

Project Highlight – SD State Wildlife Grant

Project Type Research and monitoring

Title Past and current vegetation conditions of core sagebrush habitat and leks of the Greater Sage-Grouse (*Centrocercus urophasianus*) at the easternmost extent of its range in western South Dakota

In a nutshell Historical sagebrush vegetation and lek data collected by SDGFP and BLM biologists from 1992-1993 were discovered by SDGFP wildlife biologist Shelly Deisch. These data allowed an analysis of previous conditions and a comparison with present vegetative conditions at the original sites.

Relevant Species of Greatest Conservation Need

- Greater Sage-Grouse (*Centrocercus urophasianus*)
- Sagebrush lizard (*Sceloporus graciosus*)
- Short-horned lizard (*Phrynosoma hernandesi*)

Relevant Habitats sagebrush steppe

Purpose

- Summarize available sagebrush steppe vegetation data that have been collected in western South Dakota from 1992 to 2012
- Develop a baseline dataset to document past and current vegetation condition and trend of sagebrush steppe habitat, particularly vegetation characteristics that may be important for sage-grouse
- Examine and compile information about sagebrush habitat restoration methods

Timeframe October 2011 – April 2013

Location western South Dakota (Butte, Harding and Fall River counties)

Summary or Important Findings

- All data indicated a decline in sagebrush during the past 2 decades
- Grass composition change was indicated by the replacement of taller bunchgrass species (C3 grasses) with shorter stature sod grasses (C4)
- Sagebrush declined in height, canopy cover, frequency, and visual obstruction readings
- Forb cover declined, although forb height appeared to increase
- Appropriate sagebrush restoration strategies are discussed

Best contact person Shelly Deisch or Dave Ode, SDGFP

More Information

Mergen, D. E., C. J. Corley, and S. Deisch. 2013. Past and current vegetation conditions of core sagebrush habitat and leks of the Greater Sage-Grouse (*Centrocercus urophasianus*) at the eastern most extent of its range in western South Dakota (Butte, Harding and Fall River Counties, SD). Final report to South Dakota Game, Fish and Parks for T-51-4-1. 110 pp.