# Forest & River News

Grassroots Conservation & Restoration in the Redwood Region
Trees Foundation
Summer 2020


- **Racism is an Environmental Issue**
- **Grassroots Advocacy & Indigenous Environmental Justice**
- **Collaborative Partnerships Key to Restoring the Mattole River Watershed**
- **No More Prescribed Fire Barriers: Lessons from Lamprey**

## Editor's Note

This is our second *Forest & River News* produced during the Covid-19 pandemic. With the numerous outdoor events that mark a typical summer cancelled, many of us are spending more time at home, connecting more deeply with the land we live on and its history.

As Regina Chichizola reminds us on page 4, we all live on Native land. We want to acknowledge that here at Trees Foundation, we live on Wailaki land. Today, we commit to doing more to honor and learn from the Wailaki, who practiced sustainable land stewardship for a thousand years before the genocidal raids of 1861 and 1862.

The pandemic has unmasked deep inequities that persist for Black, Brown, and Indigenous people in the U.S. As Kerry Reynolds highlights on page 7, racism and environmental destruction are intertwined, and more diversity and anti-racism training is needed within the environmental movement.

Millions have taken to the streets this summer in Black Lives Matter protests calling for systemic change. Morning Star Gali describes on page 5 the courageous June teach-ins and actions in the streets of Sacramento that prompted the removal of statues of pioneers who treated Indigenous Peoples as less than human. This human rights victory, highlighted on our back cover, is cause for celebration.

To borrow from the theme of our Winter 2016/2017 issue—**action is the antidote to despair**! In these pages you'll find many ways to take action, get engaged, and support the grassroots.

For the Wild,
Jeri Fergus, Kerry Reynolds, and Mona Provisor

**Cover photo: Protestors at a march for racial and environmental justice.**
PHOTO BY KATHRYN HARRINGTON, LEOWEEKLY.COM

## Index

### Environmental Justice



### Forests & All Creatures



### Water, Rivers, & Fish



### Fire



### From My Perspective



### Announcments

# Advocacy and Water Protection in Native California
## Summer Speaker Series and Certificate Program

By Save California Salmon

Save California Salmon has teamed up with Humboldt State University's Native American Studies Department (NAS) to offer a free Summer Speakers Series and Certificate Program on Advocacy & Water Protection in Native California. The weekly series started on June 4th and will continue on every Friday at noon through August 28th. The series culminates with the virtual Advocacy & Water Protection in Native California Symposium on September 25th.

The speaker series focuses on the state of California's salmon, culture, and advocacy, as well as environmental justice for Tribal communities, sustainable food systems, direct action, and allyship with Indigenous movements. Along with being available on Zoom, the series will be broadcast live on Humboldt State's NAS Facebook pages and posted on YouTube for use by educators. Registered attendees will have the option of obtaining a Certificate in Advocacy & Water Protection.


Artwork by Mahlija Florendo, Indigenous Women Art and Design (*www.etsy.com/shop/IndigenousWomenArt*)


**A member of the Hoopa High School Water Protector's club speaks out at the March 2, 2020 Delta Tunnel hearing in Redding, California, as other club members hold a banner reading "No More Water for Profit".** Photo by Save California Salmon

This web series is timely as currently many of California's salmon species are facing extinction, and much of the state's water supply is in danger of becoming unusable due to pollution, drought, and other issues. Organizers say the situation is getting worse due to droughts and proposals for new dams and diversions, which threaten California's rivers and water. Rural communities are consequently suffering due to lack of a reliable food supply and fishing jobs.

Although much of California's water supply comes from the rivers in Northern California's Indian country, such as the Sacramento, Trinity, Klamath, and Bay Delta, often impacted people are left out of water and fisheries decisions, notes Regina Chichizola from Save California Salmon. She adds: "This is despite the health, cultural, and food security issues that Native communities are facing due to lack of salmon and clean water. Before the COVID-19 crisis we were supporting the efforts of Tribal communities and youth to force the state and federal governments and NGOs to include our communities in water decisions and conversations. Since COVID, north state communities have gone back to being left out of the decisions that impact our water."

Chichizola went on to say many people do not know that Native communities, other people of color, and youth are organizing the movements to restore California's

rivers and decentralize its food and water supplies. "It is important for non-native people, environmental groups, and governments to educate themselves and make sure Native people are included in environmental decision making, along with education and funding conversations and decisions in California."

Humboldt State University's Native American Studies department and Save California Salmon encourage anyone interested in water, food, education and/or cultural and racial justice issues in California to attend this web series (see information at end of article.)

The following is a portion of Regina Chichizola's introduction to the second webinar in the series, titled "State of the Salmon and Water Wars on the Klamath":

"We would like to begin the day by acknowledging that no matter where speakers are presenting from, we are on Native land. I am here in Yurok territory today, and Save California Salmon's board and staff are based on Karuk, Yurok, Winnemem Wintu, Pomo, Hoopa Valley, Tolowa, Shasta, Wiyot, Maidu Ohlone, and Miwok territories. We also would like to voice support for all the people around the world that are fighting to dismantle systematic racism and for police accountability. We are in solidarity with Black Lives and the dismantling of systematic racism. Systematic racism and colonialism impact almost every aspect of people's lives including environmental, water, health, and food policies. This is true even here in California where over a million people do not have access to clean water and many Native people do not have access to traditional foods, are unrecognized, and no longer have a land base. Locally, where I live on the Klamath River, many people, including people that could be presenters for this series, do not have access to technology or power and therefore cannot engage in online learning and decision making during the COVID-19 crisis. Last, we wish to acknowledge support for the removal of racist statues throughout Sacramento and the Bay Area this week."

## Schedule for the Webinar Series

### Culture, Advocacy & Environmental Justice for Tribal Communities

**July 17**
- Cultural Revitalization on the Water: Canoe Traditions in the Pacific Northwest

**July 24**
- The River Feeds Us: Food Sovereignty & Community Resilience

**July 31**
- Salmon and Acorns Feed Our People: Connections Between Health & Environmental Justice

### Direct Action & Allyship with Indigenous Movements

**August 7**
- CORE Course—From Fish Wars to Fish Kill

**August 14**
- Community Organizing & Creating a Campaign

**August 21**
- Telling Your Story: Outreach and Media

**August 28**
- Youth Water Advocacy & Education

**At the California Governor's Delta Tunnel hearing in Sacramento on Feb 3, 2020: the Hoopa High School Water Protector's Club and teacher advisors with Save California Salmon and the Winnemem Wintu Tribe. The students traveled over five hours to testify for the Klamath and Trinity Rivers.** PHOTO BY SAVE CALIFORNIA SALMON

Join the conversation online to learn more. Visit *californiasalmon.org* and go to the Educational and Youth page to access past recordings and handouts. To register for the Zoom meetings or the certificate program, go to *https://tinyurl.com/y9syml2d* or e*mail ct243@humboldt.edu*. You can also watch the webinars at noon on Fridays on Facebook LIVE: *Facebook.com/hsunasp*

For more information*: californiasalmon.org*

# Grassroots Advocacy & Indigenous Environmental Justice

By Save California Salmon

*Below are excerpts of remarks given by Morning Star Gali, Tribal Water Organizer for Save California Salmon in a July 3, 2020 webinar titled "Grassroots Advocacy & Indigenous Environmental Justice". This was the fifth webinar in an ongoing free summer speakers series and was moderated by Brittani Orona, who also presented along with speakers Tia Oros Peters and Morning Star Gali. (For more on series, see page 3.)*

**"We are now at a time [of] the removal of statues and monuments to genocide…We are in a moment that needs to be acknowledged and celebrated, also recognizing that we have much more work ahead of us."**

***Morning Star Gali*** "I want to talk about some of the collective organizing efforts we have been doing with Save California Salmon. I first want to acknowledge I am here on Nesenan and Miwok territories.

We have been…for the last 30 days, organizing, and our activism has been happening in the streets, intervening in keeping people safe. I serve as a colleague for the Healing and Justice committee, for the Anti-Police Terror project here in Sacramento. Also I am ensuring through that work that folks are receiving the training they need as we work collectively.

I also want to acknowledge, that through these land acknowledgement and through these efforts to name places and to reclaim visibility of Indigenous people's land and territories, that we also must acknowledge…our Indigenous peoples that are not recognized on their own lands and territories…as continuous genocide and colonialism that has always targeted our women, our girls, our two-spirit trans and nonbinary relatives.

We have always had a history of activism and environmentalism that has come in many different forms and names since the time of occupation and invaders landing on our shores. Since the time here in California of missionization, we have faced incarceration and enslavement of Indigenous peoples.

We are now at a time [of] the removal of statues and monuments to genocide… We are in a moment that needs to be acknowledged and celebrated, also recognizing that we have much more work ahead of us."

"… In speaking from my own experience … it can be very conservative in how tribes feel that they approach the issue of our fishing rights and of our water rights, and not necessarily wanting to feel that there's friction being caused with the state. I worked as the Tribal Historic Preservation Officer for my tribe for over four years, and now that I'm working outside of that tribal government structure, there is a way that we are able to advocate and work with organizations and work with communities. A lot of these fights and efforts are not necessarily led directly by the tribes themselves…but on the


**From left to right, Morning Star Gali, her daughter, and Yurok Tribal Elder Jeanie McCovey at March 2, 2020 rally to protest the Department of Water Resources' Delta Tunnel proposal.**
PHOTO BY MARC DADIGAN

**Save California Salmon Tribal Water Organizer Morning Star Gali in front of a statue of John Sutter removed from outside Sutter Medical Center in Sacramento on June 15, 2020. Sutter was a 19th century European colonizer of California who enslaved hundreds of Native Americans, and this is one of many historical figures currently being removed from public display in response to protests.** PHOTO BY H. J. TSINHNAHJINNIE

outside from organizers and community members that are able to be more vocal about what is taking place."

"... I want to recognize Regina Chichizola and the fish camps that we have held through Save California Salmon—being able to connect and bring children, being able to have our families present and talk about this relationship with the salmon. I had mentioned briefly in my last presentation, that personally, within my own tribe ... we have been fighting PG&E now for many decades. And so people are seeing that, with the fires, and what has taken place, PG&E not being accountable to what has occurred. They have done this to California's Indigenous Peoples for many years now. They never fulfilled their promise to install fish ladders on our river, on the Pit River, where six out of the seven dams were placed on the river. So we have not had salmon in our river for over 80 years."

***Morning Star Gali, describing the photo on previous page of a March 2 rally in Redding, the final slide of her presentation:***

"So this is my daughter (that you just saw moments ago) and an elder, Jeanie [McCovey]. We gathered in Redding and we had over 200 tribal and community members there in support and DWR [Department of Water Resources] was NOT happy, because there's this "messaging" that these state entities work well with tribes, and that they're working well with tribal peoples. And so when...we challenge these false narratives and show up as a large force, then they have to go back and answer to that."

To watch the full webinar, visit *https://tinyurl.com/y84bxma9*

For more information: *californiasalmon.org*

# Racism is an Environmental Issue

## Dismantling Racism Workshop Offered

**By Kerry Reynolds, Southern Humboldt Organic & Regenerative Education**

The dramatic events of the past few months—a global pandemic, leading to a global quarantine, accompanied by worldwide economic collapse and followed by an unprecedented uprising of Black Lives Matter protests in all 50 states and across the world calling for an end to racist police brutality—have led me to reflect on how the climate crisis and racism are completely interwoven issues.

The U.S. legacy of slavery and systemic racism has enabled Big Oil to commit legions of environmental crimes and human rights abuses, especially against brown-skinned people in developing nations, while accelerating the climate crisis. We'll never be able to stop the machine of domination that is rapidly destroying our ecosystems until we acknowledge how our values and actions support and permit it.

### Growing Up White in America

Like millions of other middle-class white kids, for most of my life I was naively unaware of the institutional biases of the culture and education system that granted me only the most shallow grasp of the nation's traumatic history of genocide and slavery.

My first summer job was canvassing for Greenpeace. I was 15, and my mom or dad would drive me 30 minutes to the local Greenpeace outpost in Rochester, New York. From there I would join a merry group of mostly all-white radical working-class bohemians, and we would carpool back out of the (mostly Black) inner city to whatever (mostly white) suburban neighborhood we would be working in, armed with clipboards of campaign handouts. I loved it—every time a door opened I would get a glimpse into a different household, and while some doors quickly shut in my face, often enough I enjoyed engaging discussions about saving whales and dolphins. The discussion that wasn't engaged, however, was why we were all—at least 95%—white? The Black population lived in the "inner city" of Rochester, and while Greenpeace canvassed there occasionally, we never went during the summers when I worked. Looking back I can see how these unexamined experiences couldn't help but lead to unconscious associations of whites with environmentalists and suburban homeowners, and Blacks with the inner city that was rundown and 'dangerous'.

