



Marine Institute
Foras na Mara



GMIT
INSTITIÚID TEICNEOLAÍOCHTA NA GAILLIMHE-MAIGH EÓ
GALWAY-MAYO INSTITUTE OF TECHNOLOGY

PhD Postgraduate Research Opportunity

Project Title: Evaluate the disease status of velvet crab, brown crab, lobster & shrimp with a focus on *Paramarteilia* sp. & microsporidian species (Marine Institute Cullen Fellowship)

Funding Agency: Marine Institute

Description:

We are currently seeking a suitably qualified and strongly motivated candidate to undertake a PhD project as part of a collaboration between the Galway Mayo Institute of Technology and the Marine Institute. Crustaceans form an important food source globally and are vital for both present and future food security. In Ireland approximately seven crustacean species are fished commercially and the sale of these species adds substantially to the economy of the country. Parasite and pathogen infections are common in crustaceans, yet disease manifestation is not an inevitable outcome of infection. Disease development depends on the interplay between three key factors: the host, the parasite and the environment. In some instances, specific activities within crustacean fisheries can further exacerbate the risk of a disease outbreak through enhancing the transmissibility of the parasite with the additional possibility of reservoir hosts playing a role in parasite transmission. Following recently reported declines in the velvet crab (*Necora puber*) fishery in Galway, Ireland, three groups of microparasites have been identified at high levels and require further investigation: *Paramarteilia* sp., *Hematodinium* sp. and unidentified microsporidians. Concern for additional crustacean species, such as lobsters and prawns, has also been raised.

Therefore, the research objectives for this project include the following: assessing the prevalence of microparasite species affecting crustaceans and molecularly characterising them; investigating the extent to which reservoir species are affecting parasite prevalence; examining the effect of varying environmental conditions on the susceptibility of crustaceans; investigating transmission between crustacean species and reservoir hosts; and describing the pathobiome associated with these microparasite infections.

Requirements/Qualifications:

The successful candidate will be familiar with laboratory techniques in molecular biology and will possess previous experience in microscopy. Knowledge of histological techniques and a full driving licence are desirable. The individual will be: strongly motivated, organised in their approach, able to work on their own initiative, and possessing the ability to acquire the broader skills necessary for successfully completing a PhD project. They will work well as part of a team with a variety of people, and will be determined to succeed in both an academic and research capacity.

Minimum qualifications: BSc (Hons) Degree at 2:2 level (2:1 or higher is desirable) in a cognate discipline e.g. Marine or Environmental Science, Fisheries Science, Zoology, Ecology, Parasitology, Veterinary Medicine.

Project Duration: 36 months

Conditions:

- €16,000 stipend per annum.
- Postgraduate fees for EU students will be covered by the project.
- In addition, any necessary travel and material costs incurred during the project will also be covered.

Please Note: Candidates from outside 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.

If either English or Irish is not the applicant's first language, a certificate of language ability in either language is required. IELTS level 6.0 or equivalent is mandatory for those presenting with English as a foreign language.

Project Start Date: 20/01/19

Application Closing Date: 08/11/18

Interviews are expected to take place the first week of December 2018

Applicants should submit a **Curriculum Vitae** (including details of two referees) and a **Personal Statement** (no longer than one page) to: ResearchOffice@gmit.ie

In order to expedite the recruitment process, please attach to your application copies of educational qualifications.

Applications must be submitted to this e-mail address only.

The Personal Statement should not exceed one page and should provide details on:

- How you are best suited to the position
- Why you would like to pursue a PhD Research Programme

For further information on the project please contact:

Dr Katie O'Dwyer, Marine and Freshwater Research Centre, GMIT katie.odwyer@gmit.ie

Teresa Morrissey, Fish Health Unit, Marine Institute Teresa.Morrissey@marine.ie

Data Protection Statement:

GMIT takes very seriously its legal obligations as set out in the General Data Protection Regulation 2016/679 (GDPR) and the Irish Data Protection Act 2018 to safeguard and protect your personal information in our possession. The personal information which you disclose to us in this form will only be used to assess your suitability; administer and register you for this scholarship. We will not keep your personal information for any longer than is necessary for those stated purposes.

For more details, please refer to GMIT's Student Privacy Statement:

<http://www.gmit.ie/general/student-privacy-statement>