

## The Rufford Small Grants Foundation

### Final Report

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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](mailto:jane@rufford.org). Thank you for your help.

**Josh Cole Grants Director**

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#### Grant Recipient Details

<b>Your name</b>	Katharina Fietz
<b>Project title</b>	Conservation of key shark habitats and development of a stepping stone for a long-term monitoring system of local shark communities in Cape Verde
<b>RSG reference</b>	16035-1
<b>Reporting period</b>	Sep 2014 - Sep 2015
<b>Amount of grant</b>	£5000
<b>Your email address</b>	katharina.fietz@snm.ku.dk
<b>Date of this report</b>	09.09.2015

**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
Provision of Scientific Baseline Data		x		We have successfully collected a number of samples with which to conduct genetic analyses. As sampling has progressed slowly due to our limitation to bycaught individuals, sample processing and data analyses are yet to be completed.
Capacity building			x	We have established good relationships with the local NGO, its volunteers, and - most importantly - with local fishermen that are engaged in our project. In addition, we established contacts to local institutions such as the National Fisheries Institute (INDP), who support our work through expertise and help with local outreach.
Education & Outreach			x	We have given a number of workshops and talks for local fishermen, university classes of Cape Verde students, and at the INDP. We always collect samples together with local fishermen, who are interested to learn about our goals and research interests.

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

We limited our sampling efforts to sharks that were bycaught in local artisanal fisheries. Our motivation for this was to not put any additional stressors on the local populations by catching individuals ourselves for research purposes. As sharks are bycaught only infrequently by the fishermen, we expanded our sampling period a lot further than anticipated. Thanks to the establishment of very good and diverse collaborations throughout the archipelago, we now hold sufficient numbers of samples from three islands to start laboratory work and data analyses on them. The projects timeline will therefore be extended, while the initial goal is still pursued.

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

Capacity Building: We were very successful in laying out the basis for long-term local conservation work through the integration of local community - in particular local fishermen - into our work.

Through this collaboration, fishermen and other locals developed an interest in our work and, more importantly, in our study system the sharks. As they felt that they were significantly aiding our efforts, and enjoyed their participation, they showed interest to be involved in this conservation project long-term. This promises the continuation of shark conservation efforts beyond the time of this project.

Education and Outreach: We raised awareness for the situation of sharks in Cape Verde and on a broader scale, and sensitised locals from very different backgrounds for the importance of scientific research and conservation of these marine keystone organisms. We have given a number of workshops and talks for local fishermen, university classes of Cape Verde students, and at the INDP. From the feedback we received, we feel that these educational activities were a valuable contribution to open people's eyes to the importance of shark conservation.

Bycatch composition: Due to the elongated sampling period, results from the genetic data are not yet available to shed light on the population structure. However, our work to date has shown that milk shark are a commonly bycaught species and we are now working on shedding light on their population structure throughout the archipelago.

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

See above: local fishermen were and are involved in our project through joint sampling expeditions. NGO volunteers (among them also fishermen) have also participated in preparing and giving presentations and holding workshops to inform about shark conservation and about the importance of their role in the marine environment. While this on the one hand is very educational for the people directly involved as teachers, it also provides an invaluable opportunity to have this educational outreach become a dialogue among the involved locals and have them learn from each other.

**5. Are there any plans to continue this work?**

Yes, all samples will now be processed and the data analysed. After this project will be completed and will have shed light on the population structure and connectivity of milk sharks throughout Cape Verde, we will strive to use this information as a baseline to develop a more targeted monitoring approach. This should facilitate the identification of more keystone habitats and a more complete view of the state of Cape Verde shark populations. Besides, the local NGO Maio Biodiversity Foundation is continuing collaborations with local fishermen and other volunteers.

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

A scientific publication will result from the milk shark data that will investigate their population structure throughout Cape Verde. Besides, popular science articles will inform the general public about our work, background, and outcomes. These will be distributed through various channels, e.g. the Maio Biodiversity Foundation website, and the Shark Savers Germany website. In addition, two Master

theses were conducted in the scope of this project, one investigating the use of citizen science for acquisition of information on spatial distribution of sharks, and the other on the bycatch composition of local artisanal fishermen.

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

About three quarters of the RSG was used for the field work period from September - October 2014. The remaining grant was used in period from October 2014 - June 2015 to continue sampling efforts by local collaborators after my own field season had ended. The RSG was one of two grants that was used for the entire field work of the project, which spans from September 2014 - June 2015. This period has been longer than anticipated, as the project was extended due to a longer time period needed for sample acquisition. For our aim of local capacity building and awareness raising, this was actually advantageous as we were able to expand our network of collaborators and volunteers during this 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
Field equipment	605	790	-185	
Field trips (gasoline for boat and car)	1633	1047	+586	
Shipment costs	163	33	+130	
Laboratory costs	1782	2320	-538	
Costs for printing of educational material	817	49	+768	
<b>TOTAL</b>	<b>5000</b>	<b>4239</b>		The leftover grant was used for continuous sampling effort and was spent on regular field trips conducted by FMB staff

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

We have laid a good basis for the local involvement in Cape Verde shark conservation. It will be important to keep this involvement alive beyond the scope of this project, and to extend the collaborations between local parties (NGO, fishermen, local university, INDP) into the future. Once our project will be completed, a more detailed research and monitoring scheme can be developed based on these data. In order for our research to ultimately result in sustainable management measures, I feel that it is particularly important to make the results available to local authorities and the general public, to continue awareness raising efforts, and to continue a dialogue with all involved parties.

**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?**

The RSGF logo was included in all presentations and talks that were given in the course of this project, and it was mentioned during all meetings, workshops and presentations that this work is made possible

by the RSGF.

**11. Any other comments?**

Our project timeline had to be extended considerably due to the unforeseen length it took to acquire the necessary amount of samples. Rather than seeing this as a pure disadvantage, I think that it also brought us advantages at various levels. We learned a lot about how to deal with conditions in the field and local circumstances. Yet more importantly, the extended time allowed us to intensify collaborations, extend our network of local stakeholders, and increase the sampling area within Cape Verde.