

## 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>	Pedro Henrique Cipresso Pereira
<b>Project title</b>	Zoning, Conservation and Research of a Threatened Coral Reef Complex in the Northeastern Brazil
<b>RSG reference</b>	13753-2
<b>Reporting period</b>	September 2013 – October 2014
<b>Amount of grant</b>	£5900
<b>Your email address</b>	<a href="mailto:pedrohcp2@yahoo.com.br">pedrohcp2@yahoo.com.br</a>
<b>Date of this report</b>	October 2014

**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
Create zoning maps and zoning implementation of the reef area, delimiting areas according to use		X		The detailing zoning map is complete and all the signs for the beach and coral reef areas are produced (photos were sent in a recent update for RSG). Additionally, five meetings were already conducted to discuss the zoning implementation with all the stakeholders such as fishermen, local trades and city council. However, the zoning implementation is a bit delayed but is planned to be installed in November 2014. The delay occurred because it is quite complicated to address the demands of all stakeholders and plus meetings are still necessary, including voting for the decisions to suit everyone correctly.
Display monthly underwater visual census analysing fish and corals to follow the possible changes related to climate change			X	A total of 15 dive expeditions were performed totalling more than 50 dives in each of the two locations studied by the project. Relevant data were collected on the community structure of fish and coral reef ecosystems of northeast Brazil. Results will be published in journals and presented at conferences.
Empower community members to act as field agents conducting surveillance in the reef			X	Approximately 20 members were trained after conducting lessons on ecology and biology of coral reefs. The total number of empowered members was greater than the expected in the project.
Oversee and monitor the area to avoid impacts caused by tourism			X	Two field agents were trained and remunerated throughout the project to promote supervision and monitoring of reef area avoiding impacts caused by unrestricted tourism. From now on they will be acting as replicators of coral reefs conservation and will continue participating in the entire project. Additionally a partnership with the Brazilian navy and city council allowed us to survey the area and conduct environmental supervision in the coral reefs of the present project. Photos were sent in a February 2014 update.
Disseminate environmental education material for conservation project			X	T-shirts, hats, calendars, pens and stickers, in addition to banners and pamphlets were distributed throughout the year. The materials were distributed to the general public (tourists) and also to the local community and that in total more than 5000 people were reached.

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

The biggest unforeseen difficulty from the project was related to the zoning discussion and implementation. We already knew this difficulty and so we try to accomplish maximum periodic meetings and discuss suggestions from all stakeholders. However, the reef area is exploited by lots of different stakeholders what make our task very challenging. For instance, boat drivers use the area for tourism and they do not want any type of restriction. Also fishermen's and locals exploit the area by multiple uses. Consequently, a higher number of meeting and discussion were necessary to take into account the opinion of all and therefore elaborate a relevant zoning map. Fortunately, after a lot of work we are now in the last steps to implement the zoning and we hope to have it running by the end of November 2014.

Another major difficulty encountered by the project is related to personnel qualification and also the precarious socio-economic situation of the population of the area, fact that causes the lack of qualified manpower to work in conservation projects. This same problem was observed during our first Rufford project and from my point of view the unique solution is to keep working hard to provide locals opportunities and qualified education. During some activities of the project there were not enough members to perform it. At the moment with organisation and time activities have stabilised. However, establishing a connection between the local community, tourists, local government agency and federal researchers is also the only way to establish conservation and management for the reef complex highlighted.

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

The zoning discussion and maps/ signs elaboration were definitely the best outcome for this project. As already mentioned it took was a lot of time and effort to put together all the recommendations and opinions from different stakeholders. Now that the maps/ signs are already elaborated the most important task is to implement the zoning. Financial resources provided from the Federal University of Pernambuco and city council will be used to implement the zoning and also maintenance of equipment and supervision of the reef area. Additionally, a Booster Grant from Rufford Foundation will be vital to expand the zoning area and also support the supervision of the reef in the next year.

Another important outcome was the monthly underwater visual census and also remote analyses of fish community performed during this project. By the support from Idea Wild with four GoPro cameras and RSG financial support we were able to perform the first study using underwater cameras in northeast Brazil. A publication from the study in already submitted for an international leading journal and will be also presented as a talk during a Brazilian meeting. Moreover, the project achieved a significant increase in ecological and biological information of threats and endemic species in northeastern Brazil.

Last but not at least, throughout the year, the project conducted numerous environmental education events towards the city. Events were held in the tourist centre, squares, on the beach and close to coral reefs. In June 2013 was conducted an important event in the city's main square which featured lectures and direct contact with the public and more than 1,000 people visited the site and were sensitised. During all this events, t-shirts (500), stamps (1000), project flyers (1000), project banners (15), and pens (500) were distributed for the audience - local community members and tourists.

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

Local community members were fully involved with the project activities since the beginning of the project. We tried to include and connect locals in all the activities related to the project. For instance, local community members were invited and actively participated on the discussion about the zoning of the reef areas. Their opinion was considered during the drawing of maps and which sites should be more controlled and supervised. Additionally, during the all the dive expeditions of the project we used a local boat driver and also one of the trained field agents (locals from the schools) in order to train them for coral reefs research and identification of reef fishes and corals.

