

The Rufford Foundation Final Report

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.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details	
Your name	Anderson Saldanha Bueno
Project title	Ecological impacts of river damming on forest bird assemblages in the Brazilian Amazon
RSG reference	17715-1
Reporting period	July 2015 to December 2016
Amount of grant	£4960
Your email address	buenoas@gmail.com
Date of this report	24 March 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
Sample understory birds in 38 forest sites using mist nets				All sites sampled in 2015 were successfully repeated in 2016. Overall, we captured 2,115 individuals belonging to 130 species in 21,888 net-hours.
Audio record bird vocal activity in 151 recording stations over 76 forest sites				We audio recorded birds in all 38 sites sampled with mist nets and in an additional set of 38 sites, amounting over 200,000 1-min recordings (> 3,500 h).
Identify bird species automatically through an online analytical platform (ARBIMON II)				So far, we have uploaded all recordings to the platform. Species identification will be performed from July 2016 in collaboration with an experienced researcher in bioacoustics.
Assess patterns of species loss in forest islands compared to pseudo-control continuous forest sites				We have concluded data entry and some exploratory analysis, but the most advanced statically analyses will be performed during the next 18 months.

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

In general, we had no major or unsolved difficulties during the fieldwork. The support from the Uatumã Biological Reserve staff was invaluable to prevent or cope with any issues that eventually arose, such as the need for additional supplies or outboard engine problems.

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

1. Understorey bird assemblages were dramatically affected by forest island size, with smaller islands harbouring both fewer individuals and fewer species than larger islands or continuous forest sites.
2. Patterns of extinctions in forest islands are remarkably divergent across different understorey bird species and can be largely predicted based on species ecological traits.
3. Smaller islands mostly harbour degradation-tolerant species and a small subset of the avifauna recorded in larger islands or continuous forest sites. Thus, most species of higher conservation concern have virtually vanished from smaller islands, while those adapted to modified landscapes have thrived.

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

We involved people from the region during the data collection. One of them was hired for the whole fieldwork (two periods of six months), and received training in handling and ringing birds (officially recognized by the Brazilian Centre of Research and Bird Conservation – CEMAVE), as well as in setting autonomous audio recordings. We also gave an intensive and broad hands-on experience in fieldwork research for two undergraduate students of Biology during six months each. Furthermore, we engaged the Uatumã Biological Reserve staff in our project as much as possible by sharing our daily work and having two staff members during a couple of surveys.

5. Are there any plans to continue this work?

The data collection with respect to the avifaunal component of the project has satisfactorily come to an end. However, the most relevant contributions of the project are yet to happen as we still have to analyse and publish our findings. Moreover, other researchers working on understorey birds will eventually benefit from all readily available information regarding the 2,041 birds that we ringed.

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

We have posted an overview of the project and the main outcomes to the general public on the Uatumã Biological Reserve's Facebook fan page: www.facebook.com/rebiouatuma. We will also share our findings with the scientific community by presenting them in conferences in Brazil and internationally, as well as in high-impact journals. Finally, as a lecturer in Brazil, I will be able to educate my

students about the impacts of hydroelectric dams on biodiversity based on my personal experience.

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

We used the RSG grant during the entire fieldwork (two seasons of 6 months each), but mostly in the first year. In the second year, we were able to count on an extra critical contribution from the Uatumã Biological Reserve to cover food and fuel expenses, allowing us to spend the remaining funds on field assistant wages and some unanticipated costs. The fieldwork was fully accomplished during the expected time, lasting two six-month periods from July to December in 2015 and 2016.

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
Field assistant/boatman wages	1200	6265	5065	Wages were more costly than expected as they increased during the fieldwork, and we hired an extra field assistances in two instances. The University of East Anglia, covered most of the difference through a fund for general field expenses.
Food supplies	2400	921	1479	Most of food supplies were covered by the Uatumã Biological Reserve, and are partially accounted here.
Fuel costs	1000	676	324	Most of fuel costs were covered by the Uatumã Biological Reserve, and are partially accounted here.
Outboard spare parts	0	196	196	We had to replace some spare parts as our outboard engine got damaged.
Mist net poles	0	99	99	Poles were necessary to set mist net lines and avoid cutting the vegetation.

Travel costs	0	750	750	The fieldwork team travelled Balbina – Manaus in the meantime between field expeditions.
Miscellaneous (batteries, ice, boxes, hammocks, tarpaulins, machetes, rubber boots, snake gaiters, ropes, stationery, medicines)	360	440	80	General items combined as fieldwork-camp gear.
TOTAL	4960	9347	4387	

Exchange rate refers to the day the project was approved: £ 1 = R\$ 4.90

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

As we have collected a large and robust dataset during the fieldwork, we feel it is essential to make a wise use of that. Thus, the next steps will mostly involve data analysis and dissemination of our findings in conferences and journals. Moreover, we expect to produce collaborative studies with researchers from Brazil and abroad, promoting the scientific exchange in an international fashion.

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?

The Facebook post about the project contains both an acknowledgment to and the logo of The Rufford Foundation. We will also acknowledge the grant provided in all publishing materials related to the project, using the logo when appropriate.

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

12. Any other comments?

We are extremely grateful to The Rufford Foundation for the grant provided, without which this field study would not have been possible. This was vital to ensure robust data collection in the field, which otherwise would have been weakened due to financial limitations. Furthermore, we underline the fast and friendly supported provided The Rufford Foundation in all email exchanges.