PhD project opportunity on the resilience of lake ecosystems to water-level manipulation

School of Biological Sciences, University of Tasmania

We are seeking applicants with an interest and background in freshwater ecology and/or aquatic environmental chemistry for a 3-year PhD project based in Tasmania. The PhD project is part of a larger collaboration between the University of Tasmania, the University of Western Australia, and Hydro Tasmania, which is supported by an ARC Linkage grant “Resilience of Lake Ecosystems to Water-level Manipulation” held by A/Prof Leon Barmuta (University of Tasmania), A/Prof Matthew Hipsey (University of Western Australia) and Dr Carolyn Maxwell (Hydro Tasmania).

The project focuses on lakes that have their water-level manipulated for hydro electricity and irrigation supply, and are located on the Central Plateau of Tasmania, Australia. We are investigating various aspects of uptake and cycling of key nutrients, particularly at the water-sediment interface. Elements of interest include, but are not limited to, phosphorus, nitrogen, and iron. We are interested in the role of sediment resuspension as a source of nutrients and the effect of macrophyte beds on shear stress and sediment resuspension within the lakes. We are looking for a highly motivated PhD student with an interest in at least one of the following areas:

- Water column – sediment interactions
- The role of biota in these interactions, especially macrophytes and biofilms
- Nutrient cycling
- Stable isotope applications

What kind of person could do this project? The project has a significant field work component, including operating scientific equipment from boats. The successful candidate is also expected to undertake laboratory experiments and analytical work. Strong motivation, willingness to work in remote areas and the capacity to work independently are important qualities. The applicant must be proficient in spoken and written English, and have a current driver’s licence. Minimum requirement for candidature is 2A Honours or equivalent. Selection of applicants will be based on merit.

Scholarships:

**Domestic students** (Australia and New Zealand) can apply for an Australian Postgraduate Award (APA) through the University of Tasmania worth $25,849 (2015 rate), with merit-based schemes available for top-ups.

**International students:** can apply for a Tasmanian Graduate Research Scholarship (TGRS) through the University of Tasmania worth $25,849 (2015 rate), with merit-based schemes available for top-ups. UTAS also offers a number of other schemes by which international students can obtain a scholarship; some offer assistance with tuition fees. Prospective candidates are also encouraged to seek scholarship schemes from their own country. International students should contact Associate Professor Leon Barmuta (details below) as soon as possible to discuss options for financial support.
When to apply: Scholarship applications for candidates are due on Monday 9 February 2015, and candidates would need to be prepared to start by the 31st March 2015. UTAS provides a free laptop to all PhD students and funding schemes for attending an international conference during the PhD.

To apply or enquire: Please send an email to A/Prof Leon Barmuta with a statement of your background and interest in the project, your Curriculum Vitae, and a copy of your undergraduate academic transcripts. Email: Leon.Barmuta@utas.edu.au; Phone: +61 (03) 6226-2785.

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