



Unveiling the Mysterious Fauna of the Cyclops Mountains through Camera Trap Analysis

Research

Project Summary

This project will involve analysing a camera trap dataset collected in the Cyclops Mountains, Indonesian New Guinea. The student will learn how to curate a camera trap dataset, how to identify typical photographed species, and perform ecological analyses.

Project Detail

This project will involve working with a dataset of in excess of ten thousand photos that has been collected over at least six months across the entire 2000 m elevational change of the Cyclops mountains. The photos are of ground-dwelling animals of sufficient size to trigger trail cameras and include tree-kangaroo, forest wallaby, ground cuscus, quoll, echidna, cassowary, brush-turkey, ground-doves, jewel-babblers, and monitor lizards (*Varanus salvadorii*). With the data, it will be possible to answer questions on changes in community ecology over elevation, as well as questions on species-specific ecology and phenology. The student will learn how to curate a camera trap dataset, will learn how to identify typical photographed species, will learn how to analyse the dataset using the R package `camtrapR`, and will learn how to perform ecological analyses using camera trap data such as calculating species occupancy and calculating diversity indices. This project will interest those with a passion for ecology, camera trap data, and the Pacific region.



Selection Criteria

Essential

- Enthusiasm for nature and biodiversity
- Excellent organisational skills
- Attention to detail with a methodical and organised approach to work
- Ability to perform repetitive tasks
- Prior knowledge of statistical analysis

Desirable

- Prior experience researching wildlife and/or ecology
- Experience using R software for statistical computing

Outcomes for the Student

This project provides particularly valuable experience for students interested in a career in museums and/or biodiversity research:

- Gain first-hand experience working with ecological data
- Develop skills in the identification of vertebrate fauna
- Gain experience using camera trap data in ecological analyses
- Have the opportunity to work with data from one of the most unexplored areas on the planet

Reasonable Adjustments

The museum is committed to making reasonable adjustments to its summer placements to make sure that students with disabilities or health conditions are not substantially disadvantaged. If you are concerned about meeting the selection criteria for a project of interest, or completing relevant tasks, please get in touch with ella.mckelvey@oum.ox.ac.uk before submitting your application to discuss possible adjustments to the project.

General Enquiries

To find out more about this project, please email ella.mckelvey@oum.ox.ac.uk