

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	Marcela Marquez-Garcia
Project title	Enhancing Sustainable Agriculture and Biodiversity in Chile's Mediterranean Ecosystems: Evaluation of a Conservation Partnership with the Wine Industry
RSG reference	17642-1
Reporting period	June 16, 2015 to July 1, 2016
Amount of grant	£5000
Your email address	mamarquez@ufl.edu
Date of this report	July 1, 2016

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
Objective 1: Determine the individual and institutional factors that explain and predict the adoption of conservation practices among Chilean wineries		X		To examine key drivers and barriers for biodiversity conservation among Chilean wineries, I sent out an online survey to more than 700 top managers and viticulturists of 173 companies. I received a total of 264 responses from 120 wineries (response rates: 35% and 69% respectively). Setting up the database of wineries took longer than expected, which caused a delay in the data collection process. The data analysis will begin this month (July) and the objective will be fully achieved by December 2016.
Objective 2: Evaluate the effectiveness of knowledge-based interventions designed to engage winegrowers in the protection of the Chilean mediterranean region			X	We assessed the effectiveness of conservation education workshops in changing pro-environmental behaviours of 194 winegrowers at four wineries. Since knowledge-based interventions did not trigger behaviour change, we developed a new version of the workshops, using the future scenarios methodology. The data has been analysed and the manuscript will be soon submitted to the Journal of Environmental Education for publication.

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

Objective 1 – Some wineries were reluctant to fill out the survey because they could not find enough information about the project and me. It was also challenging to make them understand that different stakeholders within the winery (i.e., winemaker, viticulturist, CEO, sustainability manager, etc.) needed to fill out the survey. This may explain the low response rate at the individual level (35%) compared to the institutional level (69%). To tackle these problems I created a LinkedIn profile, a very popular platform in Chile, so wineries' people could know and trust me. Regarding multiple survey requests per winery, I sent a formal letter and brochure of the project to the general manager of each winery explaining why I needed different stakeholders' opinions within the institution. Despite that, several questions and concerns arose among respondents and had to be addressed by email one by one. It could have been much more useful to have a website for the survey with general information about the project and frequently asked questions and answers.

Objective 2 – One of the wineries did withdraw the project a week before the conservation education workshop was arranged. The leader of the Wine, Climate Change and Biodiversity Program (hereafter Biodiversity Program) rapidly found a replacement and started conversations to arrange a workshop with them. This situation delayed the data collection process for 6 months, but I was able to successfully complete the experiment. Working with a local partner and have a good communication with them was key to tackle this problem.

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

1. An improved version of the conservation education workshops was developed. By improving and shortening the talks, and including a more participatory activity based on the future scenarios methodology, the biodiversity programme provided winegrowers with a more engaging and productive experience. The new workshop was designed to increase participant's self-efficacy or personal beliefs that they have the knowledge and skills to successfully implement conservation practices. The participants ended up with an action plan for conservation produced by themselves. The future scenarios methodology proved to be a useful tool for collaborative planning, with potential for fostering concrete conservation actions at the vineyard.
2. A model of conservation behavior for the Chilean wine industry. The analyses of the online survey will identify the determinant drivers and barriers of pro-environmental behaviour adoption at the farm and company level. Based on

the results, we will develop and implement, in collaboration with relevant stakeholders, an innovative range of education, outreach and management strategies for broader impact among agricultural producers.

3. A team of 10 Chilean college students and professionals from different disciplines were trained in social science and survey methods for conservation. They were also encouraged and guided to pursue a career in conservation. Consequently, some of them have enrolled in master programmes about natural resources and conservation; others are finishing their bachelor degrees working in human dimensions of wildlife conservation projects; and one of them even started growing winegrapes and producing wine under the sustainability standards the biodiversity programme promotes. I believe that training future conservation leaders is one of the most important outcomes of the project.

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

This project provides the very first assessment of conservation practice adoption among Chilean wineries. All the wineries and respondents of the online survey will have access to the results and will receive confidentially their ranking in conservation. This information would allow them to plan and update their sustainability strategies.

The wineries and participants of the conservation education workshops learnt about the ecosystem services and biodiversity that sustain agricultural production in central Chile. The participants of the improved version of the workshops also ended up with specific conservation strategies and actions steps to implement at the vineyards.

5. Are there any plans to continue this work?

Sure, upon graduation I will formally join the biodiversity programme team to continue doing interdisciplinary research and practice for conservation of Mediterranean ecosystems in Chile. I am eager to start implementing some of the education, outreach and policy strategies we have identified throughout the project. I am planning to apply to different national and international funding sources for research and nature conservation, such as the Environmental Protection Fund from the Chilean Ministry of Environment or the Conservation Trust Grant from National Geographic, in order to fund practical initiatives that effectively engage winegrowers and other agricultural producers in the conservation of this critically important region.

I expect to contribute strengthening the biodiversity programme and spreading opportunities for diverse social and ecological researchers to work together in solution-oriented research. Finally, I hope to build on my interdisciplinary background to catalyse collaboration between researchers, policymakers, and practitioners for nature conservation and development in the Southern Cone of South America.

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

I will use various techniques to share the results with different audiences in Chile and abroad.

