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	Reuben John Sulu
Project title	Status and vulnerability of coral reef groupers (*Plectropomus)* to artisanal fishing pressure in Solomon Islands
RSG reference	07.09.07
Reporting period	17 Dec 2007 – 10 July 2009
Amount of grant	£5000.00
Your email address	r.j.sulu@ncl.ac.uk or sulu_rjsl@yahoo.com.au
Date of this report	10 July 2009

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
Aspects of the population biology of *Plectropomus leopardus* in Solomon Islands		X		Landings in the communities were assessed. Life history parameters determined were sexual maturity, growth and mortality rates. The obtained life history parameters were compared with previous studies. Aspects of the biology were generally similar to those for Great Barrier Reef. However, they were different when compared to the population from Scott and Abrohlos reefs in Western Australia. This shows that the species can exhibit different life history strategies in different locations. For example, age and size at 50% sexual maturity at one location may not be the same for another location and this has implications on setting legal minimum size limits, especially if information from studies on another location is used for management in another location.
Social factors driving exploitation		X		Only one site was studied as time does not allow studies to be done on the other 2 sites. Income generation seemed to be the main driver as the species commands higher price at the local markets.
Vulnerability of *Plectropomus* to fishing pressure		X		Fishers currently target sizes which had already attained sexual maturity. However, in a few cases, sizes below sexual maturity was landed by fishers. It was also noted that spawning aggregations were targeted by local fishers. These places the species in a vulnerable position.
Management strategies for *Plectropomus*		X		Data obtained so far on the growth rates and mortality rates will be submitted to the fisheries department with recommendations to put in place regulations for minimum sizes that can be allowed to be landed. 50% Sexual maturity occurs at 34cm and regulations should be in place to prevent landings of any *Plectropomus leopardus* below

				34cm. Currently there are no regulations on the size limits for this species. Data analysis is still ongoing but as soon as that is completed then a management strategy for *Plectropomus leopardus* will be submitted to the fisheries department. This should be done by December 2009.

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

The desire to study 3 sites was too much to do within the given time. In the end only one site (Nggela) was studied. Another difficulty was collecting enough samples of the different *Plectropomus* species. Only *Plectropomus leopardus* was landed in abundance hence studies was only focused on this species.

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

(1) Aspects of the life history of *Plectropomus leopardus* in Nggela, Solomon Islands were determined. These are very important in setting regulations to manage the species.
(2) *Plectropomus leopardus* are vulnerable to exploitation especially for income generation and the targeting of spawning aggregations.
(3) Findings will be submitted to the Solomon Islands Fisheries department for setting of regulations to protect *Plectropomus leopardus*.

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

Local communities were involved in the project through collection of samples for the study. Awareness talks on conservation and the need to protect coral reef species were also undertaken at the communities. This has increased their awareness and the need to protect coral reefs for their future generation. Local communities also benefited financially from purchase of food and accommodation by researchers from the local communities.

5. Are there any plans to continue this work?

I have plans to continue this work in the future. The other related species which is highly targeted by the local communities was *Variola albimarginata*. No study has been done on this species. It is my wish to extend this kind of work to this species in the future.

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

Results of this study will be published in the journals and I will have an e-copy of my thesis available for others online. Upon return to Solomon Islands, the results will be presented to communities where this study was conducted.

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 over a period of six months – January to June 2008. This falls within the anticipated field study period of the project.

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. Exchange rate at time of field research: £1.00 = SBD$14.3, £1.00 = AUD$2.1

Item	Budgeted Amount	Actual Amount	Difference	Comments
Chart of study area	150	27.97	+122.03	Only one chart was purchased. Surplus was diverted to cover higher costs in other parts of the research budget.
Internal travel/Boat hire & Fuel costs	1852	2901.78	-1049.78	Boat and fuel costs were higher than anticipated. Costs in other parts of the budget had to be reduced to cater for this.
Accommodation & subsistence	1180	580.56	+599.44	Food bills tightly controlled to cater for higher costs in other parts of the budget
2 research assistants Honoraria	600	321.68	+278.32	A lower rate was negotiated to cater for higher costs in other parts of the research budget.
Otoliths and Gonad processing related costs	1218	1098.57	+119.43	Multiple mounting of samples per slide was done to reduce costs and meet other higher costs of the research budget.
Ice Blocks	0	69.44	-69.44	This was not budgeted for. However it became necessary during field studies. Ice was necessary to preserve fish samples when collected from fishermen at sea and transported back to land where otoliths and gonads were extracted. Such preservation was necessary as several hours were spent at sea. Without iced preservation samples could deteriorate. This had to be done as extraction at sea was difficult
TOTAL	**5000**	**5000**	0	

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

The next important steps are to investigate the biology of other targeted coral reef species which may be vulnerable to exploitation in the Solomon Islands. This knowledge should then be used to protect and manage these species.

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 when I made a presentation about this project at a student conference at Newcastle University in June 2009; RSGF was mentioned as the donor supporting the project. The RSGF logo will be displayed in the inner covers of my PhD thesis and in any other publication or presentations relating to this project in the future. RSGF will be acknowledged as the supporters of this project when results are published.

11. Any other comments?

This project would not have been possible without the kind assistance of the Rufford Small Grants Foundation. To them I offer my heartfelt thanks and appreciation.