

Rocklage, A.M., F.B. Edelman, and V.R. Pope. 2003. Distribution of Sage and Sharp-tailed Grouse in Hells Canyon and Transmission Line Corridors Associated with the Hells Canyon Complex. Technical Report, Appendix E.3.2-8, Hells Canyon Complex. Revised July 2003 Idaho Power Company.
http://www.idahopower.com/pdfs/Relicensing/hellscanyon/hellspdfs/techappendices/Wildlife/e32_08.pdf

Abstract: The objective of this study was to determine the presence and status of sage grouse (*Centrocercus urophasianus*) and Columbian sharp-tailed grouse (*Tympanuchus phasianellus columbianus*) in the Hells Canyon Study Area and within transmission line rights-of-way associated with the Hells Canyon Complex. Within Hells Canyon, sage and sharp-tailed grouse historically occurred only in shrub-steppe habitats adjacent to and immediately upstream of Brownlee Reservoir. Searches, therefore, were restricted to this area, called the Brownlee Reservoir Survey Area, which was divided into 4 Lek Search Units (LSUs): the Oregon Northern and Southern LSUs and the Idaho Northern and Southern LSUs. In April 1996, we conducted lek searches by helicopter in the Brownlee Reservoir Survey Area. We covered approximately 1,230 km² (475 mi²) of suitable habitat, using 25 hours of helicopter time. In April 1998, we conducted 12 hrs 40 min of helicopter searches within the Transmission Line Survey Area. Search efforts focused on a 0.5-km buffer around approximately 652 km (405 mi) of transmission line rights-of-way. We detected no sage or sharp-tailed grouse leks in either the Brownlee Reservoir or Transmission Line survey areas. We cannot conclude, however, that these species no longer occur in these areas. First of all, incidental observations and historic leks of both grouse species on the study area suggest they are present in low numbers. Second, although searches were conducted to maximize detection of grouse (e.g., early morning hours with good visibility), many factors may have contributed to results. Low population densities, time of day, disturbances, and weather could have influenced detectability of grouse during these surveys. Hence, we recommend multiple surveys within and among years to more accurately determine the presence of sage and sharp-tailed grouse in the Brownlee Reservoir Survey Area and transmission line rights-of-way.