

FIRST RECORD OF THE LEAST WEASEL IN THE BLACK HILLS OF SOUTH DAKOTA—

The least weasel (*Mustela nivalis*) is a circumboreal species, occurring in North America from Alaska to the Appalachian Mountains (Jones et al. 1983). In the Great Plains, the least weasel recently expanded its range southward through Nebraska (Benedict et al. 2000) and Kansas (Choate et al. 1979, Bailey and Terman 1986) into Oklahoma (Clark and Clark 1988). Also, in recent decades, the least weasel has expanded from eastern and central Nebraska into western Nebraska (Benedict et al. 2000). In South Dakota, least weasels have been previously reported from the eastern 3/4 of the state (Jones et al. 1983, Higgins et al. 2000). Herein, I document the first record of the least weasel in the Black Hills of South Dakota, representing the western-most distributional record for the state.

On 7–8 July 2010, I captured two least weasels during a study of the distribution and abundance of the Bear Lodge meadow jumping mouse (*Zapus hudsonius campestris*). The study site was located 16.1 km southeast of Custer along an un-named creek paralleling Forest Service Road 336 in Custer County, South Dakota. This creek is a part of the headwaters of Beaver Creek, which flows southeast through Wind Cave National Park. On 6 July 2010, I set 100 folding Sherman Live Traps (7.6 × 8.9 × 23 cm) at 10-m intervals along four, 240-m transects. Two transects paralleled opposite sides of the creek and two ran perpendicular from the creek to the southwest. I baited the traps with a mixture of cracked corn, oats, wheat and molasses and checked them each morning for 3 consecutive days. All procedures were approved in advance by the Institutional Animal Care and Use Committee (IACUC) at Dakota Wesleyan University (approval no. 102). Voucher specimens were deposited in the Sternberg Museum of Natural History (MHP), Fort Hays State University, Hays, Kansas.

On 7 July 2010, I captured a subadult male least weasel (MHP no. 39055) approximately 170 m downstream of a small stock pond along the creek (43° 38' 53.935" N, 103° 32' 34.759" W, elevation 1552 m). Measurements of this specimen included total length (175 mm), tail length (30 mm), ear length (22 mm), hind foot length (10 mm), and condylobasal length (30.9 mm). On 8 July 2010, an adult male least weasel (MHP no. 39056) was captured about 20 m upstream of the stock pond (43° 38' 55.445" N, 103° 32' 38.784" W, elevation 1548 m). Measurements of the adult male included total length (208 mm), tail length (36 mm), ear length (26 mm), hind foot length (11 mm), and condylobasal length (33.3 mm). Both specimens lacked the distinct black tip found on the end of the tail of ermine (*M. erminea*) and showed no sign they were missing part of their tail.

The riparian zone where both specimens were captured was approximately 100-m wide and dominated by quaking aspen (*Populus tremuloides*), willow (*Salix* sp.), poison ivy (*Toxicodendron rydbergii*), and smooth bromegrass

(*Bromus inermis*). Adjacent upland areas were dominated by ponderosa pine (*Pinus ponderosa*) with little to no understory.

Other species captured included the deer mouse (*Peromyscus maniculatus*), white-footed mouse (*P. leucopus*), southern red-backed vole (*Clethrionomys gapperi*), and long-tailed vole (*Microtus longicaudus*). I captured 37 deer mice were captured on this site, which was the greatest number of small mammals that I trapped across 8 study sites in the Black Hills during summer 2010. Least weasels are specialist predators on small mammals (Sheffield and King 1994) and local irruptions are known in the Northern Great Plains during periods of high prey density (Swanson and Fryklund 1935, Lokemoen and Higgins 1972). Sheffield and King (1994) suggested these irruptions are due to a high dispersal rate and the ability of *M. nivalis* to increase the number of litters and the proportion of females giving birth during periods of high prey density.

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