

Project Update: March 2008

Summary

The Ladakh region of northern India harbours an array of wild ungulates that include both ruminants and non-ruminants. Apart from these a variety of livestock also graze the high altitude rangelands of the region. The population of the wild ungulates however underwent a precipitous decline in the later part of the twentieth century largely due to indiscriminate hunting and habitat degradation associated with livestock grazing. The influx of the Tibetan refugees after the Cultural Revolution in China led to an exponential increase in livestock population, which proved detrimental to the native ungulates due to pasture degradation, interference competition and possibly disease transmission.

The present study looked at the resource use pattern of three wild ungulates *viz.*, Asiatic ibex *Capra ibex siberica*, Ladakh urial *Ovis vignei vignei* and the ubiquitous blue sheep *Pseudois nayaur* in relation to resource use by livestock. The blue sheep and ibex used the steeper terrain, while the Ladakh urial occurred in less steep areas. Amongst the three wild ungulates, blue sheep consumed the greatest proportion of monocots. More specifically, the monocot: dicot ratio in the diet of blue sheep was 16.89, followed by 12.00 in Asiatic ibex and 5.89 in Ladakh urial. The diet composition of livestock is being carried out.

I also looked at the plant distribution pattern on an altitudinal gradient both at regional and local scales. There was a humped shaped relationship between plant species richness and elevation with less number of plant species at low elevation, peaking at the mid-altitude and again declining towards the top. In conjunction with these investigations, I also assessed the abundance and diversity patterns of birds around four high altitude lakes. A total of 13 bird species were recorded in these lakes. Common Redshank was the most common (590 individuals) and the Black-necked Crane was the rarest (3 individuals). The species diversity differed significantly amongst the lakes. Tsokar was the most and Tsomoriri was the least diverse in bird species.



A herd of blue sheep moving across a slope



Two male Asiatic ibex in their preferred rocky habitat



Domestic sheep and goat grazing on the banks of Indus river



Nubra valley, home to the blue sheep and Ladakh urial



Sampling vegetation in Zangskar



A lush green meadow being grazed by domestic horses



Our campsite in the Zangskar valley



Scanning the mountain slopes for blue sheep