

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.

Thank you for your help.

Josh Cole

Grants Director

Grant Recipient Details

Your name	Addisu Mekonnen
Project title	Distribution pattern, population estimate and habitat suitability map of the Bale monkey (<i>Chlorocebus djamdjamensis</i>) in southern Ethiopia
RSG reference	11727-1
Reporting period	
Amount of grant	£6000
Your email address	addisumk@yahoo.com
Date of this report	July 3rd 2013

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
Distribution of Bale monkey in the remaining sites			X	The remaining distributions of Bale monkeys were assessed and the range of the species is now fully mapped including the remote and inaccessible areas.
Population estimate and abundance			X	The population estimate and abundance data were collected mainly from the intact/continuous bamboo forests in the Harena and Shedem areas that are strongholds of monkeys. In addition, total count was also carried out in small fragments west of the Bale Mountains range in different fragments.
Habitat suitability map of Bale monkeys			X	Data on the habitat suitability map of Bale monkeys were collected using ground survey in a large survey areas of the species range. The suitable habitats have been identified and recommended for further conservation of the species and its habitats.

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

The project has been carried out as planned and there was no any difficulties encountered during this project.

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

The most important outcomes of the project are

- 1) The remaining distribution of Bale monkeys in the remote areas of the Bale Mountains and Sidamo areas were surveyed and five new populations were discovered in the range of Bale monkeys.
- 2) The population estimate in the intact forest habitats (Harena Forest, Shedem Forests) and degraded habitats in Sidamo areas. Data were collected in the extended forest habitats during the dry season and also wet season.
- 3) Habitat suitability data were collected on the different environmental variables in the randomly selected areas including topographical, climatic, vegetation (land cover type, patch size) and anthropogenic (distance to nearby village) factors. Six land cover types were sampled during ground survey for the presence/absence of Bale monkeys such as bamboo forest, tree-dominated forest,

bushland, grassland, human settlement and cultivated land. The habitat types were classified using the 2.5 m SPOT satellite image obtained from Planet Action Fund for this project (See website - [Habitat Suitability Modeling of Bale monkeys: http://www.planet-action.org/web/85-project-detail.php?projectID=10369](http://www.planet-action.org/web/85-project-detail.php?projectID=10369)).

In addition, other topographic variables are extracted from Digital Elevation Model SRTM; (srtm.csi.cgiar.org) and climatic variables from WorldClim (<http://www.worldclim.org/>). Then the habitat suitability model will be developed using these different variables.

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

Local communities were involved in a variety of ways including working as local guide, field assistant, camp attendant, and hiring horses and donkeys. In addition, the local political leaders, Agriculture and Rural Development office, and Forest and Wildlife Conservation offices have been supporting this project by giving permission and work side by side to get scientific data from this project to help design further scientific based conservation and management plan both to conserve Bale monkeys and their preferred habitats. The religious and respected local leaders were also involved in this project by discussing about the importance of the project and to conserve the monkeys.

5. Are there any plans to continue this work?

Yes, this project has been going well as planned. After this project, further research will be carried out to assess the effect of habitat loss and fragmentation on the behavioural ecology, conservation biology, parasitic infection, human-monkey conflict and genetic diversity of the Bale monkeys living in the intact bamboo forest inhabitants with those recently and newly discovered monkeys survived in small and isolated fragmented habitats in Sidamo where their primary diet (77% of their overall diet in the intact bamboo forest), bamboo (*Arundinaria alpina*), has already degraded or eliminated at all by anthropogenic effect. Therefore, this will help to design scientific based conservation and management plan for the species and its habitats in addition to the recommendation suitable habitats identified by habitat suitability maps. It will also help to improve the status of the degraded and fragmented forest habitats through implementation of afforestation and restoration programmes with bamboo and other big tree species which in turn help to increase connectivity of fragments.

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

The research result will be given to donors and published in reputable scientific journals. The report will be given to the decision makers such as the Ethiopian Wildlife Conservation Authority (EWCA), the Oromia and Southern Nations Nationalities People's Regions, and Zone and District Wildlife conservation offices. In addition, the result will be given to NGOs working to conserve wildlife and forests. The result will also be posted on websites to reach the public.

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

The RSG original plan was to accomplish activities between August 2012 to July 2013 for data collection and September –December 2013 for data analysis and write up. Therefore, the project is accomplished in the time frame as planned especially for data collection.

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.

Local exchange rate 1 £ = 27.01 Ethiopian Birr (ETB)

Item	Budgeted Amount	Actual Amount	Difference	Comments
Principal Investigator field per diem (147 days x 10 £)	1400	1470	-70	
Field assistants per diem (135 days x 7 £)	980	950	+30	
Local guides field per diem (2 local guides x 130 days x 5 £)	1300	1300	0	
Camp attendant field per diem (130 days x 5 £)	650	650	0	
Local transportation, horse and vehicle hire and fuel	820	987.59	-167.59	
Nikon 550 Laser Rangefinders	390	398	+8	
Brunton 15TDCL Sighting Mirror Compass	120	130	-10	
Consumables: Stationary, GPS batteries, torch, photo copy, print, film developing	350	334.07	+15.93	
TOTAL	6000 (162060 ETB)	6219.66 (167993 ETB)	-219.66 (5933 ETB)	

Additional money has been used in connection with this project from my own funds. The additional money was used to cover extra field costs.

The differences in some of the items are due to the variation the current price, amount of items utilized and number of days spent in the field.

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

This project goal is accomplished very well. The next important steps are thus to accomplish this research and achieve the goal by publishing the results, and submitting the reports to the decision makers to initiate for the implementation of recommendations from this project to conserve the species and their preferred bamboo forest habitats. The other recommendation to provide information to help revise the IUCN Red List of Threatened Species status to elevate from its current status "Vulnerable" to "Endangered" as the population has been declining and their preferred bamboo habitat is either deforested, degraded or eliminated due to habitat loss and fragmentation for agricultural expansion and human settlement because of the increasing human population in Ethiopia.

Then after, my next research plan is to carry out how Bale monkeys can survive in the degraded and small isolated forest habitats where their preferred diet bamboo (77% of their overall diet) is totally eliminated in the human-dominated landscape of Sidamo by comparing their behavioural ecology, parasitic infection and genetic diversity with the intact bamboo forest habitat in the Bale Mountains. This will help to design scientific based conservation and management plan for Bale monkeys to ensure their future survival in addition to the result of the current research.

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?

Yes, I will use the RSGF logo for any materials and reports produced in relation to this project and for the final document.

11. Any other comments?

This project will not be carried out without the RSGF funding. Thus, I would like to thank you very much for your grant support and contribution to save and conserve this little known, endemic and endangered Bale monkey. Many thanks for your contribution for conservation.