

## **Columbian Sharp-tailed Grouse Factsheet**

**Species Name:** Columbian sharp-tailed grouse, *Tympanuchus phasianellus columbianus*

**Morphology:** Columbian sharp-tailed grouse are between 41.7 and 47 cm long. Adult males weigh between 660 and 760 grams, while females range between 595 and 710 grams. Their tail is wedge shaped. Columbian sharp-tailed grouse are patterned with white, buffy, tawny brown, and blackish barring and spotting on the upper body. Spotting is abundant on the wings. The breast and sides are white and buff, with several v-shaped markings that fade towards the abdomen, while the back is dark brown. Males have a pink or pale violet air sac on each side of the neck, as well as yellow superciliary combs, both of which enlarge during display.

**Breeding characteristics:** The dance of the Columbian sharp-tailed grouse is one of the most awesome animal spectacles in the west, and is sacred to various native groups who mimicked the dance in their rituals. Columbian sharp-tailed grouse congregate on leks in the spring to mate. Leks are ancestral strutting grounds used by the same population of Columbian sharp-tailed grouse year after year, and are found on flat, relatively clear areas. Males arrange themselves on the lek with a few central males, surrounded by concentric rings of peripheral males. They “dance” to defend their territory and attract nearby females. Males strut, push their tails upward, inflate their air sacs, strut, stamp their feet and “jump” into the air. Mating on the lek is non-random, with the most central, dominant males on the lek doing most of the mating.

**Habitat and life history:** Columbian sharp-tailed grouse occupy shrub-steppe, mountain shrub, and riparian habitats in the intermountain west region of the United States and Canada. They occupy different habitats at different times of the year, and habitat is selected primarily on the basis of structural characteristics such as height and density of vegetation, and secondarily on floristic characteristics such as species composition and diversity. They have recently been found to make use of lands enrolled in the Conservation Reserve Program in some states. Spring through fall activities are based around the lek site. After breeding, females build nests under shrubs or grasses, incubating eggs for 21-24 days. After hatching chicks eat mostly insects and remain with their mothers in broods for 6-8 weeks. Columbian sharp-tailed grouse remain in shrub steppe habitats until the onset of snow, when they form small flocks and move to either riparian or mountain shrub communities where vegetation remains above the snow line. Their average life-span is about three years.

**Natural History:** Columbian sharp-tailed grouse were once described as “the most abundant gallinaceous bird in the intermountain region”. They were first described by Lewis and Clark on the plains of the Columbia River, and early pioneers described flocks of thousands that “darkened the sky” when they flew.

**Historic Range:** Historically, Columbian sharp-tailed grouse ranged from the steppe and shrub steppe habitats of the Great Basin, from the Rocky Mountains to the Cascades and Sierra Nevada, including southeastern British Columbia, Northwestern California,

western Colorado, much of southern and western Idaho, western Montana west of the Continental Divide, eastern Oregon, central Utah, eastern Washington, northern and western Nevada and south-western and south-central Wyoming.

**Current Range:** Currently, populations of Columbian sharp-tailed grouse exist in northern Washington, northeastern Nevada, western Idaho, south central Idaho, southeastern Idaho, northern Utah, south-central Wyoming, northwestern Colorado and central British Columbia. They are estimated to occupy less than 10% of their historic range (Figure 1).

**Population Status:** There is no historic estimate of Columbian sharp-tailed grouse population numbers. However, it was described as “the most abundant gallinaceous bird in the intermountain region”, which would mean that populations were greater than that of the sage grouse, thought to once number ~2 million birds. Today, it is estimated that approximately 58,000 birds remain, with the vast majority in southeastern Idaho.

**Reasons for Decline:** A combination of factors acting in concert are responsible for the declines in Columbian sharp-tailed grouse population and range. Excessive hunting is reported to have contributed to early declines. Extensive agricultural cultivation, livestock grazing, hunting, herbicidal and mechanical treatments that remove deciduous shrubs and trees in riparian zones, pesticide application on croplands, loss of riparian and mountain shrub habitats, rural development, dam construction, altered fire regimes, and forest encroachment into grasslands and shrublands as the result of fire suppression have all been cited as reasons for the decline of Columbian sharp-tailed grouse. Habitat loss and degradation due to extensive agricultural cultivation and excessive grazing are considered to have had the most deleterious effects.

