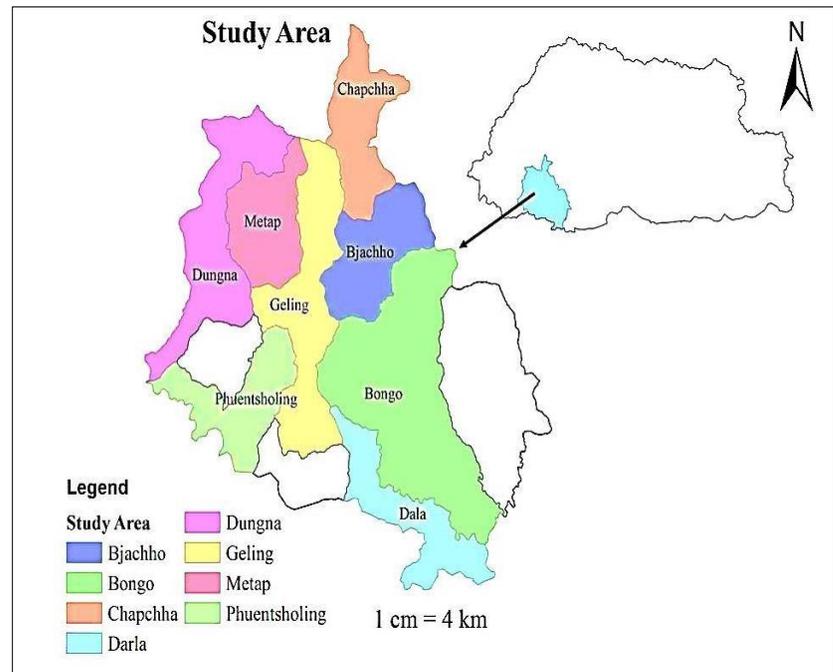


Project Update: October 2016

The first round of fieldwork to assess the species diversity of bats in Chukha District, Bhutan commenced from 16th July to 24th October 2016. To prevent the non-probability sampling, the stratified random method was applied and selected 70% of the Chukha District comprising eight administrative blocks (Bongo, Geling, Phuentsholing, Darla, Chapchha, Dungna, Metap and Bjachho). Furthermore, based on random sampling principle, 70% of villages from each selected administrative block were selected. The reconnaissance survey was completed in July, 2016 for identifying and locating roosting sites in the area. The training of local field guides and field assistants on mist netting, basic identification keys and equipment were also conducted in July 2016. To access the information on disturbances faced by bats in study area, particularly in Ganghlakha (for Blandford's fruit bat habitat), the project team also recorded the threats.



Study area showing eight Administrative Blocks under Chukha District

Results

Public awareness meeting

The first public awareness meeting with local communities were completed in the first 10 days of August 2016. The local communities were informed about the project and its objectives. The awareness meeting was focused on acquiring their social and religious beliefs, and also their opinions on bats. As the public awareness on this kind of project on bats was quite new for them, local people actively interacted and came up with varied responses before supporting this conservation approach.

Field survey

The field survey to assess vegetation preference of each species and the species diversity was carried out from 23rd August to 27th October 2016. The mist nets were set at various habitat types (forests, streams, orchards and around human habitation) as there was very limited prior information on bats of Bhutan. To avoid injury on bats the mist nets were checked every half an

hour. A total of 103 individuals of bats were captured in the first round of field work. Four different species of bats belonging to four families were recorded: eastern bent-winged bat (*Miniopterus fuliginosus* Hodgson, 1835), great Himalayan leaf-nosed bat (*Hipposideros armiger*), woolly horseshoe bat (*Rhinolophus luctus*) and Kashmir cave bat (*Myotis longipes*).



Left: *Miniopterus fuliginosus*. Right: *Hipposideros armiger*.



Left: *Rhinolophus luctus*. Right: *Myotis longipes*.

Recording of vegetation

As some species of bat has the specific habitat preference, the vegetation around trapping and roosting sites were recorded by laying quadrats of 1 x 1 m, 3 x 3 m and 10 x 10 m for herbs, shrubs and trees respectively in four directions from each trapping and roosting sites. The recorded shrubs diversity was huge although *Melastoma normale*, *Daphne bholua* and *Aconogonum molle* were the most frequent species recorded in the trapping site of *Miniopterus fuliginosus*. *Alnus nepalensis* and *Symplocos glomerata* are dominant trees recorded around roosting sites of *Hipposideros armiger*. The herbs like *Rubus ellipticus* Smith, *Fragaria nubicola* Lindl were dominant species, where trees like *Michelia champaca*, *Viburnum erubescens* and *Erythrina arborescens* were dominant in the trapping sites of *Rhinolophus luctus* in warm broadleaved forest. Herbs like *Rumex nepalensis* Spreng and *Bidens pilosa* dominated the ground cover at the trapping sites of *Myotis longipes*.



Left to right: Public awareness to the local community leaders; Trapping of bat (*Hipposideros armiger*) in its roosting site & My field assistants in the bat roosting site during my data collection.