

MACQUARIE UNIVERSITY, Sydney, Australia: Ph.D. Scholarship on virtual ecology of flowers driven by honeybees.

A PhD scholarship opportunity is available at the Department of Brain, Behaviour & Evolution (<http://galliform.bhs.mq.edu.au/~bbe/>) on a project investigating virtual ecology in artificial flowers under selection by honeybees in semi-natural conditions. The general research theme is to have free-flying honeybees choosing to forage among a set of experimentally designed flowers. Flowers that are chosen most by bees get to 'reproduce' the most, thus creating various trajectories of virtual evolution. Within this theme, many variations are possible, including different dimensions (e.g., size, colour) in which virtual evolution might take place, and different cost/benefit schemes. These behavioral experiments will address how information processing characteristics might drive the course of evolution, in a synthesis of comparative cognition and behavioral ecology. The student has ample room for individual choice of specific topics and design of experiments.

Applicants should have completed research qualifications equivalent to a four-year Australian Bachelor degree with First Class Honours, such as a Bachelor degree plus a Masters degree with a substantial research component. Applicants should have a background in some of the following areas: biology, psychology, animal behavior, behavioral ecology, neuroethology.

This Macquarie University Research Excellence Scholarship (MQRES) includes a stipend (currently AU\$20,500 p.a. tax exempt), allowances for relocation and thesis costs, and International tuition fees and overseas health cover for 3.5 years. Students on MQRES scholarships are not obliged to contribute to teaching, but may do so to supplement their income if desired. An additional AU\$6,000 p.a. will be provided to cover direct research expenses, and several generous internal schemes exist to support travel to visit overseas laboratories and to attend international conferences.

The project is based in the laboratory of Ken Cheng (<http://galliform.bhs.mq.edu.au/~ken/>), to whom expressions of interest, including CV and academic transcripts, should be directed (ken.cheng@mq.edu.au) **before 15 August 2009**.