

Redwood Needles



Winter 2023

Sierra Club Redwood Chapter

Volume 65, No. 1



On the Path

a note from
Chapter Director Jeff Morris

I'm writing this as snow arrives to the Klamath Mountains this evening, providing a much-needed dose of water to bank over the winter. This will be my final installment of On the Path as, after four years as the Redwood Chapter Director, I am moving on to focus on my "day job" at the Trinity County Office of Education.

The balance of your chapter leadership remains intact, with Victoria Brandon at the helm as the chapter chair, and an ever-strengthening executive committee whose members span from across our vast nine-county territory. And, thanks to the generosity of our members and supporters, the chapter is now in a position to hire a replacement for my position on a full-time basis for the first time in the chapter's history.

I am incredibly grateful for the experience of these last four years. I've learned so much from all of you and the greater Redwood Chapter team and the communities and partners they serve. From the edge of the San Francisco Bay to the Oregon border, it's been a great ride.

The new year will bring many continued challenges. PG&E will still be at the forefront, despite its PR team making noises about the supposed end of its Enhanced Vegetation Management program, which you'll read more about on Page 3. Caltrans' proposal for a half-hearted (and destructive) interim solution for congestion and environmental health on Highway 37 will need to be addressed. An amendment to the Northwest Forest Plan focusing on climate and fire will be emerging soon. While dams on the Klamath River are slated for removal, dam removal on the Eel River is yet to be achieved (although moving along!). Land use and water issues will certainly remain at the forefront.

All this work and more should continue to be acted upon through the scope of supporting local Native American tribes and other groups impacted by environmental justice issues as well as the changing climate—environmentally and culturally.

For now, this issue of the *Needles* brings focus onto our flagship issue: trees. The Klamath Mountains are home to the second highest level of conifer biodiversity on the planet, and botanist Michael Kauffman details this unique region in his included article on Page 5. For a deeper dive into these fascinating issues, check out the new book, *A Natural History of the Klamath Mountains*, that he co-wrote with Justin Garwood.

There is a giant cedar along a seldom visited trail in the Klamath Mountains that my family has walked since the 1850s. While it's not an annual pilgrimage, I do get up the trail every few years to see my old tree friend. While I will no longer be employed by the Redwood Chapter, I hope to keep connected with the new friends I've made in this role—and so hope to see you out "On the Path" where ever that might be.

Be well in your endeavors, travels and efforts. The world is better with your work. Thank you.

Steady on and keep at it,



Redwood Needles
A Quarterly Publication of
Sierra Club Redwood Chapter

Mailing Address

P.O. Box 466, Santa Rosa, CA 95402

Office Address

Sonoma County Environmental Center
55A Ridgway Ave. Santa Rosa, CA
(707) 544-7651

redwood.chapter@sierraclub.org

www.sierraclub.org/redwood

Editor

Shoshana Hebshi
shoshana.hebshi@sierraclub.org

Proofreader

Judi Danner

Chapter Chair

Victoria Brandon

Cover photo by Dawn Justice.

Advertising information and questions can be directed to shoshana.hebshi@sierraclub.org

Address corrections should be sent to address.changes@sierraclub.org or Sierra Club, P.O. Box 52968, Boulder, CO 80322-2968 or (415) 977-5653.

You can manage your Sierra Club account at myaccount.sierraclub.org or email member.care@sierraclub.org

Non-member subscriptions are \$6 per year. Send requests to P.O. Box 466 Santa Rosa, CA 95402.

The *Redwood Needles* is published four times a year on recycled paper using soy-based ink.

PG&E Gets the Side Eye

It's PR Spin: Undergrounding power lines is not the solution to curb wildfire

By Jeanne Wetzel Chinn

Chair, Redwood Chapter Northern California Forest Committee

& Nancy Macy

Chair, Utility Wildfire Prevention Task Force

Here's the situation: PG&E fells hundreds of thousands of trees in our region every year in a failed attempt to prevent wildfires. PG&E cuts power without notice, endangering residents and communities, rather than focusing on the real problem of its unreliable, outdated and dangerous power lines. These bare-wire lines ignite fires whether impacted by vegetation, wildlife, vehicle collisions, flying debris, wires sagging in extreme heat, or even party balloons.

What *can* stop utility-caused wildfires is a rapid, comprehensive modernization of PG&E's electrical equipment, with steel-reinforced, triple-insulated wires, fire-resistant poles and computerized circuit breakers that relay a problem's location for fast response.

Southern California Edison, a utility that serves more than 15 million people in counties throughout Southern California, has been successfully doing this for its service areas in high fire-threat zones.

But PG&E, which serves much of Redwood Chapter's region and elsewhere around the state, continues to push the myth that trees cause fires, and continues its wholesale tree felling.

You may have noticed PG&E trucks or contractors out cutting down trees on public and private property during the last several years. Redwood Chapter leaders have heard from many property owners outraged at PG&E's

trespassing and encroachment onto private property to down trees in the name of fire prevention.

PG&E's focus to diminish tree cover is in opposition to true fire management practices. Our forests are a critical natural resource, especially for carbon sequestration in this time of climate change. We can't afford to lose millions of trees to utility overreach.

