

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. The Final Report must be sent in **word format** and not PDF format or any other format. 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. Please note that the information may be edited for clarity. 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	Norvis Hernández
Project title	Updating geographic distribution and habitat conservation status of the land snail endemic species <i>Polymita picta</i> and <i>Polymita brocheri</i> , Guantánamo, Cuba
RSG reference	11481-1
Reporting period	May 2012- July 2013
Amount of grant	£6000
Your email address	norviscu@gmail.com
Date of this report	July 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
To provide update data base of the geographical distribution of <i>Polymita picta</i> and <i>Polymita brocheri</i> .			X	
To elaborate updated distribution maps of <i>Polymita picta</i> and <i>Polymita brocheri</i> .			X	
To include <i>Polymita picta</i> and <i>Polymita brocheri</i> species at the IUCN List.		X		The proposal for the IUCN Red List of the species <i>Polymita picta</i> and <i>Polymita brocheri</i> was concluded, but not published yet.
Inventory of the exotic and invasive species that predate <i>Polymita picta</i> and <i>Polymita brocheri</i> species			X	
Environmental Education for the conservation of <i>Polymita picta</i> and <i>Polymita brocheri</i> .			X	

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

There was a delay in the transportation of the didactical books for children from Canada to Baracoa, Cuba, as consequence the delivery in the schools was delayed too.

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

1-The geographical distribution of both species was updated. The species *Polymita brocheri* was reported in the literature from three localities (Punta de Maisí, Cuesta del Palo and Mesa de Ovando). At present with this project the species was registered from nine new localities (Trillo Los Azules, El Guanal Punta de Caleta, La Palizada, La Redonda (Pozo Azul), Patana abajo (500 m from the coast in the 2nd level of the marine terrace), El Vaga, Mirador de Patana, and 100 m from the Patana coast. Other localities were identified as possible sites where the species inhabit (Diamante coast and Sabana coast). Meantime the species *Polymita picta* was reported in the literature from several localities, of which we visited 35 localities. Some of these localities showed few individuals or none, like in Paraíso, Yumurí and Barigua from Baracoa municipality. At present with this project the species was registered from four new localities (Teta de Teresa, Naranjo del Toa, Brinquín y Pozo Azul). An interesting found data is that in the locality of Pozo Azul both species (*Polymita picta* and *P. brocheri*) share the same habitat.

2- The proposal for the IUCN red list was elaborated for both species *Polymita brocheri* and *Polymita picta*. In this proposal was integrated all the gathered data during the project as the conservation status of the habitats of these species and their threats.

Regarding the species *P. brocheri* we observed that it is vulnerable to the hurricanes which provoke sea flooding affecting the populations that almost always are established near the coastal line. For example, in the last hurricane in August 2012 we observed that the salinity burned much of the sea grapes that served as substrate for this species and other molluscs living in Patana Abajo. However this species is not as charismatic as the *Polymita picta* and therefore it is not exploited for illegal trade. The construction of roads and the intensive pasture has contributed to the habitat fragmentation and degradation. The species resulted threatened by exotic invasive species: the grey rat (*Rattus rattus*) and by guayabitos (*Mus musculus*), affecting their population density. The populations of *Polymita picta* have been submitted to a high human pressure, because they inhabit near the human settlements that besides are tourist areas, their shells are sold to foreigners in necklaces or other handicrafts or to private collectors. Another problem that is affecting this species is the deforestation to use the areas for agricultural activities and to use the wood as fuel. To all these problems the species is also threatened by the same exotic invasive species that affect *P. brocheri*.

We found some morphos of *P. picta* species present in the collections, however these are not found in the nature, for example the variety *Polymita picta fulminata*. Other morphos that had a wide distribution in Baracoa were observed, in the present study, in just two localities: the green with white stripes morpho was only observed in Caguasey, a private farm where the farmer preserves the species and the other morpho observed is the red with black stripes in Belete locality.

3- The reach of the Environmental Education work in the communities was one of the most important achievements of the project. We developed a total of 120 activities in 17 schools from 25 communities. We made talks and contests to stimulate the knowledge about our target species, besides we delivered 4000 didactical books focused in the conservation of the *Polymita* species, and also were distributed posters about the species. The inclusion of children from Maisí, a rural and isolated community, was a novelty because they never had the opportunity to participate in activities of the environmental education.

