

Use Of Low Elevation Habitats By Bighorn Sheep In Nebraska

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Abstract: The reintroduction of bighorn sheep (*Ovis canadensis*) to historically native ranges has been an ongoing effort throughout the United States. The assessment of suitable habitat for a species is a vital part of successful reintroduction to an area. Nebraska rangelands that could previously support bighorn populations may be inadequate at present because of increased tree density, livestock use, and habitat fragmentation. The Audubon subspecies, *O. c. auduboni*, was once native to western Nebraska but became extinct in the early 1900's. The low elevation terrain it inhabited in Nebraska lacked some of the characteristics of more typical, modern, bighorn sheep ranges. Rocky Mountain bighorn sheep (*O. c. canadensis*) were successfully reintroduced to the Pine Ridge area of northwestern Nebraska in the early 1980's. This population will be studied to determine bighorn sheep use of these unique low elevation habitats. Habitat use by male and female groups will be investigated from January 2002 through August 2002 and again from January 2003 through August 2003. Lambing habitat will be identified and compared with the model parameters developed by Forbes and Merchant (1998). Lamb production and survival will also be documented. Diet analysis and lungworm levels will be determined from fecal samples collected from the study area. This study will provide information that will be key to continued management of Nebraska bighorn sheep and will aid in future reintroduction efforts.