

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	Ariane Alvarez
Project title	Camera-trapping survey of the endangered red-billed curassow <i>Crax blumenbachii</i> in the Atlantic Forest, Brazil.
RSG reference	05.07.08
Reporting period	22 October 2008 to 30 March 2010
Amount of grant	£5,975
Your email address	pedro.develey@savebrasil.org.br
Date of this report	29 June 2010

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
Training programme of the assistant of the project			X	The park ranger, project assistant, was given theoretical and practical training in the handling and programming of camera traps. The level of learning achieved by the park ranger was satisfactory. With the correct positioning of the cameras in relation to their height off the ground and the gradient (incline) of the terrain, we were able to obtain good photographs of the fauna in the "Parque Nacional do Descobrimento" (Descobrimento National Park).
Camera trapping field work			X	The beginning of actual field work was delayed due to factors involving logistics and adaptations that became necessary for the execution of the project. In this regard, the timetable established for field activities was shortened from 9 months to 7 months. Following the initiation of work, 372 photos were obtained of animals/wildlife in the park with 38 of these photos portraying the red-billed curassow.
Use of photographs			X	The photos of fauna in the "Parque Nacional do Descobrimento" will be submitted to ICMBio, the environmental agency that manages the park. These photos will be used to carry out activities related to environmental education with the local communities targeting the protection of biodiversity. Concurrently, the photos will be disseminated through the material used in the promotion of the park itself. It is important to mention that the management of the park is very interested in receiving copies of the photos.
Management Plan		X		The elaboration of the management plan coincided with the beginning of field work in the project. Therefore,

			<p>the photos were not directly used in the management plan. However, the photographs do serve as an important testimony to the presence of endangered/threatened species within the park. All the researchers will have access to these records which will help in carrying out work and developing research projects on behalf of conservation of these species.</p>
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

1) Delay in the initiation of field activities – The beginning of project field work was delayed due to activities within the plan for park management. The park ranger, who was the project assistant, had to render assistance to the team of researchers investigating the fauna and flora. In addition, there was a possibility that the camera traps would inadvertently photograph those researchers who traveled throughout the park daily. Thus, it was decided that work in the field would begin after the activities provided for under the management plan had been concluded. Due to this unforeseen circumstance, field work was shortened from a duration of 9 months to 7 months.

2) Standardization of methodology – The “Parque Nacional do Descobrimento” has approximately 21,000 ha and is considered that largest fragment of Atlantic Forest in Brazil’s north-east. Considering the size of the park, associated with the small number of photographic cameras, we experienced difficulties in establishing the best delineation for the registration of the curassows (*Crax blumenbachii*). After various trials involving the placement/arrangement of cameras in the forest, it was only in the fourth month that we recorded the presence of curassows. In the following months, the camera traps were placed elsewhere in the park according to the chosen delineation.

3) Camera malfunction – During monitoring of the camera traps, we noticed that they did not perform well with regard to the time of day when the sighting registrations were made. In some cases, all the registrations were identified as having been made at the same time throughout the day. In fact, this unexpected condition jeopardized the individual identification of the curassows. In this regard, the objective of calculating the abundance of the species was compromised.

4) Damage inflicted upon cameras – In the sixth month of field work, two camera traps were destroyed by gunshots and battering. One of the damaged cameras took pictures of domestic dogs indicating the presence of hunters (poachers) in the park. As regards the methodology, two spare (reserve) cameras replaced the vandalized cameras and, therefore, the number of camera traps in operation was not jeopardized.

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

1) Qualification of the park ranger in the handling and programming of camera traps. The park ranger, who was chosen to be the project assistant, is a member of the local community of the city of Prado, Bahia. In this region, professional qualification courses are almost non-existent and few people have a chance to attend such training courses. With the introduction of the project, we were able to carry out practical and theoretical training work, contributing toward the assistant’s

professional formation. Such training refers not only to photographic camera techniques but also to the discipline and organisation required to perform research work. In general, researchers require another person to assist them in field work and, in such cases, a qualified park ranger will be better enabled to provide assistance.

2) Interest among other employees and the park director in keeping up the work with camera traps. With the introduction of field work, other park employees also demonstrated an interest in understanding the method and its usefulness. There were situations in which the project assistant became his own colleagues' instructor; explaining to them how the cameras worked. Based on employee interest, the park director asked SAVE Brasil to donate a few camera traps to the park so as to continue recording of the park's diverse fauna.

3) Better comprehension of the distribution of curassow populations in the park. The information obtained through the use of camera traps associated with other data collected on the red-billed Curassow (*Crax blumenbachii*) enabled mapping of the distribution of the species. Through the use of methodology based on cameras at least four individuals were photographed with one such registration being the sighting of a couple (male and female) in a part of the park where no member of the species had ever been observed utilizing other methods. Considering that the red-billed Curassow is an endangered bird and that it lives under conditions of low density, obtaining of these registered sightings and their mapping is of extreme relevance for their conservation. In fact, this information may be of help in future research on the species within the park.

