

Home Range Characteristics and Habitat Selection by Daurian Hedgehogs (*Mesechinus dauuricus*) in Ikh Nart Nature Reserve, Mongolia

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Abstract

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We examined home range characteristics and habitat selection of Daurian hedgehogs in Ikh Nart Nature Reserve, Mongolia. Home ranges of hedgehogs varied from 113.15 ha to 2,171.97 ha, and were larger in early summer than late summer. Hedgehogs showed relative preference for rocky outcrops and low-density shrub habitats, and relative avoidance of high-density shrub areas. Habitat selection also changed between early and late summer, shifting to greater use of low-density shrub areas and decreased use of forb-dominated short grass. Our baseline data on home ranges and habitat selection expand understanding of hedgehog ecology and provide guidance for future management decisions in Ikh Nart Nature Reserve and elsewhere in Mongolia.

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Introduction

Daurian hedgehogs (*Mesechinus dauuricus*) are insectivores found in eastern Mongolia and adjacent areas of Siberia and China (Stubbe *et al.*, 2008). Researchers have studied several aspects of European hedgehog (*Erinaceus europaeus*) ecology (Reeve, 1982; Boitani & Reggiani, 1984; Micol *et al.*, 1994; Doncaster *et al.*, 2001; Riber, 2006), but less ecological

research has focused on Daurian hedgehogs. All hedgehogs share a number of anatomical features, such as spines, the orbicularis muscle, and a body-plan described as 'basic' (Reeve, 1994), but behaviors and ecological requirements of populations vary among species and environmental conditions (e.g. food availability, predator density, human impact on the landscape,