

## Final Evaluation Report

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Your Details	
<b>Full Name</b>	Jorge Rojas Jimenez
<b>Project Title</b>	Mitigating the Conflict Between the Endangered Baird's Tapir and Farmers in a Key Biological Corridor, Costa Rica.
<b>Application ID</b>	32865-1
<b>Date of this Report</b>	08-25-2023

**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
Characterize human-tapir interactions in farms across the Tenorio-Miravalles Biological Corridor (TMBC)				Following Pastor-Parajeles' (2022) thesis project, we applied the same methodology and interview process to the farmers. In this case we interviewed five farmers at TMBC and characterised their practices.
Describe tapir locations, movement patterns, and resource selection by capturing and outfitting 5 tapirs wandering outside of protected areas with GPS collars at the TMBC and build a network of camera traps				We successfully captured and fitted a total of 10 tapirs with GPS radiocollars and described their home range at TMBC from July 2021-June 2023. Resources selection function data analysis is currently ongoing. In this same time period, we deployed a total of 114 camera trap stations with 57 tapir detections across TMBC.
Implement mitigation actions to decrease human-tapir conflict and improve agriculture practices at the TMBC				We implemented and installed electric fencing in five farms across TMBC, to repel tapirs.
Implement an environmental education program at the TMBC				We implemented two educational activities in the period from this grant including at the annual Tapir Festival in 2021 and 2022, although this was not established permanently due to school COVID-19 protocols, project budget and personnel limitations.

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

- a).** Characterisation of the home range of 10 tapirs outfitted with GPS radio collared.
- b).** Mapped the tapir distribution at TMBC by using tapir detections obtained from the camera traps.
- c).** We implemented and installed electric fencing in five farms across TMBC, to repel tapirs raiding crops.

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

Since the beginning of the project, COVID-19 was still impacting local economies and logistics related to the objectives of this project. However, by respecting authorities' protocols that were implemented to tackle the situation, we did fulfil most of the objectives. We were able to interview five farmers where we implemented electric fencing to repel tapirs from Objectives 1 and 3. For tapir distribution and movement patterns from Objective 2, we achieved successfully and surpassed what we proposed by capturing 10 tapir tapirs and doing more than 100 camera trap stations.

Additionally, emphasising in object 4, related to the educational programme we did successfully implement two activities in the annual Tapir Festival in 2021 and 2022. However, we were not able to establish this program permanently due to school lockdowns and COVID-19 protocols.

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

Communities at TMBC were very interested to help, be part of, and contribute to the project. To the point that community members (e.g., farmers, tour guides, park rangers from the National System of Conservation Areas) were empowered to the project. Currently we transferred tapir monitoring through the citizen science project "Life between volcanoes" through the camera traps management. And during tapir tracking of the GPS radiocollars we are constantly including farmers and participants of "Life between volcanoes" during the sessions. Moreover, we are collaborating to establish Community Wildlife Monitoring Brigades through the "Life between volcanoes" to constantly tackle farmer-tapir conflicts that may arise at TMBC.

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

Yes, following question 4, we are in the process of transferring the tapir monitoring and farmer-tapir conflicts resolutions to the citizen science project "Life between volcanoes". In addition, we aim to capture more tapirs at TMBC to understand the population structure, movement preferences, and connectivity in a fragmented landscape. In addition, this project funded by Rufford helped to launch tapir monitoring and establish the ecological framework comprehending tapirs habitat use at TMBC. Once this has solidified, we aim to launch a tapir population health assessment by capturing more tapirs and analysing collected biological samples.

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

Through social media from the Costa Rica Wildlife Foundation (CRWF-@crwildlife) and Nai Conservation (@naiconservation) Facebook and Instagram pages we are constantly sharing and updating the progress of our work. In addition, we shared an official report of the project every year to the SINAC and authorities. Moreover, at the annual Tapir Festival we are constantly planning activities to show results and share the tapir monitoring with community members.

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

Next steps include:

- Solidify and establish a long-term tapir population monitoring by the "Life between volcanoes" citizen science project.
- Capture and radiocollar additional tapirs to understand population dynamics.
- Establish the Community Wildlife Monitoring Brigades through the "Life between volcanoes" to constantly tackle farmer-tapir conflicts that may arise at TMBC.
- Implement a permanent educational programme at TMBC through "Salvadas".

