



Aboriginal Use of Fire and Implications for Active Management of Sagebrush-Grass Communities

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Until recently, most contemporary ecologists have ignored or diminished historical accounts and anthropologists' reports of aboriginal fire in the Great Basin. Ironically, some early plant ecologists, including Daubenmire, recognized the role of prehistoric anthropogenic fire in sagebrush-grass communities. Indians practiced regular use of fire for many purposes, including the obvious reasons of increasing the availability of desired plants, maintaining habitats for animals used as food, and driving game during hunts. According to some writers, burning by Indians was both widespread and significant, perhaps even more common than lightning-caused fires, with resulting mosaic vegetation patterns that moderated the behavior of such "natural fires". This interaction may have strongly influenced the "natural" vegetation of the Great Basin. At the very least, the landscape was a patchwork of areas altered by aboriginal people and areas shaped primarily by natural processes. The authors contend that, based on both historical precedent and current unprecedented conditions (fuel load and exotic weed invasion threats), active management of sagebrush-grass communities is paramount. This management philosophy is both historically- and ecologically-grounded. Because prescribed fire is not always socially, economically, and/or politically feasible, managers must be prepared to use fire surrogates as well, including herbicidal, biological, and mechanical equivalents, to actively manage vegetation. Properly planned active management would disrupt fuel continuity, ensure ecological process functionality and successional integrity, and benefit multiple uses on a landscape scale. Alternately, the status quo of predominantly passive management will result in successional changes that lead to permanent undesired vegetation (e.g., exotic weed monocultures) over vast acreages.

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