

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	Franciany Braga Pereira
Project title	Hunting and Use of Wild Mammals by Human Communities in a Conservation Area in Angola- The Influence of Environment on Hunters' Niche Breadth
RSG reference	20153-1
Reporting period	October 2017- march 2018
Amount of grant	£4,997
Your email address	franbraga83@yahoo.com.br
Date of this report	April 8 th of 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
To identified the main events of war that impacted wildlife were				We identified the widespread distribution of automatic rifles and ammunition; suspension of monitoring of hunting activities by the rangers during the war; installation of fixed and mobile military bases inside of the Quiçama and installation of refugees in the north of Quiçama as a consequence of the intensification of the conflicts in the east of Angola.
To verify the hunting techniques used during and after the civil war				Sixteen capture techniques were recorded, with the rifle being significantly more used than the others during the war years, impacting mainly the animals in the open savannas.
To verify if species with higher biomass, and also of a particular sex and stage of life are more selected and if this selection varies according to the environment				Twenty-six game species were recorded and at the beginning of the war with large mammals being the main target by the hunters, but with the reduction of them, the target was gradually directed more and more towards smaller species in terms of biomass. In addition, adult males are more hunted because they are larger than females and offspring.
To verify if there are difference between the hunting practice in the savanna and forest				We found a greater depletion of mammals in the savannah, compared to the forest because of greater accessibility to this environment and the possibility of killing an animal even at a distance (i.e. physical obstacles).
To assess the hunting motivations				The motivations for hunting are the trade (mainly large and medium-sized species of herbivores and omnivores are captured); basic feeding and human vs wildlife conflicts (for both small and medium-sized herbivore and omnivore species). The slaughter of herbivores and omnivores is due to the sale of meat and carnivores to the sale of skin and bones for medicinal use.
To identify the locations with				We are still processing the analyses of this data.

important populations of the main rare species				
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

I had a delay to receive some necessary documents to have my visa and because of that my field began 3 months after it was expected.

The other problems occurred in the field and were numerous, but most were solved with the help of local residents. For example, the region was experiencing a very intense drought and many times I could not use boats to move from one community to another. The residents organised themselves and the few people who had motorbikes made themselves available to transport me and my things to the other communities. Since I had to rent more than two motorbikes, sometimes one broke down on the way or was delayed and the local driver would only arrive in the other community 2 days after me, but he would try his best to get there.

They also helped me to get transportation by truck for more distant places (above 300 km) where cars could not reach because of the bad quality of the road.

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

1- This was the first published study that shows the negative impact of the Angolan civil war on hunting practices and will serve as a basis for possible impacts on other sites that are experiencing conflicts. For this reason, we are listing the main impacts as well as suggestions for measures that we believe are essential to prevent them from occurring in other regions.

2- We identified 26 game species were recorded and at the beginning of the war, large mammals was the main target by the hunters, but with the reduction of them, the target was directed to smaller species in terms of biomass. In addition, adult males are more hunted because they are larger than females and offspring, and such selection of larger specimens is justified by the main motivation of hunting to be the trade (the hunters maximises their ammunition and trap costs by killing a large animal). However, it should be noted that the income of an animal larger than 50 kg surpasses that of other activities realised by the interviewees (teacher, farmer and community leader), whose income is below the world poverty standard (\$ 1.03 per capita per day). So the need for a complex local assessment of the importance of hunting, the main source of income, and the social conditions of hunters is thus evidenced.

3- We also identified that the hunting in the savanna is stronger than in the forest and we are mapping the main places where populations of rare species are.

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

The involvement of the community occurred in several ways, the main ones were:

1- They worked like my guides.

2 - They explained to me about their hunting activities and about the abundance and distribution of game species (we used ethnozoology specific data collection methods for this).

3- I rented rooms or small homes from the community members and within the community.

4- I rented generator, motorcycle and other materials that needed from local residents.

5- I bought all of my food from local agriculture.

