

# Training in Field techniques for Small mammals, Bhutan

Sonam Choden\*



Originally appeared on [http://www.moa.gov.bt/moa/news/news\\_detail.php?id=836](http://www.moa.gov.bt/moa/news/news_detail.php?id=836)

A total of 30 participants attended the training at CNR Lobesa from 7-11 September 2009. The participants were from ten national parks, territorial forest divisions, institutes and Nature Conservation Divisions. All participants were awarded certificates at the end of the training.

### Resource person for this training were

1. Dr. Paul A. Racey, Chair, IUCN SSC Chiroptera Specialist Group based in UK.
2. Dr. Mike Jordan, Chair (Europe & North Asia) IUCN SSC Reintroduction Specialist Group based in UK.
3. Dr. B.A. Daniel, Scientist and Educator, Zoo Outreach Organization, India.
4. Mr. R. Marimuthu, Education Officer, Zoo Outreach Organization, India.

The main objectives of the training were to train the forestry staff working in national parks, divisions and institutions in the following areas:

- To impart practical field techniques for ecological studies
- To reinforce and improve handling, field and lab techniques for scientific studies
- To teach captive management and welfare of bats and rodents as well as educational techniques for public education
- To discuss future directions and activities of the network in collaboration with the Specialist Groups.

### Background information on small mammals of Bhutan

Bhutan has close to 200 species of mammals, which is remarkable considering the small size of the country compared to other neighbouring countries like India. Small mammals consisting of bats and rodents form the most diverse order of mammals. There are 65 species of bats recorded in Bhutan which constitute 33 percent of all mammal taxa of Bhutan. Out of 65 species of bats, 9 species are megachiroptera or fruit bats also known as flying foxes, and the 56 species are microchiroptera belong to 5 families. The most common group of bats in Bhutan are the evening bats (Vespertilionidae) with 34 species found in Bhutan. Bats

\*National Conservation Division, Department of Forest, Government of Bhutan, Bhutan

are distributed mostly in subtropical and temperate areas between 500-3000 metres altitude above sea level. (Wangchuk et al. 2004).

There is lack of ecological information on many mammal species including small mammals in Bhutan. Their population, status, distribution and threats are largely unknown. This intensive five day training program on small mammals facilitated by experts from World Conservation Union (IUCN) and Zoo Outreach Organization, India would help equip forestry staff with the required knowledge, skills and techniques to initiate surveys to document small mammals in Bhutan. This might even lead to discovery of new species record for Bhutan.

**Small mammals training information:**  
The training on small mammals in Bhutan is being organized by the Chiroptera Conservation and Information Network of South Asia (CCINSA) representing IUCN SSC Chiroptera Specialist Group in South Asia, and Rodentia, Insectivora, and Scandentia Conservation & Information Network of South Asia (RISCINSA) representing the Rodent, & Insectivore Specialist Groups in South Asia, Conservation Breeding Specialist Group, South Asia, Reintroduction Specialist Group, S & E Asia, Zoo Outreach Organization (ZOO), Wildlife Information Liaison Development Society (WILD) in collaboration with Nature Conservation Division, Department of Forest, Bhutan. This is the first such training on small mammals to be organized in Bhutan. It is the first time Zoo Outreach

Organisation has organised training in Bhutan. The training was for the duration of five days from 7-11 September and focused on ecological field techniques and species identification.

**Participants & host comments Post workshop via email**

Thanks for your mail and appreciation that u pose on us. I get back to you with proposal on small rodents very soon. pls help me in every aspect  
**Kuenzang Dorji**, Lecturer  
Ugyen Wangchuk Institute for Conservation and Environment, Bumthang, Bhutan

I enjoyed the training. Please do bring such training for Bhutan again.  
**Jigme Tshelthrim Wangyal**, Head of Research, Bumdeling Wildlife Sanctuary, Trashiyangtse, Bhutan

It was a great pleasure meeting conservationist like you all and without your workshop Bhutan might have had remained ignorant of the subtleties of the small mammals although we have diverse species. As saying goes our commitments are your efforts for the conservation which will made a difference in this world. Whatever may be we will try our best and explore the said mammals and accordingly report to your organization without fail. We reach safely to our destination and hope same for you. I will never forget the day and night for hunting for Bats. I would like to convey my heartiest messages to Dr.Paul and Mike and Zoo Outreach for arranging wonderful field

techniques for rodents and bats. Hoping for more workshop and training in future too.

