

Forest & River News

GRASSROOTS CONSERVATION & RESTORATION IN THE REDWOOD REGION

TREES FOUNDATION

WINTER 2021

Building Climate Resiliency in the Redwoods Region

Grassroots Environmental Projects Bolstered by the Cereus Fund

- 🌿 **The Fight for Jackson Demonstration State Forest**
- 🌿 **Mateel Region Conservation Map Moves Online**
- 🌿 **Community Organizing for Fire Resilience**
- 🌿 **Remembering John Rogers**



Editor's Note

As the days become shorter and a new year approaches, we look back on 2021 as a year of revitalized activism and community engagement for protection and restoration of climate-resilient, healthy ecosystems in the redwoods region. We also reflect with gratitude on the great feedback we received for our summer issue, which celebrated Trees Foundation's 30th Anniversary. Our supportive community is truly what keeps us going—thank you!

We are delighted to announce that our Mateel Conservation Context Map—an ongoing project at Trees Foundation for 23 years—has now moved online at treesfoundation.org/map. The printed version of the map has already served as a powerful organizing tool—helping win a lawsuit to protect McCoy Creek; boosting local support for the Thompson wilderness bill, which became law in 2006; spurring interest in Eel River Recovery Project in its early days; and uniting locals to organize for fire protection and to reopen Standish Hickey State Recreation Area when the state closed it in 2011 (see page 7). As this ever-evolving map moves online, we look forward to hearing your feedback, and discovering what protection and restoration efforts it will aid next.

In this issue we also celebrate the many grassroots conservation, restoration, and environmental education projects that the Cereus Fund of Trees Foundation continues to empower. We are very grateful for the Cereus Fund and all our donors!

As you dive into the wisdom and inspiration contained within these pages from partner groups we are honored to serve, please remember to share it with friends. All of these stories can be found on our website, along with an option to subscribe and receive each issue in your mailbox. Please spread the word, donate, and get involved. Let's keep organizing!

Thank you,

Jeri Fergus, Mona Provisor, Kerry Reynolds
Trees Foundation Collective

Index

Trees Foundation's Cereus Fund

The Cereus Fund of Trees Foundation Continues to Help Grassroots Environmental Advocacy in the Redwoods Region.....10

Forests & All Creatures

Living with Fire..... 30
Community Organizing for Fire Resilience
By Ali Freedlund

Pomo Perspective: The Fight for Jackson Demonstration State Forest..... 34
By Michael Hunter

Restoring Native Grass Species Can Help Reduce High-Intensity Fire Risk..... 40
By Kirsten Hill and Pat Higgins, Eel River Restoration Project

The Struggle to Save Richardson Grove Continues.....41
Environmental Protection Information Center

Climate-Smart Conservation in the Klamath Mountains..... 42
Klamath-Siskiyou Wildlands Center

Why Is CAL FIRE Trying to Silence Its Critics? 44
Mendocino Trail Stewards

Water, Rivers, & Fish

Plant Notes.....39
By Cheryl Lisin

Evolving Drought Resilience in McKee Creek..... 46
By Anna Rogers, Tasha McKee, and Ash Brookens, Sanctuary Forest

Human Nature: Comedy of the Wild..... 42
Human Nature

From My Perspective

The Map: A Mythic Recollection.....3
By Jeff Hedin

Diggin' In...The Richard Gienger Report.....22
By Richard Gienger, Restoration Leadership Project

Fifteen Years and Counting: Time to Lift the Veil on Carbon Markets on the North Coast 36
By Gary Graham Hughes

In Memoriam

Remembering John Rogers 26

Nature Boy..... 38
By Ellen Taylor

Announcements

Salmonid Restoration Conference to Convene in Person Again in 2022.... 45
Salmonid Restoration Federation

Cover photo: Trees Foundation's Mateel Region map, available online, treesfoundation.org/map

The views, thoughts, and opinions expressed in this publication are those of the authors and do not necessarily reflect the position of Trees Foundation.

The Map: A Mythic Recollection

By Jeff Hedin

Editor's Note: We are excited to announce that the Mateel Region Conservation Context map—23 years in the making—is now available on our website at treesfoundation.org/map. We would like to acknowledge the dedicated work of activists Jeff Hedin and Rob DiPerna in the creation of this map, and to Trees Foundation's past GIS Specialists, Scott LaMorte and Matt Dicks. A special thank you goes to Trees Foundation's current GIS Specialist Cullen Cramer, who overcame many technical obstacles to convert the map to WebGIS so that it can be viewed anywhere online. The following is Jeff Hedin's story of the origins of the map and how it has served as an essential organizing tool.

Jeff Hedin's disclaimer: Time and date errors and all omissions are innocent, not malicious. All maps need constant revision to stay relevant. Wade in, please. This history and the map itself need review.

In the fall of 1996 I found a note in my mailbox: "If you are the Jeff that knows Doug Fir, please come to the Piercy Watersheds Association meeting this Saturday, 10 am at Resting Oak. BLM wants to sell a virgin forest on the North Fork of McCoy Creek. – Ami Goldberg"

That Saturday I met Ami Goldberg, Josh Golden, Tanya Gaines, Paul Encimer, and David Bergin, and I learned the history of local land use from 160-acre homestead claims to timber company empires, harvest plans, Department of Forestry and Fire Protection, Bureau of Land Management, conflicts galore, and a newspaper clipping announcing BLM's intention to sell some scattered tracts. Lots of emotions and opinions, but no one had a map.



Jeff and Scott show off Trees Foundation's new plotter in 2001

Carrying my taped-together USGS quad maps for Piercy and Noble Butte, I drove to Garberville, Madrone Realty, the source of the clipping, and met Vern Bonham. Vern rubbed his finger over a stretch of North Fork McCoy Creek and said, "Yup, I tried to buy that piece back when I was logging in this area, but BLM wouldn't sell. Now after I gave title to my piece to Coombs in exchange for hauling logs over his property, they want to sell it to the highest bidder. No one wanted the piece during homestead days. It's steeper than a sheep's face, but has some nice timber. So now it's landlocked, and Coombs has the only access to it. He won't sell a right of way. He'll just trade title for access when the cut is over. Leads to some ugly harvest practices...you should get a BLM map..."

I drove to the Arcata BLM office and met Linda Rousch, then BLM's Arcata District Manager. She asked if I wanted to buy the tract. "Of course, but I doubt I can compete. But I want to know what's

up, why this piece of our public lands is for sale, and maybe again, submit an opinion."

"Oh, commentary is closed," she said, "Now we are answering queries from potential buyers."

"Commentary is closed! When did it open?"

"It opened months ago."

"Why am I hearing about this now? How was this sale announced?"

"We put a notice in the Times Standard."

"And in the Ukiah Daily Journal?"

"No, that's pretty far off and we felt this was only of local interest, and the trade journals would reach the commercial interests."

"Too far away. The legal description of this piece is in a section of a township in the Humboldt Meridian, but it is located in Mendocino County and 1/2 mile closer to Ukiah than to Eureka, and the Times Standard does not come to Piercy. How

were we to know that a virgin forest on public land in our watershed was about to be sold on auction? The Times Standard doesn't cover anything in Mendocino County, not even our Supervisors' board meetings. For local news and legal announcements I go to Leggett or Laytonville to buy the *Journal*, *The*

Press Democrat, or the *Chronicle*. If you put it in the *New York Times* it would have a better chance of reaching Piercy. Sometimes I can find one at the Peg House. This can't constitute adequate public announcement."

Linda convened a meeting at the U.C. Ag Extension on Humboldt Hill. There we

met Freeman House, Maureen Roche, David Simpson, Rondal Snodgrass, and Harriet Burgess, the Executive Director of American Land Conservancy. The purpose of this proposed sale was to purchase 160 acres of land from Eel River Sawmills and annex it to BLM's King Range. David Simpson swore that their agreement was no old-growth for second-growth exchange. Some argued that some old growth was more important than other old growth. David replied, "We've been snookered," gathered up his stuff, and stomped out.

Eventually we agreed that an offer to sell land had not been announced because the parcel was not properly identified. Commentary was extended 60 days.

Joint field trips were planned. The BLM maps were wonders with so much information that for most they confused more than they clarified. As we left, Paul Encimer asked, "How did it come to this?"

Rondall said, "You snooze, you lose."

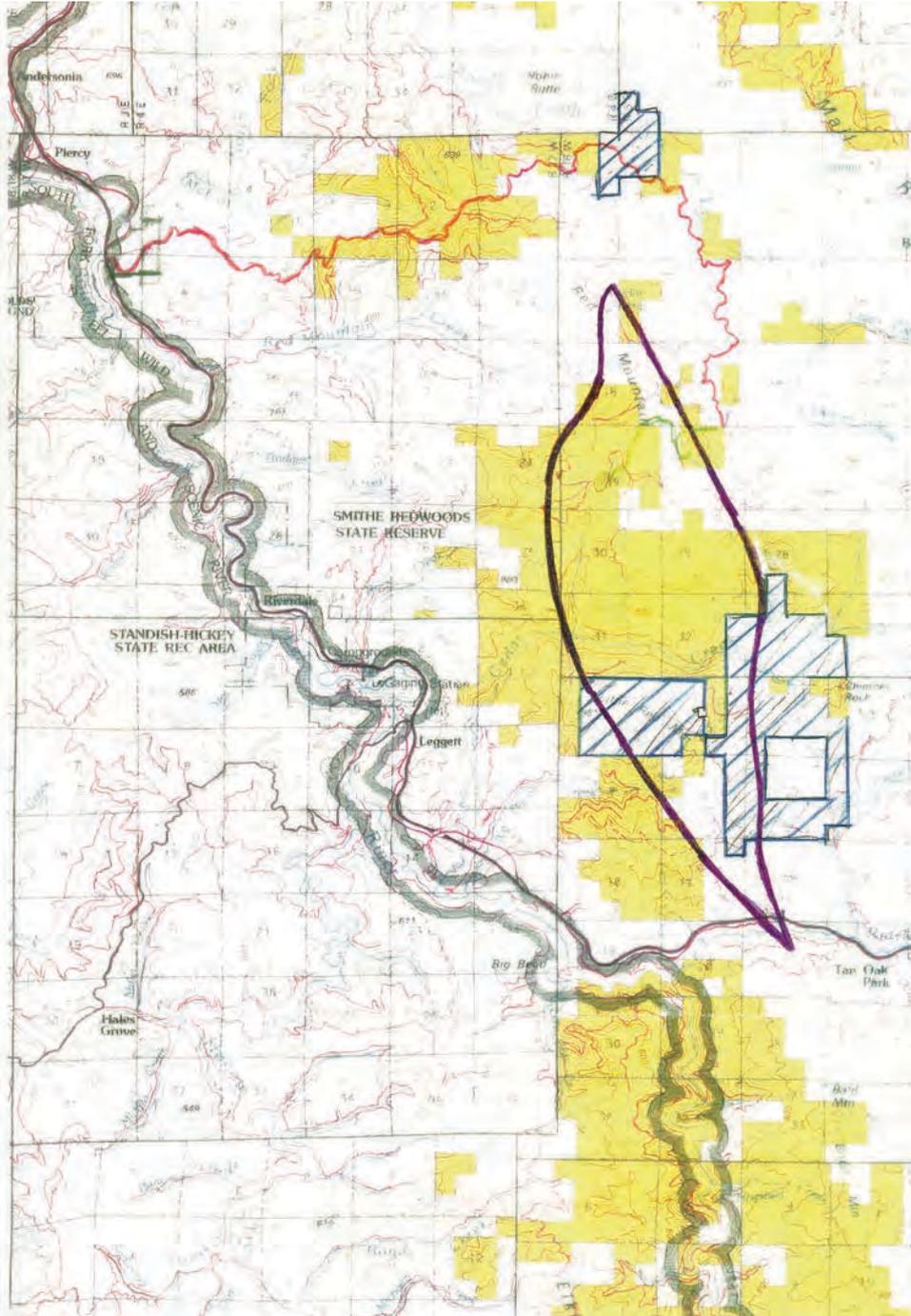
"Snooze!" I blurted. "We weren't snoozing. We were standing on a scenic turnout when your out-of-control truck ran over us."

Maureen rubbed my shoulder, and Freeman said, "We were all snoozing. I wish David were here. He thinks on his feet better than I." It was an acidic start to long collaborative friendships.

Mapping by Hand

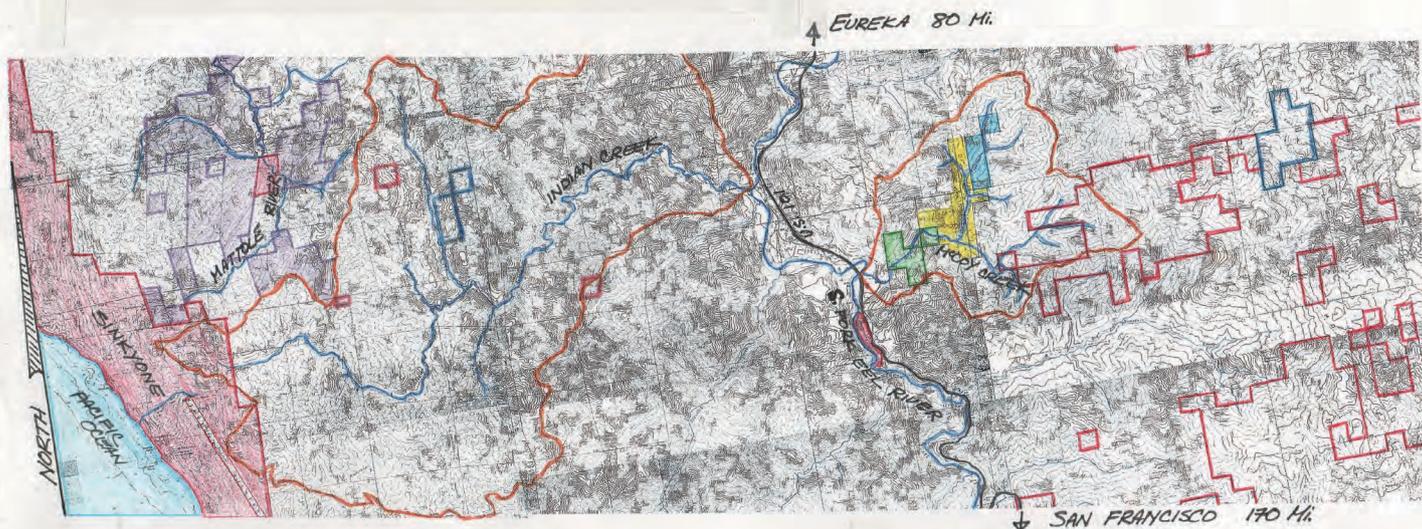
I went home to begin mapping how to get to this parcel that was really two pieces sharing a corner. We walked the "parcel," tallied plants, photographed even the fishes in the creek, consulted botanists, geologists, fishery biologists. We submitted our comments.

Linda Rousch, unable to reject them, at her request sent the comments to Ed Hasty, BLM's California Director. Ed sent them on to Washington, DC, from where a letter signed by an "Assistant Secretary of the Interior" was sent to me to report that our objections to the sale had been



One of three hand-colored maps that Jeff Hedin brought to his first meeting with Scott LaMorte in 1998. It is an enhanced Xerox copy from BLM's Covelo map to show access to potential Red Mountain wilderness for the Thompson Bill.

McCoy Creek Habitat Corridor



PIERCY WATERSHEDS ASSOCIATION
 P.O. BOX 44, PIERCY, CA 95587
 PHONE 707 923 2931
 FAX 707 923 4210

AVAILABLE ANCIENT FOREST
 AVAILABLE 200 ACRE GROWTH FOREST
 PROPOSED 200 ACRE CONSERVATION EASEMENT
 STATE PARKS
 STATE LANDS
 BLM LANDS
 WATERSHED BORDERS
 SANCTUARY FOREST

Jeff Hedin's colored-in Xerox copy from USGS quads that begins to map regional conservation levels. This was used in an attempt to raise money to buy BLM's McCoy tract before it was logged.

green. "See, here's McCoy Creek Canyon... there's the North Fork, the South Fork is over here. Watch."

He fiddled with the keyboard again, and click—a blue line wiggled and twisted through the canyon. A little more fiddling and clicking and all the BLM ownership in the watershed was on the map. A little more, and all the roads were on the map. It was a stunning test drive. He had scaled and indexed and aligned the map with north parallel to the page's edge. He had even credited his sources.

Then Scott looked at me and said, "It's not perfect of course, no map ever is. They are always approximations, and here we have info from the US Geological Center and Humboldt State University. Who knows who put those datasets together when? The roads especially need ground-

truthing. Ownership also changes fast. Now let's look at this corridor map to contextualize and to highlight our public lands. That will not be simple. We'll need lots of databases. You want the map to run from the sea over Red Mountain to the east slope of the coastal range?"

"Yup."
 "For budgeting, we're going to do our trials on 11x17 paper. What part of this do you know best?"

"Red Mountain to the Sea, and west to Bell Springs Road."

Finding a satisfactory mapping vocabulary was not easy. Scott fiddled with topo quads on the screen: Piercy, Hales Grove, Noble Butte, Leggett, Bell Springs, Tan Oak Park, Updegraff Ridge, and Iron Peak.

He centered the map on Red Mountain. He cleared the contours but left the section lines. Then he took my hand-colored map and added to his screen BLM, CA State Parks, CA Dept. of Fish and Game. The bent township and blocky property lines on top of our twisty ridges, streams, and roads was a snarl of info; a Jackson Pollack sketch with hiccups. But Scott was at the wheel and eager to drive on.

Scott said, "Let's add some color. BLM: whew, that's dull. Dead-grass brown. The bright yellow you used for the Thompson tour is way better. Let's use it here. Green for state parks. Blue for Fish and Game... no good, blue is for water, let's try purple. Okay, the timber companies. How about tints and shades of oranges, various mixes of red and yellow, lots of range there. Oh,

and access, let's get BLM and State Park road layers on. What do you think?"

"It's too busy. It's not revealing. It's overwhelming. My attention bounces around too much to focus..." I've kept copies of seven versions. We tried dozens, maybe more on the computer. The timber companies' size and color play always stole the show. We didn't want an anti-business map; we wanted to celebrate our public lands.