The subject of this strange and uncomfortable racial segregation was never discussed at work or at school. No one ever spoke about why most of the dozen or so Black students that attended my suburban high school were bussed in from the city, and never once did a teacher address the racial history of where we lived. We didn't read or learn about the tens of thousands of Black people that migrated to Rochester from the South in the 1950s and 1960s, and how none of them could buy or rent a place anywhere except the inner city—which quickly became overcrowded, underfunded, and completely neglected by city government. This story of housing discrimination and segregation repeated itself throughout most, perhaps all, cities in the U.S. We weren't taught about how 98% of Federal


**These four concrete barriers on Alderpoint Road in Trees Foundation's hometown of Garberville are known to mysteriously change periodically to reflect the times. The message "Ditch the Systemic Racism" appeared shortly after the death of George Floyd on May 25.**
PHOTO TAKEN ON JULY 6, 2020 BY KERRY REYNOLDS


**Protestors at a march for racial and environmental justice at Jefferson Square Park in Louisville, Kentucky on July 1, 2020, just days after someone opened fire on the crowd and killed one of the many people encamped there to protest the police shooting death of 26-year-old Breonna Taylor.**
Photo by Kathryn Harrington, *leoweekly.com*

Housing Administration (FHA)-backed home loans went to white people, or how the FHA's code read, "If a neighborhood is to retain stability it is necessary that properties shall continue to be occupied by the same social and racial classes."

This pause in business as usual during the pandemic-imposed quarantine is an important chance to grow perspective on our history. I don't have room here to get into the Southern Strategy, but this political strategy was deployed by both sides of the aisle to exploit the differences between the suburbs and the inner cities—where Blacks were forced to live in overcrowded conditions due to federal housing discrimination. The documentary "13th" skillfully shows how the Southern Strategy led to the outrageous and shameful mass incarceration that makes the U.S. by far the world's leader in imprisonment.

## The Green Insiders' Club

Let's consider how environmental organizations might take this time to shake off cultural patterns that reflect an internalized white bias. Look around most any environmental organization and you will likely see a lack of diversity. There is a persistent and significant underrepresentation of BIPOC in U.S. environmental organizations and agencies. BIPOC is a term representing Black, Indigenous, and people of color and you'll find it commonly used among the new generation of activists with the goals of "undoing Native invisibility and anti-Blackness, dismantling white supremacy, and advancing racial justice," according to *thebipocproject.org.*

Green 2.0, an organization that tracks diversity in major environmental groups in the U.S., found that diversity has improved very little since their first study in 2014 concluded that no more than 16% of staff in any organization surveyed were BIPOC, even though BIPOC comprise 36% of the U.S. population and 29% of the U.S. science and engineering workforce.

An environmental leader interviewed anonymously as part of that study said, "I got into the environmental movement back in the 1970s…at that time it was an all-white profession. I was hopeful…they kept talking about diversity. Forty years later…I hear the very same call."

Meanwhile, a 2019 study by the Yale Program on Climate Change Communication concluded that BIPOC are the most concerned about climate change. "Hispanics/Latinos (69%) and African Americans (57%) are more likely to be Alarmed or Concerned about global warming than are Whites (49%). In contrast, Whites are more likely to be Doubtful or Dismissive (27%) than are Hispanics/Latinos (11%) or African Americans (12%)."

The Yale study findings aren't surprising, since BIPOC are often more exposed and vulnerable to environmental hazards and extreme weather events. Clearly, the success of environmentalism depends upon actively transforming into a broad, multiracial coalition. This includes time and efforts spent within environmental organizations to become more racially literate and question the cultural norms that contribute to our lack of diversity.

"For too long, white environmentalists have ascended to leadership roles because it is generally suggested that they're more equipped, knowledgeable, and passionate about issues that affect the environment," wrote Retired Vice Admiral Manson K. Brown, former Deputy Administrator for the National Oceanic and Atmospheric Administration, in a 2018 opinion piece for *The Hill*. "This belief is a myth and adversely impacts the progress we have made on a variety of environmental issues. If we want to continue making advancements in the climate change movement, we should be more inclusive and ensure leadership positions are held by a diverse group of experts. This lack of diversity is hurting the movement and stalling progress that's been made to address the issue of climate change."

Robin DiAngelo, author of the breakthrough book *White Fragility: Why It's So Hard for White People to Talk About Racism*, observes that as a white person you can become the leader of any company or organization in the U.S. without taking a single course in inclusion, diversity, or racial literacy. She also concludes after years of studying sociology that the most racial harm is inflicted on a daily basis by white progressives who do not consider themselves to be racist, yet unknowingly perpetuate racism. She notes that while learning to recognize and interrupt racism can cause white people to feel discomfort, racism is harming and killing people of color every day.

**"I got into the environmental movement back in the 1970s…at that time it was an all-white profession. I was hopeful…they kept talking about diversity. Forty years later…I hear the very same call."**

### The Whiteness Within Workshop

Southern Humboldt Organic & Regenerative Education (SHORE) is a seedling in the ecosystem of the North Coast's environmental community—coming under the umbrella of Trees Foundation Fiscal Sponsorship about one year ago. SHORE is committed to nurturing and promoting educational opportunities in rural leadership, healthy land stewardship, and anti-racism.

This August, SHORE will host an online workshop, "The Whiteness Within: Challenging White Supremacy Culture" (see details at the end of article). This four-hour online workshop will span two days and use story sharing, reflection, and physical expression to give participants opportunities to recognize and shift away from racism. White people are the target audience for this workshop, however BIPOC who feel called to observe and/or share their perspective are welcome.

The learning goals of the workshop are to develop a personal understanding of white supremacy cultural norms; to practice and build stamina for self-reflection around issues of racism; and "to recognize how the system of racism shapes our lives, how we uphold that system, and how we might interrupt it." (Sensoy, Özlem; DiAngelo, Robin, "Reading Guide for White Fragility" 2018)

The workshop presenters are Mo Desir, a Humboldt County artist specializing in Social Justice and Arts Education; Noël August, a Queer performance artist, producer, activist, & educator; and Sarah Peters, a Theatre artist and educator focused on learning in community towards racial justice. Spots are limited, so please register early using the link below.

I attended the online workshop in June, and while it was very moving and enlightening, the workshop leaders also made it fun and the time flew by. I hope you can join us in August. Email me at *sohumshore@gmail.com* with any questions or to join the SHORE email list.

### Workshop Details

Dates: August 3 & 4
Times: 3:30 pm – 5 pm
Where: Online Zoom meeting
To Register: *https://tinyurl.com/aug3and4*

### Recommended Reading

*White Fragility*
by Robin DiAngelo

*My Grandmother's Hands*
by Resmaa Menakem

*Between the World and Me*
by Ta-Nehisi Coates

*Me and White Supremacy*
by Layla F. Saad

*How to Be an Anti-Racist*
by Ibram X. Kendi

For more information:
*sohumshore@gmail.com*

# Trees Foundation Welcomes Mid-Eel Watershed Stewards

This spring, Trees Foundation was thrilled to welcome Mid-Eel Watershed Stewards (MEWS) into our Fiscal Sponsorship umbrella. Fiscal Sponsorship is one of the primary ways that Trees Foundation supports the North Coast grassroots environmental community. It allows groups to move swiftly forward in accomplishing their objectives, while we handle the 501(c)3 bookkeeping and financial reporting required to accept tax-deductible donations and grant funding. We asked MEWS founding member Mickey Bailey to share more with *Forest & River News* readers about this emerging organization.

**Chamise Creek, one of the crown jewels of Mid-Eel creeks, is in late recovery with a healthy population of steelhead trout.** ALL PHOTOS THIS ARTICLE BY PAT HIGGINS

*What is Mid Eel Watershed Stewards?*

***Mickey Bailey, watershed resident:*** MEWS is a group of local people that mostly live in the area MEWS will be helping to restore. I own a parcel of land that is on the Eel River. We have people from Blocksburg, Chamise Creek, and Dos Rios. We have a tribal elder from the Round Valley Tribes. We are working on getting more people involved from Mendocino and Humboldt counties.

Our goal is to upgrade the watershed between Dos Rios in northern Mendocino County and Dyerville in southern Humboldt County. We want to help make the forests more fire-resistant. Doing this will also help the health of the forests. If we can go into an entire watershed/creek area and take out fuel, we can avoid or minimize the big fires. We also hope this effort improves the watershed in our area. A healthy Eel River along with its creeks will benefit everyone that lives, works, and recreates in this area.

**Mid-Eel Watershed Steward and Round Valley tribal elder Ron Lincoln Sr., with his granddaughter Hazel at left, giving the blessing at the Round Valley Salmon Awareness Festival in 2016.**

*What inspired your interest in restoration and conservation of the middle Eel River watershed?*

I have been hanging out in Mendocino since I moved from Oregon in 1984. I finally purchased a parcel of land in 2013. It happened to be the confluence of Woodman Creek and the Eel River. Since I bought this land a restoration has happened on this parcel. It is the largest restoration ever on the Eel River. The railroad blocked off the creek to salmon and steelhead in about 1910. Now, the fish

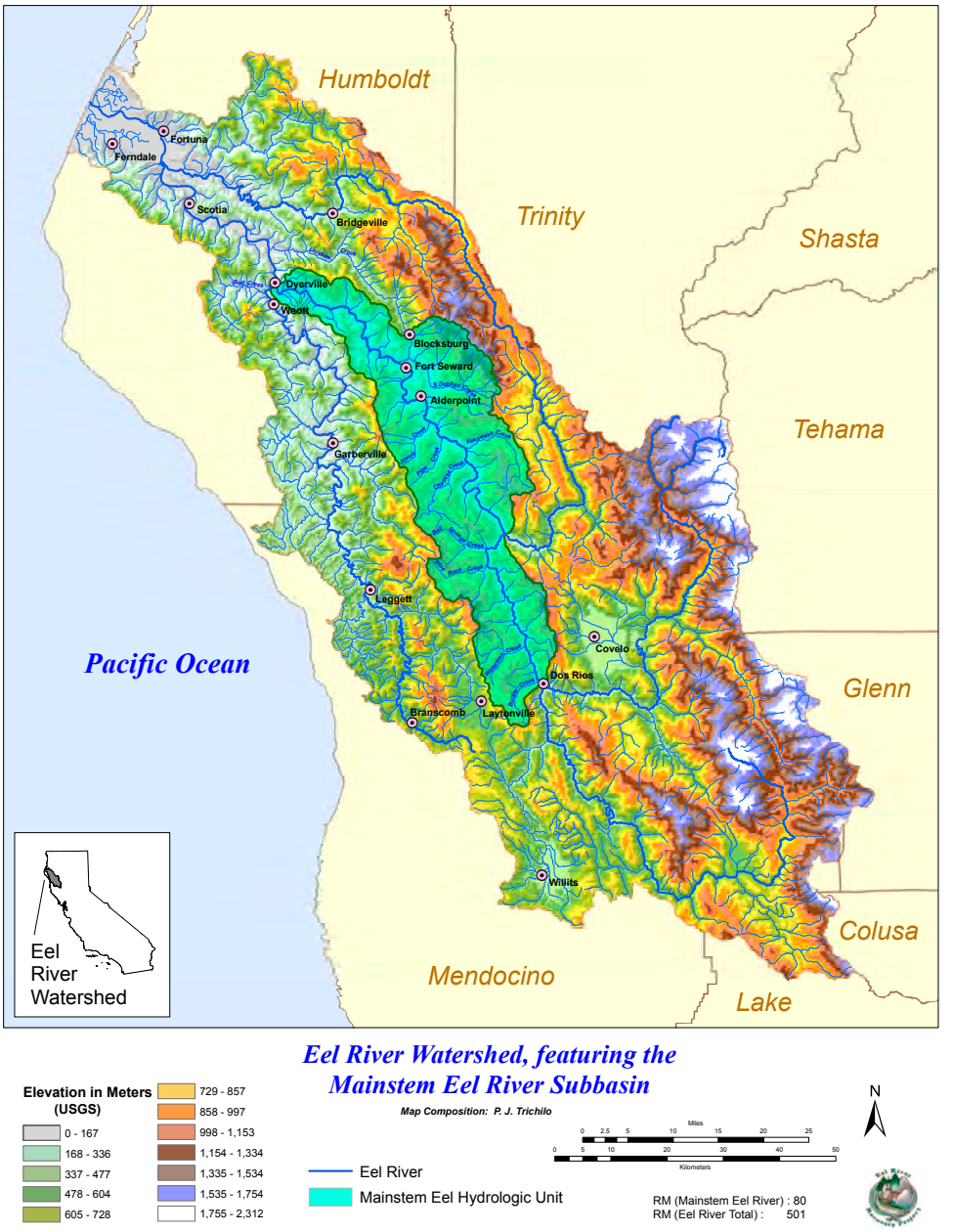
are coming back. [Editor's Note: To learn more about this $2.2 million Woodman Creek Fish Barrier Removal Project led by Cal Trout in 2018, visit *https://caltrout.org/news/woodman-creek-flows-for-the-first-time-in-over-a-century.*]

I have been working with many inspiring people from the North Coast area. Patrick Higgins of the Eel River Recovery Project and Darren Mireau of California Trout have both helped me to learn about the history of the Eel since 1852, when white people first showed up and started clearcutting and fishing in unsustainable ways. There are many things that make this area unique for the possibility to restore the forests and the watershed. The fact that there have been no fish hatcheries on the Eel is a very important factor. The status of the two dams on the river is up in the air. It looks like it could be possible to open up a larger area to spawning for the fish in the future.

