

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	Nitya Prakash Mohanty
Project title	Evaluating the impact of introduced spotted deer (<i>Axis axis</i>) on forest floor herpetofauna of Andaman Islands
RSG reference	14448-1
Reporting period	March 2014-March 2015
Amount of grant	£4100
Your email address	nitya.mohanty@gmail.com
Date of this report	16 th April 2015

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 impact of spotted deer on forest floor herpetofauna: Observational Study			Y	We sampled four new islands (a total of 12 islands) for reptile density, intensity of spotted deer use, understory vegetation cover and arthropod abundance. Collaboration with Andaman & Nicobar Islands' Environmental Team (ANET) helped us carry out this objective.
2. To determine the impact of spotted deer on forest floor herpetofauna: Exclusion experiment	Y			Our attempt to gather experimental evidence through eight enclosures failed due to damage incurred from cyclones. Even though we carried out regular maintenance of the fences, deer managed to breach the plot.
3. To determine the impact of spotted deer on forest floor herpetofauna: Behavioural study on lizards			Y	We pursued a behavioural study on a genus of semi-arboreal lizards which make up almost half of the forest floor lizard community in terms of abundance. This helped us better understand the impact pathway of spotted deer on lizards. The objective was successfully completed with support from ANET and seasoned field staff.
4. To assess the perception of people towards spotted deer and its management: Questionnaire Survey			Y	We carried out a survey of people living around spotted deer inhabited areas to assess their interaction with the deer, their perception on deer management and to gather information on the history of deer invasion. Nine villages with 118 respondents were surveyed. Local support from ANET and team members was a key factor in achieving this objective.
5. Advocacy and publishing: Peer reviewed publications		Y		We have communicated our findings to a peer reviewed journal where the manuscript is under review. Two other manuscripts are under preparation. The experience of team members significantly helped in this process.
6. Advocacy and publishing: Conference introduced herbivores			Y	We organised a 2-day conference for scientists, department of environment and forests, the administration, regional scientific institutions, environmental NGOs, animal welfare activists and students to discuss the issue of introduced herbivores in the Islands and formulate management strategies. Additional financial assistance from the Kumble Foundation and individual donors helped in this regard. Support from the Department of Environment & Forests

				and ANET was crucial in hosting the conference successfully.
7. Advocacy and publishing: Documentary			Y	We produced a short documentary ('Spots of Concern') to communicate the findings of the study to a wider audience and raise awareness on the subject of introduced species. Technical assistance from ANET and financial assistance from the Kumble foundation and individual donors made it possible.

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

We failed in our attempt to gather experimental evidence from exclusion plots as they were damaged by storms and deer managed to breach them. In the absence of data from the plots, we pursued an alternate line of evidence to better understand the impact of spotted deer on the native reptile community. We carried out a behavioural study on sleeping site selection of the most abundant genus (*Coryphophylax* spp.) of lizards in the islands. Preliminary results indicate a dependency of these semi arboreal lizards on saplings for roosting, a behaviour which could be hampered by reduction of saplings due to deer browsing.

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

- a. As a result of the conference we organized on 'Introduced herbivores and their management in the Andaman Islands', the Department of Environment and Forest has agreed to jointly develop a roadmap to mitigate the impacts of invasive herbivores in the Andaman Islands. The proceedings of the conference and two pilot projects are currently been formulated.
- b. A documentary titled 'Spots of Concern', based on the findings of this project has been produced. This documentary was screened for the first time at the conference in February and will be screened locally and released online soon.
- c. A manuscript on the findings of the study is under review and two are in preparation.

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

The field work involved two local field assistants who were employed throughout the project. In addition to employment, they gained substantially in terms of skill development with respect to research equipments, data entry and communication. The perception survey included active participation of people from villages around deer inhabited areas.

5. Are there any plans to continue this work?

As an outcome of the conference, we plan to explore management alternatives for introduced herbivores and introduced species in general in the Andaman Islands. In this regard, we intend to jointly work with the Department of Environment and Forests on two pilot projects. We are also exploring ways to develop collaborations with regional and national institutions on the subject of introduced species.

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

We presented the findings of the project at the conference and have produced a short documentary on the same to reach out to a wider audience outside the scientific community. We have also communicated our findings to a peer reviewed journal and two manuscripts are currently in preparation.

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 proposed project was for a period of 10 months from November 2013 to August 2014. Though, we had initiated the preliminary project work in December, we could start working on most of the objectives from March 2014 (post grant award). The project took us one approximately 12 months (March 2014 to March 2015) to complete.

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
Staff salary	740	862.68	122.68	This difference was due to a hike in the salary of field assistants, determined by work experience.
Researcher salary and subsistence	821	821.6	0.6	
Field supplies/materials	308	333.77	25.77	
Boat entry fee	154	0	-154	Prior to the project, the administration waived off the entry fee for researchers.
Food, lodging, transport in the Islands	925	1232.41	307.41	This difference resulted from increase in food prices across the Islands.
Conference on introduced herbivores	850	850	0	We raised additional money from the Kumble Foundation and individual donors. ANET and the Dept. of Environment & Forests provided logistical support.
Publications	302	302	0	
Total	4100	4402.46	302.46	

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

I think our attempts to mitigate the impacts of introduced species in the Islands would only be successful if the executive authority takes ownership of conservation awareness and action. To this effect, a pilot project in collaboration with the Department of Environment and Forests, flowing from the proceedings of the conference would be the way forward. This project would include a

feasibility study on management options for invasive spotted deer and experimental removal of the deer from a few islands. Currently, we are in talks with key stakeholders to conceptualize such a project. In the long-term, sustained discussion on introduced species in the Islands at a regional and national level and ultimately institutionalization of invasive species management is the goal.

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?

The RSGF was given due credit in the peer-review publication under review, the conference and the documentary. The logo was prominently displayed on the conference banner and in the credits of the documentary. Further, RSGF was acknowledged in all public talks I gave on my research during the course of the project.