

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	Sílvia Laine Borges Lúcio
Project title	Impacts of shifting cultivation on Cerrado's swamp forests: the case of Jalapão region, Central, Brazil
RSG reference	24963-1
Reporting period	2018
Amount of grant	£ 5.000
Your email address	silvialainebio@gmail.com
Date of this report	11/04/2019

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
Soil sample analysis				We chose not to quantify the nitrogen in the soil samples.
Car insurance (3 months)				
Mitsubishi L200 GL 2.5 4X4 car review				
Fuel (Diesel)				
Per diem				

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

There are not relevant to comment on this issue. All the steps in the field occurred without major problems.

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

1 – **Sustainable farming systems.** Maroon farmers adopt management practices that favour and determine ecological succession during the fallow period.

2 – **Shifting cultivation effect.** Drained peat swampy swidden fields of 0.3 to 1.2 ha, cultivated to up 10 years followed by fallow from 10 to 50 years is not a disturbance that exceeds the resilience limits of the swampy gallery forests on Cerrado.

3 - **Environmental factors** (soil and flood) were determinants on recovery of some ecological attributes.

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

Some Maroon farmers have been directly involved in the research, idealising the questions and hypotheses, accompanying us during the data collection in the field, participating in the preparation of maps, interviews and partial results validation workshop. The results of this research benefit communities by subsidising decision-making processes of environmental managers and thereby reducing conflicts. The results also subsidize the process of recognition of a traditional Brazilian population what can reinforce the struggle for demarcation and your territories. Finally, our

results reinforce the need for Brazil to recognise its traditional populations, recovering a historical debt with these descendants of enslaved Africans, as well as recognising these peoples as allies of conservation.

5. Are there any plans to continue this work?

Yes.

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

- Workshops to return the results to the communities.
- Paper publication in scientific journals.
- Presentation at congresses or academic meetings.
- Presentation in Brazilian environmental public institutions.

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

I am using the grant because I will pay for the paper translation this month yet.

The grant time is longer than due in the project. We closed field activities in September 2018.

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
Soil sample analysis	£1766	£999	-£777	I used the money rest to pay a professional to do some statistical analysis and to do two scientific illustrations to summarize the search results (£205). I will pay for the translation of the first paper that we will submit to a scientific journal in this month yet (£154). I will travel to Jalapão (TO, Brazil) to return research results to Maroon communities and other stakeholders on June 2019 (£418, 05).
Car insurance (3 months)	£596	£596		-

Mitsubishi L200 GL 2.5 4X4 car review	£337	£337		
Fuel (Diesel)	£483	£450	-£33	The remaining I covered the costs with bus tickets when we travelled for field trip. The city where I live is 314 km from Brasilia, from where we left with the team for the field trip.
Per diem	£1818	£1818		
TOTAL	5000	4200	-800	

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

Faced with the uncertainties of the Brazilian political context, empower communities from the results of the research and discuss with farmers what other issues are important to be scientifically test.

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

Yes, I used The Rufford Foundation logo during a presentation at the international congress of ethnobiology, in August 2019 in Belém (Pará, Brazil) and in the banner presented during a National Meeting of Ecological Restoration, in November 2018 in Belo Horizonte, Minas Gerais, Brazil.

11. Please provide a full list of all the members of your team and briefly what was their role in the project.

Maxmiller Ferreira and **Ana Carla dos Santos** are biologist, Ecology masters and they are specialists in the identification of Cerrado plants. They also supported me in collecting ecological data, during interviews, community workshops, and travel logistics.

Teomenilton dos Santos, **Lindomar de Sousa** and **Adão Ribeiro** are Maroons farmers Maroons farmers who guided us and taught us about their practices and traditional ecological knowledge.

12. Any other comments?

An undergraduate student of our laboratory accompanied us to collect data about pioneering species (*Cecropia pachystachya* Trecul.) in a study about the potential of this species to be a "biological clock" to estimate the age of secondary forests. We are preparing the article and we are willing to mention Rufford Foundation grant as a funding source in case of common agreement.



Farmer explaining how he built the drainage canal. ©Ludivine Eloy, 2017.



Looking for cultivated and fallow fields. ©Ludivine Eloy, 2016.



Maroon counting which management practices they adopt to maintain soil fertility.
©Ana Paula Rabelo, 2018.