

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	Iravatee Majgaonkar
Project title	A study of wolf distribution and their interactions with shepherds in an agro pastoral landscape in western Maharashtra
RSG reference	16790-1
Reporting period	February 2015 to April 2016
Amount of grant	£5000
Your email address	iravati.m@gmail.com
Date of this report	08th May 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
Establishing contacts with stakeholders	X	X	✓	We gathered recent large carnivore sighting records from c. 95,664 sq.km. area under the Forest Department and this allowed us to work closely with their staff. In a smaller study site, we were able to engage with shepherds from the local villages (respondents) at a close range, to understand the relevance of carnivores (like wolves) in their livestock rearing practices. All this was especially easier to achieve because we worked closely with the concerned higher authority in the Forest Department, and this has highlighted the importance of such collaborations for us.
Collecting wolf sightings and depredation records	X	X	✓	We were able to collect wolf sighting records (along with other large carnivores) for 2014 and 2015 from an area of c. 95,664 sq.km. in western Maharashtra. This was in addition to interviewing the Forest Department ground staff for their perceptions about carnivore depredation. Recorded depredation instances were collected for a smaller study area where we chose respondents based on who has faced livestock losses due to wolves.
Engaging with livestock owners	X	✓	X	We aimed at interviewing nomadic, semi-nomadic and settled pastoralists in the study area for their responses to presence of wolves. But we were not able to encounter nomadic families during the second half of 2015 because of extreme drought conditions due to which they moved on their migration before expected. Additionally, we learnt that thorough qualitative interviews can only be possible with a limited number of pastoralists in a small area. Hence, we chose a fraction of the larger landscape to engage with semi-nomadic and settled pastoralists, over interviews concerning the relevance of carnivores in their regular practices.

Locating wolf packs and dens	X	✓	X	We attempted to map wolf dens across the study area but their movement in human-use landscapes makes it rather difficult to locate their packs as well as their breeding locations. Although we were able to find a few denning sites used in the past, information on wolf presence (ultimately associated to denning landscapes) was mostly collected via the Forest department interviews in a c. 95,664 sq.km. area.
Engagement with the Forest Department	X	X	✓	Our surveys were carried out within the bounds of a collaborative project between the Forest Department (Wildlife Division) and other research organisations. It was the first of its kind where the wildlife division was a custodian to the social perspective of wildlife conservation. This was a successful venture and it has brought researchers closer to the administration. It will soon be disseminated in the form of a report from the wildlife division itself.

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

We had expected to use methods like participant observation to be able to study in detail how shepherds respond to wolf presence but we found it difficult to give sufficient time to the entire study area. Hence, we narrowed down to only a fraction of our study area and developed it as a case study for the larger landscape. Here we were able to closely interview respondents for our survey.

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

The most important outcome of our project was that we were able to map the presence of wolves and other carnivores (leopards and hyenas) outside protected areas for the first time in the state of Maharashtra. This was done over an area of c. 95,664 sq.km. Our findings say that wolves occupy a higher proportion of the landscape, followed by hyenas and leopards respectively. We believe that this information will be crucial for conservation policy which often centres on large carnivores within protected areas. Also, such work reiterates the existence of shared spaces between humans and wildlife which is a recently celebrated paradigm in conservation.

Through this work, we were able to test the relevance of monetary compensation schemes for livestock loss by carnivores like wolves. Broadly, our survey suggests that compensation schemes do not always have the potential to increase acceptance of carnivores amongst affected people. This is because of multiple social and political angles with regards to administrative working, state relations with the society and the ability of local people to be flexible in the practices they follow.

Lastly, this survey enabled us to work closely with the Forest Department in a way that a strong network was formed for exchange of information and data. Our work has contributed in highlighting

the importance of dry agro-pastoral ecosystems, which often are categorised as wastelands in public and administrative affairs.

