

# Chapter 1 - Setting the Stage for Mixed- and High-Severity Fire

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## Abstract

Drier montane forest ecosystems and some shrub habitats are assumed to have historically been maintained by lower-severity fires that created open and park-like structures in western North America. High-severity fires—especially larger patches—also often are assumed to be unnatural and ecologically damaging. These assumptions drive current land management policies where fires **burn in** higher severities.

However, evidence indicates that montane forests, including ponderosa pine and mixed-conifer forests, were historically far more variable in tree densities and fire regimes and were maintained by a mixed-severity fire regime. Though the unique complex early seral forests created by higher-severity fires are important for a wide variety of biota, they may now be relatively rare because of fire suppression, land use alterations, and postfire logging. Management designed to encourage primarily homogeneous, low-severity fire in areas that historically had mixed-severity fire is a poor substitute for the ecosystem benefits created by these fires.