

## 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>	Andoniaina Radosoa Andrianaivoarivelo
<b>Project title</b>	Hunting of endemic <i>Rousettus</i> fruit bats in Madagascar: the demand for bushmeat, the impact on bat populations and the socioeconomic setting
<b>RSG reference</b>	02.03.08
<b>Reporting period</b>	April 2010
<b>Amount of grant</b>	£5000
<b>Your email address</b>	<a href="mailto:aniainodna@yahoo.fr">aniainodna@yahoo.fr</a>
<b>Date of this report</b>	29 April 2010

**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
Assessment on the impact of hunting on bat colony size		Yes		<i>R. madagascariensis</i> moved between roosts; this, apart from hunting, may affect the bat colony size in the cave.
Obtain information on predation.		Yes		There was evidence of people predating bats at roosts (presence of hunting sticks) but there was a lack of quantitative data such as how often people came to hunt bats and how many bats per hunting session they collected.
To quantify hunting and its impacts	No			We found that some roosts were visited by hunters before our next visit, so there was at least one hunting session per 3 months in some roosts but no hunting at all in some roosts.
Inform national conservation planning.		Yes		We are still collecting data to support our preliminary finding that some of our study roosts are used by bats as breeding roosts and need more conservation effort than other roosts.
Specific plans for each roost based on my results.			Yes	Creation of two more social contracts called "dina" in the two other roosts for the protection of the roosts, bats and forest habitats.
Dissemination of the findings to public, administration and other organisations working in the study area (Anosibe An'Ala)			yes	A song competition among children at primary school was launched in Anosibe An'Ala town in July 2009. The lyrics contained conservation messages on fruit bats and forest habitat. There was no evidence of hunting at roost in November 2009 and February 2010.

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

There was evidence that bats were hunted at the roost, but we did not know by whom and how the bat meat contributed to the people's meat consumption. We also could not assess how often hunters came to the cave and how many individual bats they collected and how many households would benefit from bat meat. The data relating to those points could be gathered through collaboration with hunters, who need to be identified first and they may hardly accept to coordinate with surveyors especially if they thought that their behaviour was not legal.

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

Hunting occurred at *R. madagascariensis* roosts and caused the bats to leave the roost temporarily - bats could return again to their roost.

Bats moved between roosts, the number of males changing roost was higher than females, and movements occurred within season or between seasons (rainy and dry seasons).

Female bats carried their offspring during flight and were lactating during wet season, so much conservation effort needs to be undertaken in the roosts selected by bats as breeding sites.

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

Local persons were paid as guides; they transported the materials we needed during our study, but they were not involved during the bats handling.

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

We are still collecting relevant information on the mark-recapture of bats in those four sites and assessing any hunting activity at roosts. We keep the capture periods the same as in the previous fieldwork. Those data will be very informative and permit to see if bats temporarily abandon roosts at some seasons of the year or the population size increased after the breeding season if there is no hunting activity.

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

We plan to add a summary of these results to the Madagasikara Voakajy annual report (2009) and send it to our national partners. We held a workshop in the Anosibe An'Ala (April 13<sup>th</sup>, 2010) District to disseminate the importance of this study - the mayors from the bat roost sites, local authorities and NGO partners were invited to the workshop.

Additionally, I presented some of the results at the Student Conference on Conservation Science conference (SCCS 2010) in Cambridge, UK, March 2010.

A draft manuscript entitled "A conservation assessment of *Rousettus madagascariensis* (Grandidier, 1929, Pteropodidae) roosts in eastern Madagascar" will be submitted to a peer reviewed journal.

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

I used the RGS grant over a 1-year period (four field missions). I also used funding from Disney Worldwide Conservation Fund to cover some of the *Rousettus madagascariensis* bushmeat survey activity.

**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.**

N/A

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

The important next step is to study the survival of the bat colony to assess the population trend using the MARK-programme. The survival rate will be investigated so that we can elaborate the sustainable management of the bat colony. Our data suffers from lack of recapture numbers so more field work will be undertaken to gain much data to feed the data base for MARK-programme.

**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?**

I used the RSGF logo during my presentations (internationally or nationally).