

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	Fernando Arbelaez
Project title	Community-based conservation program of three endangered species of river turtles with Amazonian Indigenous communities of Colombia and Peru 2014-2015
RSG reference	1082-C
Reporting period	June 2014 to December 2015
Amount of grant	£15,000
Your email address	ferarbe@gmail.com
Date of this report	13-01-2016

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
To reduce nest loss and female hunting and to gather basic biological information of the species on the four main nesting beaches of the area, through protection and monitoring by local conservation groups (LCGs) during the peak of the 2014 and 2015 nesting seasons			X	The presence of the turtle guardians on the protected beaches proved again to be an effective tool to reduce nest and female loss, and increased experience of the LCGs led to an improved quality of the gathered data (see outcomes).
To raise awareness about the importance of turtle conservation and of the LCGs work among the communities of the area			X	The awareness-raising campaign and socialisation of the programme among the communities of the area continue to give fruitful results (see outcomes).
To reach agreements with local and regional governmental and private institutions to get their support for upcoming years.		X		The goal of signing agreements that would secure funding for future seasons by the end of 2015 was not met. Several meetings were held and written funding proposals were presented to local hotels. Although they still show interest, to date no response or concrete answer has been given. The most important advance towards this objective was the signature of a framework agreement between Fundacion Biodiversa Colombia and Corpoamazonia, the regional environmental authority. It aims to achieve technical cooperation and joint fund-raising for this and other turtle community-based conservation programmes in the Colombian Amazonia, based on our results and experiences. This agreement allows us to access to governmental funding. One application has already been sent to a governmental fund and we are awaiting for its

				<p>response. We also plan to apply for a long-term governmental scientific research grant in the coming months by associating with Corpoamazonia and a research institute or university to strengthen the research component of the programme.</p>
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

The most unexpected difficulty we met was the significant reduction in nesting events after the year without protection (2013). Nesting decreased from 92 in 2013 to 45 and 44 the following years. This may be an indication on the delicate state of the local turtle populations and their sensitivity to further poaching, and an evidence of the importance of pursuing the conservation actions. It may also be a result of the increasingly more frequent alterations of the Amazon River pulse over the years: in the last 2 years, appearance of beaches, which historically started in mid-June, was delayed until end of July in 2014 and beginning of August in 2015. This affects especially *P. sextuberculata* being the first to nest in the season and much more specific in nesting substrate compared to *P. unifilis* (it requires dry fine grain sand beaches). With further and continuous monitoring, it will be possible to determine the reasons for such a decrease, hoping that with continuous protection and raised awareness of the communities of the area, local turtle populations will start to recover.

Furthermore, extreme weather one night in 2015 allowed Colombian guardians to cross the river to reach one of the Peruvian protected beaches. When the guardians reached the beach the next day, they found that four nests had been poached (the only nests that were lost during the two seasons). Although these events are difficult to foresee, back-up plans and increased communication between the groups should to be arranged for similar situations in the future to avoid nest loss.

Finally, the direct involvement of the tourism industry has still not proved fruitful. We are therefore working on other angles, such as Patrimonio Natural Fondo para la Biodiversidad y Areas Protegidas (a Colombian environmental fund with which Fundacion Biodiversa Colombia has long cooperated) and its financial mechanism called *Biohoteles, Pioneros en Conservación* (Biohotels, Conservation Pioneers) which seeks cooperation with large tourism companies to invest in conservation. Being an already formulated strategy, it might be easier to reach these hotels in the area to raise funds for the project, and Patrimonio Natural has already shown interest in promoting it.

