



Innovative Biodiversity Monitoring for Wetland Restoration

Call for PhD Candidates

We are seeking a highly motivated PhD candidate to lead a project on developing and applying novel biodiversity assessment techniques to evaluate the success of ecosystem restoration in both freshwater and coastal wetlands. This research will explore cutting-edge methods such as acoustic monitoring, eDNA, remote sensing, and AI-driven analytics to measure biodiversity recovery and ecological function in restored and natural wetland systems.

The project will be based at RMIT University's Centre for Nature Positive Solutions, within a multidisciplinary team committed to scalable nature-based solutions for biodiversity conservation and climate adaptation.

RMIT's Centre for Nature Positive Solutions

RMIT's Centre for Nature Positive Solutions (CNPS) is a multi-disciplinary team with a proven track record of conducting impactful research that addresses the world's most pressing environmental challenges, including climate change, pollution, and biodiversity loss. Grounded in cutting-edge science, CNPS focuses on innovative research that transforms the conservation, restoration, and management of ecosystems, ensuring a sustainable future where both people and nature can thrive. CNPS develops solutions that mitigate climate change, protect aquatic biodiversity, foster economic growth, and promote capacity building and community wellbeing.

With a dynamic team of 18 researchers at RMIT University, we collaborate globally to provide actionable guidance and solutions that empower communities, industries, and governments. Our core team has over 50 years of collective research experience, with expertise in ecology, biogeochemistry, microbiology, environmental economics, remote sensing, social science, mapping, and modelling. CNPS includes internationally recognised researchers with more than 300 peer-reviewed publications.

Supervisors

Dr Martino Malerba is a Senior Lecturer and ARC DECRA Fellow at RMIT where he leads research on nature-based solutions to improve the sustainability of freshwater systems. His work focuses on enhancing farm dams, wetlands, and other freshwater systems to boost biodiversity, reduce greenhouse gas emissions, and improve water quality and security, helping rural landscapes adapt to a changing climate.

Dr Melissa Wartman is a Senior Research Fellow at RMIT, where she leads interdisciplinary research advancing nature-based climate solutions for people and nature. Her work focuses on restoring coastal wetland ecosystems by developing and applying innovative techniques that enhance biodiversity, strengthen ecosystem services, and improve resilience to climate change.

Location

RMIT University is based in Melbourne, Australia, with campuses located both in the City or Bundoora.

Project-specific scholarship

RMIT STEM College has provided a dedicated PhD scholarship as an in-kind contribution to The Ripple Effect project. **This scholarship is already secured and does not require the candidate to apply through RMIT's competitive internal rounds.** The supervisory team will assign the scholarship based on alignment with project needs and candidate suitability.

The scholarship includes a stipend (approx. AUD \$35,000 per year) and full tuition fee support for up to 3.5 years. Both domestic and international applicants are encouraged to apply.

Candidate Skillset

We encourage applications from individuals with strong communication skills, demonstrated capacity for independent research, and a genuine interest in making a real-world impact through applied research.

A strong CV for this scholarship may include:

- A Master's or Honours degree in a similar field.
- First-authored publication in a peer-reviewed scientific journal.
- Good quantitative skills and knowledge of coding languages (e.g., R, Python).
- Experience working within wetland ecosystems.
- Good communication skills.
- Demonstrated ability to work independently.

How to apply?

Interested applicants are invited to email a short expression of interest (EOI) to martino.malerba@rmit.edu.au.

For your EOI please include:

- A short cover letter (max 1-page) outlining your research interests and experience
- A brief CV (2-pages)
- Academic transcript(s)
- Contact details for two academic referees

Please contact Dr Martino Malerba (martino.malerba@rmit.edu.au) for any enquiries.

Application Deadline

Applications will be reviewed on a rolling basis until the position is filled. We encourage early expressions of interest.