PG&E's redefinition of "hazard" trees expanded its "Enhanced Vegetation Management" (EVM) program to remove trees far outside its right of way. Now, any tree within "strike distance" of the lines is threatened by PG&E's chain-saws. This distance can be as much as 250 to 300 feet from the power lines in redwood and other conifer forested areas, far onto private lands without regard to constitutionally protected property rights or environmental impacts.

PG&E contractors have been and are currently cutting thousands of healthy, mature trees (including old

growth redwoods, incense cedars and oaks) in every forested county in California.

Property owners have little recourse to prevent this. The result is massive environmental destruction, increased fire threat due to fuel load from slash, chip piles and logs of downed trees, loss of shade and loss of property value.

PG&E's only real tool for preventing utility-triggered fires is shutting down the power, first with Public Safety Power Shutoffs (PSPS), and now with "Fast Trip" (Enhanced Powerline Safety Settings (EPSS)), shutting off power without warning and often for hours.

You may have seen TV ads running lately touting PG&E's commitment to undergrounding power lines as a major part of its wildfire safety program. But undergrounding power lines is not the solution!

Plus it's expensive. And guess who's paying for it? You and me, the rate payers.

PG&E's costs for undergrounding distribution lines are insupportable, and undergrounding is not the panacea it purports to be.



Continued on Page 4

Redwood Chapter Executive Committee

The executive committee is the governing body of the chapter, with one (1) member delegated by each of six (6) regional groups and six (6) members elected at large. Each group elects its own executive committee. The chapter ExCom meets every-other month over Zoom.

Chapter Director:

Jeff Morris • jeff.morris@sierraclub.org

Chapter Communications Coordinator:

Shoshana Hebshi • shoshana.hebshi@sierraclub.org

Administrative Staff:

Tom Devlin • (707) 544-7651 • tdevlin@sonic.net

Chapter Chair • At Large • Political Chair • RCC Delegate • Wilderness Chair:

Victoria Brandon* • (707) 994-1931 •
vbrandon95457@gmail.com

Vice Chair • Solano Group Delegate to Chapter:

Joe Feller* • (415) 902-3395

Secretary: Jim Horn

Treasurer & Finance Committee Chair:

Jana Selph • (707) 829-5356

At Large • Council of Club Leaders Delegate • RCC: Rue Furch* • (707) 823- 3555

At Large: Roland Dumas*

At Large, CCL Alternate, Conservation Chair:

Chris Rogers*

At Large: Dan Mayhew*

Political Compliance Officer: Michael Melton

Transportation Chair:

Steve Birdlebough • (707) 576-6632

Grazing Chair: Felice Pace • (707) 954-6588

Forest Chair:

Jeanne Wetzel Chinn

Lake Group Delegate to Chapter:

Deb Sally* • (707) 235-9011

Mendocino Group Delegate to Chapter:

Mary Walsh* • (707) 937-0572

Mendocino Group Delegate Alternate:

Robin Leler

Napa Group Delegate to Chapter:

David Campbell*

North Group Delegate to Chapter:

Ned Forsyth* • (707) 826-2417

North Group Delegate Alternate:

Joyce Yowell • (559) 916-8575

Sonoma Group Delegate to Chapter:

Shirley Johnson-Foell* • (707) 206-1138

Chapter Webmaster: Melanie Matway

* Signifies voting member of the ExCom

PG&E's tactics are ruining ecosystems and worsening fire danger across the region

Continued from Page 3

Keep in mind, undergrounding is not feasible in many areas, including granite terrain, steep slopes, across ravines and waterways, and areas of severe erosion or potential for flooding.

PG&E proposals to underground "10,000 miles" are a stunt to distract and impress us. PG&E's CEO, Patti Poppe, describes the undergrounding as affordable; however, permanent, inflation-causing rate increases will mount as additional miles are installed.

The first rate increase, averaging \$30 per month, will fund only 3,500 of the touted 10,000 miles. Worse, the planned undergrounding would take far too many years before having a significant impact on wildfires—a decade at best, even if PG&E's optimistic estimates can be trusted. Meanwhile, we remain vulnerable to failing wires causing fires, and faced with never-ending power outages wreaking havoc with our lives, businesses and health.

The absurdity of cutting down millions of trees in the coming months and years, in a time of intensifying climate change, is being ignored.

We're experiencing increasingly severe winds, drought and higher temperatures due to changing weather patterns. Locally, loss of shade means our homes and neighborhoods will heat up. Removing our trees damages critical ecosystems by drying soils, ruining wildlife habitat, and degrading watersheds. We've already seen a perceptible rise in summer temperatures in neighborhoods with heavy tree removals. And, despite the increasing number of trees removed through EVM, the massive, deadly utility-associated wildfires have continued, turning millions of acres, hundreds of homes, villages and towns into conflagrations.

These fires have taken the lives of thousands both directly and from the massive spread of smoke, while forever damaging the lives of survivors.

While PG&E's undergrounding would curb utility-associated wildfires in those areas, huge equipment trench-

ing through the forest will necessitate the destruction of thousands more trees, worsening erosion and creating slope instability.

