

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	Jo Marie V. Acebes
Project title	Research and conservation of a humpback whale winter breeding ground in northern Luzon, Philippines
RSG reference	12863-2
Reporting period	January to December 2013
Amount of grant	£6,000
Your email address	jomacebes@yahoo.com
Date of this report	28 December 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
<p>Continue to monitor the population of humpback whales breeding in the Babuyan Islands in order to expand the Philippine humpback fluke catalogue and work towards estimating the abundance of the population wintering in this region.</p>		10%	90%	<p>The Project team surveyed around Camiguin Island for a total of 26 days allowing them to photo-identify 40 Humpback whale individuals. Twenty-two of these were re-sights from previous years. The team also encountered four other cetacean species: short-finned pilot whales, Fraser's dolphins, pantropical spotted dolphins and rough-toothed dolphins.</p> <p>There are now 179 humpback whales in the Philippine fluke catalogue representing a minimum population number of whales breeding around the Babuyan Islands. Eighteen newly photo-identified whales this year indicates that this number will still increase with continued monitoring.</p> <p>The expansion of the survey area coverage through land-based observation was not achieved because of the absence of sightings in the Pagudpud, Ilocos Norte area in the 2013 season. With the limitations in the capacity to survey the entire area of the Babuyan Islands consistently, a population abundance estimate cannot be determined as of this time.</p>
<p>Further substantiate links with other populations in the western North Pacific through increased effort and further comparisons of fluke</p>			100%	<p>Two newly identified whales matched with the Japan breeding ground (1 with Ogasawara and 1 with Ryukyu) further strengthening the link with the Asian stock of humpbacks.</p> <p>Although initial comparisons with the Russian catalogue did not result in any match with the newly photo-identified whales, efforts are underway to compare with the catalogue for other western north Pacific feeding grounds. Connection with researchers from the Japan breeding grounds are also being re-established for comparison of fluke photos with their updated catalogue.</p>

<p>Photos and song recordings with groups from Russia, Japan and Hawaii.</p>				<p>Initial comparison and analysis of songs between the Philippines, Japan and Hawaii have been completed by our research collaborators, Whale Trust. A manuscript has been submitted and it is expected to be published by the first quarter of 2014.</p> <p>Song recording this season was minimal due to the breakdown of the hydrophone at the beginning of the field season.</p>
<p>Monitor the status of cetaceans in this area by documenting species occurrence, distribution, and cetacean-fishery interactions.</p>			<p>100%</p>	<p>A new potential threat to cetaceans and other marine life in the Babuyan Island group was identified. Black sand mining began operating in June 2013. It is evident that certain small cetacean species interact with fisheries in the area.</p> <p>Evidence from dorsal fin photo ID study shows that rough-toothed dolphins have high frequency interaction with fishing gear.</p> <p>Out of 11 small cetacean species that occur in the area, 3 are considered uncommon in the Philippines (<i>Pseudorca crassidens</i>, <i>Feresa attenuata</i>, <i>Steno bredanensis</i>) which could make the area significant as a potential site for detailed studies of these little-known species.</p> <p>Based on behaviours and pod compositions observed, it is suggested that this is an area where these species breed and interact with other cetacean species.</p>
<p>Promote and strengthen the proposed Marine Protected and Humpback Whale Conservation Area in Camiguin Island through the cetacean</p>			<p>100%</p>	<p>Helped finalize the management plan for the Marine Protected Humpback Whale Conservation Area (MPHWCA) and helped finalise the barangay (village) ordinance declaring the MPHWCA in Camiguin Island.</p>

