

## The Rufford Small Grants Foundation

### Final Report

Congratulations on the completion of your project that was supported by The Rufford Small Grants Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. We understand that projects often do not follow the predicted course but knowledge of your experiences is valuable to us and others who may be undertaking similar work. Please be as honest as you can in answering the questions – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please complete the form in English and be as clear and concise as you can. We will ask for further information if required. If you have any other materials produced by the project, particularly a few relevant photographs, please send these to us separately.

Please submit your final report to [jane@rufford.org](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

Grant Recipient Details	
<b>Your name</b>	William Goulding
<b>Project title</b>	Conservation of Endemic Birds in the Louisiade Archipelago, Papua New Guinea
<b>RSG reference</b>	14054-1
<b>Reporting period</b>	October 2013 – October 2014
<b>Amount of grant</b>	£5923
<b>Your email address</b>	w.goulding@uq.edu.au
<b>Date of this report</b>	January 2015

**1. Please indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.**

Objective	Not achieved	Partially achieved	Fully achieved	Comments
1. Conservation assessments of the three Data Deficient species found on Sudest Island.		✓	expected	This objective has been partially achieved but is expected to be fully achieved by the time all data and information has been collected and analysed. For example, ~700 habitat uses and foraging records of Tagula Butcherbirds ( <i>C. lousiadensis</i> ). We currently have sufficient data for conservation status assessments of two of the three DD species but require more information for the elusive white-throated white-eye <i>Zosterops meeki</i> . Access to large parts of Sudest Island for survey purposes was restricted by choked undergrowth, destroyed internal tracks/paths, and landslides caused by Cyclone Ita in 2014.
2. An assessment of the habitat changes associated with human population growth over the last two decades			✓	Human population information has been collected (official census data from local government sources) for each island and village over the last two decades. Geo-rectified vegetation maps from the early seventies, and each subsequent decade have also been used to assess habitat change.
3. Identifying the avian malaria species and their impacts on the endemic birds of this understudied region.			✓	During this period, we collected blood samples from 350 birds and made 1000 blood smears. Visual inspection and PCR methods are currently being carried out.
4. Identification of the relationship between blood parasites, habitat alteration and song variation.		✓		Tropical Cyclone Ita affected this objective through widespread disturbance and disruption to habitats. We collected close to 100 x 1.5 hr pre-dawn recordings for specific Tagula butcherbird pre-dawn songs (across four islands). Numerous individuals

				<p>were captured, and blood samples collected, which have/are also currently being screened for avian haemosporidian parasites. However, time constraints meant that this requires further investigation to achieve sufficient replication and robust results to understand the song, habitat alteration and avian malaria relationship.</p>
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**2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).**

Unforeseen difficulties related to delays in the field trips, shipping gear and the collection of data. For example, delays occurred due to a fractured collarbone/clavicle in the principal investigator, equipment being withheld with the shipping company, and university requirements being met. These issues were dealt with as part of the learning process.

The largest unforeseen disruption related to a severe tropical cyclone, Cyclone Ita (April 2014), which heavily impacted the local communities and proposed study areas in these islands. This changed the environmental context and restricted access to many of the pre-determined study sites, slowing things down considerably. Alternative sites were identified and work objectives re-prioritised toward those most achievable and accessible. For example, the landscape level impacts of this extreme weather event influenced the ability to survey sites at higher altitudes and more remote areas of the island. It also affected the ability to detect the impacts of habitat change and its relationship with song qualities and parasites.

**3. Briefly describe the three most important outcomes of your project.**

1. We achieved a raised awareness of the endemic bird species most likely to be threatened by future development in these islands. Many local residents did not know that some of these, which are also culturally important birds, are found nowhere else. This instilled pride and greater interest in the preservation of these species e.g. a local soccer team is changing its name to the local name for the endemic Tagula butcherbird (*C. louisiadensis*).
2. We now have a trained team of local residents skilled in bird surveying techniques to continue this project work and to act as ambassadors for future research and conservation.
3. Valuable conservation information has been gathered on the populations of endemic birds in these islands and their threats. This includes the first nesting information on some species, population densities, and habitat-use data.

