Final Evaluation Report

Your Details	
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Project Title	Conserving the critically endangered *Rungwecebus kipunji* through studying distribution patterns and capacity building at Rungwe- Livingstone forests, Tanzania
Application ID	33321-1
Grant Amount	£5,999
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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 map the distribution patterns of the critically endangered *Rungwecebus kipunji* at Rungwe-Livingstone forests		✔		Data were collected through transects (survey routes following trails and human tracks) and opportunistic sightings. The priority was given to areas where kipunji was already suspected to be found through knowledge from literature review, local knowledge, habitat type and altitude. Following that, six villages (Ilolo, Bujingijila, Syukula, Ndala, Ilundo and Kabale) were selected during the reconnaissance and surveyed for distribution patterns. Kipunji faeces, individual sightings, nests, spoor signs and vocalizations were assessed and recorded. *R. kipunji* was mostly encountered in altitudes ranging from 1500- 2870 m. It was discovered that kipunji preferred part of the mountain forest that has tall trees, next to no anthropogenic disturbance and highly rich in food availability areas. Because of the rough terrain in other areas, we were unable to fully achieve this objective. We recommend that further studies to cover large areas use devices like drones or sensor devices to reach areas that we were unable to surveyed on foot.
To assess threats facing the critically endangered *Rungwecebus kipunji* at Rungwe-Livingstone forests			✔	Following transects on distribution pattern data collection, the threats facing *R. kipunji* were also observed and recorded. We observed threats like logging, charcoal burning, traps, encroachment, deforestation and other anthropogenic disturbances. GPS coordinates were recorded in each observation. Furthermore, focus group discussions and household questionnaires were conducted to

			determine the threats. We recommend that the MRNFR conservation team increase management efforts and create conservation awareness to community around the forest so to minimise the threats.
To assess community awareness on the conservation of the critically endangered *Rungwecebus kipunji* at Rungwe-Livingstone forests			A reconnaissance survey was conducted in the villages bordering Mount Rungwe Nature Forest reserve. Semi-structured questionnaires composed of both open-ended and closed questions were administered to collect information. Five villages (Isongole, Ndaga, Kibisi, Syukula and Ilolo) were selected for household interviews. A total of 116 respondents were engaged in this study. To gather more information, key informant interviews with forest officers, tourism officers, VEO, as well as through participatory field observation were also conducted. Our results showed that more than 70% of respondents were not aware of kipunji's existence and its conservation status. We recommend more efforts in creating conservation awareness to be considered since local people lack information on kipunji conservation.
To create awareness on the conservation of the critically endangered Rungwecebus kipunji at Rungwe-Livingstone forests			In each village selected in objective three, 20 households were randomly selected for capacity building. In addition, we are preparing the report which will be submitted to MRNFR on the results obtained from the study. Furthermore, training was conducted with four primary and two secondary schools using an art and storytelling group project approach to help students connect forest health and *R. kipunji* conservation. The training focused on the uniqueness of and threats to *R. kipunji* but was also emphasising forest health and the importance of habitat and resources conservation for human wellbeing. A total of 1500 students from secondary and primary school were trained.

2. Please explain any unforeseen difficulties that arose during the project and how these were tackled.

- Excessive rains were one of the major difficulties encountered during the field work. We had to work on extra days to ensure the study was successful example studying species distribution pattern.

- Inaccessibility of some areas with a vehicle due to roughness of roads was another setback. In order to reach those areas, we had to use motorbikes.

- Unwillingness of some of the interviewees to provide information was another setback encountered. To tackle this challenge, we had to visit more household to reach the targeted sample number.

3. Briefly describe the three most important outcomes of your project.

We managed to create conservation awareness and training for 1500 students (both primary and secondary schools) and 20 households. More interestingly, we were able to create an environmental conservation club named "KIPUNJI CLUB" at Katumba II primary school. We are also in the final stage of preparing a detailed report that shows results and recommendations which will be submitted to and distributed online (via ResearchGate) for other scientists and conservationists to read.

