

The Rufford Foundation Final Report

Congratulations on the completion of your project that was supported by The Rufford 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	Morgan Pfeiffer
Project title	Juvenile Dispersal of Cape Vultures: Implications for Wind Energy Development
RSG reference	19562-2
Reporting period	May 2016 – May 2017
Amount of grant	£3414
Your email address	Morgan.b.pfeiffer@aphis.usda.gov
Date of this report	29 August 2017

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
To determine the ranging behaviour and habitat use of juvenile Cape Vultures.				Ranging behaviour and habitat use has been identified for five tagged juveniles. The results have been drafted into a paper and submitted to an international journal for publication.
To characterise flight behaviour of juvenile Cape Vultures and their roosting site selection				Flight behaviour has been identified and used to identify roost areas. Ground checking the roosting sites has also been carried out. Analysis is currently underway and will be drafted into a paper with the intention of submitting the results to an international journal.
To access the vulnerability of juvenile Cape Vultures to wind energy development.				Although not achieved, this objective will carry over into a PhD thesis.

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

Of the nine transmitters deployed on Cape Vultures, only five recorded data, reducing the sample size considerably. Of the four that did not transmit data, one bird was found dead below a powerline. Of the remaining five functioning transmitters, two ceased functioning after 11 months as the birds were found dead below powerlines. These two transmitters were collected and it is hoped that these transmitters can be reused.

Thus, technological failure and the mortality of the birds presented the greatest challenge to this project. This highlights the threats faced by this endangered species.

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

- i. Previous research conducted on the post-fledgling dependence period (PFDP) of the Cape vulture was conducted more than 30 years ago, and thus knowledge of this regard remains fairly scant. This project identified not only the PFDP but also the dispersal time, home range sizes, distances travelled during this period and the use of habitats exhibited by fledgling Cape

vultures. Potential nursery areas were also discovered, and through this identification, conservation efforts can focus on these areas through anti-poisoning, anti-collision awareness campaigns as well as establishing supplemental feeding sites (vulture restaurants) in such areas.

- ii. The identification of roost sites used by fledged Cape vultures. Such areas can be used to focus conservation efforts and identify areas that require conservation buffers.
- iii. The results of this project allow for the continuation of long term research, and although a large portion of work has been conducted on this species, knowledge with regards to fledgling ecology remains scant. Thus it is hoped that this project will fill certain knowledge gaps.

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

Although work with communities was minimal, an opportunity presented itself in that a Xhosa translator was needed to communicate with members of the community whilst on the field work trips. Thus a travel guide was hired from the local community to aid in this regard.

5. Are there any plans to continue this work?

Yes, a PhD thesis of a South African student, which will commence in 2018, will focus on collision risks of Cape vultures to wind turbines. The results of the ranging behaviour and habitat use will be presented at the South African Wildlife Management Association (SAWMA) symposium in September 2017. The roosting site selection findings will also be drafted into a paper and submitted to a scientific journal.

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

The ranging behaviour and habitat use findings have been drafted into a paper and is currently undergoing review in the journal IBIS. Findings of the roosting site selection will be drafted into a paper which will also be shared via a scientific journal. Conferences have and will continue to be used to share results. Internal university presentations have been used to present findings thus far. The South African Wildlife Management Association (SAWMA) symposium in September will also be used to present our findings.

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

The project is being run over two years (2016-2017). The grant was used from May 2016 to May 2017. The grant came at an ideal time when field work was being conducted.

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.

Exchange rate: 1 South African Rand = 0.059 British pound conversion factor on 29/08/2017.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Xhosa translator for field work	123	354	+231	Since we did not purchase a drone, we were able to use those allocated funds to undertake a second field trip to collect information on roost sites, thus almost double the budgeted amount.
Accommodation for 3 people for 3 weeks	739	1121	+382	Since we did not purchase a drone, we were able to undertake a second field trip to collect information on roost sites, thus almost double the budgeted amount.
Vehicle hire for field work	616	0	-616	The university purchased a research vehicle in the middle of 2016, thus these funds were used to undertake a second field trip to collect more information on Cape Vulture roost site information.
Fuel for field work	264	1172	+908	Since we did not purchase a drone, we were able to undertake a second field trip to collect information on Cape Vulture roost sites. The first field trip was undertaken during a period where petrol strikes were underway, and thus the inflated fuel cost.
Drone	1672	0	-1672	A drone was not purchased and this allowed us to reallocate these funds to undertake a second field trip.
Food for field work	0	649	+649	Given that no drone purchases, we were able to reallocate those funds to purchase food for both field work trips.
Miscellaneous	0	118	+118	This covered expenses such as high way toll fees, repairs of tyre punctures, batteries for equipment etc.
Total	3414	3414		

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

Understanding the vulnerability of juvenile Cape vultures to wind turbine development is an important issue that needs to be assessed. Although this objective was not achieved, it will be carried over into a PhD thesis by a South African student. Given the threat that wind turbines present, and the intention of the South African government to develop wind farms in the Eastern Cape Province, minimising this threat to the Cape vulture is paramount. Understanding this threat at both the landscape level and at the wind farm level warrants further research.

10. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?

Yes, the Rufford Foundation was acknowledged in the paper submitted to IBIS. The Rufford Foundation logo was also used in all presentations given (internal university presentations = 3). The Rufford Foundation will also be acknowledged in the roosting site paper, as well as the SAWMA conference which will be attended in September 2017.

11. Any other comments?

We are extremely grateful for the funding from the Rufford Foundation during the course of the project.



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