Thankfully, it's not the only way.

Redwood Chapter leaders and partners have been working on developing strategies and languaging to put pressure on PG&E to upgrade its infrastructure like Southern California Edison has done. The chapter's vision is to work at city, county and state levels to make sure the money PG&E spends on "wildfire prevention" actually goes toward tried and true practices and not their PR spin that point the finger at trees and forests.

Replacing and modernizing overhead equipment provides equal safety for barely 25 percent of the cost and lasts with minimum upkeep for decades. Plus, it can be rapidly installed, with the least environmental damage.

PG&E is making piecemeal improvements, such as replacing old power poles and replacing defective fuses, while failing to replace the unsafe, bare-wire lines. We need a more complete approach now.

How You Can Help

- **URGE** your state assemblymember and your state senator to write legislation mandating comprehensive infrastructure modernization, ending EVM and focusing on legally required trimming.
- **CONTACT** the California Public Utilities Commission (<https://www.cpuc.ca.gov/consumer-support/file-a-complaint>) and tell them to stop approving PG&E rate increases for undergrounding, and instead press PG&E to modernize its system.
- **ASK** your county supervisors to take action with other counties to stop EVM and assure a safe and reliable system.
- **CONNECT** with our chapter's team to get involved by emailing us at redwood.chapter@sierraclub.org
- **VISIT** www.endpowerlinefires.org for more background.



Book Excerpt

Conifer diversity exceptional in the Klamath Mountains

By Michael Kauffmann

Author, Founder Bigfoot Trail Alliance

Complex interactions between biotic and abiotic factors have encouraged and nurtured biodiversity in the Klamath Mountains over millions of years. The region is a botanical museum, hiding relicts of epochs gone by called paleo-endemics and a cradle, promoting the adaptive evolution of new species called neoendemics. Complex climate and soils, in essence, incubate biodiversity. The area also has a central location and continuity with other mountain ranges along the Pacific Slope. Across this landscape, a mosaic of habitats mix at a crossroads of five biotic regions—the Cascades, Coast Range, Great Basin, Central Valley, and Sierra Nevada—each helping to define the Klamath Mountains.

Within the geologic boundaries defining these complex habitat mosaics, there are 3,540 taxa (species, subspecies, and varieties) of vascular plants and up to 38 species of conifers, depending on how one delineates the region (Sawyer 2006). In addition to plants, the region holds exceptional diversity in amphibians, mammals, and birds. I think the conifers represent a manageable means to begin to comprehend all biodiversity in the region.

Deep Time Evolution

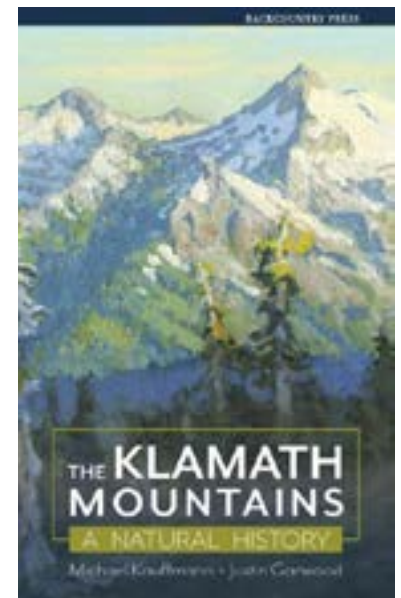
In the Tertiary, beginning around 65 million years ago, a temperate forest prevailed unlike any other in Earth's history. Referred to as the Arcto-Tertiary forest—existing on a landmass that would soon become North America, Europe, and Asia—a blending of conifers and broad-leaved trees dominated the landscape. With continental drift and climate change, the offspring of these great forests were fragmented. Over time, ice ages came and went, causing a change in flora as increasingly dry conditions became more common. The descendants of the Arcto-Tertiary forest became less extensive and more isolated. These progenitors remained, finding refuge in the higher and cooler regions

which maintained a climate more like that of the early Tertiary—in what we now call northwest California and southwest Oregon. In this region today we glimpse a forest that is like the forests of 65 Ma. Holdouts include, but are not limited to, Brewer spruce, Port Orford-cedar, redwood, California pitcher plant, and *Kalmiopsis leachiana* (a shrub that lacks a common name, probably due to its rarity).

North America holds two of the most species-rich temperate forests in the world: those of the southern Appalachian and Klamath Mountains. What do these locations have in common? Glaciers and seas did not completely cover them during the Cenozoic and the mountains were monadnocks, or islands above the plains, offering temperate refuges to plants and animals over time. Both locations have historically maintained a moderated climate. These areas are beyond the southern terminus of the enormous continental ice sheets of the Pleistocene. Some plants undoubtedly remained in these regions through historic climatic change, while other species repeatedly moved in as climate cooled and glaciers pushed southward and then moved out following glaciers

Marble Mountain (pictured above) is in the heart of the Klamath Mountains and holds exceptional conifer diversity.

