

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	Mitra Pandey
Project title	Adopting anti-poaching approaches for the conservation of Himalayan musk deer (<i>Moschus chrysogaster</i>) in Langtang National Park, Nepal
RSG reference	20824-1
Reporting period	28 February 2017 to 28 February 2018
Amount of grant	£4995
Your email address	m.pandey03@gmail.com
Date of this report	9 April 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
To explore Himalayan musk deer habitat; collect and dismantle snares and traps				Potential habitat of Himalayan musk deer, as identified through questionnaire survey with the local people and review of previous literatures, was explored. The project team found old snares spread in the forest area opposite of Sindhum village. Community based anti-poaching operation unit of Langtang also did a separate forest monitoring and found leg snares and a killed fawn which they immediately reported to Langtang National Park office and our project team. The snares were collected and dismantled.
To raise awareness against poaching of Himalayan musk deer				One thousand copies of 'Himalayan musk deer anti-poaching posters' were designed and printed. The posters were distributed to the community people of seven settlements of the national park. Himalayan musk deer conservation training was conducted for four buffer zone user committees and three schools present in the buffer zone area of national park.
To develop GIS map locating suitable habitats of Himalayan musk deer and its areas of threat (traps/snares).				A GIS map has been developed and shared with the park officials and buffer zone user committees to take necessary action to protect the Himalayan musk deer habitat.
To interact and share project result with National park officials for better conservation action				A result sharing workshop was organised at Langtang National Park office with park officials, A total of 25 participants including park warden were informed about the survey result and the threats to Himalayan musk deer found in the field. The management plan of the national

			park has been drafted for 2017 - 2022 by Langtang National Park and it includes detail plans for the conservation of musk deer by addressing its possible threats.
To discourage poaching and illegal hunting of Himalayan musk deer by motivating to adopt alternative business			Questionnaire survey revealed that musk pod is transported to Tibet while some assumed that commercial dealing happens in Kathmandu. No information found about poachers or hunters living in the park region however, it has been speculated that, mostly hunters visit Himalayan musk deer habitat from Helambu and Chilime side. Importance of adopting alternative business for living was highlighted in each awareness raising events.

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

Identification of poachers and illegal hunters of Himalayan musk deer was a challenging work from the beginning of the project. Some hotel owners used to hunt wildlife as a hobby in the past but later they stopped knowing it an illegal activity. They realised that promoting ecotourism is a best option to generate income for which wildlife needs to be protected. Their stories were used in each awareness raising programme to motivate people living around the national park. Therefore, though the poachers and illegal hunters weren't found in the park region, the good messages of ex-hunters were dispersed everywhere.

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

Langtang National Park has an area of 1710 km². There are 83 buffer zone community forest user groups and 21 buffer zone user committees in the buffer region of the park. The musk deer habitat is in the core region so the people living in the buffer region has to be made aware regarding the conservation of Himalayan musk deer. The project focused buffer zone people to raise awareness.

- a) Direct field visit and questionnaire survey with the community people helped to develop a GIS map of Langtang National Park showing the suitable habitat of Himalayan musk deer and the areas of threat.
- b) 90 people of four buffer zone user committees were trained about the Himalayan musk deer conservation and its importance. Similarly, awareness programme conducted for 126 school students of three schools. Pre- and post-knowledge assessment of the school students showed increase in the level of knowledge about Himalayan musk deer conservation. The

knowledge of Himalayan musk deer conservation reached to more than 600 people through the school students.

- c) Himalayan musk deer habitats have been monitored by the community based anti-poaching operation unit in order to stop poaching and illegal hunting of the Himalayan musk deer. Additionally, the Rufford project team member Mr Aashish Tripathi developed interest to work on Himalayan musk deer and presently doing his research on this species in Langtang national park.

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

In order to adopt anti-poaching approaches for the conservation of Himalayan musk deer, local communities were involved from the very beginning of the project implementation. Questionnaire survey was conducted to know the people's knowledge on Himalayan musk deer and collect information about poaching activities in Langtang national park. Twenty-four individuals including park rangers, hotel owners and locally existing conservation committee members responded their views. Everyone accepted that the Himalayan musk deer are in threat where 83% of them stated that the threat is due to illegal hunting for musk pod. Twenty-five percent of the respondents told the trade of musk pod is especially for medicine and perfumes. One respondent explained about its religious importance. Majority of them told the musk pod is transported to Tibet while some assumed that commercial dealing happens in Kathmandu. None of them knows about the poachers however according to them there were few poachers caught at Nepal-Tibet border while transporting animal parts in the past who no longer live in the region at present. It has been speculated that, mostly hunters visit Himalayan musk deer habitat from Helambu and Chilime side. At the same time, conservation importance of the species was delivered to the respondents.

Awareness raising trainings and workshops were conducted to four buffer zone user committee members and students of three schools. A total of 216 local individuals were directly approached for raising awareness and more than 600 other community members were reached through the trained individuals. Staff of Langtang National Park also assisted the project team in awareness raising events. Thousand copies of 'Himalayan musk deer anti-poaching posters' were distributed to local people through buffer zone user committee members and school students. The school students found the training very useful as this kind of information is not included in their school curriculum.

