# The Role of Fire in Western Forests. (S07-zabowski134231-Oral)

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## Abstract:

Wildfires have played an integral role in determining ecosystem structure and functioning, and prescribed fires have been widely used as a management tool. It is well known that fire can alter the physical, chemical and biological properties of soils. However, the role of fire in soil processes is given little concern relative to fire effects on vegetation, wildlife habitat, stream quality and air quality. Many of the general effects of fire on soil are known but there are important effects that are not well-understood. Specifically, how does lack of fire, changes in fire type and intensity, or widespread use of light prescribed fire alter the soils of western forests where conifers dominate and the ecosystems are adapted to various fire regimes? What is the duration of fire effects, and how do changes in fire frequency alter them? How has a century of fire suppression and increased wildfire size and intensity changed fire effects on soil? How have changes in vegetation and fuel loading resulting from fire exclusion altered soil processes? This review will present some of the known effects on soils in western forests and consider some of the changes in soil that have resulted from changes in fire management.

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