### **Final Evaluation Report**

Your Details	
Full Name	Jackson Kirui
Project Title	An Integrated Community-Based Approach to Understand the Occurrence of, Perception and Threats to the Ground Pangolin in Kenya's North Nandi Forest
Application ID	42835-2
Date of this Report	1 <sup>st</sup> March 2025

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
Detection of Pangolin's using camera traps and sighting				-The ground pangolin was confirmed near the forest's edge, as well as on maize and banana farmlands. More surveys employing camera traps will enable for simultaneous biomonitoring of all habitat types. -Because of their regular birding excursions in the forest, only two members knew where pangolins might be found. They will help us identify other prospective
Community engagement to understand their knowledge about pangolins				-Only 12 community members reported encountering pangolins in the forest and farmland. -Community people viewed the presence of pangolins in their farms as a sign of bad luck. The majority of the youths in the neighborhood would kill a Pangolin if they found it because they believed it would ruin farms and devour poultry. -They were unaware of pangolins' medical and cultural importance.
Documenting major threats to habitats and pangolins				-We documented risks such as collecting firewood and cutting trees for charcoal burning. -We are also considering to liaise with the Kenya Forest Service, Kenya Wildlife Service, and local authorities the possibility of closely monitoring regions where pangolins have been identified as pangolin hotspots both within and outside of the Nandi Forest. -When such places are identified and secured, they will act as local wildlife conservation corridors,

		helping to safeguard pangolin. -Contacts have been established, and conversations are underway with the community to commence protective and adaptive measures, such as establishing a collaborative community-based strategy to restore disturbed areas.
Community education and awareness campaigns		After three months, we visited the environmental clubs of two primary and secondary schools and discussed pangolins. The conversation focused on whether they had observed pangolins, their thoughts of their importance in ecosystems, potential dangers, and conservation efforts. We also hosted an awareness discussion at the local Chief's local baraza in these areas, aimed at adults, and addressed the same problems mentioned above. During the next visit, we will conduct a questionnaire research in communities to assess the impact of our interventions.

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

**a).** The baseline information about pangolins living in the region were established in terms species presence. Indeed, information about pangolin presence, killing frequencies and supposed to be always the first step to demonstrate the occurrence of pangolins in the area. Also, it was possible to obtain information of the general awareness of local people towards pangolins (species presence) and perception of local communities to pangolin with regards to the independent factors (gender, age, education level) that have strongly influenced the results of the research.

**b)** The main conservation threats were identified such killing incidences (as they are perceived to be a sign of bad omen), perception of local communities. Some pangolins are now preserved at University as museum specimen. Habitat destruction by logging trees obtain charcoal burning and timber are documented, and together with the enforcement agencies are now aware to implement the necessary measures to curb the menace.

(c) Community education and awareness campaign are scaled to different groups.

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

The people around the vicinity of the North Nandi Forest are poor and it was very difficult to motive the people towards conservation. This might be because there has been lack of awareness activities for a conducted in the villages for a long time. We therefore developed brochures and circulated them to markets centres and schools

during awareness campaign. In future, we intend to conduct robust education and awareness trainings to school wildlife clubs for the students which could help a lot for the conservation of pangolin. Data collection was postponed for several weeks due to the delays in obtaining the research permits.

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

Local communities were involved in all aspects of the project right from the onset. Rapport was established with all the focal communities prior to the start of all activities and where necessary. In our community surveys, we targeted both males and females to obtain data on the current status and uses of pangolins parts in their area. Furthermore, we conducted education and awareness activities with local people, which included the distribution of informative pangolin pamphlets to demonstrate the value of pangolins to the ecosystem. Previously, they would become terrified when they saw that species and would frequently kill. But we explained to them that pangolins do not hurt humans and that there is no cause to be afraid of it.

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

This study was carried out with the goal of identifying pangolin threats and raising awareness for pangolin conservation through various activities. The actions completed are insufficient, to see the project's impact. We plan to survey the species in the bigger woodland and adjacent farmlands. Extending this survey to include other Nandi Forest vegetation types will be useful. Hence, I intend to dedicate my study on exploring the impact of different land use matrices in the area on pangolin distribution.

Establishment of community-based tree nurseries will be initiated in the community to encourage planting of more trees on degraded forest fragments and farmlands. Moreover, we will establish school-based wildlife conservation clubs in three community schools out of the eight selected in the area. We were not able to initiate the WCCs because the current project had limited funds, time and resources to support additional school.

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

The research findings have been shared with a variety of parties. To begin, results were regularly reported to the Angaza Vijiji Organization and published to the website in order to target the best conservation efforts for pangolin species. Second, the project's findings have been shared with Kenya's National Museums, Kenya Forest Service and Kenya Wildlife Service. Finally, the project's findings will be disseminated at local and international meetings/workshops and conferences. The Department of environment, Nandi County, and other relevant agencies will all receive a copy of the reports.

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

It is an important step to continue the investigations of activities that may threaten the survival of pangolins. There is a need for long-term and in-depth monitoring of the areas. Continuing in data collection of population variables and diet analyses is a matter of course. As a result, standard monitoring techniques such as camera trapping and linear transects may still be used in the North Nandi Forest, with the use of traditional knowledge of local communities. The accomplishments of educational activities should be thoroughly assessed and evaluated. Explanatory educational activities, in my opinion, would be quite beneficial in the study area. Understanding species biology and basic environmental principles would benefit the entire wildlife community.

Restoration activities such as tree planting exercise may be conducted targeting highly disturbed sites within and adjoining areas North Nandi Forest. Sites should be selected through consultation with Kenya Forest Service and local communities and community's involvement to ensure the care of the seedlings. Recruiting local people to be involved as volunteer workers in restoring degraded habitats (through reforestation by planting indigenous trees) to protect the sensitive habitats is called for. Robust species and relevant expertise may be used in monitoring seedlings.

I'm looking forward to publishing these results in the peer-reviewed journals.

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? So far, the logo has been used in all fieldwork reports. Moreover, The Rufford Foundation has been mentioned in the acknowledgment part of the presentations during our workshop on pangolin recovery plans. The Rufford Foundation logo has been also presented on printed brochures that were produced for the fieldwork activities to increase awareness about pangolins in the study region.

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

This project is part of my research initiative under the auspices of the Angaza Vijiji Community Based-Organization (AV-CBO), and under the guidance of David Wechuli of AV-CBO, and Dr. Paul Webala of Maasai Mara University. Their wealth of knowledge and a wide range of expertise and experience in small mammals (e.g., bats, rodents and pangolins) research in Kenya, Rwanda, Ethiopia and South Africa and Nigeria was and continue to be invaluable to this project.

Raphael Kanje was involved in data collection during fieldwork to gain hands-on David Chumba served as our liaison with other residents who is familiar with the area's forest cover, routes, and terrain. He was helpful in mobilizing local communities and local schools for our education and awareness campaigns. Furthermore, he was involved in policing the camera traps.

#### 10. Any other comments?

I'd like to express sincere thanks to The Rufford Foundation for their great contribution. Without it, I would not be able to carry out most of this project and generate the results that I feel would be essential in the ongoing conservation actions to save pangolins.