We widened the corridor north to south from Benbow to Branscomb. That was better. BLM's King Range and Cahto Peak blocks showed that our cumulative planning had left the corridor public inclusive.

"Let's map in the Angelo Reserve"

"Where's that? What is it?"

"It connects BLM's Elkhorn Ridge Tract to its Cahto Peak Tract. It's a geo-biological research station for U.C. Berkeley."

Scott found its boundaries, conjured it up, put it on the screen. "What color?"

"Green. Same as State Parks. Its conservation care exceeds our parks' care."

He tapped it in. "Okay?"

"Better. Still unbalanced and too busy."

Scott shrugged. "Sometimes simple pictures are better."

We trimmed content. Eventually Scott suggested that since the map was trying to show what the combined work of our public lands agencies have accomplished that we color them all green to emphasize their cumulative landscape effect. That added robustness to the public lands' presence on the map, but it still felt industry-oriented.

I was exhausted. Scott chuckled. For him it remained an intriguing cartographic puzzle. "Look, there is an underlying theme here of conservation. Why do we call them timber companies? They just have different

names, but aren't they all playing the same game under the same rules?"

"Yeah, they all try to extract forest products profitably, and they are restrained by regulatory frameworks from our Departments of Forestry, Water Quality, Fish and Game, the Board of Forestry, OSHA, et cetera."

"So in terms of environmental conservation and human comfort, the legal framework is the only way we can restrict them. Legally they have the same permitted role on the landscape. Color them the same. And legally, comparatively little landscape benefit is required. Make it lighter than the lowest shade of green. Pick a color."

"Light orange?"

"Orange is red and yellow. Green is blue and yellow. In the classic color wheel, red is the opposite of green."

"Okay, try red."

Scott found a red that almost looked pink when just dusted onto the map, used denser pixelation for borders, and black lettering for the ownership names of industrial timber lands. We liked that it could imply license with minimal regulatory control. They were in the pink. When we picked an aqua green to distinguish NGO ownerships we had the basic mapping vocabulary that we have used ever since. However, as Scott predicted, as we updated the map, we found we had to amend the vocabulary as complexity increased.

The Map as an Organizing Tool

What we started in 1998, we began publishing in 2002. We hung it on our walls. It inspired local letters requesting passage of a robust Thompson wilderness bill. It supported our pleas for financial support for the lawsuit to keep logging out of the McCoy Creek floodplain on the old-growth parcel that BLM had sold without restriction. I used it to revitalize

participation in Piercy's volunteer emergency service organization and to illustrate its grant proposals.

It was a tool that helped me show people the state of our landscape and the possible consequences of our collective effects. By the end of 2006 the Thompson bill was law, we had won the McCoy lawsuit, and Piercy had a full fire district board and six new certified responders.

In 2007, when RFFI (Redwood Forest Foundation Incorporated) bought Hawthorn Timber LLC's 50,000 Usal Forest, Scott and I had to expand the Map's vocabulary. The landscape had changed politically. As a timber company RFFI was bound by more than California's regulatory framework. It was a 501(c)3 "not for profit" corporation with a mission statement committed to restoration forestry for environmental and community benefit; a conservation easement preventing subdivision; and a \$60 million loan with management conditions from Bank of America. They were also pursuing compliance with the Forest Stewardship Council's definitions of sustainable forestry.

This Usal Forest was not public land, and RFFI was an NGO but intended to harvest and sell timber while practicing restorative and sustainable forestry. Not green, not aqua, not low pictal red. We chose to map it with red and green diagonal stripes. The green stripes slightly wider. Hope counts.

When California Dept. of Parks and Recreation closed Standish Hickey in 2011, we pulled out the Map to convince ourselves [especially but not only in Leggett and Piercy] to keep the park open and vital, and to save its infrastructure.

That same year Pat Higgins began to formalize his crusade to revitalize the Eel River watershed's biosphere by inviting all of us to join the Eel River Recovery Project. I went back to Trees to expand the Map to cover the entire Eel River drainage. Scott

was gone. Matt Dicks had become Trees' cartographer. We got acquainted while dusting off the Map, finding its computer records, and plunging into work.

When we started mapping the Eel River estuary, we went to see Molly Brown, the new director of BLM's Arcata District. After a few minutes she said "I'll get you all the data for Headwaters and any other mapping info you want."

After the Map acquired features reaching east to the Sacramento River watershed, north to Eureka Bay, and south to Jackson State Demonstration Forest, I took a 3' by 4' copy to ERRP's Salmon Festival in Round Valley. Ron Lincoln, wearing some of his Wailaki regalia, sauntered over and asked, "Where's Kekawaka?"

I pointed "Right here."

"That's where I grew up."

"Really! How did it get its name?"

"That's what the frogs sing in the spring when they gather to make babies."

The Map moves Online

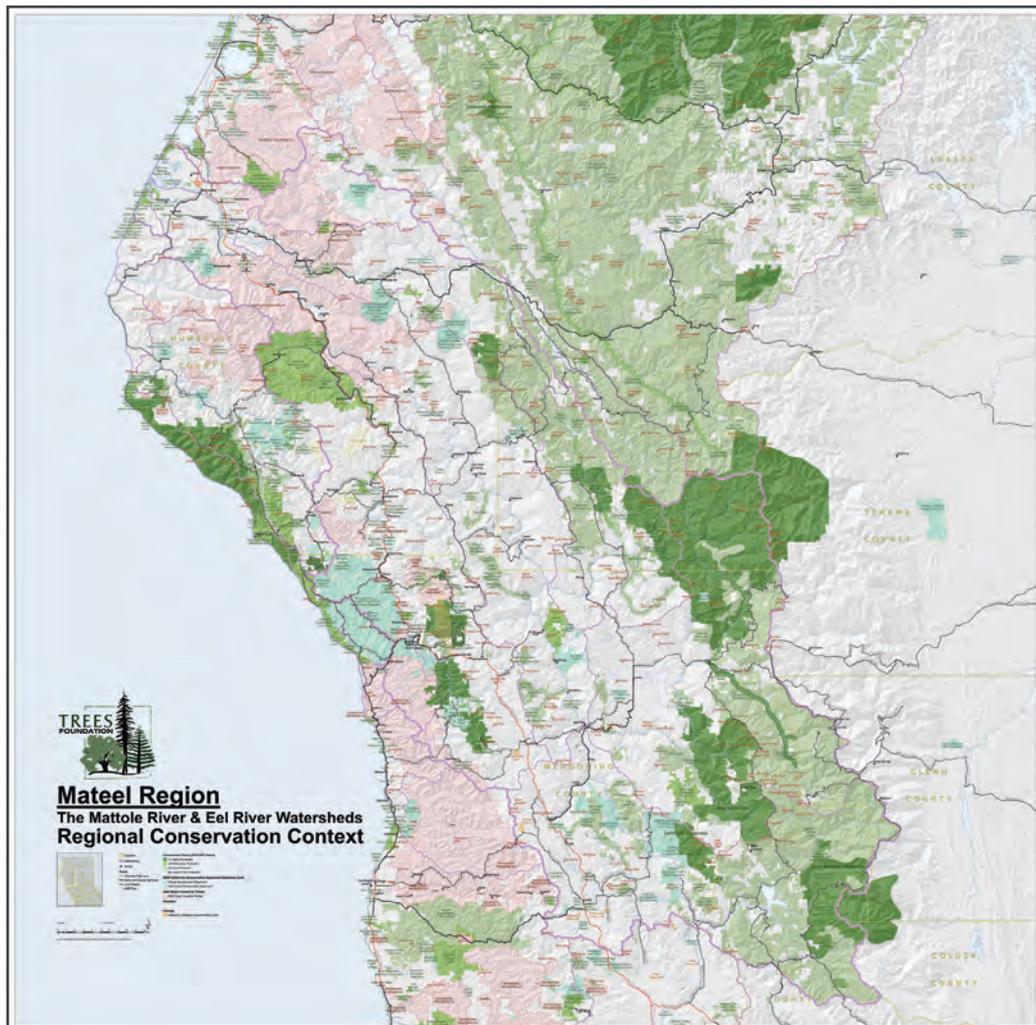
The Map is neither finished nor fully up to date. Our region is constantly changing physically and politically. And the Map's vocabulary will probably need revising to display what our future brings. How will we include the BLM California Coastal Monument, California Marine Protective Areas, TIMOs [Timber Investment Management Organizations], the Lost Coast Forestlands, and our Wild and Scenic Rivers?

Cullen Cramer, Trees' current cartographer, is using the Map's database

to generate maps illustrating our plans for landscape health and fire resiliency grants. He has brought a whole new dimension to the Map: online access with entered data layers. Conjure the Map onto your screen, expand a section, put your cursor on a detail, click for the dropdown, and see or read additional info. [Attention Fishing community: put in your tide charts and closure data. Historians: load it up. Road conditions on our public lands. Bird sightings.]

Trees Foundation, Cullen, and I want the Map as widely effective and appealing as possible. Feel welcome to contribute. Good data and good presentation will keep it relevant.

All life is a process of change. Good mapping can help us keep that changing joyful and life-enhancing.



Trees Foundation's Mateel Region map, with an interactive version available online, treesfoundation.org/map



Dear Friend of the Forest,

What a year we've had at Trees Foundation! We marked our 30th Anniversary with a special *Forest & River News* summer issue honoring the many activists that have been a part of our history. We also purchased a new GIS plotter that has already printed custom maps for Piercy Watersheds Association, Eel River Recovery Project, six Volunteer Fire Departments, and the Southern Humboldt Fire Chief's Association. GIS mapmaking and printing is one of many vital services that we are able to provide to our partner groups thanks to the generosity of our donors.

We planned an in-person 30th Anniversary celebration, and chose outstanding activists to receive 'Tree of Life' awards. That event was postponed due to a COVID surge, but it will happen in 2022. We hope all of our supporters can be there.

One part of our event that was so essential that we all agreed it could not be delayed was our Pathways to Fire Resilience panel. So we hosted our first webinar—a timely, interactive 2-hour discussion with leaders in rural fire preparedness—including three of our board members! You can view the entire webinar at tinyurl.com/PathwaysToFireResilience. A favorite quote from that event came from Southern Humboldt Fire Safe Council's Gail Eastwood:

Fire is a common denominator; it unites everyone. It's the concern that draws all of us into a deeper awareness that caring for the land is about survival.

Trees Foundation is committed to supporting the evolving grassroots environmental movement striving to make our forests more resilient to the threat of increasingly colossal megafires. This has led to another exciting development, our new Community Fire Resources Program—dedicated to supporting fire resiliency projects. We are in the midst of reviewing an impressive pool of applicants for a Community Fire Resources Coordinator position. Keep an eye out for our new hire announcement coming soon, and please help us welcome them to the Trees team.

This is the one time each year that we ask for your help. You can donate online at TreesFoundation.org/Give or mail your gift to Trees Foundation, 439 Melville Road, Garberville, CA 95542. All donors will receive another year of *Forest and River News* to keep you updated on the wonderful work happening on the North Coast.

With much appreciation for your support,

Jeri Fergus Mona Provisor Kerry Reynolds

Jeri Fergus, Mona Provisor, and Kerry Reynolds

For All of Trees Foundation

The Cereus Fund of Trees Foundation Continues to Help Grassroots Environmental Advocacy in the Redwoods Region

The following pages highlight grassroots environmental projects supported by the Cereus Fund of Trees Foundation in 2021. Established in 1998, the Cereus Fund is a part of Trees Foundation's Donor Advised Program which allows individuals to donate and direct funding to projects of their choice, which

Trees Foundation administers on their behalf. To learn more about these projects, or to start a Donor Advised Fund of your own, email trees@treesfoundation.org.

Trees Foundation is deeply grateful for this 23rd year of generous and enduring support from the Cereus Fund.

Bay Area Coalition for Headwaters

By Karen Pickett

Necessity may be the mother of invention, but its sister is creativity. As some pandemic limitations persist, all around us dedicated tree-huggers, forest lovers, and habitat defenders are rolling out creative solutions for keeping on with the work.

Continuing to serve those on the front lines on the North Coast in 2021, BACH bounced out news, information, and photos to our mainstream media lists and to Bay Area networks that generated letters to agencies and organizations and stories online, in print, and on the air. Issues included:

- Jackson Demonstration State Forest (JDSF) stepped-up logging plans, with threats to forest protectors;
- Caltrans trying—again—to resurrect its boondoggle highway expansion project through Richardson Grove State Park;
- PG&E bringing extreme and unnecessary measures into Humboldt Redwoods State Park (HRSP) in the name of fire safety improvement, including plans to cut large, old trees;
- Mendocino County Museum's exhibit of the attempted assassination of Judi Bari in the car bomb attack 31 years ago; and more.



a tree-sit in Jackson State Forest
PHOTO BY THE MAMA TREE NETWORK

The current attention on exploitation of publicly-held forests, like JDSF and HRSP, has generated renewed interest from both populations outside the “redwood curtain” and from media. It points to a mounting awareness of the forest-climate connection, as hammered home in many of our press releases. There exists a particular kind of outrage over exploitation of public resources,

ostensibly outside the reach of capitalism's profit motive.

We have also been studying language, in a manner of speaking, participating in anti-racism workshops specific to the environmental movement, and allyship discussions with those from other campaigns around the continent to help in crafting language that honors the diversity of people working for biological diversity. What we learn from these discussions feeds into press releases and other outreach materials—that's where the rubber hits the road in recognizing the importance of how we use language as a tool.

Throughout 2021, we have written, edited, and proofread many historical accounts, analyses of the evolution of ecological organizing, as well as press releases and public outreach materials. We also participated in strategy discussions and tactics analyses in order to bring as many minds as possible to decisions about actions taken around the issues of climate and forests, including lending support to youth-led climate actions this fall.

We look forward to setting up media workshops and discussions with campaigns in person soon, in appropriately safe mediums and locations, and are initiating discussions around that. Many thanks to Trees Foundation's Cereus Fund for supporting our work!

Eel River Recovery Project

Creative Outreach

Using the Cereus Fund Grant

By Pat Higgins

The Eel River Recovery Project (ERRP) was frustrated when the pandemic stopped public meetings, so we decided to use this year's Cereus Fund grant from Trees Foundation to fund creative outreach. After buying a Zoom subscription, we held two Eel Zoom series in spring and fall 2021. In addition, ERRP created a new program on KYBU radio, The Harmony Half Hour, in Covelo with the assistance of Sirius Studios in Eureka.

The first Eel Zoom series ran from April 2 through May 28 on Friday nights at 5 pm. This Happy Hour time slot targets folks ready for a libation at the end of the week with presentations that are informative yet informal. The series started with ERRP Managing Director and fish biologist Pat Higgins presenting on the "Status of Eel River Salmon and Steelhead." Other topics covered were Sacramento pikeminnow management, water temperature and flow, salmon parks, forest health, and toxic cyanobacteria. Highlights included Eli Asarian explaining why Eel River flows have decreased over time, and how we could restore them. Thomas Keter batted last and provided a comprehensive history of the North Fork Eel River watershed that covered 10,000 years and a number of different disciplines in a breezy style.

Eel Zoom II began on October 15, again on Friday at 5 pm, with Tom Keter recounting the effects of the August Fire on the North Fork Eel River watershed and sacred sites therein. "Speeding Forest Health Implementation on the North Coast" was the second in the series on October 22, when Pat Higgins was joined by Tim Bailey of the Hayfork Watershed Center. Other Eel Zoom II topics include restoring native grasses, riparian restoration using bioengineering, and assessment of the 2021/2022 fall Chinook salmon run.



Anna Birkas (l), Joel Monschke of Stillwater Sciences, Pat Higgins, and Teri Jo Barber assessing gullies on the Vassar property in lower Tenmile Creek. PHOTO COURTESY ERRP

The Harmony Half Hour runs on Thursday nights at 7:30 pm on KYBU in Covelo. The show is produced by Alan Olmstead of Sirius Studios in Eureka. Many interviews run on the show previously aired on KMUD's Monday Morning Magazine hosted by Pat Higgins. All Harmony Half Hour shows are also posted at <https://soundcloud.com/eelriverrecovery>.

Sign up for Eel Zoom II series or check out past Eel Zooms at www.eelriverrecovery.org.

Friends of the Van Duzen River

By Sal Steinberg

Working closely with the Eel River Recovery Project, Friends of the Van Duzen River (FOVD) was able to continue its decade-long project of installing 18 temperature probes in the Van Duzen watershed. The temperature probes take the temperature every hour

on the hour for months at a time. They are attached to a metal plate and placed in flowing water and/or deep pools. There are two parts to this process: placement and retrieval.

FOVD recruits local elementary and high school students to install and recover the probes in the Lower Van Duzen from Wolverton Creek to the mainstem at Rainbow Bridge. Clyde, the 8-year-old son of Kevin and Melanie Cunningham from Shakefork Farm, has been active in the process for the past four years. He is my youngest student. FOVD is dedicated to training young scientists.

This summer we were fortunate to have recruited Logan McDermitt to assist in the probe process. This 29-year-old environmentalist from West Virginia has been living and working in California for the past two years with the Watershed Stewards in Hayfork and the California Department of Fish and Wildlife in Humboldt. This year he assisted the



Clyde and Kevin with at the Main Stem Van Duzen River ready to install a temperature probe.
PHOTO BY SAL STEINBERG

FOVD in the upper reaches of the Van Duzen River and its tributaries. He represents the next generation of environmentalists.

A special thank you goes out to Mike Connich—wildlife biologist, hydrologist, and keeper of the salmon tanks at Humboldt Redwood Company—for taking me to upper Yager Creek to install and retrieve a temperature probe. I look forward to taking kids to see the dynamic salmon exhibit in Scotia.

Due to the pandemic, I was unable to complete my current Cereus Grant. Instead of going to schools this fall, I am now developing and sharing curriculum materials. Nurturing Nature consists of a 3-part series of lessons beginning with writing a paragraph Talking to Nature, drawing a picture of the Tree of Life, and writing a tree poem. Kahlil Gibran said,

“Trees are the poems that the earth writes upon the sky.” These lessons can be found on my website www.fovd.org under Cereus Grant 2021.