Photo by Michael Kauffmann



Continued on Page 6

Klamath Mountains provide grand floristic diversity

Continued from Page 5

northward. These dynamic fluctuations have cradled plant diversity in these two unique regions.

The current consequences of these historical patterns are that the Klamath Mountains and southern Appalachians have grand floristic diversity, a concentration of endemic plants, and a fundamental importance to the forest floras of nearby regions. Per unit area, the Klamath Mountains and the southern Appalachian Mountains hold more plant taxa than any others in North America. Plant genera such as *Cornus* (dogwoods), *Asarum* (wild ginger), and various conifers (*Pinus*, *Abies*, *Thuja*, *Chamaecyparis*) grow a continent apart while providing a comparative glimpse of an ancient flora.

The success story of regional conifers

In the Northern Hemisphere, conifers flourish on continental land masses north of the 45th parallel to the arctic tree line. They also grow in similar mountainous areas with decreasing latitude, as in the Alps of Europe or various cordilleras of Asia and North America. Because of conifers' complex physiology they generally favor these colder and drier environments and, in essence, survive where many other plants cannot. While conifers represent less than 1% of all plant species, they comprise extensive forests which constitute, by area, 30% of the Earth's forested land. On a regional scale the same predictable nature of conifer distribution holds true and, above 4,000 feet, conifers comprise the majority of overstory vegetation. However, near sea level, from the Klamath Mountains northward into Canada and Alaska, conifers blanket the landscape in a way not often seen southward along the Pacific.

The Klamath Mountains are an exceptional means to an end for understanding conifer biogeography in western North America. At any given elevation and aspect, across a regional longitudinal gradient, one might expect to find conifer representatives from throughout the West. Assorted conifers inhabit regional microsites that are representative of a species-specific habitat often more common elsewhere. Unique abiotic aggregations of soil, exposure, elevation, and climate provide varied enough environments wherein 14 conifer species survive at either the southern, western, or northern extent of a much larger range and two more grow nowhere else on Earth.

Regionally, conifers form virtually pure stands in two zones defined by elevation. Those are (1) below 1,000 feet in temperate forests along the coast and (2) above 4,000 feet in montane and subalpine forests. Between these zones lies a broad band of vegetation at lower and middle elevations

in which mixed-evergreen forests—often richer with angiosperms such as oaks, alders, and maples—comprise the principal tree cover.

The Klamath Mountains are an exceptional means to an end for understanding conifer biogeography in western North America.

Along the Pacific Coast specimens are tall and massive and that, in essence, is why they thrive. When the forest canopy is as dense and as tall as it is (redwood, Douglas-fir, Sitka spruce, and western hemlock all reach heights of 250+ feet along the North Coast of California), not many other trees can compete. But how do these conifers get this big? While the reasons are many, important factors

include the nutrients found in deep coastal soils, the accessible perennial moisture, and a climate tempered by the ocean which creates a year-round growing season. Because of cool ocean currents cycling from the North, devastating hurricane-like events are uncommon, allowing trees to grow old—over 1,000 years for several species. With age comes height, as individuals compete for sunlight. Some coastal conifers are also resistant to devastating pathogens, like fungi or insects, which might otherwise lead them to a more rapid demise. Ultimately, the giants of the Pacific Northwest were fashioned by ideal resource allocations and synergistic relationships, to get really damn big.

The story of conifers in the higher elevations of the Klamath Mountains is comparable to observed conifer success north of the 45th parallel. Above 4,000', trees grow at or above the usual winter snowline because they can deal with temperature and moisture extremes. Analogous to a cat preening its fur, a conifer cares for its needles. For example, Pacific silver fir has been documented with needles that are over 50 years old. These waxy progeny are able to regulate metabolic functions around temperature extremes and moderate water loss during warmer months. Also, because most conifers are evergreen, they are not inhibited by late spring or even summer frosts that might otherwise kill the new-growth of a deciduous species.

"...don't be tempted to equate transient domination with either intrinsic superiority or prospects for extended survival."

—Stephen Jay Gould

Enjoy what you see...conifers are a lens for comprehending a real-world example of extended survival across a dynamic landscape.

*Michael Kauffmann is an educator, author, and ecologist living in Humboldt County. He is the author or co-author of five books including the recently released *The Klamath Mountains: A Natural History* published by Backcountry Press (2022).*

'Mini-Forest Revolution' offers hopeful path toward harmonizing with nature

By Shoshana Hebshi
Editor

Sitting with my feet in the cool waters of the Carson River, a copy of "Mini-Forest Revolution" in my hand, I looked around at the charred eastern Sierras around me one hot day this past summer and imagined a future where we were able to reverse the effects of climate change by embracing the power of forests, of healthy ecosystems and of connection to nature's resilience.

Hannah Lewis wrote "Mini-Forest Revolution," a study of the Miyawaki Method that captures the power of native tree species, biodiversity and intentional planning (and planting) to heal ecosystems and the communities (plant, animal and human) that depend on them.

Lewis' exploration takes the reader around the globe, to mini-forest success stories in the Netherlands, Beirut, China, Indiana and beyond that have healed the land and brought new appreciation for wildlife and ecosystems among the locals. And in many cases, once a mini-forest is established it serves as a propeller to bring more mini-forests into an area. The idea energizes communities as they see the benefits that a healthy, rapidly growing forest brings.