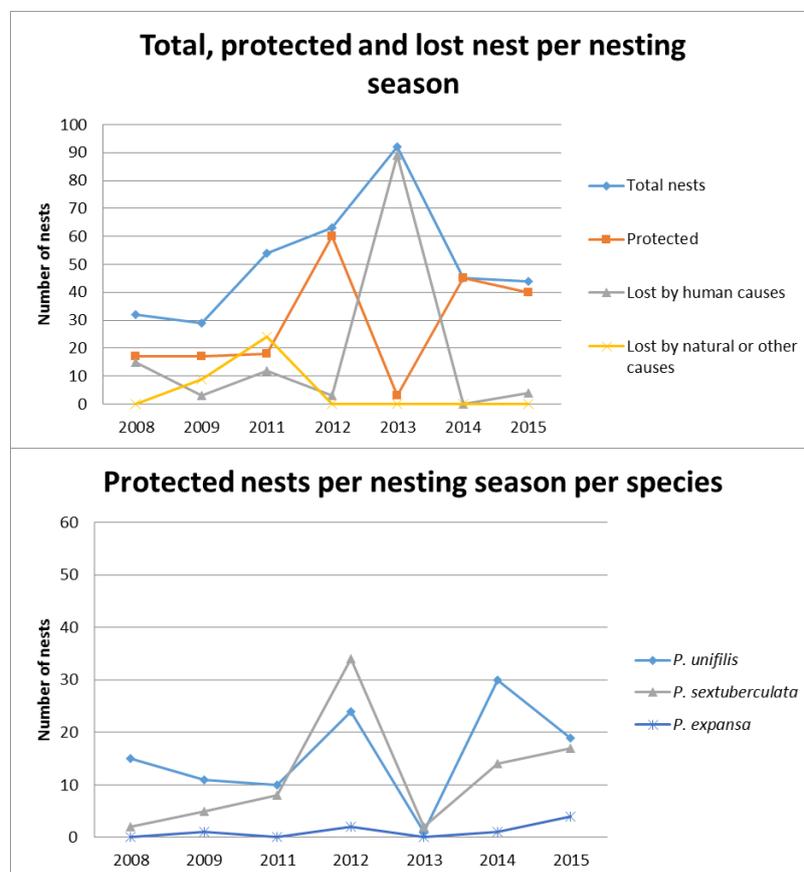
3. Briefly describe the three most important outcomes of your project.

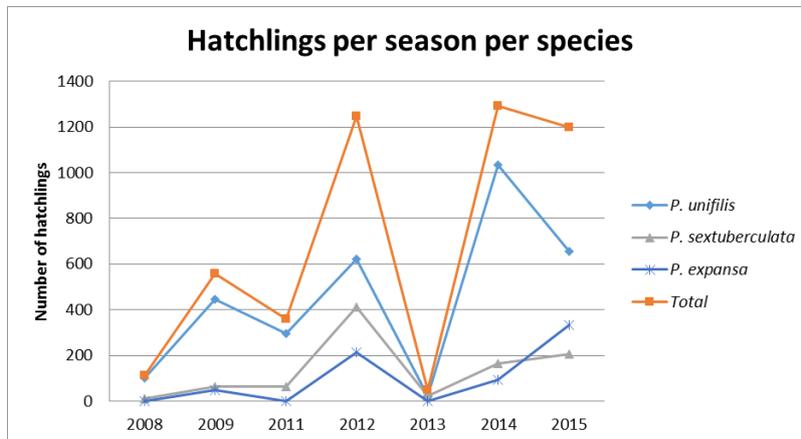
The most important outcome was the greater impact of the programme in terms of conservation. Nest poaching reduced from 89 nests in 2013 (when no beach protection was possible due to lack of funds) to 0 in 2014 for the first time since the start of the project, and to 4 in 2015 (see graphs below). While in 2013 traces suggested that some females had been hunted during nesting, this was avoided in 2014 and 2015 by the lack of night visitors on the conservation beaches due to the presence of the guardians; this is perhaps the most important conservation result. It is also important to highlight that the amount of protected nests and hatchlings of the two most vulnerable

species (*P. expansa* and *P. sextuberculata*) increased from 2 nests and 24 hatchlings in 2013, to 15 nests and 260 hatchlings in 2014, and to 21 nests and 542 hatchlings in 2015.

Another important outcome was the improved quality of the data gathering and the more effective beach monitoring by the LCGs. This was the result of increased experience and training of the guardians, and the implemented organisation of the activities with a permanent local field coordinator and a supervising LCG. On one hand, all the data was gathered and compiled without mistakes in 2015 for the first time in the programme. This suggests that the LCGs could be ready to be trained in more complex biologic data gathering for future seasons. On another hand, egg survival (excluding infertile eggs) passed from 94% in 2012, to 96% in 2014 and to 100% in 2015, which means that the monitors have improved their ability to protect the hatchlings from natural destruction causes, such as predators, humidity or floods.

