

## 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	
<b>Your name</b>	Girish Arjun Punjabi
<b>Project title</b>	Assessing relative abundance of ungulates and intensity of local hunting in the Tillari bioregion, northern Western Ghats, India.
<b>RSG reference</b>	18635-1
<b>Reporting period</b>	November 2015 to May 2017
<b>Amount of grant</b>	£ 5000
<b>Your email address</b>	girisharjunpunjabi@gmail.com
<b>Date of this report</b>	12 <sup>th</sup> May 2017

**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. Assessing wild ungulate relative abundance				This objective was fully achieved in the given timeframe of the project. The data has been analysed and relative abundance of major wild ungulates (gaur, sambar, wild pig) in the region is now assessed. We could not estimate relative abundance of small ungulates (muntjac, four-horned antelope) as the models did not fit the data, either due to failure to meet model assumptions or limited data. But point locations of presence were collected.
Assessing hunting intensity through interviews				This objective was partially achieved given that hunting is an illegal activity; therefore it was difficult to find willing respondents easily. During the course of the project, two cases of illegal hunting, where local hunters were apprehended by the Forest Department, received much media publicity. This led to unwillingness on the part of most people to give details about local hunting practices.
Meetings with Forest Department				The results of this study have been shared in the form a presentation with the Chief Conservator of Forests, and respective Range Forest Officers. A detailed report will be shared shortly with the State Wildlife Board and Chief Wildlife Warden to improve conservation measures in the region.

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

During the course of the project, two cases of illegal hunting in the region, where local hunters were apprehended by the Forest Department, received much media

publicity. This led to unwillingness on the part of most people to give details about local hunting practices. We therefore could not measure intensity of hunting as we had originally proposed to do, as we managed to take interviews of only 14 people.

As data on hunting is difficult to collect, we used other sources of data to understand local hunting practices. We used opportunistic camera trap photographs of local hunters (people carrying guns) to try and understand local hunting patterns. We collected 10 such records of hunters through camera traps, which were set up by the State Forest Department to monitor large carnivores. This vital piece of information will go a long way in acknowledging the problem and taking appropriate measures to reduce illegal hunting of wild ungulates.

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

1. A robust and systematic assessment of large wild ungulate relative abundance is a very important outcome of this project. We have identified crucial areas for wild ungulates in our study landscape and this will now be used to better protect this fragile region through improved management.
2. An understanding of local hunting patterns using questionnaire surveys and opportunistic camera trap data has helped convince the Maharashtra state Forest Department of the problem. Steps are being taken by the Forest Department to initiate better protection measures and trust-building activities with villagers to mitigate the impacts of local hunting on wild ungulates in the region. The Chief Conservator of Forests (Wildlife) has initiated an arms inventory mapping in these districts in Maharashtra to dissuade misuse of licensed guns for local hunting (See: <http://www.dnaindia.com/india/report-sahyadri-tiger-reserve-sees-arms-inventory-mapping-2379194>).
3. The results of this study have been shared with honorary wardens of three states (Maharashtra, Karnataka, Goa) in order to push for a holistic habitat conservation plan for this tri-junction region.

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

Few local community members (n = 14) were interviewed to understand hunting patterns in the region. During the field survey, interested villagers and local youth were also made part of the surveys to have active participation by interested individuals. These local community members now have a better understanding of wildlife in the region and are showing active interest in conservation by initiating small-scale ecotourism initiatives.

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

Although not immediate, there are plans to continue this work so as to initiate better outreach activities in village schools and colleges in nearby towns to create awareness about the benefits of keeping wildlife. We also aim to initiate private forest conservation through pilot initiatives of community-led ecotourism. At the

same time, we will continue to work with the Maharashtra state Forest Department to enhance protection measures to improve the conservation status of the region.

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

We are in the process of publishing a part of the results in an International peer-reviewed journal. The scientific paper will be available for wide dissemination once published. We will also create a technical report from this work which will be shared with senior officers from the Maharashtra Forest Department.

**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 Foundation grant was used over a period of 18 months. The anticipated project length was 12 months, however an extension was requested as there was difficulty in getting willing respondents to assess hunting intensity in the region.

**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
Equipment	310	480	+170	We did not anticipate tyre purchase for our field vehicle. New tyres cost an additional £170
Field expenses	900	809	-90	Saved on fuel and local travel
Living expenses	1170	848	-322	Since we got cooking gas and a stove we saved tremendously on food costs (saved £200). Also the field station we rented was cheaper than anticipated (saved £122).
Honorariums and wages	1900	2122	+222	As the project was extended for six months, some additional honorarium was paid than earlier anticipated.
Communications	240	164	-76	Saved on internet and local calling.
Vehicle repairs	80	148	+68	Due to bad road conditions the field vehicle was serviced twice during the project, thus the additional cost (£68).
Office expenses	400	429	+29	Some additional colour printing

				costs of photographs for questionnaire surveys were not anticipated.
<b>Total</b>	5000	5000	0	Local exchange rate £1 = ₹ 98

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

The important next step is to enhance protection in this region with the help of the Forest Department, so as to reduce the problem of illegal hunting of wild ungulates. Another important step would be to initiate a pilot livestock management programme, as our study found high livestock occurrence to be a negative effect on relative abundance of large herbivores (gaur and sambar). Simultaneously, we aim to initiate outreach activities at the village level, especially in schools and colleges in nearby towns, so as to bring a larger social change in the youth. Pilot initiatives to create awareness about conservation of wildlife and forests on private land through community-led ecotourism may also be a useful next step.

**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 Rufford Foundation logo was used in all presentations made to the Maharashtra Forest Department and during the interstate meeting of honorary wardens and interested researchers from the states of Karnataka, Maharashtra, and Goa. RSGF received publicity during all these formal communications made to governments and members from the civil society.

**11. Any other comments?**

Our team wishes to thank The Rufford Foundation for generous funding which made this work possible.