

## Species of Habitat Fragmentation Concern

**Species:** Greater Sage-Grouse (*Centrocercus urophasianus*)

**Habitat Preference:** Year-round resident in North Dakota. Sagebrush (*Artemesia* spp.) obligate species, primarily big sagebrush but Silver sagebrush and rabbitbrush utilized to a lesser extent (Hagen et al 2005). Summer habitats may include riparian and upland meadows, irrigated and non-irrigated croplands and pasturelands (Hagen et al., 2005; Schroeder et al., 1999). Leks (i.e., mating areas) are situated on broad ridgetops, grassy swales, disturbed sites (such as burns), and dry lake beds and typically have less herbaceous and shrub cover than surrounding habitats (Schroeder et al., 1999). Nests in relatively thick vegetative cover dominated by big sagebrush but occasionally grasses and/or other species of shrubs are used (Hagen et al., 2005; Schroeder et al., 1999). Sagebrush is essential for survival of this species; sagebrush dominates diet during late autumn, winter, and early spring (Schroeder et al., 1999).

**Habitat Fragmentation Concerns:** Species of Conservation Priority in North Dakota (Level II; Hagen et al., 2005). Vast areas of historical Sage Grouse habitat have been altered; habitat loss and degradation are the primary explanations for the range-wide reduction in distribution and populations of Sage Grouse (Connelly and Braun 1997, Schroeder et al., 1999). Nest abandonment, either directly or indirectly, from human activity ranges from 0.0% to 21.3% and is most likely when nests are disturbed early in incubation period (Schroeder et al., 1999). Mining activity, oil wells, livestock, or military activity may adversely influence display activity when disturbances are near breeding areas; increased level of noise may be a primary factor (Schroeder et al., 1999). Candidate Species for listing under the Endangered Species Act



Credit: US Fish and Wildlife Service



**Map of Species Range in North Dakota**  
Source: Hagen et al., 2005

### General Review Literature:

- Connelly, J. W. and C. E. Braun. 1997. Long-term changes in Sage Grouse *Centrocercus urophasianus* populations in western North America. *Wildl. Biol.* 3:229-234.
- Hagen, S.K., P.T. Isakson, and S.R. Dyke. 2005. North Dakota Comprehensive Wildlife Conservation Strategy. North Dakota Game and Fish Department. Bismarck, ND. 454 pp.  
<http://gf.nd.gov/conservation/cwcs.html>
- Schroeder, M. A., J. R. Young and C. E. Braun. 1999. Greater Sage-Grouse (*Centrocercus urophasianus*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: Ornithology; Retrieved from the Birds of North America Online: <http://bna.birds.cornell.edu/bna/species/425>

Additional Species Management Information: <http://www.npwrc.usgs.gov/resource/literatr/grasbird/grsg/grsg.htm>