Lewis was living in Roscoff, France, a town in coastal Brittany, when she wrote the book and participated in her first mini forest project. She discloses in the book how she discovered the Miyawaki Method being employed in Nantes, where a forest was planted as a noise and pollution buffer against road expansion.

"I was immediately enthralled by the method, which struck me as both ecologically sound and eminently doable. It seemed like something that could transform the vacant lots, parking lot edges, and patches of lawn, the open spaces that are so familiar and banal in most cityscapes we almost do not see them," Lewis writes.

The Miyawaki Method, named for Dr. Akira Miyawaki, Lewis explains, creates conditions for a mature, natural forest to arise out of a small plot of land in a much quicker manner than natural forest creation. The method calls on the use of careful native species selection, soil improvement, and dense planting as well as light maintenance that nurtures the forest in its fledgling years. Once it is established, it can continue to flourish without human assistance.

The resulting forests create shade, moisture retention,

barriers to noise and pollution and habitat for local wildlife. They also help lower the air temperature in the area. The planting of the forests act as healing balm to the locals who partake in the initial planting and care of the young forest, getting their hands in the soil and connecting with nature in new ways, sometimes for the first time.

Lewis, who is now living in St. Paul, MN, took some time to answer some questions about the book and what she's been up to since it was published in May 2022.

Q: How did you know you wanted to write a book about the Miyawaki Method?

A: I wanted to write a book about the importance of protecting and restoring ecosystems to help slow climate change (in addition to reducing overconsumption), while also boosting local resilience to extreme weather. When I discovered the Miyawaki Method, I realized that telling that story would be a fun, engaging, and inspiring way to communicate a message about the importance of ecosystem health.

Q: How has reception for the book been?

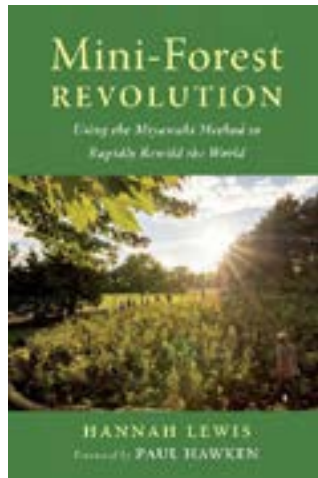
A: It's been great! I've had several messages from people who are really motivated after reading the book, and are getting started planning a mini-forest project. I've also had plenty of nice interviews published by various media outlets, ranging from AP News to a handful of podcasts. Also, the book will come out in French and Italian in 2023.

Q: Do you know how the mini-forest you helped create in Roscoff is doing?

A: It made it through a hot, dry summer in France, was watered and weeded a few times, and is doing well. The city just a few weeks ago put up a permanent sign beside it, explaining what the Miyawaki Method is, its ecological benefits, what species are planted, and what schools and other groups were involved in the planting.

Q: Out of the case studies you outlined in the book, was there any single location that really stood out to you and that you're still following?

All of the locations and project leaders were really interesting to me in their own way. I'm keeping in touch very loosely with a few of them (Beirut, Paris, Cameroon, Yakama, Iran, Netherlands...) and these groups are still pretty active, and they report that their forests are growing well. I saw the mini-forest in Paris last summer and it's like a jungle now! When I visited in December 2020, it was still small-ish and you could walk around it and look into it



Continued on Page 8

Mini forests can help us alter the way we think about ecosystems

Continued from Page 7

from above. When I visited in August 2022, it was so tall and thick that you couldn't even think of squeezing beside it along the perimeter fence.

Q: What is your dream for mini-forests, both locally and globally?

A: My dream is that mini-forests become a vehicle for people to get to know, appreciate, and respect nature in a much deeper way than we do now. That we are able to think of other species as our allies and peers, and that we think of ecosystems as our shared homes. Planting mini-forests can help us think in that way—and thinking in that way will make us see the spaces around where we live and work in a whole new way. We will want to make much better ecological use of open space—for the benefit of wildlife, to keep our parks, schoolyards, and neighborhoods cooler, and to help manage both flooding and drought by giving precious rainwater more chance to infiltrate into the ground.

Q: In our region, which has a lot of forested land, we have dealt with major wildfires in recent years that have turned attention to forest health, forest management practices and how forests can be more fire resilient. How do you see the mini-forests helping to build fire resilience?

A: Mini-forests are a way to create a healthy natural ecosystem. Healthy ecosystems are key to maintaining moisture on the landscape because they have spongy soils that absorb rainwater and a canopy overhead that creates a cool, humid micro-climate underneath. Native mini-forests help mitigate both flooding and drought, and by holding moisture in the land, they can help build fire resilience. Another factor contributing to the major wildfires in California, however, is a long history of fire suppression in ecosystems that are fire dependent. Controlled burning is a way to keep fires small and manageable, and allow fire-dependent ecosystems to rejuvenate.

Q: What are some ways you've seen mini-forests implemented since you published the book?