Figure 1: Students from Lupoto Secondary smiling after a good training on Kipunji conservation.

Figure 2: Students paying attention and celebrating the opening of Kipunji Club after conservation training at Katumba II primary school.

Figure 3: Some of the household members who were trained on the importance of Kipunji and the forest conservation.

We have also managed to produce a Kipunji distribution map for the areas surveyed and also a map of villages surveyed for household interviews.
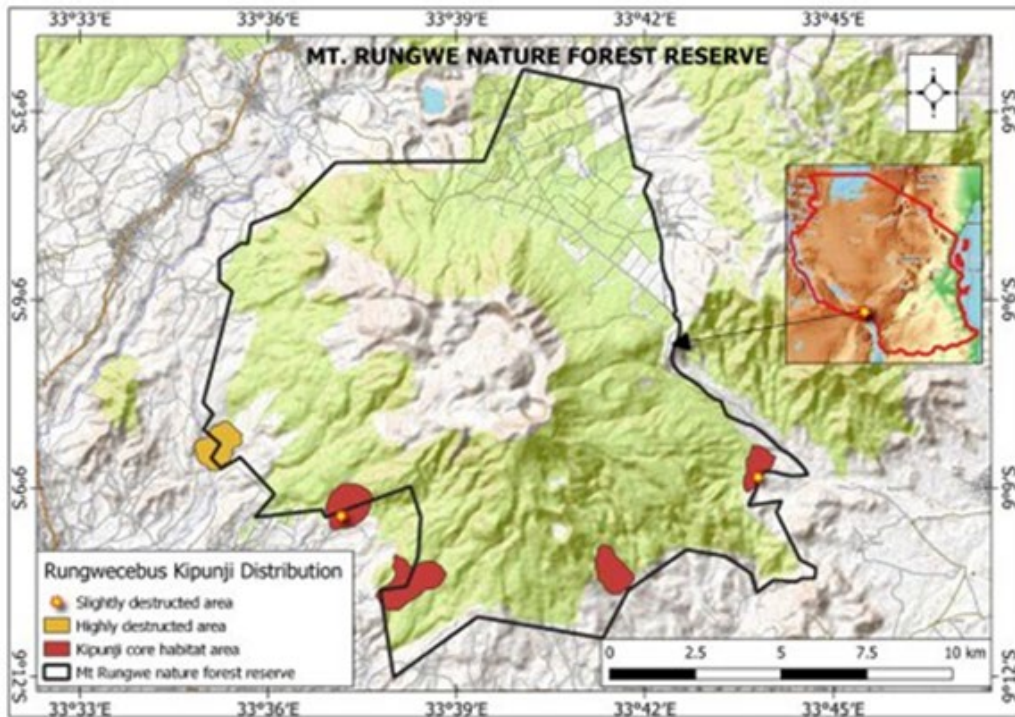
Figure. 4: A map showing distribution of Kipunji in the surveyed area as well as spotted areas that are facing anthropogenic threats.
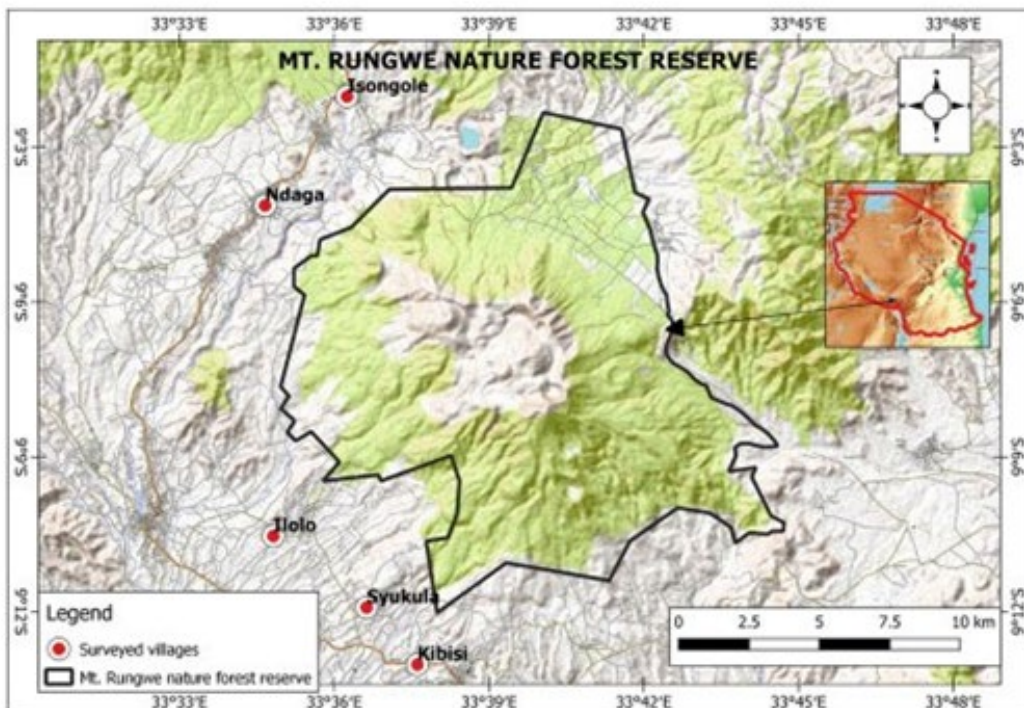

