

## 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. 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**

#### Grant Recipient Details

<b>Your name</b>	Jess Williams
<b>Project title</b>	Searching for Practical Solutions to Sea Turtle Poaching in Mozambique
<b>RSG reference</b>	11427-1
<b>Reporting period</b>	May 28 2012- June 2013
<b>Amount of grant</b>	£3,437
<b>Your email address</b>	jess@marinemegafauna.org
<b>Date of this report</b>	8 <sup>th</sup> June 2013

**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
Amass a comprehensive dataset on the frequency of poaching events (based on sea turtle carapaces).				<p>Preliminary results of this data analysis are intended to be presented in an oral presentation at WIOMSA 8 scientific symposium, Maputo, Mozambique (Oct 28<sup>th</sup>-2<sup>nd</sup> Nov).</p> <p>Upon completion of analysis this content is intended to be prepared as a manuscript for publication in a scientific journal and will be the first source of its kind acknowledging sea turtle poaching and quantities in Mozambique.</p> <p>However data collection will remain ongoing.</p> <ul style="list-style-type: none"> <li>Dataset has been compiled and analysis will commence July 2013.</li> </ul>
Identify 'hotspots' of poaching activity.				<p>Aerial survey in microlight was very effective technique for a rapid assessment of 300 km section of coastline. Temporary and permanent fishing camps were easily identified from the air and poached turtle carapaces (shells) could be visibly detected from the microlight.</p> <ul style="list-style-type: none"> <li>Achieved through beach based patrols and a trial aerial survey.</li> </ul>
Quantify sizes and species composition of catches to evaluate which species and life-stages are most affected.				<p>Data collection is on going and will continue to be documented until regular patrols and enforcement of poaching activity is achieved in the region.</p> <ul style="list-style-type: none"> <li>Dataset has been compiled and analysis will commence July 2013.</li> </ul>
Estimate the historical and contemporary numbers of nesting sea turtles in the Tofo Beach area.				<p>Contemporary sea turtle nesting numbers have been documented.</p> <ul style="list-style-type: none"> <li>Not enough consistent and long -term records were available to have scientific confidence in the data.</li> </ul>
Increase awareness and understanding in turtle poachers regarding sea turtle biology and conservation issues.				<p>Further work is necessary to increase outreach to a larger portion of the fishing community and engage turtle poachers.</p> <ul style="list-style-type: none"> <li>This has been achieved through direct delivery of information by interviewer in poaching interviews.</li> </ul>
Gain insight into the incentives for poaching and potential alternatives.				<p>Alternative livelihood project has been established by creating sea turtle key rings from recycled soft drink cans and beads. This idea is being explored further and a short feature video is in preliminary preparation stages for filming.</p>

			<p>Refer to my audio blog on this topic (<a href="http://www.marinemegafauna.org/new-skills-for-fishers-in-turtle-key-rings/">http://www.marinemegafauna.org/new-skills-for-fishers-in-turtle-key-rings/</a>).</p> <ul style="list-style-type: none"> <li>• Gaining insight into poachers' motivations and behaviour requires further study and wider geographical scope of fishers across Mozambique</li> <li>• Preliminary alternative livelihoods projects are being investigated.</li> </ul>
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**2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).**

Our original Mozambican conservationist and interviewer is no longer working for Ocean Revolution as of January 2013 and thus in-kind support for interview work of our project was lost. Replacing this team member with someone relevant and was difficult and has taken a number of months to secure. Three different interviewers were trialled over this project, however due to turbulent working conditions and opportunities to earn more money elsewhere, we were unable to maintain a consistent person to conduct this work. To overcome this in the future, we will need to explore the option of hiring a permanent Mozambican staff member to the team rather than relying on casual workers.

Access to fishers has been more difficult than first thought. Most live in remote villages and work from isolated beaches where road access is difficult. Often approaching fishers on beach was not appropriate and follow up visits to their house was necessary. For continuation of this work, a project 4WD vehicle must be available in order to access the fishers in their villages.

Personal safety was a concern and at times in the field, multiple people at all times were needed to patrol for poaching activity (including a male team member, particularly Tofinho) or fulltime Mozambican project member. However this can and will be resolved easily with a fulltime Mozambican member to the project team once funds for their salary can be acquired.