*What is your 5- to 10-year vision for MEWS?*

It is my understanding that there is a very big possibility to get grants to help with restoration efforts. Part of this is to help upgrade our gravel roads. The access to grant funding is key. We can create local jobs and improve our homes at the same time. If we are able to get the support of people within our area and get funding, we can provide better fire safety, healthy forests, and more clean water for our residents. The newly formed Great Northern Redwood Trail will also be something we hope to participate in. Turning this from a railroad to a hiking trail is a big job.

**Mid-Eel Watershed Steward Mickey Bailey stands on the decommissioned railroad track that will become part of the Great Northern Redwood Trail, running through his property along Woodman Creek.**




*What do you anticipate may be the biggest obstacles to that vision?*

We are just getting started. Right now it is about meeting one another and seeing who has what time and who will take on what project. Getting grants can be difficult. Grant writing is a skill. Going into a watershed and getting everyone on board could be difficult. Many of us are pot growers, so cooperating with outsiders is not in our DNA. There will be many obstacles, but we look forward to finding solutions.

For more information: *mickeybeez@gmail.com*

# Collaborative Partnerships Key to Restoring the Mattole River Watershed

## Sanctuary Forest, Mattole Restoration Council, and Mattole Salmon Group

By April Newlander,
*Sanctuary Forest*

The Mattole River watershed, located in southern Humboldt and northern Mendocino counties, is a unique landscape of coastal mountain ranges, forests, prairies, and creeks. The Mattole is home to several threatened and endangered species and species of concern, including the coho salmon, Chinook salmon, steelhead trout, marbled murrelet, northern spotted owl, torrent salamander, tailed frog, pine marten, and others. Salmon have been of major community interest since their decline was noted in the late 1970s. A significant amount of community collaboration has occurred in the interest of restoring this culturally and economically important resource. Native salmon recovery is a priority of restoration work in the Mattole River watershed, beginning with the pioneering work of the Mattole Salmon Group (MSG) in the late 1970s and early 1980s, which focused on in-stream and direct fisheries enhancements. Restoration efforts were broadened when the Mattole Restoration Council (MRC) was formed in 1982 and began to address upslope restoration, the relationships between vegetation patterns and salmonids, and later the role of fire in the watershed. Sanctuary Forest (SFI), a land trust in the headwaters of the Mattole watershed, was formed in 1987, with a focus on conserving the watershed through conservation easements and land acquisition.

**Instream log weirs installed by MSG in Baker Creek in 2012, located downslope from terrace ponds, resulted in immediate improvement of habitat for coho.** PHOTO BY GRANT JOHNSON

For more than 30 years, restoration efforts in the watershed have been conducted through partnerships with residents and landowners, industrial timberland owners, state and federal agencies, community organizations, volunteer groups, scientists, and other land management agencies. Starting in 2002, MRC, MSG, and SFI entered into subcontracting arrangements to complete various restoration and watershed planning projects under the umbrella of the Mattole River and Range Partnership (MRRP). Sponsored by the Bella Vista Foundation and the Resources Legacy Fund Foundation, the partnership was formalized in 2008 with a Memorandum of Understanding (MOU) that defined key roles for each organization. The MOU is essentially a detailed decision matrix of core program areas and functions, where each group is assigned a lead role in various niche areas (land conservation, restoration, streamflow, education, etc.). A flow chart for decision-making facilitates agreements. When there's an opportunity to develop a new project or seek funds, the MOU explicitly directs the lead group to decide whether it has the capacity to take it on, or wants to offer or assign it to another group member. This process is supported by monthly meetings of the executive directors of the three organizations.

The desire to reduce funding competition and the opportunity for joint grant-seeking were the main factors driving the three groups to formalize the partnership.

**Completed beaver dam analog structure installed in Lost River in 2019. Structures were hand-woven of willow, then packed with streambed material, clay, and straw.** PHOTO COURTESY OF SFI

Joint grant-seeking benefits all parties, as it lessens the administrative time spent managing three different contracts for both the grantee and grantor, and the grantor does not have to choose among three proposals in the same watershed. Bella Vista Foundation has been funding the MRRP since 2008 for critical work such as salmonid population and streamflow monitoring, planning, and permitting for groundwater recharge projects, fuels reduction work for fire safety and forest health, developing land conservation projects, and much more. The MRRP also receives joint funding from the Conservation Lands Foundation (CLF), through the King Range Alliance, which is comprised of the MRRP and Friends of the Lost Coast (formerly Lost Coast Interpretive Association). CLF funds restoration work and education projects on BLM public lands and in the surrounding King Range National Conservation Area.

There are times when submission of joint grant proposals does not make sense. One project may be a better fit for a certain funder, or a project may be more developed and have a higher likelihood of getting funded, but MRRP partners still work together to reduce competition between groups. For example, if there is more than one round of funding available in the same year, the groups may stagger proposals. Occasionally all groups submit separate unique proposals to the same round of funding, as there is no way to know which project will receive funding; and even when some proposals succeed and others don't, it benefits us all when a partner group is funded to implement projects in the watershed. Ultimately, the MOU makes a stronger, more efficient, collaborative partnership that expands funding opportunities for the entire watershed.

Commonly, MRRP partners work together by subcontracting to each other under a grant agreement. Since there are a lot of overlapping interests among the groups, other factors may come into play when deciding who will take the lead role in a project. With SFI in the headwaters and MSG and MRC over two hours away at the mouth of the Mattole, the geographical location of the project or an existing relationship with a landowner might dictate who will be the lead organization. There are two pilot projects in the headwaters of the Mattole that highlight this type of arrangement, where SFI is the lead organization and MSG and MRC are subcontractors.

The Baker Creek Coho Recovery Project was developed in response to extremely low flows and lack of rearing habitat in Baker Creek, a historically productive creek for coho salmon. In 2012, the first instream structures were installed, which resulted in an immediate improvement of

**Lost River beaver dam analog structures, post-rains, are holding and spreading water, which will benefit salmonids, reconnect floodplains, and restore wetland habitat.** PHOTO COURTESY OF SFI

**Lower terrace pond and earthen berm (shown, far side of pond). Spring rains in 2020 fill the pond and will overflow into Baker Creek leading to enhanced streamflows.** PHOTO COURTESY OF SFI

habitat for coho salmon. While there was a significant improvement in early to mid-summer flows, late summer flow was still insufficient. This led to the development of a terrace groundwater recharge project in 2016, aimed at increasing groundwater storage upslope of the instream habitat restoration project. This will ideally result in streamflow benefits sufficient to maintain pool habitat in Baker Creek even in the most severe drought years. This was accomplished through the construction of earthen berms that form infiltration ponds within the natural topography of the landscape. The design is based on the concepts of slowing down run-off and increasing infiltration such that the groundwater levels are higher in the spring and decline more slowly through the summer. Additional objectives include restoration of the wetland ecosystem and expanding the patches of wetland vegetation by raising the adjacent groundwater level. As the wetland expands, so does the organic content of the soil, which will then improve the water holding capacity and decrease the rate of groundwater decline, with increased habitat benefits for fish and wildlife.

SFI is the lead organization for streamflow enhancement and water conservation, per the MRRP MOU chart of interests, and thus it is the organization that applies for the funding, with MSG and MRC supporting as subcontractors. MSG is the lead for instream fish habitat enhancement and salmonid monitoring, and its members have installed several log and boulder weirs over the years. They will continue to work on stream improvement projects and monitor juvenile salmonid populations to assess their recovery in Baker Creek. MRC is the lead MRRP group for vegetative restoration and will assist with the restoration of the wetland ecosystem. They are providing native grasses, wildflowers, sedges, shrubs, and trees, sourced from their native plant nursery in Petrolia. They will also be preparing the planting plan, and training volunteers to assist with planting, in fall 2020.

Upriver from Baker Creek is Lost River, just miles from the top end of the Mattole River. Lost River has been a priority tributary for SFI since the early 2000s because of its high potential for salmon spawning and rearing if the habitat could be restored. After years of planning efforts, the first post-supported beaver dam analog (BDA) project in the Mattole was implemented in 2019. Intended to improve salmonid habitat, increase groundwater storage, reconnect floodplains, and restore the adjacent wetland habitat, over twenty BDA structures were installed. Among the numerous partners that made this project possible, MRRP partners were vital to its success. MSG assisted with the installation of the structures, together with the California Conservation Corps, SFI staff, and volunteers. The structures consisted of pine posts with willow branches hand-woven between the posts, then packed with streambed material, clay, and straw. MRC harvested the willow from the river bar on Lighthouse Road in Petrolia, then delivered it to the job site in bundles. This was no easy feat—the bundles weighed hundreds of pounds and had to be kept wet to be able to be woven between the posts, so you can imagine the labor and attention this required. Ultimately, this was a very labor-intensive project, but the dedication shown by volunteers was truly a labor of love. We are happy to report that winter rains were held in the streambed and water spread across the floodplain. Whether this results in sustained stream flows throughout the summer—well, we will have to wait and see.


**Map of King Rage Alliance (KRA) partner groups' locations. KRA consists of Mattole Restoration Council, Mattole Salmon Group, Friends of the Lost Coast (formerly LCIA), and Sanctuary Forest.**

These are just a couple of examples of projects MRRP partners work on together. Restoration and collaboration continue downriver as MSG and MRC lead projects that are restoring historic meadows, improving fish habitat using wood from fuel-break projects or donated from private landowners, and carrying out other slough channel and riparian restoration projects. All these projects demonstrate the spirit of collaboration that is strong in the Mattole—bringing together people with diverse perspectives, from this watershed and others, to share knowledge and sustain a healthy and vibrant environment for all life.

The MRRP thanks all who have helped along the way—there are too many to name. Thanks also to the Cereus Fund of Trees Foundation, as they recognize the necessity of working together and continue to fund the MRRP groups' goal of achieving the greatest good for the entire watershed.

For more information: *www.sanctuaryforest.org, www.mattole.org, www.mattolesalmon.org*

# From the River to the Ridge

## MRC and Partners Continue Coastal Prairie and Estuary Restoration in the King Range National Conservation Area

**By Hugh McGee, Program Director,**
*Mattole Restoration Council*

Over the past several years Mattole Restoration Council (MRC) has been working with the Mattole Salmon Group, the Bureau of Land Management (BLM), various federal and state agencies, and local contractors to implement multiple phases of two important ecosystem restoration projects in the King Range National Conservation Area: The Prosper Ridge Prairie Restoration Project and the Lower Mattole Riparian and Estuary Habitat Enhancement Project. This summer we continue implementation of these projects and begin to align project tasks to fit the goals of both projects.

### Prosper Ridge Prairie Restoration Project

Since 2014, the MRC has been working with BLM and local contractors to restore historic coastal prairies and create a landscape-level fuel break on Prosper Ridge, located just south and up the hill from the Mattole River estuary. A glance at the 1874 Coastal Survey Map and 1942–1993 air photos shows that these areas were once home to vast coastal prairie habitats. Since then, suppression of natural and human-created fires has resulted in the encroachment of dense stands of coyote brush and Douglas-fir. This change in vegetation led to the rapid decrease of important native grassland plant and animal communities, a decrease in soil-driven carbon sequestration, and increases in fire-prone vegetation, as well as loss of ecosystem processes that are important to soil health. In Phases 1–6 we removed more than 300 acres of encroaching Douglas-fir and coyote brush and installed over 100,000 native grass plugs and 1,000 lbs. of native flower and grass seed in place of the removed vegetation. This summer we began Phase 7, which includes the removal of an additional 40 acres of encroached vegetation and installation of 30,000 native grass plugs and over 1,000 lbs. of flower and grass seed. Long-term maintenance of these restored prairies will begin this winter, with over 200 acres scheduled for broadcast burning. With funding through the North Coast Resource Partnership, we will also have the opportunity to organize seven years of planning, methodology, and implementation data with production of the North Coast Grasslands Restoration Manual, co-authored by BLM and MRC staff. This manual is meant to assist restoration practitioners in planning and implementing grassland and oak woodlands restoration projects.


