

Final Project Evaluation Report

Your Details	
Full Name	Kiran Thapa Magar
Project Title	Status, Distribution, Threats and Conservation Initiatives of the Alpine Musk deer (<i>Moschus chrysogaster</i>) in the Api Nampa Conservation Area, Far Western Nepal.
Application ID	25908-1
Grant Amount	£4995
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1. 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
Prepare the distribution map of the species and identify the hotspots for conservation.				Based on the record of presence sign of the alpine musk deer (hereafter musk deer), the distribution map of the species was developed and identified the hotspots zone for the conservation.
Determine the current status and the habitat preference of the species				Sighting of the musk deer is extremely rare in the study area. We have sighted only three individual musk deer in the area. Considering the pellet density, footprints and resting sites, it was found that the population density of the species is moderate. Herders and local people have notion that the population of the species has been decreasing based on their past field experiences. The project also able to assess the vegetation analysis of identified musk deer habitat along with other environmental variables. Study found that musk deer mostly preferred to live in the area dominant by tree: <i>Rhododendron campanulatum</i> and <i>Betula utilis</i> , shrubs: <i>Rhododendron anthopogon</i> , <i>Juniperus recurve</i> and <i>Juniperus indica</i> and herbs: <i>Kobresia nepalensis</i> and <i>Festuca ovina</i> .
Identifying the major conservation threats to the alpine musk deer.				Poaching was found the major threat to the musk deer in the project sites. We removed 50 snares from the Channi area, Ghusa and destroyed by burning. We also informed the situation to the conservation area management authority (ANCA) and requested for further actions. Rotational grazing, habitat destruction by Yarsagumba collectors as well as other NTFPs (non-timber forest products) such as <i>Polygonatum cirrhifolium</i> , <i>P. verticillatum</i> ,

				<p><i>Neopicrorhiza scrophulariiflora</i>, <i>Fritillaria cirrhosa</i> etc. and lack of awareness were also the conservation issues found in the area.</p>
<p>Conduct conservation awareness and outreach program.</p>				<p>Conservation awareness and outreach programme was conducted at nine localities and three schools of the project sites. Conservation messages in the form of posters, leaflets and banners were distributed in the programme. Furthermore, drawing competition was also organised in the schools. Due to the influence of the programme, we have found people were aware and showed the willingness to support the conservation of species comparing to the earlier days. This indicates that people's perspective had changed due to this programme.</p>
<p>Sharing project result with conservation area officials and recommendations for the better conservation of musk deer.</p>				<p>Result sharing workshop was conducted at ANCA office, Darchula. A total of 17 participants including warden participated in the programme. In the programme, results of the study and threats to musk deer found in the field was disseminated. In addition, measures required to reduce threats to sustainable conservation of globally endangered musk deer within that area were also delivered.</p>

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

The unforeseen difficulties that arose during the project are:

- i) Obstacle by the road strike during travelling to the study sites in first field phase of fieldwork.
- ii) Difficult to assess some habitats of the musk deer due to the steepness and rugged topography.
- iii) Unfavourable weather conditions.
- iv) Hesitation of the participants during the questionnaire survey.

Due to which my tentative time schedule was extended. However, with fortitude of team, the project was completed fruitfully although, some extra time and cost was invested.

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

- With the help of locals, destroyed 50 snares targeted for the musk deer.
- Altogether 150 students and 73 local people including herders, farmers, teachers, local clubs, hoteliers, local government staff and forest user groups participated in the conservation awareness programme. The pre- and post-knowledge assessment on the participants showed an increment in the level of understanding the value of musk deer in particular and biodiversity in general.
- Better understood on status and distribution of alpine musk deer in the study area. Produced the GIS map showing the hotspots zones to the species in the study area. This information helps in monitoring and conservation of the musk deer.

4. Briefly describe the involvement of local communities and how they have benefited from the project.

Students and local people including local government staff, leaders, teachers, farmers, hoteliers and herders actively participated in the conservation awareness programme. They got knowledge about the importance of musk deer and conservation issues. In addition, they also got information regarding benefit obtained from musk deer ecotourism. Therefore, they were satisfied with the programmes and showed positive and responsive towards conservation of musk deer. Besides that, local people involved in the field survey were provided daily allowances.

5. Are there any plans to continue this work?

Yes off course. In the study sites, there is an utmost need of community-based approach to mitigate the illegal hunting of musk deer. During result sharing workshop, I have consulted with the ANCA's officials about essentiality of community-based approaches. They were very much interested about the ideas.

