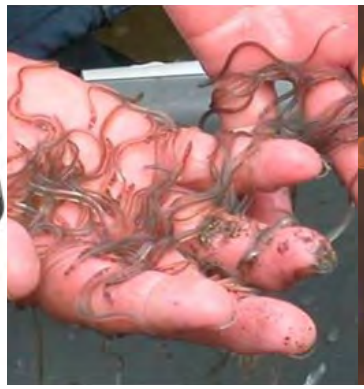
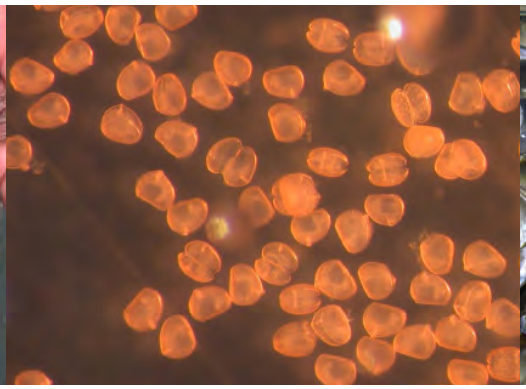
NIWA - University of Waikato

MSc Scholarship Available

Suitability of selected native fish for juvenile freshwater mussel larvae attachment

Cultural Keystone Species - CKS2020

A new research programme led by NIWA called Cultural Keystone Species: Co-management and Restoration of our Freshwater Taonga Species aims to co-develop research methods, tools and products with whānau, hapū and iwi that inform new and innovative management approaches for the protection, restoration and economic development of Cultural Keystone Species (CKS).

Freshwater taonga species such as kōura (freshwater crayfish) and kāeo/kākahi (freshwater mussels) once sustained local and regional economies with significant food and resources. These species are vital for maintaining ecosystem integrity and function and due to their cultural and ecological importance these species fit characteristics described by Garibaldi & Turner (2004) as Cultural Keystone Species (CKS).

The distribution and abundance of many of Āotearoa's freshwater taonga species are declining, altering the socioecological systems they support. Fundamental research is needed to improve our understanding of biological processes influencing kōura and kāeo/kākahi populations and factors affecting juvenile survival to inform new and innovative approaches for CKS protection, restoration and economic development.

About the MSc Project

The key aim of this project is to:

- Determine factors affecting the host attachment of kāeo/kākahi to native fish populations in selected Waikato streams.
- Relate host fish use to ecosystem services offered by different fish species and/or kāeo/kākahi distribution and abundance.

It is envisaged that this MSc will provide information and methods to inform future kāeo/kākahi management and restoration in the Waikato River catchment. The project will involve field sampling of fish and possibly laboratory trials conducted at the NIWA Hamilton research facilities. Ideally the MSc candidate will collaborate with students working on concurrent MSc. and Ph.D. projects on related subjects.

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Details of the MSc Scholarship

We are seeking a high calibre graduate student with demonstrated skills in written and oral communication and strong self-motivation to work in collaboration with scientists at NIWA (Dr Sue Clearwater) and the University of Waikato (Dr Kevin Collier). This project will complement and build on freshwater mussel research being conducted by NIWA, the University of Waikato and Landcare Research.

The scholarship is for study at the University of Waikato and consists of a NZ $17,500 student stipend in the thesis year only to cover course fees and research expenses.

Successful applicants should have a BSc in biology/freshwater ecology, ideally with experience in sampling freshwater ecosystems and undertaking quantitative analyses.

The scholarship is open to students of any nationality and candidate must meet entry requirements for the University of Waikato masters programme (see www.waikato.ac.nz/study/enrol/higher).

The scholarship will remain open until filled but we expect to start reviewing applications in early June. The start date is negotiable (1 July 2017 recommended) but successful candidates must be enrolled by 1 October 2017 at the latest.

Applying for this Scholarship

Applications should be send to darcel.rickard@niwa.co.nz by 26 May 2017. Please include: (1) a short statement about your previous research interests and experience, (2) an indication of your potential start date, and (3) a full CV with the names of two referees willing to provide confidential comments about your suitability for the scholarship.

Key contacts

Sue Clearwater (Supervisor - NIWA) sue.clearwater@niwa.co.nz

Kevin Collier (Supervisor - University of Waikato) kcollier@waikato.ac.nz

Erica Williams (Programme Leader - NIWA) erica.williams@niwa.co.nz

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