

## 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**

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#### Grant Recipient Details

<b>Your name</b>	Andy Bystrom
<b>Project title</b>	Sea Turtle Activity in an Approved Aquaculture Site, Mouth of the Golfo Dulce, Costa Rica
<b>RSG reference</b>	9641-1
<b>Reporting period</b>	May 2011-May 2012
<b>Amount of grant</b>	£4,435
<b>Your email address</b>	andy@pretoma.org
<b>Date of this report</b>	May 31, 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
<p>1. Determine the population composition of green and hawksbill sea turtles and the possible effects that a tuna aquaculture project would have on these turtles near the mouth of the Golfo Dulce, Costa Rica</p>		X		<p>Years of study are required to fully understand the population composition of any animal; therefore, more data are needed to understand long term trends and changes of this area's green and hawksbill sea turtles. The project did, however, fully achieve its objective of realising 18 (four more than originally planned) data taking voyages that covered 100% of the study area during the entire Costa Rican dry season. Observed green sea turtle densities (number of sightings/trip) were calculated with the data collected from these voyages both inside and outside of a possible tuna aquaculture project concession. In addition, the locations of observed rays, whales, and multiple species of dolphins were also recorded. Because more data are required to accurately determine and understand sea turtle populations at the mouth of the Golfo Dulce, project members have partnered with Stanford University (California, USA) to continue the study for 12 more data taking voyages during the Costa Rican rainy season (June-September).</p>
<p>2. Strengthen the local and national stakeholder initiative to establish a marine reserve which will promote eco-tourism initiatives in addition to protecting the endangered turtles at the estuary's mouth</p>			X	<p>The local and national initiative to establish a marine managed area at the mouth of the Golfo Dulce has been strengthened due to this project's participation in 16 formal meetings, workshops and personal conversations with local stakeholders, national and international marine conservation NGOs, the Costa Rican Ministry of the Environment, Fisheries and Aquaculture Institute, System of Protected Areas, etc. There is, however, more work that needs to be done to see this initiative through. Preliminary project results were presented at a fishing workshop in Pavones in March and over the next 3 months multiple presentations are</p>

				planned in Southern Costa Rica as part of this project's joint research initiatives with Stanford University researchers. This project allowed its participants to form the Costa Rican Conservation and Education Network – ARCAE, a legally registered Costa Rican non-profit. This legal entity allows researchers to better promote marine conservation initiatives in Southern Costa Rica.
3. Contribute to school children's knowledge and understanding of the area's marine ecosystem			X	A community wide educational workshop was held in Punta Banco, at the mouth of the Golfo Dulce, for 100% (26) of the community's elementary school children. Permanent signs were made by these local children with messages about how garbage needs to be disposed of correctly in order to not pollute the marine ecosystem. A children's environmental educational workbook was produced, in addition to a detailed workshop methodology that is available for anyone interested in replicating the programme in other schools. Local children and adults from Punta Banco and Pavones also accompanied researchers on the sea turtle survey boat trips where they received hands on instruction on how to use a GPS to record the position of observed marine fauna. While the project's researchers feel this objective has been fully achieved, there is still a lot more work to be done and many more schools and school children to involve.
4. Contribute to national and international awareness of the conflict between sea turtle protection and unsustainable aquaculture initiatives		X		The project partially contributed to increased national and international awareness for sea turtle protection through the establishment of a project Facebook page where researches posted pictures, links to articles, and explanations of their work and need to protect sea turtles and other species of marine fauna. Articles with project explanations and results were posted on the project's blog. Other international conservation blogs and sites have also linked to the project's blog and reposted its news. A grassroots group of bike riders from California will be riding

				<p>across the USA to raise awareness for shark finning and general marine protection efforts (<a href="http://www.endfinning.com">www.endfinning.com</a>). ARCAE has provided this group with information for presentations. Funds raised along the bike ride will be donated to ARCAE and its sea turtle, shark, and responsible fishing initiatives in Costa Rica. Researchers are also looking into publishing the project's results in a peer reviewed journal and combining them with the rainy season study for stronger conclusions and an increased chance at publication and exposure. Project participants consider this objective partially achieved because of the sheer amount of work still left to be done when it comes to raising public awareness for marine conservation.</p>
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**2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).**

The original project's budget called for \$5,000 worth of co funding by other international foundations, however, this was not approved. Since the project has become part of ARCAE's work, the organisation anticipated that additional funds would be procured to cover this budget difference. This, however, did not happen and The Rufford Small Grants Foundation was the sole project funder. Appropriate budget saving steps had to be taken to reduce expenses.

Project members did not purchase a high quality camera for wildlife photography and species identification. Instead, they hired a local turtle guide with 7 years of experience and invited locals and tourists with quality cameras to accompany team members on the boat trips. This actually got more people involved in the project and provided a small source of income for a local resident. The project is, unfortunately, still without a quality camera for future fieldwork. Also, a large portion of the project's success is due to its GIS volunteer who not only managed the boat trips, but analysed the data and developed the project's data collecting methodology.

Boat rental and captain expenses were double the anticipated cost.

The original budget called for both of the project's two co directors to receive a basic living stipend of £63 per month. Since no other project funds were awarded, this budget item was cut to offset other critical expenses like the boat and captain fees. Both co directors received a one time payment of £171 each at the conclusion of field work—accounting for the budget surplus after all expenses had been paid.

