

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

Your name	Ebenezer Kofi Badu
Project title	Survey And Conservation Of Pohle's Fruit Bat In The Eastern Region Of Ghana
RSG reference	14758-1
Reporting period	March 2015
Amount of grant	£5845
Your email address	Kofibadu2011@gmail.com
Date of this report	September 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
<ul style="list-style-type: none"> To assess the perception and conservation attitudes of people towards bats 			X	<p>By using structured questionnaires we were able to ascertain the perception and attitude of the people towards the conservation of bats from 135 individuals living in three communities bordering the Atewa forest Reserve. More than 60% of the respondents hunted and consumed bats. Also, about 70% of the people interviewed responded that we should get rid of bats because they think they provide us with no obvious benefits but host numerous diseases such as Ebola.</p>
<ul style="list-style-type: none"> To conduct a survey of bats in the Atewa Range Forest Reserve with focus on <i>Scotonycteris ophiodon</i> 			X	<p>Four field trips were carried out to survey for bats. Our target species <i>Scotonycteris ophiodon</i> (now <i>Casinycteris ophiodon</i>) was not recorded despite our efforts of using canopy-netting system. We however recorded two <i>Casinycteris</i> species which we believe are new to Ghana with one possibly new to the Upper Guinean forest. DNA samples have been sent to our German partners for confirmation of this cryptic group currently undergoing taxonomic review. In total we recorded 49 individuals belonging to five species of which only one was insectivorous species.</p>
<ul style="list-style-type: none"> To embark on sensitisation and education on the importance of bats in the environment to promote bat conservation 			X	<p>We used a combination of different approaches including; house-to-house outreach, church visits, powerpoint presentations and video shows to effectively reach out to and educate a larger population in the communities. The use of audiovisuals made the people really appreciate and understand our message. The education and awareness creation received healthy comments from individuals in the communities. About 600 people from the forest fringe communities benefited from our outreach and education programme.</p>

<ul style="list-style-type: none"> To embark on habitat restoration of some degraded sites around the Atewa forest 	X			<p>We could not embark on habitat restoration because we realised that all the degraded sites earmarked for restoration were owned by small scale miners who occasionally come back to mine the areas. This made it very difficult to secure lands to carry out this activity because the survival of seedlings could not be guaranteed after planting them in those areas.</p>
<ul style="list-style-type: none"> To engage in stakeholder dialogue to deliberate on how the remaining fragment of the forest can be preserved 			x	<p>The traditional leaders, assemblymen and unit committee members were very supportive. They attended the meeting in their numbers and made important contributions during the stakeholders meetings. Through our deliberations, we realised that there is already established Forest Protection Committees through the activities of previous projects such as the Community Biodiversity Advisory Group (CBAG), West Akim EcoNetwork. It was agreed that for these committees to be active, they had to be supported to carryout some of their advocacy campaigns and meetings.</p>
<ul style="list-style-type: none"> Build the capacity of young scientists in techniques in capturing and handling bats 			X	<p>Five university students were trained in bat field experimentation. This included bat capture, handling, taking morphometric measurements, echolocation and survey techniques. We also involved them in our education programmes.</p>

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

Ebola Outbreak: the outbreak of the Ebola disease in West Africa was a big blow to the project as it affected our timetable. Ghana had not recorded any case as of the time we intended to commence our fieldwork. However, Ghana was highly vulnerable for its role in the sub-region as business and tourist destination for most people. Therefore, the Ghanaian authorities took extreme precautionary measures to ensure that Ghana does not record any case. Intensive education on not coming close to bats, even led to the closure of some important bat caves that attracts tourist (<http://www.ghanaweb.com/GhanaHomePage/NewsArchive/Stop-eating-bats-monkeys-Ebola-is-no-joke-Mahama-330103>, <http://news.peacefonline.com/pages/health/201405/200866.php>, <http://www.rootsafrikiko.com/m/stories/view/Ebola-Scare-Health-Authorities-Order-Closure-of-Bat-Caves-in-Brong-Ahafo-Region-In-Ghana>). This development compelled us to reschedule our fieldwork involving bat capturing to the beginning of 2015 while embarking on questionnaires administration, community sensitisation and education at our study area to prevent the needless persecution of bats, which had been reported from some regions.

Delay in Equipment delivery: Unfortunately, by the start of the fieldwork in 2015, we did not have the option of using canopy nets. It was very difficult in getting this system. Finally, we had it through our German partners getting to the tail end of our field work. We however were able to use it only once on our field trip.

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

Bat survey:

Through our survey activities, we have a fair knowledge about the community of bats still using the forest. Comparing our results to previous studies carried out a decade ago we did not record our target species. Just like previous study, this present study suggests *Casinycteris ophiodon* may no more be present in this reserve. To add to this, we sampled two species in the genus *Casinycteris* which was not previously recorded. We believe one species may be new to Ghana and the other probably new to the Upper Guinea forest. If confirmed genetically, this will improve the conservation significance for the upgrade of Atewa Forest Reserve to a National Park where highest protect exist for species conservation in Ghana.