The MTTG Mozambican Marine Turtle Working Group has dissolved and key leaders of this group are no longer advocates for sea turtle conservation or research. This has limited our connectivity with others and a number of hospitality driven projects have lost interest/ motivation to sponsor nesting turtle patrolling staff at their coastal developments.

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

Aside from the fact that it's the first data collected on this topic and will form the baseline for which we can measure changes against. The information collected is also the foundation of all future research and conservation activities and will be used to base any future works from. Three key discoveries from our turtle poaching interviews are:

- Fishers respond differently to idea of being interviewed, especially between bairros (villages). Many fishers declare that they know fishing for turtles is illegal but are unsure what punishments are.
- Most have not recently seen or poached nesting turtles. This information confirms our theory of declining nesting populations. The next step will be to work towards an in-water population assessment to see if the foraging populations are reflecting declines.

- Many have indicated that they take turtles opportunistically particularly if fishing has been bad. This has been an overall consensus from the interviews completed and highlights the need to further develop alternative livelihood options to help relieve pressures on declining fish stocks and support local families through sustainable measures.

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

Over 100 children from three local schools participated in educational and outreach activities held on May 23<sup>rd</sup> to celebrate World Turtle Day. This included a talk on the importance of sea turtles to the environment, conservation issues and how they can help, turtle themed beach activities, craft activities and the viewing of a short documentary about a conservation success story from “Projeto Tamar”, Brazil. Site visit to nearby local school was also made to deliver sea turtle education and craft activity to an additional 42 children, where 2/3rds of the class raised their hands when asked, “Have you eaten sea turtle before?”(See attached pdf of African Diver article about the events).

Additionally, fishermen turned artisans are now making their livelihood from transferrable fishing skills to arts and crafts through a partnership I created. We are currently filming footage of this alternative livelihood project to make into a short film. (Refer to audio blog for more information: (<http://www.marinemegafauna.org/new-skills-for-fishers-in-turtle-key-rings/>))

The local expat community and tourist community have participated in public outreach talks held weekly and are more familiar with sea turtle research activities held locally, conservation issues and global threats to sea turtles.

The project also assisted with scientific content and local knowledge on turtle poaching for incorporation into new production by MozImages “Ocean Guardian”, a feature film on unsustainable fisheries practices in Mozambique, filmed in Portuguese, English and Bitonga (local dialect). The film is scheduled for release by August 2013 and is planned for screening in community presentations sessions throughout Mozambique.

Yet to have commenced (planned for late 2013/early 2014):

Community presentations with to both local CCP (community council of fishers) and general screenings of a talk conveying the results we found from interviews, rates of poaching from beach surveys and initial success of alternative livelihood projects.

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

Yes, this work is continuous and on going and baseline data is being collected until 2015. Once the baseline data has been reviewed and analysed (as part of my PhD thesis) the next stage of the project will be to actively implement some of the management option and conservation activities deemed suitable.

Additionally, the research and conservation of turtles in Mozambique is in its infancy. Sea turtles still face a multitude of threats and local pressures; we will continue to work towards achieving a greater conservation status for sea turtle in country.

Ideally we plan to:

- Conduct aerial surveys could be completed in nesting season along significant sections of remote coastline in Inhambane Province to get more 'robust' numbers on nesting turtle populations.
- Further interviews with fishers- increase sample size and geographic representativeness
- Continue to developing livelihood options (both in variety and quantity).
- Working with Mozambican Government officials (MICOA) to revise effectiveness of sea turtle legislation and current enforcement scope with hope of re-drafting the fines for people caught breaking turtle laws so that fines are realistic (helping to discourage behaviour).
- Survey systematically whole of Mozambican coast with poaching patrols and interviews to encompass poaching behaviour, frequency and extent for entire country.
- Be able to assess how the quantity of poached animals influences the population status and the threat the population has if behaviour continues or future forecast if it increases.

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

Currently, preliminary results of this work are available through an article written for African Diver an online publication.

Through blog postings on my personal research website, [www.mozturtles.com](http://www.mozturtles.com) and through the Marine Megafauna Foundation website ([www.marinemegafauna.org](http://www.marinemegafauna.org)) Facebook and YouTube channel.

