

## 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](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

---

Grant Recipient Details	
Your name	Enathe Hasabwamariya
Project title	Influences of forest edges and human activities on the dry season ranging patterns of chimpanzees ( <i>Pan troglodytes schweinfurthii</i> ) in Nyungwe National Park, Rwanda
RSG reference	21952-1
Reporting period	May 2017-May 2018
Amount of grant	£1,500
Your email address	hassenny@gmail.com
Date of this report	May 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
Assess the use of forest edges by chimpanzees				I found that chimpanzees prefer the forest edges compared to the forest interior.
Assess ecological factors that influence chimpanzee use of forest edge				Some of the ecological factors that influenced chimpanzee movement were fruit availability.
Determine the influence of human activities on the ranging patterns of chimpanzees				I found that chimpanzee went outside the park mostly to harvest honey from local community's beehives. I found a lot of beehives destroyed by chimpanzee.

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

Some of the unforeseen difficulties were:

- The study site: Before this research, I hadn't visited the site and this brought up some challenges that affected the way I conducted my research. The park boundaries are very complex and mixed with so many different matrices such as buffer zones, people's farms, houses and beehives. It was challenging to set up a straight and parallel transect of 1 km at the edge of the park. In order to tackle this challenge, before starting my research, I took 1 week just visiting the park boundary with a park ranger who knew the place, and I did some pre-measurements before I decided where I would put transects. This was time consuming for us, but it was worth it.
- The challenging terrain: The terrain in NNP is mostly rugged, and Gisovu is no exception. There are no clear trails. Some of the most difficult issues were steep slopes, lots of water crossings and long treks to access forest entry points. For example, the first day of our field work, we did 12 hours of walking to make just a 1 km transect. It was very tiring. To tackle this challenge, I hired two local people who knew the area, and were happy to help my other two field assistants and I to walk through the rough terrain and successfully set our transects.
- Time limitation: The limited timeframe was a big challenge to this study. I had many objectives and research questions but very little time. For example, due to the rugged terrain, I spent most of my time making and visiting transects

and I didn't have enough time to work on my third question, assessing the influence of human activities outside the park on chimpanzee movement. To tackle this problem, I decided to focus on the first two objectives, and to conduct informal interviews with local communities during weekends.

- Change of my research title: After arriving at the site, I had to change the title of my research, because I found that season was a very important factor that contributed to chimpanzee movement and my research only was done in one season.

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

The three most important outcomes of my research are:

- Importance of forest edges and buffer zones: We found that chimpanzees prefer using forest edges compared to the forest interior. We found that forest edges present a lot of attractions for chimpanzees such as food and nesting sites, thus forest edges should be surrounded with the right buffer zone.
- Fruit availability influences chimpanzee movement: We found that fruit availability had a positive relationship with chimpanzee distribution.
- Best land use practices around the park: We found that human activities around the park influence chimpanzee ranging behaviour. The type of land use around a park determine the interactions between chimpanzees and humans and the conflicts resulting from those interactions. We found that in Gisovu, beekeeping is a main attraction of chimpanzee outside the park. We suggested that conservation of chimpanzees require a better understanding land use planning and management around the park.

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

Local communities were involved and benefited from this research in several ways:

- Job creation and income generation: During this research, I hired three men from the local village (Nyarusiza). Two men were helping me during the field work, and one man was my driver. I also hired one young woman as my cook. The young woman had a high school degree but couldn't find a job. With the money I paid her, she planned to buy goats and start a small business. I also bought most of my food from the local farmers and shops.
- Education and sensitisation: I believe that one of the best gifts you can give someone is education. Before going to the field, I took with me a lot of documentaries such as Planet Earth and Life. After work, I would call some rangers and local people to come and watch with me those documentaries on my computer and after that, we would have interesting discussion around animals. The local people showed a big interest in animal behaviour and

conservation. During weekends, I would visit the local communities and have some conversations around issues such as conservation of NNP and human-wildlife conflicts. I also helped the rangers on different tasks

- **Advocacy:** I sent a report to the Rwandan Government about the crop-raiding problem in Gisovu and the urgency of finding sustainable solutions to that problem. I also used social media such as Facebook to address the chimpanzee-human conflict in Gisovu. I continued to advocate for this community during meetings and presentations.