**Prosper Ridge Prairie Restoration Phase 7 Map, May 2020**
Map by Hugh McGee

### Mattole Riparian and Estuary Habitat Enhancement Project

Since 2013 MRC has been working with Mattole Salmon Group (MSG), BLM, CA Department of Fish & Wildlife, U.S. Fish & Wildlife Service, California State Coastal Conservancy, California Department of Water Resources, and local contractors to restore riparian and in-stream salmonid habitat in the lower two miles of the Mattole River. Prior to the 1964 flood events that resulted in heavy sedimentation of the lower Mattole River, this area consisted of abundant deep water and off-channel habitat for juvenile and adult salmonids and steelhead, as well as complex floodplain and riparian habitat. In recent decades the estuary area has lacked deep pools, cover, and off-channel habitat that provide

thermal refugia for juvenile salmonids. Floodplains and terraces are riparian deserts with unsuitable conditions for germination of long-lived riparian trees and shrubs. To improve these conditions, MRC and MSG have implemented various habitat restoration projects over the years, including the installation of over 20,000 feet of willow baffles, restoration of 800 feet of the historic Middle Slough, installation of more than 400 whole trees, and planting of 20,000 native shrubs, trees, and wetland plants. This summer we continue our work in the lower river with the restoration of another 800 feet of the Middle Slough, installation of over a mile of willow baffles and willow and wood structures, and re-vegetation of project sites with seeding of native flowers, sedges, and grasses. We will also be installing 4000 wetland plugs and 4000 riparian trees.

### Linking the Projects Together Utilizing Byproducts from Grasslands Restoration and Salmonid Habitat Restoration Efforts

Grasslands restoration and salmonid habitat restoration projects have two recurring questions during the planning phase: What are we going to do with all the biomass we remove from our grasslands restoration sites? and Where are we going to get the wood for our in-stream restoration projects? In 2014 and 2016 MSG used a helicopter to install 400 whole trees into the Mattole estuary and its floodplains. These trees were removed from privately owned grasslands adjacent to the Mattole estuary. MRC and MSG are currently working on a project in the Middle Mattole that utilizes the same concept of taking trees off a fuel break/encroached grassland and using them for in-stream salmonid habitat in Four Mile and Sholes Creeks.

With the implementation of Phase 7 underway, we again face the challenge of how to deal with large amounts of biomass produced from our grasslands restoration work. We typically create large burn piles (40' in diameter and 15–20" high) that need to cure for a year before being burned. Down in the estuary we again face the logistical challenge and cost of trucking trees to floodplain and in-stream restoration project sites. This year we are fortunate to have funding to deal with these two issues and are contracting Columbia Helicopters to fly 200 whole trees from grasslands restoration areas on Prosper Ridge and help install them at floodplain and in-stream restoration sites in the Mattole River estuary. Some of these trees will be used to create whole-tree/willow structures on floodplains to increase riparian habitat and in-stream complexity during high flows. Others will be flown and installed on the Middle Slough Restoration Project to increase cover for juvenile salmonids in the newly restored off-channel habitat.


**Mattole River Estuary Restoration Project Map, April 2020** Map by Hugh McGee

For more information: *www.mattole.org*

# Tenmile Creek Forest Health Pilot Project to Develop New Tools for Regional Planning

**By Pat Higgins,**
*Eel River Recovery Project*

**James Lamping of Humbots Data Analysis tests a remote sensing drone at Jackson Demonstration State Forest.** PHOTO BY JOE SNIPES, HUMBOTS DATA ANALYSIS

The Tenmile Creek Watershed Forest Health Pilot Project will begin in July 2020, thanks to funding provided by the North Coast Resource Partnership's Demonstration Program. The Eel River Recovery Project identified forest health and elevated evapotranspiration of over-stocked forests in Tenmile Creek tributaries as a problem constraining stream flow (see related ERRP article, page 35) and began to explore whether there might be funds available to remedy the problem. A second major long-term objective is carbon sequestration to moderate climate change at the Eel River watershed scale.

Regional fire planner Tim Bailey, who is working for the Humboldt County Resource Conservation District on implementation of forest health from the Eel River south to Marin County (as part of a larger regional plan), recommended two sources of such funds: the Wildlife Conservation Board (WCB) Climate Change Initiative (CCI) fund and the North Coast Resource Partnership (NCRP) Demonstration Project grant.

ERRP assembled an elite team of forest health experts in late March, together with local people who could help build capacity for implementation at the Tenmile Creek watershed scale, and began preparing applications. We learned that the cost of planning for CCI-qualified projects is extremely high because they must meet California Air Resources Control Board standards for greenhouse gas emissions calculated by a model that requires the measurement of thousands of trees.

While our WCB CCI pre-application in April was not selected, ERRP did receive the NCRP Demonstration Program grant, and the project will begin this July and be completed within a year.

The first mission of the ERRP forest health team is to devise an ecologically sound forest health plan template that can serve as a model to adopt elsewhere in the North Coast watershed. Plans will embody traditional ecological knowledge of the Cahto Tribe and have as a goal returning the landscape to its condition at the time of European contact, where possible. The forest health plans will clearly recognize and define potential regulatory and permit hurdles for each plan, so additional resources can be sought to meet challenges that plans share and to help cover the expenses that exceed landowner capacity.

Humbots Data Analysis is a recent start-up business formed by Humboldt State University graduates who use drone

**Peterson Creek and habitat improvement structures installed with a grant won by landowner Steve Brown.** ALL PHOTOS THIS ARTICLE BY PAT HIGGINS, UNLESS NOTED

technology and remote sensing to help analyze forest composition with a view to better characterizing forest health. The objective is to work toward forest plans that require taking fewer measurements on the ground, while providing sufficient detail to enable carbon-sequestration aspects of forest health implementation to be calculated even for small landowners. This is a key aspect of qualifying for CalFire Climate Change Initiative funds, which are funded at $550 M per year, and those funds could enable restoring the forests and grasslands of the entire Eel River watershed. Each plan will envision forest health implementation, including detailed layouts of how logging and tree removal will take place and how trees will be selected in each area of the plan. ERRP has integrated consultants from the Forest Reciprocity Group (*www.forestreciprocity.org*) into the project, who wish to anticipate the flow of small-diameter timber off Tenmile Creek forest health projects, and the plans will include data they can use for business purposes.

Representative parcels with cooperative landowners were chosen for forest health planning demonstration sites: an overstocked forest on the property of a senior citizen in an unnamed tributary of Cahto Creek, three landowners along the Cahto Trail, the Triple Creek Ranch on the east side of the watershed, four parcels west of Laytonville belonging to members of Tenmile Creek Road Association, and three larger parcels in lower Tenmile Creek. Each of 12 landowners will receive forest health plans for their property and will then be included in subsequent grants for implementation, if they wish.

**Looking west in the Grub Creek watershed, a tributary of lower Tenmile Creek with a mosaic of grasslands, oaks, and coniferous forest.**

The lower Tenmile Creek parcels will get a lot of attention since they are large (165–250 acres), and in aggregate they offer extremely high conservation value. They abut the property of restorationist Steve Brown, who has been working on forest health on his 250-acre property in Peterson Creek since 1998. The convergence of Tenmile Creek and the South Fork Eel is only 2.5 miles downstream of Peterson Creek, and Steve Brown has restored its lower reaches that serve as steelhead refugia in summer. Next to Steve is the Angelo Reserve, over the ridge on the South Fork, and U.S. Bureau of Land Management lands that include old-growth Douglas-fir and that connect to the Cahto Peak Wilderness. Forest health implementation here could be a huge boost for aquatic and terrestrial biodiversity. It may also be possible to qualify owners for conservation easements, where they would be paid to not harvest trees.

ERRP is working with the newly formed Tenmile Creek Watershed Council that will be the conduit for future forest health implementation, bringing in millions of dollars in grants, creating full employment, and restoring forest health over the next decade. A major hurdle there is to develop the workforce to implement forest health, including training youth to assist with implementation in the field and as foresters and scientists. Benefits after implementation include improved community fire and water security, climate-change resilience, flows for salmon and steelhead, and sequestration of carbon to help offset climate change.

For more information:
*www.eelriverrecovery.org*

**Triple Creek Ranch owner Mike Hembree (r) talks to Philip Buehler of BioEngineering Associates.**

## Living with Fire

# No More Prescribed-Fire Barriers: Lessons from Lamprey

By Lenya Quinn-Davidson

On a typical summer weekend in the late 1990s, you might have found me amid other teenagers, all lounging in the sun a few miles up the road from my house at one of our favorite swimming holes. At this place, the cool waters of Hayfork Creek tumble through a series of man-made pockets in the rock—perfect for fish to make their way up the steep stretch, and equally lovely for the kids of rural Trinity County to squander a hot afternoon. For me, that place feels frozen in time: even when I go there now, it feels like I'm stepping over the same old poison oak branches, slipping on the same loose dirt, seeking shade under the same gray pines.

But the fish ladder, as we in Hayfork call it, became a lot more interesting about six months ago, when I attended a presentation by my good friend, Damon Goodman. A fisheries biologist here on California's North Coast, Damon is one of the lead researchers on Pacific lamprey—a mysterious, misunderstood, and often maligned fish. In that presentation, Damon showed a set of photos from 1963, taken—to my surprise!—at my very own Hayfork Creek swimming hole, only there were no teenagers, and there was no fish ladder; the photos appeared to show a mere waterfall with fast-flowing water, but when you zoomed in, you could see dozens—or maybe hundreds—of Pacific lamprey, all using their suction-based mouths to dyno-climb up the steep falls.

In 1963, and probably for millennia before that, lamprey were the only anadromous fish making their way above those falls. In Hayfork Creek and across California in rivers that lack man-made obstacles, Pacific Lamprey can make it farther upstream than even the most athletic anadromous salmonid. As a result, they are often the only marine-derived source of nutrients in the entire upper watersheds of those places. On Hayfork Creek, the falls were later dynamited and the fish ladder was installed, providing a route for steelhead to leap their way into the upper watershed but at the same time severely restricting passage for lamprey, who lack the ability to jump. There, as

**Waterfall on Hayfork Creek, 1963. Photo was taken by the California Department of Fish and Game (now CA Dept. of Fish and Wildlife) on an exploratory trip to assess options for dynamiting the falls and opening up passage for steelhead trout. Area in orange square is shown zoomed in, showing lamprey moving up the falls.** PHOTO PROVIDED BY DAMON GOODMAN, UNITED STATES FISH AND WILDLIFE SERVICE

in many places across the Pacific West, the passage needs of lamprey—wetted climbing routes unobstructed by sharp angles—were overlooked in the effort to save the more glamorous, jumping salmonids. With each dam and fish ladder that went up, the lamprey lost another point of connection, another watershed. As a result, Pacific lamprey are currently missing across more than half of their historical distribution in California.

Turns out the structures that were engineered for one set of fish did not do justice to the other.

If you know me, you know I have an intense interest in barriers to prescribed fire. Eleven years ago, I focused my graduate research on that topic, publishing the first paper that ever quantified and described prescribed fire impediments across federal, state, and private burners in California.

But if you really know me, you know that I am frustrated with the incessant focus on prescribed-fire barriers. What seemed fresh and interesting and provocative a decade ago seems stale and tired now—and almost self-fulfilling in some way. After a decade of collectively defining and explaining the barriers, they've become our bedfellows. Liability, air quality, funding, burn windows, public opinion—they slip off our tongues with such ease, such comfort. We're not accomplishing much more burning now than we were ten years ago, but we've gotten much better at talking about why we're not doing it.

