

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	David Lautaro Vergara Tabares
Project title	Invasive trees at Chaco Serrano forest of Cordoba: Promoting social awareness and developing control actions
RSG reference	13090-1
Reporting period	7/11/2013- 7/11/2014
Amount of grant	£5916
Your email address	davidlutarov@gmail.com
Date of this report	9/1/2014

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
Survey of <i>Pyracantha</i> presence and map confection		Yes		We surveyed and identified <i>Pyracantha</i> presence in hills and mountains around Los Hornillos and Las Rabonas, but we have not completed yet the presence map.
Meetings and interpretative walks with local people			Yes	We conducted interpretative walks along the limits of Los Hornillos town and the homonymous stream, comparing invaded and non-invaded areas. We run this activity both with adults and with kids from a municipal summer school. All participants of the meetings and walks seemed engaged and appreciate learning about the plant invasion problems
Control actions along Los Hornillos stream			Yes	We cut-down <i>Pyracantha</i> plants in the upper invaded area, and we used the dead trees to construct fences for some residents of the ravine. These actions were performed with the help of the group of neighbours (assembled and gathered as result of the meetings)
Control actions at urban area		Yes		We promoted this action among neighbours, yet the adherence was poorly successful. But among the few successful cases, the people showed a remarkable agreement (e.g. they cut down <i>Pyracanthas</i> and used the wood as fuel in their houses).
Native seedling distribution	Yes			Due to climatic incidents, we lost the whole production of seedlings for free distribution. Now we are waiting for the new batch of native seedling to be ready for distribution in the near future.

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

A remarkable unforeseen difficulty that arose was the arrival of people that bought land to build their vacation houses. In the majority of cases, those people selected the land that they bought according to natural characteristics such as vegetation species and the presence of many bird and animal species that inhabits the area. These people showed a positive attitude towards the presence of *Pyracantha* trees, they particularly seemed to like the presence of *Pyracantha* trees because of

the contrasting orange colour of its fruiting with the surrounding vegetation in dry season. Moreover, this social group is characterised by their irregular residency in the area (long weekends and summer), which made it very difficult for us to find them and transmit our message against biological invasions.

To tackle the described difficulty we increased our presence at Los Hornillos, and during numerous weekends we made an effort to contact those new residents to discuss with them details about our project and the threats that *Pyracantha* represents in the environment. We achieved to contact 50% of those people, and during the interviews we could perceive their lack of information about the origin and effects of *Pyracantha* trees on Chaco Serrano. In many cases, we observed an interest on the reality of the problem but in other persons it prevailed the aesthetics interests. Only when we discuss the possible negative consequences of invasive plants on the animal community, the totality of people demonstrated a change in their attitude. We believe that animals result in a charismatic element that would be important to capitalize the spread of our message regarding the consequences of invasions by exotic plants.

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

- 1) We surveyed the presence of *Pyracantha* trees around the hills and mountains surrounding Los Hornillos and identified the areas with highest densities and the limits of the *Pyracantha* distribution.
- 2) We developed several meetings and communication instances to spread our message regarding plant invasions and the associated problems among local students and adults, installing the topic in the collective consciousness and promoting the gathering of a little group that promotes the continuity of environmental activities that we started.
- 3) We performed control actions against *Pyracantha* trees at upper ravine area and in some sub-urban lands, promoting the use of dead wood as firewood and thorny fences.

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

Local communities have directly and indirectly contributed in the development of this project, by facilitating places to stay during the survey campaigns, such as rural houses, etc. We have also shared long dialogues with people that live in distant hills, in which not only we shared our knowledge of invasion ecology with them, but also they shared with us their traditional knowledge and experiences about many aspects of the study area, for example the changes they perceived in the vegetation cover as a result of the advances of exotic plants.