A: It seems that people are really just trying to get things started right where they are, which makes me really happy. The school mini-forest idea seems to be really taking off because it makes so much sense. I would guess that at least one out of every two mini-forests is planted in association with schools and kids. Planting mini-forests to improve canopy equity in lower income neighborhoods, and thinking of mini-forests as part of a strategy to improve health



The author helps plant a mini-forest in St. Paul, MN. Photo courtesy Hannah Lewis.

and mental health outcomes also both seem to make sense to people.

Q: What do you think needs to happen to get municipalities to sign on for more innovative ways to create green spaces that can heal the land such as these mini-forests?

A: Most cities already have decent tree-planting budgets and canopy goals, and some may even have related biodiversity priorities that mini-forests projects could help them achieve. While the upfront effort to plant a mini-forest is significant (researching the species list, preparing the soil, hundreds of native saplings needed, engaging local people, two years of light maintenance of weeding and watering), the long-term benefits are far greater.

These arguments may interest municipalities:

- High survival rate of trees (at least 90% in the first year, eventually tapering down to 70% after a few years as the plants fill out).
- Healthy self-sustaining system; after 2-3 years, maintenance is no longer needed and is in fact discouraged. No maintenance = lower city costs in the long term.
- High potential for community engagement and investment in the project.
- Flexible spatial design (can be a long perimeter strip, a circle, a crescent; can have a path or not; can be paired with benches, picnic table, playground area; can be used to block an ugly view, or as a sound or pollution buffer, or to block wind).
- Good way to demonstrate ecological concepts to the public.
- After a local group has planted its first couple of mini-forest, I think they start to get the hang of it and planning subsequent ones becomes simpler.

Q: What would you tell people who are curious about getting started with a mini-forest project to concentrate on first?

A: Start paying attention to the types of trees growing around you and learn to identify them. And start having conversations with people you think might be interested in the mini-forest idea and see where it takes you—that is how you will start to form your project team.

Q: What's your next project?

A: In two wonderful, lower-income neighborhoods in St. Paul, MN!

Klamath Dam removal to begin this year

By **Victoria Brandon**
Chair, Redwood Chapter

Environmental advocates across northern California had a splendid occasion to celebrate on Nov. 17, when the Federal Energy Regulatory Commission (FERC) issued a License Surrender Order for the Lower Klamath River Hydroelectric Project.

This action removed the last major obstacle to completing the world's largest river restoration project: removal of four Klamath River dams, which have obstructed flows and impeded fish passage for more than 100 years.

With this order in place, the Klamath River Renewal Corporation and the states of Oregon and California can accept transfer of the Lower Klamath Project License from energy company PacifiCorp and start the dam removal process early this year.

Once the project is completed, imperiled fish will have access to Klamath headwaters spawning grounds that supported their popu-

lations for thousands of years before the dams went up. Tribes, farmers, commercial fishermen, recreational anglers and communities throughout



Iron Gate in Siskiyou County will be dismantled, allowing for salmon and other native fish to regain access to the Klamath River. Photo by Victoria Brandon.

the region are expected to benefit.

Sierra Club applauds this outcome, with particular gratitude to the Klamath Basin tribes, whose unwavering pursuit of dam removal played such a crucial role in making it happen.

"The Klamath salmon are coming home," proclaimed Yurok Chairman Joseph James. "The people have earned this victory and with it, we

carry on our sacred duty to the fish that have sustained our people since the beginning of time."

The dam removal and river restoration project was made possible through a negotiated agreement between the Karuk Tribe, Yurok Tribe, California, Oregon, conservation organizations, commercial fishing organizations, and dam owner PacifiCorp. FERC's recent action is the last step in a six-year regulatory oversight process to restore the Klamath River's once-abundant salmon runs and improve poor water quality.

Since the Klamath River is the second largest in California, this presents a huge opportunity to restore runs of wild salmon, steelhead and lamprey that haven't been seen for many decades.

The unfolding events on the Klamath can also be taken as a precursor for dam removal on the main stem of the Eel River, where the Potter Valley Project's antiquated Scott and Cape Horn dams similarly block native fish from accessing hundreds of miles of their historic spawning habitat.

Humboldt residents rise up to fight PG&E

By **Larry Glass**
Redwood Chapter
Northern California Forest Committee

Early this past October there was a massive public uproar in Humboldt County as word spread about PG&E planning to spray herbicides around its poles and in their Right-of-Ways (ROW) without notice to, or permission from affected landowners.

Environmental groups and citizen action organizations marshaled this outcry into telephone calls to PG&E headquarters and local elected officials. After several days of this swift backlash and intense pressure, PG&E chose to suspend

its original plan. Several days later PG&E promised to notify property owners before entering their property and spraying.

The Humboldt County Board of Supervisors and other organizations and individuals heard this outcry from the public loud and clear, operating both from the standpoint of attention to health issues and private property rights. The Board of Supervisors took a strong stand by passing a resolution in opposition to spraying herbicides at any time on county property or private land without the express permission of the land holder.

