

## Project update: April 2021

### Spring season

Last year we postponed our entire field visit due to rising coronavirus cases and severe lockdown in Nepal - this time we are happy to report that our spring monitoring assessment and conservation programme in caves of Kali Gandaki canyon has been completed. Alongside data keeping of cave microclimatic conditions and bat assemblages, we conducted seminars inviting members of cave management committee of Alpeshore, Gupteshore, Laleshore and Parbati cave and concerned stakeholders, and installed conservation hoarding boards, donated conservation dustbins and distributed samples to cave management guideline in each respective cave. In addition, during long pandemic period, we also disseminated our projects via publishing research papers and sharing news through highly followed social pages.



Figure1: Cave and bats conservation seminar with cave management committees and concern stakeholders at Division Forest Office, Parbat, Nepal.



Figure2: Installed conservation hoarding board in caves of Kali Gandaki canyon.



Figure3: Donation of dustbins with key conservation message to the president of Parbati cave.



Figure4: Distribution of cave management guideline to presidents of cave management committees.

**RONB routineofnepalbanda**

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**routineofnepalbanda** New achievement for Bat ( चमेरो ) research in Nepal: For the first time, A new species of Bat called European free-tailed bat (*Tadarida teniotis*) has been found in Nepal from Kali Gandaki canyon by the team of Basant Sharma, Pushpa Raj Acharya & Rohit Chakravarty.

There are 50+ recorded species bats in Nepal as of now.

Basant Sharma, Anoj Subedi, Sanjeev Baniya, Prashant Ghimire, Bhuvan Singh Bist, Bir Bahadur Khanal Chhetri, Pushpa Raj Acharya

**Journal of Bat Research & Conservation**

ORIGINAL ARTICLE

**A Preliminary Assessment of the Caves and Bats in Kaligandaki Canyon, Western, Nepal**

Basant Sharma<sup>1,2\*</sup>, Anoj Subedi<sup>3</sup>, Sanjeev Baniya<sup>4</sup>, Prashant Ghimire<sup>5</sup>, Bhuvan Singh Bist<sup>6</sup>, Bir Bahadur Khanal Chhetri<sup>1</sup>, Pushpa Raj Acharya<sup>1,4</sup>

**ABSTRACT**

By virtue of geology Nepal harbours hundreds of caves and provides potential habitat for a large variety of bats. However, limited studies have focused on cave-dwelling bat species in Nepal. Our study along the Kaligandaki canyon - the deepest gorge in the world - aimed to explore it's caves, examine cave inhabiting bat species, and to identify any major prevailing threats to the cave fauna. Roost count surveys, evening emergence counts, harp trap and mist nets were used to assess bats using caves. Out of 20 caves, bat populations were recorded in 13, with guano evident in two additional caves. This included records of a total of 12 species across all studied caves. Cave tourism was observed to be a major threat to bats and the cave environment. Therefore, we recommend the regulation of cave tourism and a halt to tourism-related development in and around these caves.

**Keywords:** Bats, caves, cave tourism, Kaligandaki canyon, roosting behaviour

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**Journal of Asia-Pacific Biodiversity**

Short Communication

**The first record of European free-tailed bat, *Tadarida teniotis* Rafinesque, 1814, and note on probable elevational movement from Nepal**

Basant Sharma<sup>1,2,3\*</sup>, Rohit Chakravarty<sup>4</sup>, Pushpa Raj Acharya<sup>1,2,3</sup>

**ARTICLE INFO**

**ABSTRACT**

Out of the four Mallesian species from South Asia, the distribution of the European free-tailed bat, *T. teniotis* is most poorly known. This species has been occasionally reported from Afghanistan, Bangladesh, Bhutan, and India; however, no records exist in Nepal. Here we report the first record of *T. teniotis* from Nepal and comment on its possible elevational movement in the Himalaya. Active acoustic surveys were conducted in the Kali Gandaki canyon during autumn and winter seasons at two elevational zones, 800–1200 m and 2100–2500 m, in three habitat types (forest, agricultural land, and human settlements). Echolocation calls of *T. teniotis* were easily distinguished by their low frequency, shallow frequency modulation, and long duration. During autumn, the activity was recorded only at 2100 to 2500 m and varied significantly from winter activity, while *T. teniotis* was observed at both elevational zones during winter. The result confirms the presence of *T. teniotis* from Nepal. Based on our observations of differential activity at different elevation zones in two seasons, we recommend more intensive studies to confirm seasonal migration and to understand seasonal demographics along the Kali Gandaki landscape and in the entire Himalayan range at large.

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Figure5. In medias: from news to the journal papers.