

FORESTS, LOGGING, CLIMATE

Coyote Valley Pomo Speak

Our view of a sustainable forest is a forest that sustains our culture, values and way of life, not one that is managed in order to be cut for profit. As such, we placed a wilderness easement on our Intertribal park lands in order to prohibit in perpetuity any commercial logging there. The Jackson Demonstration State Forest generates millions of dollars of profit every year from logging operations on lands previously ravaged by clear cuts. In this time of climate change, it is time to preserve and protect the growth of redwoods on these lands, rather than cut them down in massive numbers, and let the forest heal for the benefit of future generations. This is the Peoples' forest, not a timber company's forest.

Priscilla Hunter, Tribal Elder, Coyote Valley Band of Pomo

Our Forests

Earth's spectacular primary ("old growth") forests are unique and irreplaceable. They are the homelands of Indigenous Peoples and essential to the livelihoods of local forest communities, they are essential to cultural diversity, they protect over two thirds of the planet's land and freshwater species, including countless endangered species, they are natural quarantine areas, preventing the spread of zoonotic diseases like COVID19, they fight climate change by storing vast amounts of carbon and drawing down carbon from the atmosphere and they ensure reliable, high quality freshwater supplies. Primary forests are essential life-support systems, but they are going fast. We've already lost over a third of Earth's forests. Less than a third of our remaining forests are primary and we lose millions of hectares of primary forest each year. We have not succeeded in making industrial activity – including industrial logging – sustainable in primary forests, even with best practices. We urgently need to protect our remaining primary forests, critical to addressing many of our most urgent environmental and social problems.

All primary forests are critical, large or small, wherever they are found! Even small patches are important because they are essential building blocks and providing the seed banks and seed dispersers (birds, pigs, monkeys etc.). We need to bring the forest back where it's been cleared. We need to protect these patches and do ecological restoration work around them to buffer and reconnect them to larger areas of forest. We need to stop the destruction, degradation and fragmentation of all of Earth's remaining primary forests if we want to maintain a livable planet, and we need to act now: our planet is on fire and we are running of time!

Wild Heritage

Climate Change

In the developed world, discussions of climate change mitigation and adaptation tend to focus on technological solutions such as decarbonizing electric grids and regulating emissions of methane, black carbon, and so on. However, an often overlooked strategy for reaching greenhouse gas reduction targets in much of the developing world is rooted, not in new technologies, but in vegetation management. Trees and other vegetation absorb carbon as they grow and release carbon when they are burnt, so landscapes function as carbon sinks and carbon storage sites when forests are growing, on one hand, and as carbon sources when forests are cleared, on the other. Since greenhouse gas emissions from such land use changes rival emissions from the entire transport sector, trees and vegetation are essential to efforts to slow and adapt to climate change. Under the right circumstances, vegetation recovery and its carbon uptake occur quickly. Moreover, carbon uptake can be strongly affected by human management of forests; the right kinds of management can improve rates of recovery and carbon sequestration substantially. Tree landscapes in urban areas underscore the variability of these systems and the potential for enhancing carbon uptake and storage. Furthermore, vegetation systems have many additional benefits in the form of other environmental services, such as improving habitat, microclimates, and water systems. Finally, by managing forests better, we can also make significant contributions to climate justice because most global forests and forested landscapes are under the stewardship of small holders.

Susanna Hecht, Institute of the Environment and Sustainability, UCLA, Institute of Advanced Studies at Princeton.

The Redwood Forest

The coast redwood forest of northern California is dominated by *Sequoia sempervirens*, a species that can live for more than 2500 years, and grows to heights exceeding 100 meters on productive soils. The term “old-growth” is traditionally defined by an absence of substantial logging history, but certain characteristics have become associated with these relatively undisturbed stands. First, certain structural characteristics, including fire hollows, complex crown structures, and epiphytic communities, are generally limited to ancient trees. These features are important ecologically, as they reflect a life history punctuated by stochastic disturbance, and provide habitat for a variety of wildlife species. Second, large tree size and low stand density have also been commonly associated with old-growth, but this pattern may be due more to site productivity than to management history. While large trees are often found on productive sites, old-growth stands that persist on marginal sites can exhibit relatively high stand densities and relatively small tree sizes. And while trees on marginal sites tend to be small in stature, the level of stress and disturbance that they experience may allow them to develop structural complexity comparable to trees on productive sites.

Will Russell, Professor of Environment Studies, San Jose SU.

