

Project Update: September 2013

Progress Achieved in Accomplishing Project Objectives

Objective 1: Quantification of the effects of varying levels of livestock grazing on plant community structure;

Objective 2: Quantification of the effects of changes in available plant food through varying grazing pressure on the diet of a model common herbivore, the Himalayan marmot;

Objective 3: Engagement of herders in all aspects of the work; and

Objective 4: Capacity building by developing the research skills and knowledge base of a small team of Nepali workers.

Work completed and scheduled

<i>Planned activities</i>	<i>Work completed</i>	<i>Wok remain to be done</i>
Vegetation sampling	<ul style="list-style-type: none">• Vegetation sampling conducted in two VDCs (Lomanthang and Chhonup) of Upper Mustang;• Herbaria prepared and identified at National Herbarium and Plant Laboratories in Kathmandu,• Forage availability survey conducted,• Percentage vegetation cover estimated,• Data entered in SPSS for analysis,	<ul style="list-style-type: none">• Data analysis
Forage quality analysis	<ul style="list-style-type: none">• Samples of potential forage species collected,• Samples processed and oven dried,• Dry matter percentage estimated,	<ul style="list-style-type: none">• Samples are being analysed to determine crude protein (CP), acid detergent fibre (ADF), neutral detergent fibre (NDF), acid detergent lignin (ADL) and energy• Data analysis
Marmot dietary analysis	<ul style="list-style-type: none">• 48 faecal samples were collected in spring (24) and summer (24),• Composite samples were prepared,• Samples were grounded and sieved,• 45 reference plant materials collected,• Slides of reference plant materials photographed,• Slides of spring faecal samples photographed,	<ul style="list-style-type: none">• Slides of summer faecal samples remain to be photographed,• Images of faecal samples to be compared/read with reference slides and identify plant species in marmot faeces,• Data analysis,
Capacity building	<ul style="list-style-type: none">• Local herders and community members consulted to select sites,• 7 local people trained and engaged in the field work,• 4 persons involved in lab works (plant identification, nutritional	<ul style="list-style-type: none">• Lab work is still going-on,

	analyses, diet analyses), • 3 half-day conservation workshops organized in Kimling, Dhiple and Lomanthang	
Report preparation	• Not yet started,	Remain to be done.

Difficulty encountered and corrective actions

Difficulty has been encountered in the selection of sites with varying degree of grazing. I attempted to find appropriate sites for this study but could not find comparable sites in lightly and intensively grazed pastures. I took 8 sample areas (3 replicates in each area, a total of 24 sites), all in intensively grazed pastures. So, the statistical design has been changed.

Till now, considerable progress has been made in achieving project objectives. I have collected good data on forage availability and I expect to have complete lab data by the end of November 2013. Overall, field work completed, lab work partially completed and data analysis and report preparation remain to be done.



Left to right

Marmots in Upper Mustang

Rangelands in Upper Mustang

Community engagement in marmot conservation

Livestock grazing in Upper Mustang

Alpine pastures of Upper Mustang