

Project Update: April 2017

1. Field observations

The third round of field work was conducted from February 13th 2016 to April 3rd 2017. The sampling design and survey protocol remained same to that of first and second round of field work. A total of 21 individuals were trapped during third round data collection. Four different species of bats belonging to three families were captured; however one species, *Hipposideros armiger*, was the same species that was already reported in earlier project update of first round data collection. Three species namely Himalayan whiskered bat (*Myotis siligorensis* Horsfield, 1855), least horseshoe bat (*Rhinolophus pusillus* Temminck, 1834) and Blyth's horseshoe bat (*Rhinolophus lepidus* Blyth, 1844) were recorded during third round field survey. The project team partially fulfilled to rediscover Blandford's fruit bat (*Sphaerias blandfordi*) whose presence was reported in Ganghlakha from Bhutan by IUCN in 2008.

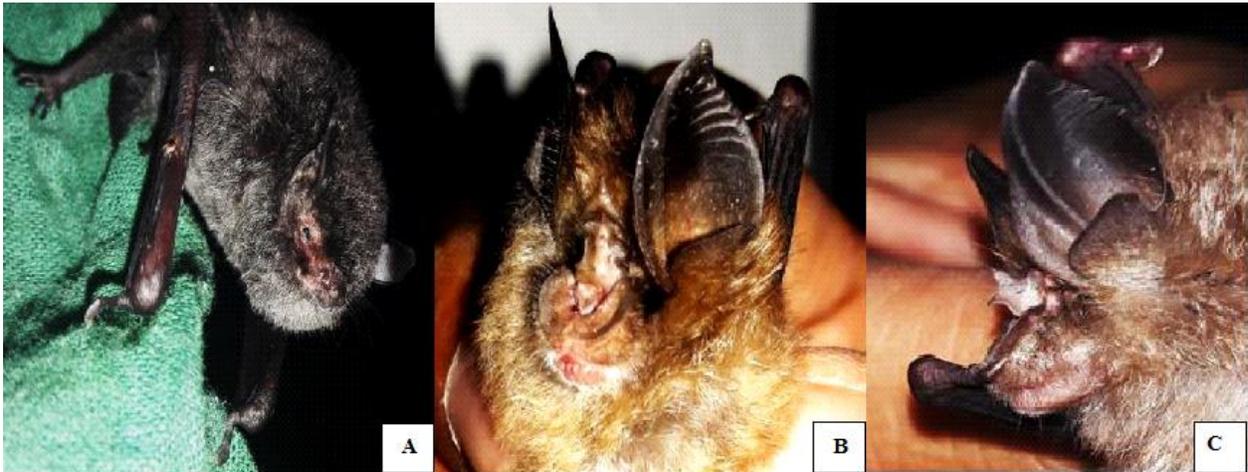


Fig. 1: A. Himalayan Whiskered Bat (*Myotis siligorensis* Horsfield, 1855), B. Least Horseshoe Bat (*Rhinolophus pusillus* Temminck, 1834) and C. Blyth's Horseshoe Bat (*Rhinolophus lepidus* Blyth, 1844).

2. Threats and disturbances

The survival of the bats in study area has been threatened by anthropogenic activities. The major threats such as timber extraction, firewood collection, and quarry and bamboo extraction were recorded in the area. People frequently visiting the religious sites such as holy cave (which is one of the bat roosting sites in the area) were observed to cause disturbances leading to bat migration. Children have been seen capturing some of the bats for their play.



Fig.2: A. Firewood collection and B. Timber and bamboo extraction in the area

3. Recording of vegetation

The plot size of 1 x 1 m, 3 x 3 m and 10 x 10 m for herbs, shrubs and trees were laid respectively in four directions from each trapping sites. Trees like *Pinus walliachina*, *quercus semecarpifolia*, *quercus griffithii*, *Michelia champaca*, *Salix babylonica* and *Symplocus ramossina* are some of the dominant species in forest habitat around the trapping sites of *Myotis siligorensis* and *Rhinolophus pusillus*. The shrubs such as *Pollygailla arillata* and *Mecea chisa* were most frequent species observed at the trapping sites of *Myotis siligorensis*. Herbs like *Percecareia rancinata*, *Argeritanum adinofora* and fern *Pteridium aquilinum* dominated the ground cover at trapping sites of *Rhinolophus lepidus* and *Hipposideros armiger*.

4. Public awareness meeting

The public awareness meeting which was divided into two levels (level 1 and level 2) has been completed successfully.

Level 1: Conservation awareness for various stakeholders

The awareness meeting with college lecturers, college students and Department of Forest and Park Services (DoFPS) has been completed. The conservation event was conducted at College of Natural Resources (CNR), Lobesa and was chaired by the head of Sustainable Development Department. The information was presented using power point presentation. The event was aimed to disseminate basic knowledge on conservation of bats and to inculcate interest in conservation work. The event was indeed a capacity building to various stakeholders on the importance and growing issues of conservation in relation to different anthropogenic activities pointing out how each stakeholder can contribute for resolving development and conservation conflicts. Further, the research finding was presented to conservation NGOs at World Wildlife Fund (WWF Bhutan programme) conference hall where seven research focal persons from RSPN and WWF Bhutan were gathered. The project team observed the conservation awareness as a success event as audience actively interacted.



Fig.3: A. Interaction session during awareness meeting and B. Presenting research findings



Fig.4: A. Research focal persons of RSPN and WWF Bhutan, B. Presenting research findings using power point presentation to research focal persons

Level 2: Community awareness campaign

The campaign was conducted in villages within Ganghlakha and was chaired by Dzongkhag Forest Officer (DzFO) of Chukha District. The Gewog forest extension officer and village leaders (Tshogpa) were also presented during the campaign. For the effective conservation of bats, awareness was mainly created to the local people who live in and around the habitat of the species. To convince them, we highlighted on the importance of bats as pollinators, seed dispersers and pest controllers.



Fig.5: A. Participation of local residents in campaign and B. Project leader with Dzongkhag Forest Officer and Gewog extension forest officer during community awareness campaign

5. Training of young forest rangers

The 56 young forest rangers including interested Animal Science students of College of Natural Resources were trained on survey techniques and skills on animal handling. They were also trained on survey protocol, equipment handling and safety issues. The training was conducted with the principal aim to impart basic knowledge and inculcate interest on bat conservation. The training was also aimed to expedite the bat conservation in Bhutan and to ensure further sustainability by sharing their experience and knowledge to a larger audience.



Fig.6: A. Trainees of College of Natural Resources who were trained for bat survey and B. Project leader training on the use of digital Vernier caliper



Fig.7: A. Training on mist net erection and handling, B. Handling Vernier caliper by



Fig.8: A. Refreshment served to trainees of College of Natural Resources, Lobesa