5684 copy of report issued to Dr M Murray + Mr T. Hall 8/4/94

Not to be cited without prior reference to the laboratory

Cruise report LF0894

National Monitoring Plan 1994 21/03/94 -24/03/940

Personnel:

M Service	ASRD	SIC
B Stewart	"	
S Bloomfield	"	
D Beggs	"	
M Aitchison	FACRD	

Objectives:

The primary function of the cruise was to sample the 3 N Ireland UK National Monitoring Plan Offshore Stations which fall under the remit of DANI. The secondary role was to measure coastal nutrient levels along the NI coastline in relation to major riverine inputs. Thirdly cores and water samples were to be collected for the Biological Oceanography Programme.

Procedures:

Nutrients were measured used the continuous surface mapping procedure.Additional profiles for water and CTD data were collected at a number of stations including the NMP Stations using the rosette water sampler. Sediment samples for fauna and chemical analyses were collected using the Day Grab. At one station cores were obtained with the multi-corer.

Narrative:

Day One

After departing Belfast at 0700h the vessel steamed to the first depth profile station near the mouth of Belfast Lough following this the cruise followed the planned programme, steaming around the N Antrim coastarriving at the first NMP station around 1900h. After successfully obtaining three grabs out of a planned seven and deploying the water sampler operations were stopped for the night and the vessel anchored in Portstewart Bay.

Day Two

The vessel returned to the NMP station at 0700h and completed the grab sampling programme. On route to the station an experimental trawl with a 2m beam trawl was undertaken in attempt to obtain samples of flatfish although the trawl appeared to fish well no fish were caught. Following this the vessel resumed surface mapping following the planned course arriving at the second NMP station around 16.30h. This station had been relocated from previous years as the initial location had not proved amenable to grab sampling. The new location was found to be suitable possessing a muddy sand substrate. Sampling was completed around

1800h. The day was completed by deploying the water sampler at oceanography programmes station no 4. Following this the vessel steamed towards Dundalk Bay through the night.

Day Three

The vessel moved out from Dundalk Bay at 0700 to Oceanography Programme Station 47 where the multi-corer and the water sampler were successfully deployed. Following this surface mapping was resumed and the vessel steamed northward along the coast sampling Oceanography stations 36 and 24 before moving offshore to sample the remaining NMP station at 1230h. Strong SW winds prevented the proposed sampling at oceanography station 38 and the vessel moved to oceanography station 15 to carry out water sampling before undertaking a pass of the Strangford Lough narrows deploying the water sampler a further twice before proceeding to anchor for the night in Dundrum Bay at 1800h.

Day Four

The vessel moved from Dundrum Bay at 0800h to began a series of passes of the Strangford Narrows carrying out surface mapping and deploying the water sampler at a three stations North off , adjacent to and South of the entrance to the narrows. This exercise was timed to coincide with a sampling run inside the Lough. After three passes the vessel moved of to return to Belfast stopping to deploy the naturalists dredge in the Copeland Sound to obtain specimens of *Modiolus modiolus* for analysis as part of the NMP schedule.

Conclusions:

This cruise passed off uneventfully and subsequent changes in the weather proved the decision to undertake the Northern leg of the cruise at the start to be the correct one. Initial results from the surface mapping exercise indicate that riverine influences on nutrient levels can be detected. The exercise in synchronising sampling inside and outside the entrance to Strangford Lough passed of successfully. It should be noted that while the rosette sampler performed well a number of the sample bottles refused to fire and the general state of the sampler indicates the need for the frame to undergo a general overhaul.

M Service SIC