

Final Evaluation Report

Your Details	
Full Name	Md Sharif Hossain Sourav
Project Title	Habitat restoration and conservation of <i>Eulophia obtusa</i> – a rare ground Orchid
Application ID	23452-1
Grant Amount	£4947
Email Address	nature.sourav@gmail.com
Date of this Report	22/11/2020

1. 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
Habitat restoration and protection				The core orchid habitat has been restored moderately. Three years is not sufficient to restore a transformed wild habitat.
Suitable habitat survey				We did field surveys and found many suitable habitats. Unfortunately, we have not found any orchids in these habitats.
Understanding natural history				Excluding the pollination and fruiting, other natural histories of the orchid plant are moderately well known.
Ex-situ conservation				Few orchid tubers were planted in other suitable natural habitats and a single plant has been given to Rajshahi University tissue culture center for conservation of its genetic resource and future sapling generation.
Outreach event for conservation				We did several outreach events with the local people, students, farmers, and people living near the core habitat. The conservation messages were disseminated during the study period.

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

We face difficulties during the COVID-19 pandemic. The team members were unable to conduct field visits during the flowering season in 2020. Without flowers, it is not possible to find the plants in the grassland. The plant is similar to grass vegetation. Therefore, it is difficult to spot this orchid plant in dense grassland. However, the overall project activities were completed at a satisfactory level.

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

a) The core habitat has restored.

The most challenging part of the project was to restore the core habitat. The only known habitat was transformed into agricultural land when we launched our project. Within the first two, the core habitat got back its previous wild condition

with wild vegetation at a satisfactory level. We are expecting the orchid plant will spread in its core habitat in the future.

b) The local people become very passionate about the conservation of the habitat and known about this orchid plant.

Especially for the conservation awareness activities, the local people were motivated for habitat conservation and protection. They also understood this beautiful orchid and its ecological and aesthetic values. Moreover, the village communities, the local farmers got the conservation message and very much careful to conserve the grasslands which are the potential habitat for this elusive orchid. They agreed upon if they find this orchid plant, they will protect the habitat.

c) Identification of potential grassland

Grasslands are the only suitable habitat for this orchid species. During the field survey, we identified several potential habitats where the orchid species could occur, and we planted a few orchid tubers in two permanent grasslands. We will continue field surveys and monitoring activities in the identified grasslands.

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

The outreach activities have developed much consensus among the local community on plant conservation and specifically on this elusive orchid importance and value. The local people also got benefits as we provided remuneration and given money to landowners for three years. The project hired local transports and received field supports from the local peoples.

5. Are there any plans to continue this work?

Yes, we will continue the work as we still have some remaining funds. The plan includes a field survey of core habitat and other grassland areas to find out this orchid plant. However, future work is needed for the conservation of habitat and determine the status of the orchid plant. Future monitoring is necessary at the ex-situ conservation sites to understand the orchid pollination ecology and population survey.

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

A scientific paper with results of the study including conservation and future recommendations will be published in an international journal.

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

The grant was used throughout the project periods except we could not conduct monitoring field visits during 2020. The timescale was fine, although we were able to cover two flowering seasons after received the fund.

8. Budget: 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. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Outreach material (leaflet)	245	245		
Outreach material (billboard)	294		-294	We identified it is not necessary. We will use the money for the field survey in 2021.
Orchid festivals	353	353		
Habitat restoration	441	441		
Site preparation for ex-situ conservation	200	200		
Transportation for ex-situ sites visits	98	98		
Monitoring field visit staff meal (32 months)	502	424	-78	Five planned monitoring field trips was postponed in 2020 due to the COVID-19 pandemic. We will use the money for the field survey in 2021.
Monitoring field visit staff transportation (32 months)	706	595	-111	Five planned monitoring field trips was postponed in 2020 due to the COVID-19 pandemic. We will use the money for the field survey in 2021.
Slide callipers, measuring tape, measuring scale	29	29		
Accommodation for field visits (4 trips)	144	144		
Meal for field visits staff (4 trips)	412	412		
Transportation (local) for field visits for new area search (4 trips)	157	157		
Transportation (intercity) for field visits for new area search (4 visits)	288	288		
Fence construction and	196	300	+104	The rise of fence material price

Item	Budgeted Amount	Actual Amount	Difference	Comments
maintenance				and local labour charge.
Local monitoring officer's salary	882	882		
Total	4947	4568	-379	

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

It is important to follow up with the habitat. We will monitor the core habitat to observe any new plant is appear or not appear. However, we need to conduct an additional field survey in the Barind Tract.

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

Yes, the logo was used in the leaflet and the leaflet has been distributed to the local people. The logo can be found on <https://www.rufford.org/files/23452-1%20Leaflet.pdf>

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

Md Sharif Hossain Sourav (Botanist and Principal Investigator). He did field surveys, data collection, habitat monitoring, and outreach activities. He also touched with local field staff and writing the project report.

Farhad Ahsan Pavel (Research Associate). He did habitat surveys, data collection, habitat monitoring, and arranged outreach program within the study area. He was also involved with project report writing, conservation awareness campaign, and coordinated with the local farmers and people.

Sayam U. Chowdhury (Research Assistant). He participated in the field surveys and report review.

Nazim Uddin Khan Prince (Research Assistant). He participated in field survey and outreach promotion material preparation.

Mohmmod Foysal (Field Assistant). He participated in the field surveys.

Sakib Ahmed (Field Assistant). He participated in the field surveys.

Abida Rahman (Field Assistant). She participated in the field survey.

Murtuza (Field Staff). He participated in the field survey and core habitat monitoring and conservation.

Faruk Hossain (Field Worker). He participated in the field surveys and other field works.

12. Any other comments?

It is necessary to conserve the core orchid plant habitat for the long term and to continue this work.