

## The Rufford Foundation

### Final Report

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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](mailto:jane@rufford.org).

Thank you for your help.

**Josh Cole, Grants Director**

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Grant Recipient Details	
Your name	Iravatee Majgaonkar
Project title	An assessment of interactions between large carnivores and humans in fragmented rocky habitats in north Karnataka, India.
RSG reference	21759-2
Reporting period	July 2017- June 2018
Amount of grant	5000 pound sterling
Your email address	iravati.m@gmail.com
Date of this report	26-07-2018

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
Mapping of the study area				We intended to choose camera trapping sites by performing a recce in the landscape. Although this was made possible early on in the project phase, it could not be continued within those areas which were under the Forest Department's jurisdiction. Our permission to enter these areas was put on hold and we experienced theft of cameras in one of the sites where we were already conducting a survey. Both of this resulted in withdrawal from this site.
Informant network building				We managed to build a network of five informants who reached to c. 140 shepherds in a set of 22 villages and we monitored their interactions with carnivores (especially leopards and wolves since they predate on livestock). We earlier thought that we would appoint 1 informant from every village but due to logistical feasibility and limited time, we appointed one informant per three to four villages and paid them more intensively.
Camera trapping				We conducted camera trapping in three sites: Mandalhari 1.5 sq. km: from June 2017-May 2018 Bankapur 4 sq. km: from August 2017-March 2018 Ilkalgada 4 sq km: from November 2017 to December 2017 Before we could expand to more areas, our permissions were not continued with the department and five of our cameras got stolen. Because of inability to conduct large scale camera trapping, we conducted an interview survey in the

			landscape to understand presence of large carnivores. This was done in combination with another small grant received from the National Geographic Society. Under this, we covered 5,500sq km of arid human use areas where we conducted interviews with shepherds for their large carnivore sightings. Hence our travel effort increased.
Collection of data on human interactions			It was easiest to collect information on livestock losses or human injuries compared to any other form of interactions. We monitored groups of shepherds who were most likely to come in contact with large carnivores. But during the course of the work, it was realised that such instances were rare. We could collect information on the 'nature' of these livestock attacks only for c. 50 instances. We shall use this information to analyse the nature of such events to see whether anything can be done for better livestock keeping practices in the future.
Analysis and write up			This is an ongoing process. It involves digitising data and writing a manuscript out of the acquired information.

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

The major difficulty we faced during our field work was the withdrawal of camera trapping permissions due to change in administration and theft of camera trap devices. We applied for research permission with the department but it was not granted until July 2018. We unfortunately had to stop camera trapping activities for some time. We invested our effort in the interview survey for mapping of carnivore presence rather than aiming to monitor more rocky outcrops using camera traps.

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

Our work was the first official attempt to conduct an ecological study in a semi-arid human use landscape in Koppal district of north Karnataka. It has led to the following:

- (i) Documentation of large carnivore biodiversity in a landscape which has very low abundance of wild prey. We found at least four large carnivores, three of which – leopards, wolves and sloth bears are in the Schedule I of the Indian Wildlife Protection Act, use rocky outcrops in agricultural landscapes. We also documented the presence of one of the most poorly studied large carnivores, the striped hyena. We now have the required information to refute claims of such areas being wrongly classified as 'degraded' or 'waste'. Moreover, after data analysis, we will have a landscape wide map of the distribution of four large carnivores, something which has never been done for this landscape. This will bring semi-arid landscapes into focus in an otherwise 'forest-dominated' conservation scene in India.
- (ii) We have information on the levels of negative interactions in the form of livestock losses and attacks on humans. Koppal has very low levels of actual (and even perceived) conflict in spite of large carnivores living in close proximity to humans. We now need to advocate for these shared landscapes through local organisations like the one we collaborated with- Deccan Conservation Foundation.
- (iii) Our work in Koppal will lead to a peer reviewed scientific article as well as feature in popular media so that people are introduced to semi-arid and arid ecosystems in the otherwise 'forest' dominated conservation scene in India.

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

Local communities have benefitted only indirectly from our work since our activities were based on ecological survey designs which have social benefits only in the long run: (i) Through involving them as informants for shepherd surveys and camera trapping activities where they participated on a regular basis and were introduced to research as a benefitting aspect in the landscape. It is possible that they will be more open to outsiders to come into their area in the future; (ii) Through being able to monitor their use of the rocky outcrops for grazing activities and establishing the importance for human-use. We will use this information to protect grazing rights of people in the future if any of these habitats are threatened by major infrastructure projects.

