PhD Scholarship: Examining techniques to enhance the kōura fishery in tributaries of the upper Waikato River

Te Waiora Joint Institute for Freshwater Management, established to foster interdisciplinary capability between The University of Waikato and NIWA, are inviting applications for a PhD studentship to examine techniques to enhance the kōura fishery in tributaries of the upper Waikato River. This project seeks to achieve outcomes across the three focus areas of Te Waiora – Restoration, rehabilitation and protection of freshwaters; society and freshwater and mātauranga wai (see http://www.tewaiorafreshwater.co.nz/).

About the project

Populations of kōura (New Zealand’s freshwater crayfish) in the main stem of the upper Waikato River have declined markedly since the late-1990s, with similar declines noted in its tributaries. This project will build on research indicating the importance of predation from native and introduced fish in the decline of kōura populations. Outcomes from this research will inform the development of mahinga kai restoration techniques for a taonga species for the Ngāti Tahu-Ngāti Whaoa people, and other riverine iwi and hapū.

The aims of this project are to evaluate enhancement techniques for kōura, including experiments that evaluate:

- Provision of instream microhabitat structures to providing refugia for juvenile kōura;
- The establishment of flow refugia in pastoral stream sites to enhance the retention of kōura populations (adult and juvenile) during seasonal high flow events;
- The effects of predation on kōura populations at selected enhancement sites, for example through predator exclusion and/or removal.

Details of scholarship

We seek a student with demonstrated skills in written and oral communication and strong self-motivation. The successful candidate will have a BSc(Hons) or MSc in freshwater ecology, demonstrating experience in sampling freshwater ecosystems, and expertise in quantitative analysis. As this project supports the aspirations of Ngāti Tahu-Ngāti Whaoa in their endeavours to restore and enhance mahinga kai within their rohe, the applicant must have a willingness to work collaboratively with this iwi.

The successful applicant should be eligible to register for doctoral studies at the University of Waikato. The three-year scholarship offers an annual stipend of NZ $27,500 and also provides additional funding to cover course fees and selected operating costs for three years. Applications should be sent to Ian Duggan (ian.duggan@waikato.ac.nz) before 31 January, and should include a full CV with the names of two referees willing to provide confidential comments of your suitability to complete a PhD, a statement of research interests and experience, and an indication of your potential start date.