

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	Neil Aldrin D. Mallari
Project title	Strengthening Protected Area Management System to respond to conservation needs of Globally Threatened Species in Palawan, Philippines
RSG reference	35.09.07
Reporting period	January 2008- July 2009
Amount of grant	£4950
Your email address	Aldrin.mallari@gmail.com
Date of this report	November 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
Enhance PA management by assisting the management authorities in defining clear conservation outcomes.			X	- thorough/robust data was the key to achievement of the objective - support and technical/academic guidance of MMU, WPA and various colleagues enabled us to produce scientifically robust analysis - there was a receptive/open management board coupled with a supportive and committed PA staff
Set up an evidence-based conservation monitoring system.			X	- staff committed to their work and conservation. They went far beyond what was expected of them -staff were receptive and keen to establish a monitoring system
Inputs to management zoning and development of appropriate zoning ordinances.			X	- long and thorough discussions were collegial and constructive -involvement of staff in all stages of the project (from data gathering to analysis and presentation)—staff were the champions and advocate to the management board
Recommend management activities to respond to various shifts in the demand for timber and non-timber forest products.			X	-thorough and robust analysis was key in deriving key recommendations
Determine impacts of habitat alterations and proximity to core management areas.			X	-thorough and robust analysis was key in deriving key recommendations

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

Analysis of the data gathered during fieldwork in 2006 and 2007 proceeded as planned. Analysis of data was from January – March and May - July 2008. In April, May and August 2008, field validation, presentation and discussion of preliminary results were done with key park staff that have participated in the surveys. The management options and potential impacts of these management options were discussed and processed with the Park's Management Staff.

There were very minor issues and concerns in the course of running the project. One of the key issues is the delay in getting consensus endorsement of the recommendations of the study by the Protected Area Management Board (PAMB) en banc. This is due partly to the difficulty of convening the PAMB. The PAMB is a multi-sectoral governing body of the park. Conflicts in individual schedules of PAMB members have been the major challenge. To address this, The Protected Area Manager proposed for a PAMB resolution which will designate the PAMB technical committee to work on the management recommendations contributed by the project.

The other unforeseen factor is the Park's nomination to the 'new 7 wonders of Nature'. The park management has diverted a significant proportion of its activities to promoting the Park by inviting more guests to the park. Further discussions on the recommendations by park staff and management have been pushed back, as a result. Although inputs to the management planning process have been accepted and endorsed by the Park staff and PAMB

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

The three most important outcomes of the project are as follows:

a) Scientifically robust set of data to inform management (ecological information at the core of management planning).

This project has contributed to the crucial stages of the analysis of my PhD research. There was an explicit understanding that the results of my PhD research will feed directly into management planning for Puerto Princesa Subterranean River National Park (PPSRNP). The results of the various ecological and socio-economic analyses that were provided strengthened PPSRNP's existing protected area management regime by providing inputs to its biodiversity conservation programme. The results of the analyses have also elucidated the facts that there is already a very strong legal framework; decentralised and collaborative institutional arrangements are in place, and a multi-sector and participatory approach to protected area planning and management in PPSRNP. However, it was apparent that there was an absence of a strong, scientifically defensible set of conservation planning tools for PPSRNP which was recognized by the PPSRNP staff and management, hence this project. This project allowed the PPSRNP to recognise the gap between management systems/infrastructure and science-based conservation planning which clearly undermined the efficacy of PPSRNP. This led to the formulation of various measures to rectify this.

b) Identified the most vulnerable habitats with the PPSRNP

The current management regime at PPSRNP (including management zoning) was found to be inadequate in securing key lowland habitats and species since these key habitats have lower protection status (currently designated as buffer zones) than high-elevation forest (currently designated as core zone) and there seems to be an absence of a clear conservation programme and biodiversity monitoring protocol. This mismatch of conservation intervention vis-à-vis priorities is attributable to a number of factors: (a) national and local natural resources statutes that lack scientific basis or scientific guidance; (b) limitations in the technical capacity in many protected areas; and (c) the simplistic data requirements (vegetative cover, list of threatened and endangered species and list of threats to the protected area) and short-cuts for management planning prescribed by law. The weakness of the PPSRNP's management plan (prior to our intervention) lies in its failure to take into account the importance of the quality and extent of lowland forests where most of the threatened species are found. Another key finding the study is the importance of intermediate habitats and ecotones, where species richness and abundance was highest for many species. In

intermediate habitats (advanced second growth) within PPSRNP, species richness and abundance was highest for many species. However, with the current zoning, all of these lowland second growth forest are in buffer zones and are therefore accorded lower protection status. This underpinned the need to incorporate this habitat types into the strict protection zone bearing in mind the responses of key species to habitat gradients.

