

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.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details

Your name	Juan Andrés Martínez Lanfranco
Project title	Ecology and conservation of avian communities in native habitats and afforested environments in the northern Campos grasslands of Uruguay.
RSG reference	129611
Reporting period	May 2013 - July 2014
Amount of grant	£6000
Your email address	jacoloml@gmail.com
Date of this report	20 November 2014

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) Determine avian community parameters in native habitats and timber plantations,			X	
2) Quantify vegetation structure of bird sample points,			X	
3) Determine bird-habitat relationships in native habitats and managed forests,		X		I am marking "Partially achieved" because data analyses are still ongoing. This objective represents the core of my research thesis and requires complex models of species abundance and covariates affecting both detectability and density estimates. I am actually developing the necessary analytical skills to undertake this.
4) Develop a bird monitoring programme,			X	
5) Provide management recommendations for conservation of avian biodiversity in afforested landscapes in Uruguay.		X		I am marking "Partially achieved" because data analyses are still ongoing.

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

N/A

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

1) My project represents the first systematic and quantitative characterisation of avian communities in terms of species richness, abundance and composition within exotic tree commercial plantations in Uruguay, and placed within a few that have undertaken this task over the Rio de la Plata Grasslands. Given the rate at which exotic tree plantations are growing over the region, and specially in Uruguay, this baseline studies are fundamental to for conservation.

2) The project generated valuable information on avian use of plantations of pines and eucalyptus of different age classes and stand management regimes with potential use in the development of management guidelines to maximise opportunities for bird conservation in afforested landscapes in Uruguay.

3) The project provides a monitoring framework and sampling protocol to expand the study in time and to other timber ownerships in Uruguay.

4) As the first attempt to characterise bird communities and their responses to tree growth succession, it sets the baseline for further research and more in depth questions about causal effects of afforestation and management on birds. For this, controlled experiments will need to be conducted with different controls (i.e. grazing) and blocking for potential confounders.

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

N/A

5. Are there any plans to continue this work?

Yes, as part as Weyerhaeuser's environmental policy and because the interest they have showed on the project from the beginning I hope they will be interested in undertake the natural following step, that would be to replicate the study under same protocol every 3-5 years period. I will propose that on my final reports to them. In addition, I believe that there is potential for involvement of other timber companies in such tasks.

The way I performed this project fits within observational studies. That means that I measured bird responses in the treatments and conditions that were already available, with no experimental manipulation. An interesting further step from a more academic point of view would be to actually design experiments with grazing enclosures and controls in both forested and not planted areas to investigate more causal patterns of bird responses to the different conditions. Also, studying reproductive success (a way of determining their fitness more directly than to just abundance) of birds in different treatments would represent a further step in understanding the responses. I think my project represents a necessary baseline for undertaking those and a good option in which to continue my graduate research.

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

I intend to present different aspects of the research both in international and national scientific meetings. I will be also submitting technical reports to the entities that sponsored/supported my work in Uruguay like Weyerhaeuser CO and University of the Republic of Uruguay, and I will be giving talks for them when I get home after finishing my masters. The ultimate goal is to share the findings of this research with the scientific community by means of peer-review publications.

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

I used the funds in a sensible manner over the entire course of the study, which were essential for the successful completion of the field portion of my research.

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
Food & other domestic supplies	2200	1000	1200	*
Fuel	638	1499.5	861.5	Project's area and study site greatly expanded from initial idea, hence fuel costs were much greater than previously considered. See Section 11 below.
"Salary" field technician	1362	625	737	*
Housing	1800	1000	800	*
4x4 vehicle (3 months)	0	1875.5	1875.5	This item was not initially budgeted. Timing and overall availability of project's funds made me rearrange and use part of the funds to vehicle rent. The vehicle was a fundamental part of the logistics of the project.
TOTAL	6000	6000		

*I rearranged the amounts assigned to each item as needed during the course of the study, provided that I needed to re-direct a considerable part of the initial budget to the rental of a 4x4 vehicle. The reason for that is explained above in the appropriate box section. Gas expenditure was also much higher than I expected (see appropriate box section).

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

I relate this item back to number 5. It would be important to replicate the study on successive years and expand it into other timber companies in Uruguay in a way that much more powerful time series analysis over multiple sites could be conducted. In that sense, I believe I could play a role upon my return sharing my work and trying to engage companies into similar protocols and monitoring schemes as conducted in my project.

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?

I gave so far two presentations regarding the project, both before undertaking fieldwork. The first one I did it in the US at Mississippi State University as part of my formal obligations due to my masters programme, presenting the project to faculty, committee members and graduate and undergraduate students at my department (Wildlife, Fisheries and Aquaculture). The second one was in Uruguay just before the beginning of the field season, and was aimed at Weyerhaeuser personnel and researchers from INIA (Instituto Nacional de Investigaciones Agropecuarias) Tacuarembó. In both presentations I acknowledged and used the Rufford logos as for providing

financial and institutional support for the project. I will do the same for any presentation of any kind related to the project and on any written material including my thesis.

11. Any other comments?

The project's scope greatly expanded geographically from initial study design (and hence from what first stated in the application), from a single site of 4,000 ha ("La Corona", Tacuarembó Department) to multiple sites totalling more than 20,000 ha, expanding the study area into Rivera Department. This improved sampling representation and replication of treatments by completing the chronosequence of plantation age classes (from newly planted to pre-harvest stands of pine and eucalyptus) and native habitat conditions that are typically found in the northern Campos grasslands of Uruguay.



Dawn at La Corona



Little Wetland surrounded by Pine Plantation



Native Cliff Forest



Old Chapel immersed Pine Plantations



Riparian habitats and Pine Plantations



Unplanted lowland surrounded Pine and Eucalyptus Plantations



Pending nest *Cacicus chrysopterus* Riparian Forest



Eggs *Rhea Americana* Eucalyptus Plantation



Recording birds Eucalyptus Plantation



In Situ Office Setting



Vegetation Sampling Team



Aratinga leucophtalma Native Forest



Buteogallus meridionalis Eucalyptus plantation



Cathartes burrovianus Native Forest



Gliding Buteo albicaudatus



Knipolegus lophotes Native Forest



Rhea americana Eucalyptus Plantation



Rostrhamus sociabilis caught prey



Hatchling of *Falco sparverius*