Figure 5: A map showing villages that were surveyed during household interviews.

We managed to identify anthropogenic activities that are threatening forest health and Kipunji existence as seen below.

Table 1. Observed anthropogenic threats during Kipunji distribution survey.

	Ilolo	Ilundo	Ndala	Syukula	Bujingijila	Kabale	frequency	(%)
Charcoal burning	0	7	0	0	0	0	7	12.0
Hunting traps	0	32	0	0	0	0	32	55.2
Tree cutting	0	12	1	0	1	2	16	27.5
Logging	1	2	0	0	0	0	3	5.2

Table 2. Anthropogenic threats mentioned by respondents

	Responses		Percent of Cases
	N	Percent (%)	
Illegal fire outbreaks	58	33.3	50.9
Environmental deterioration	44	25.3	38.6
Illegal hunting	36	20.7	31.6
Lack of conservation awareness	36	20.7	31.6
	174	100	152.6

We were also able to determine community awareness, attitude and concern relating to conservation of *Rungwecebus kipunji* within the study areas (Fig. 1) as well as determine the possible conservation measures that can be implemented (Fig 2) as shown below:
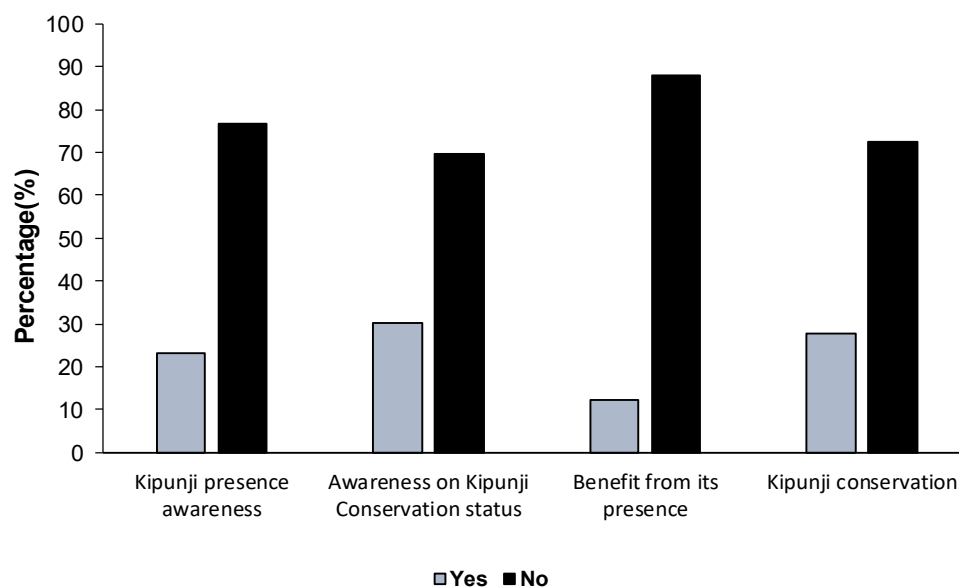

