Progress Report: Rufford project 43300-1

Project Title: Promoting Conservation of Endangered Mt Uarges Guereza Percivali through

Community Education and Awareness in Samburu County, Kenya.

Executive summary

The remarkable diversity of life on earth is constantly threatened by anthropogenic activities which have increased the risk of extinction. Mathews Range Forest Reserve in Kenya suffers from habitat degradation and the hunting of Mt. Uarges guereza by the pastoralists in Samburu, which increases their risk of extinction. This project aimed to: 1) investigate the human perception of the conservation of the Percival, and 2) determine the population status, groups, habitat threats, and activity patterns of the Percival monkeys. These findings will educate the community, create awareness, and promote coexistence.

1.0 Introduction

Nonhuman primates are our closest relatives genetically and play key roles in their ecosystems. They provide vital information and insights into human evolution, biology, and the emergence and transmission of diseases (Estrada et al., 2020). The ballooning human population has resulted in infrastructural development, logging, fossil fuel extraction, and hunting of primates (Estrada et al., 2017; Li et al., 2018; Boonratana, 2020; Estrada et al., 2020). Habitat degradation and fragmentation are primary threats to biodiversity loss in tropical forests around the equator (Myers et al., 2000; Beck et al., 2002). Mathews Range Forest in Kenya (ca 940km2) lies within the Namunyak Conservancy and is the southernmost region of the forested mountain chain that crosses the semi-arid plains of Samburu County (de Jong & Butynski, 2010). The forest is a biodiversity hotspot and home to the endangered *Colobus guereza percivali* monkey species (IUCN 2016, 2017). C. g. percivali is a forest-dependent species feeding on leaves and fruits (Oates 1994; Fashing 2001b). They are endemic to Mathews, Ndoto, and Kirisa Forest (Mwenja 2008). C. g. percivali has a long creamy mantle, long hair extending over 40cm on the lower

abdomen, and a tail length equaling the body with a white tuft extending over two-thirds of it (Groves 2001).

The endangered *C. g. percivali* is suffering from human hunting and habitat degradation (de Jong & Butynski, 2010).

Therefore, this project aimed at;(i). understanding the community's perception of the percivali and its conservation, (ii). secondly establishing the population status of the endangered *colobus guereza percivali*, (iii) Determining habitat threats to this endangered species. (iv)conducting community awareness programs that will ensure that there is an end to the hunting of primates and the protection of their critical habitat.
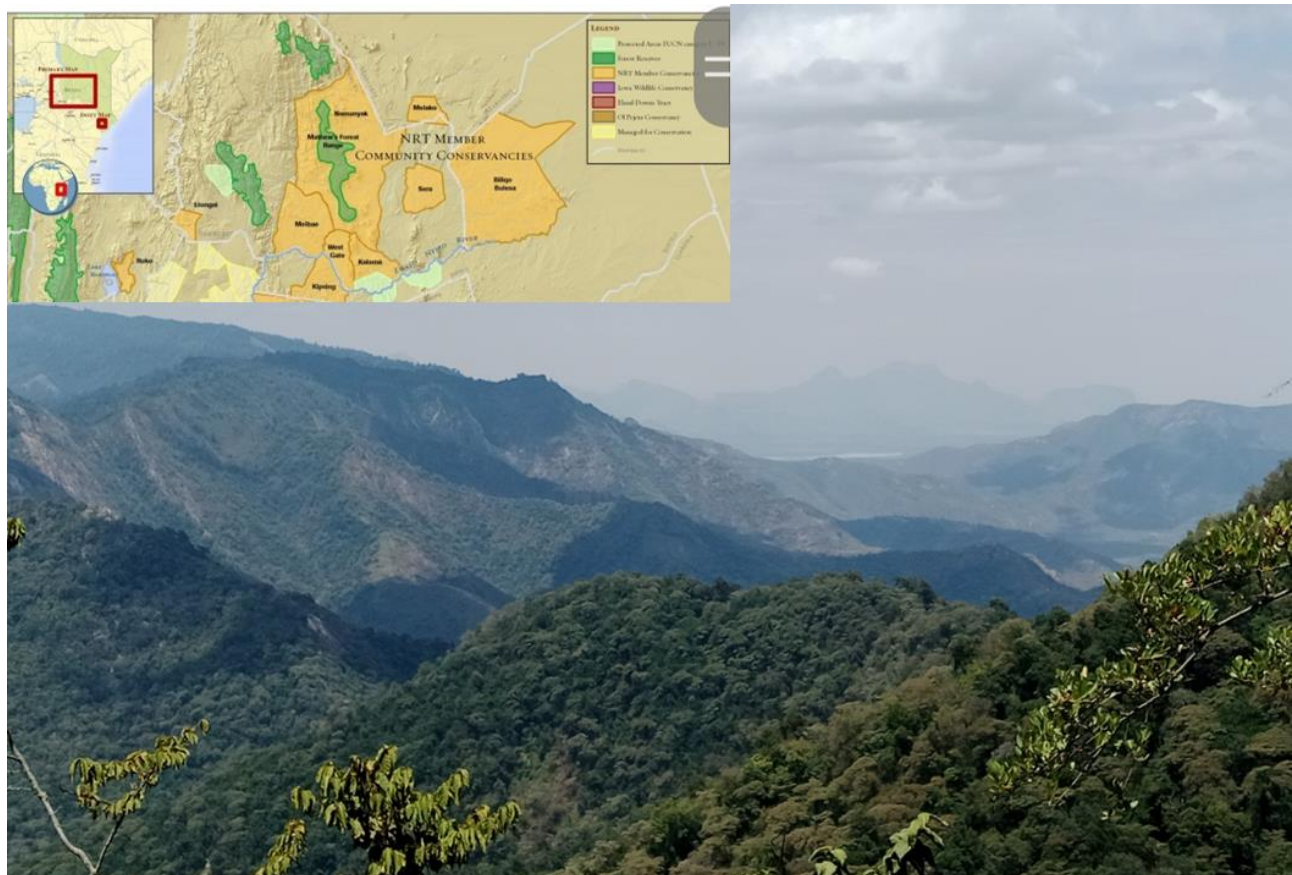

