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	Evans Ewald Nkrumah
Project title	Surveying for Ghana's critically endangered Robbin's house bat in eastern Ghana
RSG reference	19252-2
Reporting period	2018-2019
Amount of grant	GBP 5000
Your email address	evansewald@gmail.com
Date of this report	8th February 2019

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
Survey for *Scotophilus nucella*				The team was able to survey for the species in all possible habitats in the study area. Unfortunately, the species was not recorded.
Conservation Education				This was not fully achieved as direct conservation efforts for *S. nucella* was not carried out since the team did not record a single individual of the species.
Capacity building				University students received training in bat field experimentation.

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

One team member had a scholarship to pursue a master's degree in Canada and another had a full-time job making it difficult for the project. To solve this, one member was brought on board to replace the one who left for studies. This challenge affected our project as for example the team could not stay longer in the field (maximum 4 days) than planned. This led to many short field trips that was organised which significantly affected the project budget.

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

Absence of S. nucella at the study site*:* This project was aimed at locating new population of the species in Ghana aside the already known location in Mmem village in Western Region. The team would have been very excited to record the species somewhere else in Ghana for future genetic studies. Our survey did not record the species in Eastern Region. This however is an important result as future surveys can concentrate efforts in locating the species elsewhere. Importantly, our survey confirms Mmem village in Western Region as important locality for the survival of the species, and that, the limited conservation funds should target this population.

Update of local bat species list: With the exception of Atewa Range Forest Reserve, Eastern Region where the project was located had been surveyed for several decades. Now, the team has a working knowledge on the species of bats that can be found in this region. The team recorded a total of 15 species at the study site.

***Capacity building*:** This remains one of the most important outcomes of the project. As many as 20 university students were directly involved in the project. Aside the

special bat training organised in Kumasi for the students, others were taking to the field to learn about bat research during our surveys. Since the project extended beyond 1 year, this provided the opportunity to monitor students after the training. Currently, one student who was trained through this project is pursuing MPhil at the Kwame Nkrumah University of Science and Technology, and investigating how rubber plantations in Ghana affects bat activity. Also, four undergraduate students are currently writing their thesis on bat activity as a result of the training received from the project.

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

The local community benefited directly and indirectly from the project. The team did not work alone in the field. We requested the involvement of two local members from the communities where we sampled. The local members were involved in the field work as local guide. The project paid them directly for their services. Aside this, many project t-shirts were given out to the communities where we worked. This was done for two reasons: a) to create awareness about bats; and b) to appreciate their support for the project. The project also directly contributed to the local economy as we bought everything (food, water etc) we needed from the village where we worked.

5. Are there any plans to continue this work?

Yes, but since we did not sample the species, motivation to carry out further survey work has diminished. The team believes it would be better to concentrate efforts where the species is already known. The plan is to directly work at Mmem where the species is already known. The team is anticipating whether to focus efforts on some of the species recorded such as the African long tongued bat, a nectarivore, as we have already built the rapport with the communities.

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

A manuscript is currently under preparation for submission to a reputable journal. The focus of the manuscript is on conservation status of *S. nucella* in Ghana. This will include findings from this study.

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 anticipated project timeline was 1 year. The project was however carried out within two years. This was because it was difficult to assemble team members for the field due to changes in their career plans that got the team separated.

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
Reconnaissance survey	300	350	-50	Exceeded because of renumeration for community leaders. This was done to gain their support for the work.
Mist-netting and accessories	960	730	+230	Some equipment were hired, rather than purchased.
Cost of vehicle renting for field	840	1500	-660	7 short trips instead of 4 increased the budget significantly.
Subsistence for field team	1400	1500	-100	Exceeded because of student support during field work.
Conservation education and manuals	1050	550	+500	Conservation activity was cut to support field work.
Printing of T-Shirts	350	350	0	
Report Production	100	20	+80	Used to support field work.
TOTAL	**5000**	**5000**		1 GBP = 6.7 GHS

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

Our team believe that directed efforts to survey for a single species such as *S. nucella* is frustrating especially when you fail to record it. We think research and conservation efforts should rather target locations where populations already exist like Mmem in Western region of Ghana. Our team feels that, for *S. nucella*, priorities now should concentrate on understanding the ecology of the species at Mmem. Collaboration with other Rufford Small Grant-supported projects on the species at Mmem suggest imminent threats to their survival at that location. In our candid opinion, understanding their ecology and protecting the species at this location is in conservation interest.

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?

The team made sure the Rufford Foundation was publicised in project activities. For example, all our t-Shirts showed the logo of the foundation. Also, the Rufford Foundation would be acknowledged in all planned manuscripts supported with funds from the foundation. Aside this, videos taking from project activities when made into a short documentary would acknowledge the foundation.

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

Dr. Evans Ewald Nkrumah: He was the project team leader. He was in charge of bat field experimentation and training of students.

Mr. Ebenezer Gyimah: He was in charge of logistics and organisation field work.

Mr. Ransford Kofi Buah replace by Mr. Adu Prince: Supported Mr. Gyimah in planning field work and was also involved in field activities.

12. Any other comments?

We would like to thank the Rufford Foundation for supporting us through the Rufford Small Grant. Although our project lived 8 months passed its stipulated time of completion, it gave us the opportunity to know directly, that the support of Rufford Foundation goes beyond just a project. Some university students are now in love with bat research and conservation work from the training they received through the project. To us, this undoubtedly shows that the Rufford Foundation is creating the next generation of bat conservators in Ghana which would not have been possible without their support. Once again, we thank them for supporting bat research and conservation in Ghana.

Sampled nectarivorous African long-tongued bat.