

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	Yonten Jamtsho
Project title	Prey preferences and dietary overlap between Snow leopard and Tibetan wolf in upper Chamkharchu region of Wangchuck Centennial National Park
RSG reference	16403-1
Reporting period	April 2016- May 2017
Amount of grant	£5000
Your email address	yontenjamtsho@moaf.gov.bt
Date of this report	12 th July 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. Determine the extent of livestock depredation and its effect on local livelihood				
2. Analyse prey preferences and dietary overlap of snow leopard and Tibetan wolf				

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

The challenge faced during the project was unfavourable weather conditions during field work. Due to heavy showers, the survey members had to spend more days than expected in the field.

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

The results showed 38 herders rearing 2815 heads of stock with average herd size of 74.07 with decreasing trend over the years due to depredation. As a result Choekhortoe lost 8.6% while Dhur lost 5.07% of total annual income.

Dietary analysis showed overlap between two species indicated by Pianka index value of 0.83 for Dhur and 0.96 for Choekhortoe with spatial overlap of 248 km². The prey preference for snow leopard and Tibetan wolf are domestic sheep and blue sheep respectively, where domestic sheep is an income for herders and blue sheep is important for conservation of snow leopard.

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

The total of 38 herders were involved for questionnaire survey. A well designed questionnaire with both close ended and open ended questions were used for gathering information on livestock population, depredation and income lost through depredation.

The extent of depredation and its impact on herder's livelihood is known through this study and findings will be submitted to relevant agencies for implementing appropriate conservation measures.

5. Are there any plans to continue this work?

This study indicates potential effects of both herder's livelihoods and prefer diet (blue sheep) of carnivore species. Therefore it concludes that the livestock depredation in WCNP is a serious issue which needs to be addressed through appropriate compensation and/or other conservation strategies to reconcile biodiversity conservation and socio-economic development. This is the first results of its kind, so data from seasonal variation covering spatial and temporal extend is highly recommended to determine the possible variation. There is also need to look into the spatial and temporal overlap of habitat between two predators in the study area.

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

The copy of detailed report will be submitted to park management for addressing the problem through development of appropriate conservation strategies. The two manuscripts will be developed from the report and will be submitted to any of the international conservation journals for publication. Given the opportunity, the results obtained will also be presented in various seminars, conferences and workshops.

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

Since the project was prepared in accordance with the given time scale of the foundation, it did not face any major problems.

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 and hardware (includes research materials)	800	850	-50	
Transport (includes fuel and pony charges)	1200	1100	100	
Field guides and Porter (includes per diem allowances and expenses)	1050	1050	0	
Administration (includes laboratory charges and registration fees)	950	850	100	
Food and logistics (includes all meals)	1000	1160	-160	
Total	£ 5000	£ 5200	£ -10	

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

The impact of livestock depredation by snow leopards and other sympatric carnivores such as the wolf on the local herding communities is considerable. This may activate herders to conduct retaliatory/preventive killings. Therefore, compensation for snow leopard-predated livestock through livestock insurance scheme should be implemented in the park. Compensation can change the attitude of people towards snow leopard conservation and at the same time provide income for households. For understanding more about the prey-predator relationships, scats from all seasons from multiple years should be collected and analysed to gain better understanding of the diet composition for both predators. Besides social threats, higher dietary and habitat overlap between snow leopard and Tibetan wolf is observed in study area which can affect both predators negatively. Thus a detail study has to be carried out to understand the prey density to device science based management for conservation of both species. There is also need to study extent of spatial and habitat overlap of those two sympatric predators in the study area.

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?

Yes, the logo of Rufford Foundation has been used in various posters and forms for the survey. The Foundation will be duly acknowledged if I share any pictures, information's or findings related to this study.

11. Any other comments?

I am indebted to Rufford Foundation, United Kingdom for providing me the research grant to carry out this study. I am hopeful that the foundation will keep supporting the conservation teams across the globe and in particular in developing countries where securing research grant has been the major constraint for initiating conservation works.