School of Natural Sciences: Funded MSc Scholarship

Project Title: Optimising the Water Framework Directive benthic multimetric index Infaunal Quality Index (IQI) to manage aquaculture activities in Irish coastal waters.

Supervisors: Dr. Robert Kennedy

Duration: 2 years full-time Masters of Science, funded by the Marine Institute.

Project description: There is a variety of approaches to reporting on the Ecological Status (ES) of coastal sedimentary benthic habitats under a number of EU Directives. They are based on the diversity, abundance and sensitivity of benthic macrofauna in coastal and transitional waters. This project aims to optimise the Water Framework Directive benthic multimetric index Infaunal Quality Index (IQI) to manage aquaculture activities in Irish waters, particularly Natura 2000 sites, designated under the Habitats Directive. Conservation Status in these designated sites is currently reported using a semi-quantitative approach. The aims of this project will be to:

1. Collate benthic monitoring data from Natura 2000 sites and assess the ES (measured as IQI) of the sediment communities to determine trends in space and over time.
2. Determine the expected range of IQI in undisturbed benthic communities in different habitat types.
3. Assess the effects of aquaculture activities on ES in benthic communities in Natura 2000 sites.

This study will be largely desk based, but there will be opportunity to participate in annual cruises for WFD monitoring aboard the rv Tom Crean with the Marine Institute Benthic Ecology Unit.

Stipend: €18,500 per annum & fees for 2 years.

Entry Requirements:
Candidates should hold or anticipate a good primary degree (First or Second Class Honours) in an appropriate discipline (e.g. zoology, marine science, environmental science, geography). The successful candidate should be highly self-motivated, display excellent written and oral communication skills, and have some background and interest in ecological assessment. Experience with benthic invertebrates would be desirable. The successful candidate will ideally have experience geographic information systems (GIS) and habitat mapping.

How to apply:
Please submit an electronic copy of your Curriculum Vitae with contact details for two referees and a letter stating your interest and suitability for the position to: Dr. Robert Kennedy (bob.kennedy@nuigalway.ie) with subject line ‘WFD MSc Application’.

Closing date for applications: 09 September 2022

Start date: October 2022

Further Information: Dr. Robert Kennedy (bob.kennedy@nuigalway.ie).