**Current Threats:** Habitat conversion due to agriculture, intensive grazing, dependence on artificial habitats created by the Conservation Reserve Program, mechanical and chemical alteration of habitat, pesticide and insecticide application, loss of riparian areas, altered fire regimes, fire, rural development, invasion of non-native species, both excessive and accidental hunting, inbreeding/reduced genetic fitness, and road and power line construction are all considered to threaten the continued survival of Columbian sharp-tailed grouse. A disturbing new development is the discovery of West Nile Virus in sage grouse, causing a 25% reduction in survival of affected populations. While not yet detected in Columbian sharp-tailed grouse, this disease may have a dramatic effect on populations.

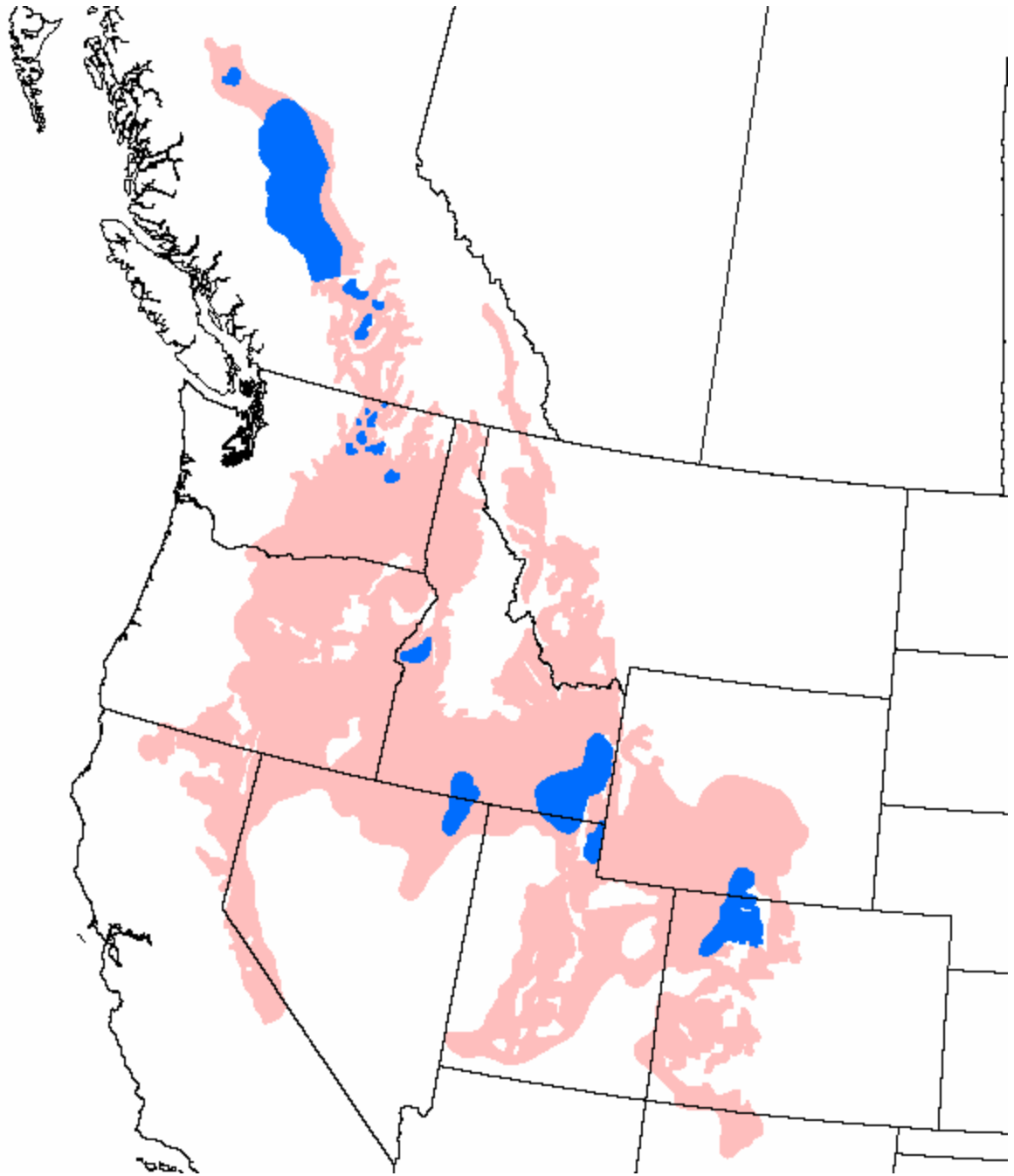


Figure 1. Historic (pink) and Current (Blue) Distribution of Columbian Sharp-tailed Grouse. (Data provided by Schroeder 2003)