

The Rufford Foundation

Final Report

Congratulations on the completion of your project that was supported by The Rufford 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	Lucia Hechavarria-Schwesinger
Project title	Implementing conservation action plan for vascular epiphytes of Guamuhaya range, Central Cuba: current local knowledge diagnosis and environmental education
RSG reference	13847-2
Reporting period	September 2013-November 2014
Amount of grant	£6000
Your email address	lhschwesinger@gmail.com ; lhechavarrias@ecologia.cu
Date of this report	30 November 2014

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
1. To assess the current local knowledge on vascular epiphytes.			X	
2. Production of didactic material of environmental education activities promoting knowledge and sustainable use of vascular epiphytes.			X	
3. Development of an epiphyte garden to foster local development.			X	

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

N/A.

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

1. **Assessing local knowledge on vascular epiphytes.** The interviews related to vascular epiphytes made to local people in Guamuhaia reflected the popular lack of knowledge. Most of the inquired considered vascular epiphytes as parasitic plants. The main plant groups recognised by them are orchids, some air plants (basically *Tillandsia*) and ferns (basically Polypodiaceae). They used these plants as ornamental and some specific species as medicinal alternative source. Aroids, Cacti and Peperomies were not recognised as epiphyte plants. After the capacity workshops we could realise the appropriation of the knowledge in communitarians who are including the culture of new species of vascular epiphytes in them gardens.
2. **The booklet *Vascular Epiphytes of Guamuhaia: a photo guide of the common species*** (Annex 1) was a great material to enhance the local knowledge on this charismatic plant group. This printed product (100 copies) was delivered free among local people and technical personnel of the reservations in Guamuhaia. Also we produced a brochure about the culture and propagation of the main groups (Annex 2), and the posters "Ecosystem Services that vascular epiphytes provide us"(Annex 3) and "*Tillandsia deppeana*, an endangered species in Cuba" (Annex 4).
3. The enhancing and support the communitarian initiative on the establishment of an epiphytic Garden "Epifitatorio comunitario Molino de Café" in Community La 23, Trinidad Mountains, Guamuhaia, Central Cuba has become in a great place where women occupies their time learning about the culture and propagation of the species, also is a new place to develop environmental education activities for children and communitarians from the neighbouring communities interested in the replication of the learned lessons (Annex 5).

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

Local people of Community La 23 were appropriated the knowledge received in workshops and practices in the field. They made reality, with their own work, the epiphytic garden. They were the main stakeholders of the project. We support their initiative with the materials and knowhow needed to foster the epiphytic garden, also with office material, fuel and transportation to assist to the different events where the experience was socialised. Also communitarians of the neighbouring communities La 9, la 22, Pitajones, Vegas de Mataguá, Mayarí and Topes de Collantes interested in the topic were also capacitated.

5. Are there any plans to continue this work?

Yes, we are planning to continue this work in order to enforce the knowledge gathered on vascular epiphytes conservation focusing the next goals in: 1) The designing of a tracking tour promoting the vascular epiphytes watching in the Epiphyte Garden of Community la 23 and the training of local people in the guidance, with special emphasize in the gender approach; 2) The strengthening of the Communitarian Centre in Community La 23 where cultural and conservationist promoters are training the local people using the popular education to promote the conservation and sustainable use of biodiversity in Guamuhaya mountain massif, central Cuba in order to ensure the sustainability of the project results; 3) The implementation of goals 2 and 3 of the conservation action plan of vascular epiphytes in Guamuhaya: natural population study and management in situ of certain endangered species.

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

The results of this project were already socialised in three events:

1. The XVII Congress of the Mesoamerican Society for Biology and Conservation (Habana, Cuba, 2013).
2. XVIII Congress of the Mesoamerican Society for Biology and Conservation (Copán, Honduras, October-2014).
3. Utowana, a biodiversity meeting organized by the Cienfuegos Botanic Garden (November 2014).

Also three papers were produced:

1. "Vascular epiphytes of Guamuhaya. A photo guide of common species". Annex 1.
2. *Tillandsia deppeana* (Bromeliaceae), an endangered species in Cuba. *JBSI* (in press).
3. El jardín de las epífitas: una iniciativa comunitaria en Cuba Central. *Revista Flora y Fauna* (in press) Annex 5.

We are planning to design a communication strategy in order to socialise the results among different kind of public, emphasising the local one.

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

The RFSG was used from August 2013 until November 2014. This financial aid accelerated over 2 years the timescale of the project conceived for 5 years in the conservation action plan of vascular epiphytes in Guamuhaya.

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
Bank Transactions	6000	5760	-240	Local exchange rate at July, 2013: 1 £ sterling = 1.42 CUC in Banco Metropolitano, La Habana, Cuba
Salary (6 researchers/year)	0	0	0	
Field trips (Bus tickets/6 persons/10 times)	500	600	-100	We also support the transportation of 8 persons to the XVII Congress of the Mesoamerican Society for Biology and Conservation (Havana, October 2013) and to assist Utowana (Cienfuegos, November, 2014)
Fuel	600	700	-100	Price varied in the market
Food	400	400	0	
Field suppliers	200	200	0	
Computer accessories	300	60	+240	We decide to reduce the budget of this item in order to priorities the buying of a new data show.
Office material	100	100	0	
Design, Edition and Print illustrated Field guide	3000	2400	+600	Price varied in the market
HDDPlayer	0	0	0	
Digital Projector Epson	0	240	-240	The projector had technical problems, so we must buy a new one to make the educational talks with the quality required
Poster and Brochures printing	400	400	0	
The vascular epiphyte garden nursery	500	660	-160	We bought also an irrigation system
Total	6000	5760	0	

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

The important next steps are:

1. To foster the communitarian garden as a new management model promoting jobs for women in the Community La 23.
2. To reinforce the Communitarian Centre La 23 to guarantee the sustainability of the project results.
3. To implement population studies and management in situ of certain endangered species.
4. To develop a communication strategy of the project to socialize the results and continue with the environmental education in communities of Guamuhaya.

10. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?

Yes, we use the Rufford Foundation logo in the following printed materials:

- Poster Epífitas vasculares presentes en el macizo montañoso Guamuhaya, Cuba Central, Propuesta de Plan de Acción para su Conservación (already sent in September 2013 update).
- Popular Science book “Las epífitas vasculares de Guamuhaya. Guía fotográfica de las especies más comunes” (Annex 1)
- Brochure Consejos prácticos para el cultivo y propagación de epífitas vasculares (Annex 2)
- Poster Servicios ecosistémicos que proveen las epífitas vasculares (Annex 3)
- Poster Estado de conservación de *Tillandsia deppeana* (bromeliaceae) en Cuba (Annex 4)

and promoted RSGF in:

- XVII Congress of the Mesoamerican Society for the Biology and the Conservation (SMBC), la Habana, September 2013
- XVIII Congress of the Mesoamerican Society for the Biology and the Conservation (SMBC), Copán Ruinas, Honduras, October 2014
- Utowana 2014. Cienfuegos Botanic Garden , November 2014
- National Encounter on biodiversity conservation, Cuban Botany Society, La Habana, November 2014

11. Any other comments?

Thank you very much for supporting the project.