Additionally, I have been exploring the Internet and found a phenomenal video series for students in kindergarten through 8th grade. Called Generation Genius, it offers engaging and creative lessons in science and math. Check out the website www.generationgenius.com. Lessons are divided into three grade levels: K-2, 3-5, and 6-8. Cost is only \$175 per teacher with an automatic renewal each year. There is a free trial period.

After discussion with the Trees Foundation, we decided to use the remaining funds from the existing grant during the rest of the 2021-2022 school year. Thank you, Trees Foundation and the Cereus Fund.

Friends of the Lost Coast

The Cereus Fund of Trees Foundation has long been a supporter of Friends of the Lost Coast (FOLC). Where as past grant awards have largely focused on our invasive plant removal and native plant restoration programs on the Lost Coast, in 2021 funds were awarded to assist with administrative staffing and to enhance our website and social media presence.

FOLC is in a time of transition, both organizationally as we shift from being exclusively Board-run to an organization with paid staff, and in relation to COVID-19, as public-gathering restrictions and school closures required us to bring more of our programs online into the virtual space. Our most recent grant from the Cereus Fund was used specifically to help us in these newly challenging areas. This made it possible for us to pay a professional webmaster and to create a page on our website to house the in-school environmental education curriculum lessons for one of our seminal programs, The Lost Coast Environmental Education Resource (LCEER), which FOLC administers on behalf of the Bureau of Land Management. Traditionally these lessons are taught in local schools by our LCEER educators, but COVID-19 made this impossible in the 2020/21 school year. The Cereus Fund of Trees Foundation enabled us to upload the curriculum and lessons directly to our website, allowing teachers and students to access the materials and incorporate them into distance- and pod-learning plans without our educators entering a classroom.

Additionally, the Cereus Fund grant was used to support the ongoing work of a new Administrative Director, allowing for increased hours to maintain and keep current the events calendar on our website and to assist our webmaster in ensuring that content is complete and accurate. The Administrative Director worked closely with our webmaster to



“Observing Nature” is one of more than 62 natural science lessons now available at lostcoast.org for teachers, students, and anyone interested in learning about the natural life of the Lost Coast and beyond. All lessons meet STEM standards.

overhaul the website, lostcoast.org, and to assemble the content/ images necessary to complete the project and make it look great. Our Cereus Fund grant also supported our Administrative Director in building and maintaining FOLC’s social media presence, more widely promoting our upcoming educational and volunteer stewardship opportunities. Furthermore, the Cereus Fund grant was used in developing and implementing organizational policies to ensure that our programs—and the funds that support them—are well tracked, accounted for, and managed.

Many thanks to The Cereus Fund of Trees Foundation for their continued dedication to the work and mission of Friends of the Lost Coast, as well as their support for many other environmental organizations working to bolster grassroots perseverance and resiliency in the redwood region.

Humboldt BayKeeper

Mercury Study Expanded to Include Ocean-Caught Fish Species

In the second phase of Humboldt BayKeeper’s mercury study, we sampled 70 ocean-caught fish, including Pacific Halibut and several species of rockfish, from nearshore waters off Cape Mendocino, Sumeg Village, and Reading Rock. These fish were caught by Jeffery Stackhouse, a licensed fishing guide, and by Ross Taylor and Associates (RTA), a consulting fisheries biology firm. (see FRN Winter 2017, page 20 , <https://tinyurl.com/6ce3kuf4> for info on phase one)

Eating fish has health benefits—as long as it is low in mercury, which tends to concentrate in bigger, older fish. Low-mercury fish is high in omega-3 fatty acids, vitamins A, B, and D, and is a good low-fat source of protein. But knowing which fish are low in mercury isn’t always easy.

At lower levels of mercury consumption, symptoms can include fatigue, muscle and joint pain, memory loss, and numbness or tingling around the mouth. At higher levels, symptoms include loss of coordination, numbness or tingling in the hands or feet, blurred vision or blindness, hearing loss, and speech impairment.

During our 2018 study, we interviewed 80 fishermen, including one from Shelter Cove who suffered mild health effects from elevated mercury levels. He developed symptoms after eating local rockfish 3-4 times a week. Within three months of changing his eating habits, his mercury levels decreased.

The U.S. EPA sets lower levels of mercury exposure for children and women of child-bearing age (under 45) than for men and women over 45. Women planning to get pregnant should lower their mercury exposure by eating low-mercury fish and shellfish.

The good news is that many of the fish caught in Humboldt Bay and nearshore

coastal waters have low to moderate mercury levels. However, Lingcod over 10 pounds or 28” long, Pacific Halibut over 50 pounds, and some rockfish species should not be consumed by women under 45 and children, whereas Lingcod under 10 pounds are safe to eat once a week. Leopard Shark and Lingcod over 20 pounds should be avoided by everyone,

Guidelines For Women <45 And Children

Best Choices – Eat 5 To 7 Servings A Week	
Wild Chinook Salmon Oysters, Mussels, Clams	Anchovies Sardines
Good Choices – Eat 2 To 3 Servings A Week	
Smelt Dungeness Crab Locally-caught Albacore Tuna Pacific Halibut <12lbs. or <35” long	Surfperch Black Rockfish California Halibut
In Moderation – No More Than 1 Serving A Week	
Lingcod <10lbs or <28” long Pacific Halibut 12-50lbs. or >35” long Canary Rockfish Bat Ray	
AVOID fish with the Highest Mercury Levels	
Leopard Shark Brown Smooth-hound Shark Spiny Dogfish Lingcod >10lbs or >28” long Cabezon Rockfish: Copper, China, Gopher, Quillback, Vermillion	

Guidelines For Women >45 And Men

Best Choices – Eat 4 To 7 Servings A Week	
Wild Chinook Salmon Oysters, Mussels, Clams Dungeness Crab Black Rockfish Locally-caught Albacore Tuna Pacific Halibut <12lbs. or <35” long	Surfperch Anchovies Sardines Smelt California Halibut
Good Choices – Eat 2 To 3 Servings A Week	
Lingcod <10lbs. or <28” long Pacific Halibut 12-50lbs. or >35” long Canary Rockfish Bat Ray	
In Moderation – No More Than 1 Serving A Week	
Lingcod 10-20lbs. or 28-35” long Cabezon Rockfish: Copper, China, Gopher, Quillback, Vermillion	
AVOID fish with the Highest Mercury Levels	
Leopard Shark Brown Smooth-hound Shark Spiny Dogfish Lingcod >20lbs or >35” long	

New 2021 Eating Fish Safely Guidelines for Humboldt Bay, available for download at humboldtbykeeper.org.

regardless of age and gender. They are long-lived predators that eat high on the food chain.

Tips for choosing low-mercury fish are to focus on mostly smaller, younger fish or shellfish like crabs, oysters, clams, and mussels. When eating fish from a store or a restaurant, one serving of fish per week is a good general rule, unless you know it is high in mercury (in which case, don't eat it at all).

Our final report and factsheets are available on our website:

www.humboldtkeeper.org. Thanks to the Cereus Fund of Trees Foundation, California EPA, and the Humboldt Area Saltwater Anglers for supporting this project!

Mid Klamath Watershed Council

Summer Adventures in the Mid Klamath

The Mid Klamath Watershed Council (MKWC) recently wrapped up a successful summer of youth programs, and we have much to be proud of. The season began with a potent mix of ambition and caution as we envisioned a summer full of activities while preparing for them to change or be cancelled at any moment. Miraculously, we were able to attain all our goals, with full participation from more than 30 campers and junior counselors. We thank the Cereus fund for contributing to this worthwhile program.

Rather than our standard weeklong overnight experience, we adapted to offer an epic sequence of single-day events affectionately known as KAOS (Klamath Adventure Outdoor Series). Every Thursday we invited 13 kids and several presenters to a different natural site and provided a full day of outdoor recreation, hands-on science, and social connection, all free for local youth.

From the high-mountain meadows and wilderness lakes, to the cool creeks and



KAOS participants snorkel Dillon Creek and learn how to seine net with members of the Karuk Tribe Department of Natural Resources Fisheries. PHOTO COURTESY MKWC

rapids of the Salmon and Klamath rivers, we ventured out in tubes, kayaks, and drift boats to learn from and engage with our watershed. Water-based play was integrated with our environmental stewardship curriculum, covering topics such as fire safety, invasive plants, salmon refugia, conifer diversity, and water conservation.

We incorporated arts and crafts, solar-oven cooking, and life skills such as catching, cleaning, and cooking your own fish. We closed each day with a time for reflection, circling up to share our favorite memories, more difficult moments, and how we would like to improve ourselves and the world around us.

For our final event of the year, we took the kids camping in the Trinity Alps. Activities included day-hiking to two beautiful lakes, nature journaling, and games through which we learned about predator/prey relationships and nocturnal animals. Several families accompanied their campers and learned alongside them how to pack, trek, stay safe, and have fun in the wilderness. These lessons were of

particular value as a thunderstorm rolled across the ridgeline, bringing rain and sparking the first wildfires of the season within our river basin.

As the curtain closed on our summer events, we held one final circle of reflection, each member expressing gratitude and amazement at all we had achieved in the face of so many shifting factors. Together we had navigated intense weather, pandemic precautions, and balancing the unique needs of each participant, our community, and the environment. Our efforts were rewarded by rich educational experiences and deeper connections to one another and this extraordinary place.

Mattole Restoration Council

By Ali Freedlund

The Forest Practices Program of the Mattole Restoration Council has been busy this year following the activities of the Humboldt Redwood Company (HRC) and advocating for healthy land stewardship.

Humboldt Redwood Company is the largest industrial timber company in the Mattole River watershed. Since March there have been two HRC timber harvest plans proposed in the Mattole, and the Forest Practices Program submitted comments throughout the process on both. The first, THP 1-21-0031, is in the Petrolia area, nearby a residential neighborhood. Many concerns were raised with this plan that is accessed via a blind one-lane slide area used by residents. Other concerns include: road building within the riparian zone of McGinnis Creek, more than 3000 feet of new road construction, the harvest of older trees currently providing slope stability and resilience to wildfire, and the almost-clearcut forestry practices using Variable Retention. Nonetheless, the plan was approved.

Variable Retention (VR) requires retaining a small percentage of standing trees within each unit and is often justified as necessary to promote Douglas-fir regeneration. Yet, VR is classified as uneven-aged forestry. As a backstory, when the owners of HRC purchased former Pacific Lumber Company (PL) land, one of the positive changes was



HRC's thinning demonstration project PONSSE machine (rented) at work. PHOTO BY ELEONORE JORDAN ANDERSON

that HRC was dedicated to uneven-aged harvest practices as opposed to the outright clearcuts that PL was infamous for as part of its even-aged practices. Unfortunately, VR harvests end up looking almost like a clearcut. Standard timber industry opinion is that Douglas-fir will not grow in the canopy of older trees. My experience says differently, and there is now research to prove it with the amazing work of Suzanne Simard, who

has introduced to the scientific world the idea of Mother trees. From her research we know that elder Douglas-fir trees share food and resources with youngster trees. Check out her book *Finding the Mother Tree: Discovering the Wisdom of the Forest* if you haven't already. Or you can read about it here: <https://mothertreeproject.org/about-mother-trees-in-the-forest>.

The second HRC plan proposed in the Mattole this year, THP 1-21-0107, is in the Rattlesnake and Fox Camp drainages. Concerns include 4500 feet of new road construction, harvest near a spotted owl, harvest of older Douglas-fir, harvest near headwater streams, harvest close to Humboldt Redwoods State Park, and some harvest using VR.

Meanwhile, I was graciously invited on a field day in July with Congressman Jared Huffman. The tour went to an HRC fuels-reduction demonstration project and a meet-and-greet proposed oak woodland prescribed burn project facilitated by Humboldt Prescribed Burn Association.

At the HRC site, we witnessed a mammoth piece of heavy equipment known as the Ponsse. This beast (see photo above) was created for multiple



HRC's oak woodland restoration project. PHOTO BY ELEONORE JORDAN ANDERSON

uses, with the ability to be used on steep slopes. The head of the machine can saw down a tree, de-limb it of branches, and cut it into pre-programmed lengths. The Ponsse was rented with a crew as part of a grant-funded project through North Coast Resource Partnership. Until now HRC had not accepted grant funding for management that I knew of for their forests, but I think it is a good and necessary thing, as HRC lands include so much logged-over, dense second- and third-growth forests to treat in order to nourish resilience from wildfire and disease. HRC is exploring ways to reset their large forest stands for a healthier future...until they harvest again, that is. HRC's Oak Woodlands treatment part of the project is shown in the photo on page 15, bottom left.

The tour ended at a private landowner's oak woodland that will have prescribed fire through Humboldt County Prescribed Burn Association. The majestic old oaks were a delight to behold and definitely held an imaginable healthy future. Thank you to Cereus Fund of Trees Foundation for all your support.

Mattole Salmon Group

Every summer since 1996, volunteers have snorkeled the Mattole River to search for summer-run steelhead, the rarest of Mattole salmonids. Every year, that is, except for 2020, when COVID made the always complicated puzzle of vehicle shuttling impossible. We were happy to be back in 2021, with financial support from Trees Foundation's Cereus Fund, the Conservation Lands Foundation, and the Bureau of Land Management (BLM).

Summer-run steelhead enter freshwater in spring and spend the summer hiding out as flows drop and temperatures increase, before spawning when rains come again in the fall. In 25 years, no more than 56 adults have been seen in a year; in contrast, estimated annual



Chris Loomis of CDFW and Brandon Craig of Sanctuary Forest plan how best to rescue fish from a muddy puddle that in wetter summers is a nice pool in Thompson Creek. PHOTO COURTESY MSG

returns of the more numerous winter-run steelhead are 2,000–5,000 adults.

In 2021, 15 adult summer-run steelhead were seen, a bit less than the average of 22, but more than the seven adults observed in 2019. There are many things we don't understand about these fish. While it is clear the adults need deep pools, preferably with a cool water source and some cover, what drives year-to-year variation in abundance, where in the watershed they spawn, and the degree to which they are a genetically distinct run remains a complete mystery.

We are working with Dr. Samantha Kannry and BLM staff on research that should help us better protect these creatures. In 2020 and 2021 we collected several hundred caudal (tail) fin clips from juvenile steelhead, captured using dipnets in streams throughout the watershed. Dr. Kannry is analyzing these samples using techniques employed in her PhD research in the Eel River, where she found summer-run genotypes predominant upstream of flow-dependent barriers (boulder roughs) in the Middle Fork Eel and the Van Duzen, and winter-run genotypes predominant below these

barriers. The Mattole lacks large barriers such as these, and geographically is more like the South Fork Eel, from which there were no summer-run genotypes detected at all!

Support from the Cereus Grant of Trees Foundation also allowed us to snorkel 638 pools counting juvenile coho salmon. This was the best year for coho in over a decade, with an estimated abundance of nearly 6,000 coho parr (juveniles), well above the average of 1,800. Unfortunately, by late August many of these fish were stranded in drying pools. Thanks to the assistance of CDFW biologist Chris Loomis, we were able to move more than 2,000 coho and steelhead to wetter waters, but this summer was a sobering reminder that in the face of climate change these fish need every advantage to survive.

Restoration Leadership Project

The main and continuing goal of the Restoration Leadership Project is to solve environmental problems by unifying people to bring about lasting positive change in land management attitudes

and practices. Some of the work in 2021, under COVID-19 constraints, included:

- Continued active engagement with Redwood Forest Foundation and Usal Redwood Forest (RFFI/URF) and the surrounding communities. Significant efforts are underway to bring Northwest Mendocino County first responders and fire departments into contact and communication with landowners to improve emergency capabilities and understanding, as well as to encourage participation by all parties in long-term community, resource, environmental, recreational, and social well-being. Some of the major landowners are RFFI/URF, State Parks and Recreation, Intertribal Sinkiyone Wilderness Council, Lost Coast Forestlands, Bureau of Land Management, and Save-the-Redwoods League. Some of the emergency/first responders/firefighters are located in Whale Gulch, Whitethorn, on BLM property (King Range), Westport, Leggett, Piercy, Garberville, and Briceland.
- Other continuing work is furthering application of Indigenous Traditional Ecological Knowledge in the recovery of



Tour of RFFI's Usal Redwood Forest: Head Forester Linwood on the right, and founding Board Member Art Harwood in the left foreground. PHOTO BY RICHARD GIENGER

the forests and watersheds in Northwest Mendocino County. There is a renewed interest and involvement by local Tribes in the restoration of the Chinquapin Tan Oak Grove and a variety of other reconnection–stewardship projects.

- Arduous efforts continue with Forests Forever and Why Forests Matter to reform and bring about industry practices that will ensure long-term high-quality forests. This is especially difficult because the catastrophic fires have focused actions on reducing the forests without having standards in place for long-term high-

quality and fire-resistant forests, which is claimed to be the goal. The scale, utility, and reform measures of the Planning Watershed Pilot Project approach are being bypassed as California moves to hyper-large-scale projects that leave forest-based communities in the lurch. California is pushing unrealistic technological “climate fixes” that highlight efforts to combat climate change by burning small thinned trees in biomass facilities and piping all the massive amounts of CO₂ produced into underground strata. The Leadership Project speaks out regularly in multiple venues and on webinars/Zoom meetings, often several times per week, to persistently advocate reforms that will benefit both forest and human communities.

- A major focus and fulcrum for change is the effort to pressure Jackson Demonstration State Forest (JDSF) to impose a two-year moratorium until reform and transparency and public engagement can set adequate standards given the dire climate conditions to adequately take the right actions—to not only set forest stewardship right in JDSF, but for all California forestland.

- Monthly Monday Morning Magazine shows on KMUD with co-host Jeff Hedin and several Institute for Sustainable Forestry (ISF) radio specials every month bring guests with positive experiences



Evaluating Humboldt County crossing replacement work in key coho tributary of Redwood Creek, South Fork Eel River—near Huckleberry Hill. PHOTO BY RICHARD GIENGER

and perspectives to a broad audience. Outstanding forest and watershed activists, professionals, scientists, and community leaders are constantly brought forward for inspiration and exemplary pathways. *Forest & River News* is also key.

