

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	Prakash Rai
Project title	Ecological niche modelling of the threatened golden langur (<i>Trachypithecus geei</i>) and capped langur (<i>Trachypithecus pileatus</i>) in Bhutan for habitat conservation
RSG reference	26784-1
Reporting period	November 2018-November 2019
Amount of grant	£4,995
Your email address	prakashkoyu703@gmail.com
Date of this report	9 th December 2019

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
The main objective of this project was to build the distribution model of these species for the conservation of its habitat.				The model was built, and their habitats were delineated. The distribution of both the primates were concentrated more on the south eastern part of the country.
Making awareness on the status of these two primates and also on the use of the methodology.				We successfully covered prime habitat of these species and made awareness among the people living near the habitat of these species. The use of methodology and the results were also presented at the Forest Research Institute.
Determining the threats to the population of these species.				We could not fully determine the threats to these species as the data were lacking. Further studies in future might help in filling that void.
Introduction of concept of ecological niche modelling for habitat conservation to wider audience.				Due to this project others have also planned on doing similar projects using the similar method.

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

The project was an ambitious attempt to predict the distribution of the two threatened langurs, capped and golden langur in Bhutan for conservation of its habitat. There were a few challenges during the course of the project, though they were not that major to change the plans that were previously made. Collection of data were one of the few challenges that we faced. During the collection of data, we had to travel the whole country which was quite challenging as we had to deal with different people every other day. As Bhutan being mountainous country, the places were hard to access, which made data collection all that difficult. Apart of that we didn't face any major setbacks.

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

The three most important outcome of the project are:

1. Successfully modelled the distribution of golden langur and capped langur in Bhutan. As one of the major threats to the population of these species is habitat fragmentation, such information will help in connecting those fragmented habitats, which in turn help in the conservation of these species.

2. Awareness about the status of these two species. The awareness was made among the people who share close habitat with these two species. People who were previously not aware about the threatened status of these two species were made aware through discussions and one on one conservation.

3. Data on actual record of these two species from around the country. These data can be used in various ways by the forest department and the other research in the conservation of these species.

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

Local people were heavily involved during the project. They were taken as guide during the field visit as they knew the place better. In some cases, we also had to stay and dine at their homes. For all their involvement we made sure that they were rewarded. As far as possible we tried to involve young people in the project as to instil in them the interest in research from young on.

5. Are there any plans to continue this work?

There are plans to continue the work in the future. These species are decreasing in the wild and the studies are still lacking. Currently we have tried to model its distribution, but these data can still be refined and made better. There are also future plans to determine what will be the effect of climate change on the species habitat and its distribution.

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

The results, if not shared, are worthless. One of the most effective methods of sharing the results are through publications in a peer reviewed journal. Hence the paper is being written for publications and there are plans to attend conferences whenever the opportunity comes by. The full written report of my project has also been shared through emails to various individuals.

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 used all through the project duration. There were a few changes compared to the original plans but those were not that big, so the project went on smoothly as anticipated.

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
Travel and accommodation.	1100	1200	+100	We had to travel to more places than previously expected
Food and Refreshment	825	825		
Awareness Program	835	800	-35	
Garmin GPS	270	270		
Field Gears	200	200		
Nikon D5300	390	350	-40	Price fluctuation of the product
Payment to local team	1100	1100		
Stationary	10	10		
Report processing and printing	200	200		
Miscellaneous	65	40	-25	
Total	4995	4995		Note: All figures are in £ sterling. The Exchange rate at the time was £1 to Nu. 89.

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

Going forward we have to try to use this information in the field for conservation of these species. Most of the habitat of both the species lie outside the protected area hence there should be measures in place to protect these magnificent species even outside the protected area. Further research with even more vigorous field data collection can be also done.

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?

The project was carried with funding support only from Rufford Foundation. Hence the logo was used in presentation slides and acknowledged in the main report. If paper is published in future, the Rufford Foundation would be kindly acknowledged for their generosity. The Rufford Foundation and its aims were also brought up while making conversation with people.

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

The members who helped me in the project are as follows:

Mr. Wangchuk – Field assistant. Helped me in collection of data.

Mr. Nir Kumar – Field assistant. Helped me in collection of data.

Mr. Ratan – Forester at Jigme Singye Wangchuk National Park (JSWNP). Helped with accommodation and exploring the park.

