

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	Adrian U. Supetran
Project title	The Aroid Flora of Sibuyan Island, Romblon Province, Philippines
RSG reference	25927-1
Reporting period	August 2018-2019
Amount of grant	5000 £
Your email address	adriansupetran@gmail.com
Date of this report	December 2019

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
Provide an inventory of the plant Family Araceae in Sibuyan Island				An inventory was made wherein the preliminary data was shared with the protected area staff, managers, and the locals.
Checklist of the endemic, native, and introduced species				A checklist of the endemic, native, and introduced species was constructed and shared with the concerned group.
Notes about the ecological and economic importance of the species				Secondary data and indigenous knowledge of the locals were surveyed which are included in the booklet and report given to the DENR protected area management and staff.
A booklet of the Aroid Flora of Sibuyan				22 copies of the booklet were produced and given to all the participants and protected area staff. It was partially achieved since some of the details lack Filipino translation.
Distribution of potentially invasive species				Notes and distribution of the potential invasive species were included in the aroid booklet. It was also reported to the DENR protected area staff and managers.
The photos will be uploaded in Co's Digital Flora of the Philippines, an online database for the Philippine Flora.				There are some technical problems with the post-processing of the images. Rest assured that the photos will be publication-ready once the problem is fixed.
Capacity building and training workshop				LGU, DENR staff, university faculty and students were the participants of the capacity building. They were introduced with the importance of conservation, the family Araceae/aroids, and biodiversity of Sibuyan Island. Botanical techniques about plant collection, identification, preservation, and management were likewise

				imparted to them so that they could start their own research in the island.
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2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

During the field sampling, unexpected interruptions due to the weather were observed. It caused modifications and adjustments particularly with the paths to take, trails to explore, and the timeline to finish a certain elevation. The field guides however provided insights on the safest terrains to take.

In addition, the sudden rainfall and high humidity caused some of the specimens to suffer from mould. Hence, a day was allotted to fix and process these specimens. Intensive analyses on the collected specimens were performed for certain days instead of exploring other areas. Furthermore, some epiphytic species were impossible to collect since the team couldn't climb the trees due to slippery trunks. The habit, juvenile forms, and other important details were documented using photographs, botanical illustrations, and field notes instead.

The final report was delayed due to the identification of some specimens. Since most of the epiphytic aroids are sterile (lacking floral parts), it is quite challenging to identify their genera and specific epithet. Nonetheless, we were able to identify their respective genera and their nearest species name.

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

- a) Baseline data of aroids found in Sibuyan Island was documented. There are 27 species of Araceae composed of 15% endemic species, 33% native species and 48% introduced species; the remaining 4% were unknown. New distribution records of Philippine endemics were also noted *viz.* *Alocasia heterophylla*, *Rhaphidophora banosensis*, and *R. Monticola*. We were also able to document a possible undescribed species of *Schismatoglottis*.
- b) We were able to establish communication and collaboration with the LGUs, DENR protected area management and staff. We were able to highlight the importance of conservation, the family Araceae, and biodiversity through the capacity building and training workshop. Faculty, students, and the management are well-equipped with knowledge about botanical techniques.
- c) Training handouts and a booklet of aroids were given to the participants and other concerned groups. Aside from the photo guides, ecological and economic importance, we've included guidelines about botanical techniques so that they will be able to share the knowledge to other groups.

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

During the field sampling, locals were used as guides, tree climbers and porters. Likewise, some of the people in the local community participated in providing additional indigenous knowledge regarding some of the species being noted. The Department of Environment and Natural Resources protected area staff and managers stationed in the island were highly supportive of the activities. They've also sent some foresters to assist us during our stay in the mountain.

Moreover, the capacity building was composed of protected area staff, teachers, and students who are inhabitants of the island. Knowledge about botanical techniques and information about conservation, biodiversity, and the family Araceae were imparted to them. Furthermore, they were able to share their indigenous knowledge to improve the educational materials.

5. Are there any plans to continue this work?

Understorey species are highly understudied in Sibuyan Island. There were other areas that could've been explored further. Due to the restrictions made by the local government, we weren't able to go to those areas. The protected area management is planning also to open a new trail. However, before opening the said trail, biodiversity studies are needed to assess the local flora and fauna. Therefore, there is a need to continue this study particularly with the addition of other taxa.

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

The specimens were processed in the herbarium. Depositing the specimens in the herbarium will allow other researchers and students to access the materials if needed. Photographs were being processed also to be submitted at Co's Digital Flora (www.philippineplants.org). The website is an online repository of Philippine flora that monitors plant diversity in the country. Furthermore, a copy of my research was given to the DENR office. The baseline data will also be submitted for publication.

