

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	Talitha da Cunha Pires Middleton
Project title	Extinction debt in the bird community in the Amazonian "arc of deforestation": an opportunity for biodiversity conservation
RSG reference	13640-1
Reporting period	August 2013 to January 2015
Amount of grant	£5,960
Your email address	talithapires@usp.br (or talithapires@gmail.com)
Date of this report	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. Survey and present data on current bird diversity in Alta Floresta			X	The project successfully conducted surveys at 30 sites using mist-net captures, point counts and visual recordings (we initially targeted 31 sites, but one landowner did not give access). We captured 1,671 birds, made up of 133 species. We recorded 225 hours from 900 points
2. Use satellite imagery to monitor landscape cover change between 1980 and 2013			X	I used Landsat imagery to chart and understand the landscape change over 33 years. A Garmin GPS enabled me to verify 2013 and 2014 data, as well as ensure site locations were consistent with the 2004 study. Fragstat and Arcview GIS was used to integrate satellite imagery with sample bird richness and abundance data. As a basic demonstration, the landscape change in the region can be viewed on the YouTube film I link to later in this report
3. Investigate how the bird community in Alta Floresta has responded to historical deforestation and contribute to knowledge of extinction debt		X		This work remains in progress, for completion by November 2015. I will spend 3 months with the University of East Anglia (UK) between March and May to deepen the project's analysis, working closely with Prof Carlos Peres, who is a tropical conservation ecologist expert. The project is focusing on comparing our survey data with that collected in 2004, mapping abundance and richness data on satellite imagery since 1980 and using four control sites to assess biodiversity without the impact of land cover change
4. Contribute to data related to the importance of private forest reserves in the preservation of the bird community and therefore assist conservation in the region			X	All captured birds were identified and tagged with a numbered aluminium band, provided by the Brazilian government's National Centre for Bird Conservation, CEMAVE). Measurement and biological samples were also performed. Aside from government records, the project has closely engaged three Universities – UNEMAT (Alta Floresta, Brazil), University of Sao Paulo (Brazil) and University of East Anglia (UK). Outreach also directly relates to this objective.
5. Outreach delivered direct to individual landholders and to the wider			X	I established and developed positive relationships with landowners of the 30 research sites, as well as with the Universities mentioned above, and the wider community via the Fundação Ecológica Cristalino, a NGO that work with environmental operating in the

community via the NGOs operating in the region				region. I delivered more than 50 one-to-one meetings. I have also trained three local guides (two biology students), plus 10 volunteers (six Brazilian and four international). I put together a YouTube film (4 minutes) summarising the transformation of the landscape in and around Alta Floresta, as well as an overview of the project and fieldwork and the responsibility of the local community in relation to biodiversity conservation in the region. Landowners were the primary audience (hence the film is in Portuguese) and I have given a hard copy and discussed it with each of them, along with members of the wider community and others in the region as internet coverage is low: https://www.youtube.com/watch?v=GUJxE7hHh8g
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

No unforeseen difficulties other than one landowner not giving access to his propriety.

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

- i. The identification of bird species currently committed to extinction in the Alta Floresta region [still in progress, reference Objective 3 above].
- ii. A huge dataset to inform research and policy with regard to extinction debt and opportunities for conservation planning.
- iii. The engagement of individual landholders and the wider community so they better consider and understand their contribution to conservation. One nice example of this was the project inspiring a local policewoman to begin studying biology.

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

Landowners and local community have been engaged in the project in variety of ways [reference Objective 5 above] and will benefit from having a greater consideration and understanding of their contribution to conservation.

The two biology students that assisted as my local guides at different stages of the project gained a significant amount of technical fieldwork experience, ranging from removing birds from mist-nets to taking blood samples. I set aside time and energy to ensure that as well as assisting me, I was giving them clear instructions to contribute to their own development. In a region where working with industries that contribute to deforestation are commonplace, I am proud to have helped two students (and through them, their peers) strengthen their ambition and skillset to work with conservation and ecology.

5. Are there any plans to continue this work?

Yes, investigation in to how the bird community in Alta Floresta has responded to historical deforestation and the project's contribution to knowledge of extinction debt remains in progress. This is due for completion by November 2015, during the final period of my PhD.

I would also like to explore The Rufford Foundation's interest in contributing to a documentary of the region and its people. I was delighted and privileged to develop strong relationships with a wide range and variety of people, many of whom were amongst the first settlers in the 1970s when Alta Floresta was pristine rainforest. I was captivated by their tales of community and conflict, gain, loss and change. Both in the context of my project, as well as more broadly. They have played central roles in some of Amazonia's most devastating deforestation and represent a unique generation from who authorities, conservationists, ecologists and future generations can learn a huge amount. I would be delighted to send more details of this in due course.

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

The findings of this project will be disseminated via scientific publications, in international peer-reviewed journals, by interaction with local, national and international media. This is of course in addition to the outreach already done with individual landholders and the wider community in the region [reference Objective 5 above].

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

Between August 2013 and January 2015. This was the anticipated length (18 months) and period of the 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
Field assistant / Local guide	3600,00	3150,00	-450	The project achieved more interest from volunteers than anticipate therefore I reduced cost of paid field assistance
Flights	300,00	500,00	200	Additional flight required
Fieldwork accommodation	900,00	900,00	0	
Fieldwork food supplies	480,00	730,00	250	The cost of food in the local supermarkets was higher than expected, as were the quantities we required
Fuel (gasoline)	680,00	680	0	
Total	5960,00	5960,00	0	

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

I see three important next steps, in order:

- i. The 3 months I will spend, supported by the Brazilian Government, with the University of East Anglia between March and May 2015 to deepen the project's analysis, working closely with Prof Carlos Peres. This will include the identification of bird species currently committed to extinction in the Alta Floresta region.
- ii. The final presentation of the findings of this project, for release in November 2015.
- iii. Exploring the potential of the project, and specifically its dataset, to inform research and policy with regard to extinction debt and opportunities for conservation planning more generally.

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

I have made reference to The Rufford Foundation / used the logo in:

- All outreach associated with the project, including in more than 50 one-to-one meetings.
- All formal and informal presentations I have made on the project to date, these include to audiences at Fundação Ecológica Cristalino and University of Sao Paulo.
- The YouTube film.

I will also use the logo and/or make reference to Rufford in all future publications and presentation related to the project.

11. Any other comments?

I would like to say a sincere thank you to The Rufford Foundation for the valued financial support. Quite simply without it this project would not have been possible.