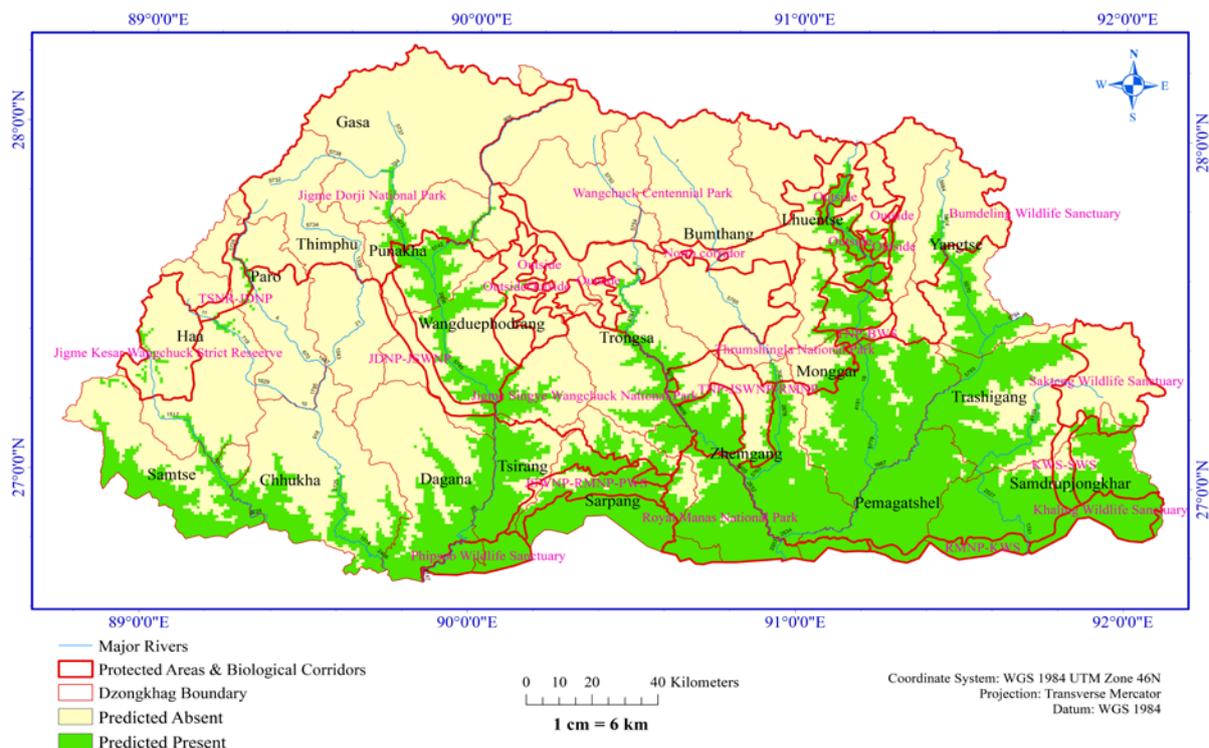
Mr. Tsewang – Ranger at JSWNP. Helped with accommodation while at the range.

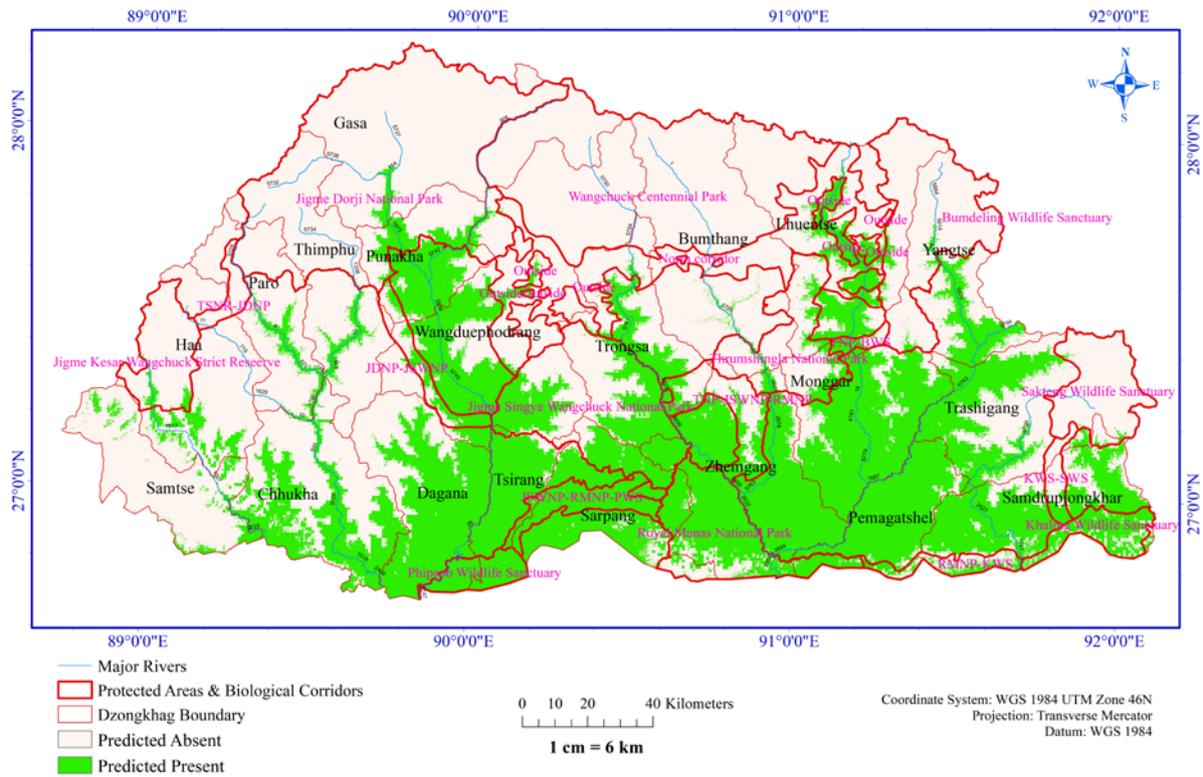
Dr. Mukes Prasad – Guided me while framing methodology and while executing it.

Mr. Ngawang and his family – For providing us place to stay and helping in exploring the area nearby.

12. Any other comments?

I am immensely pleased to receive funds from the Rufford Foundation and very grateful for the opportunity. I hope the Rufford Foundation will continue to provide such support to our growing researcher for their work.





Above top: Capped langur distribution map. Above bottom: Golden langur distribution map.