

## The Rufford Foundation

### Final Report

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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. 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. 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**

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Grant Recipient Details	
<b>Your name</b>	Egbe Confidence Kedjuanji
<b>Project title</b>	Status of the Nigeria –Cameroon Chimpanzee and other endangered primates and the dynamics of bushmeat hunting at Ebo forest, Littoral Region, Cameroon.
<b>RSG reference</b>	25676-1
<b>Reporting period</b>	June, 2019
<b>Amount of grant</b>	£4990
<b>Your email address</b>	<a href="mailto:egbe.confidence@ubuea.cm">egbe.confidence@ubuea.cm</a>
<b>Date of this report</b>	6 August 2019

**1. Please indicate the level of achievement of the project's original objective and include any relevant comments on factors affecting this.**

Objective	Not achieved	Partially achieved	Fully achieved	Comments
To understand how the current status of Other threatened primates (in terms of their abundance, distribution etc.) relates to what is already known about the current status of chimpanzees at the Ebo Wildlife Reserve.				We have successfully surveyed all the five clusters of 30 grid cells for the wet season. An estimate of the current status of other threatened primates in terms of abundance and distribution and their relationship with Nigeria-Cameroon chimpanzee found within the Ebo forest area is known. Though the funding was not enough to conduct the research, due to the fluctuation in currency exchange rate and also as of a result of change of location from Banyang-Mbo wildlife Sanctuary to the Ebo forest reserve, due to the unrest crisis in Southern Cameroon. However, Professor Joshua Linder of James Madison University had to provide me with some of his field equipment (four GPSs, two field bags, five mats, three compasses and a tarpaulin) to use for the survey. This objective was also supported with partial fund from International Primate society (IPS) .While this objective is said to partially achieved, because we still need to survey the clusters during a dry season in other to appropriately drawn our conclusions.
To identify the physical and anthropogenic features determining distribution and nest site suitability.				
To identify the ecological and anthropogenic factors that determine chimpanzee abundance and group size, and the occurrence of nest sites.				
To determine the current dynamics and trends of bushmeat hunting at the Ebo Wildlife Reserve and how this relates to the current status of primate populations.				
To make recommendations based on research				

findings for the sustainable management of the Ebo Wildlife Reserve.				
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**2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant)**

The cloudy, slippery and hilly nature of the landscape could not permit the identification of some of the primate signs during the rainy season. The rains slowed delimited data collection taken into consideration the fact that animals hardly move when it's raining. Furthermore, the foggy nature of the forest impaired visibility; as such not all observations were recorded with accuracy. This was solved by team going out or leaving the camp site for the survey when the weather is good.

Resistance of some communities for primate surveys in their forest, since the used primates as a source of protein intake and income generation. This issue was solved through the organisation of two conservation education programmes and community meetings in two of the communities nearest to the survey site. Sensitisation and wildlife law was also reinforced in the communities.

Lack of some good equipment such as tents, GPS and field bags. The equipment could not be purchased in Cameroon. This was solved by borrowing some equipment from Professor Joshua Linder from James Madison University to use for the project.

The reduction in the actual amount of funds requested due to currency exchange rate fluctuation. This was solved by the funding that was granted to me by IPS for partial support of one of the seasons of the project.

Lack of enough funding to pay the field assistant, porters and guides due to the absent of Born Free Foundation in funding the project as intended. This was solved by the funding that was granted to me by IPS for partial support of one of the seasons of the project.

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

1. Signs of chimpanzees , other primates and mammals  
 We recorded chimpanzee vocalisations in all the five clusters during the wet season surveyed period. During the recee we recorded over 120 nests in 15 groups (one to eight nests per group) of fresh and recent chimpanzee nests at the site including 16 ground nests, and 44 nest in three groups of between two and 12 nests. Also over 44 trials/tracks of chimpanzees and footprints, three chimpanzee dungs, and 14 feeding signs (fruits, *Aframomum* sp. and *Marantantacaeae* sp.) were also recorded at the site.

We also observed two chimpanzees (direct observation) in cluster 2. Among other primates, we observed the following species in all the clusters: *Cercopithecus nictitans*, *Cercopithecus pogonia*, *Cercopithecus erythrotis*, and *Allochrocebus preussi*. Foraging and travelling groups were sometimes composed of multi-species associations, with *Cercopithecus nictitans* - *Cercopithecus pogonia*, and *Cercopithecus nictitans* - *Cercopithecus erythrotis*. In addition to these species, we observed *Cercopithecus mona*, *Cercocebus torquatus* and *Mandrillus leucophaeus*. Multi-species associations included *Cercopithecus erythrotis* - *Cercopithecus nictitans* - *Cercopithecus pogonia* - *Mandrillus leucophaeus*, *Cercopithecus erythrotis* - *Cercopithecus nictitans* - *Cercocebus torquatus*; and *Cercopithecus pogonia* - *Cercopithecus nictitans* - *Cercopithecus mona* - *Cercopithecus erythrotis*. We recorded vocalisations of all the species observed above in all of the clusters and all except *M. leucophaeus* that were heard in the cluster 2 and 4. Furthermore, sign / odour (smell) of critically endangered Preuss's red colobus (*Procolobus pennant preussi*) was obtained at Cluster 4, indicating that they may be present in the area. Mammals that were observed included: blue duikers (*Cephalophus monticola*) and red duikers (*Cephalophus* spp.) in all the clusters as well as hoof prints and droppings from these species and the yellow-backed duiker (*C. silvicultor*). We recorded direct observations as well as prints and feeding signs of red river hog (*Potamochoerus porcus*) in all the clusters as well as recent and old forest elephant (*Loxodonta cyclotis*) prints, feeding signs and dung. In addition, we also observed African palm civet, bay duikers, giant pangolin and tree pangolin, water chevrotain, cane rat and squirrel in the forest site. Bones of dead elephant of about 4 year was also observed at cluster four.