**4. Briefly describe the involvement of local communities and how they have benefitted from the project (if relevant).**

Local communities have benefitted through training and employment opportunities created by the project, and through education. As mentioned previously, most local residents did not know that some of their popular birds are endemic species found nowhere else. They also benefitted through

the reinforcement and generation of pride in their local cultural values for birds and valuable ethno-ornithological knowledge.

#### 5. Are there any plans to continue this work?

Yes, the objective of this project was/is to create long-term opportunities for island conservation research.

#### 6. How do you plan to share the results of your work with others?

The results (thus far) have been shared with local communities through village meetings and school presentations. These have been ongoing and involved using materials such as educational posters to disseminate information. At the local and national government levels, reports have been submitted and will continue to be submitted to the relevant environmental departments. Peer-reviewed articles will be published to share the results with the academic community and decision-makers, and further oral presentations will be given at relevant conferences.

#### 7. Timescale: Over what period was the RSG used? How does this compare to the anticipated or actual length of the project?

The RSG was expended between October 2013 and the end of 2014. During this period two data gathering/training trips were made to the research islands. From inception, it has been intended to be an ongoing project.

#### 8. Budget: Please provide a breakdown of budgeted versus actual expenditure and the reasons for any differences. All figures should be in £ sterling, indicating the local exchange rate used.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Blood Analyses equipment	£1040 (1695.97AUD)	£660.80 (1077.55AUD)	(-£379.2)	In the interim between applying and receiving the RSG, prices in the HemoCue HB301 increased. Fortunately, an alternative HemoCue device was located. Some of the difference was used for more microcuvettes, cleaner sticks, chemicals, further blood collection and analyses equipment, and items such as waterproof field notebooks for local workers.
Radio-tracking transmitters for Tagula Butcherbirds and Tagula Honeyeaters	£1938 (3160.4AUD) + £1831 (2984.53AUD)	£0	(-£3769)	A strategic change in the project design removed this intensive component due to time constraints and

	=£3769			logistical concerns. Similar information was gathered through colour-ringing and using local employees trained to regularly follow and take GPS coordinates. This increased community input and income opportunities.
Land access and guide fees	£645 (1051.83 AUD)	£1326.86 (2163.76 AUD)	+£681.86	Excess funds not used for the radio-tracking devices were put into local community and access fees.
Employment costs of local workers	£469 (764.82AUD)	£1775.82 (2894.6 AUD)	+£1306.82	Excess funds not used for the radio-tracking devices were put into local employment, especially for following individually marked birds and gathering habitat-use observations.
Transport to and from field sites, including transport of research and training equipment.	nil	£2160 (3520.8 AUD)	+£2160	Excess funds not used for the radio-tracking devices were diverted to cover these costs for one of the two trips.
<b>TOTAL</b>	<b>£5923</b>	<b>£5923.48</b>	<b>+ 0.48</b>	<b>** Rate 1:1.63074 (£:AUD).</b>

## 9. Looking ahead, what do you feel are the important next steps?

The important next steps are to build upon the investments of community training and establishment of individually marked endemic bird populations. Both of these offer valuable research opportunities whilst also increasing public interest and income-generating opportunities for local communities.

## 10. Did you use the RSGF logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?

A talk was presented at the Third Annual Conference and Workshop on Malaria and Related Parasites of Wildlife in West Virginia, USA, during July 2014. Spoken and visual (Logo-use) acknowledgments of The Rufford Foundation support were given. Future oral presentations will similarly acknowledge the support.

At the local scale, educational posters highlighting the endemic birds and their conservation were distributed to local schools. These included information on the importance of bird conservation and the bird names in the local languages, as well as English and Latin. Talks were also given in

association with the presentation of these posters. These posters prominently showed the support that has been received from the Rufford Foundation (top, left corner).

All future publications resulting from the data will acknowledge the RSGF support in *Acknowledgement* sections.

**11. Any other comments?**

I am very grateful to the RSGF for its valuable support during a critical stage of this project.