

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.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details	
Your name	Keenan Stears
Project title	Key factors driving the foraging ecology of oribi (<i>Ourebia ourebi</i>): fear, cattle and the quality and quantity of food.
RSG reference	11001-1
Reporting period	January 2012-February 2013
Amount of grant	£5375
Your email address	keenan.stears@gmail.com
Date of this report	18 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
Determine the diet of oribi			X	I was able to determine the diet, the dietary contribution of key species, and seasonal selectivity during the dry, transitional and wet seasons.
Determine seasonal changes in the diet (e.g. proportion of grass: forbs)			X	Oribi expanded their diet breadth during the dry season. During the transitional period oribi focused their foraging on the green flush. In addition, they consumed more forbs during this period as well as the wet season than in the dry season.
Determine bite mass, bite rate and intake rate of foraging oribi			X	I was able to determine seasonal bite mass, bite rate and intake rate..
Determine the seasonal nutritional intake of oribi and determine whether oribi meet their requirements		X		Plant samples will be sent for chemical analysis. Once I receive the nutritional quality of grass in their different greenness categories from laboratory analysis, I will be able to calculate the nutritional intake rate.
Determine the importance of fire breaks for oribi management		X		I have foraging observations of oribi feeding on burnt and un-burnt grass during the same time period as well as grass clippings. Once I receive the nutrient analysis from the laboratory, I will calculate the nutritional intake rate and compare burnt and un-burnt areas.

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

Prior to the start of this research, it was essential to choose a field site that had enough oribi to ensure that I could collect the data that I needed. As oribi are endangered, the majority of sites had a low density. However, with the help of the Oribi Working Group and a number of site visits, I was able to find field sites that had enough oribi.

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

- Identified *Hyparrhenia hirta* (a grass of average grazing value) to be a key grass species during the dry, transitional and wet seasons.
- Calculating intake rates and nutritional intake rates will allow me to determine whether oribi can meet their nutritional requirements during the dry season. This has never been done before.
- Determine the importance of fire breaks for oribi survival and habitat management.

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

N/A

5. Are there any plans to continue this work?

The project is not yet complete as data still require analysis and interpretation. The results for the chemical analysis of grass species are still required. These results provide the foundation from which my other research chapters can follow. For example, I will compare oribi foraging, nutritional intake rate and habitat selection of oribi under natural conditions and compare to oribi that interact with cattle. This will allow me to determine any competitive/facilitative interactions. This is vital as the majority of oribi occur on private farm lands and interact with cattle.

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

I have presented my research to the Oribi Working Group, Ezemvelo KZN Wildlife and members of the Endangered Wildlife Trust. In June 2013 I will present at the Zoological Society of South Africa Conference. In addition, a minimum of three peer-reviewed publications will result from this research.

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

The entire period to date was funded by the RSG (15 months). The project will continue for another 18 months. I anticipated the RSG to last longer, however, accommodation costs were far greater than expected (see budget below).

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
Research permits	4	4	0	As planned
Field Accommodation	1147	2989	1842	Initial budget assumed a reduced accommodation cost
Fuel	1943	2202	259	Daily distances covered were greater than expected
Equipment	131	180	49	Equipment used more batteries than expected.
Total	3225	5375	2150	An exchange rate of ZAR 12.21 = GBP 1

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

Analysis and interpretation of data. Once this is complete, my findings can be implemented in oribi conservation and habitat management. I will communicate these results to The Oribi Working



Group, Ezemvelo KZN Wildlife, private land owners, and The Endangered Wildlife Trust. By making these results accessible, it will allow managers and private land owners to make informed decisions that will benefit oribi populations.

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. The RSGF logo has appeared on all presentations I have given thus far.

11. Any other comments?

The funding received from RSGF enabled essential research of in depth oribi foraging behaviour which has been lacking in past research. Not only has it allowed important questions to be answered it has also raised awareness about the conservation status of oribi within KwaZulu-Natal.

Finally, I would like to thank the RSGF for providing me with funding for this project and helping me achieve my goal of obtaining my PhD.