

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	Mohamed Henriques
Project title	Vultures in Guinea-Bissau: developing monitoring tools, assessing conservation status, and raising awareness concerning their provision of ecosystem services
RSG reference	18298-1
Reporting period	December 2015 – December 2016
Amount of grant	£4952
Your email address	mhenriquesbalde@gmail.com
Date of this report	04/04/2017

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
Develop adapted methodologies for monitoring of vultures in the country				After several field tests, a new adapted methodology for monitoring of vultures in the country was established. This was based in studies of daily activity patterns of the most common species of vulture and in a 2-3 months trial period.
Train local staff and community members and promote participatory action				This was achieved in two ways. (1) During field work, a national ornithologist was always present and was directly involved in the establishment of new methodologies and in the implementation of all of the activities of the project, from surveys to awareness actions. Additionally, in every protected area we went, local park wardens accompanied the work and participated in the activities in their intervention area. Whenever possible, local community members also accompanied the work and helped. During this time, the national ornithologist who followed all the work was trained in the identification and implementation of the methodologies, and several park wardens were also trained in the implementation of the methodologies in their areas.
Assess the status of vulture populations and establish baseline data				All species of vultures in the country were included in a nationwide census, which also included the Bijagós archipelago. Baseline data for vulture populations were assessed through these counts, along with their actual conservation status using interviews throughout the country, to relevant stakeholders. The data collected is

				going to be important for future monitoring actions and to assess trends in the future.
Estimate the importance of ecosystem services provided by vultures				The estimate of the importance of ecosystem services depended on two steps: first, we needed to estimate the population of hooded vultures, the most abundant species of vulture in the country; then, we would use data from the amount of waste produced in the country to estimate how much of it was removed by vultures. The first step was concluded and we estimated the total number of hooded vultures for the country. Unfortunately, due to the inexistence of data regarding the total waste produced by human populations in the country, we were not able to deliver an estimate of the percentage of waste removed from the system by vultures. We are now working towards producing a rough estimate of the amount of waste eliminated by vultures using a simple bioenergetics mode, adapted to the lack of data regarding waste production.
Raising environmental awareness				Awareness activities, which were planned to be implemented during field work, where conducted at the end of it instead. This was because we wanted to have first a good idea of the areas where vulture populations were more affected and, then, redirect the efforts and the short means available to those areas. With this we believe we had a much more efficient impact on the conservation of vulture populations in the country.

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

The major challenge that had to be addressed during the implementation of this project was the political instability of the country. This had an impact mainly on the timing of the starting of project activities and on the availability of schools and

university students to whom address awareness activities. With long strikes in the educational services, we add to delay talks in schools beyond the end of the project timing. This was also one of the reasons of delivering the final report with some delay. Fortunately, thanks to the contacts in the country and knowledge of the local reality, this issue was overcome and we fully delivered awareness activities, achieving very promising results. The help of the Institute of Biodiversity and Protected Areas of Guinea-Bissau was invaluable in overcoming these obstacles and allowing the full achievement of our goals.

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

- Establishment of a baseline reference of the abundance, distribution and threats:

Thanks to this project, a baseline reference was established, which is the base for every efficient future conservation effort and decisions. By knowing the current state of the abundance, distribution and threats to these vultures, we can direct conservation efforts to areas that are more affected. The identification of the most important threats to vultures in the country is essential to guide interventions and actions aiming to mitigate them. Additionally, this allowed us to efficiently plan and conduct awareness actions during this project, which we believe will have an important impact in the future of vulture populations. Finally, baseline data is the base to implement a monitoring programme, using the methodologies developed during this project, and allowed us to train relevant local people to conduct future surveys. Assessing the trends of populations is essential to ensure the survival of these species.

- General public informed and involved in conservation efforts:

During awareness activities, we were surprised by how easy it was to convince people about the importance of vulture conservation in the country. Many of the stakeholders to whom we talked to even decided to act themselves. For example, two young locals decided to use their job as radio reporters to diffuse the information through the radio, after participating in a talk we gave. We were also invited to two interviews in the radio, which is a very popular communication instrument in the country, and we believe these had a wide impact, as we were approached several times in the street by known people who heard the radio emission (without knowing they were going to happen beforehand) and wanted to comment positively on the subject. We feel that the awareness activities, although limited financially, in time and in spatial scope, were very effective and there is a very high potential for achieving even more effective results if more awareness activities were to be conducted.

- Publication and communication at scientific conference:

Science is the base of conservation, and publishing our results to the scientific community is very important for vulture conservation in the continent. The data of this project was compiled in a master's thesis, presented in the University of Lisbon, Portugal, by M. Henriques, obtaining his Master's degree. Additionally, we presented the results of this project in an international conference (Pan-African Ornithology Conference, October 2016, Dakar, Senegal). The data collected will

also give origin to two publications in peer-reviewed scientific journals, of which one is already accepted and in press in the most important African Journal of Ornithology (Ostrich: Journal of African Ornithology) and the second is being prepared to be submitted in an international peer-reviewed journal as well. We believe this constitutes a major achievement for this project.

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

Local communities were involved whenever possible, whether guiding us through interviews in the villages and towns, or by participating in some counts and awareness activities. This project also generated some financial benefits to local communities, as the per diem and other important parts of the budget were expended in community lodging and services whenever possible. As vultures are important ecosystem providers that greatly reduce disease spreading in human settlements from accumulation of waste, promoting the conservation of these species will indirectly promote the welfare of human populations in several ways (human health, rodent and canid population control, waste and carcass management, etc.).

5. Are there any plans to continue this work?

Yes. We feel this project was a success and there is room to develop more work on the subject. We are planning on submitting the request for a follow up with a 2nd Rufford Small Grant, focusing more on awareness activities and actions towards mitigating the threats identified during this project.

