

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	Rahila Meribah Yilangai
Project title	Effect of Habitat degradation on avian species diversity and abundance in a guinea savannah of north east Nigeria
RSG reference	18612-2
Reporting period	15 months
Amount of grant	£4998
Your email address	rahila.meriba@yahoo.com
Date of this report	31st March, 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
Avian species diversity and abundance				Over 125 avian species comprising of 2141 individuals were recorded. Shannon index of diversity of 3.93.
Effect of Habitat degradation on avian species diversity and abundance				Degraded site had higher species richness than the less degraded site; degraded site 93, 1030 individuals, while less degraded site 92 species, 1111 individuals were recorded.
Net Difference Vegetation Index (NDVI) Analysis				Details of NDVI maps and analysis found in Interim report.
Establishment of environmental clubs in secondary schools around Tula Yiri				Environmental clubs were successfully established in three secondary schools around Tula Yiri.
Outdoor conservation activities with students				Students were trained on bird identification and the use of some field devices which included Geographical Positioning System (GPS) and binoculars.
Indoor conservation activities				This involves lectures, documentary shows and drama competitions.

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

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

1. Establishment of Environmental Clubs in Secondary Schools

Environmental clubs were established in three secondary schools around Tula Mountains Woodland (TMW). The aim is to educate the students and make them understand the importance of the wildlife around them and to create in the young generation, a mind-set of environmental responsibility and stewardship

2. Checklist of Avian Species of TMW

A checklist of bird species of TMW was produced. This will serve as a baseline data for further research and bird monitoring projects. This data will be used to follow up our appeal to government agencies to grant TMW a status of protection from human activities. Species of conservation importance were identified; this will call

the attention of conservation scientists to further study and monitor threatened avian species and species with declining population trends.

3. Sharing of data and Links

Data have been submitted to the Bird Atlas Database hosted by Animal Demography Unit, University of Cape Town, South Africa and BirdTrack Database hosted by British Trust for Ornithology (BTO). Report will be used as a tool to buttress our appeal to local, state and federal government agencies to grant TMW a status of protection. Links have been formed with Gombe State University, Nigerian Bird Atlas Project and BirdTrack.

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

At the onset of the project, meeting was held with the community leaders where the second phase of the project was introduced to them. The chief of Yiri, Mr Yerima Doma and the community leaders were very pleased to have the project in their community. They accepted our proposal for establishing environmental clubs in the secondary schools around Tula Yiri community and reassured us of their support to get the woodland designated as a nature reserve. The chief informed us about the effort he made to follow up our proposal to the LGA and is also working towards gazetting grazing areas outside the woodland for cattle rearing and the woodland for protection. The involvement of two local field guides in fieldwork has provided some green income to the local people. This local field guides were also trained in the field methods so that they will subsequently assume responsibilities as forest conservation guards. The customised notebooks and waste baskets provided for students have relieved them of buying these items for some time.

5. Are there any plans to continue this work?

Yes, having known the plant and avian species composition of TMW, further project will focus on conservation activities to monitor studied species alongside other species found on TMW.

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

Avian species recorded from this survey have been submitted to the Nigerian Bird Atlas Database (NiBAP) and BirdTrack Database. Report on this project will be submitted to the Local government Agency, Gombe State University Research Centre and Federal Ministry of Environment to work towards making informed conservation plans to protect TMW. The Gombe State University research Centre who have paid a three days visit to TMW requested for this data to work towards designating TMW as the University's research centre.

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 actual length for the project was 12 months (January -December 2016). However, the project was carried out for 15 Months.

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
Capacity building materials (customized books, pens, waste baskets and posters)	1000	1000	0	In addition to customized materials, food was provided for students during field work and conservation activities
Fuel for transportation and powering generator	1150	1150	0	
Projector 1 ViewSonic LightStream PJD5155 SVGA Projector) + Projector carrying bag + Shipment from eBay	290	356	-66	
2.4GHz USB Wireless PPT PowerPoint Presenter Remote Control RF Laser Pointer Pen	0	11	-11	
NDVI (Landsat images for 1986, 1996, 2006 and 2013) @ £ 35/scene for 4 scenes	140	0	140	Landsat images were obtained free from www.earthexplorer.USGS
Binoculars 1 (NIKON Monarch 5 binoculars 12x42)	240	249	-9	
The Life Collection: David Attenborough (24 Disc BBC Box Set) [DVD]	74	0	74	Local films from Cross river Gorilla folk films were used instead as suggested by reviewers
Vehicle maintenance (Hilux vehicle provided by APLORI)	500	550	-50	
Hiring of generator (Servicing of generator)	60	28	32	Generator was provided by the Schools. We serviced and fuelled the generator.

Internet Facility and Communication	0	80	-80	Internet facility in APLORI was inefficient, mobile data was bought for uploading data to databases, downloading NDVI images and software and other internet requirements. Airtime was used for communication with schools and stakeholders
Accommodation for 3 project staff	600	600	0	
Feeding for 3 project staff	600	600	0	
Local field guide from Tula community	300	330	-30	
AA batteries for powering GPS	20	20	0	
Rain boots for foot protection during field work	20	20	0	
Field notes for recording bird data on the field	4	4	0	
TOTAL	4998	4998	0	

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

The project has revealed the importance of TMW as refugia of biodiversity in degraded savannah region in north east Nigeria. Important next steps will be:

1. Having known the biodiversity potential of TMW, the most important next step is to influence policy making in terms of biodiversity conservation in remnant habitats. However, submission of results to government agencies is not enough to attract attention to TMW, a rigorous environmental communication needs to be carried out portraying biodiversity and tourism potentials of TMW.
2. Vegetation and avian species monitoring needs to be established at TMW. Conservation awareness involving women in the use of fuel efficient stoves need to be carried out.
3. Patas monkeys (*Erythrocebus patas*) and olive baboons (*Papio anubis*) were sited during survey. Although these species are least concern on the IUCN Red List of Threatened Species, in this part of the country these species appear to be declining as their habitats are shrinking due to human activities, alongside poaching. Survey on primates need to be carried out on TMW and especially, conservation awareness to stop hunting of these primates.

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?

Yes, The Rufford logo was used on posters and customised notebooks made for this project. Students were told about RSGF as sponsors of the project. During meetings with stakeholders, RSGF was mentioned as the sponsors of the project. It was indicated in report sent to Local Government Agencies that the project was funded by Rufford Foundation.

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

12. Any other comments?