**Tenzin**  
Species Management and Research Section, Wangchuck Centennial Park, Bumthang, Bhutan

\*  
I am just preparing my work plan & project proposals to carry out rodent's survey in my division, which includes three districts. Hope everything will be fine. Thank you for imparting such training to us; we will keep in touch.

**Tashi Dendup**  
Senior Forest Ranger  
Wangdue Forest Division, Lobesa, Bhutan

\*  
It was a great pleasure for me to receive your mail. This is the positive sign that you are Showing for to work towards the conservation of small mammals in Bhutan. We will work our commitments by seeking your advice and comments wherever necessary.

**Jangchuk Gyeltshen**,  
Section Head, Research and Species Conservation Section, Jigme Dorji National Park, Damji, Gasa, Bhutan

\*  
Thanks for your support and for bringing the Small Mammal Training to Bhutan. Our participants found the training highly useful and I am sure some of them will take up studies on small mammals of Bhutan. We are committed to working together with your network of organisations and look forward to your visit in the future.

**Sonam Choden**  
Sr. Forest Officer, Nature Conservation Division



**Training in Field Techniques for Research & Conservation of Volant & Non-Volant Small Mammals**  
7 - 11 September 2009  
College of Natural Resources, Lobesa, Wangduephodrang, Bhutan

Host: Nature Conservation Division / Dept. of Forest, Royal Govt. of Bhutan  
Organisers: Chiroptera Conservation and Information Network of South Asia CCINSA  
Rodentia, Insectivora & Scandentia Conservation and Information Network of South Asia RISCINSA  
Zoo Outreach Organisation / Wildlife Information Liaison Development, India  
Sponsors: Chester Zoo, UK / Bat Conservation International, USA



Department of Forest, Ministry of  
Agriculture  
Thimphu, Bhutan

\*

The workshop conducted by your group was very useful for a small country like Bhutan where we don't have record on small mammals. I had little knowledge about small mammal and how to conduct survey and identify the species. Now, I am preparing for a presentation on our workshop to my field staff. Once more, thanks for your great services and if I had any problems on this subject I will contact you.

**Nhawang Tenzin**

Park Ranger  
Jigme Singye Wangchuk National Park  
Athang Park Range Office  
Wangdue, Bhutan

\*

I am going to present what we did in the workshop to my colleagues at Thrumshingla National Park and I will let you know what i am going to do after that. I hope to conduct identification and survey.

**Sangay Drukpa**

Park Ranger  
Thrumshingla National Park  
Ura, Bumthang

**Participants List**

Mr. Tashi Dendup,  
Forest Ranger, Wangdue Forest  
Division  
Mr. Sonam Wangchuk,  
Sr. Range Officer, Tsirang Forest  
Division  
Mr. Sangay Drukpa,  
Forest Ranger, Thrumshingla National  
Park  
Mr. Tenzin, Assistant Forest Officer,  
Wangchuck Centennial Park  
Mr. Kinga Norbu, Range Officer  
Bumthang Forest Division  
Mr. Tshering Dorji, Assistant Forest  
Officer, Paro Forest Division  
Mr. Sangay Dorji, Sr. Range Officer,  
Royal Manas National Park  
Mr. Yeshe Wangdi, Sr. Range Officer,  
Royal Manas National Park  
Mr. Kuenzang Dorji,  
Sr. Forest Ranger,  
Ugyen Wangchuk, Institute for  
Conservation and Environment,  
Bumthang  
Dr. Dhan Bdr. Gurung,  
Sr. Lecturer, College of Natural  
Resources, Lobesa  
Mr. Jangchuk Gyeltshen,  
Sr. Range Officer, Jigme Dorji  
National Park  
Mr. Kesang Dorjee,

Forest Officer, Sakteng Wildlife  
Sanctuary  
Mr. Tshering Dawa,  
Forest Ranger, Bumdeling Wildlife  
Sanctuary  
Mr. Jigme T. Wangyel  
Assistant Forest Officer Bumdeling  
Wildlife Sanctuary  
Mr. Ngawang Tenzin,  
Forest Ranger, Jigme Singye Wangchuck  
National Park  
Mr. Jamyang Tenzin,  
Sr. Ranger, Thimphu Forest Division  
Mr. Sonam Penjor, Assistant Forest  
Officer, Royal Botanical and  
Recreational Parks division  
Mr. Sherub Wabgchuk, Assistant Forest  
Officer, Royal Botanical and  
Recreational Parks division  
Mr. Sonam Wangchuk, Dy. Chief Forest  
Officer, Nature Conservation Division  
Mr. Sonam Wangdi, Forest Officer,  
Nature Conservation Division  
Mr. Norbu Wangdi, Forest Officer,  
Nature Conservation Division  
Mr. Lhendup Tharchen, Forest Officer  
Nature Conservation Division  
Mr. Kuenzang Gyeltshen, Livestock  
Officer, Nature Conservation Division  
Mr. Sangay, Assistant Forest Officer,  
Nature Conservation Division.