Figure 1.Map and photo of study area Mathews Range Forest.

2.0 Methodological Approaches

To achieve project objectives, primate surveys and community interviews were conducted between September and November 2024 in the Mathews Range ecosystem. This project was undertaken in Samburu East Sub County and involved Primatologists from Kenya Institute of Primate Research, Research assistants from Northern Rangeland Trust, local community conservancies scouts, and local research assistants.

Different methods were used to achieve different objectives as shown below.

Objectives and Scope

2.1 Original Project Goals and Objectives

Objective 1. *Determining the human perceptions & interaction with Percival's guereza.*

Indicators of success

i. *Questionnaire to capture data on perception and interactions designed, piloted, and finally administered*

ii. *Data on human perceptions & interaction captured & being analyzed*

iii. *Human perception and interaction patterns with Percival's established.*

To achieve this objective, a qualitative study was carried out which involved designing, piloting, and administering questionnaires. A research team comprising seven trained enumerators conducted in-depth interviews to assess the community's perceptions and conservation of endangered *Colobus guereza percivali*. These interviews targeted 8 locations which are surrounding the Mathews Range Forest namely; Nkare-Narok, Oromoidei, Ndonyo

Nasipa, Wamba, Ndonyo Wasin, Kibartare, and Marti Epareu where 210 questionnaires were administered and perception data captured. The questionnaires were conducted in English with enumerators interpreting in Samburu's local dialect. Currently, the data is being entered, cleaned, and coded pending analysis.

Figure 2.One of the local enumerators interviewed an elderly woman in Ndonyo Wasin in Samburu County.

Objective 2. Determining population status of the C. g. percivali.

Indicator of Success

i. Primate population census successfully conducted and data obtained and currently being analyzed.

To achieve this objective primate census surveys were carried out at four Selected sites namely Wamba, Ngilai, Nkare -Narok, and Kangulata areas by a team of 31 people. Surveys were carried out concurrently which involved 9 researchers from Kenya Institute of Primate Research,2 researchers from Northern Rangeland Trust, 8-armed Security officers from Kalepo, Ngilai, and Namunyak community conservancies, and 12 local guides. The line transect method was used to achieve this objective. Transects of 1-2km were laid by a team comprising of a recorder, observer, security ranger, and a local guide where they counted all the Percival guereza encountered or vocalized.

Figure 3.Colobus guereza was sighted at the Wamba Forest section within Mathews Range Forest.

Figure 4.Survey team at Ngilai Forest Section which is the Midpoint of Mathews Range Forest.

