

HONOURS PROJECTS IN THE BIRDLAB

(1) Investigating the relationship between Samoan birds and habitat conditions in a fragmented landscape.

The utility of passive acoustic monitoring (using automated acoustic recorders) for surveying biodiversity and monitor threatened species is well recognised but underused in avian research. The use of passive acoustic monitoring can also extend beyond species counts to habitat monitoring, but the relationship between biodiversity and habitat condition is still disputed. Samoa has been identified as part of the 25 most important hotspots of biodiversity conservation considering the number of endemic species and degree of threats. In this study, we aim to examine the relationship between different bird species (common, endangered or invasive) and habitat health in Samoa in order to fill important gaps in bird conservation research, and better understand population dynamics. Specifically, we will (1) evaluate the efficiency of passive acoustic monitoring in assessing presence of different bird species (common, endangered or invasive) across a range of agriculturally modified locations in Samoa, and (2) investigate the relationship between bird presence and habitat health.

Candidate Requirements: This is a lab-based project. All recordings have been collected and will be analysed by the student. We are seeking a student with a background in conservation, animal behaviour or ecology and with some knowledge in birds and acoustics. We will favour candidates with experience with statistics. The candidate should have capacity to work independently, excellent time management and good writing skills.

Supervision: Dr Diane Colombelli-Négrel and Dr Rebecca Stirnemann

(2) Do superb fairy-wrens with similar 'personalities' make better parents?

In animals, repeatable behavioural traits (also referred to as 'personalities') are believed to be correlated with individual fitness and quality. As a result, recent studies suggest a connection between sexual selection and personality. Pairs that with assortative personalities, for example, have been shown to raise offspring in better condition than other pairs. Yet, studies investigating the association between sexual selection and animal personality remain limited. In this study, we aim to examine the relationship between personalities of breeding superb fairy-wrens and parental investment. Specifically, we will measure (1) whether superb fairy-wrens pair assortatively for personality type, and whether pairs with similar 'personalities' (2) provision their nestlings and fledglings more and (3) produce offspring in better condition than pairs with dissimilar personalities.

Candidate Requirements: This is a field-based project. We are seeking a student with a background in conservation, animal behaviour or ecology and with some knowledge/experience with birds and field studies. The candidate should also have capacity to work as part of a team, excellent time management and good writing skills.

Supervision: Dr Diane Colombelli-Négrel and Dr Andrew Katsis