

Final Evaluation Report

Your Details	
Full Name	Dereje Yazezew Mammo
Project Title	Scaling up the conservation of Omo River Guereza (Colobus guereza guereza) in “Dense” Forest, Ankober District of North Shewa Zone, Ethiopia
Application ID	38753-B
Date of this Report	1 st May 2024

1. 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 estimate the population size and density of Omo River Guerezas at "Dense" Forest				The population census was made in the natural forest, plantation forest and <i>Erica</i> bushland habitats using line transect method. Higher population density was observed in the natural forest and none was observed in the <i>Erica</i> bushland.
To determine the distribution patterns of Omo River Guerezas				Omo River guerezas were observed in the natural and plantation habitats.
To assess the main threats to the conservation of Omo River Guerezas				Questionnaire surveys were conducted to determine the threat types and level posed to guerezas by the local communities. Although dense forest plays a important role as water catchment, biodiversity reserve, ecological balance and a big asset for tourism industry, the forest has been threatened by illegal deforestation for house hold utensils, timbering, fuel wood, charcoal, agricultural land expansion, settlement, and livestock grazing which trampled and destroyed seedlings of different species of plants which in turn handicapped the natural regeneration ability of the forest. Therefore, the main threats to the long-term survival of guerezas in dense forest are the aforementioned factors that have been exacerbated by increased human population, lower community awareness of the values of the forest

				and the wildlife, and limited livelihood options to the community.
To enhance public awareness on the population ecology and conservation threats of Omo River Guerezas				<p>Awareness creation was made to basic stakeholders including, local community representatives, kebele government officials, school leaders, agricultural office workers, and forest, wildlife and tourism professionals. Moreover, the project is given due recognition by Debre Berhan University and the university research wing presented the project and budget amount contributed by The Rufford Foundation to all university officials whereby The Rufford Foundation is acknowledged. A poster presentation was also made during the 3rd Annual Applied Science Conference of Natural and computational sciences college, Debre Berhan University, on 14th March 2024, where wider audiences were attended.</p>

2. Describe the three most important outcomes of your project.

- a) This study will provide pioneering information on the population estimate and distribution of Omo River guerezas and the major threats to its long-term conservation posed by the communities.
- b) I aimed to publish at least two peer-reviewed articles: a) Assessment of anthropogenic impacts on the conservation and distribution of Omo River guerezas in dense forest; and b) Population estimate and distribution of Omo River guerezas in dense forest, in impactful journals indexed in Scopus and Web of sciences including, *Primates*, *Global ecology and Conservation*, *International Journal of Primatology* which fosters feasible conservation options.
- c) At the end of the final project paper write up, a copy of results will be distributed to relevant and concerned stakeholders that engage in the conservation and management of forest and wildlife including Ankober District forest and wildlife management office, tourism office, North Shewa Wildlife management office, Ethiopian Wildlife Conservation Authority, The

Rufford Foundation and Debre Berhan University, to implement conservation actions.

3. Explain any unforeseen difficulties that arose during the project and how these were tackled.

- ✎ One of the difficulties encountered during the project period is the command post set by the government since August 2023 due to the civil war between the Ethiopian Military Defence Forces and the Amhara Popular Forces (Fano). These command posts deprived of community mass meeting and the situation is very intensive in areas where the Fano fighters suspected to roam around. This posed a problem for launching awareness creation for a wider community domain. As a result, capacity building on conservation of wildlife and the forest was made in small circle discussion in several rounds. There was also a minor interruption in my field visit due to the war where this gap has already been filled by my trained field assistants living in the study area.
- ✎ It was also difficult to have freely GPS, cameras and binoculars in the field as the Fano fighters suspect these tools disseminate information to the government bodies for drone attack and other harms. The Ethiopian Military Defence Forces also forbidden to have binoculars as they suspect the material will be supplied to Fano fighters. Permission and recommendation letters from Debre Berhan University were used to tackle this problem.
- ✎ Economic inflation was also another burden that knocked on every activity and still there is a fear that the situation may push the country to further precipices. To that end, there was the problem of labourer and field related cost increment for field data collection and capacity building programmes due to a decrease in purchasing power of money at the market. This difficulty was tackled by requesting additional logistics and other support from Debre Berhan University.

4. Describe the involvement of local communities and how they have benefited from the project.

- ✎ The local communities were involved in the project as respondents, questionnaire data collectors, field guides, camp attendants, and field assistants to power up their knowledge on the importance of the forest and wildlife to intercept and control human impact on the forest. Because involvement of local communities is crucial to enable the community stay informed on the value of conservation packages and mobilise them to build a sense of ownership and responsibility to orchestrate conservation endeavour, they have benefited economically from the project during the data collection process as data collectors, field guides, field assistants, and camp attendants. Some also benefited from renting pack animals like horses and donkeys.

