

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	Elaine Maria dos Santos Ribeiro
Project title	Effects of chronic disturbance on diversity and ecological processes of woody flora from the Brazilian Caatinga: implications for management and conservation
RSG reference	11281-1
Reporting period	March 2012 to March 2013
Amount of grant	£5989
Your email address	nanigesbio@yahoo.com.br
Date of this report	March 29th 2013

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
Access a disturbance value for each studied plot			X	From March 2012 to August 2012, 40 households which live near studied plots were interviewed. Satellite imagery were also used to identify others disturbance indicators to get a disturbance value per plot.
Identify the influence of human disturbance on seed rain		X		In June 2012, 160 seed traps were installed in studied sites and they are being monitored every month up to June 2013. I intend to finalise the monitoring in June 2013 and do all proposed analyses.
Evaluate the influence of human disturbance on seed germination and plant establishment		X		In November 2012, we did the direct seeding of four species. The germination of these seeds is being monitored until April 2013, a large part of them germinated, but due scarcity of rains, most of them already died. This fact will probably impede to get establishment results after the next dry season.
Access human disturbance effects on adult and regenerate plant communities		X		The census of adult plant community was finalised in March 2012 and now plant identification is being concluded. In the next month, the census of regenerant community will be finalised. After this phase of plant identification, I will proceed to diversity analyses proposed.
Quantify functional characteristics of local wood flora		X		From January to March 2013, were collected samples of leaves, seeds and wood to get responses about losses of functional diversity of adult and saplings. Now these samples are being analysed on laboratory to get values of specific leaf area, dry matter leaf content, seed mass and wood density.

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

Initially some difficulties occurred because of Brazilian bank bureaucracy; this fact delayed the grant payment for around 45 days but the fieldwork began in March 2012 using other amounts. The car belonging to the laboratory and used for field work project broke, then part of the amount required to purchase field work was used to fix the field car.

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

- In this project was already possible identify that human chronic disturbances affect negatively adult plant communities from Brazilian Caatinga, reducing species richness around 35% in disturbed sites.
- The seed germination was greater for plant species with large seed mass, which allowed also a larger survival period. But were not identified differences in the number of seeds germinated among disturbed and undisturbed sites.
- Until now, were not identified differences between the seed rain species richness recorded in studied sites. Nevertheless, species composition was clearly distinct in undisturbed sites, which present seeds from endangered species as *Myracrodruon urundeuva* and *Schinopsis brasiliensis*.

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

This project involved directly local people in participation since the permission to work on their properties, the interviews and their help on field work. All this contact allowed us to introduce the importance of wood plant conservation to maintain their life quality and local diversity. We also used the local radio to ask people for help to keep on field the seed traps and we talked about the importance of their collaboration and the project importance. I hope that information generated with this RSG could be helpful and encourage local governments to invest in private area conservation and economic alternatives to conciliate the conservation of these areas and also economic sustainability to people.

5. Are there any plans to continue this work?

This project and others realised in Parnamirim municipality stimulated local people to know more about local diversity and their importance. I intend in future to do a project that systematises this local diversity information in an exposition which will help people to have a direct contact and greater understanding about Caatinga diversity and conservation. This future project can also help the implementation of a protected area project which is being proposed near the studied plots.

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

All the results of this project recorded until now are being analysed, discussed and shared with students and researchers from Federal University of Pernambuco. I intend write a popular science article highlighting the main project outcomes and proposals to face the loss of Caatinga wood plants. Finishing the field work and data analysis, I will publish two scientific articles in peer-reviewed journals.

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

The grant use started in April 2013 for trips, field assistant and GPS. As in the original project was supposed begin in January 2012, all activities were intensified in these first months after grant receipt, resulting in more days on field. Now, the chronogram is according the submitted project (18 months) and the activities should be finalised in the next months.

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 work – accommodation and food	2520	420	-2100	The actual amount will be used in the next field work trips, as proposed in the original project. A part of this amount was used to fix the field work car.
Field assistant	1260	420	-840	The actual amount will be used in the next field work trips.
Fuel	985	285	-700	The actual amount will be used in the next field work trips.
1 Notebook	564	0	-564	Fully spent
GPS	350	0	-350	Fully spent
Books	310	0	-310	Fully spent
TOTAL	5989	+1125	-4864	£1 = 2,50 Brazilian real

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

As this project is still in progress, the most important steps are conclude the field work and analyse all data set. Latter, provide all summarised results in conservation and governmental meetings, and also in journals, as cited above. In practice, an important step is to produce seedlings of endangered species, provide to Parnamirim people techniques and other alternatives for wood plants use.

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?

The RSGF logo was used in presentations realized at Federal University of Pernambuco. I also mentioned the project funding by RSGF at the Parnamirim local radio. I will also acknowledge RSGF in all articles submitted related to this project.

11. Any other comments?

I am very grateful to Rufford small Grants Foundation for funding this project. Without this financial help this work would not be feasible. Thank for invest in diversity knowledge and nature conservation in many countries around the world.