

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	Alejandro Ganesh Marín Méndez
Project title	Large-scale mammal community assessment within the Janos Biosphere Reserve, Chihuahua, Mexico. Knowledge for conservation decision making
RSG reference	20746-1
Reporting period	December 1, 2016 – December 5, 2017
Amount of grant	£4995
Your email address	ganeshmarin@ciencias.unam.mx
Date of this report	December 5, 2017

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
Actualization of the list of mammals in Janos Biosphere Reserve				We captured 14 species of rodents, identified five species of ground squirrels, 12 species of carnivores, two species of deer and one species of peccary.
Description of community structure for small mammals				We identified an upper mountain and grassland small mammal communities with a mixed community at oak forest.
Habitat use models for medium and large size mammals				We developed the habitat use models for seven species of carnivores. For the other five species, we did not get enough records to run models.
Identification of potential conflict sites between humans-carnivores				We identified illegal hunting activities in communal lands and puma lethal control on a cattle ranch.
Mammal's management recommendations				We gave recommendations for carnivore management to a community and the cattle ranch managers. We also had a meeting with the authorities of the reserve to include these recommendations in the actualisation of the management plan of the reserve.
Implementation of management recommendations				In the communal lands where illegal hunting was a problem, the locals reinforced the access permissions for the lands and patrol their territories more often. About the puma control, we had talks about the benefits of have a healthy predator community and the consequences of puma control, like meso-predator release (coyotes). Finally, the process of include the recommendations in the management plan of the reserve, requires the revision of all the parts of the reserve, so it will take the first semester of 2018.

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

The small mammal summer fieldwork was not possible to realise as the narco traffic activities in the zone increased dramatically and it was not possible to ensure the security of the participants. Fortunately, we can work in the grasslands and due high captures rates in preceding seasons we accomplish the completion of the community according to species accumulation curves.

For the spring fieldwork, we had already lost six camera traps due to black bears. Fortunately, we considered this could happen again and we have three extra camera traps quoted by Rufford - we just had to buy three more camera traps to keep the sample effort in the next seasons.

In this last fall carnivore fieldwork one truck failed and was not able to get to the top of the mountain, we had to extend the fieldwork to recuperate all the camera traps and the info.

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

- 1) We characterised the mammal community in Janos Biosphere Reserve. This characterisation will allow us to make conservation decisions in different forest types, altitudinal range zones and focused for each kind of land tenure.
- 2) We submitted the conservation recommendations in the next Management Action Plan of the Biosphere reserve that will be revised and approved on next year.
- 3) We gave detailed information about the mammal community and management actions for conservation to local stakeholders and ranch owners.

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

One of the compromises with local land owners to get the permission to work in their lands was to give to them technical reports during each fieldwork season. These reports allow them to know about the presence of cryptic species of carnivores, the high diversity of rodents they have and the implications of their carnivore management. This last issue give us the opportunity to hold frequent meetings with them to explain the interaction between pumas and coyotes, and how the eradication of the first could promote the rise of the populations of coyotes, which are more prejudicial to cattle business. For the communal lands stakeholders, the project made them realise the rates of illegal hunting in their properties and take action in the access permissions. Finally, all the information we collected they have for future use and the development of conservation projects they want to run.

5. Are there any plans to continue this work?

Yes, we are planning to run the same wildlife monitoring in a different ranch in the region. Also, we will continue with the inclusion process of the recommendation actions in the management plan in coordination with the National Commission for Natural Protected Areas. In other hand, we are proposing and finding funds to install towers for early wild fire detection, support and increment the number of anti-wild fire brigades and regulate the forest extraction in communal lands.

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

We already give four talks sharing the results and advances in the local high school, and one seminar for undergraduate students in ecology and conservation at National Autonomous University of Mexico. Also, I presented the general situation in the Mexican Senate, where I participated in a youth conference about climate change and biodiversity.

