PhD student wanted!

Australian Research Council (ARC) project
Role of incubation behaviour in developmental programming

Based at Deakin University’s Centre for Integrative Ecology
with ARC Future Fellow Professor Kate Buchanan
and DECRA fellow Dr Mylene Mariette

We are seeking an outstanding, highly motivated PhD candidate to work on a new ARC Discovery project “Revisiting the ontogeny of vocal learning in birds: from neuron to fitness”. Previous work by our group has demonstrated the importance of incubation calling behaviour in programming developmental outcomes (Mariette and Buchanan Science 2016). The aims of this PhD research program are to determine how incubation behaviour may determine developmental trajectories and heat adaptation in Zebra Finches. The PhD student will work in a vibrant and productive research team testing the role of incubation behaviour for nest temperature regulation and nestling development. They will conduct behavioural assays, bioacoustics analyses, monitor environmental conditions and assess developmental outcomes for nestlings. There will be the chance to develop skills in assessing physiological condition, gene expression and hormone production.

Stipend: AUD26,000 p.a. (tax exempt) for 3 years (for overseas students, waivers to overseas tuition fee are potentially available)
+ up to AUD9,000 of research funding
**PhD Project content:** The student will join a productive ARC-funded team testing the effect of early life effects on physiological condition, vocal learning and neural development. Working with captive aviary populations and also in the field, the student will have responsibility for designing experiments, recording vocalisations, carrying out playback experiments, monitoring behaviour and environmental conditions. They will receive training in all these aspects. The research may involve collaboration with Queen Mary's University, London or University of Maryland USA. Although the project involves clear aims to meet the ARC-funded objectives, we seek a student who is keen to develop their own interests and consequently find their own individual niche within the project.

For a description of the research groups see the following sites:

http://www.deakin.edu.au/about-deakin/people/kate-buchanan  
http://www.deakin.edu.au/about-deakin/people/mylene-mariette

Recent relevant publications by the group on this topic include:


**The Research Environment:** The successful candidate will be based in the Centre for Integrative Ecology (CIE) at Deakin University’s Geelong campus 50 minutes from Melbourne CBD, and 20 minutes from Bells Beach, Torquay. Deakin hosts one of the largest ornithological research groups in the southern hemisphere, and in the recent ARC Research Assessment exercise it received the highest possible rating of 5 in Zoology. Excellent facilities are available for the project, including a 300m² new aviary, modern lab and offices, well equipped 4WDs for fieldwork, excellent statistical support and established field sites for zebra finches. The CIE has over 60 postdoctoral researchers and PhD students, many from overseas, with multiple weekly seminars and paper discussion sessions. The research group has 6+ postdocs and regular lab group meetings fostering a lively research culture. We strongly encourage PhD students to present at national and international conferences, and over $3000 in support for conference attendance is provided for each PhD student.

**Who should apply?** The scholarship would suit a highly motivated and able student with strong interests in avian evolution, ecology, behaviour or neurobiology. Essential requirements include: Masters or first class honours (or equivalent in a relevant field); excellent written communication skills; high levels of enthusiasm, motivation; an ability to work independently and as part of an interdisciplinary team. A driver's licence is essential as field work may be required. Experience in field work with birds and/or bioacoustics or behavioural analyses are desirable, but not essential. The position will be based in Geelong, but with opportunities for work and visits to other labs. Selection will be based on academic merit and prior experience.

**Application deadline is 30th April 2018.** For further information or to apply contact Prof Kate Buchanan (kate.buchanan@deakin.edu.au) or Dr Mylene Mariette (mylene.mariette@deakin.edu.au). To apply, please send a statement of your interest in the project, a detailed CV and contact details for two referees.