

## 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. The Final Report must be sent in **word format** and not PDF format or any other 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. 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. Please note that the information may be edited for clarity. 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>	Francesco Rovero
<b>Project title</b>	Ranger and community-based monitoring of biodiversity in the Udzungwa Mountains of Tanzania
<b>RSG reference</b>	42.02.08
<b>Reporting period</b>	July 2008 – October 2009
<b>Amount of grant</b>	£10,000
<b>Your email address</b>	<a href="mailto:francesco.rovero@mtsn.tn.it">francesco.rovero@mtsn.tn.it</a>
<b>Date of this report</b>	6 November 2009

**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
Overall: to improve ecological monitoring efforts and capacities in the Udzungwa Mountains by involving the National Park and local communities			X	The overall objective of enhancing ecological monitoring in the area through building local capacities was achieved, especially through the Objective 1 that is the most important and challenging (see below).
Specific objective 1: ranger-based monitoring of large mammals			X	Objective achieved, with 10 transects (4-6 km in length) from 5 remote ranger posts throughout the Udzungwa Mountains National Park being established; personnel trained (mammal count, identification, use of GPS, data recording in forms); first series of census implemented (40 census walks), with a total of 620 records of mammals collected; data compilation and continuation strategy agreed with the Ecology Department of the National Park.
Specific objective 2: monitoring of Sanje mangabey's demography			x	Objective achieved, with 4 groups of Sanje mangabey's consistently counted 4 times throughout one year (July 2008 to June 2009).
Specific objective 3: monitoring human disturbance		x		Objective only partially achieved because the method proposed did not result fully adequate. Monitoring forest disturbance through transects resulted effective in areas where disturbance is heavy and signs of disturbance are frequent. In the National Park, however, this method did not record enough disturbance signs for meaningful analysis (implying that protection levels are high). Meanwhile, however, a study of the effect of firewood collection on dung beetles was done in collaboration with WWF-Tanzania. Such study, which is technically more difficult, is now proposed for periodic replication (once every 2-3 years) to monitor human disturbance.

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

1. Ranger-based monitoring:

- logistic: the remote location of some ranger posts made frequent visits by the project team to some of the sites problematic. We used as much as possible transport by the park or local transport to make the activity sustainable and keep travel costs within budget. This resulted in a smaller

number of training census conducted than expected (4 walks per each of 10 transects), which however raised a sufficient, baseline data-set for analysis and follow-up monitoring.

- community involvement: we initially aimed to train local, village scouts together with rangers of the National Park. However we soon found that this strategy was too costly and unreliable due to continued changes in community members available and permanently stationed at ranger posts. The key to success of monitoring is standardization and consistency in the personnel involved, and we found these requirements be best met by training and working with employed rangers that can continue the monitoring (and indeed are) after project completion. Involvement of trained ranger scouts will work in areas where there are no dedicated personnel and long-term budget to support monitoring activities is available. Monitoring based on voluntary work cannot be considered sustainable, at least previous efforts in the area failed.

- timing: longer time than expected was needed to set up transects and train rangers adequately; this resulted in the prolonged duration of the overall project.

#### 2. Sanje mangabey demography:

No major problem occurred, except that contacting Sanje mangabeys, group counting and ensuring that the same groups were contacted at each monitoring period proved very difficult (especially when the monkeys are not tamed) and therefore it requires very skilled personnel. Continuation of this programme is subject to funding for maintaining the personnel; the Udzungwa Ecological Monitoring Centre (UEMC), in collaboration with Trevor Jones of Anglia Ruskin University, is committed to continuation.

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

1. A ranger-based monitoring system was set-up throughout the National Park and the baseline data-set was collected; this is, as far as we know, the first systematic attempt in a forest park in the country to conduct ranger-based monitoring of large mammals. The programme was fully conducted as part of the National Park's ecological monitoring programme, with full and continued support and funding from the Udzungwa Ecological Monitoring Centre.

2. As an important new component of ecological monitoring in the area, this programme will serve to boost monitoring capacities in other parks and forest reserves in the country. The facilities at UEMC, which include a newly built hostel for training of personnel and students (See [www.udzungwacentre.org](http://www.udzungwacentre.org) for details) will help conducting workshops and practical training for personnel of other parks and reserves, in the attempt to standardize monitoring protocols in forest protected areas in the country.

