

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	Marta Pesquero Henche
Project title	Ostional Leatherback and Pacific Green Sea Turtles Conservation Project
RSG reference	15671-1
Reporting period	November 1 st 2014- March 31 st 2015
Amount of grant	£4998
Your email address	marta@biocenosismarina.org
Date of this report	October 8 th , 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
Night patrolling and morning census from November 1 st 2014 until March 31 st 2015			x	We were able to patrol the whole Ostional beach for the period of time indicated, with 150 days of night beach patrols from 7 pm until 6 am with two research teams per night, and 32 days of early morning census.
Biometric data collection of nesting females			x	We collected biometric data for all the Leatherbacks (n=4) and green (n=8) sea turtles that nested in Ostional beach during this past nesting season.
Hatchery construction at the beginning of season			x	The hatchery that we built this year was 7.5m (length) x 4m (width) x 1 m (dept.), totalling 30m ³ . It had a capacity for 32 nests and was built in the course a one full week of work and of about 480 person hours of work.
Relocated nests to hatchery			x	This year we had eight leatherback nests relocated to the hatchery, 100% of the confirmed nests for the season. For Pacific green turtles there were 19 nests laid of which 12 were relocated to the hatchery (63%).
Analysis of hatching success of every nest			x	All nests at the hatchery were monitored and excavated, resulting in 39.9% hatching success for leatherbacks and 82.5% for Pacific green turtles. Natural leatherback nests at Ostional beach have shown 0% success in the past giving mainly to high sand temperatures and predation, so our results are important.
Analysis of temperatures		x		We located Hobo Datalogger readers in 7 (87.5%) of the nests on the hatchery and we are in the process of analysing these results in conjunction with previous seasons temperature data.
Beach cleanings			x	We had beach cleaning activities on an average of one time per week adding up to 145.75 waste management and beach clean-up person hour's efforts.

Community participation on project efforts.			x	We partner with a total of 16 different households from the local community who hosted volunteers and supported us with hatchery building and protection. We were also able to hire three local research assistants for the whole season.
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

We consider the 2014-2015 Leatherback and Pacific Green sea turtle season to have succeeded in all planned objectives and activities. We didn't have any major difficulties. We had strongly committed research assistants, international and local, many volunteers support and a close collaboration from the Costa Rica Ministry of Environment. All collaborators were highly motivated and passionate about the project efforts. The economical support that we received this year from Rufford and the matching support from the Costa Rica Ministry of Environment and Energy were crucial for the development of this initiative.

The most relevant situation that we encountered this past year was related to the low leatherback nesting activities. In previous seasons we have documented between 19 and 42 nests at Ostional beach, usually done by eight different nesting females. This year we only had four leatherbacks arrive on the beach which laid a total of eight nests, all of which we protected on our hatchery.

We accomplished all activities proposed and the leatherbacks nests protection was 100% achieved. We protected all nests and released 183 leatherback hatchlings. It's important to note that East Pacific Leatherback subpopulation has declined 97.4% during the past three generations (Spotila *et al.* 1996; Santidrián Tomillo *et al.* 2007), and all efforts to revert this trend are highly valuable.

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

Poaching rate decrease:

By patrolling all nights and doing morning census we decreased human egg poaching for both leatherbacks and greens, and also by having staff and volunteers presence we protected olive ridley nests as a collateral positive effect. All the eight leatherback nests from the season were relocated and protected into the hatchery. For green sea turtles only one out of 19 green turtle nests was poached (5.2%).

Successful hatching success for leatherback and green nests:

All nests at the hatchery were monitored and excavated, resulting in 39.9% hatching success for leatherbacks and 82.5% for Pacific green turtles. Natural leatherback nests at Ostional beach have shown 0% success in the past giving mainly to poaching, high sand temperatures and predation. By the end of the season 183 leatherback hatchlings and 617 Pacific green hatchlings were released to the sea by the project with the participation of community members and Costa Rica government representatives.

