

Final Evaluation Report

Your Details	
Full Name	Manoela Schiavon Machado Mollinari
Project Title	Managing Selective Logging to Minimize the Risk of Amazonian Wildfire
Application ID	22281-1
Grant Amount	£4,960
Email Address	manoelamollinari@gmail.com
Date of this Report	20 Feb 2020

1. 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
Collect thermal data				The thermal study has been published: Mollinari, M. M., Peres, C. A., & Edwards, D. P. (2019). Rapid recovery of thermal environment after selective logging in the Amazon . <i>Agricultural and Forest Meteorology</i> , 278, 107637. https://doi.org/10.1016/j.agrformet.2019.107637
Conduct flammability experiment				The flammability study is nearly ready for submission: Selective logging and forest flammability in the Amazon . <i>In submission process</i> .
Community participation and outreach				Three members of the local community, an undergraduate student from UFLA (Minas Gerais) and a recently graduated biologist were hired and trained as research assistants for a few months (Ramon, Gabriel, Rafael, Bernardo and Ivaldo). More people were sporadically hired when more assistance was needed in the field or when members of the local community were interested in getting to know more about the research, such as undergraduate students of biology and agronomy (e.g. Leticia, Rodrigo). Multiple talks and meetings were arranged to discuss our research with the partner logging company AMATA.

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

The physical effort to set up the experiment in the forest interior, which involved carrying large amounts of equipment and gallons of water (as part of the experiment) was slightly underestimated in the planning phase. We then allocated a few more weeks for this stage and decided to hire a larger team for this effort.

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

- The research enabled by this grant builds a significant portion of my PhD thesis, more specifically it allowed me to collect original data with which I developed two of my PhD thesis chapters.

- Two excellent pieces of research, one of which was already published: Mollinari, M. M., Peres, C. A., & Edwards, D. P. (2019). "Rapid recovery of thermal environment after selective logging in the Amazon". *Agricultural and Forest Meteorology*, 278, 107637. <https://doi.org/10.1016/j.agrformet.2019.107637>, and another in pre-submission phase: "Selective logging and forest flammability in the Amazon".
- Our findings, which represent novel knowledge regarding the impacts of selective logging on the thermal environment and flammability of the Amazon forest.

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

Members of the local community were hired and trained as research assistants of this project. Also, several employees of the partner logging company AMATA attended our talks and meetings, in which we conducted presentations of our work and had discussions about drivers, risks and impacts of fire and the importance of protecting the forest from burning.

5. Are there any plans to continue this work?

My post-doctoral research follows the same overarching theme and is also focused on fire, its drivers and impacts in the Amazon forest. Once the second paper is published, I intend to arrange a meeting with the managers of the partner logging company AMATA to present our findings and discuss potential ways to develop them into management strategies with the aim of minimising the impacts of logging on the forest thermal environment and flammability.

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

The more permanent and official way to share our findings is through publishing papers, one of which has been published already and another will hopefully be published soon. Additionally, I have presented part of our findings at ATBC – 2019 (Association of Tropical Biology Conservation) in Madagascar and at a talk I was invited to give at ECI – Environmental Changes Institute, Oxford University in September 2019.

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

This grant was used mainly to fund the fieldwork component of my research in 2017, which lasted for 6 out of 48 months of the whole PhD.

8. Budget: 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. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.

Item	Budgeted Amount	Actual Amount	Difference	Comments
1 Flight UK – Brazil (return) (for me)	£800	£706	-£94	
2 Flights SP – PVH (return) (2 RAs)	£480	£472	-£8	Average USD BRL 2017: 1.29
Car rental	£2000	£3678	+£1677	Average GBP BRL 2017: 4.14
Car fuel	£800		-£800	Other sources of funding supported this.
Local research assistant payments	£880	£279	-£601	More research assistants were hired and for a longer time. Other sources of funding supported these.
TOTAL	£ 4960	£ 5135	+£175	

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

Push the second piece of work for publication as soon as possible. Arrange a meeting with the partner logging company to discuss our findings and possible ways to incorporate changes into their management practices seeking to minimise fire risk in selective logged forests. Use these results to shape a public policy proposal to be employed in other forest concessions across the Amazon.

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

Yes. Rufford Foundation was acknowledged in the published paper and in my PhD thesis, and it will be acknowledged in the second paper as well. Additionally, in all my presentations I have presented the Rufford logo:



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

Manoela Machado Mollinari – PhD student, lead of this project

David P. Edwards and **Carlos A. Peres** – Supervisors

Ivaldo Soares and **Bernardo Braga** – Research Assistants from SP and MG

Ramon Reis, **Rodrigo Silva** and **Gabriel Silva** – Local research assistants

12. Any other comments?

I appreciate the support I was given by The Rufford Foundation to conduct this research, which enabled me to develop and conclude my PhD.

