

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	María Daniela Rodríguez
Project title	Effect of land use on biodiversity conservation: generating management tools for restoration of desertified arid lands.
RSG reference	10862
Reporting period	16 December 2011 - 17 December 2012
Amount of grant	£ 5,625
Your email address	mdrodrig@mendoza-conicet.gob.ar
Date of this report	January 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
Quantification of small mammals diversity			x	We sampled three habitat types during the four seasons along a year (7800 trap/nights). Nevertheless because of extreme aridity, I believe that sampling effort should be higher to achieve more biodiversity.
Quantification of medium size mammals diversity				We sampled 35 ha in the search of signs of presence of different species of medium size mammals during the four seasons.
Measured of goat grazing intensity			x	We sampled 35 ha by counting fresh and old goat faeces to determine present and past goat grazing. We also asked farm owners the number of goats they had at this time.
Measured of habitat structure			x	We found different habitat structure depending on habitat types and goat grazing intensity.
Quantification of small mammals microhabitat selection			x	We determined microhabitat selection for five species of small mammals.

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

There were not important difficulties during the project, previous experience in the area allowed us to make realistic and achievable plans.

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

- Small mammals biodiversity account for the mid disturbance hypothesis, with higher diversity on intermediate values of goat grazing.
- *Eligmodontia typus* could be used as an indicator, because its population numbers diminish when increased habitat heterogeneity and diminish goat grazing.
- Goat grazing and small mammals' diversity were lower on salt basin than in others habitat types. Because salt basins are more fragile systems and includes the more rare and vulnerable species of mammals (*Salinomys delicatus* and *Tympanoctomys barrerae*) their protection should be a major priority on this RAMSAR site.

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

The assistance of the community of Lagunas del Rosario was extremely important for sampling site selection. We worked together to properly locate the 24 sampling sites on the study site. They know how the goat moves along the year, so we work together on the identification of the grazing gradient. I am actually working on the final results of this project and am planning to make a future workshop with local community.

5. Are there any plans to continue this work?

Yes, of course. Because of the extreme aridity of this region, 1 year is too less time to achieve reliable results on these objectives, so I pretend to repeat all study one more year on the same place (2013). Because of this I attempt to apply for the Rufford Booster Grant. For the third sampling year (2014) I intend to include fire as another disturbance factor in structuring biodiversity for desert systems.

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

I plan to present all results of this project on scientific meetings (congress, workshops, etc), scientific papers, and local community workshops. In October 2013 is going to take place in Mendoza the II Workshop of Restoration of the South American Arid Diagonal, and we attempt to show our results on that opportunity.

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

The application date for the 2nd RSG was in August 2011, and the grant was approved in December 2011. However, because the funds came in January 2012, the project became operational from this date. Despite this, because the sampling period should be the four seasons of 1 year, the project could be achieved without any inconvenience between January 2012 and December 2012. Despite having worked extensively in the samples for a full year, we realized that for such an extreme habitat in a RAMSAR site, we need even a more intensive sampling to achieve total biodiversity. RSG was the key to carry out this project along the last year, but we need to search for more funding to keep alive the project one more year.

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 Supplies (sleeping bag, batteries)	280	280		
Office supplies (copies, books)	120	120		
Field accommodation (15 days-4 months x 3 people)	531	661	+ 130	It was more expensive than estimated because of the economic inflation fo

				my country
Food (15 days-4 months-3 people)	531	789	+ 258	It was more expensive than estimated because of the economic inflation fo my country
Rent a car	3833	1316	- 2517	I get a borrowed van for some field trips so I can used the money for other unanticipated items
Gasoline and vehicle maintenance	330	550	+ 220	It was more expensive than estimated because of the economic inflation fo my country
Bus tickets and life insurance for students		384	+ 384	Not considered in the previous budget (1)
Paper print		125	+ 125	Not considered in the previous budget (2)
Congress assistance		200	+ 200	Not considered in the previous budget (3)
Sherman live traps		1300	1300	Not considered in the previous budget (4)

(1) Originally, I plan to carry local students to field trip, so this item was not considered. But after the diffusion of the project, many students all over the country wants to participate, so I spend this money on theirs field trip to Mendoza.

(2) We should pay some money for the publication of a scientific paper of some of these results.

(3) I assisted to a congress to show some of the results of this project in conjunction with other studies of my colleagues.

(4) I get borrowed a van from my Institute for some field trips, so I can use some money to buy equipment. Sherman live traps are the only way to capture small mammal's species. We already have 150 traps on our research group and now with these new 100 traps we can increase the sampling effort.

£1 = A\$ 7.83 (29/January/2013)

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

Next step is to keep the project alive for one more year to get more reliable results. But looking ahead for a long period, I think we must get deeper on the knowledge of community structure and functioning patterns of small mammals in relation to another disturbance factors and the synergy between. This will allow managements to detect ecosystem threshold in the way to stop and reverse degradation processes.

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?

Yes. RSG grant was used in part to cost a paper related to the previous RSGF grant (41.05.05), and the RSGF appears on the acknowledgments (the first grant covered part of the field trips and the second grant cover the printing costs). Moreover, we present a poster on an international congress on November 2012 and we added the logo of the RSGF.

11. Any other comments?

I would like to thank the RSGF and the five referees that trusted me and supported the two projects. Definitely, this project could not be accomplished without the funding of the RSGF. I certainly appreciated the continuous financial support of the RSGF to our projects on Monte desert of South America, and the ultimate contribution to the conservation of these rare and vulnerable small mammals and habitats in a RAMSAR site.