Buffer zone user committee people were encouraged to scout in the poaching prone sites from where they could collect leg snares and a killed fawn.

Evaluation of the awareness was done by the knowledge assessment of the trained students. Pre- and post- training assessment revealed that there was a commendable progress in the knowledge achievement.

5. Are there any plans to continue this work?

The project implemented between February 2017 and February 2018 and focused on Langtang National Park. Himalayan musk deer are distributed in the protected and non-protected areas of wide-ranging Himalayan region. Poaching of Himalayan musk deer for musk pod is a major threat to the species. So, we have planned to extend the area of work addressing other threats as well in order to conserve Himalayan musk deer. Smart mobile phone technology to locate the site of threats and inform the concerned authorities will be applied and promoted in the next phase of the project.

Additionally, one of the project team members Mr Aasish Tripathi is doing his MSc thesis on 'population status and habitat suitability of Himalayan musk deer in Langtang National Park'. He will continue to monitor the conservation status as well.

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

We have shared the results of our work with Langtang National Park officials and local conservation committees. We also shared the identified threats of Himalayan musk deer through posters to the local people.

A journal article on 'National status of Himalayan musk deer and conservation activity' is being developed for Springer International Publishing AG. The article also includes the result and conservation progress of Himalayan musk deer in Langtang National Park.

The results will also be shared in the national level conferences and meetings.

7. Timescale: Over what period was The Rufford Foundation grant used? How does this compare to the anticipated or actual length of the project?

May 2017

Questionnaire survey regarding poaching and trading of Himalayan musk deer.

May 2017 to July 2017

Field exploration/ snares and trap collection.

August 2017

Publication of anti-poaching posters for public awareness / mapping of trading route and trap/snare locations.

September 2017

Himalayan musk deer conservation workshop with the park warden and rangers, game-scouts.

October and November 2017

Awareness programme against poaching for buffer zone user committees, school children and hunters/poachers -

February 2018

Project impact survey (knowledge assessment of the participants and trade route monitoring)

The anticipated length of the project fit with the actual 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.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Travel fare	435	440	-5	
• Vehicle hire from Kathmandu to Syafrubesi (3 times)		300		
• Porter hire from Syafrubesi to Langtang to Gosaikunda (7 days)		140		
Food and accommodation for PI, field assistants and a local assistant	3000	2954	46	
• for PI (1 for 122 days)		854		
• field assistants (3 for 90 days)		1890		
• local assistant (1 for 30 days)		210		
Himalayan musk deer anti-poaching posters (1000 copies – design and print cost)	300	300	0	
Conservation workshop at park headquarter office, Dhunche (2 days; 25 participants)	760	675	85	
Awareness programmes (216 participants)	500	648	-148	Number of participants increased than estimated.
Total	4995	5017	-22	

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

- To use latest technology (e.g. smart mobile phones) to locate the areas of threat and inform concerned authorities for immediate action.
- To extend the project area and cover large part of the country to mitigate poaching activities and other threats to Himalayan musk deer.
- To continue organising awareness raising activities among community people.
- To incorporate wildlife conservation topics in the school as an additional curriculum.

- To incorporate wildlife conservation in the operational plan of community forest user groups of national park's buffer zone.

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?

Yes, we used the Rufford Foundation logo in Himalayan musk deer conservation posters, workshop and training banners. The Rufford Foundation has been acknowledged in every sharing meetings and also in the scientific paper that will be soon submitted to the scientific journal.