The Redwood Forest II

For millions of years, redwoods trees have grown along our coast, watered by long wet winters, usually frost-free, shielded from hot, dry inland summers by Pacific fog — the heat of the inland summer drags in the fog that bathes the forest. In an ecology known for fire, the forest cools its domain, its thick, red bark defends the tree itself. Remarkably, the trees themselves collect moisture, “intercepting” fog moisture, some of which is absorbed by the trees leaves, the rest that is collected drips to the earth below, into gardens of ferns and flowers, redwood sorrel and rhododendron. In 1850, this forest was 2,000 square miles, 1,280,000 acres that stretched some 450 miles; it was often little more than twenty miles in width. Today perhaps 4 percent of the old growth of this forest survives, the rest lying “disturbed,” at best in stands of third and fourth growth (not without value, of course), at worst in ruin, the barren clear-cut mountainsides that so shocked the readers of the Sierra Club’s 1969 book, *The Last Redwoods*.

Cal Winslow, River of Fire

Jackson Demonstration State Forest

Jackson Demonstration State Forest is a public forest in Mendocino County, California managed by CALFIRE, formerly California Department of Forestry and Fire Protection. It is the largest demonstration forest operated by the State of California. The forest land, located along California State Highway 20 between Willits and the coastal city of Fort Bragg, was formerly owned by Caspar Lumber Company.

Logging of the area began in 1862, and intense industrial logging has taken place for many decades. There have been several generations of harvests and replantings. The 48,652 acres (196.89 km²) that make up the forest were purchased in 1947 and the demonstration forest was created in 1949¹

Coast redwood is the most common type of tree in the forest, but there is also Douglas fir, grand fir, hemlock, bishop pine, tanoak alder, madrone and bay myrtle. The elevation of the land varies from 80 to 2,200 feet (670 m). Precipitation near the coast averages 39 inches (990 mm) per year, but the average is 70 inches (1,800 mm) per year inland. The temperature reaches a low of 25 °F (-4 °C) and a high of 100 °F (38 °C).

CALFIRE

CALFIRE

The California Department of Forestry and Fire Protection (Cal Fire) is a fire department of the California Natural Resources Agency. It is responsible for fire protection in various areas under state responsibility totaling 31 million acres, as well as the administration of the state's private and public forests. In addition, the department provides varied emergency services in 36 of the

state's 58 counties via contracts with local governments. The department's director is Thom Porter, who was appointed by Governor of California Gavin Newsom.

Cal Fire's foremost operational role is to fight and prevent wildfire on 31 million acres of state forestland. The organization works in both suppression and prevention capacities on state land, and offers emergency services of various kinds in 36 out of California's 58 counties, through contracts with local governments. The organization also assists in response to a wide range of disasters and incidents, including earthquakes, water rescues, and hazardous material spills. The organization manages eight Demonstration State Forests for timber production, recreation, and research.

In conjunction with the California Department of Corrections and Rehabilitation, Cal Fire uses thousands of incarcerated firefighters at 44 conservation camps throughout the state on fire prevention, fire suppression, and various maintenance and conservation projects. Cal Fire works with employees of the California Conservation Corps since that agency's creation in a partnership for fire suppression duties, logistics and forestry management. CCC corps members are involved in job training programs as Type 1 Hand Crew firefighters, supervised by Cal Fire personnel, in increasing prevalence to offset CDCR inmates as the incarcerated firefighter program is closed. Programs to control wood boring insects and diseases of trees are under forestry programs managed by Cal Fire. The vehicle fleet is managed from an office in Davis California.

Wikipedia

The Drought

All time record low water flows across all of California have created a situation rarely seen across the state. Locally, in Mendocino County streams are a mere trickle of what they were last year, which was also historically dry. For example, the Noyo River, the main water supply for Fort Bragg, is today running at under one (1) cubic foot per second. Last year at this time the flow was over five times that much. Caspar Creek, the drainage for the timber harvest plan called the Caspar 500 in Jackson Demonstration State Forest, has been reduced to a dribble at its mouth at Caspar Beach. Doyle Creek, on the south side of Caspar Bay has effectively stopped flowing into the ocean due to the dry conditions. The cumulative effect of dry conditions, fire danger, and continued harvesting of trees that help hold moisture in the soil is a combination that leads to the conclusion that we are in uncharted territory as we enter the next long months ahead of higher than normal temperatures and arid statewide conditions."

William Lemos, PhD.

Fire

Any honest fire scientist will tell you that small trees burn more readily than large trees. Timber harvest operations target large healthy trees as they supply the highest quality timber products. Once these trees have been removed they are replaced by a regenerating forest of very small highly flammable saplings and sprouts. Timber operations also tend to open up the forest stand which allows for greater air flow providing oxygen for any fire that might start. Anyone who has ever built a fire knows that small sticks with a lot of air space gives the best chance for a successful fire – the same is true for a forest fire.

