

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	Miguel Landestoy
Project title	Ecology and Conservation of endemic Hispaniolan Toads (Bufonidae) in the Dominican Republic, with emphasis on a critically endangered species
RSG reference	15145-1
Reporting period	September 2014 to July 2015
Amount of grant	£6,000
Your email address	mango_land@yahoo.com
Date of this report	05 July 2015

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
Rediscovering the "lost" toad <i>Peltophryne fluviatica</i>	X			Despite more than 11 trips carried to known sites as well as potential sites where the species should be found during the project timeline, no signs of this critically endangered species were found
Rediscovering the "lost" toad <i>P. fracta</i>			X	We rediscovered this species in 2011; we found more individuals during the current project timeline, including females and recently published our findings (http://www.ircf.org/journal/wp-content/uploads/2015/06/RA-22.2_50-55_Landestoy-Ort%C3%ADz_print.pdf).
Learning on non-breeding activities on <i>P. fracta</i>		X		Males were found in burrows at a local garden. A female was seen foraging on sod in same garden.
Natural history information on <i>P. guentheri</i>		X		We gathered data on larval development, foraging and dispersal of juveniles, and thermal behaviour of adults
Radio-telemetry on <i>P. guentheri</i>		X		The limited amount of data served to give us an idea on the habitat use and spatial ecology of the most common species.
Educational and promotional activities on the project in the community near the type locality of <i>P. fluviatica</i>			X	Two talks were given in the community. A technical talk was given as part of a training session to the protected area personnel. Thanks to our activities, the people from near the type locality are aware of the project and the need to conserve our local biodiversity.
Training personnel from the protected area near the type locality			X	This includes the four rangers, plus four brigade members and the manager. We intend to continue the training in further trips, as well as in other study sites around the country (Higüey and Pedernales).
Captive breeding initiatives		X		The programme at ZODOM successfully risen tadpoles to toadlets now 36 mm of snout-vent lengths. It has maintained adult toads (<i>P. guentheri</i> and <i>P. fracta</i>) for 9

				months and next effort is to attempt successfully breed both species.
Build up a list of the bird fauna and herpetofauna in the type locality of our main site			X	We have delivered the lists to the pertinent authorities at the Ministry of Environment and to the manager of the protected area so they can show/share to visitors.
Bd sampling		X		We got more samples from other localities and other species (<i>P. fracta</i> and a new species). Permits are in process in order to export samples for analysis.

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

The main issue was the prolonged drought, likely influenced by El Niño phenomenon (<http://www.onamet.gov.do/descargas/2014/MAYO2015.pdf>), which has extended to the current year. However, we had some reproductive events of toads in the main study site and other areas.

In view of the little rain events at our main study sites, we travelled to other areas where the other species are found. To our disadvantage, localities are far between each other, and generally distant from the country's capital. Furthermore, the far eastern site lies in a tourist region, and prices are relatively higher than the other areas. Thus, we had to partially cover the expenses these trips with personal funding, as this helped us set the base for further work.

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

- a) Local community near the type locality of our target species is now aware of the existence and importance of amphibians and the biodiversity near them, this includes the protected area personnel, who are now trained and who had no previous knowledge of the presence nor the importance of Hispaniolan toads before our arrival.
- b) Fieldwork activities gave us important insights on the natural history of the species and how to better study them on these arid environments (methodologies, conservation strategies).
- c) We now have a comprehensive overview on the conservation status of all the Hispaniolan toad species (Genus *Peltophryne*).

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

In the main north-western site (Río Gurabo, which is type locality of *Peltophryne fluviatica*, our target species), people now know of its occurrence in the area and the importance of conserving the habitat in and near the town. Most rangers of the Furnia de Gurabo Protected Area have carried fieldwork with us during the projects, and all participated in talks and training sessions about how to properly identify and monitor these toads. One villager was in charge of revising traps once every 2 days and received a salary from our budget. This person lives close to the river and we provided him with a camera so that he could document the river flow and any species he may find during his work. Also, some villagers served as guides when eco-tourists visit the area. In the eastern site (*Peltophryne fracta*), we intend to involve villagers in a similar manner and want to work more specifically with a family in whose property we have found several individuals of that endangered species. One of the family members can recognise the species as he has pointed out individuals to us. The same is intended for the southwest, where a new species of Hispaniolan toad was collected and is being described.

