

How well do our sediment quality guidelines reflect 'natural' conditions?

The project:

The heavy metal pollution of lakes, bays and rivers results in the loss of environmental values and species biodiversity. It also has social and economic ramifications. The design of effective pollution mitigation strategies is currently hindered by the lack of understanding of natural levels of heavy metals in aquatic systems. We propose to fill this knowledge gap by quantifying the background heavy metal concentrations of sediments in waterways, using deep sediment cores. The key aim of this PhD project is to identify the key factors governing 'natural' heavy metal concentrations in lake sediments and the creation of a tool that waterway managers can use to determine site-specific restoration targets when designing heavy metal pollution mitigation projects.

The opportunity:

One scholarship covering tuition fees and providing a tax-free stipend (approximately \$28,000/year) for 3 years is potentially available for either a domestic or international student. There is potential for the successful applicant to earn up to \$3,000 (not tax-free) per annum through assisting in undergraduate teaching. Students are given financial support to attend an international conference during their PhD.

Selection criteria:

- Academic Requirements: MSc (research) or BSc or equivalent degree including a research project of at least 6 months full time (or equivalent) duration.
- Excellent academic track record. Experience publishing in internationally recognised journals and conference proceedings is preferred but not essential.
- Experience in statistical analyses, coding and programming.

Application process:

Applicants will be required to apply for a scholarship through Monash University. Applicants should express their interest by writing to Dr Anna Lintern (anna.lintern@monash.edu) with the following documents:

- Academic transcript
- CV
- A one-page document outlining your interest in this research topic and why you are applying for this PhD program
- A cover letter outlining your interest in this research topic and why you are applying for this PhD program, as well as evidence of meeting the eligibility criteria for PhD candidature at Monash University (<http://www.monash.edu.au/migr/apply/>)

For enquiries:

Dr Anna Lintern (anna.lintern@monash.edu)