

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	Martin Boullhesen
Project title	Hearing dusk melodies: establishing the first real-time monitoring program of anuran in Yungas Forest.
RSG reference	22246-1
Reporting period	1 st of August 2017- 23 of July 2018
Amount of grant	£5,000
Your email address	martinbullen01@gmail.com
Date of this report	25/07/2018

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
Acoustic monitoring				A complete year-round of the acoustic recording was implemented in Calilegua NP.
Field work Activities				A complete year-round of fieldwork was implemented in Calilegua NP.
Educational Activities				Two educational activities were implemented during 2018.
Workshops with local guides and communities				Workshops will be performed on October 2018
Park Ranger Workshop				A 1-day workshop was carried on March 2018 at El Rey National Park, with the participation of park rangers of four protected areas of National Park Administration of Argentina (Baritú NP, Calilegua NP, El Rey NP, Nogalar de Los Toldos NR).
Audio-visual field guide				The edition of the audio-visual field guide will be finished by the end of September 2018.
Data Analysis				Data analysis will be completed by October 2018.

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

Maybe the most unexpected difficulty was the yearly inflation rate of 29,5% that experienced the Argentinean economy, and because the original amount of the grant was converted to Argentinean currency, these made very difficult maintain the original budget allowed to field campaigns.

Fieldwork for one site was interrupted in January and resumed in February 2018 due to the adverse climatic conditions that occasioned a river flood.

We also experienced the failure of two data loggers for environmental variables due to the harsh weather conditions.

The overwhelming amount of bioacoustic data produced by the ARDs (of about 120 GB) was impossible to process manually for the analysis, to the date we only could process the total of recordings of one location and a quarter of the other two locations.

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

Maybe the most outstanding result of the project was the plausible record of vocalizations of the conservation target, the Calilegua's marsupial frog. The bioacoustics record still needs to be confirmed, because the registered individuals called far away from the effective range of the recorder and combined with the environmental noise, made it impossible a positive identification. Nevertheless, this find gave to our project a huge media exposure.

We accomplished the year-round of bioacoustics recordings and environmental registries in Calilegua NP. This new methodology will provide reliable data on anuran diversity inhabiting the protected area. We will use this data for the edition of the audio-visual field guide.

We reinforced the commitment of Calilegua NP authorities with the conservation of Calilegua's marsupial frog also, we began to collaborate with a long-term monitoring programme with park rangers. We increased the native amphibian awareness among San Salvador de Jujuy habitants and scholar students.

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

We noted a good reception of the general public to an audio-visual stand that we presented on two occasions. The projection of images of amphibian species accompanied with its respective advertisement call generated an unexpected reaction in the audience. We consider these audio-visual platforms as a very good way to engage people and change their perception of the importance of preserve the amphibian diversity.

5. Are there any plans to continue this work?

We not only plan to continue for the search of Calilegua's marsupial frog, we will also plan to expand the search for the missing Baritú's marsupial frog in Baritú NP and to start to gather information about the conservation status of the rediscovered populations of La Banderita marsupial frog in Campo de Los Alisos NP. We want to establish the three species of marsupial frogs of Argentina as flagship species of amphibian biodiversity conservation in Southern Yungas ecoregion.

We identified the need to providing bioacoustics inventories as baseline data for amphibian diversity conservation in the protected areas of southern Yungas ecoregion. Also, this information is crucial for the visitors of the protected areas, because anuran calling is the best way to bring to the general public information about the amphibian diversity.

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

We plan to finish the audiovisual field guide and make it freely available to download.

We will present two scientific works, one in the Argentinean Herpetological Congress on October 2018 and one in the Bolivian Herpetological Congress in La Paz on November 2018. We are also compiling the information for one peer-reviewed scientific paper to be submitted after the end of 2018.

In addition, will share our photos and audio files to Calilegua NP visitors by mounting a rotary exposition at the visitor's house.

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 implemented between the 25 of August 2017 until the present day.

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
Workshops	325	150		
Field campaigns	1600	0		Field campaigns budgeted was lower than the real costs.
ONSET® HOBO U23 Pro v2 T/Rh data loggers (3 units)	360	0		
Maha MH-C808M Charger	85	0		
Set of 4 10,000mAh D Powerex Rechargeable Batteries (6 units)	400	0	54	
128GB SDXC Class 4 Flash Card (3 units)	230	0	9	
Wildlife Acoustics Recorder Song Meter SM4 (3 units)	2000	0	60	

The differences in the item's amount where destined to cover the field campaigns. This was needed due to Argentinean inflation experienced during the grant period and the currency change by the Argentinean Central Bank.

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

We will look for more funding in order to expand our conservation efforts with the three species of marsupial frogs and anuran diversity in other national parks of northwest Argentina. We need those funds to purchase more field equipment (automatic digital recorders and weather variables data loggers), field surveys and generation of outreach materials (child books, mobile apps, etc.).

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 The Rufford Foundation logo at the first workshop in El Rey National Park, in the San Salvador de Jujuy, street exposition and in a scholar class at the same city.

Global Wildlife Conservation made a blog story of our conservation work. We encouraged this organization to outline The Rufford Foundation, as the keystone of this project. (<https://medium.com/@LostSpecies/the-call-of-hope-217628bc285a/>).

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

Mauricio S. Akmentins: Principal collaborator, working on all the objectives, particularly in the field surveys.

Laura C. Pereyra: Helped with the statistical analysis of the results.

Marcos Vaira: Advisor of my project and collaborated with one workshop at El Rey NP.

Diego Bombelli: Provided with field assistance and collaborating with conservation field work at Calilegua National Park.

Lucía Brunetto: Provided logistics for the field work at Calilegua National Park.

12. Any other comments?

We are very thankful to The Rufford Foundation for providing with a small grant to help with our conservation work at Calilegua National Park.