c) Developed tools to monitor conservation success

The project has contributed to providing essential tools to inform management from conservation planning to monitor conservation success. These tools include site profiling tools, management zoning tools, and biodiversity monitoring tools.

A. Site profiling tools:

(i) *Livelihood guilds*. In addition to the usual demographic profiling (involving census and participatory rural appraisal), as practised in protected areas in the Philippines and elsewhere, a method of determining livelihood guilds (or the propensity of a particular group in PPSRNP to engage in specific economic activity based on their ethnic background and location in PPSRNP) was proposed. This information may then be used to: (1) extrapolate demand for farmland or agricultural expansion based on the proportion of households that are likely to be farmers, hunter-gatherers or both; (2) determine possible hotspots for traditional use of wildlife and wildlife products, commercial use of non-timber forest products like rattan, palms, as well as hotspots for shifting agriculture and other land uses; and (3) determine appropriate livelihood interventions or alternative livelihoods. This *livelihood guild* approach was used in the discussions with the PPSRNP management to avoid the generalisation that people living in protected areas are a threat because this approach provided predictors or indicators on community members' roles, propensity to choose a livelihood activity over another and economic profile within the protected area and thus minimise the potential negative impacts these economic activities in PPSRNP.

(ii) *Overstorey and understorey habitat profile*. An innovation on how protected areas in the Philippines conduct vegetation/habitat surveys –in the absence of a plant taxonomist- was introduced here. Previous work in the many protected areas in the country has been focused on plant inventories and the mapping of vegetative cover that were useful in describing the site and in setting the rationale for protected area establishment. However, these methods do not maximise the use of the data collected. The methods used in this study have provided finer-scale information on bird habitats as a complement to vegetation cover that GIS-based analysis of remote-sensed data would have generated. The simplified method of quantifying the effects of anthropogenic activities on the overstorey and understorey characteristics of the forest served as a useful benchmark of forest quality for boundary delineation of the various management zones, as well as a monitoring tool to indicate responses to management intervention or other land-use practices in PPSRNP.

B. Management Zoning and Biodiversity Monitoring Tools

Using Species richness and abundance data. The current management plan of PPSRNP is very explicit over its programme on strengthening its management infrastructure, operations efficiency, enforcement and delivery of basic services, but implicit on the biodiversity conservation programme of work. This characteristic bias in the Philippines towards management effectiveness based on metrics of system performance is shared with many countries in Asia. By focusing on a number of focal conservation targets (as demonstrated in this project), we were able to: (a) identify key ecological attributes for these target species; (b) identify an acceptable range of variation for each attribute as measured by properly selected indicators; and (c) rate target status based on whether or

not the target's key attributes are within their acceptable ranges of variation. This framework provided a rigorous basis not only for measuring success but for setting conservation objectives, assessing threats to biodiversity, identifying monitoring and research needs, and communicating management information to non-specialists. This technique enhanced the management zones (pre-project scenario: based solely on vegetation cover and elevation) by including species-habitat relational data. The use of ordination analysis methods and occupancy modelling provided a standard quantitative measure of key species' survival envelopes or threat thresholds. Species' habitat specialisation (or niche width) were plotted across a habitat disturbance gradient (or niche position). At a site level, these species-habitat level analyses provide key information in refining the management zone boundaries that will take into account species' ecological and environmental tolerances to habitat gradients and not just geographical distributions. In addition to the zone delineation, these techniques are also useful in determining species-level or species-specific management interventions. At a biogeographic scale, this tool can help improve our understanding of the threatened species' conservation requirements across their range.

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

At this stage, there was minimal involvement of local communities (i.e. participation in the sessions/meetings to report and explain the results of the study).

