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. 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	Inaoyom Sunday Imong
Project title	Investigating ecological and anthropogenic factors that determine the distribution and conservation of the critically endangered Cross River gorilla (*Gorilla gorilla diehli*) in Nigeria
RSG reference	02.11.09
Reporting period	March 2010 to June 2011
Amount of grant	£6000
Your email address	inaoyomimong@yahoo.com; inaoyom_sunday@eva.mpg.de
Date of this report	July 2011

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
Aim: Determining the key factors that constrain the distribution and conservation of Cross River gorillas, the extent and location of suitable habitat into which the population could potentially expand, and how socioeconomic and cultural factors contribute the occurrence of anthropogenic disturbance in gorilla habitat.			✓	Required data have been collected. "Guided reconnaissance" survey (covering over 400 km) has been conducted to assess levels of anthropogenic disturbance in areas used by gorillas and areas not used by gorillas. Vegetation survey of all gorilla sites in Nigeria has been conducted to assess gorilla food availability and other ecological variables such as habitat type, altitude and slope in areas used by gorillas and areas not used by gorillas. 380 vegetation plots spaced 1.5 km over a total area of c.1000 km2 were surveyed. Trees > 10cm DBH were enumerated in 20x20m plots, lianas and herbs were enumerated in 5x5m and 1x5m plots respectively.
Objective 1: Determine differences in ecological and anthropogenic characteristics of areas occupied by gorillas and areas currently not used by gorillas to better understand the habitat requirements of Cross River gorillas and the reasons for their current patchy distribution.			✓	The data collected will be used to make habitat comparisons between areas occupied by gorillas and areas not used by gorillas to determine Cross River gorilla habitat requirements, and therefore provide clearer understanding of the reasons for the current fragmented distribution of Cross River gorillas.
Objective 2: Investigate the relative importance of anthropogenic versus ecological (particularly food availability) factors for determining Cross River gorilla distribution.			✓	The data collected will be used to determine the extent to which ecological and anthropogenic variables influence Cross River gorilla distribution.
Objective 3: Model Cross River gorilla habitat suitability (based on field data and remote-			✓	The data required to model Cross River gorilla habitat suitability have been collected.

sensing data) for making predictions of suitable Cross River gorilla habitat and potential future gorilla distribution in Nigeria.				
Objective 4: Determine the extent and location of suitable habitat outside presently occupied areas.				Habitat suitability modelling will identify suitable gorilla habitat
Objective 5: Understanding how local culture and economics influence gorilla hunting and occurrence of other anthropogenic disturbance in gorilla habitat.				The required data has been collected. Socioeconomic survey was conducted in 12 communities neighbouring gorilla habitat in Nigeria (three communities per gorilla locality); a total of 240 households were interviewed through questionnaire; 60 key informants were also interviewed. Data on socioeconomic factors such as household size, household wealth status, level of education, off-forest employment, access to land and market; and cultural factors such as use of gorilla parts in traditional medicine and ceremonies, status attained by hunting gorillas, and totemic beliefs was collected.
Objective 6: Assessing current management situations at different Cross River gorilla sites in Nigeria to provide information for adapting management approaches.				Data from the socioeconomic survey (which also addresses questions about local perceptions of protected area management and resource use), anthropogenic disturbance survey and secondary data on site management issues will also be used to make assessment.

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

The vegetation survey started later than originally scheduled due to delay in finding a suitable field botanist, resulting in delayed completion. Long distances between vegetation plots and rugged terrain also slowed progress. To ensure completion of the vegetation survey the project period was extended by 6 months.

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

- Data from this project will improve understanding of the habitat requirements of Cross River gorillas, and which factors constrain their distribution and influence their conservation. The data will be used to model Cross River gorilla habitat suitability and allow determination of the location and extent of suitable gorilla habitat outside of presently occupied areas into which the current population could potentially expand. This will guide prioritisation of areas for conservation, and provide information that will make conservation efforts more effective.

