

Greater Sage-Grouse Overview

Centrocercus urophasianus

The Greater Sage-Grouse is the largest grouse species in North America. It is 22 to 30 inches tall and can weigh up to 6 pounds. Males are larger than females and feature a white chest and black throat (Figure 1). The Greater Sage-Grouse is classified as a resident species and managed by states as a native game bird. Sport hunting is allowed and regulated in many states.



Figure 1. Male Greater Sage-Grouse.

Greater Sage-Grouse males gather in the spring on communal breeding grounds, known as leks. There they conduct an elaborate courtship display for groups of females. Females lay their eggs in ground nests, usually placed in association with some vertical structure, such as overhanging sagebrush or grass cover. Nest sites are selected independently of lek location. Only females incubate the eggs over the course of 25 to 29 days before chicks hatch. The chicks leave the nest with the female shortly after hatching and follow her around while feeding on insects and plant material.

Greater Sage-Grouse depend on relatively large expanses of sagebrush-dominated habitat.

Individual birds can move over large ranges, with migratory movements often more than 12 miles and annual home ranges more than 230 square miles. The importance of the total amount and arrangement of habitats is unknown.

The current distribution of Greater Sage-Grouse populations extends across 11 states and part of two Canadian provinces. About half of the species' historic distribution is currently occupied. The largest populations and most important regions are primarily in the central portion of the sage-grouse range.

Sage-grouse populations are monitored each spring by counting the number of males present on leks. There are no reliable estimates of total abundance of individual sage-grouse. Changes in number of males on leks and number of active leks have been used to estimate population status and trends.

Fragmentation and loss of sagebrush habitat are the primary threats to Greater Sage-Grouse. The Sage-Grouse Conservation Area (Figure 2), which was delineated to include the historic sage-grouse range, covers approximately 120 million acres in 14 states: Washington, Oregon, California, Idaho, Nevada, Utah, Arizona, Montana, Wyoming, Colorado, New Mexico, South Dakota, North Dakota, and Nebraska. Over 70 percent of these lands are in public ownership. Of that, the Department of the Interior's Bureau of Land Management is responsible for half of the current sagebrush habitats used by Greater Sage-Grouse.

The cumulative effects of disturbance, land use, and invasion of exotic plants have had a significant influence on sagebrush ecosystems. Effects of fire, land conversion, urbanization,

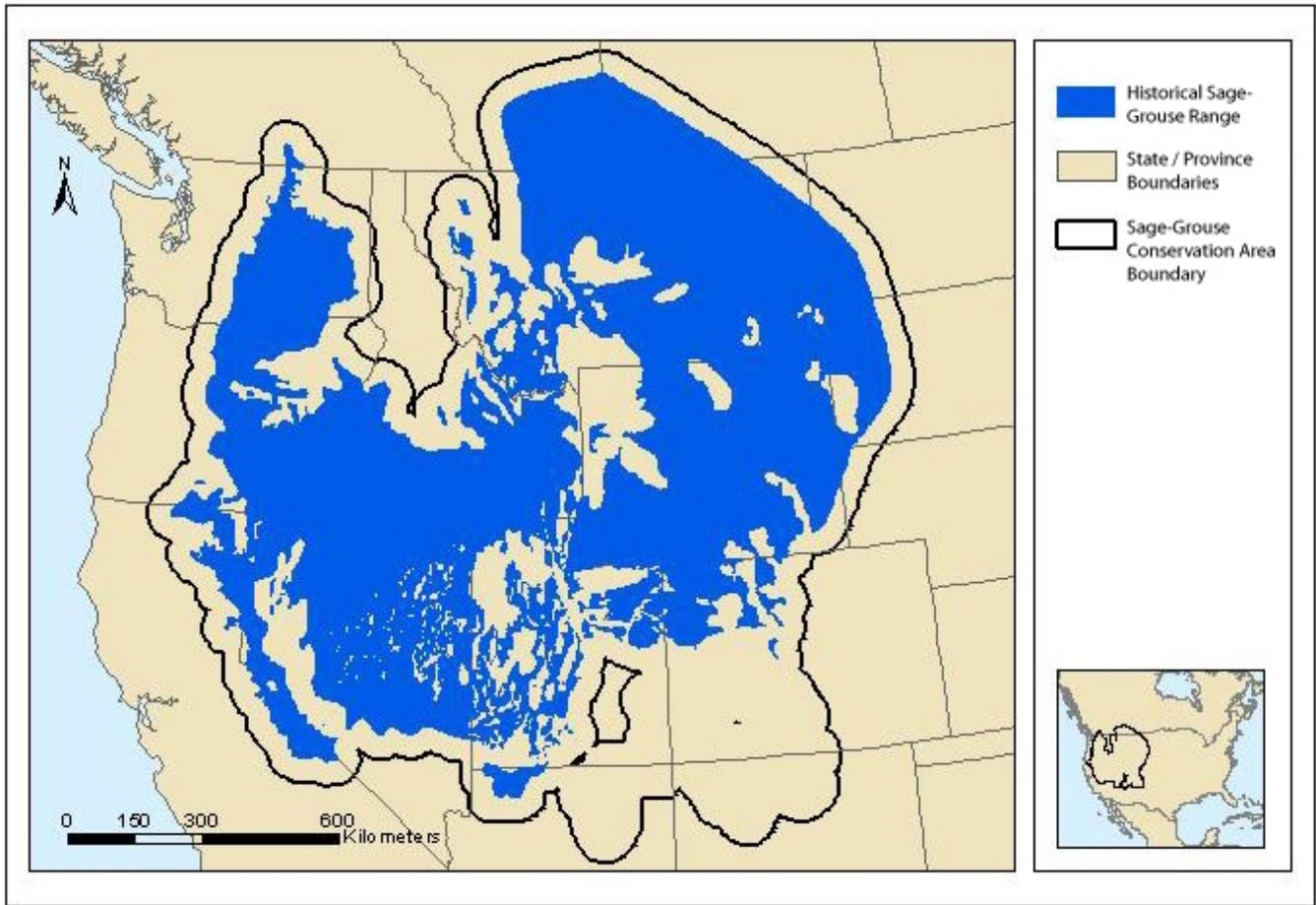


Figure 2. Greater Sage-Grouse Conservation Area.

human population growth, livestock grazing, energy development, and other factors vary across the sage-grouse range but often interact to produce a cumulative outcome. Cheatgrass and other invasive plants are of particular concern because of their ability to alter ecosystem processes, for example, shortening the cycle of disturbance by fire.

Information about sage-grouse and sagebrush habitats can be found in the conservation assessment (Connelly et al. 2004) produced by the Western Association of Fish and Wildlife Agencies. Updated information will be available in the science series *Studies in Avian Biology*, which is in preparation by the Cooper Ornithological Society for publication by the University of California Press.

Reference Cited¹

Connelly, J.W., S.T. Knick, M.A. Schroeder, and S.J. Stiver, 2004, Conservation assessment of greater sage-grouse and sagebrush habitats, Unpublished report, Western Association of Fish and Wildlife Agencies, Cheyenne, Wyoming, 610 pages. Available at <http://sagemap.wr.usgs.gov/>.

Contacts

Steve Knick, Ecologist
208-426-5208
steve_knick@usgs.gov

Carol Schuler, Center Director
541-750-1030
carol_schuler@usgs.gov
<http://fresc.usgs.gov/>

¹ Additional information from 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: <http://bna.birds.cornell.edu/bna/species/425>.