

The Rufford Small Grants Foundation

Final Report

Congratulations on the completion of your project that was supported by The Rufford Small Grants 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	Alolika Sinha
Project title	Ecological assessment and fostering conservation of Hog deer <i>Axis porcinus</i> in Assam, India.
RSG reference	9135-1
Reporting period	15 months
Amount of grant	£5954
Your email address	sinha.alolika@gmail.com
Date of this report	27 th March, 2012

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
To assess the present status, distribution and abundance of Hog deer.		☒		Present status of hog deer in the four protected areas was partially achieved. We were following pellet count methods in some definite plots. While we assessed the abundance, the regeneration of pellets in those plots was very poor. Hence, actual status in terms of numbers was not achieved. This may take some more time (a year or so) to come out with a quantitative status of hog deer in the area. Further analysis of dataset may provide more details.
To identify the possible threats for their survival in different protected areas.			☒	Initially the existing threats were identified and then prioritised with risk assessment. These threats were then discussed in detail with the locals and experts to reduce and threats were focussed during community outreach. An important outcome of the study was the identification of the threats that will feed in the management plan of the protected areas for the conservation of the species.
To identify the critical areas where hog deer is threatened and outreach in those target areas with mass awareness.			☒	More outreach and education programmes are needed as there are many fringe villages around each protected area. There were difficulties in reaching all the areas. At least 12 localities were identified where hog deer are reasonably under pressure from the people (particularly from regular hunting for meat). These localities were further targeted out with outreach programmes. Also, it was felt that there should be interaction among the stakeholders across the landscape to exchange their views. So, in the future outreach programmes a common platform will be provided for intermixing of the stakeholders from different parts and exchange their ideas regarding the conservation of the species.

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

The project work was delayed by few months as because obtaining permission from the Assam Forest Department took longer time than expected. The time when the permission was obtained, monsoon set in and hence the work was further delayed (as the parks remain closed during that period).

Besides, there was an incident of abduction of volunteers working in field in the Manas Tiger Reserve. Hence the team had to wait until everything was back to normalcy to ensure security. Furthermore, for every visit to the field, prior information was conveyed to local administration and authorities.

Apart from these, the project went smoothly.

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

The major outcomes of the projects are:

a. Present status and area of occupancy of Hog deer –

The status of hog deer in the four major study areas were assessed using pellet count method. Although it is difficult to find out the number of individuals in those study areas, the overall pattern of the population is developed. The population in Manas has declined considerably, when compared with available literature and interactions with the researchers who worked there earlier (Narayan, 1989). Although we were able to find pellets of hog deer in all the surveyed areas, direct sighting of individuals were only possible in the southern boundary of the Park. There were 52 hog deer counted in 34 occasions of sighting in the central Bansbari range. While in the western Panbari range, we were not able to see any hog deer despite detecting pellets in few studied plots. In Barnadi and Nameri the population has reduced considerably because of habitat loss. Uncontrolled grassland burning and spread of invasive species has resulted in excessive habitat loss. While in Orang National Park, we were able to sight hog deer quite abundantly as compared to other protected areas.

b. Status of grasslands in north bank landscape -

The grasslands in north bank landscape have gone considerable alteration in the last two decades or so. In Manas, the breakdown of law and order during the 90s civil unrest, has resulted in zero management of the grasslands and excessive burning by locals has contributed to loss of tall and swampy grasslands. These grasslands are presently taking over by too much of woodlands specially the *Bombax* tree.

Same can be attributed to Nameri and Bornadi as well. While in Nameri, the national park area has lost grassland patches but the dried up Jia Bharali River has created short riverine grasslands,. These grasslands give shelter to species like hog deer, Bengal florican etc. There are a very few studies on grasslands; and the information generated proved to be a very important by product of the study.

c. Threats to hog deer population in Northbank Landscape:

The survival of any species depends on the mitigation of the existing threats to the population. During this study the drivers of the hog deer population decline were identified. The habitat of the species in under severe threat from invasion of invasive species,

uncontrolled grassland burning, livestock grazing etc. In Manas National Park, invasive species like *Chromolena odorata*, *Lea* spp., *Michania* are slowly engulfing the grasslands. Another invasive species like *Mimosa* sp. is also invading the grasslands of Manas (earlier not reported). In Orang National Park, the spread of *Mimosa* sp. is a severe threat apart from hunting the deer for meat. The trade in meat for consumption purpose is not only confined to the fringe areas of the forest from where the animal is hunted; but also the nearby areas. Assessing the effect of hunting on deer population in the area is difficult as the status of hunting cannot be determined. Most of the buying or selling of meat is done privately and secretly as they are aware of the crime associated with it. During the study period two such incidents were observed in Manas Tiger Reserve.

d. Awareness and Outreach programme:

