

## The Rufford Foundation

### Final Report

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

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. The Final Report must be sent in **word format** and not PDF format or any other format. 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. Please note that the information may be edited for clarity. 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**

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Grant Recipient Details	
Your name	Cindy Cosset
Project title	Avian community changes after logging in a Malaysian rainforest.
RSG reference	21862-2
Reporting period	5 June 2017 – 1 September 2017
Amount of grant	£4945
Your email address	ccpcosset@gmail.com
Date of this report	01/09/2017

**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
To determine the long-term conservation value of selectively logged forests.				This field season yielded 899 birds that were ringed with uniquely numbered rings and 400 individuals were recaptured giving us a recapture rate of ~44%. This is substantially higher than the minimum required recaptured rate of 10% for a robust analysis. Combined with data from previous years, we are able to have a glimpse of whether species are retained in logged forest by assessing their demographics. I will continue to assess this as part of my PhD which will hopefully result in a robust prediction of the long-term value of selectively logged forests.
To determine the effects of selective logging on avian survival.				Enough data has been collected to begin analysis.
To provide mist-netting and tropical field work training to local research assistants and students.				We successfully provided training to local research assistants and students who are now able to correctly set up mist-net transects, safely extract birds from the mist-nets and conduct proper ringing and measurements on the birds.

**2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).**

We encountered elephants on a few of our plots during sampling which forced us to abandon a few days of sampling. This resulted in a slightly uneven sampling effort in some plots but I will be able to account for this in the models during data analysis.

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

(a) We successfully captured and collected data from a large sample of birds and yielded a high recapture rate. The high capture rate will allow for a robust analysis of within-year population dynamics, including survivorship, population age structure,

and distribution. I will continue this large-scale, long-term mist netting effort as part of my PhD to continue building on this dataset, which will enable us to determine the long-term value of selectively logged forests.

(b) This year's sampling will enable us to determine the impacts of selective logging on avian survival.

(c) We have successfully provided training in mist-netting techniques to three local students, who had no previous field research experience. They were our research assistants for a month each. All of our newly trained local research assistants are now able to safely extract birds from the nets and conduct measurements on the birds as well as set up and take down the mist nets correctly. This programme allowed them to build on their field research skills and enhanced their interests and prospects for a career in tropical conservation and research.

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

On top of the three local research assistants that we trained, we also took on some local students on internships at the field centre and taught them about mist netting techniques for a few weeks. We anticipate that a few of these students will continue full training with us in the next field season (next year) to build on their field skills and thus improve their prospects at a career in conservation and research. We are also hoping that this will encourage them to pursue a postgraduate degree in ecology or related studies.

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

Yes, I will continue this work as part of my PhD to address some further questions such as: (1) what are the long-term impacts of tropical selective logging on avian population demographics; and (2) what is the conservation value of forest regeneration after logging. Through publication and outreach, I will inform local decision makers on policies regarding logging, regeneration, and restoration. In the respect to the last, we have begun developing a 500 ha experimental research area to determine how vine cutting at different intensities in logged forests affects bird and carbon recovery over time. This is especially important in managing the long-term value of logged forests, which is still threatened by conversion to plantation, and in guiding the methods within logged forest required for forest restoration activity.

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

The results will be published in scientific peer-reviewed journals as well as being submitted to several agencies for use in conservation strategies. These include the Danum Valley Management Committee and Sabah Forestry Department. These agencies have an influence in the future management of the forests of Sabah, and particularly Danum Valley, which is probably the most pristine remaining piece of rainforest in lowland Southeast Asia. I have already produced one such publication

on the effects of restoring logged tropical forests (Cosset and Edwards 2017, *Ecological Applications* 27: 1932-1945) to be considered in the management of restoration activities in selectively logged forests.

The results from this year's project will also be shared via presentations and conferences, which I intend to attend in the near future. I intend to present the findings of this study soon at the next ATBC (Association for Tropical Biology and Conservation) conference that will be held in Malaysia next year (2018).

**7. Timescale: Over what period was The Rufford Foundation grant used? How does this compare to the anticipated or actual length of the project?**

The grant was used from June to the beginning of September, 2017. We commenced fieldwork at the start of June and used some of the grant prior to the field season for field equipment. Use of the grant was within the anticipated time period.

**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
UK to KK flight (return)	600	584.46	15.54	
US to KK flight (return)	1200	1082.5	117.5	Found cheaper flights.
KK to LD flight (return)	420	320.94	99.06	Found cheaper flights.
KK hotel-transfer lodging	120	146.08	-26.08	
Scientist research pass	20	18.18	1.82	
Research assistants research passes	60	12.74	47.26	Decrease in prices due to new management.
Research visa	140	163.63	-23.63	Increased price for tax stamp to obtain visa.
DVFC scientist's accommodation	800	796.11	3.89	
DVFC research assistant accommodation	500	759.84	-259.84	Increase in prices in Danum Valley.
Food (self-catered)	800	808.29	-8.29	
4WD vehicle fuel	180	183	-3	
DVFC conservation fee	90	85.46	4.54	
Rope	15	17.5	-2.5	
<b>TOTAL</b>	<b>4945</b>		<b>-33.73</b>	

**Exchange rate: 1 GBP = 5.5 MYR**

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

The data from this year will be combined from previous years for analysis and manuscripts prepared for submission to journals. Another priority will be planning for the next field season to include sampling in new experimental plots of restored logged forests with different intensities of vine cutting and acquiring funding for it. As far as we are aware of, this experiment is currently one of its kind in the tropics.

**10. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did The Rufford Foundation receive any publicity during the course of your work?**

A PowerPoint presentation about the project, which included The Rufford Foundation logo, was given to a field course during the course of the field season. Brief summary reports to other small-grant funders include The Rufford Foundation and logo on the title page. All future presentations will include The Rufford Foundation logo and The Rufford Foundation will be thanked for their support in publication acknowledgements.

**11. Please provide a full list of all the members of your team and briefly what was their role in the project.**

Suzanne Tomassi is the field supervisor for this project. Ms. Tomassi is an experienced ornithologist and mist-netting trainer with extensive knowledge and experience mist-netting in the forests of Sabah. Ms Tomassi supervised the mist-netting of all research assistants.

Mike Kaputa, Patrick Cannon, Simone Messina and Rose Fogliano were research assistants on this project. They came with mist-netting experience and were responsible for helping with the mist-netting on this project.

Jessey Chai, Ezron Gerald and Chong Yi Yao were the local research assistants who participated in the mist-netting training that Ms Tomassi and I provided. They learnt how to safely extract birds from the nets, conduct measurements on the birds as well as set up and take down the mist nets correctly.

**12. Any other comments?**

The team and I are very pleased with yet another successful field season. Mostly everything went according to plan and we were able to obtain large sample sizes for both newly caught birds and recaptures. This is encouraging, as modelling the data requires at least a 10% recapture rate for high accuracy. All research assistants have become very skilled at mist-netting and have gained a lot of experience working in difficult tropical conditions. This is vital as it will give them a better chance at securing future work and a career in tropical conservation and research.

We would like to thank you for your support of this project. I intend to continue working in conservation and research of Malaysia's rainforests and its wildlife. This would not be possible without the support of The Rufford Foundation.



