

PHD OPPORTUNITY IN ANT INVASION AND FUNCTIONAL ECOLOGY 2026



With a biomass that exceeds all wild mammals and birds on Earth, ants are the movers and shakers of ecosystems. However, the unintentional spread of many species with human activity has also led to devastating invasions, with severe impacts on nature and society. In Australia, invasive ants have caused over \$33 billion in economic losses, threatening biodiversity, agriculture and public health. Their spread is accelerating, and safeguarding ecosystems requires urgent action.

We are seeking a highly motivated PhD candidate to join an Australian Research Council (ARC)-funded project at The University of Sydney in 2026 investigating how invasive ants alter biodiversity and ecosystem functions, and how we can build ecological resistance against their spread.

The PhD candidate will:

- Conduct novel fieldwork and experiments on ant communities in intact and invaded ecosystems in Australia
- Develop tractable methods to effectively assess species traits and ecosystem functions
- Apply cutting-edge analytical approaches to model biodiversity patterns
- Author scientific manuscripts on invasion and functional ecology
- Communicate novel insights and solutions to biological invasions to industry stakeholders and the wider public

Why this project?

This PhD is embedded within a prestigious ARC Discovery Early Career Researcher Award (DECRA) led by [Dr Mark Wong](#) in collaboration with [Prof Dieter Hochuli](#) and [Prof Peter Banks](#) at The University of Sydney, along with international experts in ant and invasion ecology. The project combines ecological theory, rigorous field surveys, innovative experiments, and unprecedented global datasets on ant movements. The PhD candidate will undertake novel research that directly addresses one of

the most pressing biodiversity and biosecurity challenges globally, while building a suite of skills highly valued in academia and beyond.

Selection criteria

- Bachelor's degree with first or upper-second class honours or equivalent
- Academic or vocational background in ecology, biology, or environmental science
- Experience conducting ecological fieldwork
- Genuine interest in studying insects – especially ants
- Effective writing skills; a passion for reading, writing, and continually improving as a communicator
- Strong analytical skills in R and an eagerness to broaden analytical and data skills
- Self-motivated with an independent yet collaborative outlook
- A current driver's license (Australian or international) and ability to drive in Australia is desirable but not essential

Support

The successful candidate will be supported in applying for a [Research Training Program \(RTP\) Scholarship at The University of Sydney](#), which provides a tax-free stipend (2025 rate: \$41,753 per annum; subject to adjustment in 2026) for up to 3.5 years. **Both domestic and international applicants are strongly encouraged to apply.** Additional top-up scholarships, research funding, and professional development opportunities are available through the University. Dr Wong will also provide mentorship and guidance in applying for external research grants and awards, as needed.

Application

Interested applicants should fill out an expression of interest at the following Google Form: <https://forms.gle/vUgXBD5HikRdtf8P9>

Applicants will be required to upload a single combined PDF file including the following:

1. A cover letter outlining your motivation and suitability for the role
2. A CV detailing relevant experience and qualifications
3. Copies of representative research outputs (3 maximum)
4. Contact details of two referees

Early applications are strongly encouraged. We apologise that only shortlisted candidates will be contacted.