

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	Luis Roberto Viquez Rodriguez
Project title	The effect of large scale migration and food source changes on the gastrointestinal microbiome of the lesser long-nosed bat (<i>Leptonycteris yerbabuena</i>)
RSG reference	18771-1
Reporting period	2016-2017
Amount of grant	5000
Your email address	luisviquez@gmail.com
Date of this report	01.03.2017

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
Conducting field work for spring and winter season in 2016				The field work was conducted without any problems both in Pinacate Sonora and Chamela, Jalisco.
Obtaining 300 samples from Lesser Long Nosed Bats				All samples were collected and stored and we are in the process of exporting the remaining samples to Germany for the final analysis
Explore the region for new colonies				This was not one of the original objectives of this project; but during the full moon phase we screened the area for new potential roosts. We manage to rediscover a roost that had been documented as inhabited in early literature. In collaboration with the PCMM we are now in the process of designing a monitoring strategy for this roost.

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

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

I was able to obtain a good amount of samples from the bats in the different time points. These samples will allow me to explore our questions in full depth and consequently, provide the local conservation actors with quality information about the immune conditions of the bats during the annual cycle. This information is critical for planning e.g., timing of managing actions, tourist visits, agave harvesting times, etc.

I was able to coordinate my fieldwork with a network of young researchers, from four different countries and institutions, including other Rufford awardees. We understand the scientific and logistic challenges of our work and by teaming up we were able to support each other in achieving our goals. As a consequence of this experience, we are currently starting to develop a strategy to secure funds as an informal research group.

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

During the last field visit, I participated in the Biological Station (Chamela) Open Doors event. In this event, the station is for one weekend open to anyone who would like to visit the station and meet the researchers working in the area. For this event I prepared an exposition about bat ecology, ecosystem services for showing the local community what we are doing and why it is important to preserve bats and the ecosystem services they provide. During this activity we engaged with people from all ages and backgrounds; ranging from the inhabitants of neighbouring communities of the station to tourists of different nationalities. In total, we received in our booth more than 200 people showing interest in our work. All in all it was a really gratifying experience for me and my team.

5. Are there any plans to continue this work?

Yes, I still have one more field season this year where we will revisit both sites in spring. As we rediscovered a roost of the species that has not been explored in the last 50 years, we are currently designing a monitoring strategy for this roost. This roost is located in Colima state, about 200 km from the Isla Panchito roost in Chamela. While conducting this project, new questions emerged from the data we have already obtained and for a second part of my PhD dissertation I am planning to go back to the Pinacate volcano for conducting experiments with the cacti and the different species, including not just bats but also the birds and moths that are feeding on their flowers.

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

My results will be shared in two or three scientific papers at the end of my dissertation. Additionally, I plan to participate in one or two scientific conferences related to my field of study. In terms of the general public, once I have the highlights of my results; I will write a blog entry for the website of our collaborators in Mexico. I also plan to use existing contacts to science media outlets to reach a broader audience. In México, we work closely with the Mexican Program for Bat Conservation (PCMM), a group that over the last years has developed several environmental education textbooks about bats and their contribution to the ecosystem. I will explore with them the possibility of including the info obtained from my results in their next book about nectar feeding bats. In all the described activities, RSG will be properly acknowledged.

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 as described in the original time plan of my proposal. No major changes to the scheduling were necessary. All activities for which the funding was used are embedded in the first year of my PhD.

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
Lodging on site	1500	1500	0	All expenses went according to the plan
Local Transport (car Rental +Petrol)	2400	2950	550	Difference was covered with money from my stipend and it is so large, because I had to pay for a couple of flights for the field assistants that were not included in the original budget.
Local Field Guides in each site	1100	1600	500	The difference was covered by another grant (Elisabeth Kalko Stiftung)
Total	5000	6050	1050	This budget includes only the expenses that were requested from RSG. Other expenses (international flights, field equipment, food, etc.) were included in the budget from another grant (Elisabeth Kalko Stiftung)

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

I have one more field expedition in May and then I will proceed with the genomics and bioinformatics analysis in the laboratory in Ulm. In Spring 2018 I will probably go back for a short period to the field in order to conduct experiments on social sharing of microbiome between all visitors to cactus flower, including bats and moths. This leaves me a full year to write and submit papers and my dissertation.

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?

I used the logo in two oral presentations during the International Bat Research Meeting 2016 in Durban South Africa. I presented two talks about the importance of the study of migratory species. In both presentations, the RSGF logo was displayed on the title page and the foundation was verbally acknowledged.

11. Any other comments?

I could not have completed this first phase of my project without the generous support of RSG. It is particularly difficult to secure funding for conservation work that is not based on "on site" conservation, and the Rufford grant gave me the chance to explore my questions and obtain this information that will be vital for the upcoming recovery plan of the species. I therefore would like to cordially thank the RSG foundation for the funding provided for my project!