This to some extent reflects

the long-standing position of neighboring Trinity County, which holds that any herbicide use in the county constitutes a public nuisance. This is a position that PG&E and other public agencies have respected for three decades and not used them. Humboldt County is currently researching the possibility of putting its position into the form of an ordinance.

Larry Glass is also president of the Board of Directors of The Northcoast Environmental Center and the executive director of SAFE (Safe Alternatives for our Forest Environment).

Solano Group Selects Co-chairs for Executive Committee

Ruscal Cayangyang and Princess Washington were elected as Solano Group's new co-chairs.

Ruscal Cayangyang started his public service more than 10 years ago right out of high school, first working at Vallejo City Hall. He went on to serve on the Vallejo School Board as president and worked for city councilmembers throughout the Bay Area as an aide and chief of staff.



Cayangyang is proud to represent his hometown of Vallejo on the Climate Emergency Mobilization Task Force since its founding, and to work with fellow elected officials and regional community leaders.

Washington has just been elected to the Suisun City Council, and readers will learn more about her in an upcoming issue.

Joe Feller, who chaired the group for eight years and helped lead many conservation and environmental justice efforts, including against the proposed construction of a cement plant, will remain active as a special projects manager for the group. He will also continue to represent the group as a member of the Redwood Chapter's executive committee.

Sonoma Co. Conservation Council Honors Fire-Safe Road Advocates



Marylee Guinon, Judith Olney and Deborah Eppstein are presented with the Environmentalist of the Year Award from SCCC in December.

When fires swept through Sonoma County in 2017 and 2019, thousands of residents evacuated on narrow, winding roads. This scenario has been repeated far too often throughout California, with ensuing and sometimes deadly traffic jams.

A trio of local leaders—Marylee Guinon, Judith Olney and Deborah Eppstein—have worked tirelessly for the Fire-Safe Roads initiative, with the goal of preventing similar scenes from unfolding again here in Sonoma County and around the State. As part of the State Alliance for Firesafe Road Regulations (SAFRR), they went head-to-head with the California Board of Forestry, the County of Sonoma and building and rural development advocates, and fought to change state regulations governing the fire-safe design of roads and new development approval in fire-prone areas.

Their efforts were rewarded in August 2022, when the BOF reversed its proposed adoption of looser standards and narrower roads. They continue their advocacy, following up with local jurisdictions to require implementation of the new standards. **Watch the full presentation here: https://www.youtube.com/watch?v=PSDRjd9Ms_I**

How Our Endorsements Faired in the Nov. 8 Election

FEDERAL RACES

US Senate—Alex Padilla WON
CD 02—Jared Huffman WON
CD 04—Mike Thompson WON
CD 08—John Garamendi WON

STATEWIDE CONSTITUTIONAL OFFICERS

Lt. Governor Eleni Kounalakis WON
Attorney General—Rob Bonta WON
Secretary of State—Shirley Weber WON
State Controller—Malia Cohen WON
Insurance Commissioner—Ricardo Lara WON
Board of Equalization, District 2—Sally Lieber WON

STATE LEGISLATURE

SD 02—Mike McGuire WON
AD 02—Jim Wood WON

LOCAL RACES

Napa County BOS, Dist 1 Joelle Gallagher WON
Napa County BOS, Dist 3 Anne Cottrell WON
Solano County BOS, Dist 3 Wanda Williams WON
Benicia City Council Kari Birdseye WON
Benicia City Council Terry Scott WON
Fairfield City Council, Dist 1 George Kennedy lost
Suisun Mayor Alma Hernandez WON

Suisun City Council Princess Washington WON
Vacaville Mayor Jason Roberts LOST
Vacaville City Council, Dist 4 Sarah Chapman WON
Vacaville City Council, Dist 5 Jeannette Wylie WON
Vallejo City Council, Dist 2 Don Jordan LOST
Vallejo City Council, Dist 4 Ruscal Cayangyang LOST
Healdsburg City Council Brigitte Mansell LOST
Petaluma City Council, Dist 1 Janice Cader Thompson WON
Petaluma City Council, Dist 2 John Shribbs WON
Rohnert Park City Council, Dist 1 Samantha Rodriguez WON
Rohnert Park City Council, Dist 5 Susan Hollingsworth Adams WON
Santa Rosa City Council, Dist 2 Mark Stapp WON
Santa Rosa City Council, Dist 4 Victoria Fleming WON
Santa Rosa City Council, Dist 6 Veronica Jacobi LOST
Sebastopol City Council Sandra Maurer WON
Sebastopol City Council Stephen Zollman WON
Sonoma City Council Patricia Farrar-Rivas WON

STATEWIDE BALLOT MEASURES

PROP 1, Defending Reproductive Rights (support)—WON
PROP 31, Banning Flavored Tobacco Products (support)—WON

LOCAL BALLOT MEASURES

City of Benicia Measure K Renews UGB (support) WON
City of American Canyon Measure J Converts ag land to industrial use (oppose)—LOST

Synthetic herbicides harm land, wildlife and humans

By Megan Kaun

Sonoma Safe Ag Safe Schools

What does it mean to truly steward the land including all of its inhabitants? What is the measure of healthy land?

