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	Flavia Mazzini
Project title	Domestic cattle as drivers of Andean subtropical rainforest dynamics
RSG reference	14671-1
Reporting period	One year
Amount of grant	£4540
Your email address	mazflavia@gmail.com
Date of this report	November 19th 2015

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
Cattle selectivity on tree species			X	It was made twice. Last one still running with different tree species.
To determine the importance of the structural (leaf toughness and spinescence) and functional (foliar phenology) plant traits		X		I get the instrument to do the measurements (i.e. penetrometer) a week before the experiment ended; they are going to be done in the next week's prior rainy season. Spinescence was not consider, really few tree species has them at the altitudinal level studied.
To determine how livestock impact the abundance, composition and structure of tree community in subtropical Yungas		X		All data was collected (24 sites), only remains to start analyse it
The effect of different relative abundances of domestic cattle on the understory			X	Only remains to start analysing the data. Photos were taken at sites to check the understory complexity.
To describe the pattern of grazing		X		It will reveal after all analysis that are pending.

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

Even though the rainy season stops later than usual, in the dry month (July-November) I was able to place the exclosures and perform vegetation survey around Jujuy.

The ProYungas NGO was not able to support me with financial issues; I was able to redirect part of the budget but this was not a big issue. Nevertheless technical and academic supports they were able to give me.

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

- The regeneration aspect of the study, for which we built five exclosures, is complete. I re-measured them in October 2015 and some differences were seen at plain sight. I hope they start to give me some interesting results from next re-measurement in May 2016. They will provide some long term results. Also I will encourage biology students of Jujuy National University to do more research within those two treatments.

- All the data were collected. I am starting to analyse them to establish the role of domestic cattle in Yungas Forest and how they alter composition, structure and regeneration of tree species and the understory.
- Selectivity trials were performed. Some results were shown at International Silvopastoral Congress in Misiones, Argentina in May 2015. There are differences among tree species. *Cedrela* sp*.,* one of the most important tree native species, was not selected as we expected. This shows some promising results on sight of forestry enrichment with native species.

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

At some sites land owners were involve in the exclosure construction. Most of them are interested in keeping livestock out of their lands to restore it. As my project is the first step to quantifying cattle impacts in Yungas, they were really excited about it and its results. When results are ready I will make a return, thus they can continuing with their own practices with formal data.

5. Are there any plans to continue this work?

There are plans to continue with the project as it is part of my PhD project. Up to day is all set to start producing data in long term. I will have to re-measure the exclosures within 6 months to a year. I will continue with that to generate a bigger pool of data on natural regeneration.

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

Results were shown at a couple of international congress (Congreso Nacional de Sistemas Silvopastoriles y VIII Congreso Internacional de Sistemas Agroforestales, Iguazú-Argentina-2015 and The Rufford Small Grant Conference, Quintay-Chile 2015). As it is part of my PhD work it will be published in an indexed journal as well in my thesis. I plan to assist to some more congress to show the results. It is the intention also to produce a report to communicate results to the local authorities behind the forest law.

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

The grant covered all the field work for the project. It took me almost the year. First results are going to be ready 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
wire	105	138	-33	
barber wire	45	74	-29	
posts	505	200	+305	
dipsticks	85	116	-31	
turnstile	120	129	-9	
cement	35	37	-2	

exclosures manpower	550	420	+130	
exclosures materials transportation	100	811	-711	ProYungas NGO was not able to support me because of financial issues
exclosures maintenance	70	37	+33	
vehicle fuel	800	969	-169	
food	160	200	-40	
camping gear	525	236	+289	Because of the lack of support of ProYungas NGO I readdress part of the budget
field assistant	660	548	+112	
gps	440	516	-76	
metric tapes	40	0	+40	I borrow them
scales	100	0	+100	I borrow them
field gear: clothing	200	111	+89	
Total	**4540**	**4518**	**-1**	

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

Start and finish analysing the data produced during this year. I have the minimum number of sites surveyed to start analysing, but I will try to enlarge the vegetation survey data base to cover as many places and livestock situations as possible.

Create a database with the forest status in relation with cattle. The idea is provide clear and feasible recommendations on how to continue extensive cattle ranching within forests. At the same time promoting forest development, recovering and conservation values in a language that government managers/administrators can use and apply in addressing legal concerns.

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

The logo was used in poster presentations and talk given at conferences. And the exclosures were mark with a sign informing the regeneration and restoration plot built. It will be used in all communication concerned to the project.

11. Any other comments?

I would like to thank The Rufford Fundation for the small grant that was crucial for me to successfully achieve all the field work for my project.