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

The results of this work were already shared in an international scientific conference and in peer-reviewed scientific journals (see section 3). Also, a talk was delivered in the Institute of Biodiversity and Protected Areas (IBAP), in Guinea-Bissau, where we presented our data, and informed this institution, which is the most important for conservation in the country, about the areas where vultures are more affected. We provided IBAP with a document with our results and are in contact with this institution to develop further partnerships in vulture conservation. Visits to the Government Livestock Department, the veterinary services and to the association of Livestock herders were also made during awareness activities, in which we informed leaders and members of these organizations about our results.

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 RSG funds were used from December 2015 to December 2016. We had anticipated to conclude all activities by June/July 2016, but because of delays in the starting of the project and the rescheduling of awareness activities to the end of the year of 2016 due to strikes in schools and public services, the timescale was

altered to accommodate these delays. Nonetheless, we feel that our activities ended up being more effective with the new timescale.

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
Car rental	1152	1400	-248	We had to conduct more trips to the field than anticipated, because of the rescheduling of awareness activities. The difference was covered by personal funds and by redirecting reminiscent of other items financed by RSG.
Motorcycle rental for transects in the islands	170	170	0	
Car diesel	742	1050	-308	We used much more fuel than anticipated, because of extra travels for awareness activities and also because of cars expending more fuel than budgeted because of bad pavement and other factors related to engine and car age. The extra cost was covered with personal funds and with help of private donators.
Motorcycle petrol	85	85	0	
Round-trip boat ticket for Jeta, Pecixe and Bolama Islands	53	0	+53	Boat tickets were not necessary because that cost was covered by taking advantage of trips conducted by IBAP for other matters. The amount was redirected to car rental expenses.
Car and Moto Driver	567	726	-159	More costs with car drivers associated to more travels. The extra cost was completely supported by IBAP funds.
Graphic production and printing of communication materials	411	300	+111	The production of t-shirts was not possible because the only office in Bissau that provided that service in affordable prices was not taking orders due to technical problems.

				We redirected the remaining funds of this item to car rental for awareness activities.
Field Guide (Birds of West Africa 2014) #2	50	50	0	
32 Gb Micro SD Memory card (#2)	21	21	0	
GPS (#1)	213	213	0	
Batteries (AA Rechargeable Batteries, normal AA batteries)	35	50	-15	More batteries were required for the GPS. The extra cost was covered by personal funds.
Battery charger	14	14	0	
Laptop	355	355	0	
Office material (Ink cartridges, clipboards, sheets, pencils, erasers, notepads,)	92	92	0	
Field subsistence fee for applicant	567	567	0	
National Ornithologist (Hamilton Monteiro) per diem	425	425	0	
TOTAL	4952	5518	-566	

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

Following the successful completion of this 1st RSG, we believe that it is important to continue the efforts started with awareness regarding the importance of vulture conservation for the country and for the continent. In line with these thoughts, a Multi-Species Action Plan is going to be presented in COP 20, proposing urgent measures to stop vulture population declines across the African continent. This action plan was constructed also with the help of the data collected during this project, which was provided to the organization committee in charge of putting together the document. We feel that, although awareness activities conducted during this project had an important impact, wider and more diversified actions are still needed. Moreover, our data has confirmed that Guinea-Bissau is currently one of the most important countries for the populations of hooded vultures and white-backed vultures, both Critically Endangered species. This reinforces the need to further strengthen our actions to protect these species, which have a very important role as ecosystem services providers for the human population of the country, especially in large towns and cities. Therefore, we feel that the next steps should be the submission of a project for a 2nd RSG to proceed with this work, and also conduct more research to better support conservation decisions and tackle more knowledge gaps.

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

The logo of the RSGF was used in all the communication materials produced during this project, including flyers, posters and communications/talks. Moreover, the Rufford Foundation was especially mentioned during the presentation of the results of this work in an international scientific conference, with the prominent use of the logo of the RSGF. Finally, the Rufford Foundation has been acknowledged in the resulting scientific documents produced as outcomes of the project, namely a Master Thesis in the University of Lisbon and two peer-reviewed papers (one already accepted and other in production to be submitted).

11. Please provide a full list of all the members of your team and briefly what was their role in the project.

- Dr Paulo Catry (ISPA – University Institute of Lisbon, Portugal): supervised the definition of the experimental design and all the research conducted. Dr Catry also participated in field work implementation and supervised the preparation of the outputs of the project.
- Dr José Pedro Granadeiro (University of Lisbon, Portugal): collaborated in the definition of the experimental design and supervised the research work, namely in spatial modelling of bird distribution, and population size assessment. Dr Granadeiro also supervised the production of scientific outputs
- Aissa Regalla (IBAP – Guinea-Bissau): Coordinator of the Department of Species and Habitat Monitoring of the Institute of Biodiversity and Protected Areas of Guinea-Bissau. Mrs. Regalla had an essential role in the project by providing institutional, financial and logistical support to the project.
- Hamilton Monteiro (Coastal Planning Office, Guinea-Bissau): he was the national ornithologist that followed almost every step of the implementation of this project, being actively involved in field work and awareness activities. Mr Monteiro was also the main beneficiary of intensive training in the implementation of the methodologies developed during this work.
- Miguel Lecoq: was actively involved in field work activities and in the production of scientific outputs.

12. Any other comments?

The opportunities provided by the RSG, by financially supporting this project, allowed to generate a relevant impact on the conservation and scientific knowledge on a group of Critically Endangered species. We would like to thank the Rufford Foundation for this and look forward to continue to work with the Foundation in the conservation of African vultures in Guinea-Bissau.