Conservation education: A higher percentage during our questionnaires administration advocated for the persecution of bats to get rid of Ebola as host. Thanks to the project, several educational activities were carried out to revolutionise the perception of the people towards bats through talks in churches, video show, presentation at community gatherings and house-to-house outreach. As a result, local communities are now aware of the significance of bats in the environment and the need to protect them and their habitat. Therefore, the project was able to build support and created a conducive atmosphere where the people appreciated bats and able to support their protection and conservation.

Capacity building: During the implementation of the project, we have been able to provide hands on practical training for young conservation scientists in bat capture, handling, morphometric measurements, and identification and survey techniques such as mist-netting and canopy netting. Also, one undergraduate student obtained data for his dissertations during the fieldwork.

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

The project implementation saw the involvement of the local communities in diverse ways. Firstly, before the implementation of the project commenced, a stakeholder meeting as a form of community entry was organised to introduce the project to the communities. Secondly, two local people were recruited as field guides to assist in our fieldwork. They were also involved in all our field activities. Furthermore, among the project objectives was to raise awareness and educate community members about the importance of bats and conservation of biodiversity. We are proud that through a number of conservation education activities such as video shows, church visits and house-to-house outreaches we have been able to educate and transform the perceptions of people about bats.

We also commissioned three persons from each community to serve as project organisers to mobilise community members during conservation education activity. These people did marvellously well in getting a lot of people to attend our meetings. We are very grateful to them and the communities for their maximum cooperation and support during the project implementation.

Community members that participated in our activities were given project t-shirts to promote the project in the community during our absence. Also, those that were involved in the project were financially rewarded for supporting the project. Lastly, we contributed the rural economy by investing most of the project income in the communities through accommodation and food for the team.

5. Are there any plans to continue this work?

Yes, there are plans to continue with this work. The focus will shift from survey to understanding the ecology of the two new *Casinycteris* species that were recorded. Conservation wise, the new project will collaborate deeply with A Rocha Ghana who have already establish a headquarters at one of the forest fringe communities to work with local stakeholders in supporting the upgrade of the reserve to a national park. Especially in acquisition of damaged lands from small-scale mining companies around the forest for reclamation and re-establishment of trees.

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

The data gathered would be subjected to statistical analysis in the coming months when we receive genetic confirmation about the new species and submitted to a reputable journal for publication. Also, some of the pertinent results from this project will be made available on the BATlife Ghana Website (www.batlifeghana.org) to give it a wider accessibility. Through Batlife Ghana, a stakeholder meeting would be organised pulling NGOs, government agencies and community leaders to present the state of Ghanaian bats for conservation action and this project will be presented. Also through Batlife Ghana, a video documentary has been created and will be shortly available on all social media and its website.

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

March 2014 to July 2015. The project was suppose to last for 12 months however, it was extended to cover about 18 months due to some unforeseen circumstances that affected our timetable. Nevertheless, we did not incur any extra cost as a result of the extension because it was just a period of inactivity.

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
Mist nets and accessories	650	500	150	Price increment
4 Led Lenser Headlamps Rechargeable batteries and chargers	200	90	110	Ideawild supported us with some items like headlamps GPS, camera and a computer
2 Eureka tents	250	0	250	Resorted to local accommodation to cut down cost to

				support budget lines	other budget lines
Field supplies	200	350	-150	Supported other budget lines	with other budget lines
Cost of hiring vehicle for 4 field trips	1040	1190	-150	Supported other budget lines	with other budget lines
Subsistence for 4 team members during 4 field trips	1120	1120	0		
Stipend for 2 field assistants for 4 field trips	400	400	0		
Cost of printing t-shirts and bat souvenir	350	385	-35	Supported other budget lines	with other budget lines
Cost of conservation education	400	475	-75	Supported other budget lines	with other budget lines
Subsistence for 4 team members during 10 days conservation education	1000	1000	0		
Cost of organising a workshop	235	250	-15	Supported other budget lines	with other budget lines
Total	5845	5760	85	Remaining funds donated to Batlife Ghana for web maintenance and documentary production on Ghanaian bats.	

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

Looking ahead, we will

- Replicate conservation and awareness creation program in all the remaining communities surrounding the Atewa forest reserve.
- Study the ecology of the captured *Casinycteris* species and determine their population in the forest.
- Build a strong collaborate with the Environmental Protection Agency (EPA) and A Rocha Ghana in the future for cooperative measures against illegal mining and the reclamation of degraded sites and also give proper education to the legal small scale miners on their responsibilities towards the sustainability of the environment.

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?

The RSGF logo was used on all our power point presentations and also on project t-shirts printed for our conservation education activities. Also, The Rufford Small Grant was well acknowledged at

Batlife Ghana website and in the video documentary that is ready for premiering in the next few days.

11. Any other comments?

Support from The Rufford Small Grants Foundation was fundamental to the success of this project. We are extremely grateful for providing funding support to and look forward to working with you in the future. Furthermore, all equipment obtained through this project would be donated to BATlife Ghana to support their research activities. Lastly, we thank you for supporting bat conservation in Ghana.

