

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.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details

Your name	Pedro Henrique Cipresso Pereira
Project title	Conservation of a coral reef complex threatened by the impact of tourisms and climate changes on the Northeastern Brazil
RSG reference	10281-1
Reporting period	April 2012 – April 2013
Amount of grant	£5800
Your email address	pedrohcp2@yahoo.com.br
Date of this report	5 th April 2013

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
Empower community members to act as field agents			X	Training was held with members of the local community (fishermen, boaters and students) during the project. Approximately 50 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.
Disseminate environmental education material for conservation projects among them " <i>Conduta consciente em ecossistemas recifais</i> " e " <i>Projeto Conservação Recifal</i> "			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.
Display monthly underwater visual census analyzing fish and corals			X	A total of 12 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

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

There were two unforeseen difficulties tackled throughout the duration of this project:

1 - One of the most important difficult found for the project (most in the beginning) is related to the attendance of local community members during the empowerment classes. It was a bit difficult to have a high attendance during the classes, being that the some of the local community guys live far away, they do not understand how the classes are important for them also some other problems like

alcohol additions. The interesting way that project members were able to counter this difficulty was to encourage local guys to attend classes with more creative, interactive games and practices also explaining the importance of preserving the place to which they belong and live, such as fishing importance for the next generations. According to the project implementation the local community members became more active and present in class and so in the end the amount of empowered individuals were still higher than at the start of the proposed project.

2 - 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. Thus, during some activities of the project there were not enough members to perform it. At the moment with organization 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 three most important outcomes of the project are related with some of the initial aims.

1 – Empowerment of local community members. About 50 community members were empowered by the project during the training sessions. The members of the local community (fishermen, boaters and students) were trained for several days on biology, ecology and “*Conscious conduct on reef ecosystems*” on coral reefs. Moreover, it is an important way to identify within the local community individuals who could be field agents of the project. Later, two of them were selected and trained to work in more detail in this project. These field agents were well established to work in direct contact with tourists and do oversee and monitor the area to avoid impacts caused by tourism on the reef area. They're still working in the area and receive a monthly compensation for such.

2 – Disseminate environmental education material for conservation projects among them “*Conduta consciente em ecossistemas recifais*” e “*Projeto Conservação Recifal*”. Throughout the year, the project conducted numerous environmental education events in the city. Events were held in the tourist centre, squares, on the beach and close to coral reefs. For example, in May 2012 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 sensitized. Also in September 2012 was conducted with the presence of local fisherman and distribution of material on the importance of coral reefs. Finally, and quite recently, in March 2013 a major event was held on the beach and over 1,000 people visited the site and were sensitized. During all this events, T-shirts (500), Stamps (1,000), Project flyers (1,000), Project banners (15), Pens (500) were distributed for the audience - local community guys and tourists.

3 – Monthly underwater visual census analysing fish and corals – Twelve diving expeditions were performed for two different sites (one more impacted and another farther and with little visitation) with analysis of corals and fish with expressive results of how the excessive visitation can damage the reef community recifal (data are in preparation to be published). Moreover, the project achieved a significant increase in ecological and biological information of threats and endemic species in northeastern Brazil.

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

The local community was fully involved with the project since the beginning of the implementation and continues with a strong relationship with project members. The local community has participated directly in all project aims: (1) They were the direct target of the empowerment classes since that were attended fishermen, merchants, boatmen and students; (2) Local community guys were remunerated by the project during the monitoring of the area and also participated in all environmental education activities with tourists; and (3) They were also always present during diving expeditions to help members of the project and moreover initiated direct contact with scientific research methods as transects and observations of fish. Since some members of the local community had the first contact with dive gear and underwater photography equipments indeed much appreciated and commented for them. Furthermore, meetings were performed often to know about their opinion and progress about the project with locals such as the fisherman and boat drivers.

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.

An important comment received by a project member from a local during training and that we would like to share with RSG was: ...*"We should have more of these classes, and maybe some of them on the beach to better understand how corals live"*...

5. Are there any plans to continue this work?

Sure. 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.

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.

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).

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.

Paper just accepted (in press) in the *Marine and Freshwater Research* magazine: *Coral reef fish association with macroalgal beds on a tropical reef system in Northeastern Brazil*. It is about fish diversity on algal beds. This research was conducted in parallel with the RSG support and the participation of all the project team.

In preparation is a paper: *Influence of biotic and abiotic factors on the fish abundance and diversity in tropical coral reef ecosystems*. The main article with the results of this project will highlight how biological factors (substratum dominance and percentage of coral cover) and also anthropic ones (fishing and tourism visitation intensity) can affect abundance and diversity of coral reef fishes on coral reefs.

Finally, a booth of the Reef Conservation Project (Conservation reef) will be installed on the IV CBBM - Brazilian Conference of Marine Biology (May 2013) 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 April 2012 to April 2013. 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 organization and reports execution. Thus, monthly meetings 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. Assumed exchange rate: £1.00 = R\$2.81. (Same of the project proposal)

Item	Budgeted Amount	Actual Amount	Difference	Comments
Empower community members to act as field agents	500	350	-150	The city major provided courses materials (paper, pencil, books). This money was saved for another activity (dives).
Remuneration of field agents to oversee and monitor the reef area	1800	1800		The field agents (local community members) were employed during the project with a monthly remuneration.
Production of environmental education material (caps, shirts and pamphlets)	500	400	-100	The city major provided flyers for the campaigns. This money was saved for another activity (dives).
Coast of Dive Expeditions	3000	3250	+150	The amount not used in the empowerment (-150) and also in the production of materials (-100) was used for more dive expeditions
TOTAL	£5800	£5800	0	

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

Looking ahead, it is important to continue with all the activities so far, such as the realisation of more training for local community members, keep with the supervision with field agents on the reef ecosystem and also further research involving on coral reefs are necessary including laboratory and field experiments to better understand biology and ecology of endemic species on Brazilian reefs.

Moreover, start a zoning process is our next and most important step (that will be requested for the 2nd Grant from the RSGF). We already have support from local management agencies and local traders. Now the project need to start the zoning maps preparation and apply the zoning afterwards.

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 (1,000), project flyers (1,000), 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 and Social Network of the project with weekly updates - <http://www.facebook.com/projetoconservacaorecifal>
- Acknowledgments from RSG on scientific papers and also magazine articles.
- Logo will also be used for all the project team, in the presentation, booth during the CBBM – Brazilian Conference of Marine Biology (May 2013) with an institutional poster of the Reef Conservation Project highlighting RSGF support.

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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 these initial achievements and we hope to receive the 2th RSG to continuous with this amazing work.

Last project environmental education event (March 2013).





Records of negative actions on the local coral reef ecosystem (March 2013).