Figure 5.Survey team at Wamba Forest section within Mathew Range Forest.

(iii) **Objective 3. Determining habitat threats to the survival of endangered Mt Uarges Guereza and Mathews Range Forest**.

Indicator of success.

i. Data on habitat preference obtained from vegetation surveys and analyzed. The research team conducted a habitat threat assessment survey at the Wamba, Ngilai, Nkare Narok, and Kangulata forest sections. This was undertaken concurrently with the primate census and whenever a threat was encountered the survey team stopped and recorded the type of threat, estimated the time it occurred, the intention of the observed human disturbance, and finally geo-referenced the threat location.

The most observed threat was tree felling for pasture and was scored to be a serious threat to the survival of the Percival guereza.

Figure 6.One of the main threats facing the survival of primates is the destruction of habitat by pastoralist communities as they seek fodder for their livestock.

3.0 Preliminary Findings

I. **Colobus guereza percivali census survey**. I will present the preliminary findings of this survey as a detailed analysis is ongoing and the final report is due in June 2025. In this survey, we managed to record a total of 12 colobus groups within the entire Mathews Ranges Forest. Wamba had the highest number of groups (five groups), followed by Ngilai (three groups), Nkare Narok (four groups) and Kangulata (one group). Early extrapolation

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of the current population from the observed groups suggests that the population of endangered *Colobus guereza percivali* is between 96 and 144 individuals. These results reflect a sharp decline in the population based on the previous survey over a decade ago by Kivai & Fundi (2012), where the population estimate was 635 individuals. This could be supported by the clear felling of trees on hilltops which constitute the critical habitat for the colobus and reports from the community interviews that there was a mass shooting of colobus for its skin for cultural practices by Rendile and Samburu morans during the invasion of the hilltops for grazing following the 2022-23 drought. Detailed analysis of the species distribution in relation to other primates as well as the age-sex classes is ongoing and will be reported in the final report.

II. **Community perception survey.** The interviews were conducted in 8 locations which are surrounding the Mathews Range Forest namely; Nkare-Narok, Oromoidei, Ndonyo Nasipa, Wamba, Ndonyo Wasin, Kibartare, and Marti Epareu where 210 questionnaires were administered. The community was aware of the primates present in the area and acknowledged that there was mass shooting of the endangered *Colobus guereza percivali* for its skin between 2022 -23 which may have contributed to the decline of the species population. Expressed displeasure with baboons present in the area as they have been predating on their young goats and sheep. Detailed results will be after analysis.

III. **Determining habitat threats to the survival of endangered Mt Uarges Guereza and Mathews Range Forest.**

Personal observation indicates that the habitat for endangered Mt Uarges guereza is seriously destroyed with over 1000 hectares of key habitat lost over recent droughts although yet to be confirmed in literature. More detailed results will be in the final report.

4.0 Pending activities yet to be achieved

I.   I will undertake two remaining objectives in February and April 2025. The first activity will be; **Determining habitat preference** where I will undertake vegetation surveys to characterize the habitat used by Percival's species using quadrant (nested plots) sampling methods. The targeted areas for vegetation sampling will be only the areas confirmed to be used by Percival's black and white colobus during the census surveys

II. **Community education and awareness:** I will use the Participatory Rural Appraisal method, organized chief Barraza's (meeting) and outreach activities in local schools to educate young people on the importance of human–Percival's coexistence, sustainable utilization of natural resources, extinction threats the species is facing and advocate for conservation of biodiversity. This will be after data analysis which is currently underway.

4.1 Achievements

I.   Local community and conservancy rangers trained and involved in primate survey

II.   Threats affecting the forest and primate assessed and identified.

III. Managed to conduct a primate survey of the Mathews ranges which has not been done before for over a decade.

IV.   Human perception data toward conservation of the *Colobus guereza percivali* captured across all the locations surrounding Mathews Range Forest.

4.2 Challenges

I.   The rugged terrain which limited the team in accessing the forests in the valleys.

II.   Behavioral study on the endangered *Colobus guereza percivali* has proved to be a hard nut to crack which can be attributed to recent poaching activities experienced in the area altering the normal behavior of the species.

5.0 Acknowledgment

6.0 References

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7.0 Appendices

Figure 7.Project Principal investigator preparing a meal for the team at Nkare Narok.