**Prescribed fire in Whiskeytown National Recreation Area during the first Nor Cal TREX, October 2013. This area burned again in the 2018 Carr Fire, and suffered noticeably less mortality than surrounding forests.**
PHOTO BY LENYA QUINN-DAVIDSON

A deeper dive into some of those impediments may show that it's our perception of them, rather than the reality of them, that is holding us back. For example, in a new paper by Miller et al. on prescribed fire barriers in California, they explain that "all interview groups stated that liability laws place financial and legal responsibility for any escapes on the burner, creating a risk-averse culture" in the state. A closer look at California's liability laws reveals that this is not true; California is a simple negligence state, where private burners must be proven negligent to be held liable, and federal and state burners enjoy even more robust immunity than their private counterparts. However, these misperceptions are pervasive, even at the highest levels; just last year, a national report by the Coalition of Prescribed Fire Councils erroneously identified California as a strict liability state, based on a survey response from a misinformed CAL FIRE official. The same kinds of misperceptions are common around public opinion, air quality, and burn windows.

And this is the central crux of my frustration, especially in the West: could it be that we're asking the wrong questions, and maybe even asking the wrong people?

One of my regrets from my graduate work is that I didn't find a good way to capture the personal bias—or passion—of my respondents. I haven't seen this meaningfully covered in any of the more recent studies, either. However, from my work on prescribed fire in the last decade, I can tell you that personality, perspective, and culture easily top the list of prescribed-fire barriers—from the practitioner on the ground all the way up to our state and federal leaders. It may be that we need psychologists in addition to social scientists to truly grasp the complexity of this field.

On the lamprey front, things have greatly improved in recent years. Ten years ago, the lamprey was underappreciated and underserved, with decimated populations

and severely restricted habitat. But times are changing. Damon and his colleagues have discovered that lampreys will eagerly use alternative structures if they're made available, and something as simple as a properly angled PVC pipe can open up entire riverine networks that have for decades been inaccessible to lamprey. Thanks to their innovative efforts, Pacific lamprey are coming back to places where they haven't been seen in ages, even as far south as San Luis Obispo and San Diego in southern California. And the reestablishment of the lamprey provides a cascade of benefits for the entire system, including for the rivers and streams that flourish with their added nutrients, and for the Native and other local communities who depend on them for food.

If you ask Damon, it was not further study of the fish ladder or the dam that opened these doors; rather, it was a fresh focus on lampreys themselves—understanding how they move and what they need, and paying close attention to where and how they are still functioning.

It's time to freshen up the prescribed-fire conversation. Let's stop dwelling on the barriers—we know them. We've all hit those walls and felt that pain. Let's study and dwell instead on the people and places where prescribed fire is working—where the collective language and culture centers on the art and passion around fire rather than on the fear of fire. I want to learn more from those places—and not just about their cooperative agreements and their programmatic compliance work. I want to learn about their personal philosophies and attitudes, which I guarantee are at the core of their success. Can you name a heavy-hitting prescribed-fire program that doesn't have a visionary, energetic, or uniquely effective person at its helm? Neither can I.

**Hayfork Creek, 1963. Close-up of Pacific lamprey moving up steep rocks at natural waterfall, pre-fish ladder.** PHOTO PROVIDED BY DAMON GOODMAN, UNITED STATES FISH AND WILDLIFE SERVICE

We've seen in the last decade that when it comes to prescribed fire, we can't quite make the jump we need—but it could be that we're just focused on the wrong structures. Maybe a shift in focus—a change in attitude and conviction—is the PVC pipeline we need for a better prescribed-fire future.

## Further Reading


- Goodman, D. H., & Reid, S. B. (2017). Climbing above the competition: Innovative approaches and recommendations for improving Pacific Lamprey passage at fishways." *Ecological Engineering,* 107, 224-232.
- Goodman, D. H., & Reid, S. B. (2012). Pacific Lamprey *(Entosphenus tridentatus)* assessment and template for conservation measures in California. U.S. Fish and Wildlife Service, Arcata, California. 117 pp. *https://www.fws.gov/arcata/fisheries/reports/technical/PLCI_CA_Assessment_Final.pdf*
- Quinn-Davidson, L. N., & Varner, J. M. (2012). Impediments to prescribed fire across agency, landscape and manager: An example from northern California. *International Journal of Wildland Fire,* 21(3), 210-218.
- Miller, R. K., Field, C. B., & Mach, K. J. (2020). Barriers and enablers for prescribed burns for wildfire management in California. *Nature Sustainability,* 3(2), 101-109.
- Quinn-Davidson, L. N. (2018). Evolving with fire: Understanding flammability and rethinking burn windows. https://fireadaptednetwork.org/science-thursday-must-evolve-fire/



*Trees Foundation Board Member Lenya Quinn-Davidson* is an Area Fire Advisor with University of California Cooperative Extension, in Eureka and the Director of the Northern California Prescribed Fire Council. She works on a wide range of issues, including research, outreach, and policy related to prescribed fire and fire management more generally. Feel free to contact her at *lquinndavidson@ucanr.edu.*

PLANT NOTES

# Stream orchid
# *Epipactus gigantea*

At first it is easy for stream orchid flowers to go unnoticed. From a distance, the flowers appear brownish green, but up close one is treated to a rainbow of colors! Once you notice one, all the flowers around you will pop into view.

Ranging from British Columbia south to Mexico and east to Texas, stream orchids like it moist, preferring to grow in seeps, wet meadows, swamps, and streams. On the Mattole River of Northern California, they grow in crevices on rocks right in the middle of the river, withstanding torrents of rushing water during rainstorms and being submerged all winter long. Once the water subsides, the plants emerge from underground rhizomes, growing erect and reaching from one to three feet tall. Flowers appear in late June and last well into summer. The flowers are pollinated by flower flies, also known as syrphid flies, or hoverflies. After pollination, elongated seed pods form, which open when ripe to release thousands of tiny seeds. The plants also multiply by their rhizomes and can form dense colonies. When the weather cools in fall, the leaves turn yellow then the plants die back completely and are dormant in winter.

**Stream orchids growing on rocks alongside torrent sedge in the Mattole River.**

ALL PHOTOS THIS ARTICLE BY CHERYL LISIN

**Stream orchids can multiply to form colonies.**

As the common name suggests, stream orchids are in the orchid family, which is one of the largest flowering plant families on Earth. Of the 18 native species of orchids growing in California, stream orchid is the largest, hence its species name, *gigantea*. The name of the genus, *Epipactus*, derives from Greek and Latin, epi meaning "upon" and pact meaning "made fast," presumably describing how the rhizomes hold fast onto rocks and other surfaces where the plants grow.

Stream orchid makes a good garden plant for moist, shady areas and does well in containers. Check your local native plant nursery to see if they carry it.

Stream orchid has a look-alike—broadleaved helleborine, *Epipactus helleborine*, which is native to Europe but common here and can become an invasive pest in woodland gardens.

**Up close, stream orchids are quite colorful.**

*Cheryl Lisin is a native plant enthusiast, landscape designer, and President of Friends of the Lost Coast (formerly Lost Coast Interpretive Association), whose mission is to inspire passion for nature in the Lost Coast region. She is currently working on a native plant garden at the King Range BLM office for the education and enjoyment of all (see page 36). You can contact her at* Cheryl@lostcoast.org.

# Low Flow Monitoring in the South Fork Eel River

## Redwood Creek and Sproul Creek, A Tale of Two Tributaries

By Salmonid Restoration Federation

The South Fork Eel River provides critical habitat for coho salmon and other aquatic species including steelhead, red-tailed frogs, lamprey, and Pacific giant salamanders. Juvenile salmon utilize different parts of the watershed from the tributaries to the mainstem during various stages of their life cycle. The forested tributaries of the South Fork Eel provide sheltered refugia for imperiled species like coho salmon that need cool, clean water particularly when they are juveniles. Many of the tributaries of the South Fork Eel suffer from the legacy land use impacts of logging, ranching, and unregulated cannabis production. Even now, the post-legalization environment presents many questions about water management, carrying capacity, and how to balance economic drivers and environmental needs for endangered species.

The South Fork Eel is considered one of five priority watersheds in the state for flow enhancement efforts. Even though this region receives some of the highest precipitation in the state, there is relatively little municipal infrastructure available to allow for flow releases to meet the needs of coho salmon. This region is mountainous and has dozens of populated tributaries including Redwood and Sproul Creek in Southern Humboldt County. Both of these watersheds are considered priority watersheds because despite current land use practices, the tributaries still provide habitat and have intrinsic recovery potential. This potential can only be realized through coordinated and strategic water management actions that engage the community and address the effects of climate change and longer dry seasons.

SRF has been conducting low-flow monitoring in Redwood Creek since 2013 and in Sproul Creek since 2019. Low flow monitoring helps us understand the summer flow conditions when cool instream flows are most critical for juvenile salmonids and when human water use is at its highest. Peak demand often coincides with the hottest days of summer when juvenile salmon are most vulnerable to high water temperatures. The longevity of our monitoring effort means that we have collected data during the extended drought as well as recent years when there were unusually late spring rains. Throughout the monitoring effort, SRF has witnessed creeks in Redwood Creek becoming disconnected by mid-summer. Redwood and Sproul Creeks offer a lot of interesting comparisons since they are adjacent near the headwaters yet have different landowner patterns and hydrology.

**Redwood Creek** PHOTO SRF

Redwood Creek is a densely populated watershed with approximately 400 parcels, hundreds of residents, and countless water diversions for legal and unregulated cannabis cultivation as well as small domestic use and homestead gardens. Comparatively, Sproul Creek has significantly less consumptive human water use with large tracts of the watershed in private ownership including the Marshall and Wagner ranches and the former Barnum timberland that is now owned by Green Diamond Timber Company.

Both tributaries are considered significant for coho salmon recovery in the South Fork Eel and similarly the SF Eel is key to the overall survival of coho salmon in the Southern Oregon/Northern California Coast (SONCC) Evolutionary Significant Unit (ESU). According to the SHaRP process (Salmon Habitat and Restoration Priorities) spearheaded by NOAA Fisheries, Sproul Creek is considered one of the highest priority tributaries in the South Fork Eel River watershed for biological importance. Sproul Creek

ranked high for habitat condition as well as "optimism and potential" for recovery.

Last year, SRF was able to monitor the sites that California Trout had previously established in Sproul Creek. SRF and CalTrout began their independent flow studies at the same time with the understanding that it would be beneficial to do a paired study to understand flow patterns in sub-watersheds with and without extensive human consumptive use (Redwood Creek and Sproul Creek respectively).

Already, it is clear that 2019 and 2020 are dramatically different **water years**. In 2019, rain was plentiful and Southern Humboldt received late spring rainfall, as a result flows in Lower Sproul Creek were 3,000 gallons per minute (gpm) on July 8, 2019 and only 1,700gpm on July 3, 2020. Similarly, mainstem Redwood Creek flows were 2,500gpm in mid-June and only 1,200gpm by July 3. At the rate that flows are diminishing, it is likely that several tributaries will be precariously low by August.

**A water year (also called hydrological year, discharge year or flow year) is a term commonly used in hydrology to describe a time period of 12 months for which precipitation totals are measured.**

SRF is working closely with Stillwater Sciences, a leading consulting firm on the North Coast that is already actively working in the South Fork Eel on restoration and flow enhancement projects. SRF and Stillwater Sciences have been restoration partners for several years and their engineers and geologists have already completed a feasibility study for a portion of Redwood Creek (Miller Creek and a segment of the mainstem). Currently, the Stillwater Sciences project team is exploring flow enhancement opportunities in the remainder of Redwood Creek and Sproul Creek.

**Sproul Creek** PHOTO BY KATRINA NYSTROM

This project will create an implementable plan for improving dry season streamflows in Sproul Creek that will support recovery of threatened and endangered steelhead and salmon within the sub-basin. Since instream flows and cool water temperatures are critical for juvenile salmonids to survive the hot summer months, SRF is utilizing multiple approaches to keep residents informed about current flow conditions. Especially during COVID-19 when it is not feasible to host community meetings, we are wanting to make information available in various platforms including road signs, radio, webpages, and Facebook.

