

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 <u>jane@rufford.org</u>.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details	
Your name	Shaleyla Kelez
Project title	Conservation of sea turtles in Peru: reducing sea turtle mortality
RSG reference	20.06.08
Reporting period	September 2008 - February 2010
Amount of grant	£5912
Your email address	skelez@yahoo.com, skelez@gmail.com
Date of this report	16th May 2010



1. Please indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.

2.

Objective	Not	Partially	Fully	Comments
	achieved	achieved	achieved	
Observers'			Fully	We trained two more observers
quantying			achieveu	
Longline		Partially		We planned to observe 24 longline
observations		achieved		trips, but we were only able to do 13
				trips. The mahi mahi season started
				later than expected but the trips were
				longer which helped the collection of
				more data.
Pelagic prey			Fully	We collected 57 samples of pelagic
sampling			achieved	items like fish, sea slugs, snails,
				copepods, crabs, algae, etc. Stable
				isotope analysis of these samples was
				conducted in November 2009 (first
				part) and January 2010 (second part).
Collection of		Partially		We conducted stomach lavages with
ingested food		achieved		three turtles, but stomachs were
				empty. Also, more than half of the
				turties captured were not candidates
				for lavages because they had the hook
				in the desophagus of were bleeding
				mouth instead of the layage camples
				we collected skin samples from all sea
				turtles and will conduct stable
				isotones analysis with them to infer
				diet preferences.
Dehookers	Not			We obtained newer information from
production and	achieved			veterinarians about the use of
distribution				dehookers and the fate of hooks
				embedded in the oesophagus and
				decided the use of dehookers was not
				that recommended.
Dipnets		Partially		It took more time than planned to
production and		achieved		produce the 30 dipnets. However, and
distribution				after many delays we were able to
				make them. We distributed more than
				half of the dipnets among longline
				fishing captains that are trustable and
				will use them and are planning on
				distributing the rest in the near future.
				Sadly, we cannot distribute them to
				any captain because there is a high



				probability that they will sell it (stainless steel is expensive in Peru).
Remote sensing data collection		Partially achieved		Most of the oceanographic features data were gathered from ArcGIS rasters made available by Duke Marine Geospatial Lab. However, some data
				for the latest years are not available.
Analysis of factors	Not			This analysis will be performed as soon
related to bycatch	achieved			as all the data has been uploaded in
				the database. We estimate that it will
				be finished by May 2010.
Conservation talks			Fully	Conservation talks were conducted in
			achieved	Chimbote and Paita as well as on-
				board of longline vessels

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

4.

Dipnets: I had anticipated getting the information about the best dipnet design for sea turtles from a programme that was testing them in many countries in the Eastern Pacific. However, this information was not shared by the programme's personnel and that delayed the manufacture of the dipnets. Despite the difficulties I was able to elaborate the dipnets, but the distribution was delayed.

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

1. Increasing turtle survival:

All the turtles observed caught in longline sets during this project and previous projects were luckily alive. However, turtles usually are brought on-board by being hoisted up by the line on which they are hooked, a practice that produces many injures, particularly among turtles that are deep hooked in the throat; fishermen also employ a large gaff to help bring the turtle onboard which also injures turtles were the hook grabs their bodies. Also, due to the weight of the turtles and the force employed to pull them up the water, turtles strongly land on the vessel deck which sometimes results in shells or plastrons breaking. Moreover, to recover hooks fishermen may at times employ non-appropriate dehooking techniques that result in mortality. The dipnets given to longline vessels captains will ensure that turtles are bring onboard in a friendly way and will avoid further injuries by the hooks and gaffs. Also, turtles will be landed on the deck in a softer way and injuries would also be avoided. All these measurements will

the deck in a softer way and injuries would also be avoided. All these measurements will increase the post-release survival of the sea turtles and will contribute to the conservation of their endangered populations.

2. Foraging ecology of oceanic turtles

Results from our first analysis of stable isotopes to infer the foraging ecology of oceanic loggerheads, greens and olive ridleys had show that these three species that in coastal habitats have very different feeding habits are eating at the same trophic level. Results from future analysis will help us identify the food items that are more likely being consumed by these three species in the open ocean. Knowing the food items will contribute to the understanding of their foraging ecology and their behaviour and distribution in the open ocean. Moreover, this can help us in the future to separate them from fishing practices that can accidentally capture them.



3. Fishermen involvement

The most important action to conserve sea turtles in Peru is to accomplish the volunteer participation of fishermen. Due to the fact that they are the ones in closest contact with sea turtles in Peru (being no important nesting beaches in our coasts), the future of sea turtle populations is only in their hands. During the conservation talks of this project, fishermen were able to get more information about the endangered status of sea turtles, the threats to their populations and how important it is their involvement for their conservation. Also, during the on-board observations, the observers shared with fishermen information about sea turtles and conservation actions needed. Moreover, fishermen participated helping collecting data for sea turtles (weight, size, etc.). All these actions help sharing information and make fishermen became part of the solution to the problems faced by sea turtles in the south-east Pacific.

