

## 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. 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**

Grant Recipient Details	
Your name	Carlos A. Mancina
Project title	Effects of Hurricanes on bat populations in the “Sierra del Rosario” Biosphere Reserve, Cuba: a long-term monitoring study.
RSG reference	36.10.08
Reporting period	Whole study
Amount of grant	£6000
Your email address	<a href="mailto:mancina@ecologia.cu">mancina@ecologia.cu</a>
Date of this report	August 30th 2010

**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
To continue the species inventory and the long-term ecological research on the bats of "Sierra del Rosario" Biosphere Reserve.			Fully achieved	
To explore the effects of the hurricanes on the bat populations of Sierra del Rosario Biosphere Reserve.			Fully achieved	
To publish an educational-scientific book of our results about bat assemblages of the Reserve.		Partially achieved		The text and the images are available, but I am having difficulties in printing. I am dealing with an editorial house but due to their priorities and several material limitations they don't warrant to me the editorial work until at least three months.

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

Due to the bad weather two field trips were shorted than planned.

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

1. Short-term responses of Cuban bats to hurricanes.
2. Diversity and long-term dynamics of bat assemblages in forests of the "Sierra del Rosario" Biosphere Reserve.
3. An educational book about "Bats of "Sierra del Rosario" Biosphere Reserve. Also we have gathered information and photos for the elaboration of didactic materials for educational initiatives targets to rural communities on important areas for bat conservation.

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

Several local people collaborated with us in the fieldwork. In May 2009, I imparted an educational talk to conservation workers of the reserve. I am preparing a book and poster of the bats of "Sierra del Rosario" Biosphere Reserve that will be an important contribution to the environmental education of the community.

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

Of course, I would like to evaluate to long term the effects of the hurricane on reproductive success and other population parameters of the bats on “Sierra del Rosario” Biosphere Reserve. I would to study other protected areas of Cuba with a similar protocol in order to have a comparative baseline.

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

The results of this project will be submitted in two manuscripts for publication in peer reviewed journals (I would submit to Journal of Mammalogy and BIOTROPICA). I am preparing a popular article about our long term research on the bats of the Sierra del Rosario Biosphere Reserve to the Newsletter of “Latin American Program for Bat Conservation”. The book that I am preparing would be distributed through the rural communities and schools fundamentally in areas of high important for the conservation of bats.

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

I used the RSG for my research from March 2009 to July 2010.

**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
Field expeditions	2500	2300	-200	
Field equipment	1170	1300	+130	Given the bad quality of the available batteries for sale, I bought more batteries (9 V and AA alkaline) for the acoustic surveys.
Office materials	130	130		
Laptop computer accessories	700	760	+60	I bought also accessories for photograph camera.
Cost of book’s publication	1500	1500		
<b>Total</b>	5979	5990		

The exchange was 1 pound = 1.25 Convertible Cuban Pesos (C.U.C.).

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

First, to process and publish our results; after that look for funds for continue with our investigations in Sierra del Rosario and other Cuban areas.

**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?**

Yes, I have used the logo of the RSGF on my presentation at the “Red Latinoamericana para la Conservación de los Murciélagos” (RELCOM) in Costa Rica in December 2009 and two lectures about

Cuban bats and their conservation status given at the “Sierra del Rosario” Ecological Station and Instituto de Ecología y Sistemática in Cuba. I will use the logo in our book of the bats of Sierra del Rosario Biosphere Reserve and it will include in the book “Mammals of Cuba” in editorial process, due to some photos included were obtained with my Rufford grant. We will use the logo in educational materials related with the “Cuban Program for the Conservation of bats”.

**11. Any other comments?**

Thank you for support our research.