To help residents be aware of current flows, SRF has maintained a large painted sign on the Briceland Road that is updated after monitoring to indicate the flow level. Additionally, there is an **interactive graph** on the SRF website for both Redwood and Sproul Creeks *(http://www.calsalmon.org/programs/redwood-creek-low-flow-monitoring)* that shows the dates and flows for each monitoring visit as well as comparative graphs for previous monitoring years. (*https://www.calsalmon.org/programs/sproul-creek-low-flow-monitoring*)

The idea is that if water users understand the current flows they will moderate their diversion amount or schedule. Many residents have built sufficient water storage to voluntarily forbear from diverting water during the dry summer months when salmon are most vulnerable to low flows and high water temperatures. As part of this planning project, SRF is also identifying participating landowners to partner with to design winter water storage and pond projects that cumulatively could enhance flows in Redwood Creek or Sproul Creek. To learn more about this project, see current flows, or educational presentations from the 2019 Pond Planning and Groundwater Recharge workshop, please visit *www.calsalmon.org/programs/redwood-creek-low-flow-monitoring*

For more information: *calsalmon.org*

# Diggin' In
# The Richard Gienger Report

In hindsight, seen through a lens of extreme "positivity" and good fortune, raising a family in the early 1970s on a windswept ridge overlooking the Pacific was pure exhilaration—with multiple opportunities and adventures before us. About 50 years have passed now. What was history before then? What was history since then? What history will the future hold? And now at what scales will our examination be? I don't have a couple of years or space here to adequately expound on all that needs to be covered, so in large part I will keep it between Fort Bragg and Eureka, eastern ranges of the Eel River Valley, and the Pacific. This column gives a thumbnail sketch about coming to reality grips with restoration and protecting priceless remnants in northwest Mendocino and southwest Humboldt counties. At the end I briefly recap some crucial issues of today.

**Mature forest felled on Rainbow Ridge. This is what is at issue on Rainbow Ridge: the last remnants of mature forest.** PHOTO BY MATTOLE FOREST DEFENSE

As I have described before, the "reinhabitors" or "hippies" (even called "dirt bags" or worse) migrated to the region that became known as the Mateel (a blending of the names of the two local rivers, the Mattole and the Eel) in the late 1960s, the 1970s, and still trickling here in the early 1980s. Multiple sagas emerged as heavily logged lands and impacted ranches, mostly considered valueless, were subdivided and sold for as little as $100 an acre. These "new settlers" came from a variety of perspectives, with urban, suburban, and country roots. There was a conscious desire for "new beginnings" coming on the heels of political assassinations in the USA, the Vietnam/American War, Civil Rights, and fresh expectations of new and expanded ideas of what freedom and expression meant. People were looking for new models, and what caused the impacts of the extreme logging and discrimination were not what was sought. There was a bookstore in Briceland that sold, or offered, a popular UC Berkeley monograph entitled "Sinkyone Notes" by Gladys Ayer Nomland with stories from various sources about the Sinkyone people and region, and their relatives' lifeways and the huge losses starting in the 1850s. One of the most brutal stories told of Sally Bell and her brother escaping a massacre of their whole family at Needle Rock on the Coast. I think she lived until 1938. She and her husband Tom Bell were revered by many, both Indian and non-Indian, who brought her gifts when she and Tom spent their years at Four Corners, where the Briceland and Usal roads cross.

While the reinhabitors were building their homesteads, they were also struggling to earn a living. The post-WWII logging boom had almost entirely played out, with Fort Bragg's Union Lumber and Scotia's Pacific Lumber still big factors but mostly on the periphery of much of the reinhabited land. There was a lot of interest in creating jobs to correct damage to the landscape and forest. The Redwood Creek Renewal Project was one such endeavor, and soon after Wild Iris Forestry was established. These and the Forest Lands and Product Cooperative (FLAPCO) and the Institute for Sustainable Forestry (ISF, still kicking) each deserve to be part of recorded history.

Along with this relative cultural renaissance came multiple land and conservation initiatives, including protection of the King Range, Gilham Butte, Red Mountain, headwaters of the Mattole, the Mattole fisheries and

hatchbox and restoration. Again the efforts and organizations involved need to be part of recorded history. In the effort to thread together Sinkyone Wilderness Coast protection rhyme and reason, I have to drastically condense a lot of pertinent realities. One central spur to protection was the founding of the Environmental Protection Information Center (EPIC) during the aerial spraying wars (involving some of the ingredients of the notorious defoliant Agent Orange used in Vietnam). That's another couple of books right there. Not long afterward, in September 1977, Georgia-Pacific Corporation (which had bought Boise-Cascade, which had bought Union Lumber in the early '70s) submitted a Timber Harvest Plan (THP) to remove the entire "overstory" of Little Jackass Creek (or Little Wolf Creek) on the coast between Bear Harbor and Usal.

Ironically, this was the same month that the California Department of Parks and Recreation (P&R) had a public hearing in Fort Bragg to combine the Bear Harbor and Usal Projects, and to name and classify the new conglomeration. John Jennings, who had been the P&R Ranger at Bear Harbor since the purchase of the Bear Harbor Ranch in 1975 (a whole other story), helped to alert the public and there was a solid turnout: Ray Raphael, author of a local history, Mel Lynn, founder of a Sinkyone area conservation group, and many others, including families, were present. Everyone spoke strongly in favor of wilderness designation—and then a distinguished-looking man rose as the last speaker (as we all were waiting for the virulent wise-use person to speak for motorized recreation and no protection at all), AND he was the most inspirational speaker for wilderness protection. It turned out that he was William Penn Mott, famous conservationist who was California's Director of P&R under Governor Reagan, who had for years championed protection for the entire Lost Coast from Cottoneva Creek to the Mattole River. He later was appointed head of the National Park Service by President Reagan. The P&R Commission then combined the Bear Harbor and Usal Projects but delayed naming and taking final action until the next meeting out of deference to Vivian Hailstone, an honored Hoopa woman on the Commission who had been unable to attend the Fort Bragg meeting. The next month the new unit was named Sinkyone Wilderness State Park with the understanding that large areas would become part of the California Wilderness System.

What followed was an incredible fight involving hundreds of people: THP by THP, P&R Commission meeting by Commission meeting, Board of Forestry and Coastal Commission, action in the California Legislature and elsewhere. The California Department of Forestry (CDF) backed Georgia-Pacific Corporation (G-P) down into cutting the amazing remnant old-growth forest on the coast in two stages and approved clearcuts of 40 and 80 acres. There was strong and persistent resistance to G-P and CDF for the next six years. Cultural and archaeological issues were huge, although CDF insisted it wasn't a Native American issue. This was also a strong time for resistance to coal and uranium mines in Arizona and in support of traditional Navaho people and their lands. Many a benefit was held at Beginnings in Briceland with the International Indian Treaty Council (IITC) represented by Bill Wahpepah, Tom LeBlanc, Dennis Jennings, and so strong and inspirational, John Trudell, and always good music.

G-P's operations were destroying sites. They were formally charged in one major destruction when an irreparable site was bulldozed for a layout pad for an old-growth redwood. We were very disappointed that the judge at Leggett Court did not require consultation at every instance with Indian representatives, but a complete survey was required for the 50,000-acre G-P Usal Unit. Walt Lara, Yurok elder, still alive, and a founder of both the Northwest Indian Cemetery Protective Association (with Milton Marks) and the Native American Heritage Commission, were both present in the courtroom.

There are many important details that I can't go into here due to space constraints, but the upshot is that G-P came back in

**Rainbow Ridge, seen from Long Ridge looking into unlogged forests of Sulphur Creek**
PHOTO BY MICHAEL EVENSON

1983 with a new THP to liquidate the remaining 120 acres or so of old growth (which soon became known as the Sally Bell Grove.) This was the proverbial last straw. EPIC with Sharon Duggan, Jay Moller, and Michael Solomon prepared litigation. Earth First!ers fresh from the non-violent (on the EF! side) battle for the Kalmiopsis Wilderness in Oregon came and trained non-violent affinity groups. EPIC was fully committed. Bill Wahpepah brought on the IITC, Coyote joined as a Wailaki Indian individual plaintiff. Robert "Woods" Sutherland and I went on as individual plaintiffs also. Around this time the InterTribal Sinkyone Council was starting up with the work of Ricardo Tapia and Priscilla Hunter. Many persons civilly defended the Grove, stopping or slowing cutting at great hazard. Mem Hill was injured by falling timber. At least seven were arrested, some kept overnight in the Mendocino County jail, and the second wave of arrestees were released on arrival. [This may be an incomplete list, but pretty close: Raven Dushay, Robin Mitchell, Nancy Peregrine, Sandy Tilles, Marie Mills, Stephanie Lusak, Janice Sadon, Estrella Quiroga, Deborah Orlando.] The Mendocino Court ruled against EPIC and the IITC but gave a slim opportunity to take the case to the California Court of Appeals. Fallers were hard at work when a Stay came through from the Court.

It wasn't until Summer of 1985 that the Court made its ruling: CDF was required to consider cumulative impacts and hadn't, was required to adequately consult with California Indians and Tribes and hadn't, was required to assure all Californians that the Native American Heritage was protected and hadn't, and violated important procedures adversely affecting the public. So much for saying that logging on the Sinkyone Wilderness coast, or elsewhere, was not an Indian issue. A strong case can be made that this decision continues to not be substantively implemented. The identical THP was resubmitted almost immediately by G-P with only the date changed. One surreal moment in the Mendocino Court in 1983 occurred when the Johnson in EPIC v. Johnson (he had approved the THP), in response to the question, "Do you believe that CDF is required to consider cumulative effects?" He said, "No, but if they are, they did."

I'm having to leave a lot out. In 1986 the Trust for Public Land signed an option to purchase the coast land. Save-the-Redwoods League and the California Coastal Conservancy came on as partners, with $3.4 million as a base sum set aside for acquisition by legislative action in 1980 for G-P's 7,800 acres. The InterTribal Sinkyone Wilderness Council was formally founded in 1986 as a consortium of Federally Recognized Tribes. After continued protracted struggle with interests that wanted to continue motorized recreation and logging in protected areas, the ITSWC acquired approx. 3,800 acres for the InterTribal Sinkyone Wilderness in 1997. An additional 160 acres were added at Four Corners in 2012. Issues remain along the Sinkyone Wilderness coast, such as public impacts (including wildfire) at Usal, road access to Bear Harbor and recovery of coastal prairies, and maintenance of Usal and Needle Rock roads ($1 million to fix just one slide north of Needle Rock and a planned $5 million new bridge over Usal Creek). Despite many obstacles, reconnection of Indigenous people and land protection continues.

**Clear, cool water of Alwardt Creek flowing off Rainbow Ridge below where HRC plans to log.**
PHOTO BY LAURA RECHNAGEL

### And now...

A short recap of some priority current issues and/or circumstances. These are aside from, but certainly connected to, the national and world context of oppression, depletion, and political/social bankruptcy.

- Join the effort to protect and conserve 18,000 acres of the Rainbow Ridge area. This is comparable to the Sinkyone Wilderness Coast struggle. This is envisioned into the future as being accomplished by a set of partners that will honor Indigenous stewardship and carry out actions for recovery. Bound up in this struggle—you get a two-for-one issue!—is recovering the original intent and standards of certification by the Forest Stewardship Council (FSC). The Lost Coast League and allies are engaged in a Byzantine appeal process that is failing to bring corrective measures to herbicide use and high-conservation-value forest designation (both judged by FSC to be substantive grievances).

**Looking out from Rainbow Ridge toward the Mattole River watershed and the King Range National Conservation Area.** PHOTO BY LAURA RECHNAGEL

## To Get Involved

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**EPIC**
*wildcalifornia.org*

**Forests Forever**
*www.forestsforever.org*

**Institute for Sustainable Forestry**
*www.instituteforsustainableforestry.org*

**Redwood Forest Foundation, Inc.**
*www.rffi.org*

**Sanctuary Forest**
*sanctuaryforest.org*

**Why Forests Matter**
*whyforestsmatter.org*

Additionally, Humboldt Redwood Company is failing to respond to the needs and mores of communities affected by their operations—a major precept of FSC certification. See the video: U.N. Climate Conference FSC Video / Protect Rainbow Ridge, *vimeo.com/376767281* Visit *LostCoastLeague.org* or email *lostcoastleague@gmail.com* for more info

- Insist on California setting a course that will take generations of commitment to return healthy, high-quality forests to our region—and not settle for 5 years of "stepped-up pace and scale" of thinning and prescribed fire. Attaining larger and older trees is integral to fighting climate change and as necessary as human communities' need to reform settlement patterns and impacts. See Why Forests Matter's website, and for California's emergency moving parts, processes, documents, and recordings, go to *fmtf.fire.ca.gov*
- Support the forest models Jackson Demonstration State Forest, RFFI/URF, and others that enable direct human and long-term benefit while recovering quality forested watersheds. Search: Jackson Demonstration State Forest, California, for the story of how a completely cut and burned forest in 1946 grew to be the foremost example today of the high-quality forest intended under the 1973 Forest Practice Act. Please stay connected at Forests Forever website for information you need to act for forest protection and recovery.
- Support recovery and health of the land and people of the Klamath River—including removing the dams—and a host of other issues with Indigenous perspectives. There is an every-Friday-at-noon Zoom webinar through August 28th, cosponsored by HSU's Department of Native Studies and Save California Salmon (see article on page 3). Cutcha Risling Baldy, PhD and Head of the Department, along with Regina Chichizola are main facilitators, with incredible guests and topics each week. You can register at *tinyurl.com/y9sym12d* and get more information at *www.californiasalmon.org*. The whole series is being recorded and will be available.
- Support "water protectors" and bringing back the salmon that were removed from the McCloud River and taken to New Zealand. Search in your browser for Caleen Sisk and McCloud River Salmon. You will get a wealth of information about Chief Caleen Sisk and the Winnemem Wintu and their battle to get their salmon back from New Zealand, where they were taken before the runs were wiped out by Shasta Dam.
- Support dam removal in the Eel River, *eelriver.org*. Keep on top of the "two-basin solution": complex, much intrigue, in-factions and out-factions, nasty history, and human and salmon future in the lurch.
- Support forestry that avoids clearcutting and herbicides. This industry norm is now being visited on over 9,000 acres of Sproul Creek watershed upstream of Redway/Garberville by Green Diamond Resource Company.

