

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. 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. 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	Antonio Cádiz Díaz
Project title	Starting the first long-term acoustic monitoring program of amphibians in Cuba
RSG reference	17126-1
Reporting period	May 2015-May 2016
Amount of grant	£4847
Your email address	tonycadiz1980@gmail.com
Date of this report	June 15, 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
To monitor the breeding activity of an amphibian assemblage in Sierra del Rosario National Park using Automatic Recording Units and Environmental Data Loggers.				
To develop educational activities, and to make educational materials in order to raise awareness about the value of amphibians				

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

1- One automatic recording unit (SM3 – Wildlife Acoustic Inc) had problems to record at the beginning of the project, resulting in recording files not following the programmed schedule for more than 2 months. Fortunately, I was invited to England where Wildlife Acoustic has a branch. I took the recorder with me and their staff fixed the problem, related to the software of the device, at no cost (thanks to the Warranty Service). From then, the recorder worked perfectly.

2- The processing of acoustic data is rather slower than expected. This is compensated with the fact that the computer obtained with this project is 100% devoted to this task, making the goal achievable.

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

- This project is the first one in Cuba that successfully accomplishes an intensive and continuous acoustic monitoring of an amphibian assemblage. As a result, nearly 1300 hours of high-quality recordings have been obtained, targeting several endemic species of Cuban frogs. At the same time, we obtained climatic data for the entire period, which is a key complement for understanding the reproductive dynamic of the amphibian assemblage. These recordings are now located at the Faculty of Biology of Havana University, and will be available for re-analysis (if need it) and further research. We are now processing this large data, and students of the Faculty of Biology of Havana University presented some preliminary results for one of the several

species studied. Our data will serve as reference for understanding long-term population fluctuation in order to determine the status of amphibian population in the area.

- Two posters were designed. One of them contains high-quality photos of all local species (all photos but one were taken by me, thanks to this project) and indicates their conservation status (in Spanish) regarding IUCN criteria. The other one was designed to target a broader spectrum of public and includes the following educational questions (also in Spanish): a) What is an amphibian?, b) Why should we protect them?, c) Why are they in danger?, d) How many species are in Cuba?, and e) What can we do to protect them? These posters were distributed within the reserve (main offices and one local school), as well as at the Faculty of Biology of Havana University. In addition, partial results were presented during a conference about Cuban Amphibians and Reptile Conservation at the University of West of England, UK.
- We worked toward the capacitation of local staff at the protected area. I presented a seminar explaining the urgent need and the importance of monitoring amphibian populations. The Director of the protected area was present during this activity. In addition, I trained the staff in two ways. First, by a theoretical approach I showed the main ecological and morphological characteristic of local amphibian species. Second, through a practical approach I trained in the identification of species both morphologically (adults and larval stage) and acoustically. Besides, educational materials (Power Point presentations) were made and given to the staff of the Reserve who is in charge of the environmental education for its continuous use with local students. We conducted practical educational activities with children, during which they were able to search for and handle local species of frogs and toads.

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

The participation of the local community was achieved by means of incorporation of students from a local primary school who were involved in educational activities. Also, two of the rangers working at protected area also live within the local community. They were involved in fieldworks and in training activities in general.

5. Are there any plans to continue this work?

Yes.

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

At the time of completing this report we are still processing the information in order to prepare a paper for submission. We obtained high-quality and very valuable data. Thus, we are confident that it will be accepted for publication in a peer reviewed scientific journal. Also, the implementation of the communication activities contributed to sharing our results. Additionally, the results will be presented in both national and international meetings. Thanks to the positive relationships with the Biosphere Reserve Sierra del Rosario, I have been invited to conduct additional visits to the area, to extend the educational activities (especially with students of primary schools) during the approaching raining season (when amphibians are more active and thus we can include practical activities with children). I will also present the results in a conference about Conservation of Cuban Amphibians, next October during a conference at American Museum of New York.

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

The funds were used during the period that was planned: 1 year.

8. Budget: Please provide a breakdown of budgeted versus actual expenditure and the reasons for any differences.

Item	Budgeted amount	Actual amount	Difference	Comments
1- SM3 Acoustic Recorder with external power cable (2 units)	1165	1160	+5	
2- Environmental Data Loggers (2 units)	255	255		
3- SD cards_32 GB (4 units)	75	120	-45	I bought 8 units of 16 GB instead of 4 units of 32 GB.
4- Batteries D (50 units)	60	60		
5- Batteries AA (96 units)	90	90		
6- Song Scope Software	315	315		
7- Hard Disc 1 tera (1 unit)	65	70	-5	
8- Laptop computer (1 unit)	450	500	-50	Price varied in the market
9- Marantz PMD661 portable recorder (1 unit)	410	410		

10- Sennheiser ME66 microphone (1 unit)	315	315		
11- Hiking Boots (2 pair)	80	80		
12- Head Lamps (2)	70	70		
13-Pamphlets (50 units)	145	145		
14- Transportation	512	600	-88	Additional field trips.
15- Food and water	440	500	-60	Additional field trips.
16- Contingences and equipment shipping costs	300	70	+230	Were used for covering additional field trips.
17- Educational activities	100	100		
TOTAL	4847	4860	-13	

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

I think it is important to amplify this project and replicate it in other areas in Cuba. Most of Cuban amphibian fauna are concentrated in eastern Cuba. Thus, I believe that it is crucial to extend both the monitoring effort and the educational/capacitation activities to the most important protected areas in Cuba in regard to amphibian biodiversity.

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. The logo was included in two posters (described in section 3 of this report). It was also included in a conference about Cuban Amphibian and Reptiles Conservation at the University of West of England and during the presentation of partial results by students at the Faculty of Biology of Havana University. It will be also included in another conference about Conservation of Cuban Amphibians, next October during a conference at American Museum of Natural History of New York.

