

The Rufford 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	James DV. Alvarez
Project title	Ecology and Conservation of Bats in Mt. Guiting-Guiting Natural Park, Sibuyan Island, Philippines
RSG reference	19400-1
Reporting period	May 2016 to July 2017
Amount of grant	£5000
Your email address	jdalvarez1@up.edu.ph
Date of this report	July 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
Capacity building workshop				<p>One of the major goals of the project is to develop capacity for local researchers in Sibuyan Island to conduct biodiversity studies, particularly on bats, on their own island. In collaboration with another Rufford grantee (Camila Meneses), we have conducted a hands-on training workshop on methods in biodiversity studies. One session in the workshop was to identify research opportunities for researchers (both faculty and students) from Romblon State University and the Protected Area Office as well as potential funding sources.</p>
Field Survey for bat taxonomy				<p>Two sampling periods were conducted in different elevations of Mt. Guiting-Guiting – 1 month during the wet season (October-November 2016) and 1 month during the dry season (May –June 2017). Fifteen species were recorded during the sampling including three new island records. A stable population of endangered species <i>Nyctimene rabori</i> has been observed based on our capture data from mist netting. Species that belong to species complexes will be subjected to molecular analysis for verification of their identification.</p>
Education materials development				<p>A pictorial guide to bats of Mt. Guiting-Guiting Natural Park has been produced and submitted to the management of the protected area for their mass production.</p> <p>A training manual which includes a primer for bat surveys has been distributed to the participants of the workshop.</p>

Publishing and reporting				<p>This is not yet been fully achieved because we had delays especially in conducting the fieldworks and still currently processing all the specimens collected during the past field sampling. The data on insect abundance is quite overwhelming and may require more time to finish. Should the species list fit the qualifications of the journal <i>Check List</i> we will submit it for publication. Several popular articles on the activities in Sibuyan are submitted for publication on the museum website and other scholarly publications in the university.</p>
--------------------------	--	--	--	--

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

a) The first field sampling was delayed for almost 4 months after the award of the grant because of the delays in the granting of the permit from the Philippine Department of Environment and Natural Resources. The team was also not able to proceed with the wet season sampling (October-November) because of the activities set for the celebration of the 40th anniversary of the UPLB Museum of Natural History wherein the grantee has been assigned to several working committees. The second field sampling was delayed also due to conflicts within the local guide association in Sibuyan Island. The Protected Area Superintendent advised to delay until the conflict subsides. We also had to contact people outside of the guide association to serve as our guides and porters which also took a while.

b) The number of participants in the capacity building training decreased because of an untoward accident that happened few days before the training. A motor boat sank in Sibuyan Sea which caused the deaths of several individuals. This caused the participants from Romblon State University in Odiongan and Romblon, Romblon to back out from the training. Fortunately, several participants from Cajidiocan campus and the Protected Area Office participated in the training.

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

- a) Established collaboration with the local university and the management of the protected area for further biodiversity studies in the island. Through the capacity-building training, the researchers and students from Romblon State University are now drafting proposals to pursue field studies in their area and we are continuing on our collaboration with them.
- b) New distribution records at least four species bringing the number of bats in the island from 18 to 22 (plus three potential members of species complexes). We also documented stable populations of endangered

species *Nyctimene rabori* and *Pteropus pumilus*. We also documented the undescribed species of pygmy fruit bat *Haplonycteris* which are relatively abundant in the area.

- c) We have collected a fairly good number of individuals of echolocating insect bats to record voucher calls. This is very useful in characterising the species and describing them should there be new species.

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

Generally, the locals are afraid of bats and tend to kill them. Others hunt them for food. During the sampling periods, we hired nine local guides to assist us in the field activities. They helped in setting up mist nets and harp traps and later on learned to retrieve bats from the nets and traps. Several porters (60 people) were hired to bring our things, materials, equipment and supplies. Most of these porters are low-income farmers or fishermen.

The recipient of the training were researchers and students from a local university (Romblon State University) both the San Fernando and Cajidiocan campuses. Forest rangers from the protected area also participated in the training.

5. Are there any plans to continue this work?

The project has covered only one side of the protected area. The management of Mt. Guiting-Guiting Natural Park also seeks help to study the other side of the mountain particularly in San Fernando and Cajidiocan municipalities. There are newly opened trails that need to be explored first before opening them for mountaineers and hikers.

During one of the field visits of a colleague, they have observed that insect bats lived on empty bottles of soft drinks that were hung on branches. This opens an opportunity to pilot-test the use of bat houses in the Philippines to provide more stable habitats for bats. To my knowledge, this is not yet done in the Philippines and is a promising project to pursue. We are coordinating with the management of the protected area for future research and conservation programs in the area.