**Please help out where and when you can. Check out the workshop tour programs and other information for Sanctuary Forest, the Institute for Sustainable Forestry (ISF), and EPIC.**

*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.*

*Wildlife Notes*

# What Do I Do if I Find a Baby?

By Traci Pellar

**A fledgling red-tailed hawk**
FROM NEEDPIX.COM

## Bird

The first thing to ask if a baby has fallen from its nest is: "Is it a fledgling or a nestling?" A fledgling has some feathers and can perch and hop. A nestling is fluffy with maybe some partially formed feathers. They usually can cry pretty loud, so let them cry and see if you can hear the parents answer. That way you will know which way to go. If you determine this little bird is a nestling, then try to locate the nest. If you can put it back, then definitely do so. There is a myth that you can't touch wildlife or the mother will reject it. This is not always true. Wildlife mothers are some of the best, bravest mothers and definitely don't care if their baby stinks a little. With that said, if you cannot find the nest or cannot reach the nest, you can create a little makeshift nest and the mother will find that baby and feed it. Watch from a distance as the baby cries and mama and papa feed. It's always such a good feeling. If you do end up making a nest, look up on the internet what kind of bird you have and how to make a nest. Make sure your nest is safe from predators. If you end up needing to rescue your little bird, make sure it's in a cardboard box, nice and dry and dark. Keep it warm and call a rescue center.

If it's a fledgling, possibly you will be scolded by the parents, especially the Black Phoebes (they finish their flight training on the ground). If it is a fledgling, keep your distance as well as your pet's distance—that's the best way you can help, by protecting them. If you see that they are hopping into the busy street or some danger, go ahead and pick them up and take them back to their nest spot. You can keep tabs from afar, but do not interfere with the flight training. The parents are watching somewhere, or will return shortly.

**A sleeping fawn**
PHOTO BY USDA-NRCS DENNIS LORETH

## Deer

A baby deer is called a fawn. The way you know it's a fawn is if it has spots. If you see a fawn in the grass all alone looking abandoned, fear not, that baby is under strict instructions to stay put. So make sure to leave it alone and keep your dog away. Now, if you observe this baby for more than 48 hours and it looks like its mama is not coming back, then please call the Sonoma Fawn Rescue (707-931-4550) and get advice. A sign of distress in a fawn is curling at the tips of the ears. If you see curled tips be sure to note this when you speak to the fawn rescue team.

**A baby squirrel**
PHOTO WIKIPEDIA
WIKIPEDIAPUBLIC DOMAIN

## Squirrel

Well, this is where it gets tricky. Mama Squirrels have been known to disown babies because of the stink of humans, but it's not a given. So, what do we do if we see a baby squirrel? Let it cry, let it cry! Give it some hours, maybe all day if it's warm enough. If it cries its little heart out and still no mama, scoop that baby up and get it warm. There are lots of suggestions online about how to make a nest box and get a baby squirrel warm. I absolutely recommend not nursing them at home unless you have been trained, because squirrels can aspirate really easily (pull fluid into their lungs). You can also try to put it back in its nest and see what happens. Please wear gloves or use a towel. Call for help.

**A nest of baby hares**
PHOTO WIKIMEDIA

## Hare

Mamas have between 2 and 4 babies per litter. Baby hares are called leverets. They are born fully furred and eyes open. Like the fawns, they are given strict orders to stay in place and not move whilst mom forages. If you come upon these babies after 48 hours and still no mom, scoop them up, get them warm, and call your local rehab.

**A newborn bat**
PHOTO BY GILLES SAN MARTIN

## Bat

Baby bats are called pups. They are usually born in June and take a few weeks to wean. It is of utmost importance to not perform Wildlife Exclusion during this time, or the babies will all die. Wildlife Exclusion is when we have wildlife living in our house and we need to get them out and make sure they don't get back in. When I say exclusion for bats, I am referring to making a one-way door to get rid of bats in your attic or wall. Please wait until after mid August or even better, September, to exclude them. If you find a little bat on the ground it may need help getting flight. With gloves you can hang it from a tree to help with take off! Read up on that one….

**A newborn elk**
PHOTO FROM NEEDPIX.COM

## Elk

Don't even look at them. Stay away from any elk in general, especially the calves. Whoo…that was a close one.

**A young fox**
PHOTO FROM UPSPLASH.COM

## Fox

IF you are lucky enough to have foxes denning under your deck or your house, fear not. Just enjoy. Yes, there may be an extra dropping or two, but they will repay you kindly by being the best rodent control you'll ever have. They do not bother cats, so don't worry about that either. Their cubs/kits usually can eat solid food and go explore with parents around 4–6 weeks. So, in a couple months everyone will move out and all is good. Here in Mendocino we only have grey foxes, one of the oldest species of fox. Even though they have some rust color on them, they are our beloved greys.

### Here are some extra tips for helping keep our wild babies safe:

- Do tree work in the winter.
- Try to keep cats and dogs on leashes or with bells (bells don't work so great, but it's something).
- Be aware of your backyard and who lives there.
- Wildlife has been here with us from the beginning. It's where we come from, it is our first teacher. Maybe make a journal record of who lives with you.

### Wildlife Rescue Hotlines

- Mendocino Wildlife Association Hotline, (707) 984-6363 *www.mendowildlife.com*
- Humboldt Wildlife Care Center (707) 822-8839, *birdallyx.net*
- North Coast Marine Mammal Center (707) 465-6265, *northcoastmmc.org*
- Sonoma County Wildlife Rescue Hotline, (707) 526-9453 *www.scwildliferescue.org*

For more information*:*
*www.mendowildlife.com*
or *mendowildblog.com*

*Traci has been an advocate for wildlife education and habitat conservation for more than 30 years. She currently serves on the Willits Environmental Center Board of Directors and is the co-founder of the Mendocino Wildlife Association. Stay wild baby!!*

Activist Corner

# The Rage of the Barred Owl

By Ellen E. Taylor,
*Lost Coast League*

When Moon unmasks your naked face
And gilds your gun with diamonds green
I mark your progress from afar.
You stumble toward my roosting place,
Studying your tiny screen,
Tracking an artificial star.

You killed my wife some dawns ago,
Fooled by your telescopic sight:
She was a Northern Spotted Owl!
You threw her feathers in the snow
No measurements of weight or height:
Bars or spots, murder most foul!

Management stalks through the trees
Plying the Endangered Species Act
And shifting its dynamic core.
We will be gone when, by degrees
The soil will sicken, parched and cracked:
Then fire, desert, nothing more.

I, Owl, now curse your species' birth:
No Permit comes from Mother Earth.

***Background:*** Barred Owls have been migrating to the North Coast for decades. As a less specialized species than the Northern Spotted Owl, they have been able to move successfully into the habitat of this old-growth-dependent and endangered species. Previously, the decline or "poor population performance" of the Northern Spotted Owl was blamed on the disappearance of old and mature forests. But now the guilt has settled on the Barred Owl, who interbreeds with the Northern Spotted Owl and is therefore accused of "genetic swamping" along with habitat invasion. So, shooting Barred Owls has been accepted as a mitigation for cutting down more ancient forest. Hence, the Barred Owl's rage.

For more information: *lostcoastleague.org*

# Monitoring Aquaculture Growth and Impacts in Humboldt Bay

**Salmonid Restoration Foundation**

In May 2020, the Salmonid Restoration Foundation (SRF) was awarded a grant from the Rose Foundation's California Watershed Protection Fund for its project on Humboldt Bay Aquaculture Research, Outreach, and Education. This project proposes to track the Nordic Aquafarms project (NAF), advocate on behalf of the community, communicate important information to the public, and prepare for future aquafarming scoping projects in the Humboldt Bay watershed.

An aerial view of the proposed site for the Nordic Aquafarms facility on the Samoa Peninsula in Humboldt Bay, CA.
PHOTO NAF ARCHIVES

NAF plans to build a "nearly $400 million land-based fish farm on the Samoa Peninsula" at an old pulp mill site on Humboldt Bay, which is a sensitive and vital natural resource. Humboldt Bay contains California's second-largest estuary, home to the largest remaining eelgrass beds in California. While NAF has not yet decided on several major aspects of the facility, including what species of fish will be farmed there, there is considerable concern from many parties about potential impacts to water quality and availability, as well as the recovering shoreline habitat. Additionally, NAF's project would discharge waste with an outfall pipe extending almost a mile out into the ocean.

The local community has valid concerns about water quality and the economy. This is a major land-development project, with the potential to have both large costs and benefits to Humboldt County's economy and environment. The current NAF proposal requires a large amount of freshwater, which would come from the municipal water supply in the Mad River. Diverting this water may have detrimental effects on the water quality of the river and its estuary. Environmental impacts such as reducing available summer flow in the Mad River or polluting Humboldt and Arcata bays could disproportionately affect specific communities in this area.

SRF's oversight project will further investigate and respond to community concerns regarding potential pollutant exposure and water use issues that may result from this or future aquaculture projects. SRF will identify the types of potential illnesses, diseases, and their relationship with known contamination sites, as well as potential public health concerns and/or threats. Polluted runoff is already a significant problem in Humboldt Bay that impacts local ecosystems, recreation, and the existing oyster aquaculture industry. Humboldt Baykeeper has previously conducted water quality testing in four Humboldt Bay tributaries (Campbell, Jolly Giant, Jacoby, and Janes creeks) for key pollutants, including fecal coliform. The Wiyot tribe is conducting testing for potential contaminants including metals, dioxin, PCBs, and suspended solids at the Humboldt Bay Entrance and Mad River Slough. SRF will continue to compile similar local water quality data to use as a benchmark for the watershed, and to advocate for additional water quality monitoring at the proposed NAF site.

Currently there are few third-party entities tracking the Nordic Aquafarms project or objectively evaluating its plans. SRF is well-positioned both to research and monitor this project throughout the planning process, as well as to mobilize our constituency to advocate for certain environmental considerations. The Humboldt Bay area has been identified as a desirable site for future aquaculture projects, and baseline research will be valuable and necessary for local entities to evaluate the potential and actual environmental impacts of such projects on water quality and other local risk factors. Even if this particular aquafarming project is not approved, this site has been identified as a high-potential location, and it will likely be re-developed sometime in the near future.

For more information and updates, please visit our website at *calsalmon.org*.

# Novel Hoof Disease Found in Del Norte Elk

## Disease Raises Questions of Elk Management

**Environmental Protection Information Center**

*By Rhiannon Lewis-Stephenson and Tom Wheeler*

The California Department of Fish and Wildlife recently announced that Treponeme-associated hoof disease (TAHD), a bacterial-associated syndrome causing severe lameness in elk, has been discovered in elk in Del Norte County. TAHD is already present in elk in Washington, Oregon, and Idaho. The current disease appears traceable to earlier outbreaks in herds in Southwest Washington in the mid-'90s. From their experience, we understand that this disease is likely to cause significant disruptions to California's elk.

There is no cure or effective treatment for wild populations. Lameness caused by TAHD has been found to impact up to 90% of elk in infected herds in Washington and is the likely cause of a population decline of 35%. The only hope is to minimize disease transfer and to mitigate impacts where present. EPIC will push the California Fish and Game Commission (a separate entity from the Department charged with issuing rules related to hunting) to promulgate new regulations to prevent disease spread. Oregon and Washington have put forward some regulations to limit disease spread, but these have obviously been insufficient, as the disease has quickly spread from Washington south.

Spread of the disease is not well understood. Infected elk are thought to carry the disease into new areas, where it survives in moist soil until it can find a new host to infect. However, the distances crossed—including far distances and between disconnected elk populations—suggests that livestock movement and hunters may spread the bacteria as well. The disease is not thought to be transferable to humans, although the same bacteria—from the genus treponema—are known to affect other hooved wildlife, in what is known as "digital dermatitis."