- Human settlements are scattered throughout the landscape inhabited by Cross River gorillas and impact their habitat. This presents a complex scenario in which the ability of the population to recover rests not only on the ecological suitability of the habitat but also heavily on anthropogenic factors. Understanding both the impact of different types and levels of human activities and which socioeconomic and cultural factors influence the occurrence of these activities is important for making informed management decisions and taking effective conservation action. Data from this study will guide conservation efforts to reduce human impact on gorillas and the habitat.

- This project has also provided baseline field-derived land cover data and illegal activity data for future land cover change analyses and monitoring of Cross River gorilla habitat in Nigeria and evaluation of the effectiveness of Cross River gorilla conservation efforts respectively.

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

The project was implemented in close collaboration with local communities living around the study sites and community-based organisations such as the Conservation Association of the Mbe Mountains, which manages one of the study sites – the Mbe Mountains. The project employed and trained field assistants from local communities and thus contributed to building local capacity for conservation research, especially for community-based conservation initiatives which typically lack such capacity. The employment of field assistants from local communities also provided much needed employment and income.

5. Are there any plans to continue this work?

The results of this study will form the basis for possible future projects aimed at improving protection of identified areas of suitable gorilla habitat, and increasing conservation awareness among local communities.

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

Results of this project will be shared with local communities, government institutions and NGOs working in and around the Cross River region via posters and a project report. Results will be used to produce conservation messages that will be incorporated into conservation education programmes implemented by the Wildlife Conservation Society in Nigeria. Additionally, results will be disseminated locally and internationally through publications in peer-reviewed journals to help increase knowledge of this relatively less known population of gorillas, raise awareness of its conservation status and gain support for its conservation.

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 12 months from March 2010 to February 2011. Although the project was originally planned for 12 months (January 2010 to December 2010), a 6 months extension became necessary to allow completion of the vegetation survey which suffered unforeseen delays and required more field time than originally anticipated. The project lasted a total of 18 months from January 2010 to June 2011.

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
Equipment				
GPS unit	230.13	154.14	75.99	Difference due to price change between time of budget and purchase
Stationary	6.28	6.00	0.28	-
Travel				
Project leader, botanist and field assistants - travel between office and field sites and local transport at sites	707.11	820.53	113.42	Difference due to hike in transport fares
Medical expenses				
	41.84	62.76	20.92	Difference due to extended project field time.
Salaries/wages				
Botanist	1673.64	1673.68	0.04	-
Field assistants	2510.46	2181.01	313.81	Less than the budgeted amount was available due to unbudgeted bank charges
Porters	328.45	328.45	0	-
Food allowance				
Botanist	502.09	502.09	0	-
Bank charges				
	0	270.34	270.34	This amount was not originally budgeted
Total	6000	5999	1	

Local exchange rate: £1=239 Naira. All figures are in £ sterling

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

An important next step is analysis of the data collected and sharing of the results with stakeholders. The results will be used to campaign for more effective protection of Cross River gorillas and their forest habitat.

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?

The RSGF logo was used in a poster that was produced for departmental evaluation at the Max Planck Institute for Evolutionary Anthropology, Germany providing an overview of the project. In addition, funding support received from the RSGF was acknowledged at various meetings with collaborating NGOs and government agencies where the project was discussed. The RSGF logo was also used in a presentation at an international workshop on "Gorillas Across Africa: Information Sharing for Conservation & Research" hosted by the Institute of Tropical Forest Conservation (ITFC) in collaboration with the Max Planck Institute for Evolutionary Anthropology and North Carolina Zoo

in Ruhija, on the edge of Bwindi Impenetrable National Park, South West Uganda from June 27th to July 9th 2011. Further use of the RSGF logo and publicity for the RSGF will follow publications from results of the study.

11. Any other comments?

I am grateful to the Rufford Small Grants Foundation for providing much needed funding support for this project that ensured its completion. Recommendations from this study will help offer more effective protection for Cross River gorillas and their habitat and contribute to their long term conservation. Less than 300 Cross River gorillas survive today, faced with increasing threat of habitat loss and fragmentation. Information provided by research such as this one (made possible by funding from the RSGF is key for conservation planning and management.