Income generation to the Ostional community while supporting the research and conservation of leatherback and Pacific green sea turtles.

During the 2014-15 nesting season we received a total of 83 volunteers (91.6 % international and 8.4 % national). By having this participants stay with local families and pay directly their room and board, a total of \$23,850 gross income was generated to 16 different host families. All payments were done to the head female of the household. As per the hiring of local research assistants we were able to hire for 5 months three local responsibly young conservationists from the community of Ostional all of which had the opportunity to work to sustain their livelihood while doing conservation and research efforts.

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

Since the start of this project the community have been essential in the development of it. Local families have been hosting all the volunteers that have come to Ostional to work; they offer volunteers room and board generating additional income for them. This year a total of 16 local families hosted volunteers in their homes and the gross income distribution among them totalised \$23,850. Every season we have tried to get local families involved in different ways; this year they have helped us in the hatchery construction and also after to take care of it during daylight check- ins.

Another important community outcome of the project was the hiring of three local research assistants. All of them were able to have a job in their hometown while doing conservation efforts and learning about sea turtle research and monitoring for 6 continuous months.

5. Are there any plans to continue this work?

Sea turtle efforts require long term continuous activities, but after accomplishing our 10th consecutive season, we will focus on analysing our previous accumulated results. After saying the above, we plan to opening our sea turtle monitoring and conservation season again in November 2016. Still we are in constant communication with our partners at the Costa Rica Ministry of Environment as although we will not have research efforts this coming season (2015-2016), park rangers and other researchers will support the protection of leatherbacks and Pacific green sea turtles nests under our advice.

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

At the end of every season we turn in a formal report to governmental authorities to hopefully support decision making processes. We will be turning in this report in November 2015. Also we are gathering all of our data to publish a scientific paper of our 10 years efforts at Ostional beach, aiming for 2016.

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 Rufford Foundation grant was used during the whole project from November 1st, 2014 and until March 31st, 2015.

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
Materials and equipment for hatchery	1080	784 (In USD 1200\$)	296	At the beginning of the season, before we started to build the hatchery we found that there was material in very good condition of past seasons at the Ministry of the Environment. We decided that we could use it to build the hatchery instead of buying new one. This way we could save a little bit for other expenses.
Three local research assistant for 4 months	2760	3016	256	We decided to keep local research assistant working one more month, so instead of four months they worked for five months. This was a total of \$9000 instead of the \$7200 initially estimated. RSGF supported with \$4620. This way we were able to extend the night patrolling and morning census and also covered the exhumations in March 2015. The other side that gave support to the project covered the rest of the cost.
Hatchery and natural nest	0	0	0	As the local research assistants were

exhumations after season in March- April				staying longer this item was completely reduce even for the other side. We didn't have any nest to exhumed during April 2015.
Project coordinator for six months	1158	1198	40	At the same time we decided to have the field coordinator the same time as local research assistants; only five months. So we cut down expenses from here.
Staff stay in the Ministry of Environment Bilding	0	0	0	
Total	4998	4998		

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

As a project we need to evaluate all the previously accomplished results and find creative ways to make a bigger difference for the conservation of leatherback and Pacific green sea turtle conservation in the Eastern Pacific Ocean. Is for us important to share our experience with other regional sea turtle conservation efforts, but this can only happen once we have published our scientific article.

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?

The Rufford Foundation logo was only used in our Ostional blog. But it will be used in the reports for the Costa Rica Ministry of Environment and any other information display about the projects results.

References:

Spotila, James R., et al. "Worldwide population decline of *Dermochelys coriacea*. are leatherback turtles going extinct?." Chelonian Conservation and Biology 2.2 (1996): 209-222.
Santidrián Tomillo, Pilar, et al. "Reassessment of the leatherback turtle (*Dermochelys coriacea*) nesting population at Parque Nacional Marino Las Baulas, Costa Rica: effects of conservation efforts." Chelonian Conservation and Biology 6.1 (2007): 54-62.



