

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	Lotanna Micah Nneji
Project title	Biodiversity Assessment And Conservation Of Amphibians And Reptiles Of Gashaka Gumti National Park, Nigeria
RSG reference	22507-1
Reporting period	17 th July 2017 To 19 th July 2018 (12 Months)
Amount of grant	£4925
Your email address	Lotannanneji@Gmail.Com
Date of this report	19 th July, 2018

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
Training of the Local team members and Extensive field survey of amphibians and reptiles in the Park				<p>We trained 12 local team members in Gashaka Gumti National Park and students. One undergraduate student and two postgraduate students from universities in Nigeria.</p> <p>We carried out comprehensive field surveys of amphibians and reptiles of the park</p>
Identification of the amphibians and reptiles				<p>We identified amphibians and reptiles using combined morphological, ecological and genetic (DNA barcoding) approaches.</p>
Production of the check-list and distribution map of Amphibians and reptiles				<p>We produced a comprehensive checklist of amphibians and reptiles using both field survey approaches and literature searches.</p>
Identification of possible threats to amphibians and reptiles in the park.				<p>From our field survey, we identified threats mainly arising from human activities such as deforestation, use of chemicals in farmlands, and killing of amphibians and reptiles out of fear.</p>
Inform guidelines for conservation of amphibians and reptiles in the park				<p>For this objective, we focused mainly on community-based conservation education geared towards improving understanding on the need for the conservation of amphibians and reptiles within the national park. During this programme, three secondary schools comprising over 700 students; and one host community including over 180 community members were reached out.</p> <p>However, we did not engage in habitat restoration programmes because community-based conservation education programmes seem to be the most needed conservation actions at the first stage. However, we plan to include habitat</p>

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

N/A

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

- i. Our RSG project provides the first comprehensive biodiversity assessment of amphibians and reptiles of Gashaka Gumti National Park, Nigeria.
- ii. On species-specific studies, our RSG project marks the first record of *Kassina cassinoides* from Nigeria, thus, extending the geographic range of this species and improving knowledge of its distribution in Africa. Also, this project marks the discovery of cryptic lineages of *Agama* and *Trachylepis maculilabris* from Gashaka Gumti National Park, Nigeria. In addition, we discovered potential nine new species including *Astylosternus sp.*, *Leptodactylodon sp.*, *Hyperolius cf concolor*, *Sclerophrys sp.*, *Petropedetes sp.*, *Hemidactylus sp.*, *Boaedon sp.*, *Python sp.* and *Lycophidion sp.*
- iii. Our RSG project marks the first conservation education and awareness programmes in host communities and schools for the conservation of amphibians and reptiles within the Gashaka Gumti National Park

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

Local communities were involved during this project. For instance, during our community-based conservation education programmes, we involved local community heads and members of Goje community in the programme. The community outreach witnessed great participations including traditional leaders, elderly men and women, hunters, market women and men, youths and children. In summary, about 180 residents participated in this community outreach programme. We integrated scientific and local knowledge in the conservation education and awareness in this local community and Goje community benefitted vastly through the conservation education.

5. Are there any plans to continue this work?

Yes, we have plans to continue this project. At first, we plan to continue works towards the conservation of the critically threatened and poorly known *Python* species discovered from our RSG project in the park. On the other hand, we plan to continue further projects that would investigate the prevalence of chytrid fungus on amphibian species found within this park.

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

From our RSG sponsored project, we drafted two manuscripts that are currently under review in international, peer-reviewed journals. These sub-projects include:

1. Diversity of amphibians and reptiles in Gashaka Gumti National Park Nigeria, with implications for conservation.
2. Assessing the effectiveness of mitochondrial Cytochrome c Oxidase subunit I and 16S rRNA genes for species identification and diversity studies of Nigerian herpetofauna.

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 Rufford Foundation grant was used between 17th July 2017 to 19th July 2018 (12 months). This translates to the actual length of the duration 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.

*Note; Local exchange rate used: ₦405 = 1£

Item	Budgeted Amount	Actual Amount	Difference	Comments
Food	£630	£580	£50	
Accommodation	£500	£695	-£195	
Fuel/Transportation	£845	£680	£165	
Subsistence payment for local team	£1145	£1230	-£85	
Equipment	£285	£300	-£15	
Educational programmes	£1070	£1410	-£340	Education programmes includes cost for accommodation, transportation and feeding during conservation education and awareness programme, and cost of exercise books, t-shirts and banners all inscribed with The Rufford Foundation logo
Habitat restoration programmes	£400	£0	£400	From our survey, we found out that the first approach to

				conservation would be conservation education and enlightenment; thus, we removed habitat restoration programmes at this stage of the research
Communication	£50	£30	£20	
Total	£4925	£4925	£0	

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

The important next steps are the following:

1. Description and species-conservation projects for the threatened and poorly known *Python* species discovered during our RSG sponsored project.
2. Provision of comprehensive information on the overall prevalence rate of chytrid fungus in amphibians found in Gashaka Gumti National Park, and probable cause of previously reported chytrid fungus infection in the park.
3. Persuading Nigerian government to ban human activities particularly deforestation and use of chemicals in farmland within the national park.

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, we used The Rufford Foundation Logo in the following:

1. In the production of t-shirt used during the community-based conservation education and sensitization programmes.
2. In the production of banners used during the community-based conservation education and sensitization programmes. These banners are currently hanged in the central/management office of Gashaka Gumti National Park.
3. In the production of exercise books distributed in the schools during the conservation education programmes.

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

Prof. Adiaha A. A. Ugwumba (Department of Zoology, University of Ibadan, Ibadan, Nigeria). Prof Ugwumba was involved in the field survey of the amphibians and reptiles of the park, and also made significant contributions in the draft of the manuscripts.

Dr Adeniyi C. Adeola (State Key Laboratory of Genetic Resources and Evolution, Kunming Institute of Zoology, Chinese Academy of Sciences, China): Dr Adeola was involved in the field survey of amphibians and reptiles of the park, and also he was involved in the conservation education programmes in the host communities and

schools. He also made profound impact on data analyses and the writing of the manuscripts.

Dr Agboola O. Okeyoyin (Nigerian National Park Service, National Headquarters, Abuja): Dr Okeyoyin provided the technical assistants and logistics for the field survey and conservation programmes. He also made substantial contributions in the writing of the manuscripts.

Mr. John Usongo: Mr. John played significant roles in the field survey of amphibians and reptiles of the park and also during the community-based conservation education programmes.

Mr Sikiru Kadiru (Head of the Research Unit, GGNP, Nigeria): Mr. Kadiru helped in co-ordination of the local team members during the field survey.

Mr. Benedict Agwu (Research Officer, GGNP, Nigeria): Mr Agwu played significant roles in the field survey particularly in data collection and analyses

12. Any other comments?

Our RSG sponsored project on 'Biodiversity Assessment and Conservation of Amphibians and Reptiles of Gashaka Gumti National Park, Nigeria' was successful. We hope to continue working towards the conservation of the neglected and threatened amphibians and reptiles of Gashaka Gumti National Park, Nigeria.