

## Project Update: November 2017

### Activities

Preliminary survey of this project was conducted from September 22<sup>nd</sup> to October 12<sup>th</sup> 2017 covering approximately 90 km from Kushma of Parbat to Jomsom of Mustang district along the Kaligandaki canyon. The key objective of the survey was to identify the habitat for bats along the canyon and understand people perception and knowledge towards these nocturnal species.

Seven living stations were marked covering a whole canyon and survey was conducted through these stations. Selected living stations are as follows: Kushma, Baglung, Galeshore, Tatopani, Ghasha, Khobang and Jomsom. All of these stations are located along the Kaligandaki canyon and at an approximate distance of 13-15 km from each other. Nearly, 2 to 3 days were spent on each stations interacting with local peoples and visiting identified bat habitats. Similarly, presence or absence of bats in agriculture lands, old buildings, old temples and forest area were checked in every evening after sunset and their activities were noted.

After preliminary survey, harp trap was set up at cave entrances in all identified bat roost caves whereas mist net was set up near cave site to capture bats and baseline species profile was documented.

### Findings

#### **Caves Identified**

During our preliminary survey we managed to discover some caves that host suitable habitat for cave dwelling bats. Out of 16 discovered caves only 11 were documented to host a habitat for bats whereas remaining five were incongruous as there is absence of bat guano. Due to terrain difficulty and inaccessibility there are still 5-10 possible occurrences of caves in the area.

<b>S.N</b>	<b>Caves name</b>	<b>Locations</b>
1	Laleshore cave	Chuwa, Parbat
2	Gupteshore cave	Kushma, Parbat
3	Alpeshore cave	Kushma, Parbat
4	Parbati cave	Paana, Parbat
5	Milanchowk cave	Milanchowk, Parbat
6	Aadheri cave	Kudule, Baglung
7	Malluwa oodar	Chamere, Myagdi
8	Tara cave	Ranipauwa, Myagdi
9	Pauwa cave	Ranipauwa, Myagdi
10	Siddha cave	Pokhare bagar, Myagdi
11	Kopchepani cave	Kopchepani, Myagdi

## Species Profile

With the help of harp trap and mist netting, we have successfully captured 56 specimens of bats consisting 13 species profile. List of bats recorded along the caves of Kaligandaki canyon is enlisted below.

S.N	Name of the species	Common name	IUCN status	National status
1	<i>Rousettus leschenaulti</i> (Desmarest, 1820)	Leschenault's Rousette	LC	NT
2	<i>Cynopterus sphinx</i> (Vahl, 1797)	Greater Short-nosed Fruit Bat	LC	LC
3	<i>Rhinolophus affinis</i> (Horsfield,	Intermediate Horseshoe Bat	LC	LC
4	<i>Rhinolophus sinicus</i> (K. Andersen 1905)	Chinese Horseshoe Bat	LC	LC
5	<i>Rhinolophus pusillus</i> (Temminck, 1834)	Least Horseshoe Bat	LC	LC
6	<i>Rhinolophus macrotis</i> (Blyth, 1844)	Big-eared Horseshoe Bat	LC	LC
7	<i>Rhinolophus luctus</i> (Temminck, 1834)	Great Woolly Horseshoe Bat	LC	LC
8	<i>Hipposideros cineraceus</i> (Blyth, 1853)	Least Leaf-nosed Bat	LC	DD
9	<i>Hipposideros fulvus</i> (Grey, 1838)	Fulvus Leaf-nosed Bat	LC	DD
10	<i>Hipposideros armiger</i> (Hodgson, 1835)	Great Himalayan Leaf-nosed Bat	LC	LC
11	<i>Megaderma lyra</i> (E. Geoffroy, 1810)	Great False Vampire Bat	LC	LC
12	<i>Myotis muricola</i> (Gray, 1864)	Nepalese Whiskered Myotis	LC	LC
13	<i>Miniopterus schreibersii</i> (kuhl, 1817)	Schreiber's Long-fingered Bat	NT	LC

## Threats

Most of the people we have met had very little knowledge about bats, as many of them know them but considered them birds that fly at night. They looked surprised after we indicated they are mammals. They have had their own creepy stories about bat entering into their houses and how they used to kill them. They used to believe that when bat enters a house and roost in it something bad will happen. Thus, a major threat for bats is lack of knowledge and awareness among locals. At Kopchepani, according to Bhupendra Garbuja bats have been killed for medicinal purposes. People used to believe killing a bat on a Friday night and eating its meat can heal many diseases.

Most of the caves were associated with cultural platform where villagers used to smoke to worship the gods of their belief. Identity of Gupteshore, Alpeshore cave of Kushma, Parbati cave of Paang and Siddha cave of Pokhara bagar were given behind the name of gods and goddess. Rocky structure formed after years of weathering process inside the caves were assumed as symbol of gods by locals.

Cave tourism was observed as one of the emerging threats to cave bats; Gupteshore and Alpeshore cave was used for touristic purposes since many years whereas other being under practice. Cave modification while constructing temple and fire ignition inside Parbati cave is also frightening bats. Parbati cave is in great risk of danger as vehicle road was constructed above the cave structure and passage of heavy loaded truck and bus might destroy the cave at any time in the near future. Parbati cave is now hosting a habitat for seven species of bats out of 13 species recorded altogether.

Similarly, tree dwelling bats are also equally suffering from human disturbances. Forest fire at Kopchepani and Lete, landslide caused due to unmanaged road construction along Beni-Jomsom highway and landslides caused by Kaligandaki River itself at Baisari, Dana and near Ghasha were observed as major threats to forest bats.

### **Future Plans**

First phase of the project has been completed successfully. Yet few numbers of caves remains under study. So, next plan for project is to survey additional discovered caves in the area. Mist nets will be set up in agriculture land, water resource, river banks and forest area to capture tree dwelling bats which might boost our bat diversity in an area. Poster with key messages for conservation will be launch and disseminated among local peoples. Conservation programmes such as school teaching, drawing competition and formulation of eco-club will be conducted simultaneously.

### **Photo Plates**



Left: Landscape of study area showing Kaligandaki River. Right: Interaction with locals.



Under construction temple inside Parbati cave.



Colony of *C. sphinx* at Parbati cave.



Releasing *R. macrotis* at Alpeshore cave.