**Trainees practising Mist-netting and rodent trapping**

# Training in Field Techniques for Research and Conservation of Volant and Non-volant Small Mammals, Bhutan

R. Marimuthu\*

## Objectives

Main objectives of this five day training are i) to convey practical field techniques for use for ecological studies, ii) to reinforce and improve handling, field and lab techniques for scientific studies, iii) to teach captive management and welfare of bats and rodents as well as educational techniques for reaching the public and vi) To discuss future directions and activities of the network in collaboration with the Specialist Groups.

## Workshop details

The training was inaugurated by Dr. Sonam Wangyel Wang, Chief Forestry Officer, Nature Conservation Division in the presence of the chief guest was Mr. Dorji Wangchuk, Director, College of Natural Resources. A total of 22 participants attended the training from ten National Parks, Territorial Forest Divisions, Education Institutions and Nature Conservation Division. The syllabus of the five day training included the following: introduction to bats Rodents and Insectivores; introduction to field techniques for bats and rodents, standard techniques in inventory and monitoring - temperate, sub-

tropical, desert field techniques; identification of habitat and sampling methodologies of bats and rodents; catching animals - sherman traps, pit-fall traps, tree traps, etc.; field practice traps and techniques for bats - ground mist nets, harp traps, sub-canopy nets, flick hooks, c) getting bitten, d) first aid kits; care of nets and traps; animal handling (i) Identifying animals in the field (ii) identification, use of keys, taking skin samples for DNA analysis; (iii) reproductive status; (iv) age; (v) recording data; and feces (bats); Ethics of bat trapping and field studies, and marking techniques - cyalume lights, reflective tape on wings, radio-tracking, identifying bats from echolocation calls; identification of fauna; Reference collections around the world - use of, how to access electronically; building reference collections; lab practical in preservation; tissue collection and preservation for bio-analysis using museum specimens; recording morphological and osteological measurements; key taxonomic characters of Rodents and Chiroptera: survey protocol; Conservation Planning - Planning and designing combined Volant/ Non-volant mammals field study and Conservation Action

Programme for Threatened Small Mammals Ecological surveys - dietary studies: role of rodents and bats as pollinators and seed dispersers; Rodents and Insectivores / Bat Conservation; Conservation through interactive management - Captive Breeding and exhibition in Zoos/ Ex situ conservation and reintroduction programmes for both bats and rodents handled by Paul A. Racey and Mike Jordan.

Apart from this special talk was delivered by Sonam Choden who spoke about the Nature Conservation Division and the ongoing projects. Mr. Jigme Tshelthrim Wangyal gave a presentation on Herpeto-Fauna of Bhutan from his research work in Bumdeling Wildlife Sanctuary followed to this.

At the end a panel discussion was held. Paul Racey, Mike Jordan and Daniel answered participants questions. Participants asked about the required equipment for survey, how to network the survey throughout Bhutan, what are health hazards handling the animals and its prevention,

*\*Education Officer, ZOO, Coimbatore, TN.  
marimuthu@zooreach.org*



**Dr. Sonam Wangyel Wang, Chief Forestry Officer, Nature Conservation Division delivering his inaugural address**

**Dr. Paul Racey explaining methods to capture bats using Harpnet**



funding agencies, equipment suppliers or manufacturer addresses, the places to take-up research in Bhutan. The participants were invited to become a member of CCINSA and RISCINSA. Participants concluded that there should be depository for equipment in one place rather than at different places; the NCD

already has some equipments. Sonam Choden said that the training was very useful and they will definitely take a lead surveying the population bats and rodents in Bhutan soon. On behalf of Sally Walker, the Chair of CCINSA and RISCINSA, Daniel thanked the sponsors for providing funding to conduct this

five day event. The programme was closed with the issue of certificates. A few days following the workshop, a proposal for surveying the small mammals of the entire country was prepared, a sign of success of the workshop.

*Trainees learning and practising hands-on techniques*