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

Fishing companies, captains and crew members were involved in the project. The companies allow the observers on-board of their vessels and the captains and crew members helped with the handling of turtles and the collection of the data. Certainly, both observers and crew members benefit from the interaction and conversations where information about marine species, fishing practices and ocean related issues were shared. The dipnets distributed will not only be used to bring on-board sea turtles but also swordfish and other large target individuals.

5. Are there any plans to continue this work?

We (ecOceanica.org) have the desire to continue doing research about bycatch of sea turtles in longline fisheries. We want to test the efficiency of the dipnets and also keep monitoring the species and life stages that are being captured. Longline fishing vessels are the most accessible way that scientist have to collect data from oceanic turtle individuals which otherwise will be almost prohibitive due to the high costs and time needed if a research vessel is used. Moreover, we want to explore mitigation measures based on the results of the analysis of the factors related to bycatch (analysis that are still in progress).

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

I gave an oral presentation in the last International Symposium on Sea Turtle Biology and Conservation held in Goa, India in April 2010 about the foraging ecology of sea turtles in the southeastern Pacific based on stable isotope analysis. A colleague and I also presented a poster about a genetic analysis that used information collected during the on-board observations. This was not one of the objectives of the project submitted to Rufford Small Grants but thanks to the observation paid by the grant the data was able to be collected.

Results from the project will be part of my PhD dissertation work and will become public when I graduate from Duke University. Moreover, many per-review articles will be generated using data collected during this project.



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 from September 2008 to February 2010. The anticipated length of the project was from September 2008 to June 2009. The project extended 8 more months due to a delayed in the mahi-mahi fishing season of the vessels that were participating in the project. Also, those vessels did not fish during the shark season (austral wintertime).

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.

When the funds were received, they were change to US dollars with an exchange rate of US1 = £ 1.755. All the figures in the budget are in £ sterling.

Item	Budgeted	Actual	Difference	Comments
	Amount	Amount		
On board observ	ations			
Observers per diem	1601.42	1020.47	580.95	Less observed fishing trips were conducted
Observers travel	298.93	328.16	-83.23	
Observers lodging	213.52	66.58	146.94	Less expenses due to less fishing trips conducted
Observers food in vessel	533.81	77.06	456.75	Less expenses due to less fishing trips conducted
Observers superv	vision			
Observer supervisor	1245.55	1595.44	-349.89	Due to the extension of the project we needed the service of the observer supervisor for 3 more months
Communication (phone calls and internet)	162.68	128.68	34.0	
Travel expenses	203.36	136.02	76.34	Less expenses due to less fishing trips conducted
Workshops				
Portable projector	177.94	278.06	-100.12	The projector model we were advised to buy (portable and resistant) was a little more expensive than when we wrote the budget and also, we had to pay a tax when the projector was sent from US to Peru
Travel expenses	406.71	399.28	7.43	
Supplies				
Dipnets	762.58	995.15	-232.57	Stainless steel prices increased from when we wrote the project application



Dehookers	305.03	190.7	114.33	Veterinarians advised against the use of the dehooker if users were not very well trained, so we decided not to elaborate them. Instead we used the money to buy other supplies needed for the observations like batteries, waterproof clothes, etc.
Office supplies	0	42.41	-42.41	
Bank fees	0	14.39	-14.39	We forgot to consider the bank fees in the submitted budget
Total	5911.54	5326.4	585.13	

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

First of all, I believe more handling tools need to be facilitated to fishermen crews. More dipnets should be distributed among longline vessels so each vessel can have one. Besides dipnets fishermen could use bolt cutters, long-nose pliers, monofilament line cutters and mouth openers to disentangled and de-hook sea turtles.

Secondly, environmental education programmes are needed to reach more people and make them participate in conservation actions.

Finally, there are still many aspects of sea turtle's ecology in the open ocean that we don't know. Without a clear understanding we won't be able to reduce treats and conserve their populations adequately. Therefore, turtles incidentally captured during longline fishing activities should keep being recorded, tagged, measured, photographed and tissue samples should also be collected. With a continuous collection of this kind of data it will be possible to obtain information on their movements, migrations, growth rates, etc., which will facilitate necessary management actions.

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?

No public materials were produced during this project but RSGF is getting publicity trough the website of the recently created NGO ecOceanica. Also, I presented a talk and a poster during the International Symposium on Sea Turtle Biology and Conservation held in Goa, India in April 2010 and the RSGF logo was show in both presentations (panel and Powerpoint presentation).