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

Yes, I plan to continue this work. Some of the things I would like to work on are:

- **Buffer zone and land use management around NNP:** Land use planning and management is a very important issue and a lot of influences on the conservation of Nyungwe National Park. This summer, I will be taking some professional training on using GIS to improve buffer zone and land use management around the parks.
- **Community-based conservation projects:** I plan to continue my work through advocacy and community-based conservation projects. I am already developing some research and projects that could help us continue to raise awareness about conservation, while supporting local communities living around the parks.
- **Rwandan Primate Research Network:** I plan to start a primate research network in Rwanda, where I will bring all primate researchers together to support each other and especially help young people interested in primate research.

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

- **Conferences presentations:** So far, I have been presenting the results of this research at different Universities and conference events. For example, I presented this research at my school, Antioch University New England here in the USA, during a professional research symposium. I presented this research at University of Kyoto in Japan. I also presented the results with the University of Massachusetts, Boston Global Governance and Human Securities Program. I also plan to present the results of my research at the 27<sup>th</sup> International Primatological Society (IPS) Conference, in Kenya Nairobi.
- **Reports:** I sent a copy of my report to the Rwandan Development Board, and the Conservation Department, the institution in charge of Nyungwe National Park.

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

Overall	Activity	Anticipated Time	Real Time	Comments
Field Research preparation	-Research Permit from Rwanda Development Board	1 week	2 weeks	It didn't take me so much time to get the research permit.
Field Data collection	-Arriving at the site -Starting and Finishing field data collection	1 week 3 months	1 month 3 months	It took me some time to find transportation to the field
Data Entry, and analysis, Report	Data entry Data entry Report compilation	3 months	6 months	The writing process took me more one semester than what I expected. I also had to take some time off after the field work

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
Travel Airfare (Boston Logan international Airport- Kigali International Airport, Rwanda)	£1500	£1500	0	The total budget amount was used for the travel airfare.

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

The important next steps are:

- To continue this research as a long-term study with emphasis on more factors influencing chimpanzee movement such as seasons, elevation, socioecological factors, etc. This can be done by as a PhD or post-doc

research. More research is needed to find better buffer zone management practices.

- To increase awareness about the chimpanzee-human conflicts around Nyungwe. For example, to support local communities around Nyungwe in Gisovu, to find better beekeeping practices, that won't attract chimpanzees outside the park, and help them improve their livelihoods.
- Charcoal burning is an important income generating activity for people in Gisovu, however this activity increases the deforestation and pressure on the park. Finding other alternative income generating activities can reduce the pressure on the 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, The Rufford Foundation logo was used in many ways:

- I used the RSG on social media such as Facebook and Twitter.
- I used the RSG logo on every report I shared with the government and other stakeholders in Rwanda.
- I used the RSG logo during all of the presentations I mentioned above.

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

Team Members	Number	Roles
Research Advisor	3	My research had three committee members that helped me during the research design, data analysis and thesis writing
Field Assistants	4	Two field assistants were from the local community and helped me during the first month to set the transects. Two more field assistants helped me during the entire three months with data collection.
Driver	1	I had one moto guy who always helped with transportation during my field and when I needed to go outside the forest.
Cook	1	I had one cook who helped for the entire three months during the days we were in the forests (Monday-Friday).
<b>Total</b>	11	

## 12. Any other comments?

I would like to thank The Rufford Foundation for funding my research and for their long-term commitment to helping young researchers to conduct their research. Especially, I would like to thank the RSG for the opportunity given to people from the developing countries to pursue their dreams through research. In a world where there is so much pressure and threats on our natural world, I would like to thank the Rufford Foundations for their devotion to protecting our nature and conserving our most precious and threatened species.

