

Final Evaluation Report

Grant Recipient Details	
Full Name	Jackson S Kirui
Project Title	Understanding the Community's Perception, Distribution and Threats to the Vulnerable Ground Pangolin in the Kenya's North Nandi Forest.
Application ID	36563-1
Date of this Report	31 August, 2023

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 gather data on the species occurrence, conservation threats to pangolins.				<p>-The ground pangolin was confirmed only in the interior sections of the forest and in farmland. However, we need to continue the investigation in the larger forest habitat types. With an additional number of camera traps, it will allow comprehensive biomonitoring of all habit types simultaneously.</p> <p>-The threats associated with the pangolin included habitat deterioration and killing due to fear.</p>
To understand people's awareness and their perception on pangolins.				Some of the local residents were aware of the presence of pangolin but without understanding their roles. Pangolins are perceived to be a sign of bad omen. Others had never seen pangolins in their lifetime
To raise awareness to counter prejudice, fear, and raise awareness of the vital role pangolins play in preserving ecosystems.				It is really difficult to change the attitude of the people. Most of the people residing within the vicinity of Nandi Forest are poor with limited grazing fields and dominantly exploit forest for firewood and charcoal burning. Hence, the killing of pangolin is directly linked with their encounter with them as they go about with their livelihood. It was really difficult to change the attitude of the people towards conservation in just 1 year. But the residents are now aware about pangolin conservation, and they actively participated in education and awareness meetings conducted. Hence it can be expected that they will contribute to the conservation of the species.

<p>To participate in the formulation of conservation strategies such as the pangolin recovery plans and strengthen national legislation to protect pangolins.</p>				<p>Training and community engagement: We participated in a workshop, to support the establishment of pangolin recovery plan for Kenya. The key stakeholders during the workshop were from Fauna and Flora International, Kenya Wildlife Service, National Museums of Kenya and community conservation leaders.</p>
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2. Describe the three most important outcomes of your project.

(a) The baseline information about pangolins living in the region (Temminck's pangolin) were established in terms species presence. Indeed, the questionnaire survey was an effective and inexpensive strategy in providing the information about pangolin presence, killing frequencies and supposed to be always the first step to demonstrate the occurrence of pangolins in the study area before using other research techniques. 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, habitat destruction together with the enforcement implementations.

(c) Through our participation in the formulation of conservation strategies such as the pangolin recovery plans will ensure that the national legislation to protect pangolins is strengthened.

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 benefited from the project.

Two local students and an amateur scientist were involved in the research's operation. Their cooperation was critical to the research because their tasks were

primarily focused on communicating and building trust with local folks. 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, and a 1-year period is insufficient to see the project's impact. We plan to buy more camera traps to boost our chances of finding 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 types in the area on pangolin distribution and their eating habits. Support from Rufford Foundation would be highly appreciated.

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 RSGF logo in any materials produced in relation to this project? Did the RSGF 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 experience in pangolin research techniques.

David Chumba served as our liaison with other residents. He 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 research and generate the results that I feel would be essential in the ongoing conservation actions of pangolin populations in Kenya and globally.

Your contributions to biodiversity protection around the world are incalculable!!!!