Finally, there is evidence of the positive results of the awareness-raising campaign and socialisation of the programme among the communities of the area. Environmental education activities were carried out during the hatching season, in 2014 with three schools and a gathering with children from three communities, and in 2015 with six schools of the area, which the children received with great enthusiasm. Although poaching still occurs when the guardians are not present, there is a high recognition and respect for their work, as could be appreciated during the socialisation meetings with community members and authorities from the area. Another evidence is the lack of night visitors on the conservation beaches, which avoids turtles from being poached while nesting. Finally, three new communities, one from Colombia and two from Peru expressed their wish to be included in future phases of the program, showing the expansion of the influence of the programme.





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

Being community-based, the programme focuses entirely on community involvement. It also implements a progressive incentive scheme, in which the first 3 years of their training, the groups receive small collective and individual incentives. From the 4th year, the guardians start receiving an individual economic retribution for their work, as they have more responsibility and train the new groups. In 2012 there were 50 guardians from three experienced groups and one newly formed from three communities of Colombia and Peru. In 2015, participation had increased to 70 guardians from five communities and six LCG, four experienced and two in formation. The groups have been trained in monitoring, conservation actions and data gathering, and have gained recognition among the communities, the traditional authorities and the environmental institutions of the area. Children from local schools have also benefitted from the awareness-raising activities by a team formed and trained for this purpose. In these they either go to the beaches to witness hatching and “adopt” a hatchling, either they see pictures and videos of the activities while receiving an environmental education talk.

5. Are there any plans to continue this work?

We already have partial funding from the US Wildlife and Fishery service for the 2016 activities. However, through fundraising in cooperation with Corpoamazonia and the Biohotels financial mechanism we expect to obtain funds for at least 5 consecutive years and therefore assure continuity of the monitoring and of the conservation actions. If the governmental fund is obtained by Copoamazonia, other turtle community-based conservation projects would be supported in the Colombian Amazonia, based on the experience and results of this programme.

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

Results and updates on the 2014 and 2015 seasons will be posted on the FBC webpage (www.fundacionbiodiversa.org) and Facebook page. When possible, the work will be presented within the environmental community of Colombia, in meetings and in conferences, as has been carried out in the past.

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 grant was used from June 2014 to December 2015, which was the anticipated timescale.

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 main difference between the budgeted and the actual amount for the different items was caused by the fact that the US Wildlife and Fishery Service grant only arrived in October 2015. Therefore, the resources left for 2015 had to be redirected so that the activities could start in August, mainly for gas and oil for monitoring and economic retribution of the LCGs for August and September. This was at the expense of other items that were afterwards taken from the US WFS budget, such as researchers' expenses and materials. In the latter, we also did a great economy by replacing most of the battery headlights with rechargeable and solar red lights.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Gas, oil, snacks for new groups	£1,316	£1,915	£599	See above
Materials for monitoring	£1,163	£864	−£298	
Collective incentives for new groups	£625	£602	−£23	
Socialisation, training and awareness-raising activities	£779	£774	−£5	
Economic retribution for experienced groups	£5,047	£5,521	£474	
Transport for researchers	£1,125	£900	−£225	
Food and lodging for researchers	£469	£331	−£138	
Stipends for researchers	£2,700	£2,362	−£338	
Communications and stationery	£438	£419	−£19	
Administration fee (FBC)	£1,306	£1,308	£2	
Total	£14,967	£14,997	£30	

Exchange rate: 1 GBP = 3212 COP

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

The next steps are, initially, to find match funding to carry out the 2016 season through applications to other international funds. Meanwhile, we will apply to other governmental funds with Corpoamazonia. We will also contact the large hotel companies of the area (On Vacation, Decameron) through Patrimonio Natural to propose their participation in the Biohotels Financial Mechanism, which would guarantee sustainable funding for the coming years for the program.

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?

For the moment, only on the Fundacion Biodiversa Colombia Website.

11. Any other comments?

The researchers and the Local Conservation Groups express their deepest gratitude to the Rufford Foundation for supporting this conservation initiative since 2008. Without it, the programme would not been able to be carried out, possibly at the expense of the local turtle populations of the area. Thank you very much!