Figure 6: *Community awareness, attitude and concern relating to conservation of Rungwecebus kipunji*
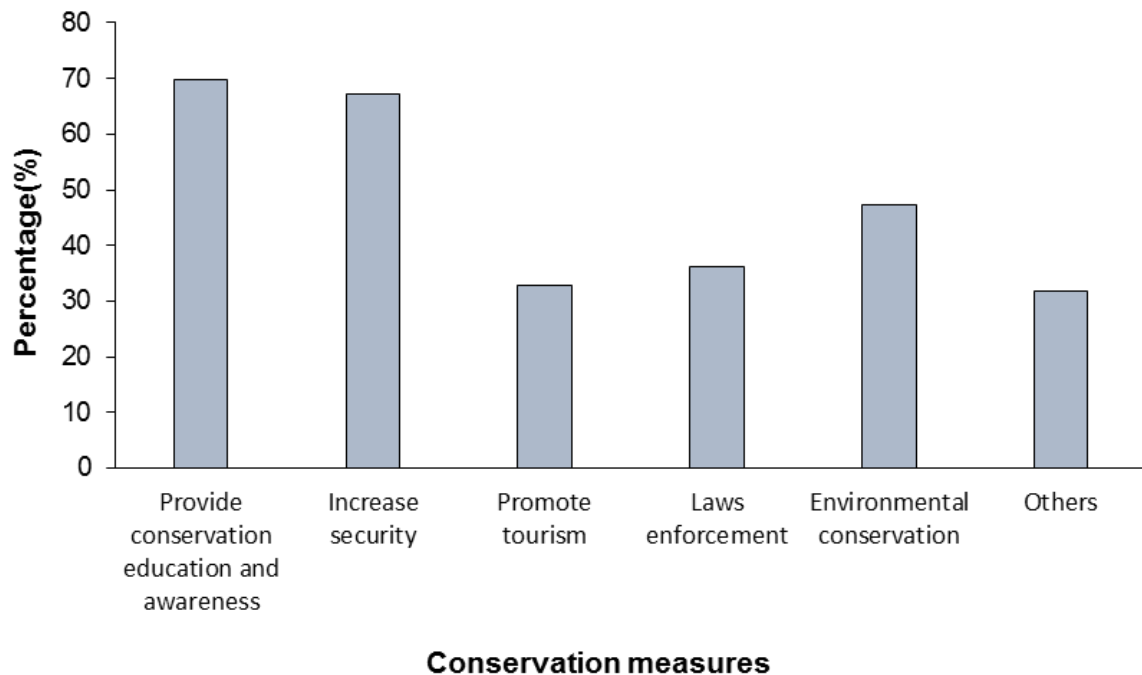
Figure 7: *Community perception on ways for conserving Kipunji and MRNFR.*

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

During the field work, we involved youth community members in data collection - both field survey and questionnaire data collection and thus they were benefited since they got to learn how to collect data and conduct field survey study. We also involved community household members in the training and awareness creation. Most of community members were not aware of the uniqueness of the kipunji and thus through training provided, they were made aware how unique and valuable their forest is. Furthermore, training conducted at schools did not only benefit students on becoming aware of kipunji conservation but also some of the teaching was matched to what is being taught in their environment subjects syllabus - for that, it was a win-win situation.

