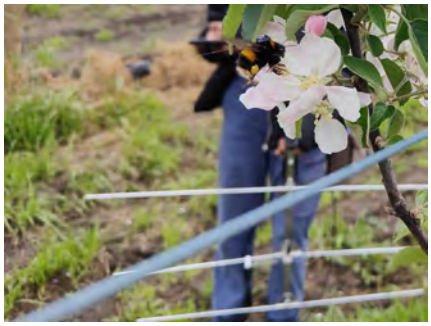

WESTERN SYDNEY UNIVERSITY

Hawkesbury Institute for the Environment

Two PhD scholarships investigating invasive bumblebee ecology in Tasmania using AI and radio telemetry

ABOUT THE PROJECT

The Hawkesbury Institute for the Environment (HIE) is offering two postgraduate research scholarships for a 3-year PhD program of research commencing in early 2025. The candidates will use novel custom built radio transmitters and neuromorphic AI powered audio-visual monitoring systems to better understand the role introduced bumblebees are playing in Tasmanian ecosystems and agricultural landscapes.

Since their arrival to Tasmania in 1992, the buff-tailed bumblebee (Bombus terrestris) has spread all over the island state. They pose a range of potential environmental risks, such as through increased competition with native animals for floral resources, and the spread of weed species adapted to their pollination services. But they also present an opportunity for efficient and effective wild pollination of many local crops. We will collect rigorous and unbiased data on the positive and negative impacts bumblebees are playing in local Tasmanian ecosystems and agricultural landscapes. We will test whether bumblebees are competing for floral resources with managed honey bees and wild pollinators, determine their efficacy as pollinators of native plants, weed species, and local agricultural crops, and tease apart the importance of floral resource and nesting location availability on the population density of bumblebees around farms.

The unbiased and rigorous data collected shall be used to inform local Tasmanian stakeholders from both agricultural and conservation backgrounds.

This project is funded by a Horticulture Innovation grant titled "Progress on bumble bees as commercial pollinators in Australia: update on risks and opportunities (PH23001)", and Western Sydney University's Graduate Research School..

WHAT DOES THE SCHOLARSHIP PROVIDE?

- Domestic candidates will receive a tax-free stipend of $32,192 (AUD) per annum for up to 3 years to support living costs, supported by the Research Training Program (RTP) Fee Offset.
- International candidates will receive a tax-free stipend of $32,192 (AUD) per annum for up to 3 years to support living costs. International candidates will also be eligible for a tuition fee waiver.
- Support for conference attendance, fieldwork and additional costs as approved by School/Institute.
- International candidates are required to hold an Overseas Student Health Cover (OSHC) insurance policy for the duration of their study in Australia. This cost is not covered by the scholarship.

ELIGIBILITY CRITERIA

We welcome applicants from a range of backgrounds, who are keen to apply their skills to key issues in pollination ecology and understanding the impacts of invasive species. In particular, the project is suitable for candidates with strong interests in understanding pollination ecology, crop production, and environmental stewardship. The role is ideally suited to applicants with a keen sense of adventure, willing to spend large periods of time in remote locations around Tasmania. It is also ideally suited for applicants already working in the agriculture, biosecurity, or conservation sectors, who are interested in returning to their studies in order to obtain a practical, applied and outcome driven PhD.

ELIGIBILITY CRITERIA (Cont'd)

The successful applicant should:

- Hold qualifications and experience equal to one of the following (i) an Australian First Class Bachelor (Honours) degree, (ii) coursework Masters with at least 25% research component, (iii) Research Master's degree, or (iv) equivalent overseas qualifications.
- Demonstrate strong academic performance in subjects relevant to entomology, pollinator behaviour and/or ecology, pollination services, and crop production.
- Demonstrate an exceptional interest and understanding of social insects, ideally honey bees and bumblebees and/or a willingness to learn to work with these animals.
- Hold a full NSW drivers' licence, or equivalent. International applicants must have the driving experience and willingness to transition to a full Australian licence within 6 months of commencing the position.
- Be willing to work independently for long periods of time in remote parts of Tasmania in order to collect year-round bumblebee behavioural data. Applicants can either base themselves in Sydney and travel to Tasmania for fieldwork, or base themselves in Tasmania, and travel to Sydney for meetings. All food, travel, and accommodation expenses (within a set limit) will be covered during fieldwork periods.
- Possess excellent written and verbal communication skills.
- Have proven data analysis experience.

International applicants must demonstrate English language proficiency

HOW TO APPLY

Complete the application via the link : https://tinyurl.com/55cnxrd4

- Review the project's eligibility criteria. You will need to provide in your application a document which explains how you satisfy the projects eligibility criteria.
- Contact the lead researcher listed to discuss your eligibility, the project's requirements and your intention to apply. You should email them to introduce yourself, describe your qualifications and experience, and express your interest in their research project. If they are interested, you may want to arrange a phone call, video call or meeting to discuss your application. You will need to request a letter of support from the lead researcher to support your application for the scholarship.
- Submit an online application for the project via the Online Portal. You do not need to submit an application for Doctor of Philosophy or Research Scholarship.

Incomplete applications or applications that do not conform to the above requirements will not be considered.

For questions and advice about the research project, please contact the Lead Researcher; Doctor James Makinson: J.Makinson@westernsydney.edu.au

Use the email subject line: **Application PS2024_149_HIE**

Closing date: 30 November 2024

**Applications close at 11.59pm 11.59pm Australian Eastern Daylight Time (AEDT).*