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

In our project were involved six communities in Maisí municipality and 19 in Baracoa municipality, participating about 1200 children, farmers, local leaders, foresters and housewife's. We dedicated special attention to the children from the most mountainous and isolated towns, because there still remain populations of morphos with shells with the most attractive colors, which propitiate the extraction of the snails from the nature for the illegal trade, on the other hand these communities previously received less environmental education activities. Also were made farmer and women workshops, contests, guided excursions, talks, interactive projections of videos and environmental games.

Baracoa is a tourist city and the illegal trade of the *Polymita* shells has been increased, in that sense we carried out meetings with the artisans of the municipality to treat the biodiversity conservation, particularly we talk about the life cycle of the target species and the fact that the shells remain intact

after the animal dies, therefore it is not necessary to kill the animal to make handicrafts. Posters and pamphlets were distributed in all the agencies of tourism, airport and hotels of Baracoa, to demotivate the buy of necklaces made with shells. We concluded the project with a final giant activity, the S.O.S. Polymita Festival, where a great number of people of the municipality of Baracoa, leaders, lovers of the nature, children, young people, people of the third age, and others participated.

5. Are there any plans to continue this work?

We plan to continue the work to strengthen started actions. We also plan to continue the work in other localities out and inside of the protected areas, as well as to extend the environmental activities, principally in Maisí municipality where the protected area is of recent creation. We established excellent relations with people of the communities, and they remain very motivated to continue the work with *Polymita* species. In a future work we could use some software to find other localities with the necessary conditions to allow the presence of the *Polymita* species, from these researches could emerge new proposals for protected areas.

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

The experiences and the results of the project will be exposed in national and international events, in July the scientific results were presented in the International Convention of Environment and Development and in September in the Symposium of Zoology, both events to be developed in Cuba. The scientific results will also be published in a scientific article and they will serve as guide for future investigations. Some obtained data were presented in a television and radio programmes of the Baracoa municipality. We will collaborate with Education Ministry delivering some didactic books, CD with information about the *Polymita* species, all of these to share the results with the most amounts of people. In each protected area was delivered a report with the obtained results and the suggestions and measures to facilitate the conservation of the *Polymita* species.

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 since May 2012 until July 2013 and the date frames proposed at the application for the RSG were May 2012 to July 2013.

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
Transportation for revision of national collections (Baracoa - Havana)	75.00	75.00		
Food for revision of national collections	102.00	99.25	3.25	
Accommodation for revision of national collections	30.00	30.00		
Fuel for field trips	2834.00	2731.85	102.15	In some field trips

				participated less persons
Vernier Caliper	16.00	14.00	2.00	
Forceps	20.00	20.00		
GPS	200.00	170.00	30.00	We found a cheaper offer
Laptop computer	390.00	365.90	25.00	We found a cheaper offer
Digital camera	454.00	476.00	22.00	The market prices varied
Printer	220.00	220.00		
Data show	334.00	330.00	4.00	
Printing of posters and informative cards of the species	700.00	618.00	82.00	The market prices varied
Reprinted of the Didactical Book	625.00	843.00	218.00	Expenses for importation
Total	6000.00	5993.00	7	Bank tax transferences

Exchange rate: 1.5466093776

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

It is important to continue investigating, publishing and presenting the results in different national and international events. We will continue strengthening the environmental education in Maisí and Baracoa municipalities, trying to involve a bigger number of local people. Also, we will include another species from the same genus (*Polymita versicolor*), which also present illegal trade because their beautiful shells. We will try to involve the customs, tourism agencies, airports and hotels from all over the country in the campaign to avoid the commercialization of products made with *Polymita* shells.

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 logo RSGF was used in all the activities developed during the project, it was used in all the posters, pamphlets, didactic book for children, informative CDs, workshops, in all the printed materials used in the Environmental Education and the informative pamphlets published for the protected areas where the *Polymita* species inhabit.

11. Any other comments?

For me it was very significant this project because it gave me the opportunity to visit very isolated areas of the mountain to study these interesting species, besides to exchange with wonderful and very sensitive people with a lot of knowledge on the species and their environment and very worried by the present climatic changes. Besides it propitiated the chance to revise important collections from all over the country and to exchange with another specialist.