

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	Shivan Parusnath
Project title	Conservation of the Sungazer (<i>Smaug giganteus</i>)
RSG reference	10843-1
Reporting period	February 2012 – February 2013
Amount of grant	£6000
Your email address	Shivan.parusnath@gmail.com
Date of this report	04 th March 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
Quantify burrow density			X	This was successfully completed and, together with data from previous studies, lends to a more complete understanding of how the species utilises a landscape.
IUCN reassessment			X	All data have been collected but further analysis is necessary for an official assessment to be conducted in its entirety.
Assess change in populations over time			X	I found a 20.5% population reduction over a 35 year period.
Calculate the AOO of the species			X	The AOO of the period was calculated to be 930km ²
Calculate number of sungazers left in the wild			X	The number of sungazers left in the wild was calculated to be between 817,000 – 870,000 individuals.

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

Doing research on a species that has received as little attention as the sungazer is always filled with challenges. Little is known about the distribution of the species, how to find individuals and how to catch them. The first few fieldtrips served as a foray into learning how to work with the species. Most of the sungazer's habitat now falls within privately owned farmland and this provides a challenge within itself. I have visited over 300 private farms and in each instance have to gain the trust of the farmer, get permission and then ask for guidance to find the lizards on their property. The project has taught me how to interact with people just as much as it has taught me about the lizards.

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

- A. Assessing the Area of Occupancy (AOO) of the species and the number of individuals left in the wild. By working out how much of the Extent of Occurrence (EOO) is actually being occupied, we now understand that only a small portion (4.15%) of the entire distribution actually represents preferred habitat of the species.
- B. Assessing the decrease in populations over time. A 20.5% decrease in previously recorded populations was recorded over a 35-year period. The reasons for this decrease are to be investigated over the coming months.
- C. Conducting the first IUCN conservation status of the species based on hard data. Previous assessments have been based on estimates and inferences using aerial maps and GIS. The initial assessments point towards the species remaining within the "Vulnerable" category.

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

As detailed in a previous section, all of my field research takes place on privately owned property, and interaction with the farming community is key to collecting data. On a daily basis I educate landowners about the species and the threats that it faces. As a direct result of this research project, I am in discussion with a local mining organisation to build a Sungazer Education Centre where rural school communities can be educated about the species and why it is important to conserve it and its habitat.

5. Are there any plans to continue this work?

Yes. I am continuing research on the conservation of the species over the next 18 months and this research will count towards my PhD. The ancestral biogeography, population genetics, family structure and dispersal patterns of the species are unknown and are all imperative in understanding how to conserve the species. Funding is still being sourced for the project.

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

The results of this project will be published in internationally recognised peer-reviewed journals over the next few months. I have already presented my findings at the 2013 Herpetological Association of African conference, an international conference that showcases research on African amphibians and reptiles where my presentation won best student award. I will also be presenting this research the 2013 Zoological Society of Southern Africa conference.

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

The RSG was used over the period of February 2012 until February 2013. This period made up the entire data collection period for the project and fits well into the time frame of my Master's degree.

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
Accommodation	£3360.00	£3600.00	£240.00	I covered more sites during my research than initially anticipated and as a result expended more money on accommodation.
Travelling Expenses	£2257.92	£2800.00	£546.08	I covered more sites during my research than initially anticipated and as a result expended more money on fuel.
Subsistence	£1008.00	£600.00	£408.00	Budgeting for food was done more economically than planned.
Trapping Equipment	£200.00	£200.00	£0.00	
TOTAL	£6825.92	£7200.00	£374.00	Additional expenditure was recovered from another grant.

My initial budget was planned using the exchange rate of 1GBP = 12.5ZAR. I have continued using the same exchange rate for the final report for consistency.

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

As mentioned in Question 5 above, there are further questions on the ecology and genetics of the species that need to be answered to help conserve the species. I will be addressing these questions with my PhD degree.

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 have used the RSGF logo during a conference presentation (see Question 6 above). I will also use the logo and acknowledge the contribution that RSGF has made towards any publications that stem from this research.

11. Any other comments?

The RSG was a lifeline to the project, providing a vital amount of funding towards the field research on the threatened sungazer lizard. Without the contribution of RSGF I would not have been able to fulfil my aims and thrust the conservation of the species forward.