

Masters Postgraduate Research Opportunity in Marine Biodiversity

Ref: Marine Biodiversity

Project Title: 'Development of Rapid Assessment Techniques for assessment and monitoring of marine soft sediment biodiversity'

Funding Agency: National Parks and Wildlife Service

Description: A research project is to be carried out in Inner Galway Bay to map the macrobenthic fauna of soft sediment and maerl substrates. Grab, dredge and beam trawls will be deployed and the sediment obtained sieved through meshes ranging from 1 to 3mm aperture. The samples will be sorted and the fauna identified by a company employed to do this work. While the dredging part of the programme is underway a preliminary list of species will be prepared following identification on board the survey vessel. The project is funded by the National Parks and Wildlife Service.

The graduate will be registered for an M.Sc. and will use the data from the survey to:

Determine the 'total' biodiversity for each community. Total in this case means the complete species list (species richness) as obtained from combining all fauna identified.

Determine what subset of these data best correlates to this total.

The subsets to be analysed include:

- All species
- The species lists determined on board
- Less resolved taxonomic levels, such as genus, family, order
- Specific taxonomic groups which contain high numbers of species, e.g. polychaetes, crustacea
- Different size classes as determined by different sieve mesh sizes.
- Functional guilds

The graduate will take part in a similar cruise in 2008.

The overall aim of the project is to determine appropriate techniques, the best species groups and the effort required to produce a cost-effective, rapid and reliable surrogate for the assessment and monitoring of biodiversity to meet EU requirements.

Research Environment: The student will join the Marine Biodiversity Research Group in GMIT and will also work closely with an environmental research consultancy. The MBRG is a multidisciplinary research group working on various aspects of marine biodiversity including cetaceans, birds, intertidal and sub-tidal ecology and systematics.

Requirements/Background: The successful candidate will hold a minimum of a 2.2 honours degree (or equivalent) in Zoology, Marine Ecology, Applied Aquatic Ecology or a related field. They must be capable of working at sea. Experience in identifying soft sediment macrobenthos and sea survival training would be an advantage.

Project Start-Date: July 2007

Project Duration: 24 months

Conditions: The student will receive a monthly tax-free stipend of €1040 per annum and will have their fees and registration paid.

(Candidates from beyond the EU are eligible to apply, but will be expected to provide evidence of sources of additional funds to cover excesses associated with **Non-EU fees that could amount to €6,000 per year**)

Further Information on the Project: Dr David McGrath or Dr Ian O'Connor (ian.oconnor@gmit.ie)

Application Form (which must be forwarded by post) is available at:

<http://www.gmit.ie/research/vacancies.html> or by phone: +353 (0)91 742759

(Please note that applications forwarded by email **will not** be accepted)

Completed Application Form to be returned to:

Research Recruitment,
Development Office,
Galway-Mayo Institute of Technology,
Dublin Road, Galway, Ireland.

Closing Date for receipt of Application Forms:

12.00 noon, Tuesday 5th June 2007