

### The Rufford Small Grants 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	Iroro Tanshi
Project title	Predicting Roost Choice in Cave Dwelling Bats and Preserving Cave Bat Communities by Local Community Conservation Education
RSG reference	14499-1
Reporting period	2014-2015
Amount of grant	£5504
Your email address	iroro.tanshi@uniben.edu
Date of this report	11 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
Predict suitable cave habitat			Fully achieved	We are currently confirming species identification and preparing to run models in order to predicting cave habitat suitability.
The production of the first call library for Nigerian bats			Fully achieved	We recorded calls from captured bats and have compiled those into the first call library for Nigerian bats.
The education of local people on ecosystem services of bats			Fully achieved	Our education workshops targeted different age groups in the community. We held workshops at one primary school, two secondary schools and community town hall adult workshop. Over 500 people learned about ecosystem services provided by bats and the need to support their conservation during our workshop discussions, craft activities and games. Participants received t- shirts with a conservation message, a craft material and bat education brochure. Our education posters are on display at one of the secondary schools we visited.

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

Although there is a high concentration of sandstone caves in the Agbogugu area (as described by Ofomata et al, 1981), getting access to some of the caves was difficult as the Ofomata *et al.*, 1981 did not indicate the specific localities nor give map coordinates for the caves. Thus finding caves depended on the knowledge of the local people, who were sometimes reluctant to show the location of the caves due to fear or local myths that dangerous animals like lions or pythons remain in such caves. We persisted with such individuals and in some cases they pointed the general direction of a cave or managed to overcome their fear, at other times, there was nothing we could do, and such caves were not visited. For example in Ihe, Ofomata *et al.*, 1981 listed at least five caves, we could not locate any of such caves. Also, our projector which I ordered on Amazon, got lost in transit we could not project any videos as we intended, and thus resorted to the use of posters. In addition, we also lost some of our field gear at one of our transects, leading us to replace such items with limited funds.

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

The three most important outcomes of our project include:



- a) Production of the first echolocation call library of Nigerian bats.
- b) Capacity building of local scientists. During the study, my project partner Benneth Obitte picked an interest in bat ecology and conservation. Although, he recently completed a Masters degree in aquatic insect biology, this experience provided Benneth with the opportunity to engage in conservation research which led him to make a career switch to bat biology. He has subsequently applied to commence his PhD in bat studies. Similarly, I mentored a female zoology graduate who volunteered on this project Adeola Juliana Labiran. Juliana now has an interest in studying Nigerian bats and has applied to study for a Masters degree in Conservation Biology.
- c) Use of models to inform future land use around study area. We are engaging the local government (community leadership and local government councilor) on the best approach to providing suitable bat habitat. The local leadership is interested in our findings and has indicated interest in exploring ways to provides suitable bat habitat.

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

We engaged the local community through a conservation education programme. Many of the participants expressed excitement upon learning about the ecosystem services of bats and were keen to know how they could contribute to improving habitat for bats especially on their farms. Some participants were interested in knowing whether they could attract bats to their farms for pest suppression services. In addition, we employed the services of local people as field assistants. This provided them with income during the project period as well as learning some field skills like setting up mist nets and harp traps as well as developing a conservation mentality. Such skills will be valuable if a similar conservation driven research project is conducted in that locality.

#### 5. Are there any plans to continue this work?

The completion of fieldwork and community education at this locality, concluded this particular project. However, the study of cave bats in Eastern Nigeria will continue as we have established a local contact with a lecturer at the University of Nigeria, Nnsukka, who expressed interest in conducting similar projects in collaboration with us. Similarly, our interest in cave bat studies will continue either during our PhD programs or afterwards.

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

The results of the project will be presented by either of us at the International Bat Research Conference (IBRC) in June, 2016. Also, the results of the project will be published in Acta Chiropterologica, a bat focused journal. A lay summary of our results will also be written into a popular science article in a Nigerian newspaper.

## 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 used over a period of 1 year. It was completed within the anticipated period of the project.



# 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
Local transportation	3,115	913.42	2,201.58	We couldn't find a truck to hire at the budgeted amount so we took the cheap but the difficult way – bus, coach rides and motorbikes.
Team subsistence (2 persons)	540	464	76	Food turned out to be slightly cheaper than we anticipated.
Assistant stipend	1,620	869	751	We managed to negotiate a lower stipend with our local assistants.
Conservation Education	2,550	1,121	1,429	We could not afford the budgeted amount, so we bought slightly cheaper t-shirts
Equipment (audio recorders, data loggers, harp traps)	3110	1,644.39	1465.61	The major expenses in the budget was original harp traps, we however found a cheaper alternative – local fabrication.
Communication	180	105.77	74.22	Spent less than we expected.
Consumables	173	281.49	- 108.49	We had to do anti-rabies for a third person and one of our bags with many consumables got stolen at one transect and needed to be replaced.
Accommodation	1,080	111.54	968.46	There was no commercial lodging in this community, so we put up in someone's apartment and paid some utility bills.
TOTAL	10,227	5,510.61		

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

This study helped us to improve knowledge about Nigeria the occurrence of cave bat species at the basic level. This is the first hypothesis drive and field intensive cave bat project in Nigeria. There are few areas with caves and with the high level of disturbance in Nigerian caves roosts, bat populations may face increasing threats. Thus, it will be good to survey other cave bat colonies to establish species occurrence and population status.



## **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?

Yes the RSGF logo was used on the bat-facts brochure and t-shirts with a conservation message. The adult conservation education workshop was an opportunity for publicizing the RSGF. The participants were so pleased that they made very delightful comments referring to the logo.

#### **11.** Any other comments?

This grant provided essential funds for the project that allowed us make important contributions to cave bat studies and local community conservation education in eastern Nigeria – critical first steps in both Nigerian cave bat ecology and local people in conservation engagement. In addition, without the funds it would have been impossible to provide the opportunity to raise capacity in bat research, which is critical in advancing research and conservation efforts in Nigeria.