Therefore, I have planned to develop new project involving local communities for the long-term coordination for the conservation of the species from the area.

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

The results of this project was shared with the ANCA officials, local community forest user groups and district forest officials during the workshop. In addition, I am planning to share results of this project through presentation in different wildlife conservation organisations and universities. Furthermore, I am planning to publish the paper in peer review scientific journal to disseminate the findings of the study that will be very helpful as a reference material for future musk deer research and conservation in far western Nepal.

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

The Rufford Grant was used over the period from July 2018 to April 2019. All the activities were completed within time as designed in the timescale.

8. Budget: 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. It is important that you retain the management accounts and all paid invoices relating to the project for at least 2 years as these may be required for inspection at our discretion.

Item	Budgeted Amount	Actual Amount	Difference	Comments
Transportation	468	498	-30	
Food and accommodation	1274	1294	-20	
Allowance for field technicians	1380	1380		
Conservation Awareness Programs	948	948		
Food for participants in Conservation Awareness Programs	250	200	+50	
Organizing Sharing Workshop	245	245		
First-Aids	97	97		
Field Materials	68	68		
Communication and miscellaneous	60	60		
Expert Fee for GIS and data analysis work	105	105		
Report preparation, publication and dissemination	100	100		
Total	4995	4995		

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

The important next steps are:

- i) Involvement of local communities as key partner for the conservation of the species and their habitats.
- ii) Alternative livelihood opportunities for local people to minimise the illegal hunting of the species.
- iii) Replicate the similar assessment of musk deer in other region (Rapla and Byas) of ANCA, which is also prime habitat of musk deer.

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

Yes, the logo of The Rufford Foundation was used in the conservation awareness materials like posters, leaflets and banners. Also, The Rufford Foundation has been acknowledged in public discussion, workshop and conservation awareness programme in school and communities. The logo of Rufford Foundation will be used in upcoming scientific article.

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 involved for the successful completion of the project.

Kiran Thapa Magar

I was the principal investigator of the project. I prepared all the project activities and implemented them. I was also involved in the field survey and conservation awareness program in school and local communities.

Shanta Buda Magar

She is plant taxonomist and has considerable knowledge of the high-altitude plants of Himalayan Nepal. Her major role was to conduct scientific data collection and conservation awareness program.

Jit Singh Dhimi

He is resident of Ghusa of Api Himal Rural Municipality. He was also part of this project. He was responsible for community-based outreach program, and community group discussion.

Ram Singh Bohara

He is resident of Khandesori of Api Himal Rural Municipality. His role was selection of site for field survey and questionnaire survey.

Basanta Singh Dhimi

His role was porter.

Besides these helpful people, I had support from many expertise of the wildlife field for successful completion of the project like **Prof. Dr. Nanda Bahadur Singh, Dr. Babu Ram Lamichhane, Dr. Rajan Amin, Dr. Arjun Thapa, Mr. Pemba Sherpa, Mr. Bimal Raj Shrestha Mr. Min Bahadur Gurung and Mr. Manoj Awasthi.**

12. Any other comments?

I am truly grateful to The Rufford Foundation, UK for supporting this project. Without financial support from The Rufford Foundation, this work seems very difficult to implement in the ANCA, Far western Nepal. I look forward to receive similar support from the foundation in future as well.



Study area: Ghusa (Left) and Khandesori (Right)



Left: Noting field data. Right: Alpine Musk Deer Pellet



Focus Group Discussion (Left: Female and Right: Male)



Left: Interaction with local people. Right: Questionnaire with herder.



Conservation Awareness Program (Left: School and Right: local community).



Left: Snare at Channi Area. Right: Destroyed the snare by burning.



Livestock grazing at musk deer habitat.



Left: Collection of Khiraulo (*Polygonatum cirrhifolium*) near musk deer habitat. Right: Boiling of Khiraulo (*Polygonatum cirrhifolium*) near musk deer habitat.



Left: Drawing Competition. Right: Conservation Awareness Materials handed to teacher, Shree Himalayan Aadharbhut Vidhyalaya, Patha.



Left: Learning GPS using techniques by local guides. Right: Research Team.



Alpine Musk Deer workshop at ANCA office, Darchula.



Conservation Awareness Program at Ghusa, ANCA.