William Russell, San Jose State University

Bootleg Fire

Since it started on July 6, 2021, the Bootleg Fire has been characterized by its size and speed. Miles of forest land has burned each day. At over 400,000 acres, it's Oregon's 3rd largest wildfire since 1900. In recent weeks firefighters have had to retreat multiple times as embers crossed containment lines and hot, dry and windy weather made fighting the fire impossible. The footprint of the Bootleg Fire includes a history of commercial logging, thinning, clear cutting, prescribed fire and other intensive management practices, according to Bryant Baker, conservation director of Santa Barbara non-profit Los Padres ForestWatch. Baker says those management activities contributed to the fire's spread. One example, he says, is when it burned into the U.S. Forest Service's Black Hills Ecosystem Restoration Project. "Essentially the fire burned through these areas really quickly," Bryant says. "So, the fire in its initial rapid growth burned right through these pretty expansive areas of commercial thinning and prescribed fire and did not seem to slow down. "I do think this demonstrates that this kind of focus on removing vegetation from these wildlands, especially far away from human communities, is not doing anything to prevent these fires from becoming very large," he says. Past commercial logging and livestock grazing has encouraged wildfires, according to Timothy Ingalsbee, executive director of Firefighters United for Safety, Ethics and

Ecology. Ingalsbee, who is an advocate of prescribe burning, notes that when the fire entered the Gearhart Mountain Wilderness, an area with more potential fuel but fewer small trees and flammable grasses, it appears to have burned more slowly. According to Baker's analysis, the fire slowed from moving 3.4 miles per day on managed land to 2.1 miles per day in the Gearhart Wilderness. "It's not a huge difference, but it is a difference," Baker says. Overall, Bryant Baker says, the Bootleg Fire is being driven by windy, hot weather and drought conditions that have been magnified by climate change. And prioritizing fuel reductions like thinning, logging and prescribed burns are "ineffective and counterproductive."

Jefferson County Radio

Health and Happiness

Experiences outdoors enrich our lives, making us happier and healthier. Research shows that spending time in nature enhances the ability to cope with and recover from stress, illness and injury. People consistently report lower anxiety, better attention and increased well-being after spending time outdoors, where parks and open spaces provide beautiful places to exercise and unwind. The benefits to society of a vibrant connection with the outdoors are proven, and if we let this connection fade, we lose the inspiration, health and happiness that results from being in nature. In addition, people protect what they know and love. If we become detached from nature, our environment loses its stewards and caretakers.

Save the Redwoods League

Work

29,620 persons are employed in non-farm work in Mendocino County. Of these, 24,590 work in the service providing sector. 6,500 work in government, 1410 in construction and 370 in logging. [NB Figures overlay in some instances, i.e. public, private]) Economic Employment and Development Department [EDD], State of California, May 2021. Unemployment in the county is 5.4%, national is 5.9% "Notable job gains [nationally] occurred in leisure and hospitality, public and private education, professional and business services, retail trade, and other services." Bureau of Labor Statistics [BLS] June 2021. County tourism boosters: 1.8 million people visit Mendocino County annually: "Mendocino County, where rugged coastline, breathtaking beaches, picturesque villages, majestic *redwood forests* [italics added] and America's greenest wine region beckon you to escape to a slower pace."

Cal Winslow, Mendocino Institute

Something to Do

We know the range of mechanisms that are effective at protecting primary forests. Protected areas with good governance and adequate funding can successfully protect primary forests. Similarly, community conservation initiatives and Indigenous Peoples have a proven track record of protecting primary forests – often over millennia. Payments for ecosystem services schemes have also met with success. Conversely, it is crucial to stop viewing commercial logging as a sustainable and viable solution for protecting primary forests. Commercial logging has not proven sustainable in primary forests anywhere.

We need to "flip" incentive structures so that national and multilateral subsidies are directed to mechanisms that have demonstrated capacity to achieve primary forest protection – and to restoring degraded forest or regenerating forest. Currently, subsidies for industrial agriculture, extractive industries and other industrial developments far outweigh conservation funding. Shifting this balance to support actors on the ground that have a commitment and vested interest in keeping primary forests standing – especially indigenous and local communities – can have a profound and rapid effect on primary forest protection globally.

Wild Heritage

Compiled by the Mendocino Institute - info@mendocinoinstitute.org - mendocinoinstitute.org