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

1.) The tuna aquaculture project was stopped!! However, the recently signed (August, 2011) free trade agreement between Costa Rica and China could open doors to increased tuna imports to

the Asian nation and more pressure to construct tuna aquaculture projects along Costa Rica's Southern Pacific coast. For this reason, project members gathered information on dry season sea turtle activity in Southern Costa Rica inside and around the defeated aquaculture site. Green and hawksbill turtles have never been studied in depth in this part of Costa Rica. Since the species are endangered and critically endangered respectively, the information gathered and the information that will continue to be gathered because of this pilot project will allow researchers to better understand these animals and the possible impacts that future large scale development projects would have on them. Much more work needs to be done to better determine population trends, foraging areas, etc, but the groundwork has been set to grow this initiative.

2.) A stronger initiative to develop a marine managed area in this part of Costa Rica is an important component to the sustainable management of the area's natural resources. Because of this project, more groups and individuals are involved in the movement to better protect this coastal zone. Because the project involved local artisanal fishers as boat captains, members of this local group are seeing the economic benefits that local research initiatives provide and how marine protection can provide them with alternative forms of employment. Their presence in marine planning meetings has increased and they are beginning to become involved fishing reform initiatives. There are many reasons why more people are involved in the design of some kind of marine managed area in this area, and while this project cannot take credit for all of the forward progress that has occurred, it has contributed to it and will continue to do so.

3.) Improved environmental awareness among the area's children is an important project outcome because their potential to get involved in other environmental protection efforts and campaigns has been increased. The Punta Banco workshop filled a hole in the day to day public school curriculum. It was also a good way for project members to get involved with local community members, something that will be built upon during future work.

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

Multiple members of the Pavones Artisanal Fishing Association, other community residents, and children were all involved with this project. Fishers served as boat captains and helped to collect data while learning how to operate a GPS. They learned how this technology can be applied to fishing and how they might possibly benefit economically through the future development of ecological boat tours for tourists and as research assistants in other scientific studies. Community members were invited and participated in the boat survey trips and experienced things they had very little knowledge of as they pertain to scientific data collection and the natural beauty the project site provides. Local children were the focus of the project's educational work and learned how their actions impact the neighbouring marine environment. Project members had the most interaction with this portion of the local population and hope to continue educating them and perhaps one day working with them on other studies.

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

Yes. In June 2012, ARCAE received a Stanford University graduate student who will continue the sea turtle visual survey for 3 months (12 trips) during the Costa Rican rainy season. Because of this, project members will continue to provide data that justifies the improvement of local environmental management strategies. Project members continue to post pictures and articles on ARCAE's blog and Facebook page and Stanford University is developing a website that will promote this project's results and future work.

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

Through the project's Facebook page, blog, the anticipated Stanford website, continued presentations and the production of published scientific reports as more data becomes available and is analysed.

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

RSGF funding was received in May, 2011. Project work started in July when researchers began attending marine management meetings and workshops. The sea turtle visual survey (18 boat trips) began on December 10th 2011 to correspond with the beginning of the dry season and ran through April. The Punta Banco educational workshop was on March 16th 2012. Data analysis took place in May, 2012. The boat trips were scheduled to start in October, but heavy rains pushed back these dates. They were scheduled to run through April at a rate of 2/month. In actuality, one was done in December, and then one/week through April. The educational workshop was done as planned.

**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
Communications/Miscellaneous	76	84	8	Some unanticipated internet usage charges in Punta Banco put us slightly over budget
Salaries/basic living stipend	1516	537	979	The full budgeted amount was for project co directors Andy Bystrom and Ingrid Rojas. Since the project did not receive other funding, the co directors only accepted £170.50 each. The project hired a local turtle guide for 196 to assist with field work
Scientific equipment/supplies	505	401	104	Equipment was purchased in the USA and obtained for cheaper
Field guide books, maps	38	0	38	Free project maps were obtained via the internet
Team training	25	0	25	Team training was done but did not incur an expense
Photographic equipment	202	0	202	A camera was not purchased
Boat and captain fees	556	1706	1150	Boat and captain fees were 95 per trip—double the anticipated expense
Accommodation, Food, Travel and local transportation	1046	1434	388	While fewer trips were made to the project site than anticipated because of local

				help and a full time volunteer, trips were longer in duration. Gas prices have risen and food expenses were also slightly higher than anticipated
Workshops	152	231	79	T-shirts for each child participant in the educational workshop were designed and purchased. These were not budgeted for but were a nice addition to the workshop.
Outreach	253	0	253	Travel to meetings and workshops was paid with the travel budget. Once there, all outreach work did not incur a charge. Every boat trip saw multiple local guests—this community outreach was included in the boat fees
Reports	25	0	25	Reports are being sent via email not regular post
<b>TOTAL</b>	<b>4394</b>	<b>4393</b>		RSGF approved a budget of £4435. £41 was charged for the international wire transfer. Total adjusted project budget was £4394. Exchange rate from dollars to £ sterling is 0.63

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

What's needed next is continued data collection, the development of alternative ecotourism employment options for locals, and governmental commitment to create a marine managed area at the mouth of the Golfo Dulce south to Burica. For this reason, ARCAE will continue to work with its new partners to collect data, develop locally based ecotourism business opportunities, and to support marine management initiatives.

### 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 RSGF logo was used on the project's blog ([www.costaricanconservationnetwork.wordpress.com](http://www.costaricanconservationnetwork.wordpress.com)) and on printed materials and t-shirts for the educational workshop. The RSGF received publicity through this logo placement as visitors to the blog can click on its link.

### 11. Any other comments?

This project was the first for ARCAE and for me personally. I thank the RSGF for this opportunity and for having confidence in its methodology. While this phase of the project has drawn to a close, it has

garnered the interest of reputable universities and international non-profits and will be continuing through the first part of the Costa Rican rainy season.