Trees Foundation's Cereus Fund makes so much of this work possible. Thank you.

Sanctuary Forest

Working Collectively

Across Watershed Boundaries

Sanctuary Forest's water stewardship goal is to develop land and water stewardship programs with partners to keep the Mattole River flowing and healthy. Low streamflows and the prolonged drought have severely impacted Mattole River salmonids. Water quantity issues have also affected residents who depend on the Mattole River for their everyday needs. To that end, Sanctuary Forest continues to implement salmonid habitat restoration projects and to work with our community to create a culture of water conservation through education and outreach. There is an urgency to address climate change and

a need for direct actions to create a more drought-resilient landscape. This is not a light undertaking and not one that we can address alone. This work requires an immense amount of collaboration with our watershed partners, Mattole Salmon Group and Mattole Restoration Council, and with partners outside our watershed, notably the Salmonid Restoration Federation (SRF).

Sanctuary Forest often collaborates with SRF, and in 2021 we participated in two SRF-hosted workshops/events. On Saturday, May 8, Sanctuary Forest co-hosted a virtual workshop to explore evolving restoration techniques in Redwood Creek and the Mattole River: *Evolving Restoration Practices in an Era of Climate Change: The Intertwined History of Two Connected Watersheds*. More than 50 participants joined the workshop to learn about land use history, water storage, coho straying, restoration priorities, low flow monitoring, and flow enhancement.

In August, Sanctuary Forest staff travelled to the Navarro River watershed to attend the 23rd Annual Coho Confab.

Tasha McKee, Sanctuary Forest's Water Program Director, presented Community Water Programs and Flow Lessons Learned in the Mattole. Other restoration partners including The Nature Conservancy and Trout Unlimited also presented on their efforts to work with the community to restore streamflows and led tours of restoration projects taking place in Mendocino County.

Sanctuary Forest works with multiple partners to develop solutions to water scarcity issues, share knowledge, and raise awareness throughout the greater North Coast region. Special thanks to The Cereus Fund of Trees Foundation for granting funds to support these efforts to restore balance for the benefit of fish, wildlife, and people.

Salmonid Restoration Federation

Nordic Aquaculture Research, Tracking, and Public Comments:

Trees Foundation's Cereus Fund grant helped Salmonid Restoration Federation (SRF) track, research, and submit public comments regarding the Nordic Aquafarms (NAF) proposed Samoa land-based aquaculture project on the Samoa Peninsula. SRF's work focused on participating in NAF's community outreach meetings (called "office hours") and initiating discussions regarding potential fish diseases from farmed salmon and toxicants in commercial fish feed. SRF is concerned that NAF would raise Atlantic salmon since SRF is focused on preserving wild populations of salmon on the North Coast. We are strongly opposed to genetically modified salmon and the risks associated with discharge and effluent in land-based aquaculture operations.

Fish food for Atlantic salmon consists of 7–10% fish oil and 7–10% marine meal, which means that 14–20% of the proposed feed sourcing will be from wild fish that support marine



Coho Confab participants tour a large wood habitat restoration project in the Navarro River watershed in Mendocino County. PHOTO COURTESY SANCTUARY FOREST

ecosystems outside the project area. In this instance Pacific herring is the likely fish food source, which would take away significant food resources from wild salmon in the Northwest.

During public meetings and in SRF's public comments, we expressed our concern about the proposed operation's toxicity, discharge, effluent, and carbon footprint. SRF staff and Board reached out to HSU faculty, Norwegian researchers, UC Santa Cruz fisheries faculty, staff from Save Our Salmon, and Humboldt Baykeeper in order to do comprehensive research and compile technical documents that informed our public comment letters. Additionally, we coordinated with local salmon and crab fishermen, Golden State Salmon Association, Pacific Coast Federation of Fishermen's Associations, California Coastkeeper Alliance, Sierra Club, and Pacific Fisheries Management Council.

Specifically, SRF worked with staff and students at Humboldt State University and University of California Santa Cruz to share analyses and ensure that all adverse effects to salmonids were addressed during public scoping. SRF worked with Save California Salmon and provided a set of preliminary exposure analyses for Project effluent discharged or flowing into Endangered Species Act critical habitat for five species.

SRF also coordinated with California Department of Fish and Wildlife staff to address project effects on coho salmon and longfin smelt in Humboldt Bay. As an important forage fish for salmonids, longfin smelt productivity is important for salmonid growth and survival.

SPAWN

Thanks to help from a grant from the Cereus Fund of Trees Foundation, Salmon Protection and Watershed Network (SPAWN) was able to train, house, and utilize several full-time



SPAWN interns pound willow stakes in planting tubes. PHOTO COURTESY SPAWN

interns for six months or longer in 2021, including a diverse group of folks who came to Marin County, California from such far-away places as New Hampshire and Texas.

Jamie Wilson (Manchester, NH), Teska Hapig-Ward (Sonora, CA), Matt Fernandez (Pasadena, CA), and William Benedict (Long Island, NY) interned for six months, while Logan Anderson (Davis, CA) and Eleanor Clarke (Houston, TX) extended their internships to nine months, gaining additional training and experience at increased levels of responsibility.

Interns were trained and gained valuable hands-on experience in techniques and methods of stream habitat restoration, bio-technical stream stabilization, topography surveys, wildlife habitat surveys, salmonid spawning surveys, juvenile salmon monitoring and handling, native/invasive plant identification and removal methods, native plant propagation, horticulture, seed collection and sowing, plant nursery operations, irrigation installation, erosion control measures, public outreach and communications, public speaking, grant-

writing, project management, event planning and preparation, volunteer leadership, GIS mapping, and use and maintenance of small gas-powered equipment (chainsaws, brush cutters) and hand tools.

Intern Logan Anderson said, "The SPAWN internship program gave me invaluable hands-on experience for working in restoration and natural resource conservation. The staff was very supportive and worked to make my internship one that developed my skill set and cultivated my personal interests in conservation."

In total, these interns collectively gained 5,280 hours of experience and provided a massive amount of human power to fuel our efforts. The value of this effort translated into \$132,000 of volunteer labor, greatly amplifying the grant from Trees Foundation's Cereus Fund and helping us to meet some of CA Fish & Wildlife Fisheries Restoration Grant Program "in-kind match" grant requirements.

According to intern Teska Hapig-Ward: "The internship program with SPAWN

provided the invaluable opportunity to tackle climate issues and the effects on fish populations with a focus on hands-on work. By working with SPAWN, I solidified my interest in climate and wildlife science, learned about fish biology and habitat restoration by working directly with the animals, and was given opportunities and resources to tackle any personal projects I found interesting. SPAWN's program was an integral step in my development as a wildlife biologist, habitat restoration technician, and climate activist."

Our "graduates" have moved on to various natural resource positions including with the National Park Service, Environmental Science Associates, U.S. Forest Service, and Outward Bound.

"The insight and human power provided by our interns is a big part of the engine that makes SPAWN so efficient and

effective," said Watershed Conservation Director Preston Brown. "Interns bring new insights to our work, and we love learning from them as well as teaching."

Trees Foundation's Cereus Fund grant was used to cover housing and equipment costs such as utilities, maintenance, internet services, and protective gear.

Tenmile Creek Watershed Council

The Tenmile Creek Watershed Council (TCWC) was formed in 2018 after a series of public meetings in Laytonville, California. Attendees voiced concerns about declining salmon population, loss of flow in local creeks, the health of native oak woodlands, and the threat of wildfires. The Council partnered with the Eel River Recovery Project (ERRP) to propose a watershed restoration and conservation program. Grants targeting

streambank restoration and forest health are currently being applied for and administered by ERRP. For TCWC the challenge is how to efficiently disseminate information about projects already underway and how individuals can become involved.

Due to COVID-related restrictions on gatherings of any kind, a video offered a solution. It could be shown at small gatherings, made available online, and distributed to schools. TCWC applied for and received a couple of modest grants, including a Trees Foundation Cereus Fund grant allowing us to look for someone capable of making a quality product.

Of the five TCWC board members, four are local property owners with a variety of land issues and one works at BioEngineering Associates. The arc of the video highlights current projects, including streambank restoration, oak woodland restoration and fuel removal, erosion control, grassland restoration/noxious weed removal/controlled burning, and efforts to bridge a wet crossing on Tenmile Creek. Others interviewed include a Cahto Tribe member and environmentalist bringing a Native perspective, and a project manager with the Natural Resource Conservation Service (NRCS) explaining Environmental Quality Incentives Program grants for landowners.

Obstacles arise when completing any project; in this case, COVID and wildfires have slowed progress. Everyone's time is voluntary, including the videographer and his assistant since their stipend is far below cost. Merely finding the time to meet can be a challenge. In late spring we set aside two days for the bulk of the shooting, which required calm, clear weather. The five board members with the videographers and all their gear set up at a variety of locations. The NRCS and Cahto



Philip Buehler, Margaret Andrews, and Susy Barsotti (Trees Foundation's Board President) admire an ancient valley white oak near Tenmile Creek.
PHOTO BY ALISON PERNELL



Community Potluck in The Sacred Grove: Gail, Michele, Azalea, and Darlene

PHOTO COURTESY WOMEN'S FOREST SANCTUARY

Tribe interviews occurred on separate days. The storyboard calls for an aerial shot following Tenmile Creek as it runs northward through Long Valley featuring native oak woodlands and riparian vegetation. When a local pilot donated his time, a date was arranged for a flyover. But by the morning of the shoot, smoke from the California wildfires created a yellow haze over the valley and we had to abort as we stood on the runway. Next, a vaccinated crewmember tested positive for COVID. But determination prevails, the long-awaited shoot will take place, the footage will go to the editor, and by spring our video will be available to the public. (On Facebook: Ten Mile Creek Watershed Council)

Women's Forest Sanctuary

The Women's Forest Sanctuary (WFS) continues to thrive. We learn and evolve through our connections with the forest and our community of forest allies. We are grateful for our conversations with

Hawk Rosales of The Intertribal Sinkyone Wilderness Council, which inspire us to listen to trees with our whole being and to explore our interconnection with nature.

Our annual visit to The Sacred Grove included rejuvenating connections with friends and neighbors who participate in stewarding the land. Cathy Lentz, an ardent supporter, contributed breathwork and serene music, which enhanced the tranquility of our forest experience. At our community potluck dinner we enjoyed singing with live accompaniment and telling stories about protecting our forests.

In the shelter of the forest we welcomed feeling our grief for what's happening in the world. We asked the trees, "How can we support healthy, vibrant forests?" We felt the trees silently holding us, teaching us about being steadfast in the face of loss. In opening our hearts, we became stronger in moving through grief and connecting with what we love.

Our adventures with the land included waking up in the night to cries of wild cats and the earth quaking, discovering where a stream running under the grandmother trees joins the Mattole, and walking the property to assess tactics for fuel reduction.

Young participants at Youth Spirit Artworks (YSA) were eager to experience our annual outing to Redwood Regional Park in Oakland and to relax in nature. Several youth found that they felt calm and at peace when sitting solo with a redwood tree. They loved learning that trees communicate with and support one another! Youth and staff drew images about their forest experience. Eric wrote, "I feel the warmth of the sun on my face and think about connections with everything alive. Roots from my feet connect to a small tree in front of me; we bring life into the world in different ways."

WFS is exploring how we will further support protection of forests and reconciliation with nature. As we listen for guidance, we are drawn to learn about and respect Indigenous peoples who inhabited the grove and Mattole watershed for thousands of years. Strengthening our connection with the local Indigenous community and supporting their traditional ways of stewarding forests holds deep meaning for us.

We are grateful to the Cereus Fund of Trees Foundation for supporting diverse environmental efforts that collectively benefit California's North Coast web of life.





Diggin' In

The Richard Gienger Report

Got the existential blues these days, except for the wonderful return of the rains since the 15th of October. From dry or barely damp stream and river beds to record flows for the month of October. Bursting optimism for salmon migration and spawning and for continued rains through the fall, winter, and spring. Lingering concern that, despite record-breaking early flows, the rains may be fickle (as in so many recent years past) and end up sputtering until later or much later in spawning season. We are overdue for a high-water winter—hang on and be prepared for floods and more drought. Hopes and prayers are out there for a hugely successful spawning and survival year.

Hard hit and shocked by the sudden passing of John Rogers on 29th September 2021.

Thinking About and Missing John

John William Rogers has been a vital, steady, and integral part of the cultural, social, and intellectual life of Southern Humboldt and Northern Mendocino Counties since the 1970s. His thought and influence reaches Northern California and to forests and forest-connected people in North America and beyond. His sudden passing was tragic and shocking. A beautiful obituary written by his family can be seen online by searching “Kym Kemp John William Rogers.” The family is planning a memorial for John in the spring. In lieu of flowers, please send any memories, stories, accomplishments, pictures, or bad jokes in memory of John to his daughter at john.rogers.memorial@gmail.com. See also the article in this issue with highlights from a KMUD on-air tribute to John (page 26).

I have crossed paths many times and spent appreciable periods of time with John since our first meeting. Some of the special experiences were John’s participation in the founding of the Institute for Sustainable Forestry (ISF), his immersion into woodworking, the growth and solidity of ISF, providing leadership, and an incredible knowledge and perspective of forestry – all with great depth of thought.

**John, I repeat,
was and will be
remembered as the
Sherman Tank of
Sustainable Forestry
—David Simpson**

My most cherished time with John has been on the Boards of Redwood Forest Foundation, Inc. (RFFI) and the Usal Redwood Forest (URF) since 2008. John’s commitment to RFFI’s principles was unwavering. His dedication to forming and implementing a Stewardship Plan are invaluable now and for the future. The manifestation of that effort most recently is in the basics of the current strategic plan focusing on climate, carbon, water, habitat, and community connection. His loss at this time is especially painful.

Three parts of John’s commitment stand out: His adamancy that a truly productive forest is a forest that is predominantly composed of large and high-quality trees and high-quality habitat; that surrounding communities must be intertwined with that forest and its management; and that it be accomplished without the

use of herbicides. We must honor that commitment and continue and expand his leadership. John was always aware of and responding to the primal inspiration and need for efforts exemplified by RFFI, URF, and ISF.

I’d also like to share here David Simpson’s salute to John:

In Memory of John Rogers

—by David Simpson

“John’s pronouncements on issues surrounding forest management were often delivered sotto voce but none-the-less fierce—Rudi Becking-esque incantations on all-age forestry, appropriate discount rates, paeans to the Gods who dwell in stands of large old trees and in quiet indignation to the far lesser Gods, those of the pecker-poles that the industry seems far happier to produce. John, I repeat, was and will be remembered as the Sherman Tank of Sustainable Forestry—and a truly kind and brilliant friend to many of us who love the forest.”

[Rudi Becking (1923–2009) was an indomitable personality, forester, environmentalist—hero to many with a lot of hard-bitten foes. He was hung in effigy when he taught at Humboldt State University during the fight over protection and expansion of Redwood National Park. He was a plaintiff in the NRDC v. Arcata National Corp. lawsuit that prompted the California Court of Appeal ruling confirming the application of the California Environmental Quality Act (CEQA) and its Environmental Impact Report (EIR) to forest practices. He was of the old-school, “forester knowing every tree in the area of his stewardship.” From heated contention over forest



Looking upstream in the Mattole Headwaters on August 12th (left), with disconnected surface water and exposed large wood habitat structures—and then with high flow on October 24th (right) with those structures actively shaping pool and side channel habitat. ALL PHOTOS THIS ARTICLE BY RICHARD GIENGER

management at the Mendocino County Board of Supervisors: “Dr. Becking summarized the basics of the Plenterung method he’s been propounding over the 40-year span of his internationally recognized professional career. ‘Plenterung,’ he explained, means literally ‘pick and choose’ and is a form of uneven-aged, selection silviculture that stimulates quality growth and maintains constant volumes and closed canopies, and works towards optimum productivity levels for all species. The method emphasizes natural regeneration for increased genetic strength, protects old growth and seeks to restore the environmental quality of soil, water and wildlife.”]

Moving On

There is always so much, too much, to cover in these columns. There were a couple lists of issues I wanted to cover in the last column. The lists were pretty long, and without directly checking I can’t remember what I got to and what I

didn’t. I do remember that I included an April 2021 letter from Forests Forever and Why Forests Matter to CalFire regarding the issue(s) connected to Jackson Demonstration State Forest (JDSF) and the essential need for a minimum two-year moratorium until a qualified and independent public and indigenous-based panel makes implementable reforms for JDSF management—which can then be applied to reforms that are necessary state-wide.

California is gripped by crises from top to bottom: drought, huge fires, over 40 million people way over carrying capacity for the land and water. The solutions being put forward are quite literally smoke and mirrors, including forest liquidation (excuse me, thinning) with the massive amounts of thinnings to be miraculously turned into electric power with all the massive amounts of resultant CO₂ magically, with pipedream technology, piped deep into subterranean geological

layers. Thinning and prescribed burning (particularly that based on Traditional Ecological Knowledge, TEK) can be excellent tools, but the funds and process for application are not adequate. There is complete resistance to establishing the standards necessary for multi-generational recovery of the forests and a sane relationship with human communities. Of course, that’s exactly the opposite of what is being claimed. California is hell-bent on programs that claim to protect human communities and fight climate change while disconnecting people from appropriately scaled relationships and continuing the economic juggernaut that put us in these circumstances to begin with. Read Mark Arax’s *The Dreamt Land* for starters.

Here’s a couple literary “follow-ups” I’ve come across: One is broad in scope and a deep, deep examination of Western “civilization” and forests, from ancient mythology to the present day: *Forests*

—*The Shadow of Civilization* by Robert Pogue Harrison. I'm over halfway through it, and I got a good laugh from the mountain bikers around a campfire at Usal recently, telling them I was only able to get through about four pages a night. Harrison, halfway through, bringing in Joseph Conrad's *Heart of Darkness*:

"The juxtaposed relation between the primitive forests and civilized Europe, then, is at once analogical and topographical. The African jungles are literally remote from Europe, yet their wilderness provokes the most intimate cultural confession—a failure in the power of devotion, a failure of the idea, a failure, in essence, of European morality. *In Heart of Darkness* forests appear as the locus of this revelation. What the forest's darkness reveals is precisely what remains concealed under the gloom that broods over the metropolitan crowd of men, namely Western nihilism at the turn of the twentieth century. Conrad's heart of darkness—the heart of the forest within and without—exposes nihilism not so much as the savagery and greed that lie beneath the humane postures of colonialism, but as the absence of a redemptive idea in the West's conquest of the earth."