5. Are there any plans to continue this work?

Seeing that more than 70% of community members reached were unaware of Kipunji conservation status or conservation strategies, we are planning at broadening the study by conducting more outreach programme so that we can reach many other people. We are planning in the future to campaign on kipunji tourism as we are certain that through tourism, the community will benefit and will become more willingly to conserve the forest and Kipunji. Furthermore, to intensify the distribution patterns, we are looking forward to conducting a broader distribution study using remote sensing devices if there will be availability of funds. Not only that, we were able to reach six schools, but there are many schools in southern highlands which we are certain that when they are trained, they will be able to support conservation efforts in future. As we are having good hope on engaging young ones

and the coming generation in the conservation, we would like to reach many more schools in the future if there will be availability of funds.

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

This study will provide a detailed report of the findings and we will disseminate it to both local and international communities. Results will be communicated in the form of a poster, flyer and group discussions to local communities, primary and secondary schools. The results will also inform the conservation committee on what has been achieved after the upgrade of the forest in relation to the influence of kipunji conservation. Furthermore, results will be published in a peer-reviewed journal. Findings will be presented during national conference, organised by TAWIRI in December 2021.

7. Timescale: Over what period was the grant used? How does this compare to the anticipated or actual length of the project?

Due to COVID-19 and school holidays, the project was conducted for 11 months instead of the planned 6. Since we had to conduct training in schools, we had to make amendments on the timetable until the time schools were resumed. It was also difficult to gather people because of COVID-19 protection measures - for that we had to conduct more than one meeting with fewer people to meet the planned number, and thus we had to use ample time.

8. Budget: Provide a breakdown of budgeted versus actual expenditure and the reasons for any differences. All figures should be in £ sterling, indicating the local exchange rate used. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.

Item	Budgeted Amount (£)	Actual Amount (£)	Difference (£)	Comments
Binocular 2 peace@ £99.8	200	220	+20	We budgeted less amount than the actual amount.
GPS device-2 peace@ £264.72	529	529		Same amount budgeted was used.
GPS battery charger-2 piece @£31.42	63	63		Same amount budgeted was used.
Camera (canon)-1 peace@ £499.00	499	499		Same amount budgeted was used.
Tape measure UK (100 m)- 2 pieces @£19.85	40	45	+5	We budgeted less amount than the actual amount.
Diesel from Mbeya to study sites and intra sites movements- 800 liters	664	676	+12	We budgeted less amount than the actual amount.

@£0.83				
Oil for vehicle - 20 liters @£1.98	39	43	+4	We budgeted less amount than the actual amount.
Bus travel from Arusha to Mbeya - 2 person (go & return £46.57)	93	93		Same amount budgeted was used.
Normal vehicle service over a study period- Approx. cost for 3 months £349.00	349	355	+6	We budgeted less amount than the actual amount.
Stationaries (printing data sheets, pencils, notebooks etc.) Various stationaries (approx. cost £66.53)	67	70	+3	We budgeted less amount than the actual amount.
Printer- 1 piece @ £66.5	66	66		Same amount budgeted was used.
Permit fee- Approximate cost £33.2	33	33		Same amount budgeted was used.
Field assistants (3 months' work)- 3 persons @£99.8 /month/ person (i.e., 3×£99.8 ×3 months)	898	950	+52	We budgeted less amount than the actual amount.
Driver (3 months' work)- 1 person @£99.8 /month (i.e., 1× £99.8×3 months)	299	299		Same amount budgeted was used.
Researcher (PI)- (3 months' work) - 1 person @£166.3 /month (i.e., 1×£199.6×3 months)	499	499		Same amount budgeted was used.
Camping tents- 3 pieces @£182.96	549	560	+11	We budgeted less amount than the actual amount.
Publication cost to peer reviewed journal Approx. cost £266.13	266	266		Same amount budgeted has been saved for publication costs.
flyers printing 150pieces @ £ 0.66	99	99		Same amount budgeted was used.
Poster printing- 30 pieces @ £11.64	349	349		Same amount budgeted was used.
Presentation in the conference- 1 meeting @ £66.53	67	69	+2	We budgeted less amount than the actual amount thus added more £2 for the coming conference.
flip chart - 10 pieces @ £6.65	67	67		Same amount budgeted was used.
flip chart stand-2 pieces @ £16.6	33	33		Same amount budgeted was used.
Projector hiring- 1 piece for 5 days @ £66.53	67	67		Same amount budgeted was used.
GPS rechargeable batteries	31	31		Same amount budgeted was

