

## Final Evaluation Report

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Your Details	
<b>Full Name</b>	JUSTINE ROBERT LUKUMAY
<b>Project Title</b>	Conservation of Striped Hyaena through Improved Livestock Enclosures and Education Program in Maasai Steppe, Tanzania.
<b>Application ID</b>	39577-1_justine-robert-lukumay
<b>Date of this Report</b>	August 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 assess the current population distribution of striped hyenas across the Maasai Steppe in northern Tanzania.				This objective has been partially achieved. The reasons for not fully achieving: <ul style="list-style-type: none"> <li>- The landscape size is bigger compared to the available resources. The project acquired only five camera traps that were deployed in different parts of the landscape in shifts. The species has been captured however not in the whole landscape. Furthermore, due to a limited number of camera traps, it has been difficult to identify individual species as intended.</li> </ul>
To map major conflict hotspots and establish predator-proof enclosures to protect livestock from striped hyenas and other predators.				Through the household surveys, we were able to identify conflict hotspots, including the carcass site of a poisoned striped hyena, and the households where the species killed the small stock (sheep). Furthermore, we installed four predator-proof enclosures.
To initiate effective conservation education programs and outreach directed to the local community across the landscape.				The project successfully initiated environmental clubs in 11 schools across the landscape, provided conservation education to students, teachers and community members. Through this program, more than 5,000 people reached through class sessions, community meetings and conservation films.

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

- a) Using camera traps, the project successfully identified the population distribution, habitat, and movement patterns of striped hyenas across the landscape.
- b) The project identified that human-wildlife conflict is a major threat to the striped hyena. Also, the project identified conflict hotspots, including the carcass site of a poisoned striped hyena, and several depredation incidents of striped hyena to livestock (goats and sheep). Furthermore, the project supported the installation of four predator-proof enclosures for the most vulnerable households across the landscape.
- c) Through an awareness-raising program, the project supported the initiation of eleven (11) environmental clubs in primary and secondary schools across the landscape and provided conservation education to students, teachers, and community members, through which more than 5,000 people reached.

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

- ❖ During the project implementation, due to the size of the project site (which is larger compared to the available resources; mainly camera traps) it has been difficult to get all the data. However, to overcome this challenge, we had to deploy our camera traps to the landscape in shifts. This helped to achieve the intended goal to a greater extent.

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

The local community (Maasai pastoralists) were involved and benefitted from the project in several ways:

- ❖ During the identification of conflict hotspots, the community participated in data collection by providing important data on the presence of the species as well as the conflicts between pastoralists and striped hyena.
- ❖ More than 100 pastoralists from villages bordering Tarangire National Park, who are prone to human-wildlife conflicts (including striped hyena), participated in the training and capacity building for the installation of predator-proof enclosures. Also, a total of four households which are extremely prone to conflicts benefited directly from new predator-proof enclosures donated by the project.
- ❖ Furthermore, 5000 community members benefited from an awareness-raising program that focused on changing attitudes towards wildlife and the importance of mitigating conflicts both to people and wildlife across the landscape.

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

- ❖ Yes, due to the importance of data on the striped hyenas, it's crucial to continue this study across the landscape and the country in general. This will provide baseline data on the species at a country level. Furthermore, due to the training provided, pastoralists will continue installing livestock enclosures to protect their livestock from carnivore attacks and hence continue protecting carnivore species across the landscape.

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

- ❖ This work will result in a new paper published in peer-reviewed journals. This will allow other stakeholders to learn and contribute to the conservation of a striped hyena in Tanzania.

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

- ❖ The next important step is to continue the camera trap work to get more insights into the population distribution of the striped hyenas across the landscape. Furthermore, working closely with the community to address human-wildlife conflicts through environmental education and the installation of livestock enclosures is another important step ahead.

**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, we used The Rufford Foundation logo in our t-shirts, and our presentations to the public. Furthermore, through our social media, we acknowledged the foundation as a project funder.

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

**1. Thomas Loishiye Mollel, (Research Assistant)**

- ❖ During this study, I worked with Thomas Loishiye as a research assistant. He helped with field logistics, data collection, and data transcription. He holds a BSc. in wildlife science and conservation from the Sokoine University of Agriculture (SUA) in Tanzania with over two years of experience in community-based conservation programs including the construction of improved livestock enclosures, environmental education as well as field research in northern Tanzania. Thomas grew up in the Maasai steppe and has a vast knowledge of the area and the community.

**2. Professor Linus Kassian Munishi, (Study Supervisor)**

- ❖ In this study, Prof Munishi supported the designing of the grids for setting up camera traps and ensured the data are well collected. Professor Munishi is a Biodiversity Conservation and Ecosystem Management professor at the Nelson Mandela African Institution of

Science and Technology. He specializes in landscape ecology, conservation biology, conservation genetics, biodiversity and climate change, and natural resources management with a profound experience and knowledge of the Maasai steppe's landscape.

**3. Hussein Tamba (Field Ranger)**

- ❖ Hussein works as a ranger for the Maasai Steppe Conservancy and he's been helping in deploying and ensuring the security of camera traps in the field.

**10. Any other comments?**

**Below, find the field attachments as follows:**

**Annex One:** Photos of the Striped Hyena Caught on Camera Traps in the Field

**Annex two:** The installation of livestock enclosures to protect livestock from striped

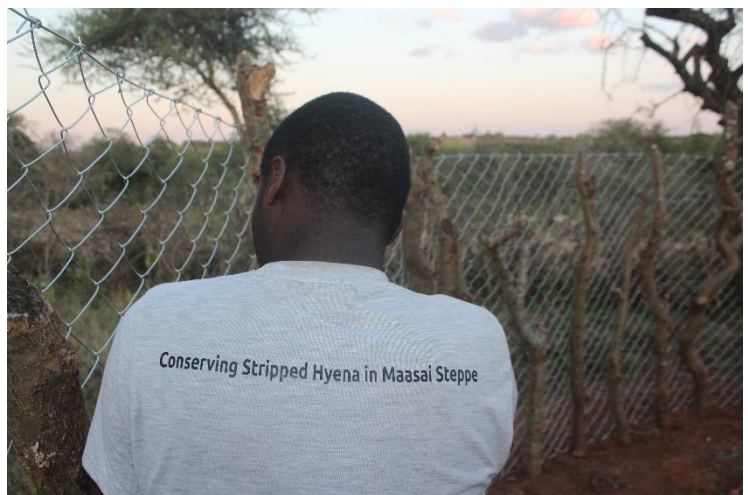
**Annex three:** Environmental Education to Students and Community Members

**Annex four:** The installation of camera traps in the field

**ANNEX 1: PHOTOS OF THE STRIPED HYENA CAUGHT ON CAMERA TRAPS IN THE FIELD**



**ANNEX 2: INSTALLATION OF LIVESTOCK ENCLOSURES TO PROTECT LIVESTOCK FROM STRIPED HYENA**



**ANNEX 3: ENVIRONMENTAL EDUCATION TO STUDENTS AND COMMUNITY**  
**MEMBERS**





**ANNEX 4: THE INSTALLATION OF CAMERA TRAPS IN THE FIELD**