Earlier, Harrison: "The United States in particular is the 'child of Enlightenment' in this respect. Its approach to forestry is based largely on the French and German models. But then again, the United States is the child of more than one parent. It has Puritanism, Enlightenment, Romanticism, and more as a part of its heritage. We could say that a war is being waged today in the United States between Monsieur Le Roy and John Manwood. The war is between two fundamentally opposed concepts of the forest. One is the concept of the forest as resource; the other of the forest as sanctuary."

He describes humans in the ancient mythological times entrapped in dense



The lower Van Duzen on October 20th with NO surface flow (top) and the same reach on the next day with substantive flow after initial part of 'big rain' above. The amount of rain for October 2021 set North Coast records.

forests everywhere, unable to see the sky. From several sources he takes human evolution from creating clearings to have light and ability to see the sky. Subsequently huts, villages, cities, and academies follow. Looks like economics dominate, deplete, and obliterate forests today. What do you think?

On a "lighter" and more local note is a novel published in 1941, *The Man Who Went Away* by Harold Bell Wright. This novel of intrigue is set in the actual coast and terrain between Bear Harbor and the South Fork Eel River with a new set of place names and barely disguised 1880–

1941 history. The reality of the impact of the Bear Harbor Lumber Company and the saga of Henry Neff Anderson and Andersonia are clearly outlined. The author, a favorite of Ronald Reagan, wrote adventure novels set in real topography. This one, with characters woven into reality history and romantic primal forest, ends with Save-the-Redwoods League saving the primal ancient forest—and the man who had returned to make a fortune cutting the forest was transformed and "Went Away." Most of the story is set in the real topography of Indian Creek that extends from the Usal Road ridge

above Bear Harbor and Needle Rock to its confluence with the South Fork Eel River across from “old” Piercy. Most of it is now in drastic recovery mode and part of RFFI’s Usal Redwood Forest and Lost Coast Forestlands. If Harold Bell Wright had lived long enough to write a sequel, published say in 1964 or 2006, the romantic happy ending epiphany of 1941 would be eclipsed by the reality of some of the most thoroughly damaging rounds of logging in the region—even though the recovery is underway and ideally will continue for generations. The area has continued to be, despite all, favored by salmon and steelhead—an essential refugia of coho for recovery of runs in the South Fork Eel River. I’ve been meaning for years to regularly delve into Northwest Mendocino/Southwest Humboldt County perspectives in this column. Might happen.

Below is a set of links that will give you important information to digest and act on. My intention and the space to delve into critical details are somewhat impaired. Next column I’ll try to get in more detail. Past columns have plenty of that detail just waiting for you to be motivated.

One imperative action is to bring overwhelming support for at least a two-year moratorium in Jackson Demonstration State Forest, with independent transparent examination/analysis to make the reforms necessary there and by extension to all of California’s forests—the reality needed for recovery, climate, water, and habitat, with conservation standards for multiple generations of sustaining and positive stewardship.

I strongly recommend (full disclosure, I am on the Board of RFFI) that you check out the video of this year’s September 8th virtual RFFI annual meeting. The RFFI model stresses forest and watershed recovery that engages participation by

all the surrounding communities and is strongly presented by Board Chair Kathy Moxon, Head Usal Redwood Forester Linwood Gill, and Conservation Recovery Coordinator Karen Youngblood; with the keynote given by Dr. Frank Lake, outstanding expert Indigenous practitioner and teacher of Traditional Ecological Knowledge. Go to www.rffi.org to connect with the recording of the annual meeting.

Please help out where and when you can. Check out the work and other information for Sanctuary Forest, the Institute for Sustainable Forestry (ISF), EPIC, Forests Forever, Why Forests Matter, and Redwood Forest Foundation, Inc. Thank you, Trees Foundation! – rg

Links that need inclusion:

- Cal Fire, timber industry must face an inconvenient truth. We are logging further into the wildfire and climate crisis. Sep. 17, 2021 1:30 a.m. By Evan Mills and John P. O’Brien, <https://tinyurl.com/6du8yaes>
- How a California state forest became a battleground for logging redwoods on public land. Oct. 14, 2021, Updated: Oct. 20, 2021 3:34 p.m. By Ashley Harrell, *SFGATE*, <https://tinyurl.com/ae3yxfkc>
- A Billion-Dollar Fortune from Timber and Fire Story by Chloe Sorvino, <https://tinyurl.com/3a5rvy9c>
- A Victory for Clean Water October 22, 2021, <https://tinyurl.com/3a5rvy9c>
- DRAFT California Climate Adaptation Strategy <https://tinyurl.com/cdhsdw5n>
- History of CDF Archaeology Program: 1977–2004, State of California <https://tinyurl.com/2ykszyku>

To Get Involved

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 EPIC
wildcalifornia.org

 Forests Forever
www.forestsforever.org

 Mendocino Trails Stewards
mendocinotrailstewards.org

 Redwood Forest Foundation, Inc.
www.rffi.org

 Sanctuary Forest
sanctuaryforest.org

 Why Forests Matter
whyforestsmatter.org

- ScholarWorks at University of Montana Graduate Student Theses, Dissertations, & Professional Papers. *Money Does Grow on Trees*, A. B. Hammond and the *Age of the Lumber Baron*, By Gregory Llewellyn Gordon, University of Montana, <https://tinyurl.com/7es8b9jw>
- Pathways to Fire Resilience Webinar October 4, 2021, <https://treesfoundation.org/2021/10/pathways-to-fire-resilience/>
- KMUD Public Affairs Statewide Coalition Builds Momentum for Environmental Justice on the North Coast, <https://tinyurl.com/jvnpmmwnnt>
- Forest Management Task Force Feb 13, 2019, <https://tinyurl.com/znxджу2>
- Governor signs AB 9—Creates Entity Dedicated to Wildfire Prevention Work, new entity will focus on wildfire prevention planning and activity Thursday, September 23, 2021, <https://tinyurl.com/a2j6wrfn>

Since arriving in the Mattole Valley of Humboldt County in 1971, Richard Gienger has immersed himself in homesteading, forest activism, and watershed restoration. Richard’s column covers a range of issues including fisheries and watershed restoration and forestry, plus describes opportunities for the public to make positive contributions in the administrative and legislative arenas as well as in their own backyards.

Remembering John Rogers

The following are excerpts from a live KMUD-FM radio show on Oct. 20, 2021 that honored the legacy of John Rogers, a cofounder and former Executive Director of Institute for Sustainable Forestry.

Gray Shaw: Welcome back to The Institute for Sustainable Forestry's Sustainable Forestry Journalism Project. I'm your host, Gray Shaw. Recently the Institute lost one of its early leaders, John Rogers. For the next half hour, we're holding a live discussion about where ISF came from and where it's going in terms of John's legacy...Now, I'm handing over the reins to some people who knew John well.

Jeff Hedin: I met John in the mid-'90s, and if there's someone who wants to start off with how important he's been to us all since earlier times, please do. Some of you knew John from the days that ISF was being conceived. Some of you probably were sitting at that table as the Ten Elements of Sustainability were being offered and agreed upon, and my introduction to John came a few years later.

Richard Gienger: John has been a stalwart part of the Southern Humboldt/Northern Mendocino communities and part of a



number of villages. It takes a village. John was part of many villages, and many people have been close with John over the years in all kinds of circumstances. And John was a serious woodworker and got all motivated by a number of things relative to the environment, especially sustainable forestry.

Douglas Fir: John was a deep thinker, and I look around our community and I see that we're losing our public intellectuals. And I put John in that category because he was

kind of a focused public intellectual in the sense that his field was wood and forest, and he was a nerd in that respect. He was a numbers guy, and one of the few people who really approached the situation in our forests and in our communities and the relationship between the two in a really empirical way. And he was recognized across the industry for being that kind of person, being the forestry nerd.

Dave Kahan: [John] churned out these voluminous reports that absolutely blew my mind. I'm happy to say that I didn't have to read them because I'm not as much of a nerd as he was about that kind of stuff, but I was really impressed with his work ethic and his ability to teach himself what he needed to know in order to turn out that product, and he always kept up a jovial attitude.

I met him first as a colleague in the formation of ISF, which was an incredibly magical weekend of something like 60 or 80 people packed into Jan [pronounced YAN] Iris's place at Hokahey and...it was one of the most incredible weekends I



John at a Future Forest Conference in Nov. 2005, an ISF project under John's leadership. The conference reviewed and discussed the findings released in the "State of Sustainability Report" written by John with the guidance of the Sustainable Forest Council.

ever spent. It was so inspiring to have that many people travel as far as they did from pretty much all over the Northwest and from such different walks of life, and out of that came the Institute. And then in the course of becoming a colleague, we became friends, which is hard not to do.

Douglas Fir: I want to refer to something Dave [Kahan] said because I think it's really important, and that was the jovialness, and I wouldn't actually characterize it as jovialness. I would characterize it as a strong sense of irony, and that sense of irony on the part of John always created a sense of the absurdity of the world. And he always got a kick out of that, a humorous kick out of that. And it was always a twinkle in his eye around what was going on, because he always saw it through his ironic lens.

We lost another of what I call the great people of Southern Humboldt, clearly. One thing I've noted over the years is that different people step up for different things, and sometimes it's surprising, like people who have not been seen to exhibit an activist side will suddenly come out and do something really activist. And I think of John in that respect, because John was never part of the Acorn Alliance that did direct action against nuclear establishment, both in weapons and power. But John went to Seattle [for the demonstrations against the WTO] and that really changed him as well. He was on the streets in Seattle in 1999, and that was his expression of a kind of activism that came out of a lot of deep thinking about the economy and about globalization, and he took that on in the way that he took everything on, out of a deep sense of both conviction and understanding.

Jeff Hedin: John brought to my conversational realm the best contextualization of what we were doing here in terms of what was going on in the rest of the entire planet's human community than anyone else I was talking with.

The Ten Elements of Sustainability

1. Forest practices will protect, maintain and/or restore the aesthetics, vitality, structure, and functioning of the natural processes, including fire, of the forest ecosystem and its components at all landscape and time scales.
2. Forest practices will protect, maintain and/or restore surface and groundwater quality and quantity, including aquatic and riparian habitat.
3. Forest practices will protect, maintain and/or restore natural processes of soil fertility, productivity and stability.
4. Forest practices will protect, maintain and/or restore a natural balance and diversity of native species of the area, including flora, fauna, fungi and microbes, for purposes of the long-term health of ecosystems.
5. Forest practices will encourage a natural regeneration of native species to protect valuable native gene pools.
6. Forest practices will not include the use of artificial chemical fertilizers or synthetic chemical pesticides.
7. Forest practitioners will address the need for local employment and community well-being and will respect workers' rights, including occupational safety, fair compensation, and the right of workers to collectively bargain, and will promote worker owned and operated organizations.
8. Sites of archaeological, cultural and historical significance will be protected and will receive special consideration.
9. Forest practices executed under a certified Forest Management Plan will be of the appropriate size, scale, time frame, and technology for the parcel, and adopt the appropriate monitoring program, not only in order to avoid negative cumulative impacts, but also to promote beneficial cumulative effects on the forest.
10. Ancient forests will be subject to a moratorium on commercial logging during which time the Institute will participate in research on the ramifications of management in these areas.

Bill Eastwood: I would like to emphasize the practical nature of John. We were trying to build a hardwood mill in Piercy, which involved a million things, and John kinda dove into a lot of them. Picking out the mill, finding out about grading trees, grading lumber, grading logs... There were a million details to think about, like drying schedules—he dove into that one, too.

Tracy Katelman: The first time I met John was during Redwood Summer [1990], and I remember there was a meeting up at the Action Center—the only third-floor

place in Garberville—to talk about how to go beyond Forests Forever and create what eventually became the 10 Elements. I think it was in the fall when we did that meeting at Jan and Peggy's, but this was in the summer, in the midst of all the chaos that went on. And what I remember first about John was that he came to the conversation as a woodworker because he loved the wood and he got it about the wood, and that really hit me at the time because I'd been working on the Forest Stewardship Council, the international

THIS PLACE THAT YOU BELONG TO

By Wendell Berry

It is hard to have hope. It is harder as you grow old, for hope must not depend on feeling good and there is the dream of loneliness at absolute midnight. You also have withdrawn belief in the present reality of the future, which surely will surprise us, and hope is harder when it cannot come by prediction any more than by wishing. But stop dithering. The young ask the old to hope. What will you tell them? Tell them at least what you say to yourself.

Because we have not made our lives to fit our places, the forests are ruined, the fields eroded, the streams polluted, the mountains overturned. Hope then to belong to your place by your own knowledge of what it is that no other place is, and by your caring for it as you care for no other place, this place that you belong to though it is not yours, for it was from the beginning and will be to the end.

Belong to your place by knowledge of the others who are your neighbors in it: the old man, sick and poor, who comes like a heron to fish in the creek, and the fish in the creek, and the heron who manlike fishes for the fish in the creek, and the birds who sing in the trees in the silence of the fisherman and the heron, and the trees that keep the land they stand upon as we too must keep it, or die.

This knowledge cannot be taken from you by power or by wealth. It will stop your ears to the powerful when they ask for your faith, and to the wealthy when they ask for your land and your work. Answer with knowledge of the others who are here and how to be here with them. By this knowledge

make the sense you need to make. By it stand in the dignity of good sense, whatever may follow.

Speak to your fellow humans as your place has taught you to speak, as it has spoken to you. Speak its dialect as your old compatriots spoke it before they had heard a radio. Speak publicly what cannot be taught or learned in public.

Listen privately, silently to the voices that rise up from the pages of books and from your own heart. Be still and listen to the voices that belong to the streambanks and the trees and the open fields. There are songs and sayings that belong to this place, by which it speaks for itself and no other.

Found your hope, then, on the ground under your feet. Your hope of Heaven, let it rest on the ground underfoot. Be it lighted by the light that falls freely upon it after the darkness of the nights and the darkness of our ignorance and madness. Let it be lighted also by the light that is within you, which is the light of imagination. By it you see the likeness of people in other places to yourself in your place. It lights invariably the need for care toward other people, other creatures, in other places as you would ask them for care toward your place and you.

No place at last is better than the world. The world is no better than its places. Its places at last are no better than their people while their people continue in them. When the people make dark the light within them, the world darkens.

From *This Day: New & Collected Sabbath Poems*
(Counterpoint, 2013)

stuff. And that started through the Woodworkers Alliance for Rainforest Protection. So I immediately made that connection and started listening to John and how he came from that place of heart and love and appreciation for that sensuousness of the wood.

And in the early days, we were focused on all the different hardwoods, the madrone and the tanoak and the bay. And John knew about them from that place of working with them. John and Bill [Eastwood] and Jan [Iris] and all the folks

that were living in the neighborhood all brought their own different experience to it, and he (John) was super welcoming to me as somebody who came in new to the community. And then what I watched him do over the years, kind of following up on what Bill and Dave and others have said, is that we'd come up to a spot beyond what we knew— we were all these visionaries and had all these great ideas about how we're gonna change forestry in California and all this—but we'd come up to some kind of roadblock, and then John would dive in and figure it out. So first, in those days it

was forestry policy, and then later it was how do you run a mill? And then it was the conversations about the economics, about the PL takeover, and always it was John who went in and did that deep dive and figured out the details so the rest of us could continue pushing it forward..

Douglas Fir: Well, Tracy, I want to thank you for, in one of your emails, closing with “step-by-step,” and I think it was picked up by Dave Kahan because that was the classic John closure as you departed after a fierce policy argument or discussion. He



John at a fuel reduction project tour. ALL PHOTOS THIS ARTICLE BY KATHRYN LOBATO

would say, he'd kind of tilt his head and go, "Step-by-step."

Richard Gienger: He did that after every Redwood Forest Foundation (RFFI) meeting, that's for sure.

John was all the time preaching in all kinds of ways that the forest needs to grow and to be valuable over time... And another principle that is so important to not go away was his "I know that some foresters think a little bit of herbicide will save you a lot of herbicide later." But John was really opposed to the use of any herbicides, right down to the concern, directly, about the health of his grandchildren. And also John was so dedicated to community involvement, not this pecking order or whatever you want to call it, of the "masters that make the rules for the wise men and the fools," but to actually integrate communities in the day-to-day relationship with the forest and working toward these principles.

Seth Zuckerman: Thanks for having me and for letting me know about this [on-air memorial]. John—what an amazing presence in the world of wood in SoHum. I just want to say how steadfast he always seemed.... Circumstances could buffet the different things that we were trying

to do, and he was just such a stalwart, undeterred, and I'll just leave it at that. I've really been enjoying hearing everyone's stories about him.

David Simpson: And I'd like to toss in that, in a very real way, the fact that everybody I know who's on this phone conversation over the air stems from John's presence when I needed a little advice, and you're all treasures to me. I value every one of you, and I think that John probably brought many of you guys together, as well as bringing all of you into my life. And I think that role he had and his being in so many different conversations during his time here was a very important aspect and reminds me that the idea of sustainable forestry is not something that can be accomplished by one person alone. It does take this conversational milieu, and John said it very well.

Dave Kahan: And speaking of bringing us all together, this is slightly tangential, but I referenced earlier what we call the brainstorming weekend that resulted in the creation of ISF, and one of the remarkable aspects of that for me was witnessing Seth and Tracy co-facilitate that gathering. That in itself was pretty mind-blowing.

[chuckles and agreement]

David Simpson: They could turn those big pages. [chuckle] And they could get it written down, too. John as an individual personified that in the whole community. He manifested community in his relationships. And his happiness was interacting with people, whether it was playing poker or going to concerts. The music, like really incredible—we haven't even delved into that aspect... All this will happen at the memorial this spring, and I would encourage everybody who hasn't to look at the incredibly beautiful moving obituary that his family put together that's on Redheaded Blackbelt's site. [search kymkemp.com, John William Rogers]

Bill Eastwood: And speaking of community, he and Kathryn threw a pretty good solstice party too, every year for a while.

