Final Evaluation Report

We ask all grant recipients to complete a project evaluation that helps us to gauge the success of your project. This must be sent in **MS Word and not PDF format**. We understand that projects often do not follow the predicted course but knowledge of your experiences is valuable to us and others who may be undertaking similar work – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please DO NOT fill in and submit this form until the project has been completed.

Complete the form in English. Note that the information may be edited before posting on our website.

Please email this report to jane@rufford.org.

Your Details	
Full Name	Clare Thouless
Project Title	Using fisher's local ecological knowledge (LEK) to identify critical habitats, distribution and abundance of Kenya's coastal elasmobranchs
Application ID	42537-1
Date of this Report	27/08/2025

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
Develop socio-ecological questionnaires on shark and ray ecology and fishing			✓	A comprehensive questionnaire for fishers, traders and processors was developed and finalised, as a well as key informant survey.
Training two research assistants to conduct socio-ecological surveys			✓	Three researchers were trained of conducting socio-ecological surveys. The researchers/data collectors were selected as follows: one had previously worked with me in Watamu on a shark tagging project, one had previously been temporarily employed by CORDIO for data collection, and one was recommended by a colleague. All data collectors were interviewed either in person or over the phone. The training took four days in Kilifil: two days in a central workshop, and then two days conducting pilot interviews with fishers in the field.
Conduct socio-ecological surveys			✓	380 fisher, trader and processor questionnaires were carried out in 18 landing sites, as well as 18 key informant interviews. Some fishers were willing to take GPS units on their vessels, but as sharks are incidentally captured, we decided that mapping general fishing grounds would not be that informative for mapping areas where sharks are. Instead, we adapted the methodology so

				that we included questions on the names of fishing grounds where high numbers of sharks and rays are captured. We will return to the study sites to conduct participatory mapping with knowledgeable fishers from each site, using a boat and GPS to map the sites that have been identified in the questionnaires.
Data analysis and write up of report		✓		The questionnaire response translations from Swahili to English have been completed, data cleaning is ongoing and data analysis is due to start later in October 2025. A draft of the study, in the form of a PhD chapter will be completed in early 2026.
Dissemination of results	✓			Results dissemination will begin after data analysis has been completed and the report written. The results dissemination is due to be covered by co-funding.

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

a) 380 questionnaires were conducted at 18 sites across Kenya. Fishers reported noticeable declines in both the numbers and sizes of sharks and rays caught, providing clear evidence of population decline along the Kenyan coast.

b) Participatory mapping identified key habitats, including potential nursery, pupping, and feeding grounds, which will inform future research and management planning.

c) The project revealed major gaps in awareness about sharks' ecological importance, the health risks of consumption, and existing fisheries laws, highlighting the need for targeted education campaigns.

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

Developing the questionnaires took longer than anticipated, as multiple rounds of review and revision were needed to ensure the questions were clear and

appropriate. After the first and second pilots in 2024, additional edits were required to improve the structure and wording. Another challenge arose with the data collection platform. Initial attempts to use Kobo Toolbox proved unreliable, particularly for managing spatial data. To address this, the project switched to EarthRanger, which allowed for the integration of spatial information and the rapid generation of result summaries, ultimately strengthening the quality of the data collected. Translating the questionnaires into Swahili also presented unforeseen difficulties, as some technical terms did not have direct equivalents. This was tackled by involving multiple translators and conducting three pilot tests to refine the wording, ensuring that the final version captured the intended meaning accurately. Although these challenges delayed the start of data collection, they improved the robustness and clarity of the final dataset.

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

Two coastal community members and one data collector from Nairobi were trained in socio-ecological data collection and use of EarthRanger, building local skills in ecological monitoring. In total, 380 fishers and 18 BMU representatives participated through interviews and mapping, ensuring broad representation of local knowledge. This process validated fishers' experiences and recognised them as key stakeholders in shark and ray conservation. Once results are shared back, communities will benefit from habitat maps and fisheries data that can support BMU decision-making, strengthen negotiations with other marine users, and guide more sustainable fishing practices to secure livelihoods and food security.

5. Are there any plans to continue this work?

Yes, there are plans to continue this work. The next step will be to return to selected communities and, together with fishers, map the fishing grounds and critical habitats identified during the surveys. These areas will then be surveyed using baited remote underwater video systems (BRUVS) to assess shark presence, testing whether local ecological knowledge can effectively guide scientific research and habitat mapping. In partnership with other organisations, we will also carry out awareness campaigns to address the gaps identified in this study, focusing on the ecological role of sharks, health risks of consumption, and existing fisheries laws. Finally, results will be disseminated back to the communities through meetings with fishers and BMUs, ensuring they directly benefit from the findings and can use them in local management planning.

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

The results of this work will be shared through multiple channels to reach both scientific and non-scientific audiences. Findings will be published in a peer-reviewed journal and form part of my PhD thesis, ensuring they contribute to the global body of knowledge on shark and ray ecology and conservation. The process of the surveys and the results will also be shared as a blog post on CORDIO's website. In Kenya, the results will be shared directly with key government departments to support evidence-based policy and management decisions. At the community level, dissemination workshops and awareness campaigns will be held with fishers and BMUs to ensure they benefit from and can apply the findings in local management. In addition, the participatory mapping and BRUVS work will feature in

a documentary produced in partnership with The Shark Project, aimed at catalysing national and international action for shark conservation. The documentary will highlight Kenya's critical shark habitats and contribute to initiatives such as establishing Important Shark Areas, pursuing RAMSAR designation, and strengthening policy frameworks.

7. Looking ahead, what do you feel are the important next steps?
An important next step is to finalise the data analysis to consolidate the findings from the surveys. Building on this, the project will map the fishing grounds and critical habitats identified by fishers and then carry out BRUVS surveys in these areas to assess shark presence. These steps will help validate the use of local ecological knowledge in guiding scientific research and provide stronger evidence for the protection of critical shark habitats. The outcomes will also form the basis for community engagement, awareness campaigns, and policy recommendations, as well as dissemination of results back to the communities.

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, the logo was used on forms for participants. The logo will also be used on the CORDIO website in a post about the study, as well as in the final report. Some of the results were presented in a talk at the Western Indian Ocean Marine Science Association (WIOMSA) Scientific Symposium 2025, titled "Mapping Critical Habitats of Sharks in Kenya for Improved Management", where the Rufford logo was included in the presentation. The logo was also used in another presentation I gave at WIOMSA at a special session about acoustic monitoring, as the results are linked to this study. Both presentations were well attended and received good feedback and interest.
I am going to submit an abstract in November to present the results of this study, and how it is being used to design baited remote underwater video system (BRUVS) surveys at the Sharks International conference (https://si2026.org/) in May 2026.

9. Provide a full list of all the members of your team and their role in the project.
Clare Thouless – Project lead
Dr. Kristian Metcalfe – Project supervisor
Dr. Ana Nuno – Co-supervisor, oversaw the development of the questionnaires
Dr. Melita Samoilys - Co-supervisor, oversaw the fieldwork in Kenya
Eva Kitaria – Fianace supervisor, reviewed budgets and expense reports
Jason Mwamidi – Finanace and logistics, reviewed final expense reports and processed expenses
William Ogega – Lead data collector, logistics
Grace Mwendwa – Data collector, managed in-field expenses
Sylverster Menza – Data collector, community liasion

10. Any other comments?
None

ANNEX – Financial Report

[Intentionally deleted]