

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 | Helena Reis Batalha |
| Project title | Conservation, Ecology and Genetics of the Cape Verde Warbler |
| RSG reference | 13635-1 |
| Reporting period | November 2013 to January 2014 |
| Amount of grant | £5,400 |
| Your email address | h.batalha@uea.ac.uk (alternative: helena.batalha@gmail.com) |
| Date of this report | August 2014 |

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 |
|--|--------------|--------------------|----------------|---|
| 1.a) Improve the currently limited knowledge about the species | | | x | We collected data on habitat preferences, song, morphometrics and moult patterns. |
| 1.b) Improve the knowledge about the species' habitat preferences | | x | | We collected qualitative data on this bird's habitat preference during the last field season. This field season (September – November 2014) we will collect quantitative habitat |
| 2) Resolve taxonomic uncertainties and define conservation | | x | | We are currently assessing genetic divergence with molecular techniques and will combine this with ecological information to determine conservation units. |
| 3) Assess the genetic viability of the | | x | | We are currently assessing the genetic viability of each population. |
| 4) Contribute to the design of a suitable conservation plan for this species | | | x | The information we collected and the results of genetic analysis will contribute to the success of the conservation plan currently being drafted by the Cape Verdean authorities. However, this conservation plan would benefit from the qualitative habitat data which we plan to collect this year. |
| 5) Help build conservation capacity in Cape Verde | | x | | We included local biologists in our field expeditions, explained the methodology and goals to them and had them practising whenever possible. We believe they would benefit from more practical training such as this in the future. |
| 6) Create a working group that will use the information gathered to recommend areas for viable long term protection of this species and its habitat. | | | x | We collaborated with the General Direction for the Environment, INIDA, the Natural Parks of Serra Malagueta, Fogo and Monte Gordo, and we incorporated our methodology into the national bird ringing scheme currently being implemented by national conservation NGO Biosfera I. |
| 7) Search for warbler on other islands where potential habitat may exist | | x | | Brava was thoroughly searched for the warbler, which is absent from that island; there are anecdotal reports and potentially suitable habitat on Santo Antão, which will be searched in the following field season from September to December 2014. |

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

1. We had to postpone the first proposed dates for fieldwork (September to November 2013, during the bird's breeding season), by recommendation of DGA (General Direction for the Environment in Cape Verde). They were worried that any handling of the birds during the breeding season would result in stress that could cause them to abandon their nests. Consequently, we started our work just at the end of the breeding season (November 2013 to January 2014). Nevertheless, the planned field effort was equal to the realised field effort and the effectiveness of the project was not compromised. As the main goal of the field season was to collect genetic data (blood samples) the quantification of habitat traits of was not done then, but will be done in the following field season (September to December 2014).

2. Hotel rooms, car rental and transportation between the islands were more expensive than we anticipated. We thus resorted to using facilities belonging to INIDA, Parque Natural de Monte Gordo and Associação Pai António, when possible. We rented a car only when absolutely necessary, and used public transportation or lifts from local stakeholders whenever possible. This had the added benefits of aiding stakeholder engagement with the project, enhancing relationships between us and the natural park staff and enabled us to maximise return for money used in the field.

3. The birds were very hard to find on S. Nicolau. In fact, previous researchers had been on that island and found very few (<10) birds (Hazevoet et al. 1999, Donald et al. 2004). Nevertheless we managed to sample 15 birds from 13 different territories. We found a few more territories, but it was not possible to sample the birds. We found this many birds by spending a long time on each potential territory, repeatedly broadcasting their songs until the birds replied. Thus, we will return to S. Nicolau to fully investigate the poorly known population on that island.

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

First of all, we got the minimum number of blood samples (30 per population) we need for assessing genetic diversity in this species. Determining genetic divergence among islands is important for the successful long-term conservation of the species, thus achieving this first goal was very important.

Second, during our fieldwork it became clear that this species needs tailored conservation measures on each island. This is because their abundance, habitat preferences and population sizes differ between islands. For example, the birds on Santiago inhabit a variety of habitats, from agricultural valleys to mountain forests. On Fogo, the small population is confined to the north-eastern coffee plantations. On S. Nicolau, the population seems to prefer mostly reed patches, which are regularly harvested by the locals. Both the Cape Verdean authorities and the local people manage these types of habitat differently. As such, future conservation measures need to be adapted to each population.

Finally, and perhaps most importantly, we involved many local biologists in our fieldwork. In addition to those mentioned in Question 1, Objective 6, we hired a Cape Verdean biologist, Jaelsa Moreira, to be part of the team for the whole duration of the expedition. She learned a great deal about bird surveying and sampling in general, and about the Cape Verdean warbler in particular. We also had the opportunity to raise awareness about this bird among villagers. Everyone we worked or dealt with was really interested in nature conservation and in learning more about it. The exchange of information between the technical team and Cape Verde partners was excellent and satisfactory for

both parties.

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

Local communities benefited from our direct spending, capacity building, knowledge transfer, raising awareness and providing equipment and training.

We involved local biologists in our fieldwork whenever possible. But we also collaborated with them outside the project. At a certain point we accompanied Gilson Semedo (INIDA) on his job of monitoring bird abundance at Barragem de Poilão, Santiago. He only had a pair of binoculars, and we noticed his work could benefit from using a telescope. We thus arranged for him to have a telescope, kindly supplied by project partner Dr Paul Donald from RSPB.

We started to raise awareness among villagers who manage the farmlands where the warblers nest.

Local communities benefited economically from our project as we used and paid for local services whenever possible, directly spending the Rufford Foundation grant in the communities. We also paid the salary and other expenses of our Cape Verdean field assistant, Jaelsa Moreira. Thus, by working with us, she gained an income as well as experience.