In conclusion, we can assume that local community members benefited from this project in a broad way, either by training, by salaries or even increasing their information about coral reefs that expands their consciousness and shows them the importance of environmental preservation.

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

Definitely. This project started a new age of ecological awareness in the region in which local members and researchers are extensively involved. The Reef Conservation Project currently has strong support from local manager agencies and thus larger facility to continue the activities. Therefore, the empowerment training sessions should continue beyond the inspection of the area, and deeper research should also be conducted. We are glad to let you guys know that since our first RSG the Reef Conservation Project is greatly improving and growing. We got additional funding from several other institutions such as Idea Wild, Mohamed species conservation fund.

Additionally, a Booster Grant from Rufford Foundation will be vital to expand the zoning area and also support the supervision of the reef in the next year.

The project reef area is part of a complex that has other associated ecosystems such as mangroves, seagrass beds and the macroalgal banks. Numerous threatened species such as, seahorses, use the area as nurseries and also sharks use the estuary as a breeding site. Therefore, further research involving connectivity of habitat and migration of important reef species should also be carried out in the area and will be one of the future project goals. Fishermen that act in the mangroves are an important source of local ecological knowledge and thus will be inserted in further activities involving the local community and research projects. For instance, we already started some interviews with local fishermen in order to try to understand the rapid and severe collapse of the endemic and endangered Brazilian parrotfish *Scarus trisponosus*.

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

The project results will be shared in different ways, trying to reach all kinds of individuals.

Our social network link is updated weekly (<http://www.facebook.com/projetoconservacaorecifa>) with all the information and new facts from the project. Moreover, the project website (also periodically updated) has just been released with a huge amount of information on coral reefs in general ([www.conservacaorecifa.com](http://www.conservacaorecifa.com)).

Furthermore, the material called "*Conscious conduct on reef ecosystems*" created by the Brazilian Government is being used in an approach to tourist will be available in full on the project site including downloadable expanding the disclosure of the material.

In preparation is a paper, *Differences in the trophic structure of fish communities between natural and artificial habitats in a tropical estuary*. The present study tested the hypotheses that artificial structures harbour different fish community trophic guilds compared to natural structures. Therefore, different types of natural (mangrove roots) and artificial habitats (pier and bridge) were analysed within a tropical estuary in the northeast Brazil.

Finally, a booth of the Reef Conservation Project (Conservation reef) will be installed on the XXI EBI Brazilian Conference of Ichthyology (February 2013) - <http://www.ebi2015.com.br/> with an institutional poster with results of this report and also highlighting RSG support.

**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 2013 – October 2014. All activities outlined in the application for funding were completed within the timescales specified. Efficient communication between all the project members contributed to the correct execution of all the aims. Moreover, all project members have almost exclusive housing in place of the project (Tamandaré municipality), which facilitates the monitoring and tracking of activities. The coordinator is always in contact with the community and has great power of organisation and reports execution. Thus, monthly meeting were performed for a greater control of the project in terms of enforcement and financial aspects.

**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
Zoning Maps Preparation - AutoCAD	750	750	-	OK
Zoning Implementation materials (ropes, boys, signs)	1250	1000	- 250	The city council helped with some material for the zoning implementation (boys and ropes). The difference (£250) was used to help empower community members.
Monthly underwater visual census – Gear rental, dive expenses and fuel for the boat	2000	2000	-	OK
Empower community members sessions (material and labour ours)	500	750	+ 250	The amount not used in the zoning implementation material (-250) was used for Empower community members sessions

Oversee and monitor the area to avoid impacts - community member transport and food	900	900	-	OK
Disseminate environmental education material - (caps, shirts and pamphlets)	500	500	-	OK
TOTAL	5900	5900	-	OK

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

It is critical important now to finish the zoning implementation and after that install a strong network in the area to conduct reef supervision. Additionally, it is important to continue with all the activities so far, such as the realization of more training for local community members, keep with the supervision with field agents on the reef ecosystem and also further research on coral reefs involving.

A Booster Grant from Rufford Foundation will be vital to expand the zoning area and also support the supervision of the reef in the next year.

### 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?

The RSGF logo was used on all the distributed and produced materials, presentations and over the duration of this project as outlined below. All the publicity with the logo was sent for the project and more of them are still in preparation. We can highlight some of the most important occasions that the Rufford Small Grants Foundation was used:

- T-shirts (500), stamps (1000), project flyers (1000), project banners (15), and pens (500) used during the whole project and also distributed for local community and tourists.
- Presentations for the local community and tourists and also meetings with local manager agencies and major.
- Website of the project just created - [www.conservacaorecifal.com](http://www.conservacaorecifal.com) and Social Network of the project with weekly updates - <http://www.facebook.com/projetoconservacaorecifal>
- Acknowledgments from RSG on scientific papers and also magazine articles.

### 11. Any other comments?

On behalf of The Reef Conservation Project (PCR) and in the name of all the project team, I would like to acknowledge and thanks the Rufford Small Grant Foundation for this support and amazing opportunity for us to work in Brazilian coral reefs promoting conservation and education. It was an honour to work together with you guys and disseminate our results for all the word. We were very pleased with the outcomes of this project and we hope to receive a Booster Grant to continuous with this amazing work.