

PhD funding – The quest for rare stream invertebrates in Middle Earth (New Zealand)

Although there is plenty of invertebrate monitoring for water quality in many of New Zealand's lowland rivers there is very little sampling in the rivers of our beautiful national parks. The location, status, trends, and pressures threatening our endangered freshwater invertebrates are poorly known in NZ. This project, in partnership with the Department of Conservation and several other NZ research institutions, will test a range of sampling techniques, habitat types and spatial strategies to develop the most efficient sampling regime to assess freshwater invertebrate biodiversity. The hope is that this scheme will allow for the better management of the conservation estate by providing a rigorous monitoring regime for potential anthropogenic stressors on stream invertebrates. The research will also build on existing predictive models to develop decision support tools to manage species richness in streams throughout New Zealand.

So if you have some familiarity with stream ecology, sampling stream biota, stream invertebrates and/or associated biodiversity models and want to spend the next 3 years searching Middle Earth's stunning national parks this project is for you!



The project will utilise artificial intelligence (R, Netica and WEKA) and GIS (ArcMap or QGIS) software to use and create models, and thus familiarity with these techniques would also be useful but not essential. Full instruction in the use of the software will be provided by the research group.

There is a NZ\$25,000.00 scholarship and NZ\$5,000.00 for course fees. The successful applicant will need to have the potential to understand alternative perspectives on resource management, as well as the initiative and personality to communicate the results to a wide variety of groups, including other scientists, iwi, stakeholders and the general public. They must be able to work within a multidisciplinary team and can expect high quality mentoring and support from the group. The successful applicant will be highly motivated, have a strong academic record, appropriate practical and technical experience, and will have demonstrated a high level of ability in written and oral communication.

If you are interested or have any questions about the PhD position email me Professor Russell Death at r.g.death@massey.ac.nz. I am resident at Massey University in the Innovative River Solutions group (rivers.massey.ac.nz) Palmerston North, New Zealand.