



PhD scholarship: How ecological restoration can link carbon and biodiversity

Closing date 31st October 2025

Contact Prof. Rachael Gallagher rachael.gallagher@westernsydney.edu.au to discuss eligibility and application requirements ASAP if interested

A PhD scholarship is available as part of a collaboration between Hawkesbury Institute for the Environment at Western Sydney University and the NSW Department of Climate Change, Energy, the Environment and Water (NSW DCCEEW) Restoration Science Branch. The project will devise new approaches for understanding linkages between above- and belowground outcomes from restoration programs and apply these insights to improve future restoration activities. Improving biodiversity outcomes from restoration investments is key for maintaining ecological integrity. However, ensuring that restoration activities result in 'effective' ecological outcomes requires a strong understanding of ecosystem-level outcomes. To maximise biodiversity gains, it is therefore essential to understand how above- and belowground outcomes of restoration interact.

With the support of a highly experienced supervisory team Hawkesbury Institute for the Environment (HIE) and DCCEEW, the PhD candidate will have the opportunity to develop their own research program within the broad topic of links between carbon and biodiversity in above and belowground systems. This could take different directions according to the candidate's interests and background, including components focussed on soil biology, plant ecology, and/or ecosystem science. For example, potential research questions may include:

- ❖ **How is aboveground biodiversity change during restoration activities linked to belowground processes?**
- ❖ **Have restoration investments aimed at improving biodiversity aboveground been successful in enhancing belowground biodiversity?**
- ❖ **What are the potential linkages between carbon and biodiversity across above- and belowground ecosystems?**

The successful candidate will be based at HIE, which comprises research laboratories and experimental facilities. The supervision team will support your development as a scientist, offering a 3 year fully funded scholarship (\$35,188/year - untaxed) and generous project support funds from WSU. A further scholarship top-up may be available to an exceptional candidate.

We welcome applicants from a range of backgrounds, who are keen to apply their skills to key issues in restoration. In particular, the project is suitable for candidates with strong interests in biodiversity or carbon markets, plant conservation, or ecological restoration with practical applied outcomes.

The successful applicant will:

- ❖ Be domestic, i.e., an Australian citizen, Australian permanent resident, and New Zealand citizen
- ❖ Be able to enrol in a full-time PhD program in Q1 2026
- ❖ Demonstrate strong academic performance in subjects relevant to ecology, conservation, and/or environmental economics
- ❖ Demonstrate some experience with statistical methods and /or experience in working with R and other scientific computing packages to develop models and algorithms
- ❖ Experience with field work and a drivers licence is desirable
- ❖ Be able to publish work in journals, with our supervisory support
- ❖ Have good communication skills and be able to work effectively in multidisciplinary team

Application requirements

All applicants **MUST** create an account and apply via the WSU Application Portal:

<https://apply.westernsydney.edu.au/Admissions/Account/Login?ReturnUrl=%2fAdmissions>

You must also contact Prof. Rachael Gallagher to introduce yourself and your suitability for the scholarship so she can supply a statement of supervisory support

To apply, you will need to be able to upload, by the closing date:

- ❖ Certified academic transcripts – each page must be certified (this is important, previous applicants have been advised incorrectly that this is not required – it is). Certification can be done by a Justice of the Peace, General Practitioner, solicitor, or WSU Staff member
- ❖ Certified copies of Testamurs
- ❖ A CV/Resume, including any Research Outputs or experience
- ❖ Certified Proof of Residency document – this can be a Birth Certificate, Passport, Citizenship document, or VIVO
- ❖ A short Research Proposal – this can be worked on with the supervisors
- ❖ A Statement Addressing the Selection Criteria. This should read like a CV where the candidate explains how they satisfy the scholarship selection criteria
- ❖ Academic Qualifications – completed an Australian equivalent to MPhil, MRes, Masters with 25% research component, or First Class Bachelor Honours degree
- ❖ A statement outlining any equity considerations such as carer responsibilities, Indigenous status, or disabilities
- ❖ A statement of Supervisory support which Prof. Gallagher will provide via email

Join us for an exciting PhD program working directly with restoration programs with real impact!