				Produced 100 t-shirts for the local sea patrol group (<i>bantay dagat</i>) and the Balatubat Fisher folks Association in Camiguin Island.
Enhance the capacity of local stakeholders in implementing and managing the marine tourism plan for the island.		50%	50%	Provided recommendations in the <i>barangay</i> (village) ordinance, including guidelines for tourism activities, a design for a proposed visitor centre, and educational materials for display. Training on marine life tour guiding was suspended due to local political issues relating to black sand mining.
Enhance the environmental education and awareness campaign established in previous years at both local and national levels.			100%	Environmental education outreach activities for elementary and high school students in Camiguin Island were conducted. An interactive lesson plan was devised to show the importance of the ecosystems in Camiguin Island. The activity had a total reach of 259 students from Camiguin elementary school and Lyceum High school. A 3-day Environmental Youth Camp was held at the village of Balatubat in Camiguin Island. The activity was conducted in partnership with DENR Region 2's ICRMP, BFAR and the Local Government Unit of Calayan. A total of 24 students from five different municipalities in Cagayan Province, including Batanes participated in the youth camp. Environmental education outreach on three mainland coastal municipalities in Cagayan and Ilocos Norte covered 7 high schools: 2 in Sta. Ana; 3 in Aparri; and, 2 in

			<p>Pagudpud. A special lecture session was also conducted at the College of Fisheries and Marine Science of the Cagayan State University in Aparri. This activity reached a total of 1,212 students.</p> <p>‘Be Whale Wise’ t-shirts were produced to promote responsible whale watching in the Philippines.</p> <p>Meetings with island officials and fishers association were conducted.</p> <p>The Project participated in the 3rd Bohol Dolphin Festival 2013 in June at Tagbilaran City where people from all walks of life attended.</p> <p>The Project also participated in “Pangdan day” in Jagna, Bohol – a half-day marine environmental activity for elementary school kids in the coastal village of Pangdan organized by partner non-profit organization, the Large Marine Vertebrate Project (LA.MA.VE.) of Physalus.</p> <p>A poster entitled “Photographic identification of humpback whales in the Babuyan Islands, northern Luzon, Philippines” was also presented at the 12th National Symposium on Marine Science at Tacloban City on 24-26 October 2013.</p> <p>Two posters were presented at the 20th Biennial conference on the Biology of Marine Mammals held at Dunedin, New Zealand on 9-13 December: “Small cetacean diversity in the Babuyan Islands, northern Luzon, Philippines” and “<i>Steno bredanensis</i> in the Babuyan Islands, northern Luzon, Philippines.”</p> <p>Updates on the Project’s work were consistently updated on social media pages: Facebook pages of Balyena.org and Marine Wildlife Watch Philippines).</p>
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

The Project hydrophone broke down during the second leg of the humpback whale survey and with the absence of a replacement unit, no humpback sound recordings were made from mid-March 2013 onwards. One of the project's GPS units was lost during the second leg of the survey while another older unit malfunctioned during the third leg. One of our research collaborators, the DENR's ICRM Project was not able to deliver their counterpart of equipment, namely the digital SLR camera, GPS unit, laptop and hydrophone. This setback the field work significantly because the team was limited to using only one digital SLR camera and GPS unit. Volunteer researchers brought their personal laptops, GPS units and cameras.

Adverse weather conditions hampered the survey during the first and third legs of the boat-based survey reducing our research effort. Due to the absence of sightings of humpback whales in the Pagudpud, Ilocos Norte area the planned land-based monitoring there was cancelled.

The marine life tour guiding training-workshop planned for May 2013 was put on-hold because of the unfavourable political situation in the island. A black sand mining operation began in June 2013 which upset the local community on the island. Amidst community protests, local village and municipality officials persisted that the operation was valid and beneficial to the community. In response to this we provided the locals with information materials regarding the detrimental effects of this activity to increase their understanding of the situation. We also assisted them in writing and sending letters of protest and complaint to various government agencies concerned, including a letter to the office of the President of the Philippines. We also launched a social media campaign to stop this illegal mining activity with the help of supporters and online news media contacts.

To compensate for this activity cancellation, an alternative activity was conducted. A training for whale and dolphin operators and local women's' group in Pamilacan Island, Bohol was conducted to teach them how to sew small stuffed dolphin toys ("Conservation Sew Mates") as a possible supplementary livelihood project. This project was agreed upon with the locals as a sign of their commitment to adhere by and promote the national guidelines on responsible whale and dolphin watching.

