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. 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	Christine Steiner São Bernardo (Ms)
Project title	Searching for the endangered red-billed curassow in the Brazilian Atlantic Rainforest
RSG reference	114951
Reporting period	August 2013-May 2014
Amount of grant	£4310
Your email address	christinesteiner@yahoo.com
Date of this report	June 2nd 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
Population estimates of red-billed-curassow natural populations in Conduru State Park, Bahia			x	Density and relative abundance of red-billed-curassows were obtained not only in Conduru State Park, but also in Una Biological Reserve (both areas in Bahia state)
Start red-billed-curassow population monitoring			x	Because the species population was first estimated in 2005-2006 by Gatto *et al.* (2007), we were able to start population monitoring in Una Biological Reserve and Capitão Reserve (north portion of Conduru State Park)
Add geo-referenced sighting locations from this work to the species database			x	21 geo-referenced sighting locations were recorded in Conduru State Park, as well as 16 in Una Biological Reserve.
Training of conservation scientists			x	Seven students from Universidade Estadual do Sudoeste da Bahia (UESB), campus Jequié have been trained since 2012 (six undergraduate students and one masters course student). They were in contact with line transect methodology, as well as camera traps. They were also able to record other endangered species of Atlantic rainforest, such as the golden-headed lion tamarin and the yellow-breasted capuchin monkey.
Obtain images of the red-billed curassows through camera traps		x		One picture of a female was obtained in Una Biological Reserve.

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

- Data collection was restricted to holidays and vacation, due to academic calendar. However, we compensated this by staying around 15 days in each fieldwork expedition. Thus, we were able to walk around 500 km in both study areas.
- We were able to survey the north part of Conduru State Park and Una Biological Reserve. However, the centre and south part of Conduru Park must also be visited. There is no infra-structure in these areas (except the Conduru Lodge in the south) and camping in resident's backyards would be an alternative. There was no time available to conduct the survey in these regions.

- The high density of humans on trails in both areas and high number of evidences of hunting recorded in the study areas made difficult the establishment of camera traps in the areas as planned before.

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

- Population monitoring: This project contributes to the beginning of red-billed curassow population monitoring in two areas of Bahia state, Brazil (Serra do Conduru State Park and Una Biological Reserve), once we gathered data on population relative abundance (encounters/10 km) and density (individuals/ km^2) in 2013-2014 in both areas. Save Brazil was responsible for the first time that both populations were evaluated (2005-2006). The information may be used for updating the species conservation status in IUCN/BirdLife International Red List. Other threatened species were also recorded with the same methodology (line transect), such as the golden-headed-lion tamarin and the yellow-breasted capuchin monkey.
- Distribution of red-billed curassow populations in two protected areas: The information obtained through line transect enabled mapping the distribution of the species in both study areas. This information may be helpful for future research.
- Training capacity: Seven students from Universidade Estadual do Sudoeste da Bahia- campus Jequié (one masters student and six undergrad students) were involved in this project. They belong to the Conservation Biology Group of this university: http://dgp.cnpq.br/buscaoperacional/detalhegrupo.jsp?grupo=749020581BIS3D
  They learned about line transect methodology and three of them learned how to use Distance software. The seven students are able to identify the main diurnal frugivores of the Atlantic Rainforest, such as the red-billed curassow, the rusty-margined guan, the wird's marmoset, the agouti, the golden-headed-lion tamarin and the yellow-breasted capuchin monkey.

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

Some local people, who are also park rangers, were involved in this project (showing the trails and also indicating local residents that could help with the species information in some regions). The local people understood the conservation value of red-billed-curassow and help disseminating knowledge about the species in their local communities.

5. Are there any plans to continue this work?

This is the first step for monitoring red-billed curassows in both study areas in the long term. We encourage other students/groups to repeat the same methodology in these areas every 5 years. Then, we will increase knowledge about the species population dynamics, which is very important to guide future conservation strategies. We plan to conduct line transects in some national parks, such as Serra das Lontras, Monte Pascoal and Pau Brasil, to confirm if the species still occur there. Data collected in Serra do Conduru State Park need to be complemented, especially the areas located in the Center and south of the park.

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

We will publish the results in a scientific journal and we will visit local schools to share the results.

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

The project was extended for 1 year due to several reasons mentioned above.

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.

1 GBP = R$ 2, 74 (Brazilian Real)

Item	Budgeted Amount	Actual Amount	Difference	Comments
Fuel	730	900	-170	Fuel price increased in Brazil
Food	913	705	+208	
GPS	146	146		
Compass	30	30		
Binoculars	92	92		
Measuring tape	18	18		
Alkaline Batteries	905	803	+102	
Camera traps	584	584		
Photographic film	240	232	+8	
Camera film development	438	453	-15	Because analogue cameras area not common anymore, the service is more expensive than predicted before
Local person (park ranger/ trail guide/lodge)	360	493	-133	Lodge was not predicted but we had to camp in an area of Serra do Conduru state park (Alto da Esperança region)
Total	**4310**	**4311**		

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

- Repeat the same methodology in both study areas every 5 years.
- Conduct line transects in some national parks, such as Serra das Lontras, Monte Pascoal and Pau Brasil, to confirm if the species still occur there.
- Complement data collection in Serra do Conduru State Park, especially the areas located in the centre and south of the park.

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?

Yes, I used the RSGF logo in two posters presented in XI Brazilian Ecology Congress and I Ecology International Congress.

1. SOUZA, A. ; Chagas, C. ; ROCHA, J. S. ; **BERNARDO, C.S.S.** ESTIMATIVAS POPULACIONAIS DE MUTUM-DO-SUDESTE *Crax blumenbachii* (AVES, CRACIDAE) NO PARQUE ESTADUAL SERRA DO CONDURU, BA, BRASIL. In: Anais do XI Congresso de Ecologia do Brasil e I Congresso Internacional de Ecologia, 2013, Porto Seguro, BA, Brasil. Resumo expandido.
2. ROCHA, J. S.; Chagas, C. ; SOUZA, A. ; **BERNARDO, C.S.S.** ESTIMATIVAS POPULACIONAIS DO MUTUM-DO-SUDESTE (*Crax blumenbachii*) NA RESERVA BIOLÓGICA DE UNA, BAHIA, BRASIL. In: Anais do XI Congresso de Ecologia do Brasil e I Congresso Internacional de Ecologia, 2013, Porto Seguro, BA. Resumo expandido.

11. Any other comments?

The small grant was very important as it contributed to basic information of red-billed-curassow population in two areas of Bahia state. This is the first step to begin monitoring such populations in the long-term and understand its dynamics over time. Please see attached the detailed technical report about this research.