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

Since 2007, SAVE Brasil has been pursuing the project for conservation of the red-billed Curassow in the city of Prado, state of Bahia, where the Descobrimento National Park is located. A few environmental education activities have already been deployed in the local communities and we noticed that a considerable portion of the local population is unfamiliar with the fauna that exists in the park. We intend the photos to be used in the work of environmental education which will be performed by the employees of the park. We believe that the photos will reach out to people bringing them closer to the park, making them aware and sensitive to the park's species, and effecting, in the long term, a reduction in hunting in the region.

5. Are there any plans to continue this work?

The project with its camera traps was extremely important since it contributed toward an understanding of the curassow populations in the Park. Furthermore, this work will serve as a basis for future projects focused on conservation of Cracidae since it was found that, despite the inherent difficulties, working with camera traps is extremely valid. The finalisation of this project concludes the activities proposed by SAVE Brasil with regard to the research activities associated with the project for conservation of the Red-billed Curassow. Other initiatives related to the species should focus on protecting the species from poaching and/or commercial hunting and the appropriate establishment of protected areas where the species occurs.

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

The results and findings of the project will be made available through the SAVE Brasil website. In addition, the Descobrimento National Park will receive a CD containing a complete report on the research and all the photographs taken by the camera traps. Following in-depth analysis of the

collected data, the feasibility of its publication in a scientific journal with national circulation will be assessed.

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

The RSG was planned for the Red-billed Curassow sampling project which utilized camera traps and had a duration of 14 months. This project complemented other activities referring to conservation of the species in which SAVE Brasil is involved, but Rufford grant funds were applied only during performance of the work involving the use of cameras. As explained above, a series of delays occurred due to field logistics which extended total project time by six months beyond the expected duration.

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.

Ruffords Small Grants - Financial Reporting				
Contract: 11/07/2008				
Amount (GBP): 5975,02				
Amount (R\$) 18948,28				
Exchange Rate - year average - 3,14				
Item	Budgeted Amount	R\$	Actual Expenditures	Comments
Staff Costs				
Project Assistant (2 days/month, 12 months = 24 days x £20.11)	361.98	1137.66	426.61	
Total	361.98	1137.66	426.61	
Travel				
Trainer international air fare (round trip)	600.00	1,474.56	469.61	
Project leader internal air fare (round trip)	201.15	715.44	227.84	
Project Advisor internal air fare (round trip)	201.15	0	0	paid by matching funds
Rental car (16 days x £25.86)	206.88	1188.26	384.79	
Fuel for rental car (16 days x £11.50)	92.00	525	50.95	
Fuel for field vehicle (IBAMA car) (24 days x £11.50)	207.00	710.69	226.33	
Transportation	0	764.8	234.01	needed to cover transportation that was not predicted in the budget
Total	1508.18	5,378.75	1593.53	
Subsistence				
Accommodation (24 days x £17.24)	293.10	817.12	260.22	
Food and water (26 days x £8.62)	163.78	473	150.63	
Total	456.88	1290.12	410.85	
Field equipment				

Camera trap/Tigrinus (£170,98/camera x 12 cameras)	2051.76	7,140.00	2273.88	
Chains and padlocks for cameras (12x £20.12)	241.44	300	95.54	
Batteries (40 x £3.74)	149.60	116.7	37.16	
Camera films (100 x £3.74)	374.00	598.20	190.5	
Developing (100 x £2.88)	288	1148.47	365.75	
Office materials	0	132.8	42.29	
Total	3104.8	9,436.17	3005.12	
Contingency and administration (10%)	543.18	1705.58	543.18	
Total	5975.02	18,948.28	5979.29	

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

For over 3 years, SAVE Brasil has been conducting research and environmental education projects in the region of Prado, Bahia. Based on this experience, we concluded that the species has to be protected against poaching; the main threat it faces. This means that the park must be patrolled and monitored more efficiently to restrain hunters. In fact, we had the regrettable episode of the destruction of photographic cameras which serves to underscore the degree of threat suffered by the species. However, it is known that the park has deficiencies in infrastructure and few employees, thus limiting the time devoted to monitoring. These impasse must be resolved through the federal government which is responsible for the management of protected areas in the country. The generation of information and data, including photographs of the curassows and other species, will serve to sustain the justifications and the measures, for which the park manager may be responsible, to improve the park's enforcement/monitoring system.

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?

No promotional material was specifically elaborated regarding the project involving the use of cameras. However, the RSGF logo should be used in all the communication materials that come to be produced by the Descobrimento National Park utilizing the photographs taken in pursuing the project. In addition, as mentioned in question six, we intend to publish the data in a journal for its dissemination and, in such case and surely, credits will also be given to the RSGF.

11. Any other comments?

Please see attached the complete technical report on the research conducted with cameras in the Descobrimento National Park.