



Active Vegetation Management for Sagebrush-Grass Community Resilience and Wildlife Diversity

J. Kent McAdoo, Brad W. Schultz and Sherman R. Swanson; University of Nevada Cooperative Extension;
Contact Author Email: mcadook@unce.unr.edu

Currently, bioregional historians, along with some ecologists, contend that modern management and restoration of plant communities should be both historically- and ecologically-grounded. There is mounting and often over-looked evidence that Native Americans Indians before European settlement actively managed sagebrush-grass communities, primarily with fire. The authors maintain that, based both on this prehistorical precedent and current unprecedented conditions of continuous high fuel loads and extensive exotic weed invasion, active management of sagebrush-grass communities on a landscape scale is necessary. Such active management, using prescribed fire and/or fire surrogates parallels Aldo Leopold's philosophy about using the axe, plow, cow, and fire as land management tools. Properly planned and implemented on a landscape scale, active management would disrupt fuel continuity and ensure plant community resilience after inevitable wildfires. But the implications to wildlife of such active vegetation management must be considered. Wildlife species in sagebrush-grass communities have diverse habitat requirements. Some species, like sage sparrows, require considerable sagebrush canopy cover, while other species, like sagebrush voles, prefer areas with greater perennial grass cover. We anticipate that creating a mosaic of habitats with multiple-aged stands of sagebrush and varying degrees of herbaceous and shrub cover would provide the vegetation diversity components required by diverse wildlife species. Such mosaic patterns were likely very common before European settlement. The highest priorities for active management should be driven by the risk of crossing an ecological threshold (such as cheatgrass invasion) and the opportunity to apply effective vegetation management treatments.

2009. 62nd Society for Range Management Annual Meeting. Paper No. 175-4.