5. Are there any plans to continue this work?

Yes. The next step in this project is to characterise in detail the habitat this bird uses on different islands (Objective 1.b). The different habitat types are differently managed, thus collecting habitat data preferences will better help inform conservation decisions. We will also search for the bird on Santo Antão (Objective 7). While doing this, we will keep training local biologists to ensure that there is a self-sustaining conservation capacity that can be after this project is done (Objective 5). After our return, we will complete the ongoing genetic work and keep informing the local authorities of our findings and results to inform the species conservation plan (all other objectives). Ideally, we would present our results and give some more specific training in conservation in a workshop later.

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

We wrote a main bilingual report summarising the outcomes of our fieldwork, and detailing all the methods used, and sent it to all the local stakeholders. We wrote other shorter reports for other funding organisations (African Bird Club, Royal Society for the Protection of Birds). We also wrote a short communication for the local zoological newsletter (see www.scvz.org). Next month we will go back to Cape Verde, take the people from last year and others with us to the field, and share our knowledge and preliminary results with them. The next step will be to write a paper on genetic divergence in the Cape Verde warbler, as soon as we have the results of the ongoing laboratory work. Finally, I have been invited to give a talk about this work at the Annual Meeting of the African Bird Club in April 2015.

We would like to return to Cape Verde sometime in 2015/16 and present the results of the population differentiation work done so far to the Cape Verdean stakeholders. We are thinking of using this opportunity to give a workshop where we can also discuss bird monitoring and conservation in general. I will present the work done specifically with the Cape Verde Warbler, and

my supervisors will talk about conservation genetics and molecular ecology (David Richardson), ecology and wildlife monitoring (Iain Barr) and conservation of endangered birds (Nigel Collar).

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 majority (£3921) of the Rufford Foundation grant was used between 17 November 2013 and 28 January 2014. We had to postpone the first field season by 2 months, and could not collect quantitative habitat data then because the main focus of the work was to collect blood samples for the genetic analysis. For this reason, and to complement our sample collection on S. Nicolau, we will return to Cape Verde from 7th September to 5th December 2014. We will use the money that is left of the Rufford grant on this second part of the fieldwork, to meet objectives 1.b, 5 and 7. Overall, we are on time to complete the project within the anticipated period.

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 |
|------------------------------|-----------------|---------------|--------------------|--|
| Equipment | 100 | 380 | -280 | We asked for part of the budgeted expenses with field equipment (£1000). Part of equipment expenses were covered by other funding, but we spent more than we expected while in Cape Verde. |
| Food and accommodation for 3 | 3200 | 1754 | +1446 | We asked for part of the budgeted food and accommodation expenses for 3 people, for 70 days (£4200). We ended up staying 73 days, always with a minimum of two people, but most of the time with 3 and once with 4 people. We stayed at cheap places owned by locals when possible, lowering the estimated costs. |
| Local transportation | 2100 | 1787 | +313 | We asked for part of the budgeted expenses with internal flights between islands x 3 people x 3 islands plus vehicle hire for 70 days (£2600). We ended up travelling to four islands (we explored Brava as well), mostly by ferry. We could only rent a car for 3 weeks because it cost more than we expected. The rest of the time we travelled by public transport or used taxis for short distances or Natural Park cars when they were available. This lowered the estimated costs. |
| Total | 5400 | 3921 | +1479 and 7 | |

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

1) Capacity building: The Cape Verdean citizens, biologists and authorities are truly interested in protecting their nature. Yet, they often do not have the knowledge or equipment necessary for good bird studies and surveys and, without these it is not possible to protect them. We believe it is crucial to keep building conservation capacity by sharing our knowledge with local technicians. We think there is great potential to protect their unique bird communities and their habitats in a sustainable way. It is also mandatory that we keep government authorities and the national NGO fully engaged, as this will add to the development of a legal framework and the long-term continuity of this conservation action.

2) Cape Verde warbler conservation: The species is often found in small agricultural patches that belong to local farmers. Some of the birds live within the limits of the natural parks and can be protected by the national authorities. However, many birds live outside these protection limits, and their future is undeniably linked to the practices of the small farmers and their families. It is important to raise awareness among these farmers, especially among the men who cut the giant reed and the children who take young birds from the nests. It is important that the local stakeholders act together with the villagers and farmers to protect this bird. By dealing with all the local authorities in all the islands, our work helps bring together the stakeholders. Another important point is to use the results of the genetic work to assess if the use of genetic rescue to conserve the birds from smaller, endangered populations is appropriate.

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. We used the Rufford Foundation logo on the cover of the fieldwork manual we distributed to the volunteers, and explained to them that we could not be doing this work without this grant. We used the logo on the first page of the reports that we wrote to all the stakeholders, as well as in the thank you slide of all the talks we have given so far. Additionally, when someone (e.g. possible volunteers) wanted to have an overview about our project, we referred them to the page on the Rufford Foundation website: http://www.rufford.org/projects/helena_batalha.

11. Any other comments?

While most of the objectives have been achieved or are in process of being fully achieved, certain components have been delayed and will be completed during the next phase of this project. At this point we believe all our objectives will then be achieved successfully. Thus, the crosses in table 1 the crosses are mostly in the “partially achieved” column simply because we have not yet used all the grant money, which will be spent, as per the original proposal, on assessing the habitat requirements of the species in the next field season (Objective 1.b) while continuing to build capacity (Objective 5) and searching for the bird on Santo Antão (Objective 7). Meanwhile, we stress how grateful we are to the Rufford Foundation for this support, which has been really crucial in generating the first scientific dataset on this endangered species.

We would like to add that we will send another report to the Rufford Foundation upon the completion of the second field season, i.e., in December 2014.