

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	Karim Eissa
Project title	Long term conservation planning and practices for some threatened plants in South Sinai, Egypt
RSG reference	24694-B
Reporting period	01/06/2018 to date
Amount of grant	£10000
Your email address	kariemomar@gmail.com
Date of this report	03/04/2019

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
1- To determine the geographical distribution as well as the conservation status of the target species within SCPA and TPA boundaries using IUCN Red List guidelines.				
2- To determine the population characteristics for the target species among different sites.				
3- For each target species and as a completion for the previous data gathering from the former 2 projects we will identify and rank threats that affect their distribution, and try to identify their underlying root causes and barriers to solutions through a deep discussions with local community.				
4- Clearly identify conservation priorities, suitable habitats for growth and suggest appropriate strategies for the target species conservation by in situ and ex situ techniques.				
5- In situ and ex situ conservation actions for targets species				
6- Ecological niche modelling for conservation planning of the target species.				
7- Preparation and discussion of national strategy for the conservation of target species accepted from different parties.				
8- Improve the capacity of rangers and researchers of PA about data collection, cleaning, and analysis.				
9- To raise the public awareness about species importance and conservation programs.				

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

- Up to this point we have never had any real problems in the implementation of the objectives and activities of the project. Incorporating of many stakeholders in the implementation stage and discussion process (workshops and meetings) was sometimes difficult in terms of arrangement, timing and simplicity of dialogue resulting from the conflicts between different parties especially between local community (land owners) and management team of St. Catherine Protected area. By the end of these events we got a good impression and feedback from all parties as a result of our use of simple ways and clear methodology to explain the problem and its causes and impediments solutions. This persuaded many of them.
- In our detailed fieldwork we didn't record *Allium crameri*, and *Astragalus fresenii* as expected. These species weren't recorded from 1998.
- Given the current conditions in Egypt, especially Sinai (the study area) that cause activity restrictions (some sites were closed and many security restrictions especially in outreach activities), the team work had set strategies to address these limitations as follows:
 - We divided the activities into several small parts.
 - We've integrated some of the activities in subsidiaries of nature reserves activities in South Sinai.
 - We used every available opportunity to present the goals and results of our project to stakeholders in the study area.

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

From June 2018 to date detailed surveys were done in St. Catherine, and Taba Protected Areas to determine the current ecological and conservation status of the target species. The team succeeded to determine the following:

1. Geographical distributions of *Anarrhinum pubescens*, *Origanum syriacum* L. subsp. *Sinaicum*, and *Salvia multicaulis* (number of locations, distribution range, extent of occurrence, area of occupancy) were determined and distribution maps were produced. Preferable suitable habitat and microhabitat for growth of this species were extracted. Eco-geographical characteristics (topographic, ecological, and climatic attributes) that control the distribution of our target species were extracted and analysed.
2. Population characteristics of *Anarrhinum pubescens*, *Origanum syriacum* L. subsp. *Sinaicum*, and *Salvia multicaulis* (number of populations, number of subpopulations, population dynamics, population size, number of mature individuals), fluctuation and decline status were determined. Morphological and reproductive characteristics of this species were recorded.

3. With the help of local community field experiences and our field observations the major threats on target species were identified and ranked based on the score of threat timing, severity, scope, and urgency, and their underlying root causes and barriers to solutions were also identified.
4. Former conservation actions for this species were recorded and future needed actions, and researches were suggested.

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

Local community, park rangers, and decision makers were involved directly in the project preparation and implementation stages and better awareness towards plant conservation were strengthened.

All these achievements directly support our project aim "With the help of local community and other stakeholders, we will assess the ecological and conservation status of *Rosa arabica* within SKP as a first step for entire conservation program."

The project had a powerful positive impact especially within the implementation stage (fieldwork, training, and workshops) on participants (local community, park rangers, undergraduate students, and decision makers) in the form of raising awareness, conflict solving, management modifications, and capacity building.