In the last 200 years, the land in Sonoma County has undergone major changes due in large part to indigenous people losing influence. The tradition of indigenous land stewardship assumes that without healthy land the people cannot survive.

It is a fundamentally sustainable land care system where humans and our true needs are deeply interwoven into how we interact with the land and each other.

This is contrasted sharply with a more modern capitalist-minded land management model where most humans are removed from the land, and short-term resource extraction/economic factors are the primary consideration.

In modern times, using synthetic herbicides like glyphosate/RoundUp to deal with unwanted vegetation has become a common strategy because of its efficiency and perceived low initial cost. We are slowly realizing now what the true cost of this practice has been to our waters, the ecosystems, and the health of our community. We are being forced to look back to the time-tested tools from 200 years ago (grazing animals, prescribed burning, and strategic mowing/pruning) not only to reduce fire danger but to completely reawaken the land to its full life-giving potential.

Our organization, Sonoma Safe Ag Safe Schools (Sonoma SASS) is dedicated to educating the community about pesticide use and advocating for nontoxic alternatives. All pesticides (including herbicides, insecticides, fungicides, rodenticides, etc.) are designed to kill and should only be used as a last resort.

Our Sonoma County land managers have made incredible strides in the last five years to significantly reduce the amount of pesticides used in local land management.

We are currently working to help Caltrans, a major

state land management partner, stop using herbicides for routine road maintenance.

Caltrans sprays 10 different synthetic herbicides on roadsides in Sonoma County. RoundUp/glyphosate may be the safest of these chemical weed killers. Some of these products are known to cause developmental harm to humans, listed as human carcinogens, not readily biodegradable, contaminate groundwater, and are highly toxic to aquatic life/fish. These pesticides

In December, Sonoma Group sent a letter to the Sonoma County Board of Supervisors affirming support for the BOS to ask Caltrans to stop using glyphosate and other herbicides in Sonoma County.

The letter states:

“Water is increasingly scarce and sources unpredictable due to climate change so more than ever we need to preserve the clean waters of the Russian River Watershed, Laguna de Santa Rosa and Petaluma keeping them free from pollutants. Synthetic herbicides also have high soil mobility and kill fungi needed to build healthy soils that can more effectively sequester carbon from the air.”

are sprayed next to roads where people live, work, go to school, ride bikes, and walk to the bus stop. They are sprayed in ditches that flow directly into the Russian River and Laguna de Santa Rosa.

Mendocino and Humboldt counties passed resolutions more than 20 years ago that effectively stopped Caltrans from using synthetic weed killers in non-emergency circumstances.

Caltrans land managers in Humboldt and Mendocino have found a way to replace the toxics with well-timed mowing and grazing operations, a practice that is more in line with indigenous land management strategies. The same methods could be used in Sonoma County.

For more information on this campaign and to sign our letter to the Sonoma County Board of Supervisors, please visit our website at <https://www.sonomasass.org/nospraycaltrans>.

We thank the Sierra Club Sonoma Group for their support!

Redwood Needles

Sierra Club

Redwood Chapter

P.O. Box 466, Santa Rosa, CA 95402

Nonprofit
PRST STD
U.S. Postage
PAID
Permit No. 363
Petaluma, CA



Volunteer with Us!

MEMBERSHIP ENGAGEMENT CHAIR

Be the friendly face that introduces new members and volunteers to Redwood Chapter. This is a key position within the chapter to help it grow and maintain an engaged and active member and volunteer base. Responsibilities include: creating a calendar for member engagement activities, carrying out social events for members and volunteers, recruiting and leading a member engagement team to help plan activities, welcoming new members, recruiting and tracking new members. *Estimated Time Commitment: 10 hours a month.*

OUTINGS LEADERS

Do you love the outdoors? Do you love sharing your love of the outdoors with others? Outings leaders are an integral part of Sierra Club, as they welcome people from all backgrounds into an outdoor adventure. Redwood Chapter is located in an incredible landscape with so many places to enjoy and explore. But chapter outings don't have to be confined to our region. You can lead groups on hikes, paddles, camping trips and more! Sierra Club provides the training, you provide the inspiration and leadership. To learn more about becoming an outings leader, please visit <https://www.sierraclub.org/redwood/outings-leaderappandresources> *Estimated Time Commitment: 5 hours a month.*

OUTINGS CHAIR

Provide leadership, direction and oversight to the chapter and group outings programs. Work to make outdoor activities an integrated and vital element of chapter efforts. Responsibilities include ensuring all chapter and group outings follow Club policies and procedures, managing and minimizing the risks of local outings programs, maintaining training and First-Aid certification requirements for outings leaders, and ensuring active leaders meet these requirements. *Estimated Time Commitment: 10-15 hours a month.*

Redwood Chapter welcomes volunteers who are passionate about local environmental issues and want to help. There are lots of ways for you to plug in, and we would love to have you! E-mail redwood.chapter@sierraclub.org

www.sierraclub.org/redwood

Sonoma • Napa • Solano • Lake • Mendocino • Humboldt • Del Norte • Trinity • Western Siskiyou