Expressions of interest for post-doctoral project: development of varroa control alternatives. Supervised by Dr Theo Colin and Prof Andrew Barron, Macquarie University, Sydney.

We invite expressions of interest for a post-doctoral position to develop alternatives to the chemical control of the bee parasitic mite *Varroa destructor*.

# About the project:

The project focuses on developing alternatives to chemical treatment for the control of Varroa destructor, a mite parasite of the honeybee. The parasitic mite Varroa destructor has invaded Australia and is spreading rapidly. Successfully managing varroas is now the greatest challenge for Australian beekeepers. It is expected that varroas will thrive in the warm climate of NSW. Almost all current varroa treatments are chemical-based and involve placing pesticides inside beehives. These chemicals impact the bees themselves and can leave residues in the honey and wax. Our aim is to develop non-chemical methods to control mites in hives. We will focus on physical and mechanical control methods. We will explore and test how to increase bee grooming, modify mite behavior to confuse the mites, disrupt their movements or trap them.

# About the applicant:

Candidates should have a background in honeybee science and applied beekeeping or integrative pest management. Demonstrated skills in handling honeybees, experimental design and statistics are essential. Knowledge of varroa biology, 3D designing and printing is desirable.

# About the position:

The project will be based at Macquarie University (<https://www.mq.edu.au/>), in the greater Sydney Region, starting in December 2024. Salary will be at the Australian Academic Level A or B scale, depending on previous experience. A successful post-doctoral candidate will join a large and dynamic team of researchers comprising other post-doctoral researchers and PhD students working on the project and with a larger group of scientists focusing on social insects, cognition, neuroscience and bee health. Project leads for this project are Pr. Andrew Barron ([https://scholar.google.com/citations?user=ah1jBk4AAAAJ](https://scholar.google.com/citations?user=ah1jBk4AAAAJ&hl=en)), an experienced cognition and bee health researcher and Dr Theotime Colin ([https://scholar.google.com/citations?user=VqbyR\_4AAAAJ](https://scholar.google.com/citations?user=VqbyR_4AAAAJ&hl=en)). The position is offered for one year initially, with an option to extend pending performance review.

Potential candidates are invited to send an expression of interest in the form of a cover letter detailing relevant experiences and a CV to Pr. Andrew Barron: andrew.barron@mq.edu.au