(AA battery)-8 pieces @£3.98				used.
T- shirts with RUFFORD logo 20 pieces @ £6.65	133	133		Same amount budgeted was used.
Total	5999	6114	+116	We had to make an additional of £116 to ensure successfulness of the project which was contributed by the PI.

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

Looking at the findings from this project, the next important step is to increase efforts on creating conservation awareness, as it was seen that some of the community member still practice illegal activities in the forest which directly threatens the existence of kipunji, for example illegal hunting, charcoal burning and deforestation.

10. 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, in every presentation made, and on fliers and posters distributed, the Rufford logo was used to increase publicity and grant acknowledgment. Also, in the manuscript that will be submitted for publication, Rufford conservation grant will be acknowledged.

11. Please provide a full list of all the members of your team and briefly what was their role in the project.

Ms. Warda Kanagwa: currently working for The Nature Conservancy, she holds a master's degree in Biodiversity Conservation and Ecosystem management from the Nelson Mandela African Institution of Science and Technology. She helped in all data collection activities and results dissemination through outreach programme and capacity building.

Dr. Filemon Elisante - A lecturer at The University of Dodoma in Tanzania. He has supported and supervised the entire activity, data analysis and manuscript improvement.

Mr. John Sanare – He is working as a GIS expert at TAWIRI. He assisted in making distribution map.

Mr. Oscar – He is a guide at Ilolo camping site. He assisted in field survey data collection during studying distribution of Kipunji along Ilolo site.

Mr Goodluck Jonas - a graduate of Bachelor of accounts and finance in public sector from Mzumbe University in Tanzania. He assisted on questionnaire data collection and conducting trainings at schools.

Ms. Elizabeth Mwanyingili - a graduate of Bachelor of Political Science and public administration from university of Dar-es-salaam. She assisted on conducting trainings at schools.

Ms. Catherine Boaz - a graduate of Bachelor of accounts and finance in public sector from Mzumbe University in Tanzania. She assisted on questionnaire data collection.

Ms. Jessca Mgata – She is a tourism officer at MRNFR in Rungwe office. She assisted on distribution data collection around Rungwe camps.

Mr. Yusuph Tango - He is a forest officer at MRNFR. He assisted on acquiring permits to conduct research in the forest reserve.

Mr Mazao - He is a guide at Syukula camping site. He assisted in field survey data collection during studying distribution of Kipunji along Syukula site.

Mr. Bariki - He is a forest officer at Bujingijila and Livingstone Forest. He assisted on distribution data collection around Bujingijila site and Livingstone.

Mr. Christopher - He is a guide at Ilundo site. He assisted in field survey data collection during studying distribution of Kipunji along Ilundo site.

Ms. Scholastica Mbinile- Currently working as a research assistant at the University of Bonn (Geography department). She holds a master's degree in Biodiversity Conservation and Ecosystem management at the Nelson Mandela African Institution of Science and Technology. She is a project leader who conducted all the data collection, data analysis, first drafts of manuscript, report writing and results dissemination through outreach programme and capacity building.

12. Any other comments?

This project would never have been accomplished without the blessing and power of Almighty God, and generous support and kind assistance of many dedicated individuals and not all of whom can be mentioned. I offer my profound gratitude to all. I am extremely grateful to the financial support from Rufford Foundation for funding this project. We are gratefully for the intense work done by the reviewers and not to forget our dearest Jane Raymond - you're the best thanks you abundantly.

Through this grant, I was able to attend the 2020 Rufford conference which was conducted in Nairobi-Kenya and received a certificate of attendance. For that, I am deeply thankful to Rufford Foundation for giving me a chance to broaden my career network.