

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	Koustubh Sharma
Project title	Capacity enhancement for better snow leopard conservation and monitoring in Central Asia
RSG reference	13180-2
Reporting period	August 2013-July 2014
Amount of grant	£5,245
Your email address	koustubh@snowleopard.org
Date of this report	October 25, 2014

1. Please indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.
- 2.

Objective	Not achieved	Partially achieved	Fully achieved	Comments
Develop interactive presentations for a multi-level monitoring framework. Includes in-depth information about a variety of monitoring techniques such as trap camera surveys, occupancy surveys, and interviewing local communities to collect biological parameters aimed at detecting range level changes in distribution of various species.			Yes	<p>It is important for conservation practitioners, researchers and managers to be abreast about new research, methodologies being developed by scientists and conservationists across the world and technological advancements that can aid them achieve their conservation goals.</p> <p>A series of PowerPoint presentations, classroom exercises using whiteboard and excel sheets, and real scenarios based on trainees' area of expertise were prepared to help understand the concepts of threat reduction assessment based monitoring protocol.</p> <p>We also prepared several interactive presentations that could be customised for different audiences ranging from field rangers to wildlife managers and scientists, to explain the nitty-gritty of monitoring techniques. These interactive presentations were disbursed to the audiences during the training/capacity building programs, and will also become available on the web-based tool that is currently being finalised.</p>
Develop interactive presentations on snow leopard species monitoring using field-tested frameworks.			Yes	Please see above
Take trainees into the field for advanced follow-up and hands-on training in double-observer counts, camera trapping, and occupancy survey methodology.			Yes	<p>Three primary and two secondary training programs were conducted. Two primary training programmes were held in south Gobi, Mongolia. In the first training we trained field rangers, and in the second we trained wildlife managers and environment specialists from across the snow leopard range in Mongolia. The other primary training was organised in Spiti, India.</p> <p>Secondary training programmes were led</p>

				by our associates who were also trainees during the primary training. They not only provided a refresher on the training content, but also led fully-fledged field monitoring exercises with the help of our trainees.
Support the field exercises above with follow-up class time to review data management, principles, guidelines and software.			Yes	Thorough field exercises were conducted along with the training programme to provide hands on experience on using the tools and understand the field craft.
Use feedback from the training to further refine the monitoring framework tool kit.			Yes	Feedback received from the training was used to improve the training material, duration, content and details. We also hope to provide follow up training to the trainees to help build their skills further, making those active partners in conservation and field research.
Create a basic website to host presentations /information for access across snow leopard range.		Yes		The website and the web-based tool are under construction and will be completed in the next few weeks. We will send the Rufford Foundation the links to the online tool once completed. We are working closely with Amoeboids Technologies (www.amoeboids.com), an India based, web-based solution provider to develop the tool.

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

Not necessarily a difficulty during the project, but as part of the larger goals, we faced a difficult situation that was quickly dealt with, thanks to our training. Early this year, two of our key field staff got injured in separate accidents and it would have resulted in us losing an entire year's camera trapping sampling in south Gobi. However some of the rangers and biologists who we had trained last year were able to take over the fieldwork and set up camera traps in the field. This enhancement of our field capacity came as a real evidence of the impact our training programmes with grant from RSG has made.

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

a) Training tool kit, that is well integrated with a comprehensive framework for monitoring snow leopards, their prey, and conservation efforts, expanded and improved.

Support from RSG in 2010 helped me develop a tool kit to build local capacity for snow leopard conservation and monitoring in snow leopard range, Asia. The tool kit makes it possible to quickly mobilise and increase the number of practitioners available to perform and assist with monitoring.

We conducted eight basic training programmes using the tool kit in Mongolia, China, Bhutan and India.

During this granting period, I refined the tool kit before, during and after two advanced training for Protected Area management and rangers in Mongolia's South Gobi region. The follow up training by our associates who themselves were trained during the main training programmes are going to help us expand our scope of study from a few thousand to several thousand square kilometres

b) Wildlife monitoring training. This training took place in the Nemegt Mountains, south Gobi, between 15th and 30th May 2013 (19 participants), in Tost Mountains, South Gobi, on September 15th-21st 2013 (12 attendees), in Spiti, Himachal Pradesh, India, in November 2013 (subsequently taken over by our associates who followed it up until the first week of December 2013), and February 17th-18th, 2014 (36 attendees) in Dalanzadgad, south Gobi, Mongolia. All training included time in the field. The training was attended by protected area specialists (biologists, managers and rangers) and the training material was customised depending on the skill level and expectations of the trainees.