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

One of the most important outcomes of the Project is the finalisation of the management plan and implementing rules and regulations for the proposed "Balatubat Marine Protected and Humpback Whale Conservation Area (MPHWCA)" and the signing of the village (*barangay*) ordinance declaring the MPHWCA by the village councillors. This makes it one step closer to a municipal ordinance which, if passed, will make it the first whale conservation area in the Philippines.

The discovery made last year of a new migratory linkage between the humpback whales breeding in the Philippines and the Commander Islands region is significant and the results of our study this year further strengthens the hypothesis suggesting the Philippines may be part of the 'missing breeding

ground' for North Pacific humpback whales. Based on our photo ID study, 45% of whales “captured” this season are new while the other 55% are “re-captures” from previous seasons. This not only shows the whales’ fidelity to the Babuyan Islands wintering ground but also indicates that there are more whales utilizing this area than initially thought. The number of whales in the Philippine humpback whale fluke catalogue is now 179. In addition, two of the newly identified whales matched with whales in the Ogasawara and Ryukyu (Japan) breeding grounds.

The educational outreach of the Project was further increased with the success of the environmental education campaign on the Island and coastal municipalities on the mainland. Constant updating of our Balyena.org social media page (Facebook) which is linked to our website and Twitter account increased our reach to the general Filipino public and worldwide. We have 1,279 followers and counting.

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

The Project maintained its partnership with the regional offices of the Bureau of Fisheries and Aquatic Research (BFAR) and the Department of Environmental and Natural Resources’ (DENR) Integrated and Coastal Resources Management Project (ICRMP). Each agency sent one to two members of their staff to participate in the research survey and educational outreach. The DENR-ICRMP led the organisation of the environmental Youth Camp for Camiguin Island while members of our Project assisted in the activities. The local fishers association of Camiguin Island actively sought assistance from our team in finalising the management plan for their Marine Protected and Humpback Whale Conservation Area (MPHWCA). They were very open to our suggestions and advice on how to improve their management plan and strengthen their MPHWCA.

The residents of Camiguin Island also sought assistance when the black sand mining operation began operation on their island. In response to the threat posed by the black sand mining operation, we provided assistance and support to a group of local teachers and concerned citizens by providing information materials regarding the detrimental effects of this activity and sent letters of concern to relevant government agencies. To further expose this destructive illegal activity, we also launched a social media campaign to stop this illegal mining activity and it was supported by hundreds of island residents, their relatives and friends on the mainland Luzon and overseas. Several other social media campaigns and online petitions against black sand mining sprouted because of this. The number of supporters of this anti-black sand mining campaign demonstrated the awareness and concern of the local community and the wider Filipino public about the need to protect and conserve the Babuyan marine corridor.

5. Are there any plans to continue this work?

Proposals are being prepared to continue this work for the next 3 years. The humpback whale photo-identification and acoustics research were designed to be a long-term monitoring project which is the first and only kind in the country so far. It is also planned to expand the study to cover the other islands in the Babuyan Islands chain in order to get a better understanding of the habitat-use of humpbacks of the area. Given sufficient funding, we also plan to pursue land-based

monitoring on Camiguin Island and to take biopsy samples of humpback whales for genetics study. Data that could be obtained from genetics study will complement data from photo ID which could potentially support the hypothesis that the Babuyan Islands is the “missing breeding ground” of humpback whales in the western North Pacific. On the other hand, data from land-based monitoring could complement and add to our boat-based survey effort. Furthermore, we are planning to diversify the study’s research focus by conducting photo-ID study of rough-toothed dolphins (*Steno bredanensis*) and melon-headed whales (*Peponocephala electra*), as well investigating cetacean inter-species interactions.

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

The results of this work will primarily be shared through our website, social media pages namely through the Facebook pages of Balyena.org and Marine Wildlife Watch Philippines (MWWP). Project study results and other accomplishments are also shared to the public through our environmental outreach activities. Formal reports will also be sent to concerned government agencies in the region, specifically the Bureau of Fisheries and Aquatic Resources – Region 2, the Department of Environment and Natural Resources – Region 2, and the Local Government Unit of the Municipality of Calayan. Our paper entitled: “New insight into migration patterns of western North Pacific humpback whales between the Babuyan Islands, Philippines and the Commander Islands, Russia.” published in the Journal of Cetacean Research and Management on November 2013 is also an effective way to disseminate the Project’s work to the scientific community. A copy of the paper was also made available through our website.