**5. Are there any plans to continue this work?**

Although we do not have immediate plans of continuing this work, we will be scientific advisors for our collaborators, Deccan Conservation Foundation. They are a conservation organization which will incorporate our findings from these surveys into their programmes. Moreover, I, the principal investigator of the project, would like to return to this landscape after some academic requirements are fulfilled. This area definitely has conservation potential and we would like to be associated with any activity possible here.

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

We have two activities in mind for this:

- (i) While being advisors in practice for the local conservation organisation, we have prepared a document for their perusal. This includes our findings and the resulting potential conservation activity that they can engage in in the area. We have also managed to get our research organisation partner, WCS-India, to put up articles on their blog on Koppal (our study area), as a conservation landscape. We have received an admirable response from regular readers. We agree that these are only small steps in the conservation and protection of livelihood rights in such areas.

<http://wcsindia.org/home/2018/06/01/koppal-why-this-biodiverse-region-needs-to-be-conserved/>

<http://wcsindia.org/home/2018/06/29/koppal-what-roles-do-locals-play-in-conserving-wildlife/>

- (ii) A peer reviewed article which will disseminate the findings in the academic sphere. Since this is a tedious process, we will have to reserve another 6 to 7 months for this submission.

## 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 grant was used between July 2017 and July 2018. We had predicted the same time gap in the proposal although for a different set of months (We shifted the time frame from February 2017 – March 2018 to July 2017 to June 2018). The time frame mentioned above also includes time required for data digitisation and management.

## 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
<b>Exchange rate= 82.98 (consistent with what was quoted in the proposal)</b>				
Travel (local transport)	314	183.76	157.24	
Private vehicle rent	602	823.08	-221.08	
Fuel	602	183.76	418.24	
Salary for Principal Investigator	1205	1687.15	-482.15	
Accommodation on field	433	373.58	59.42	

Salary to field assistant	578	578.45	-0.45	
Wages to 2 watchers	385	783.32	-398.32	
Communication from field	144	35.65	108.35	
Postage	60	4.94	55.06	
AA batteries	389	48.20	340.80	
Stationery	144	98.85	45.15	
Contingency	144	209.21	-65.21	
Total	5000	5009.95		

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

Our study area, Koppal district, is a layered social, economic and cultural system and there can never be a 'protected area' here which can safeguard wild populations of species. The only long term solution here is to maintain a 'shared' landscape. In such a scenario, we think two approaches can work. (i) Since we initiated a scientific enquiry in this region, we hope that this will assist some conservation activities by our collaborator, Deccan Conservation Foundation. More than protecting wildlife directly, working with people so as to facilitate seeing monetary and non-monetary "value" in having wild animal populations around them, is the need of the hour. This has to be done through long term engagement activities with schools and local administrative bodies like Panchayats. There have been a lot of such attempts around the world, where 'payment for tolerance' kind of models have worked. This means that programmes have to be designed so that wildlife continues to be given space amongst people (ii) We also need to control forms of damage to people by wildlife. For example, in the form of crop loss or livestock loss. Attacks on humans are very rare in this landscape, mostly owing to the high visibility. The former needs development of flexible programmes which either starts a self sustaining compensation scheme or has a 'payment for tolerance' kind of model. One important measure in this landscape is to not resort to any 'coercive' protection because it has been seen that people lose tolerance for wildlife this way.

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

We had a policy of not 'advocating' for wildlife protection in the landscape where we worked because of the potential dangers involved in taking 'ownership' of their protection and alienating people from wildlife. We acknowledged the Rufford Foundation in our reports to our collaborator, Deccan Conservation Foundation, in the past 1 year. We will also make it a point to acknowledge the Rufford Foundation in any conference presentation or report written of this work in the future.

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

**Vidya Athreya**, Senior researcher WCS-India

Dr. Vidya Athreya has been my supervisor for my research projects since 2015. For the past one year, she has given me useful academic and philosophical inputs

related to my work which has helped me conduct my work ethically along with a good study design. Moreover, she has provided me with the institutional affiliation with Centre for Wildlife Studies and this has helped me to get a platform to be around peers and have a say in the academic and conservation sphere. She was also a part of making a report for our collaborator and presenting it to them for their future conservation endeavours.

**Indrajit Ghorpade**, Hon. Wildlife Warden and Managing Trustee of Deccan Conservation Foundation

Mr. Indrajit Ghorpade has been a crucial point of contact in the landscape due to his goodwill and influential social position. He has provided us with a field base, logistical help and contact persons in the landscape which has made our field work smooth. He has also been a part of the Forest department because of his position and it was easy for us to deploy camera traps in the three sites we monitored.

