

Chapter 8

Small Mammals

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Summary

We recorded a total of 33 small mammal species including seven shrew, two bat, 19 rodent and five lagomorph species. We obtained 16, 14 and 18 small mammal records from Danba, Kangding and Yajiang, respectively. In Danba County, 16 species of small mammals were found. Most species documented at this site are distributed only or mainly in China. Among species recorded were several species listed as threatened according to the 2007 IUCN Red List, most notably Salenski's shrew (*Chodsigoa salenski*) listed as Critically Endangered and the Greater stripe-backed shrew (*Sorex cylindricauda*), listed as Endangered, both observed only in Danba County during this survey. In Kangding County, 14 small mammal species were documented, including eight species distributed uniquely or mainly in China. Fewer species of small mammals were documented at this site compared to the other sites, perhaps due to higher levels of human disturbance. In Yajiang County we captured 18 species, including the first record of the Shangdong small shrew (*Crocidura shantongensis*) for Ganzi Prefecture, a new subspecies of Qinghai vole (*Microtus fuscus*), and range extensions for the Greater brown vole (*Eothenomys miletus*) in Yajiang County. Prior to the RAP survey, we predicted that this site would have the lowest biodiversity of small mammals but the result show that this site had a diverse and interesting community of small mammals.

Introduction

Western Sichuan, located in the Himalaya-Hengduang Mountain Range, is situated within the Mountains of Southwest China, designated by Conservation International as one of 34 global Biodiversity Hotspots (Mittermeier et al. 2004). Ganzi Canton, which makes up a large part of western Sichuan Province, includes 18 counties. As few biodiversity surveys have been conducted in this area, few records exist for the small mammal fauna. In total, 58 species of small mammals have been recorded in Ganzi Canton prior to this RAP survey (Bainan S. 1982).

Small mammals play an important role in the ecosystem, particularly in their roles as prey for carnivorous animals and as seed dispersers. Reliable surveys enhancing our knowledge of the current small mammal distributions and their conservation status throughout Western Sichuan are urgently needed. Small mammal diversity of a given area cannot be exhaustively assessed within the short period of sampling per site typical for a Rapid Assessment Program (RAP) survey. Small mammal trapping results can nevertheless indicate how much of a forest community of small mammals still exists, or to what extent non-forest species have already invaded isolated forests or forest edges. In the areas surveyed, small mammals included insectivores (Order Insectivora), rodents (Rodentia), bats (Chiroptera) and pikas (Lagomorpha).

Methods

Collecting methods included pitfall and snap trapping, as well as mark-recapture techniques in Danba County only. We sampled at different elevations to investigate a broad range of habitats, placing traps at a variety of elevations and in different vegetation types to sample the diversity of small mammals present.

We collected small mammals in different habitats using the mousetrap-capture method. One mousetrap was placed every 5 m along a transect, and each transect was 15 m apart from one another. To increase the capture rate, mousetraps were placed in front of holes or along paths showing evidence of use by small mammals.