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 Rufford Foundation grant was used during the whole study period (August 2018-2019). However, there were some delays particularly with the report due to the identification of some organisms. It is quite challenging to identify sterile and juvenile plants; thus, it took quite some time to determine the organisms up to the genus and species rank.

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
Personnel Services	1200	1250	+50	It was required by the DENR Protected Area Management to have field guides and porters during our field work. Hence, we hired local guides and porters during our stay in the island. Furthermore, additional manpower was needed since the distance of our water source was far, as we ascend near the peak, per camp.
Travel Expenses	600	300	-300	Some of the travel expenses were reduced due to travel fare promo available.
Food Expenses	450	1000	+550	Food for the team (field guides, porters, and some assistants) was covered, inclusive of their breakfast, lunch, and dinner. Snacks and some beverages were also given to the participants during the capacity building/training workshop, thus the budget for food was adjusted.
Training Expenses	1071	950	-121	The venue for the capacity building was shouldered by the DENR staff and management. Most of the expenses made covered the training kits, workshop and field materials.
Field Essentials	1679	1500	-179	Some field materials were procured at lower costs.
Total	5000	5550	+550	The grant was supplemented by the funds received from the Awesome Foundation. https://www.awesomefoundation.org/en/projects/101587-the-aroid-flora-of-sibuyan-island-philippines The funds were used for the printing of the Sibuyan Aroid Booklet given to the locals.

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

The aroid inventory is a baseline data for the island. Publication of this data is the next appropriate step so that it will be made available to the scientific community and the general public. It will be a reliable basis for further studies by other researchers, students, and the local people.

Furthermore, since the locals of the island were made equipped with the skills and preliminary knowledge, collaboration with academic institutions will be easier and more efficient. This can consequently strengthen biodiversity monitoring and conservation efforts for Sibuyan Island and its protected areas like Mt. Guiting-guiting.

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

Yes. The logo of The Rufford Foundation was used in the IDs of the participants, publicity materials (invitation and eco-friendly tarpaulins), training materials (handouts, booklet), and lectures using PowerPoint presentations.

11. Please provide a full list of all the members of your team and briefly what was their role in the project.

This study was also made possible by the assistance of the following persons:

Department of Environment and Natural Resources – Sibuyan Island

Mr. Malvin Rocero, Protected Area Superintendent. For the free accommodation during the capacity building seminar and during our field sampling near the buffer zone areas.

My team during our field sampling:

Peter Paul Nico Mendoza – provided assistance in sampling methods and specimen preparation.

Jaypril Rojo – Porter and field guide

Kuya Rojo – Porter and field guide

Kuya Abraham – Porter, field guide, and cook.

My team during the capacity building/training workshop:

Cristian Lucanas

Joseph Rasalan

Camila Meneses

Abigail Garrino

12. Any other comments?

I would like to take this moment to express my sincerest gratitude to the DENR, Romblon State University, UPLB Museum of Natural History, James Alvarez (a Rufford Grant recipient who passed away on 8th December 2018), The Rabo family of Sibuyan, and my team.

Finally, I would like to extend my deepest gratitude to The Rufford Foundation. Without your help, this study won't be possible. Sibuyan Island is a very special place; aside from its unique characteristics and diverse life forms, it is where I started my career as a young researcher. Thank you very much, Rufford Foundation for this opportunity. I hope that you will be able to help more budding young researchers in the future. The local people of Sibuyan Island are also thankful for your help that you've extended. They started to appreciate more of their local flora and fauna and would start conducting their own research as well.

THE AROIDS OF SIBUYAN ISLAND

Adrian U. Supetran

University of the Philippines – Los Baños

1. *Aglaonema commutatum*
2. *Alocasia macrorrhizos*
3. *Alocasia heterophylla**
4. *Alocasia reginula*
5. *Alocasia clypeolata*
6. *Anthurium andraeanum*
7. *Anthurium crystallinum*
8. *Caladium bicolor*
9. *Colocasia esculenta*
10. *Cyrtosperma merkusii*
11. *Epipremnum pinnatum*
12. *Epipremnum aureum*
13. *Homalomena philippinensis*
14. *Homalomena rubescens*
15. *Pistia stratiotes*
16. *Philodendron hederaceum*
17. *Pothos philippinensis*
18. *Rhaphidophora banosensis**
19. *Rhaphidophora korthalsii*
20. *Rhaphidophora monticola**
21. *Schismatoglottis calyptrata*
22. *Schismatoglottis* sp.
23. *Spathiphyllum commutatum*
24. *Syngonium podophyllum*
25. *Typhonium trilobatum*
26. *Xanthosoma sagittifolium*
27. *Zamioculcas zamiifolia*

Taxa marked by asterisks (*) represent new distribution records.