- ↳ Field assistants, guides, camp attendants, key community and government leaders were also given a t-shirt with the logo of Rufford Foundation (front) and a photo of Omo River guereza (back). Accordingly, they can play an ambassador role to publicise the project and the mission of The Rufford Foundation.

5. Are there any plans to continue this work?

- ☞ Yes. I have planned to expand further awareness creation platforms since the local community had limited knowledge and awareness on the ecological, economic, scientific and cultural values of wildlife conservation including non-human primates (*Colobus guereza guereza*, *Papio hamadryas*, *Cercopithecus aethiopes* and *Theropithecus gelada*). The local communities are considering short-term use of the forest without reservation on the consequences of their action. Therefore, integration of biodiversity conservation with the engagement of local communities in self-sustaining livelihood food security options such as growing backyard edible and cash crops, animal husbandry and beekeeping are vital to develop resilient biodiversity conservation in the districts of north Shewa. Moreover, research based awareness creation programmes can inculcate sense of ownership to the community by designing fair distribution of benefits that deemed to be sourced from the forest. In addition to capacity building programmes to the community and stakeholders, I also plan to document the relative abundance and distribution of the four non-human primate species observed in the study area.

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

I planned to share the results of the project in different modalities including:

- ✓ Through social media: such as Facebook (including Rufford East Africa Project-Network), twitter, and ResearchGate in such a way that the conservation efforts can be replicated in other continuum.
- ✓ Through publications: at least two peer-reviewed scientific papers will be published in highly indexed reputable international journals.
- ✓ Dissimination of a copy of the final document of the project to the funding agencies, relevant local, regional, federal government and non-governmental agencies to boost the awareness on the threat levels posed to the forest and the wildlife in the study area and in the region.
- ✓ Presentations in workshops, conferences and symposiums are also other platforms through which augmented reality of the situations shared to specific professionals whereby vibrant mitigation actions can be implemented for the sustainable conservation of the study species and other wildlife in the study area and elsewhere in the region. In so doing, the study species including other wildlife in the study area will get progressive attention from the

government and conservation stakeholders who work proactively whereby the conservation of biodiversity of the area substantially improved.

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

- ✓ The current situation in Ethiopia such as civil war, political human displacement from their previous resident, economic inflation and related food security problem lead marginalisation of biodiversity conservation efforts in many places. Therefore, capacity building for the local communities who have frontline responsibility is indispensable and needs to be given special attention more than ever before. Therefore, the next steps to be executed are looking for collaborative funders for biodiversity conservation and applying proposals to them and The Rufford Foundation. Along with these activities, I will finalise the publication works of completed projects and disseminate the findings to the international scientific and conservation organizations. Because biodiversity conservation endeavour does not has dead end as it is not bounded temporally and spatially.

8. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did the Foundation receive any publicity during the course of your work?

- ✓ Yes, the logo of The Rufford Foundation was used during the field work and outreach activities (awareness creation programs, group discussion and workshop). I used the logo on the t-shirts and banners published. I also used the logo in paper presentations for previously completed projects supported by The Rufford Foundation (Fig. 1).
- ✓ Regarding publicity of the foundation, I have been publicised The Rufford Foundation in any opportunity that I have and I shared the information to the people in my surroundings irrespective of their field of specialisation of which some of my research colleagues have already succeeded in obtaining the grant and some are applying recently including my home institution, Debre Berhan University. I have also publicised the foundation in seminars, conferences and symposiums, publication papers and in any other academic arena since the time The Rufford Foundation renowned to me.



c)

Population size and habitat preference of the Omo River guereza (*Colobus guereza guereza*) in a multi-habitat matrix in the central highlands of Ethiopia

BY: Dereje Yazezew, Afework Bekele, Peter J. Fashing, Nga Nguyen, Amara Moges, Hussein Ibrahim, Ryan J. Burke, Timothy M. Eppley, Addisu Mekonnen



10th Annual Science Conference, 15-16 April 2022
Theme: Recent Trends in Scientific and Technological Research

Presenter:
Dereje Yazezew

Bahir Dar University
Bahir Dar, Ethiopia
April 2022





Figure 1. Use of Rufford Foundation logo in relation with Rufford supported works, a) Logo used on the T-shirt for PI and field assistants, b) Logo used for banner presentation of the project on the 3rd Annual Applied Science Conference of Natural and computational sciences college, Debre Berhan University, c) Logo used for completed project paper presentation at Bahir Dar University, d) Certificate awarded for paper presentation.

