

Lessons from Older Forests: Restoring Fire Resilience for the Future

April 4, 2025

Opinion

In the summer of 1897, John Muir submitted an editorial to *The Atlantic* titled “The American Forests,” concluding with an earnest plea for preservation:

“God has cared for these trees, saved them from drought, disease, avalanches, and a thousand straining, leveling tempests and floods; but he cannot save them from fools, only Uncle Sam can do that.”

Muir and his contemporaries recognized the incredible resilience of old forests, which had withstood centuries of fire, drought, and storms. However, forests are not just places to preserve; they are dynamic landscapes that require active stewardship. While early conservationists saw trees as either monuments to be protected or resources to be harvested, today we understand that large, old trees play a critical role in both ecological stability and sustainable forestry.

Forests provide far more than scenic beauty. Old trees regulate water, improve soil, store carbon, and provide critical wildlife habitat. Their thick bark and high canopies make them naturally resistant to fire, while their extensive root systems stabilize soil and retain moisture, reducing fire intensity. These trees also benefit timber harvesting by ensuring forests remain productive over time. By maintaining fire-resistant trees, foresters can balance economic sustainability with long-term forest health. Additionally, mature forests help

protect communities by reducing wildfire severity, buffering wind-driven fires, and increasing moisture retention.

Unfortunately, the way forests have been—and continue to be—managed over the last century has made landscapes more vulnerable to catastrophic wildfire. Past forest management prioritized short-term gains, often through clearcutting and dense monoculture plantations. While this approach maximized profits, it replaced fire-resilient old forests with overcrowded, highly flammable young forests. These plantations are tinderboxes, spreading fire rapidly and burning at high severity. In most wildfires, plantations suffer total losses, making timber production unsustainable and hindering the use of prescribed fire as a management tool.

Over a century of fire suppression has further exacerbated wildfire risks, allowing weaker trees to thrive, brush to form dense thickets, and dead fuels to accumulate—increasing wildfire severity even in old forests. To mitigate post-fire damage, salvage logging has become common, but this practice floods markets with low-quality timber, increases harvesting costs, and disrupts forest recovery. Dead material left afterward creates an even greater fire hazard, hindering replanting, sustaining fire-prone landscapes instead of restoring fire-resilient forests.

Prescribed Fire: A Tool for Restoration

Prescribed fire is one of the most effective tools for reversing these harmful trends. When applied carefully, controlled burns reduce hazardous fuels, maintain fire-adapted ecosystems, and improve conditions for selective timber harvesting. By removing fire-prone trees, prescribed burning enhances timber stand quality while protecting valuable old-growth trees. It also reduces fire intensity near communities, creating safer landscapes. This is why organizations like the Del Norte Fire Safe Council (DNFSC) are promoting prescribed burns through community-led efforts like the Del Norte Prescribed Burn Association (DNPBA).

Prescribed fire also boosts biodiversity and strengthens forest regeneration. Fire-adapted species rely on periodic burning. Low-intensity burns mimic the natural fire cycles that once kept forests healthy, preventing overgrowth and encouraging the growth of diverse plant species. Additionally, by reducing the risk of stand-replacing fires, prescribed fire protects timber resources and old forests, ensuring healthy forests for generations to come.

Balancing Forestry, Fire, and Community Protection

Sustainable forestry does not mean choosing between preservation and harvesting—it requires integrating ecological restoration with economic and community benefits. The best approach combines selective logging, prescribed burning, and community-driven fire management. Selective timber harvesting removes overcrowded trees, preserving the strongest, most fire-resistant ones. Prescribed burning maintains open, healthy stands that support both ecological and economic stability. And by engaging local communities in fire stewardship, we ensure that forest management decisions prioritize long-term resilience over short-term profits.

California's forests have always coexisted with fire, but whether fire is destructive or beneficial depends on how we manage it. By embracing prescribed burning, strategic thinning, and fire-adapted forestry, we can restore landscapes that are resilient, economically viable, and protective of the communities we love.

Organizations like DNFSC are leading the way, working with landowners, tribes, and agencies to reintroduce beneficial fire, protect valuable timber resources, and create landscapes that can withstand future wildfire challenges.

A Fire-Resilient Future

A future where fire is a tool, not a threat, is within reach. Through collaboration and smart forest management, we can ensure our forests remain healthy, productive, and resilient for generations to come.

To learn more, visit www.delnortefsc.org or explore local conservation efforts at www.smithriveralliance.org/.

-Aaron Babcock, County Coordinator, Del Norte Fire Safe Council, Crescent City