

PHD OPPORTUNITY IN ECOLOGICAL STATISTICS & META-ANALYSIS

We have a fully funded position available jointly at Inter-Disciplinary Ecology and Evolution Lab (I-DEEL: <http://www.i-deel.org/>) and Ecological Statistics Research Group (<http://www.eco-stats.unsw.edu.au/>), within Evolution & Ecology Research Centre at UNSW (<http://www.eerc.unsw.edu.au/>)

The position comes with **\$42,000 per year stipend for 3.5 years** (UNSW scholarship + top-up). It is open to both Australian and international applicants.

Given the generous stipend, applicants are expected to be very competitive. We expect them to have at least one peer-reviewed publication or an equivalent publication, or experience which demonstrates their outstanding abilities.

Project title: Developing new statistical methods for meta-analysis for ecological and environmental applications and beyond

Background: Meta-analysis is a powerful way of quantitatively summarizing empirical evidence in many different fields encompassing medical, social and biological sciences. However, there are a number of areas which require further developments. In particular, this project will develop three areas: 1) meta-analysis of variation (e.g., using the ratio of SD or CV between two groups), 2) meta-analysis of interaction (e.g., synthesizing 2 x 2 factorial design), and 3) arm-based meta-analytic models (vs. traditional comparison-based models).

The candidate will develop different meta-analytic models and their implementations. Further, they will use simulation studies to validate and compare different meta-analytic models. These simulation studies will be often done in the context of ecological, evolutionary, conservation and environmental research, but all of the methods that will be developed through this project will have applications beyond these fields. Also, the candidate will be encouraged to develop their ideas after the initial stage of their PhD project.

Candidate: BSc(Hons) or MSc in statistical or computer sciences preferred, but applicants with other degrees with strong quantitative skills will be considered.

Supervisory Team:

Prof Shinichi Nakagawa (<http://www.i-deel.org/>)
Prof David Warton (<http://www.eco-stats.unsw.edu.au/>)

If interested, please email to Prof Shinichi Nakagawa (s.nakagawa@unsw.edu.au) with CV, academic record, and details of two academic referees.