

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

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

The first training in field techniques for research and conservation of Volant and Non-volant Small Mammals for Bhutan was held at the College of Natural Resources, Lobesa, Wangdue Phodrang, Bhutan from 7-11 September 2009. The five day training was hosted by the Nature Conservation Division, Department of Forest, Bhutan and organized by Chiroptera Conservation and Information Network of South Asia (CCINSA) and Rodentia, Insectivora, and Scandentia Conservation & Information Network of South Asia (RISCINSA)



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

which run by Zoo Outreach Organization (ZOO) / Wildlife Information Liaison Development Society (WILD). The whole event was sponsored by the Chester Zoological Gardens and Bat Conservation International. The resource persons were Dr. Paul A.

Racey, Chair, IUCN SSC Chiroptera Specialist Group and Dr. Mike Jordan, Chair (Europe & North Asia) IUCN SSC Reintroduction Specialist Group. Dr. B.A. Daniel and R. Marimuthu of Zoo Outreach Organization coordinated the workshop.

Bhutan has about 200 species of mammals. There are 65 species of bats recorded in Bhutan which constitute 33 percent of all mammal species of Bhutan. Forty species of rodents are recorded in Bhutan, constituting 20 percent of the total mammal species of Bhutan.



**Dr. Mike Jordan introducing traps to capture rodents**

Irrespective of very high diversity of small mammals, studies with regard to its distribution and ecology is very scanty. Hence this training was organized.



**Mist netting training for capturing bats**

## 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

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Participants learn to checking traps, sexing and marking exercise for rodents

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 filed 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, 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.

**Participants are practising field techniques**



**Participants with resource persons, organiser and collaborators**