## 2. Human signs

We recorded several gunshots from the camp during the day and at night. In addition, we recorded fresh and recent hunter signs (42 farmland, 14 hunting huts or camps, 406 cartridge shells, 47 used batteries, eight old hunting torches, 112 wire snares, 18 logging (timber line), 88 hunting trails and cuts on vegetation for direction) in the forest.

## 3. Hunting survey.

A total of 120 hunters in five communities surrounding the survey area were interviewed and it was recorded that most of the hunters do hunt some primates' species (monkeys) and other mammals to sale for income generation and protein intake. Out of this 120 hunters interviewed, all of them said, they mostly in the night than the days. 102 agreed that they do both hunting and trapping using wire snares.

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

The local people were involved through mobilization and education. Furthermore, selected community representatives (hunters) were trained on how to use the compass and GPS, who will be involved in the implementation of the primate survey. In each of

the five key communities, one hunter was selected to become an animator to record all what he and his colleagues do hunt in a daily bases over 1 month. Finally, field guides and porters were always taken from the communities.

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

Yes. In our next plan, we have earmarked the following;

- I. Complete the dry season primate survey from (November 2019 to March 2020) and hunting survey (October to November, 2019).
- II. The complete study of the status and distribution of Nigeria-Cameroon chimpanzee and other endangered primates and the dynamics of bushmeat hunting in the Ebo forest area.
- III. Ecological study of the primates, other threatened primates and mammals of the forest site;
- IV. A detailed botanical study.
- V. Conduct bird inventory in the area.

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

The results of this project shall be spread through the Rufford Foundation and the University of Buea websites, publication in national newspapers, peer reviewed papers, report writing and media communication (TV and radio). Copy of the thesis after completion will be deposited at the University of Buea Library,

#### **7. Timescale: Over what period was the RSG used? How does this compare to the anticipating or actual length of the project.**

The funds were used for hunting survey from August to September 2018 and primate survey from March 2019 to July 2019. The planned period was longer than expected, since one season primate survey took 5 months instead of 3 month as in the proposal. The project implementation period was longer than expected due to the lack funding, increase number of days from 13 to 16 days per trip in a month, due to the rocky and hilly nature of the terrain and topography. Team could spend 3 days before reaching the survey cluster - on day one team leave Buea to nearest community, day two and three travel to camp site in the forest. Work for 9 days (day 4 -13) day 14- 15 leave the camp to community, day 16 team leave community back to Buea.

This period was also longer because, my Advisors, Dr. Christos Ataraas of Forest Research Institute Hellenic Agricultural Organization "Demeter" ,Greece (former lecturer Offord University) ,UK and Dr. Elizabeth Greengrass of Born Free Foundation, UK had to take time to put up a good project design for the Ebo forest since the project location was changed from Banyang-Mbo wildlife sanctuary to Ebo forest reserve due to unrest in Southern part of Cameroon.

**8 .Budget: Please provide a breakdown budget versus actual expenditure and the reasons for any differences. All figure should be in sterling, indicating the local exchange rate used.**

item	Budget amount	Actual Amount	Difference	Comments
Compensation for hunters	186	300	+114	
Accommodation during primate /hunting survey	240	240		
Transport during primate/hunting survey	1200	1200		
Food during primate/hunting survey	900	1200	+300	We did not take into account that food expenses of non-working days were not covered by the counterpart.
Salaries for 1 field assistant during hunting survey	400	500	+100	The amount was higher than expected since more days were involved during the survey period.
Communication credit	80	80		
Salaries for 3 porter	120	120		
Salaries for 5 field assistance	1040	1040		
Equipment	530	330	-200	Some field equipment was provided By Proffessor Joshua Linder.
Batteries	294	294		
<b>TOTAL</b>	<b>4990</b>	<b>5304</b>	<b>+314</b>	1GBP = 735CFA

\* All the five clusters were successfully surveyed for one season, thanks to some funds (\$2000) approximately to £1644 granted to me for the project by the International Primate Society (IPS) in June, 2019 to add with the £4990 granted by Rufford small grant. At the time of writing the proposal the exchange rate was 1GBP =750 CFA  
 The overall budget for the project was £15,608. Amount requested from RFSG was £4990. Amount received from RFSG was £4657 due to fluctuation in exchange rate and bank charges.