Results of our photo ID study was also presented through a poster entitled “Photographic identification of humpback whales in the Babuyan Islands, northern Luzon, Philippines” at the 12th National Symposium on Marine Science at Tacloban City on 24-26 October 2013. Furthermore, two posters were presented at the 20th Biennial conference on the Biology of Marine Mammals held at Dunedin, New Zealand on 9-13 December: “Small cetacean diversity in the Babuyan Islands, northern Luzon, Philippines” and “*Steno bredanensis* in the Babuyan Islands, northern Luzon, Philippines.” These presentations allowed us to share the research results of the Project to the local and international marine scientific communities.

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 the period of January to December 2013. This is one month shorter than the actual period of length anticipated for 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.

*Note: exchange rate used is 1 £ sterling = 70 Philippine pesos

Item	Budgeted Amount	Actual Amount	Difference	Comments
Boat hire & fuel for survey	1,641	941.93	699.07	DENR-ICRMP provided partial support for boat fuel hence, budget allotted for this was not all spent. Money was instead diverted to other activities of the project (i.e. travel, food, printing and field supplies).
Transportation to & from field site	276	656.30	(380.30)	Difference due to additional travels to respond to/address the black sand mining problem. Also due to increase in travel fare prices and fuel.
Food & accommodation for researchers on field	2,149	2,208.67	(59.67)	Difference due to slight underestimation of costs when preparing the proposed budget.
Training-workshop costs (food, supplies, transport, accommodation)	544	115.05	428.95	Originally planned training- workshop was suspended due to local political issues. The alternative activity conducted (training for whale & dolphin operators in Pamilacan Island) cost less. Some of the money intended for this activity was diverted to educational outreach activities and printing.
Education outreach costs & communications	191	480.25	(289.25)	Educational outreach activity was extended to the mainland municipalities. There was higher spending for communications due to the black sand mining issue. It was necessary to communicate constantly with the locals.
Field supplies & equipment (camera lens, GPS, batteries, binders)	942	977.70	(35.70)	Due to loss and breakdown of some field equipment (e.g. GPS, hydrophone), we had to send items for repair or replacement.
Web hosting	29	85.71	(56.71)	Difference due to increase in web and email hosting fees.
Print educational materials, posters & T-shirts	228	618.64	(390.64)	Difference due to price increase in the cost of printing t-shirts and posters. Additional number of t-shirts were printed (more than the original
TOTAL	6,000	6,084.25	(84.25)	

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

One of the important next steps is to further the work towards the protection of the coastal area of Camiguin Island for humpback whales and all marine resources. Technical and logistical support must be provided to the locals for the establishment and strengthening of their Marine Protected and Humpback Whale Conservation Area. The needs and capacity of locals must be met in order to sustain the conservation work initiated in the area. Para-legal and enforcement trainings for locals are recommended.

The environmental education outreach must be extended to all schools in the Babuyan Islands group and the coastal municipalities of Cagayan along the Babuyan channel. By making this a regular activity, local awareness in the region will increase and can be sustained.

It is also crucial to continue the annual survey monitoring of humpback whales through photo-identification and sound recordings because it is evident that the number of whales utilizing this area as a wintering ground is significant. Regular seasonal monitoring will enable a better understanding of this vulnerable and little-known stock of humpback whales. This is particularly important given the increased direct threats to the whales and the compounding ecosystem threats to the area. It is highly recommended that the land-based monitoring program be re-established and strengthened as this will provide valuable data that will fill in gaps to the knowledge about the seasonality and abundance of humpback whales in the Philippines. If coupled with the expansion of the monitoring site to the other 2 Islands, Fuga and Calayan, and conducting genetic study through biopsy sampling, a better understanding of this subpopulation may be achieved.

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 in the website, the t-shirts, the humpback whale poster, conference poster presentations and in slide presentations about the Project for environmental outreach activities.