5. Are there any plans to continue this work?

The outcome of the undertaken study; A general model is presented describing ecosystem degradation to help decide when restoration, rehabilitation, or reallocation should be the preferred response.

- Extinction Prevention Program through recovery will be done for the most threatened plants species based on the results of the three projects supported by Rufford Foundation.
- There is an urgent need to carry out annual monitoring on species population and habitat trend, habitat trend, fluctuations, and reduction probability to follow up its situation.
- It is recommend using this study specially this species as a base line to detect the effect of global warming on species distribution by annual monitoring.
- It's very urgent to carry out detailed study about endemic species in such PA to clearly identify their distributions, interactions, dynamics, threats level and mapping as well as conservation assessment in order to have a clear vision about the situation in such place for complete conservation programme.
- It is essential to carry out such study to cover all threatened species and all Protected Areas of Egypt and the priority must be directed to the most threatening PAs.

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

Report will be sent to Ministry of Environment the main responsible body in Egypt for conserving biodiversity. One to two scientific articles will be published very soon and will be available for public.

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

All project activities were distributed to cover most periods from 01/06/2018 to date.

We worked hard to decrease the project period and we think that 10 months were enough to do such activities.

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
Team training: SCPA & TPA will provide us by place and the RSG request to cover printed materials, invitations, food, transport and lodging	190	200	+10	
Trimble Navigation Nomad GPS	734	1000	+266	
Camping equipment	180	100	-80	
Engine/truck (including car hire)	355	300	-55	
Soil chemical and physical analysis	800	900	+100	
Workshops: Printed materials, invitations, food, snakes and transport	650	650		
Report production and results dissemination	550	500	-50	
Outreach/education activities and materials	950	1100	+150	
Travel and local transportation (including fuel)	350	300	-50	
Food for team members and local guides (20 £ * 8 members for 30 days = 4800)	2,800	3000	+200	
Nikon Landscape & Macro Two Lens Kit with 10-20mm f/4.5-5.6G VR & 40mm f/2.8G	375	375		
Hiking Boot (150 * 5 members)	748	700	-48	
Laptop, Core i7, FHD Display, 12GB, 512GB SSD	718	700	-18	
Projector: Optoma HD28DSE 1080p 3D DLP Home Theatre Projector	600	650	+50	
TOTAL	10,000	10,475	+475	

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

Carry out a recovery programme for the most threatened plant species in south Sinai through in situ and ex situ conservation activities. These activities must include restoration, reintroduction, rehabilitation, and enrichment planting.

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

- We have used the Rufford Logo in education and awareness activities.
- The RF will receive publicity through scientific articles that will be produced shortly.

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

Karim Eissa:

Team leader and he succeeded to manage the project and participate in most of the activities; his work was concentrated on the conservation of threatened species in arid ecosystem, GIS analysis, and IUCN Red List Assessment.

Seleim Mehana:

Local guide responsible for guiding the team to the target species sites

Mohamed Hemeid:

Bedouin Manager of the St. Catherin Protected Area; he is from the local community and he facilitated the process of local community involvement.

Ahmed Abd Allah:

Botanist in the protected areas of Egypt with extensive experience in monitoring plant species in mountain ecosystem, he took part in the field survey in Taba Pa

Gamal Elgohary:

Public awareness specialist in Southern Sinai protected areas from 2010 to date. English translator at many tourist sites in Cairo from 2007 to 2010 and he helped in tourism and public awareness.

12. Any other comments?

To understand trends in extinction risk, the conservation status of an entire species group must be assessed at regular intervals. No comprehensive national assessments of the status of biodiversity at the species level were undertaken at regular intervals. Attempts of evaluating Egypt's biodiversity conservation status are meagre and patchy. Several attempts have been made to provide a conservation assessment for different taxonomic groups in Egypt and in protected areas. However, most of these did not apply or acknowledge the appropriate international criteria used to evaluate species conservation status.

We are planning to submit an application to complete our work on threatened plants in Egypt through recovery program (restoration) with the help of Rufford Foundation.



Borganum



Anarrhinum pubescens

