch</p>
<b>DCSO &amp; CSO</b>	<input checked="" type="checkbox"/>	
<b>Ship Managers</b>	<input checked="" type="checkbox"/>	
<b>Fisheries Division</b>	<input type="checkbox"/>	
<b>ANIFPO</b>	<input type="checkbox"/>	
<b>NIFPO</b>	<input type="checkbox"/>	

**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 28 March 2010

Following a talk on ship's safety and a demonstration of personal life saving equipment, the RV Corystes departed Belfast at 2145 hrs and sailed overnight in a light breeze to the mooring station 38A.

Monday 29 March 2010

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 the instruments were reprogrammed and mooring components reassembled. The instrument mooring was then successfully redeployed at 1130 hrs in depth 92 metres on position  $53^{\circ} 46^{\prime} .917\text{N}$   $005^{\circ} 38^{\prime} .080\text{W}$ . Following deployment of the rosette water sampler and CTD the Corystes sailed to sample at stations 37 and 36 before work was abandoned due to easterly gales. Overnight the vessel sailed to anchor off Arklow.

Tuesday 30 March 2010

As gales continued throughout the day the vessel remained at anchor.

Work continued throughout the day with the analysis of samples for chlorophyll. The nutrient water sampler was dismantled, cleaned and prepared for the next deployment.

Wednesday 31 March 2010

With winds forecast to decrease overnight the anchor was lifted at 1400 hrs and the Corystes sailed slowly overnight to the SmartBuoy mooring site in the Celtic Sea

Thursday 1 April 2010

The Corystes arrived on the mooring site at 0700 hrs. The winds had fallen away but a significant swell remained as mooring components were assembled for deployment of the SmartBuoy. The water sampler and communications unit were then programmed and the SmartBuoy was successfully deployed at 0900 hrs in depth 105 metres on position  $51^{\circ} 14^{\prime} .978\text{N}$   $006^{\circ} 04^{\prime} .800\text{W}$ . Following the deployment of the rosette water sampler and CTD the Corystes sailed in a northerly direction to sample at stations B8, B9, B10, B11, 62 and 50.

Friday 2 April 2010

The Corystes sailed to dock in Belfast at 0830 hrs.

**Work Completed:**

Favourable weather conditions enabled a successful service of the AFBI mooring and sampling at stations 36 and 37 before work was abandoned owing to easterly gales. After 36 hours at anchor the winds fell away sufficiently to enable an opportunistic yet successful deployment of the Celtic Deep SmartBuoy. A number of stations were sampled as the ship sailed in a northerly direction to Belfast. Unfortunately time spent at anchor meant that surveys of the Liverpool Bay and IOM transects could not be completed.

**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.

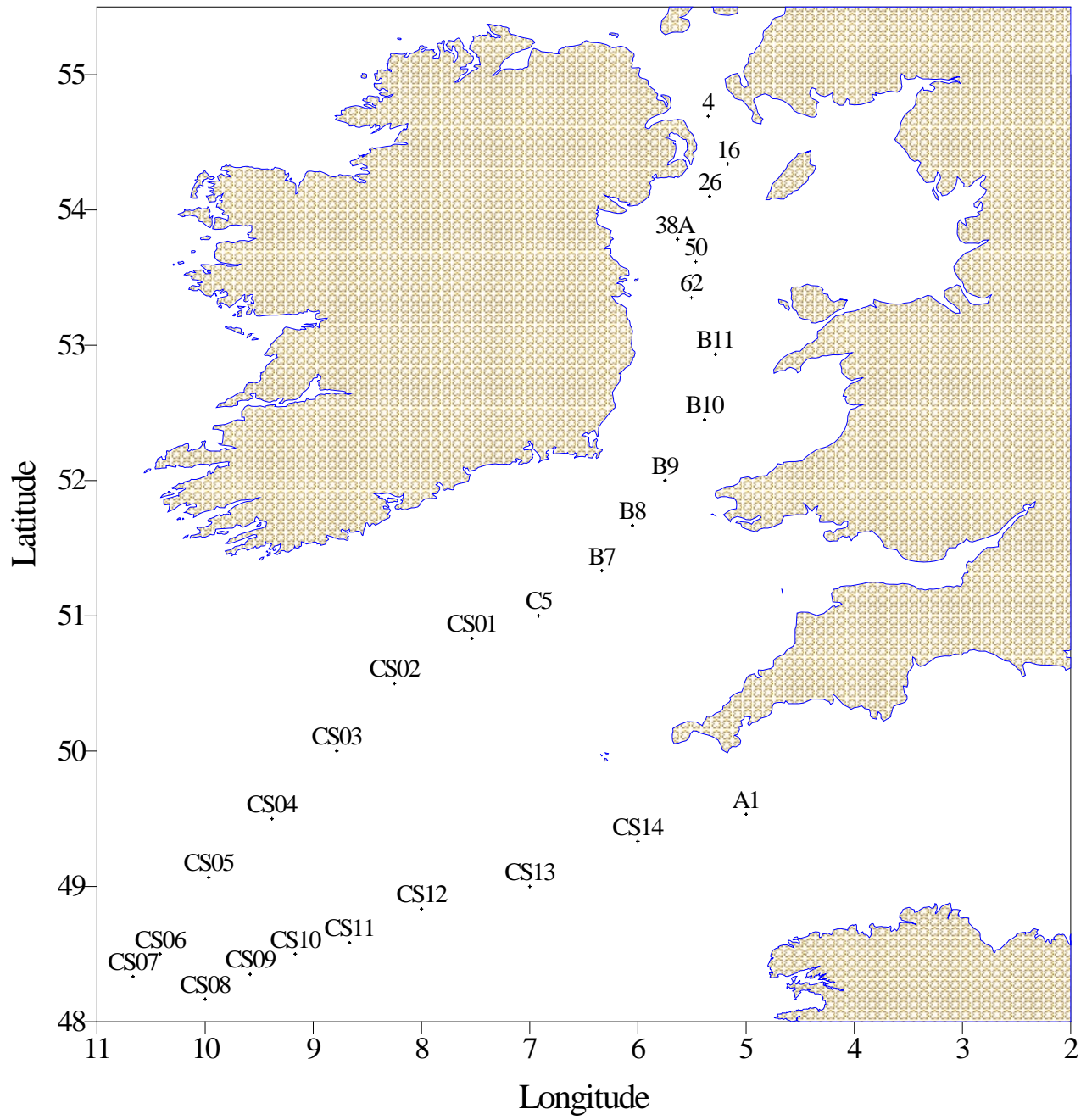
**Acknowledgements:**

I am indebted to 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: 23 April 2010

Not to be cited without prior reference to AFBI (Fisheries & Aquatic Ecosystems Branch)



**Survey Transect CO 1310**