



# Southwest Regional Gap Analysis Wildlife Habitat Relationship

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**ID** 2348      **Model Name** SWReGAP -2  
**Taxa code (ITIS)** -2  
**Scientific Name**  
**Common Name** GUNNISON SAGE-GROUSE  
**Created By** thamer      **Last Modified By** cmettenbrink  
**Date** 2/3/2004      **Date** 7/13/2005 3:20:06 PM  
**Sensitive Data**

**Model Description** Gunnison Sage-Grouse POSSIBLE WEIGHTED OVERLAY MODEL  
Centrocercus minimus  
Entire Range  
LAND COVER OR HYDROLOGY

**Background** The Gunnison Sage-Grouse (*Centrocercus minimus*) is a relatively new species of grouse that has been taxonomically separated from its close relative the Greater Sage Grouse (*Centrocercus urophasianus*). The Gunnison Sage Grouse occurs in eight isolated populations in which the largest (>3000) occurs in the Gunnison Basin, CO. Other populations occur in Montrose, Mesa, San Miguel, and western Dolores counties in Colorado (Young et al. 2000). One population of about 150 birds occurs in southeastern Utah in San Juan County (Young et al. 2000). The breeding population is fewer than 5,000 individuals range wide (Young et al. 2000). This species has been listed as a species of special concern by the Colorado Division of Wildlife and is being petitioned to be listed on the Federal Endangered Species list.

Habitats for the Gunnison Sage Grouse are similar to its close relative the Greater Sage Grouse. Because very little data has been collected on the habitat for Gunnison Sage Grouse, conservation plans often describe those habitats for Great Sage Grouse, which are very similar. Habitat requirements for sage grouse differ by seasonal use. These uses are separated into four categories: (1) breeding habitat; (2) summer-late brood-rearing habitat; (3) fall habitat; and (4) winter habitat. Breeding habitats include leks, nesting sites, and early brood-rearing habitats. Leks are traditional display grounds that occur in the same locations yearly. They are located in small open areas adjacent to stands of sagebrush (*Artemisia* spp.) with 20% or greater canopy cover (Klott and Lindzey 1989). Openings may be natural or artificial such as small burns, irrigated pastures, or roads (Connelly et al. 1981). Lek sites are typically flat to gently sloping with low vegetative structure with good visibility. Gunnison Sage Grouse prefer to nest under sagebrush with a mean height of 15-22 inches (Young 1994, Apa 2004). Good quality nesting habitats consist of live sagebrush with 20% or more canopy cover and substantial grasses and forbs in the understory (Connelly et al. 2000). Grass heights range between 5-13 inches (Connelly et al. 2000). Apa (2004) found that Gunnison Sage Grouse in southwest Colorado

prefer nesting sites with grass cover of 25% and forb cover of 18%. Early brooding habitats are similar to nesting habitats. The size of the area used depends on the interspersion of sagebrush types that provide food and cover. Depending upon precipitation and topography in upland sites, females may move broods to wet meadows or riparian areas where within sagebrush habitats where forbs and moisture are abundant (Connelly et al. 1988, Fischer et al 1996).

During the summer and late brooding, sage grouse will move to areas with a greater variety of mesic habitats (Patterson 1952). By late summer and early fall, Gunnison Sage Grouse can be observed in agricultural fields (Commons 1997). Mid to late fall, they prefer areas of more dense sagebrush with 20% or more canopy cover with a forb understory before moving to wintering ranges (Connelly et al. 1988).

Wintering habitats depend upon snow depth and the availability of sagebrush. Sagebrush is used almost exclusively for both food and cover. Gunnison Sage Grouse use sagebrush habitats with 25% or greater canopy cover and 12-16 inches tall (Schoenberg 1982). Roosting areas are found in lower flat areas and shorter sagebrush along ridge tops (report). During the winter, Gunnison Sage Grouse will forage in drainages and on south and west facing slopes in the Gunnison Basin (Hupp and Braun 1989).

The elevation for this species depends upon seasonal habitat uses. For the entire life cycle of the Gunnison Sage Grouse, this grouse resides in sagebrush habitats between 1676 to 2895m (Righter et al. 2004).

**Description Changes** Added N80,S091, S093 and streams for hydrology from recommendations from experts at the Colorado Comprehensive Wildlife Conservation Strategy workshop

## Relationships

<b>Elevation</b>	1676 - 2895;
<b>Slope Min</b>	n/a
<b>Precipitation</b>	n/a
<b>Temperature</b>	n/a
<b>Soil Depth</b>	n/a
<b>Aspect</b>	n/a
<b>Landform</b>	n/a
<b>Distance to Water</b>	0 - 100m from Permanent Streams
<b>Soil associations</b>	n/a

**Mountain Ranges** n/a

**Ecological System** S054 Inter-Mountain Basins Big Sagebrush Shrubland  
S055 Great Basin Xeric Mixed Sagebrush Shrubland  
S056 Colorado Plateau Mixed Low Sagebrush Shrubland  
S071 Inter-Mountain Basins Montane Sagebrush Steppe  
S078 Inter-Mountain Basins Big Sagebrush Steppe  
S079 Inter-Mountain Basins Semi-Desert Shrub Steppe  
S091 Rocky Mountain Subalpine-Montane Riparian Shrubland  
S093 Rocky Mountain Lower Montane Riparian Woodland and Shrubland  
S118 Great Basin Foothill and Lower Montane Riparian Woodland and Shrubland  
S128 Wyoming Basins Low Sagebrush Shrubland  
N80 Agriculture

### **Citations**

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