Size, structure and interconnectivity of ghost bat populations

Ghost bats (*Macroderma gigas)* are in decline, predominantly due to habitat disturbance and alteration, but current knowledge gaps are hindering effective conservation planning and accurate assessment of development impact across the species range.

An ARC Linkage project, *The Macroderma Initiative: Conserving Ghost Bats and Informing Development,* aims to answer key questions related to the species' population dynamics and ecology that will facilitate better outcomes for the ghost bats to aid in the species' recovery. The project is a collaboration between Charles Darwin University, Western Sydney University, and the University of Adelaide along with industry, Government and non-government partners.

Under this project, we are advertising two PhD projects, with one based at the Research Institute for the Environment and Livelihoods, Charles Darwin University (CDU) and the second at the Hawkesbury Institute for the Environment, Western Sydney University (WSU). This advertisement describes the CDU project, but you can find more information on the WSU-based project here.

CDU is seeking a PhD candidate to investigate the population dynamics of the ghost bat with a focus on:

- Using state-of-the-art technologies to estimate population size, structure and connectivity
- Developing novel low-disturbance methods for monitoring ghost bat populations

Scholarship and financial support

Australian Government Research Training Program (RTP) Domestic Scholarship valued at $33,511 per annum (2024 value; indexed annually). Operational costs for the project are covered under the ARC Linkage project.

Supervision

The PhD candidate will be based at the Research Institute for the Environment and Livelihoods (RIEL) at Charles Darwin University's Casuarina campus and will be supervised by Prof Sam Banks (CDU), Dr Nicola Hanrahan (CDU), Dr Kyle Armstrong (University of Adelaide) and Prof Justin Welbergen (WSU).

Eligibility Criteria

We welcome applicants from a range of backgrounds, who are keen to apply their skills to key issues in animal ecology and conservation biology. This project will be particularly suited to someone interested in population dynamics and ecology.

The successful applicant:

- Must be a citizen or permanent resident of Australia. International applicants are not eligible to apply for this project.

- 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 Masters degree, or (iv) equivalent overseas qualifications.
- Should demonstrate strong academic performance in subjects relevant to (behavioural) ecology, conservation biology, or related discipline. Previous bat handling experience is desirable as well as experience using PIT-tags and conducting population genetic analyses.
- Prior experience with working with First Nations people is desirable.
- The successful candidate will be expected to work in very remote and challenging conditions in Northern Australia and experience operating 4WD vehicles is desirable.
- be able to work as part of a team of researchers, government and industry representatives.
- Applicants must be vaccinated against Australian Bat Lyssavirus or be willing to be vaccinated.
- be enthusiastic and highly motivated to undertake further study at an advanced level.

How to apply

1. Review the project's eligibility criteria. You will need to provide in your application a document that explains how you satisfy the project's eligibility criteria.
2. Contact Prof Sam Banks (sam.banks@cdu.edu.au) or Dr Nicola Hanrahan (nicola.hanrahan@cdu.edu.au) 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 the research project(s). 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.
3. The preferred candidate will be required to submit an enrolment application to CDU's Office of Research and Innovation.

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; Professor Sam Banks (sam.banks@cdu.edu.au).

Application closing date

20 June 2025

Commencement date

Mid to late 2025