Purpose
The purpose of these scholarships is to support an innovative ecological research programme focused on supporting objectives of the Department of Conservation. The research will have a strong component of field ecology as well as laboratory studies. The focus for the research will be on understanding the pattern, process and functioning of ecosystems and species of conservation interest in order to understand the nature and extent of change and what might be needed to maintain and conserve them.

Research Topic:
Using environmental DNA to monitor freshwater mussel populations.

This scholarship is available for a highly motivated MSc Research candidate to carry out research on the application and development of environmental DNA (eDNA) methodologies in detecting and monitoring freshwater mussels (kākahi) in the greater Waikato region. Freshwater mussels are an integral and vital component of freshwater ecosystems and considered threatened species, but their distribution and abundance remain relatively poorly understood. The successful applicant will work with Assoc. Prof. Kevin Collier and Dr Charles Lee at the School of Science, University of Waikato in conjunction with collaborators from the Waikato Regional Council and Department of Conservation.

The research will involve extensive fieldwork and a significant component of laboratory work. The main molecular techniques will be digital PCR and DNA sequencing, so a background in genetics and/or molecular biology is required. The focus of the research will be to understand the presence and abundance of kākahi in key habitats across time and to develop methodologies for a future systematic survey at regional and national scales.

Eligibility Criteria
Level: Masters
Enrolment Status: Must have been accepted for or have enrolled full-time in a Master of Science (Research) programme at the University of Waikato.
Start Date: A semester 2019
Value/Tenure: $15,000, which will be applied directly to the tuition fees for the 120-point thesis paper, with the balance paid out as a stipend over the year of thesis research (maximum 1 year).

Application Documents Required
- A cover letter outlining your interest in the research topic (maximum one A4 page)
- A CV (maximum three A4 pages in length)
- Academic transcripts from previous study undertaken

Selection Process
All ‘Expressions of Interest’ will be considered and shortlisted candidates will be invited to discuss their suitability and interest in the research topic further with the selection panel.