5. Are there any plans to continue this work?

Yes, this is just the beginning of a more geographically expanded project with a more intensive field component. We believe there is a great opportunity to develop a long-term project to help save the endangered Hispaniolan toads. Besides involving locals on our future searches and applying the use of automated data collection equipment during these searches, there is much more to be learned about the spatial ecology of these toad species. The historical data regarding the level of threat of these species, together with the data we've gather also warrants considering the development of an *ex situ* management plan.

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

We started providing lists of bird and herp faunas of the protected area to the environmental authorities (MARENA). Also, regional partnership has been created (CaribPARC), in which we participated and with which we could share our experiences. Publications of notes and articles in the scientific and conservation community are being published and more are in preparation.

Other media outlets, like printed press and social networks are being considered as methods of sharing our results.

We participated in the last amphibian conservation assessment (2011), and will attend to the upcoming Caribbean Reptile Red List workshop from the International Union for Conservation of Nature (IUCN) being given in Puerto Rico in July 2015. Part of our pertinent results will be shared in this and other related activities.

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

June 2014 to January 2015.

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
YSI water logger w/probe	232	235.3	-3.3	We chose a different device, the ExTech 341350A-P
4 Holohil Transmitters	413	413	0	We still have one (unused). The other units employed were not recovered from animals, due to that eventually went out of range.
Rented vehicle	1449	1661.1	-212.1	We budgeted for 10 trips, but went to other sites (7 more days) due low activity (drought) at our main sites.
Gloves for <i>Bd</i> fungus sampling (5 boxes)	19	19	0	See below
2 ml tube pack (500) for samples	46	46	0	See below (next)
Tube boxes	22	37*	-15	* Heavy promo material (first time customer) for this and the other two items above came with the package, which made the shipping cost very high for this purchase.
Fuel	846	964	-118	For those extra trips
Expenses for each participant by trip	1902	1972*	-70	* We stayed at one of our collaborators' place in a southern locality (no lodging charges)
Phone cards mobile	85	85	0	
Kestrel Weather Meter 4000	110	144.6*	-34.6	* We had to purchase a cable to download data, it stated erroneously that it had Bluetooth connection
3 2-way radios	71	71	0	
32 buckets traps	84	84	0	
Tape Measure	12	12	0	

Ethanol 95% 2 gals.	28	28	0	
Garden mesh for fencing traps	30	55*	-25	* We used a garden mesh instead of just a plastic sheet
Digital camera	38	38	0	
Voice recorder	24	24	0	
Local assistants labour fee	362	450*	-88	* Another assistant paid in a (southern) different locality
Total	5773	6339*	566	* 339 covered with personal funding. Other gear and material used was already owned or contributed by collaborators. The grant covered nearly 95 % of project expenditure.

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

Acquisition of automated data collection equipment (sound recorders, data loggers, rain gauges) to extend our work to other localities where toads are found. This will reduce the travelling expenses to all the (distant) sites.

Continuing radio-telemetry work and include all toad species. Our data suggests it is crucial to have continuous presence at the different study sites while tracking individuals, so we will plan for several visits and stay over at sites for several days in a row during radio-tracking). Training local assistants (with a salary) at each region (east, northwest, and southwest) to download the data remotely from the automated data collection equipment, which will reduce the expenses involved travelling while at the same time building local capacity and providing them an opportunity for supplemental income while at the same time ensuring that locals empowered by helping conserve their local biodiversity.

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?

Yes. We did use it in checklists (shared with the environmental authorities), and in talks, and will be used in any further media and materials (posters, social networks, etc.).

11. Any other comments?

We are greatly thankful to the Rufford Foundation for supporting our project. Although we were aware of the little information available on the species we are studying, it has been also pleasant to interact with the local perspective on such animals. How people call them properly "*sapos*" (translation for toads) in the region of our main study site, and "*ranas*" to frogs, whereas the usual, general local name for all anurans is "*maco*". Among fear and disgust, in more than one instance people even showed empathy for them.

In spite of the threats that all these species face nowadays, we believe there is hope and that is worth trying to understand them better in order to warrant their survival if situation becomes more critical.

In regard of our main target species (*P. fluviatica*), we acknowledge that the prolonged drought may be an inconvenient factor for the quest of this species. Or on the other side perhaps even convenient, would make us look at other localities were is not thought to occur.