

Project Update: July 2017

We have successfully finished the data collection for feeding ecology of the central Himalayan langur, *Semnopithecus schistaceus* in the high altitude region (> 3000 m asl) at Rudranath field site. The langur group under study composed of five adult males, seven adult females, eight sub-adults, and six juveniles. During this study, we spent a total of 468 hours looking for and following langurs in fields. Approximately, an equal number of hours were spent searching for and observing langurs in the month of June (109 h), July (118 h), August (127 h) and September (113 h) respectively. During our study at Rudranath, we have also reported the interspecific feeding associations (IFA) between langurs and Himalayan black bear, *Ursus thibetanus laniger*. This is the first report of an IFA between langurs and bears supported by direct and indirect evidence. This IFA was specifically based on fruiting oak, *Quercus semecarpifolia*, and the sole fruiting tree species at the end of summer for both species. This IFA appears to be commensal, benefiting the bear. We have drafted manuscript of this finding which is successfully submitted to *Mammal Study* a journal published by Mammal Society of Japan. The manuscript is under review now.

The 40 vegetation plots were put up in high alpine meadows to study impact of grazing by goats at Rudranath. These plots are made out of locally available biodegradable material such wood sticks and jute ropes to minimise the impact on surrounding wildlife and environment. Due to the high grazing activities, goats have damaged the maximum number of plots which left us with only 15 plots for final harvesting. We have collected about 55 species of plants from the meadow and made a herbarium collection at field site during our studies. The herbarium collection is now at Botanical Survey of India, Dehradun for the detail studies and identification of species. As a part of ethnobotanical studies, we have successfully finished the survey of local communities from the remote high altitude villages of Dumak and Kalgot for documentation of their traditional knowledge of herbal medicines.



Figure 1. Langurs feeding on the high altitude meadows of Rudranath

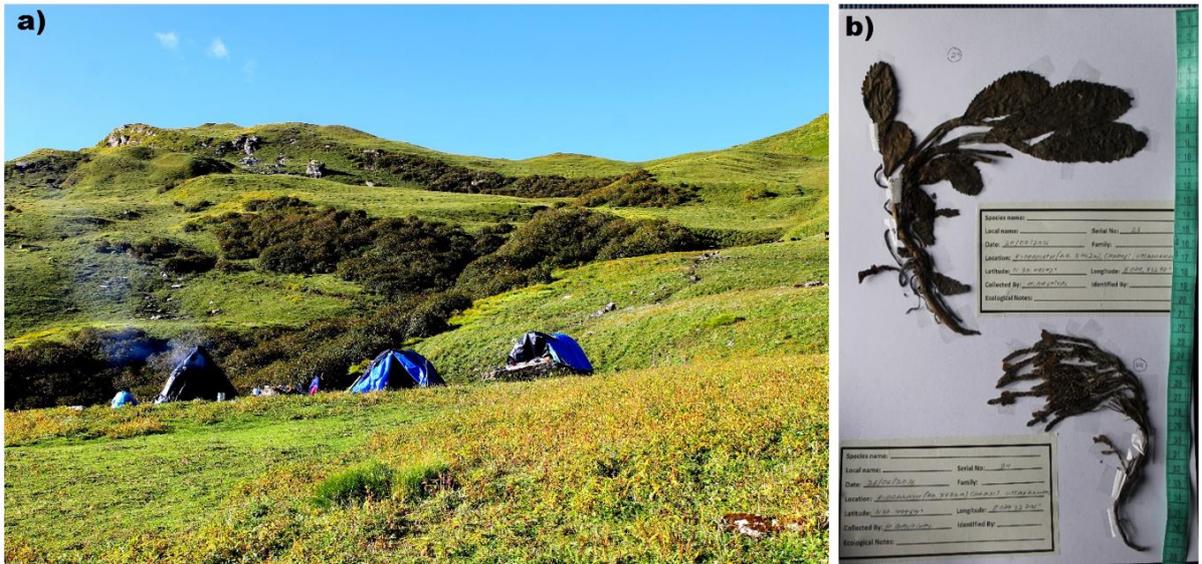


Figure 2. a) Base camp at 3500 m asl at Rudranath b) Herbarium preparation at the field site



Figure 3. a) Vegetation plots put up at Rudranath (3500 m) b) Vegetation plot damaged by the goats