In our meetings and interpretative trekking (walks) to invaded and not invaded areas with student and the general public, people enjoyed and amply interacted with our team, resulting in the knowledge acquisition of invasive and native plants identification and acknowledging the environmental consequences about the plant invasion problem. Another important element of involvement of the local community was the conformation of a little group of people that participated in the control actions. We believe that represents a strong component of the development of the project, and foremost it greatly increases the chances of prevail of the initiated actions against the plant invasion problem in the area. The group of locals involved in the removal of invasive trees grows and gets stronger with the time and will be a cornerstone to the future development of our program.

5. Are there any plans to continue this work?

We definitely will continue working in this project. From the goals that we initially had we still need to fully accomplish a few (such as distribute the native seedlings that are growing in the plant nursery along the community, and to finish elaborating the final map of *Pyracantha* distribution). Additionally we also plan on strengthening the development of the project by continuing with the monitoring of re-growth of *Pyracantha* in the controlled area, organising more meetings and interpretative walks with locals, students and teachers, and promoting the growth of the group involved in the control actions (tree cutting).

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

During middle of December of 2013 we shared our project and preliminary results in a municipal meeting called "I Encuentro de Municipios por Legislación Ambiental" in Luyaba in Traslasierra Valley. Many social groups from diverse localities of Traslasierra Valley attended this meeting and actively participated in the discussion of our presentation. We intend to share the results of our findings in other municipal and provincial workshops, as well as publications and conferences.

Finally, we created a Facebook account (<https://www.facebook.com/comcienciatraslasierra>) administrated by our team members, where periodically we share environmental information and publish many pictures about our project and about Chaco Serrano biodiversity in general.

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

Rufford Foundation grant was used for 13 months from July, 2013 to August, 2014. The proposed objectives were complex and varied as to achieving them completely in 13 months but the grant has complied with its purpose of funding the field work and the material for further activities (e.i. elements to continue with control actions), and it has allowed us to achieve the main goals outlined when elaborating Rufford Small Grants application.

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
Food for 3 people	1931	2250	-319	Due to extra visitation to contact new weekend residents we had to stay more days at the study area.
Fuel and vehicle rental	1283	1423	-140	We consumed extra fuel to additional travels
Supplies and materials (GPS, cooking field equipment, camera)	850	850	0	
Chainsaws, shovels, etc.	560	602	-42	We bought and replaced elements that were broken
Congress presentation, dissemination material	650	558	+92	We reassigned funds from congress presentations to food expenditures

Satellite images	361	0	+361	We reassigned this amount to extra travels expenditures
Contingency	281	250	+31	
TOTAL	5916	5933	-17	

Exchange rates over the 13 months averaged \$10.78 Argentine pesos to the sterling. Exchange rates ranged from \$7.58 at Rufford application to \$13.95 today.

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

Along the course of the project, we perceived that the attention and interests of people (students and public in general) turned to potential invasion consequences on animal species, particularly on birds. We think that the attractive and importance of birds on ecological processes, as well the lack of knowledge regarding consequences of plant invasions in these animals, results in a potential work that may contribute significantly to conservation interests. It is for that, that we are amply interested in exploring the consequences on bird communities and populations (comparing bird community's similarities and frugivorous birds populations between invaded and non-invaded areas) and, use bird species as emblematic elements which can help us better transmit our message and engage more adepts to this cause.

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?

We have used the Rufford Foundation logo and have acknowledged Rufford Foundation in all the manuscripts I will send, although none of them has been published yet. I will be using the logo in all future presentations related to this project.

Additionally, we used the Rufford Foundation logo on leaflets and posters used during the project in the different schools and meetings. As such we made publicity of Rufford Foundation and explained to the different stakeholders during our meetings the goals of the Rufford foundation and the level of support it provided us.

11. Any other comments?

In name of all members of the team I would like to express our sincere gratitude to RSGF. Had it not been for your generous financial support, we would have not been able to successfully perform field activities as we did. This grant has also encouraged us to continue with our careers as conservation scientists and educators of environment science.