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

Important next steps of the project include:

- Complete the dry season primate and hunting survey.
- The complete study of the status and distribution of Nigeria-Cameroon chimpanzee and other endangered primates and the dynamics of bushmeat hunting in the Ebo forest area.
- Initiate wildlife survey and biomonitoring programme.
- Initiate conservation education, wildlife sensitisation/awareness programmes.
- Support the alternative livelihood of the local communities.
- Conduct bird survey of the area.
- Conduct botanical survey of the area.
- Build management capacity of the communities.
- Contribute in the Initiation of the creation of Ebo National Park.

## 10. Did you use the RSGF logo in any material produced in relation to this project? Did the RSGF receive any publicity during the course of your work?

The Rufford Foundation logo was used in oral presentations during PhD progress reporting in the Faculty of Science, University of Buea. We are working on series of publications both local (popular newspapers) and scientific publications that will bear the RF logo. The final report and my PhD thesis to the University of Buea after completion of this study will also be bearing the logo of RF.

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

**Egbe Confidence Kedjuanji:** Principal investigator, Fieldwork, data analysis, workshops with the community and reports. Design of the bushmeat hunting questionnaire and printed material.

**Dr. Christos Astaras:** Science advisor, Help in designing the primate/chimpanzee survey and bushmeat hunting survey.

**Dr. Elizabeth Greengrass:** Science advisor, Help in designing the primate/chimpanzee survey and bushmeat hunting survey as well as reading through my proposal.

**Dr. Eric Fokam:** Supervisor (PhD Thesis) Advisor for the strategies involving the community and field data collection

**Dr. Irene Sumbele: Co-supervisor (PhD Thesis)** Advisor for the strategies involving the community and field data collection

**Bissong Daniel:** Fieldwork and reports.

**Motia Innocent:** Fieldwork (Field assistant)

**Mpessa Rodolph:** Field work (Field assistant)

**Aron Parfait:** Fieldwork (Guide assistant)

**Mandang Joachim:** Field work (Cook)

## **12. Any other comment.**

The Rufford funding was capital in the status of Nigeria-Cameroon chimpanzee and other endangered primates and the dynamics of bush meat hunting at Ebo at Ebo forest, Cameroon. This support has helped us also to close the gap left by Ebo forest project since in 2006 (that is surveying the North East part of the Ebo forest) the result of this finding will help in upgrading this forest area to a national park. The surveys will also make the way to advance to the next phase of my future project, namely a proposal to permanently protect these remaining montane forest ecosystems through the creation of Ebo National Park and exploring the dynamics of bushmeat hunting and trade in the Ebo National Park. The survey of primate diversity has further helped to reconfirm the biodiversity importance of this once abandoned geographical area.

NB. It should be noted that Born Free Foundation through Dr. Elizabeth Greengrass was to fund this project at Banyang-Mbo wildlife Sanctuary. But since there was change of location to Ebo forest due to unrest, they did not fund it. The delay in this reporting is as the result of delayed in putting up a new project design and implementation period, due to the lack of enough funding. However the success of the implementation of the one season survey April – August 2019 (wet season primate survey) in all the five clusters and January- February 2019 hunting survey is as a result of team work as good managerial skills of the Principal Investigator to see that the Rufford grant is used successfully to accomplish the set objectives.



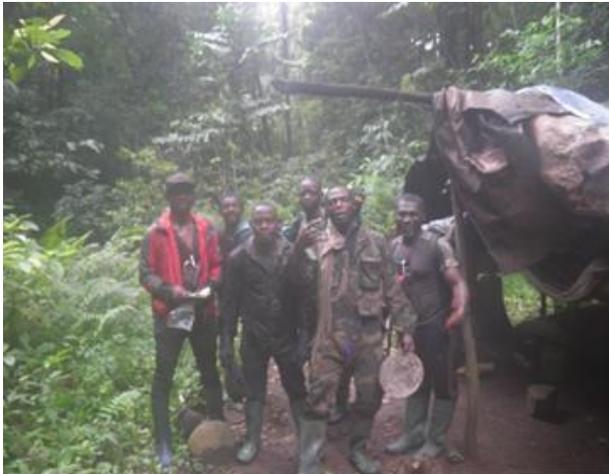
Left: Recent Chimpanzee old resting nest on the forest floor (ground nest) about 2 days old. Right: Chimpanzee tree nest.



Left: Hunting signs: spent cartridges, touches and batteries, with an empty box of spent cartridges. Right: Chimpanzee feeding sign on *Aframomum* sp.



Left Old hunting camp. Right: New hunting camp.



Left: Survey field team. Right: PI recording the coordinate of vocalisation of chimpanzee using the GPS and compass to get the compass bearing.



Left: PI climbing a very steep rock to move to another cell point. Right: *Cephalophus monticola* and *Poiana richardoni* found killed by a hunter using wire snare.



Left: Elephant dung. Right: PI with a field guide drinking water from the trunk of a tree (Liana) after travelling for several kilometres where there was no water to move to a camping point at cluster 4.