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

The initial results of the study has been presented at the meeting of the Protected Area management Board of Mt. Guiting-Guiting Natural Park. I was also requested by the Protected Area Superintendent to present during the municipal council meeting to support the Protected Area's proposal to expand the coverage of protection in the area. Several non-technical articles about the project will be published on the Museum's website (www.mnh.uplb.edu.ph) and the university magazine (<https://www.scribd.com/lists/3080334/UPLB-RDE-Digest>).

Several papers are planned to be published from this work and is aimed to be out by early 2018. A simple exhibit will also be established at the Museum of Natural History featuring the rich biodiversity of Mt. Guiting-Guiting as discovered from our recent exploration.

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

The RSG was awarded on May 2016. But we had the first fieldwork only in October – November 2016 due to several reasons: delays in the renewal of our permits from the Department of Environment and Natural Resources, delay in the arrival of Anabat detector procured from Australia, time to fabricate the harp traps. On September also, I was not allowed to leave the Museum because of committee works for its 40th anniversary celebration last 30th September 2016. Overall, the RSG was used from July 2016 to June 2017. We have not anticipated those delays so I had to request for the extension of the submission of the reports, even still some data are still being processed (i.e. insect collection which is quite overwhelming)

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. (1 £ sterling= 65PhP)

Item	Budgeted Amount	Actual Amount	Difference	Comments
Personnel Services	1700	2800	-1100	We had to hire field guides and porters to accompany us during the fieldwork as per requirement also by the Protected Area Management. Field assistants were also hired to ensure successful field sampling. Locals were afraid to handle wildlife so we had to hire field assistants who were trained on field techniques.
Travel expenses	250	300	-50	The Museum of Natural History provided assistance in hiring jeepneys.
Food Expenses	600	1000	-400	Additional funds for food were from The Awesome Foundation Grant (see last row)
Anabat Bat Detector	1100	1080	20	I had to procure the bat detector since another unit not suitable for long term recording was by IdeaWild.
Training Expenses	1000	0	1000	Another colleague from the Museum of Natural History shouldered the expenses for the training. She received a grant

				from the National Academy of Science and Technology. The budget allotted from the training was used for the food and travel expenses.
Purchasing of Mist nets	250	229	21	Mist nets were provided by the UPLB Museum of Natural History. Instead of buying mist nets, we have fabricated harp traps from local materials which is much cheaper than harp traps sold in the market. These harp traps are not sold in the Philippines and available only in the USA and Australia (~\$1500 per unit)
Other field materials	100	250	-150	We had to buy additional tarps, camping tents, and materials used in the field. These materials were deposited at the UPLB Museum of Natural History and are reserved to be used in future fieldwork.
TOTAL	5000	5659	-659	The grant was supplemented by the funds received from The Awesome Foundation ~£600 (http://www.awesomefoundation.org/en/projects/73901-in-search-of-batman-amazing-bats-of-sibuyan). The funds was used to pay for the food supplies and other field expenses.

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

During the fieldwork, we have experienced extreme weather conditions – persistent heavy rains and strong winds during the wet season and very arid during the dry season. Without caves, bats are exposed to constant pressure in having secured shelter. Heavy rains and strong winds can easily destroy foliage roosts where most of the recorded bats are roosting. One interesting observation is that bats occupied the empty plastic containers of soft drink that we left hanging upside down. We can probably establish bat houses in the forest to attract bats for roosting and therefore provide a more secure shelter and roosting area.

The training also resulted into a fruitful collaboration with Romblon State University. We are coordinating with their researchers so we can pursue further biodiversity studies in Sibuyan.

We are also organizing a simple exhibit at the UPLB Museum of Natural History about the rich biodiversity of Mt. Guiting-Guiting and Sibuyan Island in general.

**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?**

The RSGF logo has been used in the printed materials, tarpaulins and shirts used in the training and fieldwork. RSGF is also mentioned in every popular articles written for and by the grantee for publication in University-based publications and magazines.

11. Any other comments?

On behalf of the team, we are very grateful to RSGF for supporting this project. It is indeed a long way to go but the funds you provided paved the way to start a long-term research and conservation programme in Sibuyan Island.

Bats of Mt. Guiting-Guiting, Sibuyan Island

James DV. Alvarez

University of the Philippines Los Baños- Museum of Natural History

Family Pteropodidae (Fruit-eating Bats)



● *Haplonycteris* sp.



● *Cynopterus brachyotis*



● *Nyctimene rabori*



● *Pteropus pumilus*

Family Rhinolophidae (Horseshoe Bats)



● *Rhinolophus virgo*



● *Rhinolophus arcuatus*

Family Hipposideridae (Leaf-Nosed Bats)



● *Hipposideros obscurus*



● *Hipposideros antricola*

Family Vespertilionidae (Evening Bats)



● *Murina cyclotis*



● *Scotophilus kuhlii*



● *Myotis muricola*



● *Kerivoula hardwickii*



● *Pipistrellus javanicus*



● *Pipistrellus tenuis*

- Endemic Species
- Non-Endemic Species
- Endemic to Sibuyan

