

## 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](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

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Grant Recipient Details	
<b>Your name</b>	Ximena Velez-Zuazo
<b>Project title</b>	Genetic assessment of commercial shark fisheries in the East Pacific to improve management and conservation
<b>RSG reference</b>	9644-1
<b>Reporting period</b>	2011
<b>Amount of grant</b>	£5936
<b>Your email address</b>	xvelezuazo@gmail.com
<b>Date of this report</b>	March 2012

**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) to characterise genetically the mako, silky, and blue shark fisheries at three ports of the Eastern Pacific			X	All samples were sequenced and are being analysed to obtain the genetic estimates. Manuscript with results will be submitted by the end of this year.
2) to use genetic information to test whether the populations of the three species are genetically structured throughout the study area			X	All samples have been sequenced and are being analysed using the proper genetic software. Manuscript with results will be submitted by the end of this year.
3) to establish reference values to use in long-term genetic monitoring programs		X		On-going analyses of genetic data will provide the first reference values. Manuscript with results will be submitted by the end of this year.

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

The main difficulty was to coordinate travel dates for field work. All trips had to be re-scheduled. This, however, did not affect the collection since were conducted during the peaks of the shark fishery in each country.

The shark fishery operates differently in each country and that I learned on the move but was fortunate to work closely either with researchers from Universities (Chile), government agencies (Costa Rica) and friend colleagues (Peru).

One thing I noticed was that the landing dynamic is very fast and challenges the collection of relevant information. In some countries, like Peru, it was impossible to obtain measures for many of the individuals and even collecting the samples was complicated. Most of the times, this was solved by discussing, in advance, with the boat captain, boat owner, and the buyer of the sharks. This allowed me to collect measurements for a subsample. This also occurred in Chile.

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

In terms of research I have a) established new collaborations and strengthened previous collaborations in Chile, Peru and Costa Rica, b) develop new research ideas for shark conservation, and c) I have established new collaborations in Central America and USA.

In terms of conservation, I have a) informed local researchers and fishers about the current status of sharks, b) produced outreach material (infographics, animation and newspaper interview) that altogether reaches an audience of more than 50,000 people in Peru and internationally, and c) I have established collaborations to continue producing outreach material.

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

Not applicable

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

Yes, I plan to continue this project but expanding from collecting and analysing samples to collect information at landing points and during fishing operations.

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

Preliminary results will be presented in upcoming scientific meetings (i.e. CONCIMAR-Peru, Student Conference in Conservation Science, New York). I will submit final results to a peer-review journal for publication as a scientific article. After acceptance I will make a press release to inform beyond the scientific community about my results.

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

The RSG was used over a period of a year as stated in the proposal. The RSG went to cover the field trips to Peru, Chile and Costa Rica.

**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.**

The total deposited to my account was in US dollars 9406.48 in March 21<sup>st</sup> 2011. Exchange rates were done at 1.5611 US dollars per £ sterling in March 2011. Expenses were recorded in US dollars and later converted to £ sterling using the exchange rate of March 2011.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Flight from Puerto Rico to Chile, round-trip	817	441.33	+375.67	I flew from Peru which made the ticket cheaper than expected
Trip to Puerto Caldera, by land, round-trip	189	124.92	+64.08	
Lodging and meals in Chile	364	737.88	-373.88	Caldera, the port I was visiting for sample collection is very popular over the austral summer and food and lodging were extremely expensive
Land transportation to pier in Puerto Caldera	98	30	+68	Was mostly by foot excepting days late at night

Flight from Puerto Rico to Costa Rica	377	455.38	-78.38	Trip was arranged with two weeks of notice which was reflected in a higher price
Trip to Puntarenas, by land, round-trip	63	133.41	-70.71	
Lodging and meals in Costa Rica	364	612.7	-248.70	The price I expected was based on my previous trip to Costa Rica. Since then, I learned, prices have increased significantly for food and lodging. I also visited another port (Quepos) to complete samples required
Land transportation to pier in Puntarenas	98	00	+98	Colleagues drove me every morning to the different landing points
Flight from Puerto Rico to Peru	566	623.11	-57.11	
Flight to Talara, roundtrip, Lodging and meals in Talara Transport to pier in Talara	588	821.67	-233.67	The landing port was changed to Pucusana. All expenses for flight and lodging were moved to land transportation
Field assistance	840	300	+540	I am still using money to pay for on-going sample collection of silky sharks in Peru and rest of blue sharks in Chile.
Field work materials	355	355	0	
Canon Powershot D10-waterproof and shockproof	189	217.6	-28.60	
Garmin GPS	170	109.9	+60.01	
DELL minicomputer	220	--	0	This amount was used to produce an animation about shark fisheries in Peru
Laboratory materials	238	238	0	
Genetic analyses	400	400	0	
<b>Total</b>			<b>+114.71</b>	

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

I think there are two main needs, data and outreach. It is important to collect information about population structure (size, sex), reproductive biology and not only for the most common species but also for species rarely landed. Also, most fishers agree that sharks are not as abundant as they used to be but need to know the reasons of such reduction (i.e. overfishing and bycatch). Outreach material in the form of videos, talks, posters is necessary to distribute along ports.

**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?**

I offered talks in Chile and Peru and in both Rufford Foundation was acknowledge. Also, the logo appears at the end of the shark animation available in YouTube.

**11. Any other comments?**

The field trips necessary to collect all samples in this project was only possible thanks to Rufford Foundation. I think you are doing a great job supporting such diversity of research and conservation projects around the globe.