It is also intended that community presentations with to both local CCP (community council of fishers) and general screenings of a talk conveying the results we found from interviews, rates of poaching from beach surveys and initial success of alternative livelihood projects will occur in the next 12-18 months (once suitable Mozambican project member is confirmed).

Two scientific publications are intended to be prepared from this project, one is currently in data analysis stage and the other is in final stage of editing prior to submission.

## 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 approximately 13 months.

Some work is still on going e.g. interview work and beach patrols for poaching, but analysis for this is commencing according to original timeline.

## 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	850	850	0	
Petrol	500	500	0	
Phone costs	39	39	0	
Refreshments for survey participants per diem	50	50	0	

Training local interviewer	50	50	0	
Analysis of survey results	400	400	0	Currently underway
Camera for photographing survey results	100	100	0	Was used to purchase GPS instead.
Paint Pens	18	18	0	
Training volunteers	120	120	0	
Conducting surveys	600	600	0	
Internet	210	210	0	
Preparation of results into talk to communicate to local NGO's.	200	0	+200	Not held until result analysis is completed.
Preparation of results into report for local government	200	0	+200	Not held until result analysis is completed.
Presentation of results to local stakeholders (NGO's, government)	200	0	+200	Not held until result analysis is completed.
Bitonga Divers/ Ocean Revolution to organise interview candidate and conduct interviews in local dialects.	500 (in-kind)		- 500	
GPS loaned from All Out Africa	100 (in-kind)	-	-	Additional GPS was required.
Tape Measures	9 (in-kind)	-	-	
<b>TOTAL</b>	<b>3437</b>	<b>2837</b>	<b>1100</b>	

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

- Once data analysis is finalised and results are written up the next step will be to communicate these results to local fishers, government agencies and relevant NGOs. In October 2013 I intend to present these results at the Western Indian Ocean Marine Science Association 8<sup>th</sup> Scientific Symposium (WIOMSA) which is held in Maputo the capital of Mozambique. It's expected that scientists, NGOs and a large portion of Mozambican environmental government agencies will be present.
- Additionally important future steps include further outreach, education and alternative livelihood workshops with the fishers.
- Wider scope surveys and interviews to gather more representative data (both geographically and culturally) across Mozambique.
- Coupling this poaching data and gained insight of human behaviour with in-water population assessment of sea turtle populations to be able to assess the population status and the true impact poaching is imposing on the sea turtle population. This will include geospatial analysis to identify poaching hotspots and potentially predict where other key poaching areas may occur.
- Working closely with the Mozambican government and additional external funders to find a suitable and resource efficient way to have regular patrols and enforcement of sea turtle legislation.

### 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?

Yes, the RSG logo was featured in the following public outputs.

Online:

<http://mozturtles.com/project-sponsors/>

<http://www.marinemegafauna.org/our-partners/donor/>

The support of RSG was mentioned directly in an article published in African Diver and the URL address to the RSG project update page was featured. Article citation:

Williams J.L (2013) Searching for practical solutions to sea turtle poaching in Mozambique. (Feature Article) African Diver, Issue 26. Available online at: <http://mozturtles.com/2013/03/01/feature-article-on-turtle-poaching/>

Public Outreach:

In a sea turtle ecology, conservation and research focused presentation given once a week by Jess Williams presented at Casa Barry Lodge, Tofo Beach, Mozambique between November 1st 2012 until June 30<sup>th</sup> 2013.



Figure 1: Screenshot of closing slide of public outreach presentation.

Scientific Conferences:

Williams J.L. (2013) "Can Divers Monitor Sea Turtles?" A citizen science case study from Mozambique. Oral Presentation. 33<sup>rd</sup> International Sea Turtle Symposium, Baltimore, Maryland USA, (4-8<sup>th</sup> February 2013).

Williams J.L. (2012) Citizen science for sea turtles? Enlisting recreational divers for in-water sea turtle monitoring in Mozambique. 1st Australian Biennial Marine Turtle Symposium (15-17th September 2012), Buderim, Queensland, Australia.

**11. Any other comments?**

I am very grateful to RSG for supporting our research and conservation efforts in Mozambique of which are in their infancy. Without the backing from RSG this project would have not occurred. This data forms part of the baseline for sea turtle poaching data in Mozambique and is an invaluable foundation for all future conservation research. I look forward to the opportunity share our future conservation successes with the RSGF and the potential of continued support from RSG.