

Final Evaluation Report

Your Details	
Full Name	Ezra Peter Mremi
Project Title	Monitoring the Sokoke Scops Owl and Usambara Eagle Owl Population, and Awareness Raising in the East Usambara Mountains, Tanzania
Application ID	41572-1
Date of this Report	17/02/2025



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
To determine the distribution patterns and habitat preferences of Sokoke scops owls and Usambara eagle- owls within the East Usambara forests			>	The project successfully identified the habitat preferences, with the findings indicating that these species prefer specific microhabitats, highlighting the need for targeted conservation efforts.
To estimate the population density of Sokoke scops owls (Otus ireneae) and Usambara eagle-owls (Bubo vosseleri) in the forests of the East Usambara Mountains		~		While population density was estimated, the project revealed that these owls have a broader range than previously documented. This finding suggests that further surveys are needed to obtain a more comprehensive population estimate across different forest patches.
To identify and evaluate the major threats affecting the survival of these owl species and propose evidence- based conservation strategies.			✓	The key threats facing the two owl species include habitat loss due to deforestation, human encroachment, and direct persecution driven by deep- rooted superstitious beliefs.
To raise awareness among local community on the ecological significance of owls and address superstitions that contribute to their persecution.		~		The project conducted awareness campaigns through village meetings, church gatherings, and school sessions. These initiatives helped educate local communities on the ecological importance of owls and encouraged local support for conservation efforts.

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

a). Expanded Understanding of Owl Persecution Beyond Superstition

The project revealed that the persecution of owls in the East Usambara Mountains extends beyond the traditional belief that they bring bad luck. While killing owls due to superstition remains common, a more concerning trend was uncovered, where live owls and their eggs are being captured and sold to witch doctors. These practitioners believe that owl parts possess magical properties, either to bring good



fortune or to provide protection against harm. This illegal wildlife trade adds another layer of threat to the already vulnerable owl populations.

b). New Insights on Usambara Eagle-Owl Habitat Range

The Usambara eagle-owl (Bubo vosseleri) was previously documented as inhabiting high montane forests between 900–2000 meters above sea level (amsl). However, during surveys targeting the Sokoke scops owl (Otus ireneae) in lowland forests, several Usambara eagle-owls were recorded making territorial calls at elevations between 250–400 amsl. Additionally, a live Usambara eagle-owl was rescued from poachers at an elevation of 300 amsl. These findings suggest a broader habitat range than previously recognized, emphasizing the need for conservation efforts in both montane and lowland forests.

c). Increasing Threats to Critical Lowland Forest Habitats

The project identified significant human encroachment threats to remote lowland forest reserves, which serve as critical habitats for both owl species. Expanding agricultural activities, commercial timber harvesting, and charcoal production are leading to extensive deforestation. Due to their remoteness, these forests receive minimal government patrols, making them highly vulnerable to illegal activities. Strengthening forest protection and increasing surveillance in these areas is crucial to safeguarding the habitats of these rare owl species, and other wildlife inhabiting the area.

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

i. Community Reluctance Due to Negative Perceptions of Owls Initially, some local community members were hesitant to attend awareness meetings due to deep-rooted superstitions and negative beliefs about owls. To overcome this, the project first engaged primary school students by distributing welldesigned brochures for them to share with their parents, which helped spark interest. Additionally, influential community figures such as religious leaders, village leaders, and teachers were educated first so they could spread the message and personally invite villagers to participate. The project also involved local guides from the community, making the initiative more relatable and accepted.

ii. Extended Fieldwork Duration and Increased Costs

The fieldwork took longer than initially planned due to the unexpectedly large range of the target owl species, which led to increased operational costs. To address this, the project trained local guides and willing community members to assist in monitoring owl activities and habitat range. This allowed for continuous data collection even with distant supervision from the project team, reducing the need for prolonged direct involvement from the whole research team.

iii. Budget Shortages Due to Rising Costs

Some project activities became financially challenging due to an increase in the cost of certain items and logistical expenses. To ensure smooth continuation, the project sought and secured additional financial support from the Mohammed Bin



Zayed Species Conservation Fund. This funding helped cover the gaps, allowing the project to complete its objectives successfully.

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

The project actively involved local communities by educating them on owl identification, behavior, and ecological significance. Community members were trained to distinguish different owl species based on their physical appearances and vocalizations. Additionally, they learned to interpret owl communication and recognize their peak breeding months, which helped foster a better understanding of these birds.

The project conducted detailed training sessions explaining owl anatomy to dispel negative superstitions, emphasizing that no part of an owl possesses magical powers. This was crucial in challenging deep-rooted misconceptions and reducing harmful practices such as owl persecution. The ecological role of owls as natural pest controllers and indicators of a healthy environment was also thoroughly discussed, reinforcing their importance in maintaining ecosystem balance.

Furthermore, the project highlighted the conservation urgency of the Usambara eagle-owl and Sokoke scops owl, explaining that these species are endemic to nearby forests and highly threatened by human activities. Through community meetings and workshops, perceptions toward owls improved significantly. Follow-up interviews revealed that many local people are now less fearful of owls and a considerable number of these people are willing to support conservation efforts.

