

Project Update: January 2018

Cave invertebrates were assessed in various habitat types (various vegetation types, gorges, valleys, open streams, settlements, forest clearings and trails). The project team was successful in discovering diversity of cave invertebrates in Bhutan. In the long run, the team has been able to document the composition of the cave invertebrate assemblage in the caves of Khoma along with their habitat conditions.



Figure 1: Field assistant labeling specimens collected during the field data collection.

The threats such as waste disposal and landslides due to road construction were found in numerous sampling areas. Moreover mining, timber extraction, firewood collection, quarry, over grazing, and Non Wood Forest Product (NWFP) extraction were recorded in the area (Khoma).

Awareness Campaign in Khoma Community (Study Area)

The study recorded several threats and disturbances created by the local community of Khoma. The waste disposal in the habitat area were prominent in most of the locations.



Figure 2: Presentation on Conservation Importance of Cave Biodiversity made during meeting with the students and other officials.

Therefore the research team has decided and conducted the awareness campaign to the people of local community with the special focus to minimise the dumping of waste in those habitat area. In addition we have also noticed there is increasing trends of landslides due to rapid road construction across the habitat of that locality.



Figure 3: Interaction with fellow researchers and students

The team has also informed the forestry official in that park area to strictly monitor and manage the waste properly to conserve and manage environment and ultimately to conserve cave biodiversity. Therefore our research team has carried out focus group discussions with the local leaders to prevent such conservation threats as far as possible through incorporating conservation actions in strategic Local Area Plan in future.

Outreach and Education Meeting in Educational Institute

The conservation awareness was also targeted in two selected educational institution in the country i.e. Lhuentse Higher Secondary School and Khoma Lower Secondary School. The awareness and consultative meeting were also conducted with the students of BSc Environmental Studies and Climate Change and BSc Sustainable Development of the College of Natural Resources. This meeting was principally aimed at publicizing the few documented invertebrate assemblage in the caves of Khoma along with their habitat conditions.



Figure 4: (Left) Outreach and education meeting with the BSc. Environment and other interested students. (Right) Outreach and education meeting held in Khoma Gewog involving local leaders, school teachers and other officials present in the Gewog

Findings such as probable conservation threats to cave invertebrates were also presented to the audience to create better understanding of conserving cave invertebrates in future. Comparable awareness campaigns were also initiated with students of Tangmachu Central School, which is few kilometres away from study area.

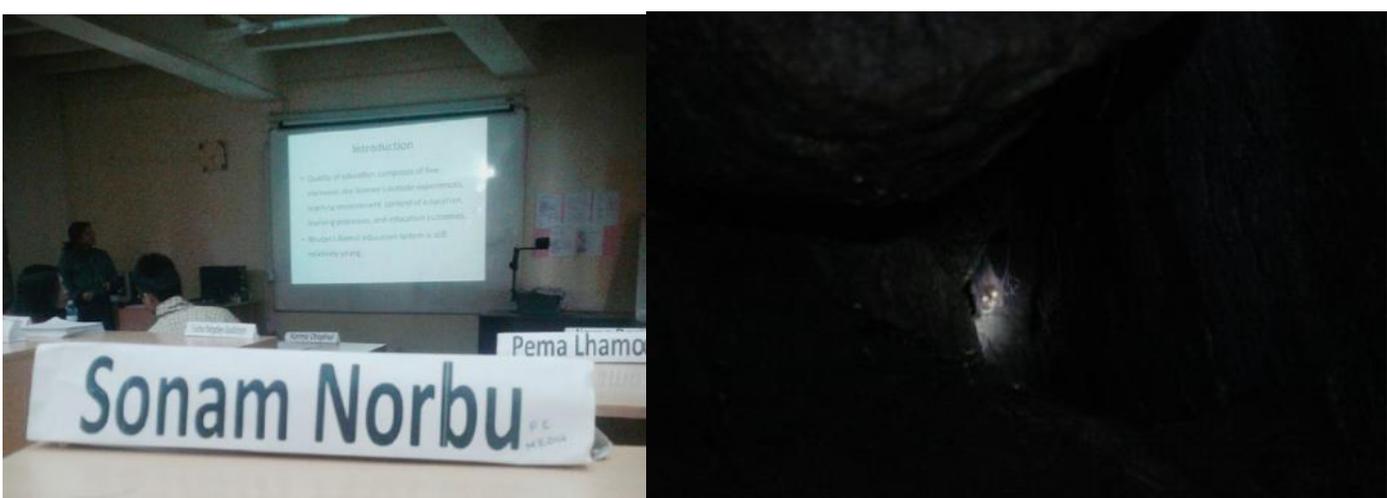


Figure 5: Participated in presentation of research findings along with other researchers. **Figure 6:**

Apart from invertebrates we came across numbers of species including bats during our field expedition.

The project team witnessed that the meeting was truly a great accomplishment as students from various grades intermingled and demonstrated much zeal and zest in collaborating their efforts towards conserving the cave biodiversity during the awareness and education campaign.