3. The first programme for monitoring the Endangered, and flagship Sanje mangabey was successfully established, as a collaboration between this project and Trevor Jones of Anglia Ruskin University, UK.

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

At least 50 members of the local community have been directly involved in project activities with various tasks, from preparing and maintaining transects to implementing the project as long-term or

temporary field assistants. As stated above, some village scouts have been initially involved but the long-term monitoring responsibility was then fully delegated to rangers and the Ecology Department of the National Park. More generally, this project fell completely within activities conducted by the Udzungwa Ecological Monitoring Centre. UEMC conducts several school and community awareness activities to improve people attitudes towards the National Park, and uses the results of ecological work conducted in the park to communicate the importance of protecting and monitoring biodiversity.

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

This programme needs long-term implementation to be meaningful. As such, the project is continuing directly by the National Park with the technical back-up of the Udzungwa Ecological Monitoring Centre. The programme is financially sustainable because rangers involved are permanent employees of the park, and UEMC is committed to continue supporting training activities and supervision of monitoring as a core activity of its mandate.

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

A narrative report of technical results will be compiled and circulated to RSGF, key partners and collaborators. It will also be posted in UEMC website and results will be incorporated in technical reports that UEMC prepares on annual basis (thus the 2010 report will include the activities done under RSGF support). Some of the results, such as the Sanje mangabey demography work, may also be included in a scientific paper. Through the work of UEMC and TANAPA, we also aim to take this project at national level, using the Udzungwa as case study for best practices of ranger-based monitoring in forest parks.

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

The project spanned from July 2008 to October 2009, with core field activities between August and July 2008. This matches well with the anticipated length of the project, even though the set-up and training phases of ranger-based monitoring took longer than expected (see section 2.).

## 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.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Project field staff (field coordinator and 2 assistants)	3.040,00	3.040,00	0,00	
Casual field assistants	320,00	600,00	-280,00	More labour needed for establishing transects
Travel: flight	800,00	740,00	60,00	
Travel and subsistence: allowances	500,00	500,00	0,00	
Travel: diesel for vehicles	2.000,00	1.800,00	200,00	
Training and monitoring: seminars	600,00	600,00	0,00	
Training and monitoring: scouts	800,00	400,00	400,00	Only initial participation of scouts
Camping and field supplies	900,00	1.450,00	-550,00	Greater amount of field work

				conducted than expected
GPS	268,00	268,00	0,00	
Various field gear	570,00	450,00	120,00	Slight differences in price and items needed
Printing and stationery	150,00	150,00	0,00	
<b>Total</b>	9.948,00	9.998,00	-50	Amount from RSG = 10,000

Funds received in Euros (exchange rate 1.2 Euro/£); funds sent to Tanzania (except for flight and GPS) and converted in Tanzanian Shillings at average rate of 1800 Tsh/Euro.

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

1. Ensuring project continuation with quality-data collection is the single most important challenge ahead. The monitoring will need continuation with dataset being collected every year for at least 3-4 years before any signal of real changes can be detected. Such sustainability will need continued funding, continued empowerment and training to rangers to ensure – besides technical skills - sense of project ownership and awareness about the importance of good quality data collection.

2. Scaling-up the project at national level, using the Udzungwa as a case study, is critical and much needed as most parks and reserves, especially in forests, chronically lack adequate ecological monitoring systems. This is very possible and will be attempted as direct follow-up of this project, especially given the solid network of National Parks in Tanzania, because the Tanzania National Parks Authority has trained personnel periodically shuffling between parks and strong commitment to boost and standardize ecological monitoring.

3. Monitoring forest disturbance should be resumed and not overlooked, as monitoring a “Zone of Interaction” where community encroachment and other sources of disturbance affect biodiversity within protected areas is progressively recognized as critical to effectively interpret changes in biodiversity. Following-up on this project, disturbance transects can be used in areas where encroachment is high, whereas dung beetle assessment seems relevant to pick-up signs of moderate disturbance such as those from firewood collection.

### 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?

Not yet as no publication or reports have yet been produced. The logo will be used in any following report or other publicity on the project.