## 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, since 2021 Dr. Jorge Rojas did more than 10 presentations including national and international scientific conferences and non-scientific meetings, and activities at the Tenorio-Miravalles Biological Corridor such as the annual Tapir Festival and workshops at the "Life between volcanoes" in which he used Rufford logo during all his presentations.

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

**Dr. Sonia M. Hernandez:** current major advisor for Dr. Jorge Rojas in his PhD. She oversees all his project objectives.

**David Vela:** field assistant and professional photographer.

**Sofia Pastor-Parajoles:** collaborator during interviews with farmers.

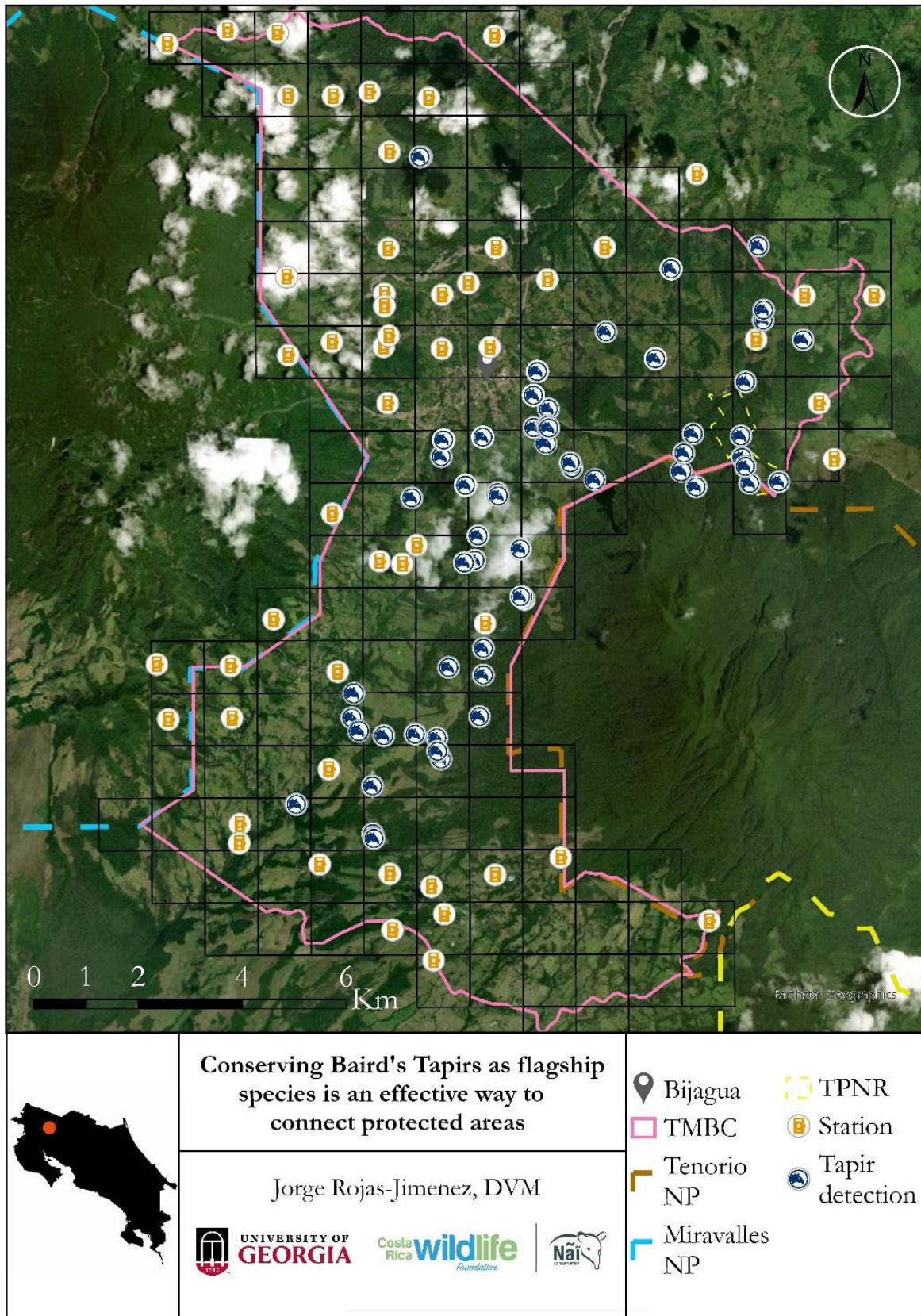
**Hazel Muñoz:** leader of "Life between volcanoes"

