

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	Mahi Puri
Project title	Examining large carnivore occurrence, conflict and socio-cultural tolerance in the central Indian landscape
RSG reference	17894-1
Reporting period	September 2015-August 2016
Amount of grant	£5000
Your email address	Mahi.puri@gmail.com
Date of this report	19th September 2016

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
Examine the distribution patterns of the focal species in non-protected areas of the Kanha-Pench landscape		x		Preliminary results and maps (pertaining to leopard and sloth bear occurrence in the Kanha-Pench landscape) have been prepared. Detailed analysis is in progress.
Assess the influence of environmental and anthropogenic factors that drive patterns of distribution and space-use		x		Data processing of anthropogenic factors, acquiring and processing of remotely sensed environmental data has been completed. Detailed analysis is in progress.
Determine the extent of human-wildlife conflict, thresholds of human tolerance and acceptance of wildlife and factors driving these conflicts and perceptions		x		Preliminary results and summary statistics related to demographics, institutional access, forest dependence, interaction with wild animal, adoption of mitigation strategies, and receipt of compensation as well as people's perception towards carnivores has been completed. Detailed analysis is in progress.

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

A small part of the proposed study area could not be sampled due to insurgency. It was high risk to go into areas with militant activity at the time of the study. However, this was only a small proportion of the area and the study was completed in a large contiguous landscape of about 7000 sq. km.

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

- (i) The preliminary results suggest that leopards and sloth bears occupy nearly 47% and 58% of the landscape, respectively. The current study was the first study to examine occupancy of the two focal species at the scale relevant to their home ranges, thus preventing overestimation. Since the entire landscape is unprotected and human-dominated, evidence of presence of large carnivores through rigorous assessments such as ours may go a long way in prioritising specific areas for wildlife conservation. Please note, the percentages given above are based on only the proportion of area where species signs were detected. This may increase once imperfect detection is accounted for in further analysis. Additionally, while diet analysis was not a part of the proposed study, I collected scats of leopards (with permission from Forest Department) from across the study area. Results from this study showed sufficient wild prey availability for leopards and their non-dependence on domestic dogs and livestock.
- (ii) Intrusive human activities in the form of cattle grazing and fodder collection, lopping of trees and bamboo, illegal logging, NTFP collection and signs of poaching (snares for small mammals and birds) were recorded in the entire study area, with varying degree of use. Higher levels of human disturbance were recorded in areas closer to settlements and villages. This data is yet to be analysed in conjunction with data on species distribution, which will help us in identifying factors driving species occurrence in specific areas within the landscape.
- (iii) In the past year, the highest percentage of livestock loss due to various reasons was reported for cows. The most common reason for loss was disease. A total of only six cases were attributed to predation by leopards. Similarly, the main reason for loss of goats was disease as well, with predation by wolves being a major secondary cause. None of the respondents reported human injury or death due to leopards in their household over the past year. In the case of sloth bears, four respondents reported human injury or death in their household, caused during an encounter with sloth bear. These preliminary results suggest that perceived conflict between leopard/sloth bears and humans seem to be more than actual conflict. Detailed analysis of the data is yet to be completed.

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

In order to carry out the sign surveys and questionnaire surveys across the large geographic extent of the study area, we involved civil society members to assist with collection of field data. These citizen scientists included students (mostly aspiring young scientists) as well as people from other backgrounds such as doctors,

engineers, bankers, and architects. A total of 43 volunteers participated in the surveys. Relevant training related to identification of animal signs, scat collection protocols, and conducting questionnaire surveys was provided to all participants. Participants were also trained in map reading and navigation skills using topographic maps and GPS. Volunteers and interns participated for a minimum period of one week, up to a maximum of 3 months. Selected feedback from volunteers about their personal experiences and learnings are provided in the attached document.

5. Are there any plans to continue this work?

I may undertake further research in the landscape, with specific focussed questions for my PhD (I am currently enrolled at the University of Florida)

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

The results from the detailed analysis would be published in peer-reviewed journals and shared with the Forest Department. I also plan to present my results at the Central India Symposium to be held in December, which would have attendance of representatives from various research groups, NGOs and Forest Department officers.

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 grant was utilised from the period September 2015 – August 2016. The funds have been utilized in accordance with the proposed timeline/length of the project.

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. 1 £ sterling = 4.44 Nuevo Sol

Item	Budgeted Amount	Actual Amount	Difference	Comments
Stipend and Wages	2131	2117	15	
Food and lodging	1259	1153	106	
Equipment and Supplies	212	235	-23	Stationary purchased in field (remote locations) was more expensive
Vehicle rental and Fuel	1399	1375	24	
Miscellaneous	0	93	-93	Unforeseen expenditures

				such as vehicle repairs and maintenance
Total	5001	4973	28	

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

Once the detailed results are obtained and published, I would like to discuss the possibilities of better managing and protecting specific areas of high species occurrence, with the Forest Department. I would also like to devise strategies to minimize the impact of human activities in locations of strategic importance, without compromising on the needs of the local communities that depend on the forests.

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 preliminary report that has been prepared (attached) to be shared with all donors and Forest Department contains RSGF logo. Additionally, RSGF will be duly acknowledged in future presentations in seminars as well as peer-reviewed publications.

11. Any other comments?

Thank you for all the support, without which this study could not have been completed.