Dave Kahan: Not to mention that every Friday cocktail party kind of deal at their place in Redway for many years. And I've seen that he loved his children and grandchildren, was very connected, and it's a shame that he passed so quickly. And we need people to step up and do what they can to try and cover the ground that he did.

Richard Gienger: And not to be intimidated by the size of his contribution. We need everybody on board. [see page 22 for more memories of John.]



John during a community walk-through of a 50-acre fuels hazard reduction and erosion control project completed at the Community Park.



Living with Fire

Community Organizing for Fire Resilience

The following is a partial transcript of the “Pathways to Fire Resilience” webinar held on Oct. 3rd in lieu of an in-person Trees Foundation 30th Anniversary event, which was postponed due to COVID-19 concerns. Ali Freedlund was the first presenter, followed by Margo Robbins, Lenya Quinn-Davidson, Tim Bailey, Will Harling, and Cybelle Immitt. To view the full webinar, visit tinyurl.com/pathwaystofireresilience.

Kerry Reynolds: I want to say welcome to everyone who’s here at the Pathways to Fire Resilience panel discussion today. My name’s Kerry, and I’m with Trees Foundation, and we’re thrilled to be hosting this webinar. It’s our 30th anniversary, so this is in lieu of a big in-person celebration, which we’re postponing until it’s safer to gather—we hope this spring. But today, we have a wonderful and important conversation with a lot of very informed folks about fire resiliency and how to make our rural communities more resilient to fire.

I’m going to invite Bill and Gail Eastwood to join me [on the screen] to help welcome you to this panel discussion today. It’s really a delight to see Trees Foundation moving towards expanding our services to the world of fire preparedness. And about this time last year, Tracy Katelman—who used to be a big part of Trees Foundation back in the Headwaters days—reached out to us and asked, “Do you think Trees Foundation should expand to offer the same types of services you offer to grassroots environmental groups in the North Coast to doing that for the fire-preparedness community?” And when she and we all started to look at the expertise on our board alone in this area,

it started to become clear that this is really an important direction for us to take, and so that’s what led us to emphasize this today. And Bill and Gail can add to that, of course.

Gail Eastwood: I’m Interim Chair of the Southern Humboldt Fire Safe Council, one of Trees’ new partners. And I’m just really happy to see that Trees Foundation is embracing this world of fire preparedness and fire resiliency. I’ve been steeped in stewardship of the land one way or another for a pretty long time, and it seems to me that fire is a common denominator; it unites everyone. It’s the concern that draws all of us into a deeper awareness that caring for the land is about survival, so thank you, Kerry, and thank you, Trees.

Bill Eastwood: I want to add that this is really, really a very opportune time to be doing what we’re doing, as we all know. I mean, fire is getting to be extremely

serious, and we’ve really got to up our involvement on a single-landowner level, and all the way up to agencies. It just has to happen. ‘Cause right now, Nature is just doing it. It’s burning large areas and then it burns contiguous areas. So I’m thrilled by the panel and let’s get on with it.

Ali Freedlund: Hey, everybody. First, I want to say thank you to Trees Foundation for getting this together. It was hard to let go of the in-person event, but this is great, I feel very honored to be a part of this esteemed group of panelists. At the Mattole Restoration Council, we have been seriously collaborating with the Lower Mattole Fire Safe Council for almost 20 years. And another thing that we started in 1992—not the Mattole Restoration Council, but as part of the community—was something called NEST [Neighborhood Emergency Service Team].

The NEST is at the neighborhood level and focuses on how important it is to



Figure 1. A meeting of the Lower Mattole Fire Safe Council in 2019, which includes NEST representatives. PHOTO BY ALI FREEDLUND

engage with and know our neighbors. I often quote Wendell Berry, “Love your neighbor, not the ones you want, but the ones you have.” And sometimes I will change that to “Like your neighbor, not the ones you want, but the ones you have,” because when you like them, then you are more engaged to go and account for them.

So that’s where I’ll start, with getting to know your neighbors, and then I’m going to go on to a great avenue for exploration of building pathways to fire resilience, which is forming Fire Safe Councils or being a part of the Humboldt County Fire Safe Council.

One of the key things in our communities is to support our Volunteer Fire Departments or companies. And another key thing—in order to get the kind of funding support you need to do the implementation on projects, it often requires the building of plans, of prioritizing projects, whether that’s a CWPP, which is a Community Wildfire Protection Plan, or being a designated Firewise community, or now being part of a regional collaboration in order to expand from defensible space and fuel breaks to larger landscape fuels reduction.

So for the Mattole Restoration Council, it became very important to build our capacity, doing the actual work with our crew, and that has taken a long time. When I give you that list, I want to say it’s been 20 years of taking that time to build a lot of capacity. And then we’re able to do the fuels reduction and/or the good fire. So it’s really important to work with all the people in the people pot, whether it’s the funders, the agencies, your landowners, your neighbors. It just becomes a very interactive thing and [it’s important to] not pigeonhole people in being “that person” to try and avoid burnout.

Lastly, these two things kind of go together: it’s critical to reflect on what



Figure 2. Miles Kinman (MRC’s GIS Coordinator) training volunteers with the Telegraph Ridge Volunteer Fire Company on use of the Mattole Fire Atlas via iPads in 2020. PHOTO BY ALI FREEDLUND

works in these treatments, on what works in getting together with communities, on being transparent, on noticing what’s happening with your treatments, when species change. What are you aiming for? What are you getting? Because it’s more than just about your people neighbors, it’s about your neighbors as trees, it’s about your neighbors that fly and crawl and are furry....

Neighborhood Emergency Service Teams

In 1992 we had a huge earthquake in Petrolia, which took houses off their foundations, and we started something called a Neighborhood Emergency Service Team (NEST). We didn’t make this up, this model was out there, but it really brought the communities of Petrolia and Honeydew together in that, all of a sudden, people understood, “Oh, not everybody knew their neighbor,” or what was happening, or whose foundation was lost, or is everybody alive?

And so we started this NEST [phone tree]. And in the beginning it was very difficult because people didn’t want to share their

phone numbers, and now it still can be difficult in some areas. But all of Petrolia is in the NEST list, and there are several pages to this list. Each NEST is a bunch of residences usually along the same road, and some of the larger road networks are broken up into three, sometimes four different NESTs, and each NEST has a representative that in an emergency would report to the volunteer fire companies and/or the NEST coordinator to account for people in an emergency situation, and we’ve used it many times since 1992.

Fire Safe Councils

When we formed the Lower Mattole Fire Safe Council, we had a hard time getting all the representatives from all the neighborhoods, and then we thought, “Oh, it could be the same because you don’t do a lot with NEST unless you’re in an emergency.” And so we started advertising that “All NEST representatives, please come to the Lower Mattole Fire Safe Council.” And I’m showing you this photo (Figure 1) just to say this is not all our NESTs, but it does involve CAL FIRE, our volunteer fire companies and/



Figure 3. MRC's fire and fuels crew burning piles within the Redwoods to the Sea fuel break project on the Stansberry Ranch. PHOTO BY ELEONORE JORDAN ANDERSON

or departments, and it's a lot of us gray-haired folk that are able to take on that representation and find out where, who our neighbors are, and what the numbers are and where the water tanks are. But don't feel like you have to shoot for the sky. This is probably a quarter of the NEST reps that are sitting here in this room, and we don't have a ton of in-person meetings, obviously, right now, but we go forward.

One of the things that we [focus on] is to support our volunteer firefighters or first responders. We are very remote out in Petrolia and Honeydew, and there's a significant lack of ability to get a signal, as you guys might know in your areas. So we made up these atlases, because you can't get Google Maps when you're on an emergency out here....

We started the Mattole fire atlas, and they became these huge 11 x 17 things that were put underneath the seats of the fire engine, and then we realized they were cumbersome. And we went on to update the NEST list by making each NEST into a map, and then going back to

the atlas where we are putting all the big information material onto iPads that have GPS tracking on them.

Figure 2 (page 31) shows our GIS coordinator training the firefighters in Etnsburg at the Telegraph Ridge Fire Station, so that they can now take these

iPads and know exactly where they are as they go on an emergency. That's been critical in our involvement of our whole community, to bring on the firefighters.

Local Crew Capacity

Building crew capacity, I don't want to overwhelm people, but I think it's really important in every area to build crew capacity, and this has taken us 20 years. We have all the chainsaws and the personnel and the chippers, the SOD (Sudden Oak Death) washer and the trailer, and the log splitter, and this and that, and an equipment shed and a crew truck, and it has been incredibly important.

But you start with your personnel. You just start building a crew and the rest should follow, and I know in some areas that has been a challenging aspect to get the labor, but I want to say it's going to get less challenging.

So we started out doing a lot of defensible-space projects, and then we moved on to roadside fuel breaks, and then we moved on to shaded fuel breaks on people's private lands. Figure 3 shows a private ranch, where we have predominantly been



The MRC crew truck heading to work at the Stansberry Ranch, a project funded by Save the Redwoods League. PHOTO BY ELEONORE JORDAN ANDERSON



Figure 4 and 5. Before and after photos of a shaded fuel break project led by Lower Mattole Fire Safe Council. PHOTOS BY CHRIS GILDA

using good fire in burn piles. However, we are hoping to do more prescribed fire with the Humboldt County Prescribed Burn Association—it’s an important and incredible way to build resilience. We’re talking about these pathways to fire resilience, and we just have to put fire back on the land, and we have to reduce those fuels in some way.

Figures 4 and 5 is a before and after of a location on one of our fuel breaks. We’ve had the good fortune of being able to work in really incredibly beautiful places, a lot of incredibly beautiful, wild ridge lines. But because of the absence of fire, they still need treatment. And so you can see that there was a lot of thinning done and we also burned the material.

I just want to say, it’s about place. You don’t necessarily want to shoot for trees 15 feet apart and the exact park-like looking thing; you want to go, “Okay, what do you want? Do you want to retain the oaks? Do you want to release the madrones? What do you want here? Are you trying to reclaim your grasses?” Those sorts of things are the questions that we really need to address moving into those larger landscape fuel breaks or forest health treatments.

And so it’s been an honor. I feel like as we go forward, we are reconnecting with the web of life, where we can nurture a native diversity, where if one part gets a little shriveled by fire, we can reconnect it again, so long as we keep a mosaic in mind. Oak woodlands, meadows, swales, deep

forests are all part of the place we live. Some parts harbor little birds and lizards and other parts harbor deer and bear and birds of prey. Best part is for each of us to be in service to it all.



Trees Foundation Board Member Ali Freedlund is the Working Lands and Human Communities program director of the Mattole Restoration Council. Working to develop projects with Fire, Forests, and Fuels has recently been her main focus. She works closely with the Lower Mattole Fire Safe Council and is a member of the Humboldt County Fire Safe Council. Feel free to contact her at: ali@mattole.org

Pomo Perspective with Michael Hunter

The Fight for Jackson Demonstration State Forest

The following is a partial transcript of the Oct. 18, 2021, KZYX Public Affairs show hosted by Alicia Littletree Bales, edited for length. To listen to the full 1-hour interview, visit treesfoundation.org/2021/11/pomoperspective

Alicia Littletree Bales: Good morning, this is Alicia Bales. I'm live in the Ukiah studio with Michael Hunter [Chair of the Coyote Valley Band of Pomo Indians] ...and we're going to hear [his] amazing story from the front lines out of Jackson Demonstration State Forest [JDSF]...

Michael Hunter: Before I tell that story, I want to chronicle the journey that I've been on for the regard in JDSF. I believe it was in early April [2021] my mother Pricilla Hunter and Polly Girvin, my mother's partner, they were asking me to go participate so I could see what is happening with CALFIRE and what they are doing to the JDSF.

I'm not much of an activist. I work on a lot of policy, legislative, but a lot of economic development for my Tribe. So I get out there and we meet a great group of people on the coast, about 40 of us. Chad Swimmer with Mendocino Trail Stewards... takes us to one side of the road—this is only about a mile in from Highway 101, not far away out in the middle of the woods—and it's just total destruction. I'm like, "No way this can be. How can anyone allow this to happen? How does any agency not regulate this?" It's so weird to me. And it was my aha moment. I just went, "Wow, there's an actual agency, CALFIRE, supposed to watch over and manage our forest, and they let this happen."

Between April and June I started to meet some really good people out there in the forest and they were showing me the trails. When I'm out in the redwoods, I can

really gather my thoughts and put a plan of action together for almost anything I'm working on. It's really amazing, how more creative you can be when you're outside. I recommend that to everybody, they should really try to get outside and think about the next 10 steps they want to do.

We need to get more people involved in direct action, because that is where it makes a difference.

So I'm doing that, meeting some really good direct action people. My idols—you're one of them, Alicia. So I'm getting out there and I attend this fundraiser, and I was in Casper, and so I run into you there...

ALB: ...at the Casper Forest Fest...
[July 31, 2021]

MH: Yes, that was beautiful. That's my first time really being in a community where everybody literally loved each other. People were cool, having a great time, playing music on the stage. I was asked to introduce my mother, and my mother gives a really inspiring speech. I'm standing on the stage behind her, watching her, and then I'm watching the people react. And I really enjoyed that moment. And I said, I have to get more involved.

How do I do what we're not already doing? My strength is political action. My strength is legislation and economic development. I've been flirting around with trying to do more public relations and get more people involved in my community, and I was just thinking, is this

the one? You can't get any more righteous than saving the forest where your People roamed, and where all our sacred sites are, for the most part.

So I start going down the political route. I decide to get Coyote Valley Band of Pomo Indians to write a letter; [and] the United Pomo Nations Council, which consists of 16 Pomo tribes...and the Central California Tribal Chairpersons Association to draft the same letter. And I said, "You know, I'm going to go live on Facebook. Add me as a friend [on Facebook] - Michael Hunter. I've been showing every step I do even before I do it, for the most part [on Facebook Live]. I said, I'm going to send these letters to Senator Maguire, Assemblyman Wood, and Congressman Huffman. But the most important one was...the California Natural Resources Agency, Secretary Crowfoot, and the tribal liaison is Geneva Thompson, who's a good friend for Indian Country.

Now fast-forward a little bit. I decide, I'm going to set up a meeting with Secretary Crowfoot. This has got to be a good dude. He's in charge of the California Natural Resources Agency. In my mind, he must be.. the man for this issue. So I get the California Tribal Chairperson Association [CTCA] to request Crowfoot to meet with us on September 23rd. I get the CTCA to also sign on and write a letter on behalf of the JDSF. We're asking for a moratorium in these letters, we'll just ask for a moratorium to stop what they're doing until we can convene all parties and figure this out.

We go to our annual CTCA meeting, and Secretary Crowfoot is going to be there. I've already had one Tribal consultation process with Geneva Thompson, I showed her the PowerPoint, all the destruction and everything that's happening. I let her



California Tribal leaders standing with Michael Hunter to ask California Secretary Crowfoot (sitting in the foreground) to support a moratorium on logging in Jackson Demonstration State Forest at September meeting of the California Tribal Chairpersons Association.

PHOTO FROM YOUTUBE CHANNEL: TRIBAL CHAIRMAN HUNTER

know, Hey, I'm looking for you to have answers on Sept. 23rd. It's not a speech moment. I'm saying this stuff because I want them to understand, I'm here for action, I'm not here for a conversation.

CTCA Meeting with Secretary Crowfoot

[Editor's Note: a recording of this meeting is available on Michael's YouTube channel, 'Tribal Chairman Hunter']

MH: [Secretary Crowfoot] gets up and starts talking about how they're helping, [laugh] and there's not one specific idea on how they're helping at all. So I go up there and go to the slides [of JDSF] and I ask "Is this a healthy timber harvest plan, sir?" He doesn't answer. I just keep showing different harvest plans where it's all just dried up wood that's just ready for a fire- acres and acres and acres. Now he starts to see the room a little bit better, and he's starting to [see] that he's not in a good situation.

I'm reading the room and I say, "Can I get the Tribal leaders to come up with me?" They all come up and stand behind me and I said, "Secretary Crowfoot, please, please come up and stand with the Tribes and tell the people that cutting 150 year old redwood trees is not fire prevention, and that it's not climate action. Can you please come up?"

And he sat there. He didn't know what to do and he froze. That's when I realized he's

just a politician. He really had no answers. He gets long-winded and starts talking about carbon sequestration, but had no specifics on how it's going to happen.

So after that, I was really bummed. I thought that was the opportunity. I worked hard to get there. We had all the Tribal leader support all in one document and presented him with it right there in person...He didn't know what to do. He just froze. In that meeting, he said "To my knowledge, there is no logging happening in the JDSF. To my knowledge there is no cutting of redwoods happening in the JDSF."

So I said, what kind of Tribal leader am I if I don't go out there and prove him wrong? I want the Tribal leaders to know that this man lied directly to your face, but the only way to do that is getting out there in those forests, and that's where you started the [radio] show off.

So I'm up at 4am, so we get there at 6am, we hike up there and right out of the gate, the loggers come out. This is my first interaction. This is my first direct action moment too, to be honest, in that type of setting, in the middle of woods with dudes that don't look like me, people who usually don't like my kind, and they have

big chainsaws. [laugh] It's a little bit nerve-racking, and to be honest with you, I was scared, didn't know it at the time, and you really don't know until afterwards, when you realize how scared you are. You know. You've done direct action.

ALB: Yeah, it is scary, and you try to go in with an open heart and try to diffuse whatever sort of confrontation is going on, but it does take a lot of courage to do that.

MH: Right, and you try to figure out the angle, it's like, what can you do? Are they going to cut that tree anyway? You're hoping that your video is your protection, you video them just in case someone decided to run that chainsaw down your back. I'm trying to get as close as I can, and doing Facebook Live as well. And I get everybody in the video, it was a very stressful moment. And we stopped them. Wow, I had such an adrenalin rush. We actually stopped them. It worked!