**Donald Varela-Soto:** local guide, naturalist, collaborator and owner of the Tapir Valley Nature Reserve.

## 10. Any other comments?

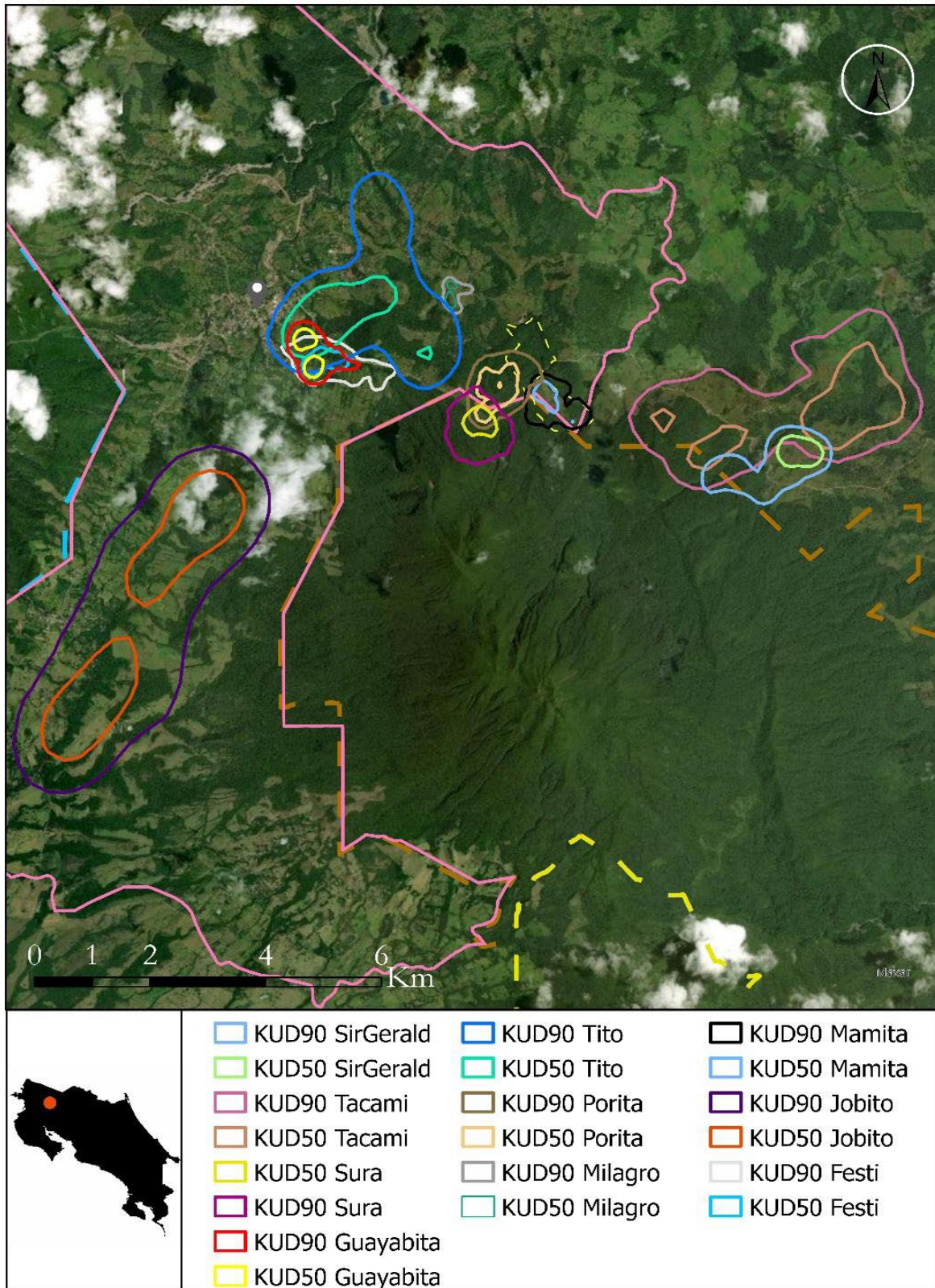
See attached the following figures:





**Figure 1.** Tapir detections at Tenorio-Miravalles Biological Corridor (TMBC) from July 2021-June 2023, obtained through a community-based camera trap network.





**Figure 2.** Tapir Home Ranges by using Kernell Utilization Distribution (KUD) metric at Tenorio-Miravalles Biological Corridor (TMBC) from July 2021-June 2023, obtained through capturing and outfitting tapirs with GPS radio collars.