

### **Greater Sage-grouse**

The Greater sage-grouse (*Centrocercus urophasianus*) was first described in 1805 by Lewis and Clark during their exploration of the West. In 1946, the species was separated into two different subspecies by biologist John Aldrich. The separation was based on color differences in 11 museum specimens. The “western subspecies” (*C. urophasianus. phaios*) included populations in Washington State, central Oregon, and northeastern California. The “eastern subspecies” (*C. urophasianus urophasianus*) encompassed the remainder of the greater sage-grouse range (Aldrich 1946; see the map of subspecies). Populations in the Sierra Nevada range of California and northwestern Nevada were subsequently identified as an intermediate between the eastern and western subspecies.

Because individual birds from both subspecies freely crossed the boundary between them, and most game bird biologists were unable to identify any differences in behavior or ecology, the subspecies designation was questioned. Preliminary genetic studies in the early 1990’s did not find any differences between the subspecies (Drut 1994). However, sample sizes in these initial studies were small, precluding any definitive conclusion. A subsequent survey, which sampled 332 individuals from 16 different populations in California, Nevada, Oregon and Washington, found no genetic evidence supporting the subspecies designation (Benedict et al. 2003). The American Ornithologist’s Union, the official organization tracking and recording bird taxonomy, acknowledged that the subspecies differentiation within sage-grouse should be re-examined, but due to time constraints, their review may be several years in the future. Therefore, the U.S. Fish and Wildlife Service made the determination in 2002 that we would no longer recognize the two subspecies of the greater sage-grouse based on genetic and ecological data. The Service now considers greater sage-grouse to be one species across its range.

### **Gunnison Sage-grouse**

Wings collected in the Gunnison Basin of Colorado (west central portion of the State) by the Colorado Division of Wildlife for hunting information were observed to be much smaller than sage-grouse wings collected from anywhere else in the State. Research conducted in the 1980’s found that the Gunnison Basin birds differed significantly from all other sage-grouse in their plumage, morphology and behavior. A genetic analysis of these birds also found significant differences. Therefore, in 2000, sage-grouse from 6 counties in Colorado, and one county in Utah were designated as a separate species (*Centrocercus minimus*) (Young et al. 2000). Due to restricted habitat and low population numbers, the Gunnison sage-grouse is a candidate for listing under the Endangered Species act of 1973, as amended.

### **Sage-grouse Names**

When the Gunnison sage-grouse was separated from the greater sage-grouse, there was extensive discussion regarding a common name for the rest of the species. While many alternatives were discussed (e.g. northern sage-grouse), the official name is the greater sage-grouse. However, many individuals continue to use alternative common names. Sage-grouse is hyphenated to emphasize the importance of sagebrush to this species.

## References

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- Benedict, N.G., S.J. Oyler-McCance, S.E. Taylor, C.E. Braun, and T.W. Quinn. 2003. Evaluation of the Eastern (*Centrocercus urophasianus urophasianus*) and Western (*Centrocercus urophasianus phaios*) Subspecies of Sage-Grouse Using Mitochondrial Control-Region Sequence Data. *Conservation Genetics*. University of Denver, Denver, Colorado.
- Drut, M.S. 1994. Status of Sage Grouse with Emphasis on Populations in Oregon and Washington. Audubon Soc. of Portland, Oregon. 43 pp.
- Young, J.R., C.E. Braun, S.J. Oyler-McCance, J.W. Hupp, and T.W. Quinn. 2000. A new species of sage-grouse (Phasianidae:*Centrocercus*) from southwestern Colorado. *Wilson Bulletin* 112(4): 445-453.