

## The Rufford Foundation

### Final Report

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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](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

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Grant Recipient Details	
<b>Your name</b>	Francisco Santander
<b>Project title</b>	Raptors in Forest Plantations: Effects of Landscape Structure and Harvest Activities
<b>RSG reference</b>	3cecf3-1
<b>Reporting period</b>	30 July 2017 – September 2018
<b>Amount of grant</b>	£5,000
<b>Your email address</b>	fcojsantan@gmail.com
<b>Date of this report</b>	05-11-2018

**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
Determine the effect of the harvested surface at landscape and territory scale on the composition and abundance of generalist and specialists raptors.				Our main finding is that forest specialist raptors and generalist species are present in the exotic forest plantations during all year. Three diurnal and four nocturnal raptor species, including the Chilean hawk, variable hawk, Chimango caracara, Magellanic horned owl, Austral pygmy owl, rufous legged owl and barn owl, were recorded during point counts.
Evaluate the effect of the disposal of logged areas vs. forest areas (native + exotic) on the abundance of generalist raptors and specialists.				
Evaluate the potential of generalist raptors and specialists as indicators of bird richness in exotic forest plantations.				

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

The main problem was to access to the sampling points. We used the roads of forestry companies but in some cases, we do not had the access to private lands of other companies. This increased the expenditure in fuel because we need to search other sampling points far from selected points.

We expend many hours in field work for obtaining access to private lands.

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

1. Population ecology of raptors

We obtained information about the abundance and densities of diurnal and nocturnal raptors in forest plantations for the first time in Chile. No studies are made in this habitat at landscape and territory scale.

2. Conservation

Information obtained will be used to provide conservation and management measures to forest companies. During this study we provide information about the

nesting activities of raptors to the companies and recommend to stop the harvest in the areas nearest to nests.

### 3. Communication and outreach

During the Chilean Congress of Ornithology in 2017, we organised the symposium: "*Raptors in Anthropized Forest Landscapes: Current knowledge, experiences and challenges*". Also, we gave a talk during this symposium which was entitled: "*Nocturnal raptors in productive forest landscapes in Chile*"

During November 2018 in the Annual Conference of the Raptor Research Foundation we will give a talk entitled: "*Raptors in Forest Plantations: Effects of Landscape and Territory Structure*"

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

We work with the forest rangers in the study area. These rangers work for the companies but they are local persons. We had contact all the time with them and had discussion about the importance of conserving birds and talk about the biology of the species. Also, this project has allowed us to expand our contact network with local people, the people of Trongol locality, a native community.

### **5. Are there any plans to continue this work?**

The support of Rufford was used for the 2nd year of project. This was the final year. However, we have a strong commitment with the raptor's conservation in South America. We expect to work with other species in other countries of the continent.

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

The participation in conferences is the main form. At the present, we are collaborating with the Chilean Environment Ministry in a campaign of education about raptors. Finally, we are planning to communicate our results to a broader audience during a seminar organised by the Chilean Environment Ministry during November. Talks in schools will be realised.

### **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 project began in April 2016. The Rufford grant was used for the second part of the project, during July 2017 to September 2018.

**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
Equipment	1,200	1,235	-35	Utilised for a GPS and binoculars.
Accommodation	1,000	900	100	Used for hostel in working areas.
Fuel/travel	1,500	1,813	-313	Fuel, motorway toll and travels from Santiago to Arauco/Constitución
Food and subsistence	1,300	1,321	-21	
<b>Total</b>	<b>5,000</b>	<b>5,269</b>		

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

The knowledge about raptors in forest plantations around the world is scarce. Particularly in Chile, the forestry industry had a big responsibility with the conservation of native forest remnants and fauna that inhabits the plantations. Our first objective from now is to transfer the information obtained in this project to the industry. We believed that the conservation in this novel ecosystem is possible. Further research questions are formulated: Are raptors using the plantations in replacement of native forest? Is this habitat capable of maintains healthy populations of raptors? What happen with species when the plantations are harvested?

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

Yes. We used in the presentation of two works during the Chilean Congress of Ornithology in 2017. Also we will use it during the Raptor Research Foundation Conference in 2018.

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

**Oscar Chacón.**

Help with the field work.

**Sergio Alvarado**

Help with the data analysis and field work.

**12. Any other comments?**

We would like to thank the support of the RF. We will send you articles and outreach material.

