

PhD Student Opportunity in Freshwater Ecology and Management

Deadline: Oct 7, 2020

An exciting PhD project is available for a motivated and suitably qualified candidate to undertake original research in a multi-disciplinary area. You will work with a dynamic and industry-aligned team to explore the potential to apply conservation planning principles to water resource management. Your findings will inform the water industry and contribute to the international body of knowledge. You will be supervised by Dr Avril Horne, A Prof Angus Webb (University of Melbourne and Prof Julian Olden (University of Washington).

Project: Many freshwater ecosystems are in decline because of anthropogenic disturbances including extractions for human consumption, exotic species invasions, and river regulation for power generation or water security. Climate change has the potential to further exacerbate tradeoffs between water for human uses and water for the environment. This project will explore the potential of adopting spatial network and conservation planning techniques within the field of water resource management. The project would adapt existing methods from conservation planning to prioritize decisions around environmental water use, infrastructure locations and agricultural development.

Application: Australian and international students are eligible to apply. Candidates must be eligible to apply for an Australian Government Research Training Program Stipend Scholarship (4-year degree or Masters) and be highly competitive for that award (approximate weighted average over final two years of study of >82% for local applicants or >88% for international applicants). Applicants will be assessed on their scholarship score and relevant skills and previous experience. Selection criteria include outstanding written communication skills, demonstrated competency in ecology, hydrology or natural resource management, and experience with mathematics or statistics. Industry experience is preferred, and female and indigenous applicants are highly encouraged to apply. If you are interested, please send a cover letter, responses to selection criteria, an un-official transcript and CV to Dr Avril Horne (avril.horne@unimelb.edu.au) by 7 October 2020 (earlier applications preferred). Please do not apply directly with the university at this stage. We will select a preferred candidate, who will then need to obtain University of Melbourne scholarship funding through standard the competitive scholarship selection processes. That application will be due by 7 October 2020.

PhD conditions: The successful applicant will receive a stipend of \$30k AUD p.a. tax-free plus an additional \$5k p.a. top up scholarship. The candidate will enter the PhD program in the Melbourne School of Engineering in 2021 and be enrolled on a full-time basis. Given the uncertainties of travel due to the COVID-19 pandemic, remote work is a possibility at the start of the project. Australian PhD candidatures run for 3-4 years full time, and candidates are given considerable intellectual freedom to pursue their individual interests. This is backed up by considerable professional development opportunities, including presenting at local and international conferences, specific training courses, and limited paid work in consulting-style projects or teaching. As the PhD will be co-supervised by Julian Olden, the candidate will have the opportunity to spend 12 months or more of their candidature based in the [Olden Lab](#) at The University of Washington. Posted: 9/11/20.

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