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

We see two indirect ways in which our work has contributed towards local community benefits. Firstly, our findings on presence of large carnivores outside protected areas will highlight the frequent use of human-use landscapes and hence, also the importance of wildlife management necessary to control potential conflict with carnivores. This implies that the management has to shift towards involving people and not focus only on wild animals. Secondly, we found that people do not necessarily opt for monetary compensation for livestock loss by carnivores since such schemes do not benefit them in expected ways. There is a need to develop better inclusive management techniques to foster tolerance towards carnivores so that conflict, if any, is of a minimal level.

5. Are there any plans to continue this work?

Yes, we plan to continue and expand on this work in the same as well as other landscapes. The next step we would like to take is to monitor wolf and other wild carnivore movements in human-use areas and study the frequency of livestock loss in parallel with monitoring the compensation claims from people. Our larger aim is to use research as a tool to assist successful survival of large carnivores like wolves in human-use areas, with minimal levels of conflict with people.

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

We plan to disseminate our results majorly in three forms: a) a collaborative report with the Forest Department which will be shared with all administrative authorities in the sampled area (in review); b) a research paper in a peer-reviewed journal (Majgaonkar et al., 2016; unpublished data); c) popular articles in local and national media (to be written); and d) short talks in student conferences and citizen meets (participated in two citizen meets in Pune city where our experiences were shared and discussed; yet to present work in student conferences).

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 Rufford Small Grants Foundation funds were used over a period of 15 months from February 2015 to May 2016. We had expected the funds to run for 14 months. Although the anticipated time scale for each activity was different from what materialised (For e.g., since we covered a larger than expected area for our Forest Department interview survey, the time required for this was longer than assumed previously) the funds could be adequately utilised for each.

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.

The local exchange rate used currently is: 1 pound=96.10 Indian rupees

Item	Budgeted Amount	Actual Amount	Difference	Comments
Travel within and to/from field sites (including fuel and vehicle rent charges)	720	648	72	We received funds from the Forest department for travel purposes since this work was in collaboration with them.
Equipment	291	29	262	We had expected to buy a handheld GPS unit but we used an already available one. Instead we invested in buying a voice recorder useful for interviewing respondents.
Living expenses for Principle Investigator (including salary, food and medical expenses)	1998	2,330	-332	An additional salary for 2 months was requested to RSGF. This was because our work period extended because we sampled additional area.
Living expenses for Principle Investigator (accommodation)	374	457	-83	We required additional accommodation fees for renting rooms during the study period.
Living expenses for field assistant (including food, accommodation and wages)	1623	1499	124	There were multiple places where meals were available free of cost because we stayed at Forest Department rest houses whom we were working with.
Communication (Internet and phone)	124	103	21	The internet usage was not as much as expected.
Postage and freight	15	50	-35	We invested more money in safer delivery services because it involved transporting datasheets.
Stationery	124	42	82	We did not require the expected amount of office supplies.
Contingency	62	26	36	These expenditures were mostly to do with vehicle maintenance.
GIS map purchase	20	--	20	Not required.
Report writing	20	--	20	Not required.
Total	5,371	5,284	187	The balance will be mainly used for travel and accommodation during the writing of peer-reviewed papers.

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

We see upcoming recognition for research on large mammals outside protected areas in India. It would be ideal to pitch the case of human-wolf interactions in such a scenario and shed light on the unique yet threatened dry grassland ecosystem along with its communities and wildlife. In terms of future directions, we are interested in contributing to research on dry agro-pastoral systems with respect to its wildlife and the local people. This way we can expect to tap the attention of relevant administrative authorities towards the immense productivity of this landscape responsible for harboring grazing livelihoods and an array of wildlife.

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?

We used The Rufford Foundation logo in two public events involving interactions between urban civilians, administrative authorities and biologists. One of these was organised by a local non-governmental organisation *Jividha* while the other was organised by the research institute Bombay Natural History Society (both events will find mention in the mid-term updates on the project).

We will be acknowledging The Rufford Foundation in all the disseminated material related to this work in the future (e.g., peer-reviewed papers, popular articles and student conferences).