We need to get more people involved in direct action, because that is where it makes a difference. Until people like me can come up with the legislative fix or political fix, like a moratorium. Until we get our state leaders aware of what's going on in our forest, so they can grant a moratorium, so we can figure this out.

[See Mendocino Trails Steward Update on page 44 for more on the fight for JDSF.]



COYOTE VALLEY
BAND of POMO INDIANS



ACTIVIST CORNER

Fifteen Years and Counting: Time to Lift the Veil on Carbon Markets on the North Coast

By Gary Graham Hughes

“I am not interested in learning where the money comes from, I don’t have time. I just need to focus on my work.”

These words were spoken by a long-time forestry professional with extensive experience on the North Coast and throughout California when I asked about a perspective on the ramifications of relying on project funding made possible by the state-managed revenues of the cap-and-trade program.

Such a dismissive attitude about the nuts and bolts of the carbon market seems out of place, if only because billions of dollars of annual revenues are being generated by the mechanism—funding that land-management practitioners are coming to rely on extensively.

This disinterest in the rules of the market was amplified by an admitted lack of knowledge about the history of the program, the legislative maneuverings, the agency politics, the industry giveaways, the market volatility, the failures to reduce real-world greenhouse gas emissions, or the multitudes of environmental-justice controversies that surround the mechanism.

It’s a sobering reality that the cap-and-trade program, now more than a decade in existence, remains a near total enigma to most people. This program is directly connected to climate pollution from refineries in the state, but even environmental proponents deeply involved with forest carbon-offset projects (or who receive cap-and-trade generated grant funding from the state)

may not know this basic fact. Many years after invention of the forest carbon-based offset commodity—by far one of the more controversial elements of the infamous California cap-and-trade program—there are still multitudes of environmentally active people on the North Coast who have very little understanding of how the market works or the role of the program in California climate planning.

This lack of knowledge has ecological, political, and ethical implications. To begin to construct a foundation of understanding and a vocabulary of the basic civics of these climate policies, it is necessary to do a rudimentary review of the beginnings of the main frameworks of California climate policy.

The Global Warming Solutions Act

The cap-and-trade program has its roots in the Global Warming Solutions Act of 2006, the celebrated AB 32 that was signed into law by Governor Arnold Schwarzenegger and that heralded the beginning of the era of California’s self-designated national and global climate leadership.

The Global Warming Solutions Act gave authority to the California Air Resources Board to design and implement a variety of measures to drive down greenhouse gas emissions in the state. Though AB 32 gave rise to many policies, for ease of explanation there are three main frameworks arising from AB 32: the Renewable Portfolio Standard; the Low Carbon Fuel Standard; and the market-based compliance mechanism, better known as cap-and-trade, and officially titled the Western Climate Initiative, Inc.

The Renewable Portfolio Standard (RPS) is responsible for a very significant shift in electricity generation towards sources like solar energy. Regardless of the documented environmental impacts from utility-scale generation resulting from industrial solar installations in fragile desert ecosystems, or the consideration by the RPS of dirty energy sources such as biomass energy as renewable, the RPS has been without question the most effective of the three frameworks in successfully reducing greenhouse gas emissions.

The Low Carbon Fuel Standard (LCFS) is a little known and complex mechanism, opaquely designed to ostensibly lower the “carbon intensity” of liquid fuels like gasoline and diesel that are used in the state. The LCFS is a market-incentives mechanism that assigns all liquid fuels a carbon intensity score. All liquid fuels are compared to a baseline score that determines if a fuel earns credits for being below the baseline or debits for being above the baseline. Liquid fuel manufacturing and distribution interests participating in the market need to buy or sell LCFS credits to balance their accounting sheets to attempt to meet overall annual carbon intensity requirements.

Credits for LCFS can be earned in multitudes of ways, from building electric vehicle charging stations to the contested development of dairy digesters looking to monetize the methane pollution from industrial animal agriculture operations.

It is the allure of big money in the LCFS that is one of the motivating factors for the push of petroleum refiners Phillips 66 and

Marathon to repurpose their refineries in the SF Bay Area to produce supposedly “low carbon” diesel and jet fuels from high deforestation-risk commodities like soy. It is the LCFS that has also given birth to head-spinning credit-generation opportunities like using solar-powered water-heating technology for oil-drilling applications like fracking, and to thus extract a supposedly solar-powered “lower carbon” crude petroleum.

But the crown jewel of California markets-based climate policy remains the cap-and-trade program. Legally rooted in the passage of AB 32 in 2006, in 2017 the state legislature and Governor Jerry Brown worked with the oil industry and pushed legislation through to extend the market out to 2030.

What was remarkable about the 2017 cap-and-trade extension, despite the fact that it was opposed by every environmental-justice organization in the state, is that the market mechanism was elevated as the sole legal mechanism in the state for regulating the carbon dioxide emissions from refineries and other large “stationary sources,” effectively pre-empting the authority of local air districts to cap or reduce emissions from these polluters.

These large sources of emissions are responsible for upwards of 85% of the industrial climate pollution in the state.

Disturbingly, emissions inventory data from the Air Resources Control Board show that since the beginning of the carbon market, refinery emissions have largely stayed the same or even increased.

California Climate Investments

At the same time, billions of dollars of revenue have been raised by the state through the sales of the allowances that give the polluter permission to pollute, and to meet the requirements of the

market, even as real-world emissions fail to come down.

These revenues are distributed through the Greenhouse Gas Reduction Fund or, as the Air Resources Control Board calls it, the California Climate Investments program. This is the money that many natural resource professionals in Northern California are currently relying on for grant support from the state for their projects.

Forest Carbon Offsets

Another permit to pollute available to the facilities covered by cap-and-trade are offsets. On the North Coast the sale of forest carbon offsets has become a staple of industrial forest-management practices. Unfortunately, despite their increasingly common utilization by interests around the region, the actual economic and regulatory mechanics of offsets, and the fact that their sale is connected to fossil fuel pollution, are largely obscured from view.

Lifting the veil on carbon markets on the North Coast is going to require a combination of courage, education, transparency, and accountability.

Whether you are in support of the market because of the funding it provides for achieving your land-management objectives, or whether you have concerns because of the dubious climate science and environmental injustices, there is no question that it is long past time for stakeholders in the redwood region to learn about how these market mechanisms function, about who benefits, and about who shoulders the cost.

Fifteen years after the passage of the Global Warming Solutions Act, this seems like as good a time as any to start a long-overdue crash course in California climate politics.

Gary Hughes has worked on forest and energy-sector campaigns throughout the Western United States and in Latin America, including many years of campaigning to protect rivers in the Chilean Patagonia from mega-hydroelectric development. He currently works as the California Policy Monitor with the international organization Biofuelwatch (biofuelwatch.org.uk).

Nature Boy

In Memoriam

By Ellen Taylor

At his memorial, said Yarrow
They all mentioned
How much his time up in Humboldt meant to him:
How he loved the people, rivers, trees.
For him, it was
An enchanted time, a luminous island, which would slip fast away
Into the wake of a life that, later, grew daily more hideous.
He must have felt as though he'd stepped into a northern fairy tale,
Sixteen-year-old sylph that he was—
With our forest campfires, our chants, our tree homes
Two hundred feet above the ground,
Our reproachful rings around MAXXAM tree-fallers,
And of course, the signal
Evil: spider-like goons, captures, sprites swathed in duct tape
Lowered headfirst to the ground;
Goblins setting fires below us
Their long, wicked shadows knotting
Around our tree trunks.
It was terrifying, but it was noble.

And so he fatally came back,
This time with his students, all passionate to save the world,
Led them to the front on Rainbow
Where the spider wrapped him up for good:
Sixteen counts
Of felony child endangerment etc. etc.

The terrible swift sword of
Injustice, tempered in malevolence and greed
Shattered his brain; to which
Eight years later, he gave the coup de grace.
His father, according to Yarrow, rose
At the Golden Gate Park event
And said he was proud of his son, who did not
“Go down to the Man”; but he muttered,
Under his breath, that God
Must be a cross between Evel Knievel and General Patton.

Note: Nature Boy as a youngster first came to the Mattole Valley with a group of other students from his school during the 1990s. They were here to learn about salmon. While in Humboldt, he listened to stories told by forest defenders in the campaign to save Rainbow Ridge, source of the Mattole North Forks, from the

Texas corporation MAXXAM, which was logging it.

He could not forget the Mattole and came back a few years later, now a teacher, leading a group similar to the one with whom he had first visited. He took them up to Rainbow to learn about

forest defense. There the students were pursued by MAXXAM's goons and spent a terrifying night. For this action, Nature Boy was convicted and received a harsh sentence. He plunged into black despair and ultimately took his own life.

Nature Boy was his forest name.



PLANT NOTES

Bull Kelp

Nereocystis luetkeana

It is amazing that something can grow up to 200 feet in one year! Bull kelp is the fastest-growing seaweed in the world and can grow up to two feet per day. This is especially amazing because bull kelp is an annual—germinating, growing, reproducing, and dying all within a year-long cycle. Bull kelp grows in large patches off-shore, forming underwater forests from Monterey to Alaska, preferring colder water than its relative, giant kelp.

Germinating from spores in the spring, bull kelp forms holdfasts that look like roots and hold tight to rocks and cobble on the ocean floor. Holdfasts must be strong in order to hold on in the rough-and-tumble subtidal zone. From the holdfast extends the stipe, a hollow stalk with a gas-filled top float that grows all the way up to the surface. At the surface as many as 60 blades grow from the top of the float, absorbing nutrients, sunshine, and carbon dioxide and forming the brown “rafts” of seaweed that we see from

Bull kelp with Blue rockfish swimming within.

PHOTO BY STEVE LONHART / NOAA MBNMS



the shore or a boat. Spores form in patches on the undersides of the blades, and in fall they release and sink to the sea floor. By winter, bull kelp is spent. Storms wash it to shore where we humans pick it up and twirl it around like a bull whip, hence the common name.

On the surface, kelp forests calm the water and provide a resting and feeding area for otters, gulls, herons, shorebirds, and waterbirds. Underwater, kelp forests create shelter and habitat for young fish, snails, crabs, seastars, and many other

creatures. Kelp forests dampen the force of waves against the shoreline, helping to reduce beach erosion. Once washed ashore in winter, the decomposing kelp provides food and shelter for scavengers like crabs and beach hoppers, which in turn are food for shorebirds and other beach dwellers.

In the past eight years, bull kelp forests in Northern California have declined by about 95%. Exacerbated by climate change, warming oceans affect the upwelling of nutrients and weaken kelp health. In addition, seastar wasting disease became widespread during the warmest years and caused the die-off of the sunflower sea star, which preys on purple sea urchins, which in turn dine on bull kelp. Without this main predator, urchin populations increase and therefore so does kelp consumption, creating barren areas devoid of kelp and most other organisms. Some areas of bull kelp regrowth have recently been observed, a hopeful trend.

Cheryl Lisin is a native plant enthusiast, landscape designer, and President of Friends of the Lost Coast, whose mission is to inspire passion for nature in the Lost Coast region. She is currently working on a native plant garden and nursery at the King Range BLM office for the education and enjoyment of all. You can contact her at Cheryl@lostcoast.org.



Bull kelp PHOTO BY STEVE LONHART / NOAA MBNMS

Restoring Native Grass Species Can Help Reduce High-Intensity Fire Risk

Eel River Restoration Project

By Kirsten Hill and Pat Higgins

Recent California fires have been devastating, and experts tell us that such catastrophic events are likely to recur. Three causal mechanisms are: years of wildland fire suppression, impacts of climate change, and the continual spread of invasive grasses that exacerbate the intensity of fires—a factor often overlooked. The Eel River watershed has vast grasslands, and restoring native grasses and reducing invasive ones could reduce the frequency and intensity of fires and have numerous other benefits. We recently visited the North Fork Eel River watershed, and also the Tenmile Creek watershed near Laytonville. Both have substantial grasslands but different challenges for restoring native grass species.

During a visit this past May to the North Fork Eel River Wilderness with historian and archaeologist Tom Keter, we assessed the effects of the 1,614-square-mile August Complex fire, the largest in California history. Tom related that the Wailaki people, who inhabited the North Fork and watersheds west to the Pacific Ocean, used low-intensity fires for thousands of years to manage the land. Oak woodlands and grasslands were burned frequently to control Douglas-fir encroachment, resulting in an abundance of food for themselves and a wide variety of wildlife. Historically, grasslands in this wilderness were likely filled with California Oatgrass (*Danthonia californica*) and swathed with wildflowers.



ERRP Tenmile Creek grass field trip (l to r): Lyn Talkovsky, Pat Higgins, Hugh McKee, Bob Vassar, Steve Greenberg, Kirsten Hill, Mike Hembree, Liz Varnhagen, Steve Brown, Michelle Barton, and Kirk Lumpkin. 5/8/21.

In wet meadows, Native Americans propagated gardens of Camas, one of our native lily species also known as Indian potatoes. They harvested wild clover and other “greens” from the grasslands in the spring. When ripe in summer, seeds of California Oatgrass, sunflowers (*Wyethia sp.*), and tarweed were combined to make a nutritious ground meal or pinole.

Native American burning was stopped by European settlers, and the tens of thousands of sheep and cows they grazed introduced a host of non-native grass species. Between 1859 and 1889, not only did the Eel River watershed grasslands change, the entire grassland ecosystem of California was transformed. Deep-rooted perennial grasses that stayed green through much of summer were swapped out for shallow-rooted annuals that dried out by late spring, reducing the forage base for animals and creating a large fuel source. Over-grazing caused compaction and gullying that further degraded meadow water storage. In aggregate, the Eel River watershed lost a

huge amount of water storage, and the loss of native grasslands had ripple impacts on the aquatic ecosystem and fish.

The two watersheds I visited pose very different challenges to native grass restoration. Over 70% of the North Fork Eel watershed was burned by the August Complex Fire, and the grasslands I inspected were dominated by non-native annual grasses like soft chess (*Bromus hordeaceus*) and invasive plants like sheep sorrel (*Rumex acetosella*). Although there were some native plants, all were small and stunted in appearance, and the soil looked impoverished. The remote nature, harsh terrain, and intensive land use history make native grass restoration in the North Fork watershed very challenging, but ERRP is shaping a partnership with Six Rivers National Forest to help create a long-range plan for forest and grassland restoration.

I was heartened when I joined an ERRP field trip to the Tenmile Creek watershed in early May. We met with a group of

highly knowledgeable landowners who's own grasslands are in relatively good health, with lots of native grass species present but also substantial patches of invasive grasses. The reason native grasses were present is that the landowners have been good stewards and they are very interested in restoring them further.

ERRP's goal of ecological restoration at the watershed scale includes grasslands. The organization will be seeking additional grants to assist landowners in restoring native grasslands using all tools available, including frequent low-intensity fire. Native grass restoration will provide better forage for livestock and wildlife and a longer grazing season, as well as increasing underground carbon storage that can help combat climate change. The fibrous deep roots of these grasses will help reduce erosion and bring moisture further into the soil and release it more slowly into the watershed. The current ERRP Tenmile Creek forest health pilot project is funded by the North Coast Resource Partnership as a Regional Forest and Fire Capacity (RFFC) demonstration project sponsored by the California Resources Agency.

For more information:
www.eelriverrecovery.org

The Struggle to Save Richardson Grove Continues

Environmental Protection Information Center

For more than a decade, EPIC and our allies have fought off the misguided and controversial Richardson Grove Project, a proposal to realign a section of Highway 101 that runs through the ancient redwoods of Richardson Grove State Park.

While we have held off the bulldozers and cement trucks through successive lawsuits, Caltrans' dogged determination and persistence threatens the grove once again. Caltrans has released its most recent "analysis" of the project—an arborist report that actually admits that the project will hurt the redwood trees of the grove but not enough to be legally significant—in the most recent attempt to jam the project through. EPIC is hard at work reviewing and critiquing their work, but because of a bad ruling from the Ninth Circuit Court of Appeals, this might be our last chance. Comments on the Richardson Grove Project are due November 19, 2021.

Caltrans first proposed the Richardson Grove Project in 2007. The agency's stated desire for the project is to allow for so-called STAA trucks—named after the Surface Transportation Assistance Act of 1982 that permitted these monstrously large trucks—to pass through Richardson Grove State Park. The sinuous road, which winds around old-growth redwoods, in theory limits these trucks because the

over-length trucks have difficulty staying within their lanes. Caltrans' solution: soften the curves to help these over-length trucks better navigate turns. To do this, Caltrans needs to cut into the root system of old-growth redwood trees and put down new pavement. That's why EPIC is concerned. Redwoods have shallow roots that channel water and nutrients to the trees and help provide stability. As we know from other roadways through old growth, significant disruption of this root system causes die-off of the trees' canopy, and reducing the trees' stability can result in blowover.

Caltrans has never adequately studied the impact of the project to the grove's ancient redwoods. Four different courts have functionally said the same thing. This open public-comment period is a result of EPIC's victory before the Humboldt County Superior Court.

In the long gulf of time between when the project was first proposed to today, the underlying need for the project has



Richardson Grove PHOTO BY AMBER SHELTON

decreased. Boosters of the Richardson Grove Project highlight the economic need for it, arguing that a lack of STAA access to the North Coast drives up the cost of shipping. Their argument has been largely silenced by the completion of other projects. In 2017, Caltrans completed the Buckhorn Summit Project on Highway 299, providing another route for STAA trucks in Humboldt and Del Norte Counties. Despite this new route, Caltrans continues to plough forward, refusing to consider whether there remains a purported “need” for the project or whether this need could be met by other less impactful alternatives.

What is the opportunity cost of Caltrans’ dogged determination and pursuit of highway widening through Richardson Grove State Park? What was left unaccomplished or unplanned, as Caltrans has wasted 14 years trying to force through this project? Where could we be now, had more resources gone into creating a solution for Last Chance Grade or finding a stable path through Highway 299, for example? What safety improvements were not completed because Caltrans assigned its traffic engineers to rebut objections to the Richardson Grove Project—and what number of lives could have been spared if that effort was made to improve Broadway St. in Eureka instead? Why not listen to the community, withdraw the project, and work with stakeholders on more important projects?