The community interaction and awareness generation among the mass was one of the most important activities of the project. While most of attention are grabbed by the charismatic species like tiger, elephant and rhinoceros; Hog deer draws relatively lesser attention from the conservationist and the communities alike. Hog deer were considered significant mostly as a prey base for large predators. There was considerable ignorance about the species being an indicator of healthy ecosystem. During the awareness drive every effort was made to educate people to understand the entity of the species and its importance to the ecosystem rather than merely viewing it as a prey species. Awareness programmes were organised in educational institutes, targeting the students so that they can act as a replicating force to ensure mass awareness. Awareness programmes were conducted in forty two educational institutes which included interactive discussions, and powerpoint presentations. Besides, informal discussions were held in the market places and the villages for spreading awareness among the people. Posters, both in English and local language (Assamese) depicting the conservation importance of the species, were distributed among the stakeholders. Three thousand posters were printed and distributed including the forest officials. While conducting the outreach programme it was strongly felt that the knowledge on the species was less compared to the other species of the region.

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

The project had broadly two aspects: research and awareness generation.

During the field work for generating data on the species and its habitat, youths from local communities assisted the field team. This gave them exposure to the research work as well as an orientation towards wildlife conservation. They were taught to read the animal signs and birdwatching skills. With ecotourism being one of the fastest growing avenues in areas like Manas and Nameri Tiger reserve, the skills of the local youth can be a useful resource and they can act as tour guides enhancing the economic conditions in those fringe areas. The assistants were selected based on their ability to work hard in the field as well as their willingness to be a part of the team. Being with the team served as an informal training to them to act as nature guides.

Awareness programme through interaction, PowerPoint show, discussion, distribution of posters were carried out in the schools, market places in the villages to sensitize them on the importance of conserving the species and its habitat. They were told that the consumption of wild meat to be an illegal activity.

5. Are there any plans to continue this work?

Yes, there are plans to continue with this work as the species needs immediate intervention to ensure its survival. The team leader will be approaching other funding agencies besides, Rufford Small Grants Foundation to continue with the work.

For the next phase of the study, the team have decided to organise brainstorming workshops involving local community members, youths, students and different stakeholders to come up with some realistic solutions for the conservation of the species, besides continuing to collate data on the species status. There are also plans to expand the work in other states of northeast India which is crucial for conservation.

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

An illustrative project report is on progress to circulate among Assam Forest Department, other research organisation of the region, NGOs and individual Researchers. The findings will be published in peer reviewed journals.

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

The RSG fund was used during the project period from January 2011 to March 2012. The awareness programmes were carried out from January to April, 2011. And the actual field work began in June 2011 in parallel with the outreach Programme.

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.

Amount Received: A total of 421397 INR received at a conversion rate of 71.04 INR/1 GBP

Item	Budgeted Amount	Actual Amount	Difference	Comments
Honorarium to field assistants	£ 1200	£ 1200	Nil	
Field Expense	£ 1410	£ 1400	(+) £ 10	Food and lodging. In some places, the Assam Forest Department's Guesthouse was used for staying. The cost of staying in the department's guest houses was cheaper.
Vehicle Hiring and fuel	£ 2350	£ 2400	(-) £ 50	During the project period fuel price hiked twice and hence a surplus amount was spend. The price hike had led to the increased hiring charge of the vehicles.
Equipment	£ 400	£ 405	(-) £ 5	Sony DSC camera and one GPS cost
Awareness programme	£ 350	£ 320	(+) £ 30	Meetings in village, schools,

				publication of posters. The posters were designed by the team.
Report preparation	£ 100	£ 80	(+) £ 20	Data analyses, GIS lab use.
Communication	£ 84	£ 80	(+) £ 4	Telephone, internet, fax
Miscellaneous	£ 60	£ 30	(+) £ 30	
Total	£ 5954	£ 5915	(+) £ 39	An illustrative report will be prepared by this amount

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

This was the first study on hog deer in Assam, which generated the much needed information. This work was based on the north bank landscape of Assam. During the execution of the study, we felt the following works needs to be done:

1. While carrying out this study we realised that there are potential non protected areas in the landscape which also harbours populations of hog deer. There are plans of carrying out occupancy survey in the landscape giving emphasis to the non surveyed areas.
2. More number of institutes (both educational and other vocational training centres) will be targeted for awareness as they can act as replicating force and collate the conservation message. As mentioned earlier, workshops will be organised to come up with conservation measures for the species so that it can be fed in the management plans by the implementing agency and policy maker. In villages where deer meat trade is still rampant for consumption purpose; people will be made aware of the severity of the crime and its consequences.
3. Capacity building programme will be organised and alternative livelihood options will be explored to minimize the dependency of the people on forest.

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

Yes, the RSGF logo was used in the education material like posters. Bilingual posters, with a picture of the species and a short write up regarding the species importance and conservation measures were published. These were distributed among school and college students, displayed at community halls and market places.

The logo was used during the PowerPoint presentation prepared for community awareness among villagers, forest staffs and students.

11. Any other comments?

We are presently preparing an illustrative study report of the project as the findings of this project are very important for conservation of Hog deer in North Bank Landscape. The Assam Forest Department also interested to know the findings and recommendations of the project as this is the first study on in the landscape.