# California Wildlife Habitat Relationships System
## California Department of Fish and Game
## California Interagency Wildlife Task Group

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GREATER SAGE-GROUSE *Centrocercus urophasianus*
Family: PHASIANIDAE Order: GALLIFORMES Class: AVES
B137

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DISTRIBUTION, ABUNDANCE, AND SEASONALITY

The Greater Sage Grouse is an uncommon permanent resident in northeastern California, ranging from the Oregon border along the east side of the Cascade Range and Sierra Nevada to northern Inyo County. Lassen and Mono cos. have the most stable populations. Found in greatest abundance in a combination of sagebrush, perennial grassland or wet meadow, and water. Bitterbrush and alkali desert scrub also commonly present. Males from several square miles gather at traditional strutting areas (leks) in late winter and early spring. These leks are located on patches of bare ground surrounded by sagebrush stands of moderate canopy. Some population movements may occur in winter.

SPECIFIC HABITAT REQUIREMENTS

Feeding: Adult feeds primarily on sagebrush in winter, and on forbs and insects (mostly ants and grasshoppers) in other seasons. Chick feeds on insects (Savage 1969). Moist meadows are important for foraging.

Cover: Open areas within sagebrush communities are needed for courtship displays. Continuous sagebrush stands are required throughout the year.

Reproduction: Open areas among shrubs are needed for strutting displays during courtship. Fairly open stands of sagebrush are needed for nesting. The nest is a shallow scrape with a thin lining of plant material; often placed under sagebrush.

Water: No data on water needs found, but typically found near water.

Pattern: Lives in sagebrush stands exclusively during winter and spring, but highly dependent upon meadows for green forbs and insects in summer.

SPECIES LIFE HISTORY

Activity Patterns: Yearlong, diurnal activity.

Seasonal Movements/Migration: A permanent resident in California, but seasonal movements of unknown distances may occur. In Idaho, some flocks moved 48-96 km (30-50 mi) in winter (Dalke et al. 1963).

Home Range: No study of home range in California found. In Montana, home range in winter varied from 10.6 to 32.4 km² (4.1 to 12.1 mi²) (Eng and Schladweiler 1972). Brood home range was 36.4 to 85.2 ha (91-213 ac), varying with season and habitat. Daily movements of males between strutting grounds and resting/feeding areas were up to 1.8 km (1.1 mi) in Montana, and at least 1.4 to 1.8 km (0.9 to 1.3 mi) in Colorado; males moved between strutting grounds 0.5 to 6.9 km (0.3 to 4.3 mi) apart in Idaho (Airola 1980). Distance

from nest to strutting grounds ranged from 0.8 to 4.8 km (0.5 to 3 mi) in Montana (Wallestad and Pyrah 1974), 1.6 to 8 km (1-5 mi) in Oregon (Batterson and Morse 1948), and 0.06 to 13.6 km (0.04 to 8.5 mi) in Colorado.

Territory: A very small territory defended during lekking; 18-28 $m^2$ (200-300 $ft^2$) in Montana (Wiley 1969).

Reproduction: Breeds from mid-February to late August. Peak strutting period March-April. Nesting and brooding period May-July. All males in a local area gather to display (lek) during the early breeding period. Breeding polygamous; a few dominant males do most of the mating. Clutch size 5-13; average 7-8. Incubation period 25 days. Female cares for young. Young fly first at 7-14 days (Terres 1980).

Niche: Numbers have declined in recent decades from habitat loss and over-grazing. Herbicide spraying in the vicinity of strutting areas is detrimental (Klebenow 1970). Spraying strips of decadent sagebrush can improve habitat at high elevations with high precipitation (Autenrieth 1969), but at lower elevations, with lower precipitation, this habitat management can be detrimental.

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