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

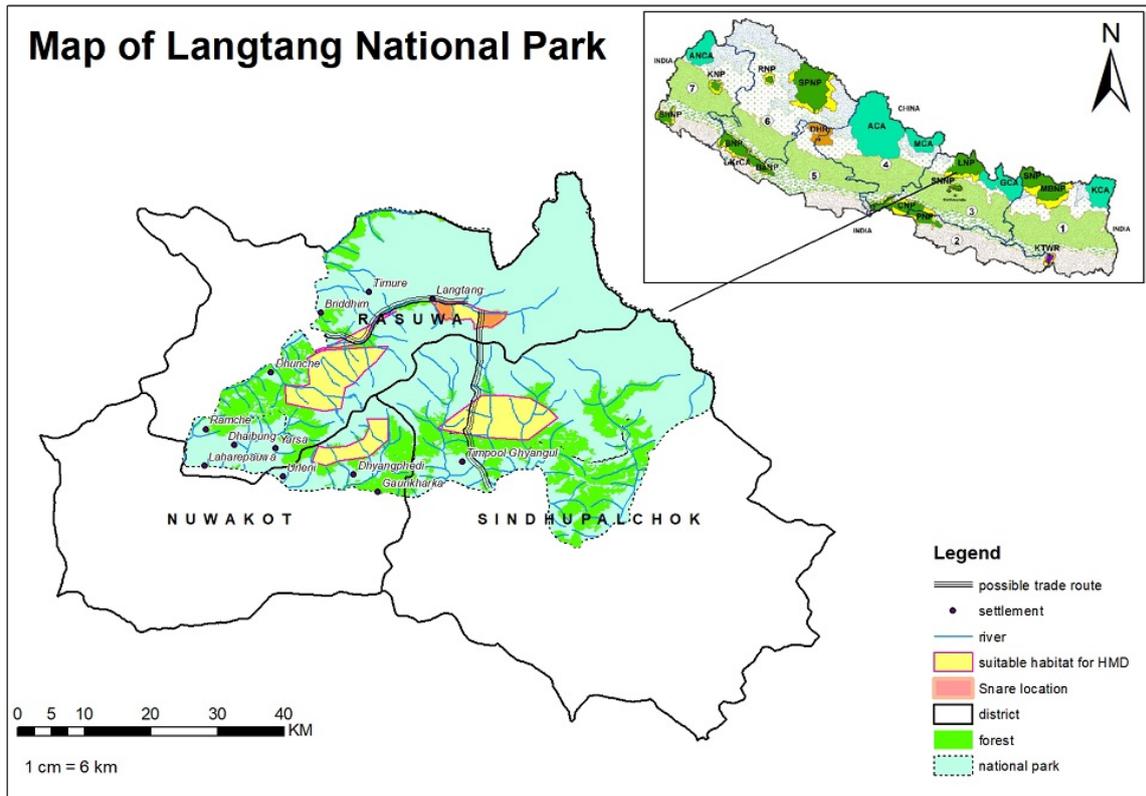
The following members were included in the project team:

1. **Mitra Pandey** (Principal Investigator): I prepared overall project activity plans and implemented them. I did meetings, workshop and trainings in the Langtang national park area. I developed GIS map locating suitable habitats of Himalayan musk deer and the place of threats.
2. **Aasish Tripathi** (Field assistant): He helped in managing all the logistics required for Himalayan musk deer habitat survey and walked with the team for 90 days looking for snares and traps.
3. **Ganesh Tripathi** (Field assistant): He was also the part of Himalayan musk deer habitat survey team noting the record of snares/traps found in the habitat.
4. **Bharat Panthi** (Field assistant): He was responsible for organizing workshop and trainings. He was also a team member for Himalayan musk deer habitat survey.

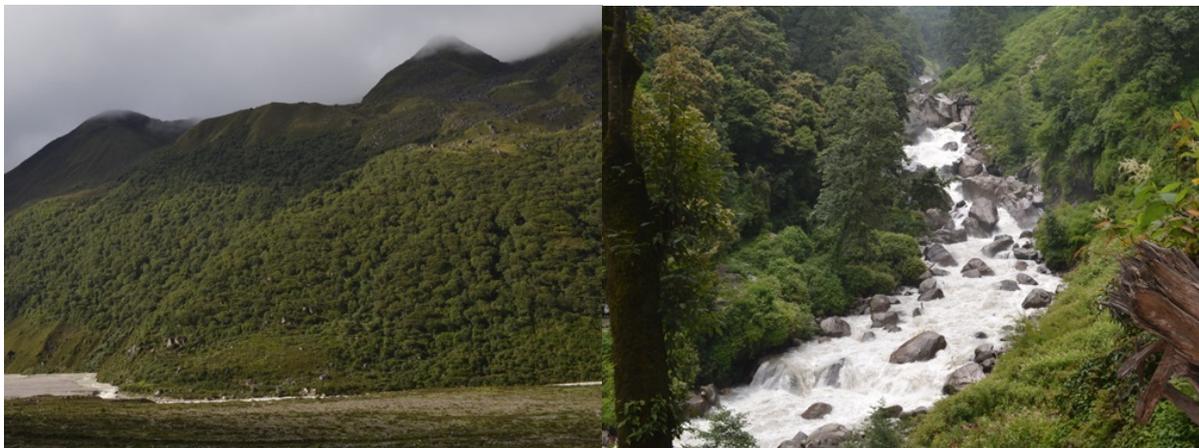
12. Any other comments?

While the Rufford project team was working for the conservation of Himalayan musk deer in Langtang National Park, a nature guide Mr Tek Gharti Magar photographed Dusky musk deer (*Moschus focus*) on 9th November 2017 in the place between Forpangdanda and Chandanbari of Langtang National Park. This species is also an endangered like Himalayan musk deer and its conservation is equally important.

Finally, I would like to thank Rufford Foundation for providing grant to help conserve Himalayan musk deer in Langtang National Park by mitigating poaching and illegal hunting through direct habitat survey, conservation awareness programme and interaction with concerned authorities.



Langtang National Park map



Musk deer habitat. ©Mitra Pandey.



Left: Musk deer conservation training to Buffer zone user committee. ©Aasish Tripathi.
Right: Musk deer workshop with National Park officials. ©Mitra Pandey.



Left: Conservation awareness programme at Timbu. ©Padam Pandey. Right: Musk deer conservation training participants. ©Shiva Gaire.



Killed fawn found at Langtang National Park. ©Tashi Nurbu Sherpa