6- We are designing a management plan evidencing the need to improve the living conditions of the families involved, highlighting their low income, lack of hospital care and schools.

7- We are also highlighting the importance of to consider the management of sustainable hunting activities for the residents of this communities.

8- We gave each family a small book detailing the mammals of the Quiçama National Park, based on their own knowledge, in order to show to them what we can do with their rich knowledge.

5. Are there any plans to continue this work?

Now, I have started my PhD and I will continue doing research about hunting practice management. In this research we will both propose strategies for the area of Angola where I completed my master's degree, and for some areas in the Brazilian Amazon.

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

In February 2018, the results of this project were presented at my Master's defence in Federal University of Paraíba (UFPB), Brazil.

Some talks and posters were presented in conferences in Portugal, Angola and Brazil and this year I have a talk in Finland and in England

We made a small book with the Rufford grant and we distribute it to the residents of the Quiçama.

We are submitting papers for journals as Conservation Letter and Biodiversity and Conservation to share our results with academic and scientific environment.

We are finishing a book that will be delivered to professor and students of the Universidade de Agostinho Neto in Angola, as well as to the staff of the National Institute of Biodiversity and Conservation Areas of Angola

I am finishing a report that will be delivered to the National Institute of Biodiversity and Conservation Areas of Angola.

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 funding was timely and was fully used for the whole project duration as per the work plan. So, all proposed activities in the field were carried out without problems. I used the grant before and during the data collection in the field, totaling about 120 days, which corresponds to 17% of the total period of this research execution (2 years).

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. Rate of conversion from Real (Brazil) to Pounds Sterling: 0,191
I have all of spending invoices save and if some are necessary I can send it.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Angolan ordinary visa	108	150	-48	
Graphic, designer and printing	668	668	0	
Air transport	760	760	0	
Ground transportation and diesel	305	400	-95	
Accommodation and Feeding	1241	1241	0	
Field Assistant	859	1000	-141	
copy, notebook, printing, photo laminating	20	40		
Global Positioning System (GPS)	58	0	+58	A professor lent me a GPS, so I didn't one
Gloves and Scrap leather Glove	8	8	0	
Calliper, Measuring tape and Scales 31	31	31	0	
Drugs, repellent, sodium hypochlorite, sunscreen	95	95	0	
Head lamp, Flashlight	29	29	0	

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

To publish the papers of this research and to assist in the implementation of the community-based management plan in the Quiçama National Park and Quiçama Reserve.

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?

I have used the Rufford Foundation logo in some materials (book and objects) and I already sent all of them to Rufford during the course of this work, but I am sending it again in the same e-mail of this report. In addition I have used the RF logo in presentations, posters and reports.

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

Field Guides: Sandoca, Jeremias, Matias, Costa, Inocência, Maleca e Elder (residents of local communities)

Orientation for data collection and analysis and for the discussion of all the results: **Rômulo Alves** (Professor at Universidade Federal da Paraíba- Brazil), **Carlos Peres** (Professor at University of East Anglia- England), **Ulysses Paulino de Albuquerque** (Professor at Universidade Federal Rural de Pernambuco- Brazil) and **João Campos-Silva** (postdoctoral student of the Universidade Federal de Alagoas)

12. Any other comments?

I would like to thank immensely the Rufford Foundation for supporting this research and so many other conservations work. The foundation is a great organisation that allows and stimulates research from countries with great biodiversity but with very limited financial resources from the government and research institutions. I would also like to thank Jane, who was always very helpful and organised with the emails and all the documents.

I owe a great deal of this research to Rufford and I wish more and more success to the foundation.

Observation: I am sending in addition to the report, a link from a folder on google drive in which there are videos demonstrating the involvement of local communities residents in the guide activity, as well as they sharing their knowledge about wild animals with me. A video showing the interior of my home (that I rented from the local residents) where you can see some materials that I both with the Rufford grant.

I also upload pictures with community members and of some wild mammals. All the photos and videos sent were took with the consent of the residents.