EPIC will continue to press back against the multi-billion-dollar agency in our David vs. Goliath struggle to safeguard Richardson Grove. Thank you for your support of these efforts.

For more information:
wildcalifornia.org

Human Nature: Comedy of the Wild

Human Nature

Human Nature has been producing theater—mostly comedy and musical comedy—about crucial environmental and social issues since 1979. Their shows tend to be bawdy, tragi-comic, and absolutely serious all at once. They have moved, delighted, and pissed off audiences from South Africa to Istanbul to New York City to Briceland, CA.

The company’s initial production was its namesake, *Human Nature*, a four-part dance theater musical piece that examined issues of humans’ relationship to the wild with great grace and exoticism. (A Bay Area dance critic referred to the potent spirit of the show as “Mozart With Fangs.”) The company of 12 performers and five original and outstanding musicians, many drawn from Southern Humboldt’s tireless

Feet First Dancers, took the show on the road, performing throughout California.

The next show, *Queen Salmon*, was a musical comedy based on efforts in ours and other rural communities in salmon and timber country to restore the health of our damaged watersheds and especially of our once great King Salmon runs. The show, too, was taken on the road, this time not only in California but also throughout the Pacific Northwest. It played in some of the grand theaters of the region as well as in Grange Halls and community centers in the little logging and fishing towns where the issues the show addressed were, like in ours, playing out against a backdrop of intense polarization and social conflict. But it did its work, the artists’ mission: helping communities to overcome their differences and to heal.

Human Nature’s more recent production was inspired during a world-wide tour of a show about wolves in the wild when



Human Nature’s newest play, *Crow-Bros*, preformed by local youth. PHOTO COURTESY HUMAN NATURE

the company was brought into close touch with Inuit people. It led onto the subject of climate change which the Inuit, in their far Arctic home, had been confronting well ahead of the rest of the world's people. This first approach to climate comedy, about which the company struggled urgently to find humor, was the compelling force behind *Human Nature's What's Funny About Climate Change?* and a subsequent run of comic shows on what should have been the least funny subject on stage anywhere.

The company's next and most recent show takes on the second-least funny subject. *The Perils of Plastic* turned out to be a young people's challenge. Modeled after the old *Hardy Boys* (teenage detective stories)—except in this case, the erstwhile teenage detectives are totemic crows—the show chronicles the soon-to-be famous Crow-Bros, who are locked in a struggle for dominance over the countryside with the last great villain and his latest perversions of the coal, oil, and gas industries, the ever-cruel *Plastico the Fantastico*. The show asks, “Can the Crow-Bros prevail over *Plastico's* devious effort to infiltrate and replace every pore of real nature with—you guessed it—plastic?”

🌲 For more information:
humannaturetheater.org

Climate-Smart Conservation in the Klamath Mountains

Klamath-Siskiyou Wildlands Center

By Alexi Lovechio

Here in northern California we are surrounded by one of the largest carbon reserves in the Northern Hemisphere. Forests capture and store carbon, which



Large old-growth trees store carbon and have evolved to survive disturbances such as wildfire.
PHOTO BY KS WILD

helps offset pollution that causes climate change. Old-growth forests—containing trees that are often centuries old in a rich bed of living soil—are extremely efficient at capturing and retaining carbon. This is a huge asset. Our forests and wildlands are part of a natural solution to climate change, and how we manage them will help determine the fate of our climate.

Many scientists are calling for a new approach to land and forest management known as “climate-smart” conservation. This is a method to ensure that climate change is factored into how land managers make decisions. This approach augments an ecosystem's ability to adapt to a changing climate and become resilient to increased disturbances such as wildfire. To help incorporate climate-smart strategies, scientists have begun conducting climate-vulnerability assessments—an in-depth look at how climate change is going to affect different resources in a specific area.

Northern California Climate-Adaptation Project

Fortunately, this work is getting started in California. The Northern California Climate Adaptation Project, composed of scientists from the U.S. Forest Service Pacific Southwest Region, Bureau of Land Management (BLM), and EcoAdapt (www.ecoadapt.org), have partnered to conduct a vulnerability assessment and develop climate-informed adaptation strategies for focal habitats and species of northwestern California. This project is specifically focused on the Six Rivers, Klamath, Shasta-Trinity, and Mendocino National Forests and BLM lands in the Arcata, Redding, and parts of the Ukiah field offices.

By first understanding how climate change is going to affect certain habitats and species, we can then begin to take the necessary steps to prepare. This effort provides information and tools for federal agencies when designing forest management plans. It also assists

conservationists' efforts to prepare for climate impacts in the region. By updating how our federal forests are managed, we can ensure that forests continue to capture and store carbon.

Vulnerability assessments for northern California habitats and species can be found here: <http://ecoadapt.org/programs/adaptation-consultations/norcal>.

Northwest Forest Plan

Since 1994 the Northwest Forest Plan has guided management of 25 million acres of national forest in the Pacific Northwest, including over eight million acres in northern California and southern Oregon's Klamath Mountains. The U.S. Forest Service is set to update this plan, which will guide how our national forests are managed for the next 15–20 years or more.

Certainly, there is a need for an update. In 1994 we did not know nearly as much about climate change and the impacts it would have on fire severity, water quality, and wildlife habitat as we do today. The Northwest Forest Plan should be updated to ensure that climate-adaptation strategies guide land management on national forests in northern California. These strategies include identifying the most vulnerable watersheds, recreation areas, and habitats and then shaping land-management projects to lessen and mitigate the impacts of climate change.

With a large percentage of northern California being public land, managers at the Forest Service and BLM serve critical roles in reducing the most severe impacts of climate change. How we decide to manage our public rivers, forests, and landscapes will determine just how nature will fare into the future.

For more information:
www.kswild.org

Why Is CAL FIRE Trying to Silence Its Critics?

Mendocino Trail Stewards

By Chad Swimmer

Author's note: We in no way mean to disrespect first responders who put their lives on the line to protect us, but the California Department of Forestry and Fire Protection (CDF), known as CAL FIRE since 2007, has two conflicting mandates—forestry and fire response—which makes any criticism of one appear to be criticism of the other. On this topic, google "CAL FIRE Divorce" for an article by Richard A. Wilson, Director of CDF from 1991 to 1999.

On September 29, 2021, State Forests Program Manager Kevin Conway sent an email to Chad Swimmer of the Mendocino Trail Stewards containing the following threat: "Unauthorized special use...on JDSF [Jackson Demonstration State Forest] is a violation of State law and continuing to do so will result in a criminal and civil action...." He points to outreach our group has carried out, fundraising efforts, announcements for events protesting management priorities, and videos, including the use of drones, to document practices denied by officials in Sacramento.

The Coalition to Save Jackson, which includes The Trail Stewards, The



A 77-inch-diameter Coast redwood marked for cut in the Caspar watershed.
PHOTO COURTESY MENDOCINO TRAIL STEWARDS

Coyote Valley Band of Pomo, and the Environmental Protection Information Center (EPIC), has staged more than a year of actions protesting the cutting of large conifers (see photo page 44), the use of substantial amounts of scarce water to keep dust on roads down, and the wholesale poisoning of oaks. Why are the following demands so unacceptable to CAL FIRE?

- A moratorium on all timber harvest operations and THP planning in JDSF until a mediated public dialogue, honored by the Board of Forestry, can produce a new management plan.
- An up-to-date Environmental Impact Report (EIR) which must contain an unbiased acknowledgment of the relationship between deforestation and climate change (the present EIR is 14 years out-of-date, with only 4 of 900 pages discussing climate).
- Good faith in the Government-to-Government consultations between the Pomo Tribes and the State of California, consultations authorized by California Executive Order B-10-11.

Foresters and timber industry representatives with a vested interest in maintaining the status quo claim that the mandate for JDSF is set in stone: economic timber production. This is based in the legislation that founded the Demonstration Forest System in 1949. We must note that that year saw the awarding of the Nobel Prize in Medicine to the doctor who invented the lobotomy, the detonation of nuclear warheads in close proximity to innocent American soldiers to test the effects of radiation on human beings, and the full-scale continuation of the Tuskegee Syphilis Study. Climate change—now a clear and present danger to our species' survival on Earth—was not

even considered. It goes without saying that all laws and legislation of the time should be reexamined expeditiously.

CAL FIRE has made many statements showing that it considers itself above the will of the people, most notably at the August 3 Jackson Advisory Group Meeting, when they declared that they, as a state agency, are not subject to county laws—the law in question being Measure V, approved in 2016 by 62% of county voters. This law bans the leaving of standing, poisoned trees, but had it been possible within the statewide legal framework, the law would have banned the practice of “hack ‘n’ squirt” entirely.

As Thomas Wheeler, Executive Director of EPIC, stated in his defense of The Trail Stewards, “The First Amendment abhors restrictions on speech. This is particularly true on government-owned land, like the Jackson Demonstration State Forest. As the Supreme Court has recognized, ‘Wherever the title of streets and parks may rest, they have immemorially been held...for purposes of assembly, communicating thoughts between citizens, and discussing public questions. Such use...has, from ancient times, been a part of the privileges, immunities, rights, and liberties of citizens.’” (*Shuttlesworth v. Birmingham*, 1963) In a democracy, the government should not be considered immune from public opinion, nor above the law. CAL FIRE: please stand down immediately and listen to the people you are supposed to serve.

🌲 For more information:
www.mendocinotrailstewards.org
(also see page 34)

Salmonid Restoration Conference to Convene in Person Again in 2022

Salmonid Restoration Federation

Salmonid Restoration Federation (SRF) is excited to host the 39th Annual Salmonid Restoration Conference in Santa Cruz, CA, home to some of the southernmost populations of wild salmonids left in California, on April 19-22, 2022. The theme of this year's conference is *Reconnecting for Resilience*. SRF hopes that convening a dynamic and safe in-person conference will help foster salmon and social resilience!

The conference will highlight marine conditions, food webs, fish passage design, dam removal, life history strategies, and a wide range of restoration techniques to enhance recovery efforts.

This year participants will have the opportunity to visit fisheries recovery projects in the Butano and Pescadero watersheds, as well as tour the Los Padres fish passage projects and the Lower Carmel River. There will be a restoration tour of Scotts Creek, which is the only watershed south of the Golden Gate Bridge that continues to support all three cohorts of Central California Coast Coho. Additionally, participants can learn how to combat human-induced sedimentation with a tour of mitigation measures that address the effects of mountain bikes and logging in the San Gregorio watershed.

Conference technical workshop topics include the California Environmental Flow Framework, Fish Passage, Large Wood Augmentation, and Low-tech Process-based Restoration with Beaver and Wood.

The conference agenda will explore a range of issues including urban stream

management, coastal lagoon restoration, salmon seascape ecology, and a hydrology track that will include policy, restoration techniques, and drought-resilience strategies and initiatives.

Concurrent sessions include:

- How Can Artificial Intelligence Benefit Salmon Recovery?
Seascape Ecology and Ocean Conditions
- Estuary and Lagoon Restoration
Technical and Ecological Considerations to Expedite Large-scale Dam Removal
- Lightning Tales Where Wisdom Sails (inspiring lightning talks)
- Managing Non-native Predatory Fish in California's Salmon-Bearing Streams
- Hydrologic Management for the Anthropocene
- Mountain Meadows: Restoring Functions in Headwater

Catchments under Changing Climate and Wildfire Regimes

- Fostering Community Involvement to Address Common Urban Streams Management Issues
- Beyond Physical Habitat: The Importance of Prey Availability and Productivity in Recovering Imperiled Salmonid Populations
- Opportunities for Collaboration: Tools and Initiatives for Increasing Our Collective Input
- Considering Life History Variation in Salmonid Restoration

Registration for the conference will open in December. SRF will follow all CDC and Santa Cruz public health recommendations to ensure that this is a safe event for all attendees.

🌲 For more information::
www.calsalmon.org

Evolving Drought Resilience in McKee Creek

Sanctuary Forest

By Anna Rogers, Tasha McKee, and Ash Brookens

Traveling through the Upper Mattole in southern Humboldt County, you may have noticed some activity between Ettersburg and Whitethorn Junctions over the past two months. Sanctuary Forest, in partnership with the Mattole Salmon Group and Logan Edwards of Edwards Excavation & Restoration, broke ground on a new streamflow and habitat project in McKee Creek in mid-September. Work was underway when the early rains arrived, so the project has been paused until next summer, but there's much to share about this exciting endeavor!

McKee Creek, a tributary to the Mattole River, was selected for this restoration project because, like many watersheds in our area, it experiences extreme low-flow issues in mid to late summer. Sanctuary Forest has implemented similar pilot projects in various valley settings to learn what strategies are most effective, but realized the need for additional upstream enhancements in order to improve drought resilience. As well, this portion of McKee Creek offered a different valley setting: a colluvial hillslope, or confined valley. Recent work in the Mattole and elsewhere has shown that there is significant potential for water storage in this type of confined valley setting, based on the properties and depth of the weathered bedrock layer present at the toes of hillslopes.

This project seeks to restore geomorphic, hydrologic, and ecological processes



A restoration tour of Scotts Creek, the only watershed south of the Golden Gate Bridge that continues to support all three cohorts of Central California Coast Coho, will happen at the SRF Conference in Santa Cruz. PHOTO COURTESY SALMONID RESTORATION FEDERATION

that will, in turn, address issues of low to no dry-season streamflow, channel incision, disconnected floodplains, lack of off-channel habitat, and an absence of instream wood. This is accomplished by raising the streambed through a series of log and boulder step pools in the mainstem of McKee Creek. The step pools will mimic the natural accumulation of large wood jams and be strategically placed to cause inundation of the inset floodplains during winter flows. This will immediately increase drought resilience by enhancing groundwater recharge and storage, and corresponding instream flow, as well as creating much-needed winter and summer rearing habitat for salmonids. The increased pool depth and area, along with restored channel connectivity to floodplains, also offers refugia to juvenile salmonids during extreme winter storm events.

New restoration strategies are being utilized, including what is referred to as a “modified stage-zero” approach to inundating disconnected floodplains. This is achieved by carefully engineered grading of disconnected floodplains, combined with partial filling of the existing incised channel. The objective is to create a broad floodplain with lots of wood scattered over it such that the creek can flow over the full width of the new floodplain, creating a multi-threaded channel. The stream will carve new channels and pools where it interacts with the wood. This broader, slower, meandering flow will result in increased water storage and improved winter and summer rearing habitat. If you happen to stop and look at the project from Briceland-Thorn Road, you will likely think it looks very messy. However, this “messiness,” with many different sizes of logs and branches



Campbell Thompson (Mattole Salmon Group) explains how three log weirs installed in McKee create step pools for fish passage and will reconnect the stream to the upstream floodplain.

PHOTO BY TASHA MCKEE

strewn everywhere, is critical for this restoration approach. We’re very excited to observe the evolution of this site.

Project managers Tasha McKee (Sanctuary Forest), Cam Thompson (Mattole Salmon Group), and Joel Monschke (Stillwater Sciences) have each reported that they’re very happy with how the project is performing thus far. Even with the abundant rain we recently received (~13 inches through October 25th), the project is handling flows very well and was running clear just a day after the rains subsided. The site will be continually monitored during big rain events this winter to ensure adjustments are made as needed to avoid downcutting and scour. We look forward to updating the community once the project is completed next summer.

We are so thankful for the support of our funders, including the Wildlife

Conservation Board for funding the acquisition and conservation of the 300-acre McKee Creek property in 2018, and the Wildlife Conservation Board, the Natural Resources Conservation Service, and the Resource Legacy Fund, who funded implementation of this project. We would also like to thank Green Diamond Resource Company for their donation of some of the logs needed for construction of the log weirs and backwater jams. And finally, we extend our deep appreciation to our project partners, Stillwater Sciences, the Mattole Salmon Group, and Edwards Excavation, without whom this work could not be completed.

For more information:
www.sanctuaryforest.org



Trees Foundation

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Our mission is to restore the ecological integrity of California's North Coast by empowering and assisting community-based, regional projects that promote healthy land stewardship.

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Trees Foundation is located at 439 Melville Road, Garberville, CA, 707/923-4377, www.treesfoundation.org

Tell PG&E to STOP Ravaging our Trees and FIX their Infrastructure Instead!

The Redwood Chapter of Sierra Club is leading a campaign to demand that PG&E stops ravaging our trees and instead invests in modern infrastructure that will greatly reduce wildfire risk. State leaders must hold PG&E accountable for its negligence.

Why This Matters

PG&E's antiquated infrastructure is vulnerable to high winds and its outdated lines create sparks that can turn into massive fire events. These fires have destroyed thousands of homes and other structures, killed people, forced hundreds of thousands of evacuations, and upended Californians' lives. Modern technology can eliminate these risks even if a tree falls into a power line.

Yet, instead of upgrading to this modern infrastructure, PG&E has blamed the

fires on trees! The utility has begun an assault on forested land by wholesale slaughter of trees near power lines, few of which actually pose a hazard. Trees sequester enormous amounts of carbon and are a vital line of defense against climate change. They should never be destroyed unnecessarily. This destruction also harms ecosystems and does NOT reduce fire hazard.

In addition, PG&E is not providing private landowners with notice, nor getting their permission, when encroaching onto their land to remove trees. Landowners have a right to refuse tree removal, even within PG&E's right of way.

Not only has PG&E worked to divert attention from its own negligence, it has embarked on a propaganda campaign to blame the trees and gain public support for

“enhanced vegetation management.” This tactic puts the cost on us, the ratepayers, whereas, if PG&E were to instead upgrade its infrastructure, the utility would have to pay for the improvements itself—a blow to shareholders. Ironically, it costs less to modernize the infrastructure than to do “enhanced vegetation management.”

Please join us in demanding that PG&E stop ravaging our trees and instead invest in modern infrastructure that will greatly reduce wildfire risk. We are asking state leaders to hold PG&E accountable for its negligence and misguided priorities.

Please add your name to show your support for this effort and to let your state regulatory and elected leaders know that PG&E must change its course of action.

Sign the Petition:
tinyurl.com/signPGEpetition

To support the printing and distribution of this news magazine, please send your tax-deductible contributions to Trees Foundation, 439 Melville Road, Garberville, CA 95542