5. Are there any plans to continue this work?

The PA staff and management have plans to continue this work. There is a need to engage local communities (public consultations) in the iteration and approval of the conservation plan of PPSRNP. They are also currently looking for funds to cover the cost of re-zoning (including establishment of zone boundaries and set up of markers) of the park. I would like to support this initiative and would make myself available to support the initiative of the park.

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

Public forums have been conducted in September 2008. I organised a Bird Conservation Forum (in cooperation with the Wild Bird Club of the Philippines) to discuss the key issues faced by birds in Palawan. Among the participants of this forum are the members of the Protected Area Management of PPSRNP, key local government units of Palawan and local NGOs in Palawan (e.g. Conservation International, Katala Foundation, ELAC and Birdwatch-Palawan) This was picked up by media. The see the following links:

<http://www.abs-cbnnews.com/anc/09/22/08/palawan-rps-last-ecological-frontier-or-mining-frontier>

<http://wildsingaporenews.blogspot.com/2008/09/palawans-wildlife-faces-extinction-risk.html>

<http://news.mongabay.com/2008/0917-palawan.html>

<http://newsinfo.inquirer.net/inquirerheadlines/regions/view/20080914-160505/Studies-say-Palawan-animals-extinction-looms>

I have also presented the results to two different Fora (Wildlife Conservation Society of the Philippines Annual Conference April 2009 and at the 2009 International Congress for Conservation Biology (SCB) in Beijing, China in July 2009).

Results of the study are written up in my PhD thesis. A publication has just been finished and submitted to *Oryx* (Population densities of understorey birds across a habitat gradient in Palawan, Philippines: implications for conservation). I plan to write two additional papers which will focus on management modelling and a paper on the protected areas management system in the Philippines.

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

Jan 2008- July 2009. The planned timeframe was from January-December 2008. The actual length of the project was 6 months more than anticipated. Analysis and validation of the results took longer than expected and there were delays with the discussions with the PPSRNP management due to various conflicts in schedules (see #2 above).

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
Equipment	£630	801		General comment 1 £= 80 PhP
Field equipment - tents, sleeping bags, etc.	£100	£ 232	(132)	2 tents (@£82/tent) + 2 sleeping bags (@£35)
Binoculars	£60	£ 96	(36)	3 Binoculars (2 units planned + additional unit was purchased @ £32 per unit) were purchased and donated to the park
Maps	£100	£98	2	Maps were purchased and donated to the park
Hand-held GPS	£250	£255	(5)	Also donated to the park
Miscellaneous equipment	£120	£120	0	Consumables supplies (batteries), torches, rechargeable lamps, measuring tapes,
Travel and Subsistence	£3,450	3409	(41)	
Field work subsistence	£1,060	£ 997	(63)	Savings due to counterpart provided by PPSRNP
Local town subsistence (whilst in Puerto Princesa City)	£840	£ 840	0	
Long-distance travel (air travel)	£800	£ 822	(22)	Airfare (£755) + airport taxes (£67)
Local travel (surface and sea)	£700	£700	0	
Medical insurance	£50	£50	0	
Administration	£870	793	77	
Awareness materials	£150	£ 100	50	-counterpart from local sources allowed for savings on this budget line

Local town administration (telephone calls, internet)	£170	£ 170	0	
Report production	£200	£120	(80)	- savings due to provision of electronic copies of report to relevant recipients
Photography	£150	£ 146	4	
Presentation of results to governments and NGOs	£200	£ 257	(57)	-overspent attributed to unplanned increase number of participants
TOTAL	4950	5003		

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

Now that the PPSRNP has taken in the recommendations and tools provided by my work, the crucial step is to assist the Protected Area management board in re-drafting their management plan and getting more meaningful participation of local communities living inside and at the peripheries of PPSRNP in the iteration of the management and conservation plan. No amount of conservation science/technical inputs shall be enough without the full participation and acceptance of communities in the PPSRNP ensure efficacy. Therefore, an extensive consultation process must be done to engender the local communities in the conservation planning and implementation processes. The second key element that will need follow up is the development of a community-based monitoring biodiversity system that will provide key inputs to the work already being done by the technical staff of PPSRNP who were already trained by this project.

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 was acknowledged in the materials produced such as reports and during the consultation and public meetings.