

## Bat Diversity at Ikh Nart Nature Reserve, Mongolia

Hannah S. Davie<sup>1</sup>, James D. Murdoch<sup>1</sup>, Nandin-Erdene Naran<sup>2</sup>, Jargalsaikhan Ariunbold<sup>2</sup>, Sodnompil Batdorj<sup>3</sup> and Richard P. Reading<sup>4</sup>

<sup>1</sup>University of Vermont, Rubenstein School of Environment and Natural Resources, Wildlife and Fisheries Biology Program, George D. Aiken Center, Burlington, Vermont 05405 USA, Tel: +1 802 473-2761, e-mail: hdavie@uvm.edu

<sup>2</sup>Mongolian State University of Education, Ulaanbaatar, Mongolia.

<sup>3</sup>Mongolian Academy of Sciences, Institute of Biology, Mammalogy Laboratory, Ulaanbaatar, Mongolia.

<sup>4</sup>Denver Zoological Foundation, Department of Conservation Biology, 2300 Steele Street, Denver, Colorado 80205 USA

### Abstract

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**Correspondence:**

hdavie@uvm.edu

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Bats represent one of the least studied mammal groups in Mongolia, and little is known about the distribution and ecology of species in the country. We surveyed bats in Ikh Nart Nature Reserve, which lies at the intersection of two ecozones in Mongolia, to determine the species present and obtain preliminary data on habitat associations. We conducted mist net surveys at 9 sites, including 4 at natural springs, 2 at human-made wells, and 3 at sites without water, from June to August 2011. We captured 149 individuals representing 3 species, *Myotis aurascens*, *Eptesicus gobiensis*, and *Vespertilio* sp. One species, *E. gobiensis*, represents a new record for the reserve. We captured all three species at sites near natural springs, only one species, *M. aurascens*, at human-made well sites, and no bats at sites without water. We also collected basic morphometric measurements for *M. aurascens* and *E. gobiensis*. Analysis of morphometric measurements for *M. aurascens* indicated some sexual dimorphisms. Our results provide a baseline estimate of bats in Ikh Nart and suggest that bat diversity is greater than previously thought. Our results also validate the presence of *E. gobiensis* and suggest that the species we captured associate mainly with natural water sources.

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### Introduction

Very little is known about the distribution and ecology of Mongolia's fourteen extant bat species (Dolch *et al.*, 2007; Nyambayar *et al.*, 2010). Biologists have surveyed bats in some parts of the country, including sites in Arhangai, Bayanhongor, Bulgan, Darhan-Uul, Dundgovi, Khovd, Huvsgul, Umnugovi, Uvurhangai, Selenge, Tuv, and Zavkhan aimags (Dolch *et al.*, 2007; Nyambayar

*et al.*, 2010). Results of these surveys form the basis for current species distribution estimates (Clark *et al.*, 2006). Distribution maps have also been inferred from the distribution of potentially suitable habitats. However, details on the basic habitat associations of Mongolia's bats remain poorly studied, limiting inferences, effective management, and conservation planning.