On other hand, we are now preparing two scientific articles about the small mammal community and carnivore community in the Janos Reserve. Last month we got one feature in the most important national TV broadcast about the projects we have in the region, where videos of this project appear. Finally, I plan to present the results in the next North America Congress for Conservation Biology in Toronto, Canada.

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

N/A

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.

Average exchange rate: 1 sterling pound = 25.80 Mexican pesos

Item	Budgeted Amount	Actual Amount	Difference	Comments
8 personal round flight Mexico City – Janos Chihuahua	1601	1410	-191	Due security reasons we can't do one part of the fieldwork for small mammals. We did not use 1 round flight.
24 fuel tanks	1320	1260	-60	Due security reasons we can't do one part of the fieldwork for small mammals. We did not use 1 1/2

				fuel tank.
26 weeks food and supplies	1360	1300	-60	Due security reasons we can't do one part of the fieldwork for small mammals. We reduce the fieldwork time 2 weeks.
Pesola Light-line spring scale	30	30	0	-
30 batteries AA Duracell Quantum	360	360	0	-
3 camera traps Model Cuddeback E3	324	650	+316	We have to replace 6 camera traps removed and destroyed by bears. We budgeted 3 cameras so we have to buy 3 extra cameras to complete the sample effort for medium and large mammals.
Totals	4995	5010	+15	The money we didn't use for the realization of part of the fieldwork for small mammals was used to buy the 3 extra camera traps. Also, difference of £15 was completed by other funds.

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

I think that one of the critical steps is first, to accomplish the legal integration of the recommendations we give for mammal conservation in the reserve management plan. Another important step is to expand the wildlife monitoring in the region as the importance of this mountain portion of the reserve for the connectivity of big mammal populations across Mexico and United States is crucial. Finally, another important step is to comprehend more about the movement of carnivores along the mountains in order to identify wildlife corridors and enhance the protection against. I also want to contact land owners who want to develop in their lands a long-term mammals monitoring. In this last step, we have already had meetings with a private land owner in Sonora who is interested in this proposal in collaboration with Phoenix Zoo conservation department.

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, the Rufford logo was presented in all the seminars and speaks I gave about the project. It was presented for approximately 200 high school students and 50 undergraduate students. It was presented in the Mexican Senate for two senators and 50 persons involved in policy making decisions and youth conservationist.

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

Dr. Rodrigo Sierra-Corona

Director of the Janos Biosphere Reserve Conservation program - Rodrigo collaborate in most the fieldwork seasons. He facilitated the stay at the research station and logistics during fieldwork. He also contributed with the permissions to do the project and help in data analysis, conservation recommendations and to redact the informs and reports.

Dr. Eduardo Ponce-Guevara

Director of monitoring projects in Janos Biosphere Reserve - Eduardo collaborate in most of the fieldwork seasons. He facilitated logistics during fieldwork. He also contributed with the permissions to do the project and help in data analysis, conservation recommendations and to redact the informs and reports.

Biol. Ricardo Rivera-Reyes

Fieldwork partner - Ricardo collaborate in all the fieldwork seasons. He was responsible for the taxonomic identifications, study design and database management for small mammals.

Jorge Luis Diaz Garcia

Field technician - Jorge collaborate in all the fieldwork seasons. He facilitated logistics during fieldwork.

Inocente Sarellano

Field technician - Inocente collaborate in all the fieldwork seasons. He facilitated logistics during fieldwork.

Biol. Dulcinea Barraza

Field technician - Inocente collaborate in three fieldwork seasons. He facilitated logistics, help in administration and acquisition of the material.

Biol. Daniela Cafaggi Lemus

Fieldwork volunteer - Daniela collaborate in one fieldwork season, collocating camera tramps, tramps for rodents, and she manipulate wildlife.

Biol. Vania Olmos Lau

Fieldwork volunteer

Biol. Sabine Cudney Valenzuela

Fieldwork volunteer - Sabine collaborate in one fieldwork season, collocating and quitting camera tramps.

Biol. Demian Ulloa Almiralla

Fieldwork volunteer - Demian collaborate in one fieldwork season, collocating and quitting camera tramps.