

## **Living with Fire-dependent Forests**

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In the early 1970s while part of a U.S. Forest Service research team I examined the disturbance history of old, unlogged forests throughout Montana. We surveyed a diverse array of several hundred forests and found that about 90 percent of them showed clear evidence of burning in the distant past, before the policy of fire suppression was implemented in the early 1900s. Forests dominated by ponderosa pine, Douglas-fir, and western larch had often survived multiple surface fires, while forests of lodgepole pine, spruce, and subalpine fir commonly experienced more severe, stand-replacing fires. By the 1980s studies of charcoal layers and other clues found in sediments beneath several Northwestern ponds and bogs revealed that fires had shaped our forests continuously over thousands of years.

A century ago some prominent forest landowners in northern California urged the Forest Service to test controlled burning as a method for managing forests to keep fuel from building up to hazardous levels. However, at the time forestry was new to the United States, having been developed in humid regions of Europe where fire was not a prominent force of nature. Also, the science of ecology was scarcely known at that time, and thus the importance of natural processes in managing native forests was not recognized. For these and other reasons forestry agencies decided to attempt to virtually eliminate fire in the forest—a policy known as “fire exclusion.”

Fire exclusion seemed to work reasonably well during the middle of the 20<sup>th</sup> century, as less than one million acres burned each year in the 11 contiguous western states (see accompanying graph). Then in the late 1970s an alarming new trend emerged—a steady increase in large, severe wildfires which continues today. Fire analysts attribute this trend to a prolonged absence of fire leading to fuel buildup and increasingly warm dry conditions in Western forests. Another contributing factor is the explosive growth in the number of homes, cabins, and other developments embedded in fuel-rich Western forests. As a result, the limited firefighting resources are diverted to protecting homes rather than attempting to control the growth of the fire perimeter. Thousands of dollars of public funding is often expended to protect an individual home, even if the homeowner has done nothing to make his forest property or buildings fire resistant. Fire managers are reluctant to refrain from pouring resources into even undeserved protection, fearing the political repercussions. Also, many firefighters get caught-up in the heroics of their mission, despite clear guidelines that order them not to risk life and limb. Recent testimonies of firefighters in the wake of 19 deaths in the Yarnell, Arizona, fire confirm this misguided sense of mission.

Westerners will continue to be plagued by increasing peril and costs of wildfires until we adopt a saner attitude about the role of fire in our forests. For some inspiration we could look

to the Southeastern U.S., where states have “right-to-burn” laws (limiting liability to reasonable levels) and provide extension forestry help to foster responsible prescribed burning by private landowners. We could do likewise by accepting that fire will continue to be a fact of life in our forests, but that we can influence the way fire affects our forest by managing its structure and its fuel using mechanical treatments, fuel removal, pile burning, and prescribed fire. Even in the most severe conflagrations of recent years, forest properties and homesites that were thinned and made fire-resistant experienced far less damage. It is high time to heed the advice that California timberman George Hoxie published in 1910: We had best adopt fire as our servant; otherwise it will be our master.

Forest landowners who wish to learn about the role of fire and what they can do to make their forest and homesite fire-resistant can find helpful information and guidance at [www.FiresafeMT.org](http://www.FiresafeMT.org).