Objective 1 – Managers survey. The participants of the project, as well as decision-makers and key stakeholders in the Chilean wine industry will receive a policy brief with the findings and recommendations of the project. I also plan to write an article in a specialised local magazine, such as the Wine Lovers Club magazine, to make a broad public impact about sustainable winegrowing and biodiversity conservation. To reach the national and international scientific community, I will present at the 2017 International Congress for Conservation Biology, in Colombia, and publish the research in peer-reviewed journals, such as Conservation Letters or the Journal of Environmental Management. In Chile, I will give seminars at the Institute of Ecology and Biodiversity (IEB-Chile), Universidad de Chile, Universidad Catolica, and Universidad Austral de Chile, among others.

Objective 2 – Workshops evaluation. I plan to give posters and talks at the wineries that participated in this phase of the project. To reach the community of environmental educators I will give a talk to the staff of the Environmental Education Division of the Ministry of Environment and write an article for their bulletin. Also, the results will be presented at the 3rd North American Congress for Conservation Biology in Madison, Wisconsin (July 2016), and at the 6th Binational Meeting of Ecology Chile-Argentina in Misiones, Argentina (September 2016). Finally, the article will be submitted to the Journal of Environmental Education for publication.

Short articles and news about my work will be likely to appear in the following websites: University of Florida's Department of Wildlife Ecology and Conservation, Southern Cone Conservation Leadership Initiative, Universidad de Chile (where I was a former undergrad and grad student), IEB-Chile and its associated websites (e.g., Outreach Program, Biodiversity Program, Senda Darwin Biological Station), and Jacobita Magazine. I hope to reach a broader audience through an interview in the Radio Universidad de Chile, specifically in the Millennium Program in Tune with Science, and through the science cafes organized by the IEB-Chile's Outreach Program in Santiago and La Serena.

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 was used from mid-June 2015 to the end of June 2016, as it was anticipated in the application form.

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.

I used the local exchange rate from the day the funds were received (June 16, 2015): 1 £ sterling = \$940.464 Chilean pesos.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Airfare: Round-trip Gainesville, FL-Santiago, Chile-Gainesville, FL for the principal investigator, Marcela Marquez, to conduct the fieldwork in Chile	1060	278.72	781.28	I got a great discount in LAN Chile airlines, therefore my airfare tickets were much cheaper than I proposed in the initial budget. Only one-way ticket was covered by Rufford funds, because a University of Florida Travel Grant covered the return ticket Santiago-Gainesville. The difference was allocated to other expenses.
Rental car	940	51.06	888.94	The rental car was mainly funded by IEB-Chile because of the institutional discount and paperwork issues. The RSGF funds were used to cover gasoline, tolls and other expenses.
Gasoline	0	205.51	-205.51	Covered by IEB-Chile funds in the original budget, which were finally used for rental car (see comments above). RSGF funds allocated to these

				expenses.
Tolls	0	49.12	-49.12	Covered by IEB-Chile funds in the original budget, which were finally used for rental car (see comments above). RSGF funds allocated to these expenses.
Per diem for the principal investigator and assistants in lieu of hotel and meals	3000	2535.41	464.59	Some per diem expenses were covered by IEB-Chile. The difference was allocated to other expenses.
Materials (office supplies and photocopies)	0	205.00	-205.00	Materials needed for the future scenarios activity and paper-surveys.
Mail letter and brochure of the project	0	606.23	-606.23	To boost the response rate, I mailed a formal letter and brochure of the project to the general manager of each winery
In-country transportation (buses, subway, taxi)	0	431.87	-431.87	Expenses related to transportation of principal investigator and assistants
Assistant	0	637.08	-637.08	2 monthly part-time stipends to complete the database of wineries and help with other activities of the project.
Total	5000	5000	0	

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

Throughout the project, I realised that there are several conservation efforts to safeguard biodiversity in the Chilean Mediterranean region, coming from different organisations and stakeholders. However, communication and collaboration among these initiatives is scarce. Therefore, I feel like a very important but challenging next step would be to bring together researchers, practitioners and policymakers working in the region to examine and prioritize top issues and opportunities for conservation. In order to address the large challenges facing biological conservation in this highly populated and productive region, it is urgent to identify gaps and opportunities to scale up and accelerate positive impact over the next years.

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 Rufford Foundation logo was featured in both an oral and poster presentation about the project at the XXII Ecological Society of Chile Annual Meeting in November 2015. I have also mentioned the support of the Rufford Foundation in two short notes I have posted in the blog of the Southern Cone Conservation Leadership Initiative:

<https://conservacionconosur.wordpress.com/2015/07/20/vino-y-ecosistemas-mediterraneos/>

<https://conservacionconosur.wordpress.com/2015/10/14/los-escenarios-futuros-como-instrumento-para-la-conservacion/>

The logo will appear in all printed and digital materials generated for the dissemination of results (see question 6), and the Rufford Foundation support will be acknowledged in upcoming talks, seminars, and other events.

11. Any other comments?

The Rufford Small Grant has been of great help to fund my fieldwork and obtaining my doctoral degree at UF, a key stepping stone in reaching my academic and career goals. I am also very grateful to Rufford Foundation for supporting conservation initiatives in the critically endangered Chilean Mediterranean region.