

## The Rufford Small Grants Foundation

### Final Report

Congratulations on the completion of your project that was supported by The Rufford Small Grants Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. 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. Please be as honest as you can in answering the questions – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please complete the form in English and be as clear and concise as you can. We will ask for further information if required. If you have any other materials produced by the project, particularly a few relevant photographs please send these to us separately.

Please submit your final report to [jane@rufford.org](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

#### Grant Recipient Details

<b>Your name</b>	Justine Daudi Maganira
<b>Project title</b>	Influence of anthropogenic activities on riparian habitats and invertebrate communities in Uluguru Mountains, Tanzania.
<b>RSG reference</b>	13317-1
<b>Reporting period</b>	July 2014
<b>Amount of grant</b>	£5720.88
<b>Your email address</b>	<a href="mailto:jdm879@yahoo.com">jdm879@yahoo.com</a> or <a href="mailto:jdm879@suanet.ac.tz">jdm879@suanet.ac.tz</a>
<b>Date of this report</b>	31 July 2014

**1. Please 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 species of ground beetles along the altitudinal belts of Uluguru Mountains			√	This objective was successfully achieved, however for complete inventory of ground beetles and invertebrates in general, a continuous sampling campaign is required to build on what we have found out.
To determine the anthropogenic forces on riparian habitats and invertebrates in the Uluguru Mountains			√	Potential anthropogenic forces were identified, however to come up with a complete picture, more time is required to identify all the forces threatening the biodiversity of the Uluguru Mountains (given the complexity and interaction of natural and anthropogenic forces).
To assess the vulnerability of the Uluguru communities to riparian habitat destruction			√	This was successfully done.
To identify proper biodiversity conservation strategies to be adopted by communities along the riparian habitat.		√		Proper biodiversity conservation strategies were identified and alternative livelihood activities were proposed although given the amount of time, only three meetings were conducted.

**2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).**

Local community anticipated payment for their involvement in the project especially during focus group interview. We organised a meeting with the Village leaders and at last they agreed to be interviewed and participated in the project.

Three meetings were conducted, one at each altitudinal band. Given the large number of villages in each altitudinal level, a meeting point was identified in each band where people from nearby villages were requested to attend.

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

Species of ground beetles along the altitudinal belts of Uluguru Mountains were identified and some improvements are being made for dissemination.

- A total of 615 and 1149 beetles were collected during the wet and dry season respectively representing 35 different species of ground beetles.
- Highest richness, evenness and diversity were recorded at the mid altitude followed by high and low altitude. Diversity was also generally high in open and forested areas during the wet and dry season respectively.
- Multivariate techniques showed significant differences in assemblage of ground beetles between altitudinal bands. *Trechodes babaulti* and *Metagonum mboko* were identified to be responsible for variation in species composition between low and mid altitudes, low and high altitude and mid and high altitude respectively.

Anthropogenic forces on riparian habitats and invertebrates in the Uluguru Mountains were identified and efforts are underway to disseminate this information. Unsustainable farming practices, lumbering and firewood collection were the most destructive anthropogenic activities in the area.

The vulnerability of the Uluguru communities to riparian habitat destruction was assessed and documented. Scarcity of water was observed to be the main threat not only to riparian fauna and household use but also other economic activities such as farming, livestock keeping and related activities.

Proper biodiversity conservation strategies were identified and alternative livelihood activities proposed. It was proposed that degraded riparian areas should be restored through reforestation and that sensitisation programmes should be conducted to create awareness through environmental education to the community including primary school students. In order to generate and increase household income, it was proposed that, awareness should be raised for women to able to engage in poultry activities especially the local breeds which are more resistant to diseases and their eggs and meat are sold at high prices.

#### **4. Briefly describe the involvement of local communities and how they have benefitted from the project (if relevant).**

Field assistants were local people from areas near the sampling sites. Representatives from the local community were involved in the reconnaissance survey and the village leaders including members of the environmental committee from each village were. The meeting with local communities along the riparian habitat was organised; anthropogenic activities responsible for destruction of the riparian habitat were discussed. Their willingness to participate in conservation of the riparian habitat was also discussed. All these discussions were accompanied with an interview of each local community member attending the meeting.

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

Yes, in this project it was discovered that some streams are severely degraded by human activities particularly unsustainable agricultural activities. It was therefore recommended to plan for restoration of degraded areas for future sustainable utilisation of the resources. The restoration activities will be accompanied with sensitisation programs particularly targeting young generation (i.e. primary school students) and parents. The restoration activities will involve planting of environmentally friend species of plant along the riparian environment and fruits plant around their

homes for conservation and income generation. The trees planting will involve establishment of tree nurseries in collaboration with local communities who are inhabitants of the riparian habitat.

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

Public meetings were organised and the results of this project were communicated to village leaders and members of the local environmental committee of the Uluguru Mountains. Various recommendations and suggestions were made by the community which will be compiled in the final technical report that will be also communicated to them and other stake holders including the Ministry of Natural Resources and Tourism of the United Republic of Tanzania (MNRT), Ministry of water and irrigation and the Uluguru Nature Reserve Office for implementation of the results. The results of this project will also be published in internationally recognised journal.

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

The RSG funding was used for a period of one year from July 2013 to July 2014.

#### **8. Budget: Please 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.**

<b>Item</b>	<b>Budgeted Amount</b>	<b>Actual Amount</b>	<b>Difference</b>	<b>Comments</b>
Overall Transport Charges (During the study Period)	741.6	778	-36.4	Transport charges increased due to fuel price fluctuation
Overall Research equipment's charges (purchase and hire)	1153.6	1140	13.6	Some of the equipment's were hired for free from the Department of Biological Science (SUA)
Institution Fee and Technical assistance	520.08	520.08	0	Cost efficient
Species identification charges	352	352	0	Cost efficient
Charges for Data Analysis and report writing	384	384	0	Cost efficient
Stationeries and communication charges	235.6	240	-4.4	Increased stationeries and communication prices
Overall Daily Subsistence Allowance and Living Cost (Researchers and Local field assistants)	2334	2302	32	Accommodation cost was reduced
<b>TOTAL</b>	<b>5720.88</b>	<b>5716.08</b>	<b>4.8</b>	Effective Funds Management

\*The local exchange rate used was 1 £ = Tsh. 2500

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

Future steps would be to establish project activities aimed at restoration of the destroyed riparian habitat and improving the local community's livelihood through improving their income generation. The establishment of alternative sources of income will reduce pressure on the natural forests including forest areas around the riparian habitat.

**10. Did you use the RSGF logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?**

RSGF logo was used in various documents of the project. This also included the use of the RSGF logo in presentation of our project during the Regional Rufford Small Grant Recipients Conference, held at Nobleza Hotel in Kigali, Rwanda on 7th-8th February 2014.

**11. Any other comments?**

We are confident to note that to a large extent the project achieved its objectives which have provided insights on the degradation problems facing the natural resources in the mountains and their associated effects on the livelihoods of the local communities.

We need to register our sincere thanks to the Rufford Foundation for financially supporting this project and for the goodwill in improving the livelihoods of local and poor communities around the world.

