

Commons, M.L., R.K. Bayback, and C.E. Braun. 1999. Sage-grouse response to pinyon-juniper management. USDA Forest Service Proceedings RMRS-P-9. pages 238-239.

Abstract-The response of Gunnison sage grouse (*Centrocercus minimus*) to management of pinyon-juniper (*Pinus edulis* - *Juniperus* spp.) was studied in southwestern Colorado during 1994 through 1997. Near Crawford, CO, numbers of male sage grouse using leks within 100 m of live pinyon-juniper were depressed because of increased raptor presence and predation associated with coniferous trees/shrubs. Removal, by cutting, of pinyon-juniper trees/shrubs in association with brush-beating to reduce height of mountain big sagebrush and deciduous brush resulted in doubling numbers of male sage grouse counted on treatment leks in years 2 and 3 post treatment. Clearing of young age classes of pinyon-juniper that have spread into sagebrush shrub-steppe appears to have great merit for enhancing sage grouse use of treated areas through increased survival, productivity, and recruitment. This is especially significant in management of small populations of sage grouse in highly fragmented habitats which may be locally threatened with extirpation.