We focused on a limited number of topics compared to earlier workshops, and worked on them in much greater detail, with the help of the training tool kit that included lecturers and several hands-on exercises. Topics covered included theory and applications of monitoring framework using Threat Reduction Assessment techniques, application of Geographic Information Systems (GIS) management, monitoring and field work using Quantum GIS, Google Earth and Soviet Military Maps. We conducted a thorough snow leopard population exercise starting from setting up camera traps, retrieving cameras (set out months earlier in the field), collating photographs, identifying snow leopards, and analysing data in the mark-recapture framework.

c) Wildlife monitoring capacity significantly expanded in snow leopard habitat, Mongolia. As a result of a well-developed tool kit and the September 2013 and February 2014 training, up to 40 wildlife specialists and rangers are now able to conduct field work regarding monitoring snow leopards and their wild prey independently, and are actively implementing monitoring efforts: For example, in June 2014, nine rangers from Gobi-Gurvansaikhan National Park set up 39 trap cameras over a 1,500 km² landscape within the park. These rangers were earlier trained by us during May 2013 in setting up camera traps and conducting sign surveys in Nemegt Mountains, south Gobi.

We are continuing to refine our snow leopard monitoring and conservation tool kit and have already held follow-up training in Mongolia, Kyrgyzstan and India, all using the customisable training material. We are finding that all trainees want regular trainings of this sort. There is also strong need for specialised topics, including advanced GIS and basic statistical analysis. We are working on improving the tool kit to include these topics. Some of the trainees have even requested longer sessions and it's obvious that participants are also using the time to build social bonds—which are important for teamwork.

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

As a result of the three training sessions as part of this project, myself and my colleague, Purejav Lkhgavajav, were able to strengthen relations with protected area personnel—biologists, management and rangers primarily from the Gobi-Gurvansaikhan National Park (GGNP), South Gobi

Province, Mongolia. This park, which is one of the least funded national parks in Mongolia, is a priority site for the Snow Leopard Trust's future research, and is also included as one of the 23 landscapes to be secured under the Global Snow Leopard and Ecosystems Protection Program by the year 2020.

A high majority of park personnel who attended the training have described the training toolkit as very useful. Twenty-two park personnel have gained the skills that they need to effectively monitor snow leopard and wild prey populations in GGNP. They also have access to important monitoring equipment needs (camera traps and GPS units) that we are providing, and will be able to take advantage of follow-up trainings in the coming years.

5. Are there any plans to continue this work?

Yes. Building capacity to monitor snow leopards in multiple range countries is one of the long-time goals of my work. I will continue to refine the monitoring framework tool kit that will soon be available through the website, as well as follow up training.

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

Once the website, to disseminate information on the monitoring tool kit, is complete, the results of my work will be available to everyone. It will also be shared through Snow Leopard Network, an information exchange organisation with over 400 members, consisting of conservationists, scientists, NGO leaders, and government officials, and through Nature Conservation Foundation, India, and our partner organisation, Snow Leopard Trust. The Trust shares information on snow leopard conservation through a quarterly newsletter, monthly updates from the field and through its website.

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

My project to refine the monitoring framework tool kit and to use it for capacity building in Mongolia and other snow leopard range countries is on-going. However, the funds that the Rufford Foundation so generously provided in 2013 were expended for the south Gobi, Mongolia training on September 15th-21st 2013, and for website development.

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
International air travel for Koustubh Sharma	900	1,026	+126	
Domestic air travel, Ulaanbaatar to South Gobi, Sharma and Lkhgavajav	280	300	+20	

Domestic ground travel costs for trainees	1045	402	-643	We used our own vehicles for some overland travel so this line item is less but gas costs were higher (see line item below).
Gas	170	605	+435	See above.
Per diems x 2 (Sharma and Lkhgavajav)	335	218	-117	Only one per diem (driver Mijii). Sharma and Lkhgavajav did not require per diems.
Rent for training room	235	0	-235	We used the Snow Leopard Trust long-term study base in South Gobi with no cost.
Training materials, maps, equipment	65	180	+115	Original calculation did not include interactive maps for android devices (£90)
Food and lodging for participants, 12 rangers + Sharma, Lkhgavajav and driver	1570	1530	-40	
Website development (Koustubh Sharma hours and charges from web designers)	645	320	-325	I anticipate at least 60 hours of work for the web-based tool. The approximate cost of designing and programming should accordingly be £756 (@\$20 per hour).
Total	5,245	4,581	-664	

Calculations from Indian rupees to British pounds (100Rs = £1.00), and Mongolian Tugrik to British pounds (2980 MNT = £1.00)

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

- a. Finalise the web-based tool.
- b. Conduct follow up training once every 2 years to continue build the relationship and work force in an important snow leopard habitat.
- c. Continue to improve the existing training presentations with updated research findings and technological developments.
- d. Expand the scope of research in south Gobi landscape identified under GSLEP with the help of systematic training and capacity building of field staff.

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?

During the granting period, Rufford Foundation was acknowledged through the Snow Leopard Trust's monthly updates from the field. We also used the logo in the certificates given to the trainees. We will acknowledge RSG in the upcoming web based tool.