Department of Agriculture and Rural Development (Northern Ireland)
Agriculture and Environmental Science Division

Cruise Report: LF 1904
Vessel: RV *Lough Foyle*
Date: 3rd – 4th May 2004
Area: Irish Sea (north); ICES div. VIIa
Survey Type: Biological Oceanography & Mooring Service

Personnel:

B Stewart(SIC)	SSO	DARDNI
C Smyth	SO	DARDNI
P McShane	ASO	DARDNI
J Hill	Student	QMUL

Objectives:

i. To maintain a nutrient and remote monitoring programme at mooring stations 38A and 47D.

ii. To assess temperature, salinity and nutrient distributions over depth at stations 38A and 47D.

iii. To assess surface temperature, salinity and nutrient distributions throughout a grid of stations in the north western Irish Sea.

iv. To assess sediment, epifauna and *Nephrops* samples for isotopic and pigment content.

v. To assess temperature, salinity and nutrient distributions over depth along an east-west Irish Sea transect at latitude 54 degrees.

Cruise Narrative:

Monday 3 May 2004
In preparation for the cruise, all DANI scientific crew were onboard by 1900 hrs. Following a talk on ship's safety and a demonstration of personal life saving equipment, the RV Lough Foyle departed Belfast at 2100 hrs and sailed overnight in a light wind to the mooring site at station 38A.

Tuesday 4 May 2004

The vessel arrived on the mooring site at 0600 hrs. The weather was dry with a light north easterly breeze when work for the day started at 0800 hrs with the deployment of the rosette water sampler and zooplankton nets. The rosette water sampler was again deployed followed by the sediment multi-corer, Gulf III and beam trawl to acquire water, sediment, epifauna and *Nephrops* samples. Following the successful completion of these tasks the vessel sailed to dock in Belfast at 2000 hrs.

Wednesday 5 May 2004
Scientific crew returned to the ship at 0900 hrs when samples and equipment were removed from the ship and transported to Newforge Lane.

Parameters Monitored:
The CTD/rosette water sampler was deployed at stations 38A, 47D and at positions along the 54 degree latitude transect from Strangford to Morecambe Bay to acquire nutrient, chlorophyll *a*, temperature, light and salinity data from the depth profile. Three zooplankton net hauls were taken at stations 38A & 47D.

Moored Instrumentation:
The McLane water sampler deployed at depth 20 metres functioned as programmed with the exception of the 10 May and 31 May deployments where programming errors were suspected. Aside this, duplicate samples, for nutrient analysis, were taken every second day during the period 1 April – 9 May 2004. Temperature data recorded at 3 hourly intervals was recovered during each mooring service from seven thermistors positioned at intervals throughout the water column.

Temperature, salinity and fluorescence data recorded at 15 minute intervals was recovered during each mooring service from CTD's positioned at near surface and near bottom at station 38A.

Currently no instruments are deployed on the station 47D mooring.

Hotel Report & 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 Lough Foyle 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.

B M STEWART