Additionally, local guides received specialized training in owl surveying and monitoring techniques. They gained valuable skills in identifying threats, documenting owl presence, and reporting new findings. This knowledge not only benefits ongoing conservation efforts but also enhances their potential for future employment in conservation-related activities. This approach has strengthened local participation in owl conservation, ensuring a more sustainable and communitydriven effort to protect these threatened species.

5. Are there any plans to continue this work?

The project remains ongoing in the East Usambara Mountains, with a primary focus of obtaining a comprehensive estimate of the population density of Sokoke scops owls and Usambara eagle-owls across their entire habitat range. This includes expanding surveys to additional forest reserves that serve as critical habitats for these species. By covering more areas, the project aims to develop a clearer map of owl distribution and population density within the East Usambara forest reserves.

Additionally, the project is engaging the Tanzania Forest Services Agency (TFS) to communicate the conservation needs of these species. Recommendations include establishing well-defined buffer zones to protect the crucial forest habitats essential for the survival of these owls. Strengthening collaboration with authorities is key to ensuring long-term protection and management of these forest ecosystems.



Securing additional financial support is also a major priority. The project aims to facilitate forest restoration efforts in collaboration with the local community, focusing on reforesting degraded areas that serve as key owl habitats. To reduce pressure on forests, the initiative also plans to provide incentives such as cash crop seedlings to local farmers, helping to improve their financial stability and decrease dependence on forest resources for daily needs.

Furthermore, there is a need to extend awareness campaigns to more villages surrounding the Usambara forest reserves. Expanding outreach efforts will help educate communities bordering these forests, fostering a stronger local conservation network and increasing public support for protecting owls and their habitats. The project seeks to ensure a lasting impact on both species' conservation and local community livelihoods through these initiatives.

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

The project is committed to disseminating its findings to both the scientific community and local stakeholders. To inform scientists and conservationists, the team is preparing a short communication paper detailing the newly discovered habitat range of Sokoke scops owls and Usambara eagle-owls, as well as the key threats identified during the study. This publication will contribute to the broader understanding of these species and support conservation planning.

Additionally, the project team will present its results at the annual wildlife research convention in the country. This platform will allow researchers, conservationists, and policymakers to engage with the findings, fostering discussions on conservation strategies for these threatened owl species and their habitats. The project also will use a local radio station to inform a broader audience about the project's results.

At the community level, the project is leveraging church gatherings as a means of sharing results with local people. By integrating religious teachings that emphasize stewardship of nature, the project seeks to encourage a cultural shift toward appreciating and protecting owls as part of God's creation. Furthermore, local school students are being informed about the project's findings through educational sessions. They are also provided with information to share with their parents, ensuring that conservation awareness extends beyond the classroom and reaches more members of the community. This approach ensures that the project's results are effectively communicated to different audiences, enhancing both scientific knowledge and community engagement in owl conservation.

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

One of the most crucial next steps is the restoration of degraded forest areas that serve as key habitats for Sokoke scops owls and Usambara eagle-owls. However, before initiating restoration efforts, it is essential to first address the root causes of



habitat destruction by strengthening measures to prevent illegal logging, land clearing, and unsustainable forest resource use. Stopping further degradation will create a stable foundation for effective habitat restoration.

The project has made significant progress in raising awareness and improving local perceptions of owls, reducing fears and misconceptions to a good extent. However, some community members remain unconvinced about owl conservation, primarily because they do not see a direct economic benefit from protecting these species. To address this, the next step will involve providing targeted incentives such as alternative livelihood support, cash crop seedlings, or ecotourism opportunities to encourage local participation in conservation efforts.

Maintaining consistent community engagement is vital. If local people continue receiving information about owls and their ecological importance, their attitudes can gradually shift toward full support for conservation. Expanding educational outreach, integrating conservation messages into cultural and religious discussions, and fostering long-term collaboration with local leaders will be key strategies in ensuring lasting impact.

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?

The Rufford Foundation logo was used in all materials produced in relation to this project. These included t-shirts, posters, a banner, brochures, and PowerPoint slides used during presentations and community awareness sessions.

The foundation also received publicity through various platforms. Social media posts were used to highlight the project's activities and findings, ensuring a broader audience became aware of the foundation's support. Additionally, the project utilized a local radio station to raise awareness about owl conservation, during which The Rufford Foundation's contribution was acknowledged.

Furthermore, the foundation will be formally recognized as a project funder in the upcoming scientific publication that will share key findings with the conservation and research community.

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

- i. Ezra Peter Mremi Project Leader
- ii. Vainess Solomon Laizer a raptor behavior expert and report writer
- iii. Hillary Mrosso Community outreach expert
- iv. Joseph Sikawa Field surveyor

10. Any other comments?

The team is grateful for the support from The Rufford Small Grants Foundation and looks forward to continuing this important work.





The Sokoke Scops Owl



A rescued Usambara Eagle-owl





Owl eggs confiscated from a poacher



Illegal timber harvesting in the forest

