

Understanding the effect of the social environment on conservation success

Application deadline 31st of January 2023
Start date: April 2023 (negotiable)
A University of Adelaide Research Scholarship (UARS)
is available for the student (\$32,500 p.a. tax-exempt, for up to 3 years).
[Please see the Important Note below for the condition of the Scholarship.](#)



Supervisors

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Keywords

Animal social behaviour, social networks, video analysis, animal tracking, conservation, translocation, lizards

We are seeking a PhD student to join an exciting new project on lizard social behaviour in a conservation context. The student will generate and analyse high resolution data on social interactions among all individuals in a captive colony of lizards in semi natural conditions.

Background

Animal translocation, i.e. moving individuals between locations and populations, is an important conservation tool. However, many translocations fail, including when individuals are moved into existing populations (supplementation). Typically, the focus is on the suitability of the ecological environment (habitat), such as resource abundance and distribution. Whereas, the social environment, that is the social interaction patterns among all conspecifics, is usually not considered. However, the social environment is critical as it modulates an individual's access and response to those resources. The social environment can be best described through social network tools. This project investigates whether social characteristics facilitate the successful establishment of translocated individuals.

Project details

The project focusses on understanding the influence of the social environment on conservation success, in particular in translocations. Research will be conducted on an existing captive colony of gidgee skinks (*Egernia stokesii*), which will allow to implement experimental treatments regarding social characteristics. The project will use video tracking, which provides very detailed insight into the behaviour of all present individuals as well as their social interactions with each other. While the focus is on the captive colony, opportunities with translocations in related lizard species could be developed. The general framework for the project already exists, but we encourage the student to contribute their own research questions guided and supported by us. Ultimately, the aim of the project is to improve conservation efforts, through a better understanding of how the social environment contributes to population processes.

Supervision and Research Environment

The student will join the Leu group at the University of Adelaide (<https://stephanleu-ecology.com>) as well as the Gardner group at Flinders University (<https://gardnerschwarzlab.com>) and will be supervised by both of us. The student will be based at The University of Adelaide, Roseworthy Campus.

You (the PhD candidate)

We are seeking a highly motivated PhD candidate, who is enthusiastic about fundamental science and animal social behaviour. The project will use tools from social network theory and will require good analytical skills, including writing code in R or similar. It is not essential that you have those skills already, but you need to be willing develop them.

Location

Adelaide is an exciting city. It lies in-between the ocean and the Adelaide Hills, and invites to explore the beaches and countryside. [The School of Animal and Veterinary Sciences](#) of the University of Adelaide is situated on the beautiful Roseworthy campus close to the famous Barossa Valley. The School provides a vibrant research environment, and offers excellent support to postgraduate students.

Application process

Applicants should have a First-class Honours degree or research MSc in a relevant discipline. Students who have already published a paper, will be more competitive. Good analytical skills, or the willingness to develop them, is fundamental. Research experience in animal social behaviour is desirable.

IMPORTANT NOTE. A condition of the available scholarship (either for domestic or international students) is that the student needs to enrol into the PhD program in May/June 2023 at the latest. Our preferred starting time is in April, but we are happy to discuss this. The student needs to have arrived in Adelaide to fully enrol. For international students this means you also need to consider how long it may take to get your student visa granted. Please consider these conditions before applying.

To apply email Stephan Leu (stephan.leu@adelaide.edu.au) and include the following documents as a single pdf file:

- 1) A research statement (max. 1 page) that describes your research experience, your main research interests and how they relate to the proposed project. Also describe your analytical skills, and where you developed them; or your willingness to acquire those skills.
- 2) Imagine you are investigating the relationship between the social environment (social network) and some measure that has conservation relevance. What could the variables be, and the relationship look like? Include a hand drawn mock figure that illustrates the relationship.
- 3) Your CV, including contact details of two academic referees.
- 4) The transcript of your university degree (BSc with Honours, or MSc, or equivalent).

The successful applicant will also go through a formal admission process managed by the Adelaide Graduate Research School.

For informal inquiries, please email Stephan Leu (stephan.leu@adelaide.edu.au).