9. Provide a full list of all the members of your team and their role in the project.

- ↳ Addisu Mekonnen, PhD, Department of Anthropology and Archaeology, University of Calgary, Calgary, Alberta, Canada. He is the one who organized the Ethiopian Primate Research and Conservation group as a lead researcher in Ethiopian primates. He contributes in data analysis discussion via zoom meeting and telegram communication. He also involved in revising research manuscripts supported by the Rufford Foundation for collaborative publications.
- ↳ Peter J. Fashing (Professor), Department of Anthropology and Environmental Studies Program, California State University Fullerton, Fullerton, California, participate in conceiving project ideas since the time of the commencement of my PhD study.
- ↳ Tilahun Getachew, (MSc student at Debre Berhan University) GIS and Remote sensing expert, Amhara Regional Agricultural Research Institute (ARARI). He played a role in developing GIS-related data.

- ↳ Mezemir Shewamen, Zenebe Belachew, Sertu Kebede, Nigusie Teklu and Teferi Teshome Dense forest lodge scout, tour guide and visit coordinator, and field assistants in this project.

10. Any other comments?

- ↳ As I usually comment and strive towards its implementation, producing peer-reviewed articles on reputable journals is versatile for reaching international scientific and conservation organisation and to publicise and meticulously acknowledge The Rufford Foundation for the immense contribution in the conservation continuum. In this era of uncertainty and challenging times due to natural disasters and political instability in every corner of the globe, the role that The Rufford Foundation played in qualifying the new generation researchers by filling financial gaps is very important. Hence, I am grateful to The Rufford Foundation for funding this project too, without which the project wouldn't be realised. Moreover, conservation bottlenecks can be averted through progressive problem-solving research outputs and benchmarking best practices to bring meaningful changes in biodiversity conservation and improve the livelihoods of the local communities encircling wildlife habitats.

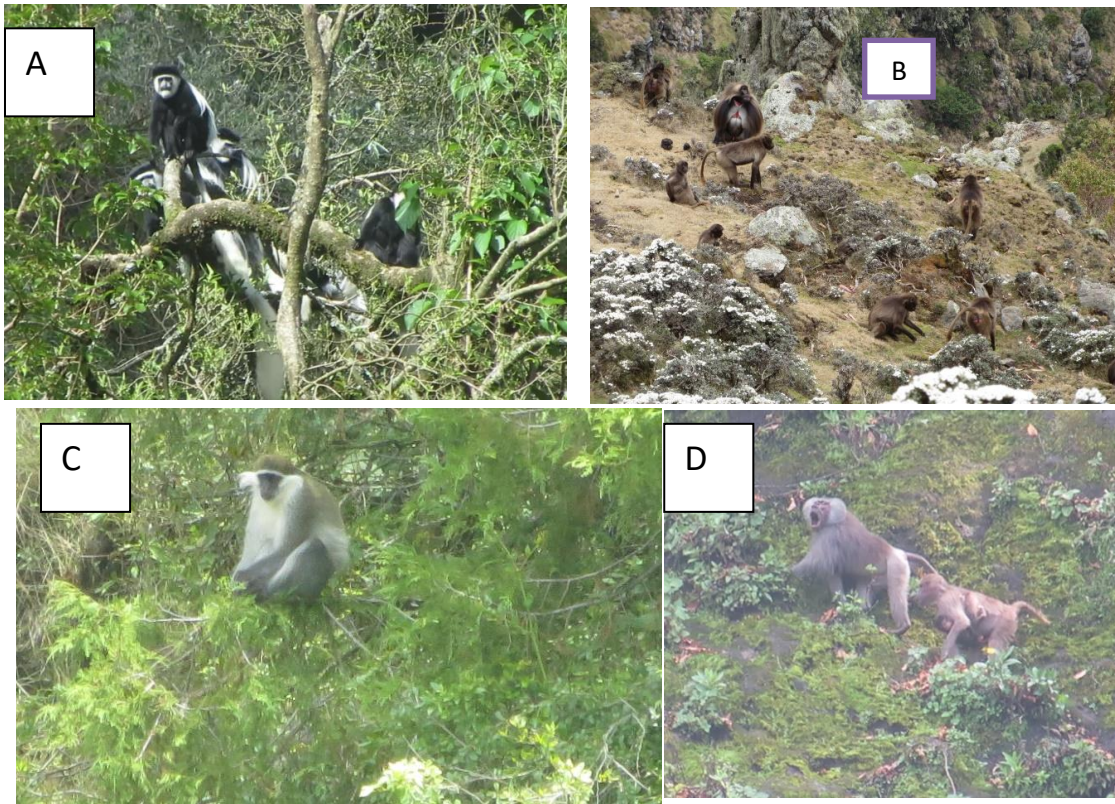


Figure 2. Primate species observed in around Dense Forest A) *Colobus guereza*, B) *Theropithecus gelada*, C) *Chlorocebus aethiopes* and D) *Papio hamadryas*