**Roosevelt Elk**
PHOTO COURTESY OF THE CALIFORNIA DEPT. OF FISH & WILDLIFE

The discovery of the disease also calls into question planned expansion of elk hunting in the North Coast. The California Department of Fish and Wildlife appears to have first discovered the disease in California in early April. On April 16, however, the Commission increased the number of elk tags issued to hunters (approx. two weeks after the disease was discovered). However, it appears that the Commission was not aware of the disease at that time because the Department apparently did not make this significant new information known to the Commission members. EPIC is currently investigating who knew what and when, as this information is important to understand whether the Department is faithfully protecting wildlife or withholding critical information in order to better support an increase in elk hunting.

**Like the coronavirus, we fear that failure by the government to take this threat seriously and to plan for how to stop its spread means a larger outbreak of the disease and more unnecessary deaths and injuries to elk.**

Despite a clear indication that the disease was spread south from infected herds in Washington and Northern Oregon, the emergence of the disease in California appears to have caught wildlife managers off guard. There is no discussion of the disease in the recently adopted California Elk Management Plan nor is there any other existing plan for response to the disease. Like the coronavirus, we

**Juvenile steelhead feeding in Big Rock Creek.** PHOTO BY PAT HIGGINS

fear that failure by the government to take this threat seriously and to plan for how to stop its spread means a larger outbreak of the disease and more unnecessary deaths and injuries to elk.

Time is of the essence to ensure a prompt response to the disease. Among the Commission's charges is to consider whether the increased hunting, together with likely population declines from TAHD, will cause a significant impact to local elk herds. In the coming months, EPIC, together with our allies at the Friends of Del Norte and Supporters for Del Norte Roosevelt Elk, will petition for new measures to combat the spread and effect of the disease. Be sure to visit wildcalifornia.org and sign up for our emails to stay up to date with the progress of this and other important issues.

For more information: *wildcalifornia.org*

## Action Plan for Tenmile Creek Brings Restoration into Focus

### Eel River Recovery Project

Since August 2018, the Eel River Recovery Project (ERRP) has been working on the Tenmile Creek Conservation and Restoration Pilot Project funded by the California State Coastal Conservancy (SCC) using Prop 1 grant funds. The project aims to fix riparian zones, control erosion, and plan for water conservation in two important fish-producing tributaries, Streeter Creek and Big Rock Creek. The culminating product of the grant is the Tenmile Creek Watershed Conservation and Restoration Action Plan, which is available for review at *www.eelriverrecovery.org* (comments accepted until July 22).

Tenmile Creek is a 65-square-mile watershed in northern Mendocino that includes the town of Laytonville, comprising roughly half of the upper South Fork Eel River watershed above the creek's convergence with the river. The low gradient of Tenmile Creek would have made it historically important for coho salmon, but they are present now at only very low levels. Chinook salmon and steelhead runs in the basin can still be strong in some years, but excess sediment and altered flow regimes are stressing both populations. The Action Plan not only characterizes salmonid populations of Tenmile Creek, it describes other fish species and their status and how each can be used as an indicator of aquatic environmental quality.

A geologic fault running down the middle of the Tenmile Creek watershed from north to south divides the Coast Range from the Central Belt Mélange Terrain, which gives rise to grasslands in the eastern part of the watershed. These areas are particularly susceptible to gully erosion if roads are constructed and downspouts from road drainage are not properly armored. To the west, coniferous forest dominated by Douglas-fir and Ponderosa pine prevails, while oak woodlands predominate east of the fault.

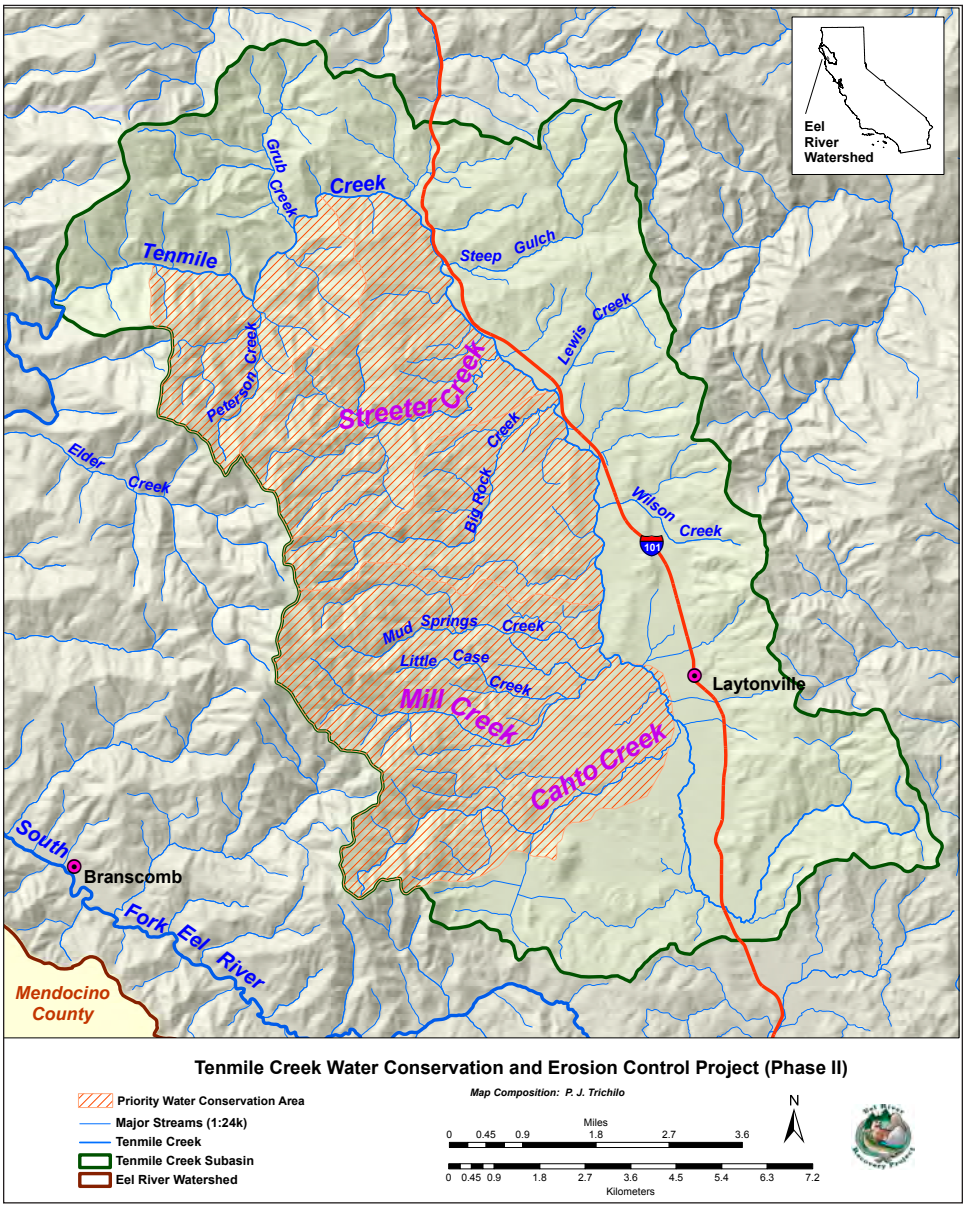
Thomas Gast and Associates Environmental Consultants studied water supply in tributaries Streeter and Big Rock Creeks and compared the numbers to the control stream Elder Creek using a U.S. Environmental Protection Agency model called VELMA (Visualizing Ecosystem Land Management Assessments) that can utilize both spatial and tabular data. Patterns of flow of Streeter and Big Rock Creeks did not indicate summer water withdrawals or substantiate the hypothesis that these streams are being dried up by agricultural use.

Instead, flow impairment in Streeter and Big Rock Creeks appears to be driven by increased evapotranspiration of the second-growth forest 40–60 years after post-WW II logging, as well as the vegetation shift of Douglas-firs over-topping oaks. Since oaks use less water than the Douglas-fir, this unwanted succession decreases base-flows. ERRP obtained a North Coast Resource Partnership grant to begin forest health planning in July 2020. We will work in cooperation with the Tenmile Creek Watershed

Council, which has plans to focus on forest health and to bring in resources for implementation to reduce fire risk, improve base-flows, and create jobs.

The Action Plan defines a Priority Water Conservation Area (PWCA) in the western part of the Tenmile Creek basin, where partnerships will be sought with landowners who want additional water storage to enable forbearance. The report discusses groundwater issues, including the connection between surface water and groundwater, and points out potential conflicts that could arise in the future. The SCC Prop 1 Phase II grant applied for by ERRP in April 2020 would fund such a surface and groundwater interaction study, assist residents of the PWCA, and secure funding for planning and permitting of water storage facilities for a large organic farm and Camp Winnarainbow on the Black Oak Ranch.

ERRP will be accepting comments on the Action Plan until Wednesday, July 22.




Copies of the Action Plan are available online at *www.eelriverrecovery.org* and will be made available in hard copy at the Laytonville County Water District office. Call (707) 223-7200 for more information.

For more information:
*www.eelriverrecovery.org*

## Lost Coast Education Center and Native Plant Garden

### Friends of the Lost Coast

In late spring, you can hear the cheep, cheep, cheep of baby bluebirds in their nest box as you enter the Lost Coast Native Plant Garden. At the same time, your eyes are treated to bright swaths of orange; local poppies have self-sown abundantly. Also abundant are the aromas of sage, yarrow, grasses, soap plant, and the creek below. Coming back (full circle?) to your sense of hearing, you become aware of the sound of buzzing insects busily pollinating the wildflowers.

A visit to our native plant garden at the Lost Coast Education Center is a treat for the senses and a great place to learn about nature!

The public is invited to the Friends of the Lost Coast's Open Garden Volunteer Work Days on the first Thursday and third Sunday of each month from 9 a.m. to noon. For now, however, our Open Garden Volunteer Work Days are suspended due to COVID-19 Shelter-in-Place restrictions. Follow us on Facebook for updates on when we will re-open, then come by for a tour and even lend a hand alongside our fabulous crew of volunteers, engage in an educational activity, or go wading in Bridge Creek as it rushes by toward its confluence with the Mattole River.

**Spring wildflowers putting on a show at the Lost Coast Education Center (pictured in the background) and Native Plant Garden.** PHOTO BY CHERYL LISIN, FRIENDS OF THE LOST COAST

The Lost Coast Education Center is located at the BLM's King Range Office Campus, serving as our home-base and a gateway to learning, discovery, activities, and inspiration for and about the natural wonders of the King Range National Conservation Area.

The Lost Coast Education Center houses the Lost Coast Native Plant Garden, a native plant nursery, and old barn facilities now repurposed to host educational events like Family Activity Days and Summer Adventure Camp. The Lost Coast Education Center also hosts Sierra Club field trips and Nick's Interns, providing opportunities for discovery and skill-building.

Soon, we are hoping to host Movie-Night and Barn Dance Fundraisers, as well as an After-School Intern Program. We plan to develop new interpretive stations and signs telling the story of the barns, bringing the living history back vividly into the present day.

We are working closely with the BLM to develop a forest restoration project at the King Range Office Campus that would thin overly dense Douglas-fir regeneration to promote fire safety; increase light infiltration and encourage native vegetation growth in the understory; enhance water quantity, availability, and storage; and increase carbon dioxide sequestration. This project offers a perfect learning opportunity that will involve before-and-after site tours and include bilingual interpretation.

With so much happening and on the horizon at the Lost Coast Education Center and Native Plant Garden, we decided to develop a master, comprehensive interpretive and education plan. This plan will allow us, our partners, and the foundations that support our work to have a complete overview of all the exciting programs and initiatives we will be able to offer, and how these activities support our overarching mission to inspire a passion for understanding and preservation of the environment—in particular, the natural wonders of the rare and unique Lost Coast.

The Lost Coast Education Center and Native Plant Garden was born out of a Cooperative Management Agreement between Friends of the Lost Coast and the BLM. The garden, native plant nursery, and many of our education and interpretive programs are facilitated thanks to generous grant funding contributions from the GraceUs Foundation and the Cereus Fund of Trees Foundation.

Want to learn more? Follow us on Facebook, and sign up for our periodic newsletter by visiting our website at *www.Lostcoast.org*, or you can email us at *info@lostcoast.org*. Even better, come out to one of our Open Garden Volunteer Days or one of our upcoming Family Activity Days and experience the Lost Coast Education Center and Native Plant Garden for yourself. Getting lost never felt so good!

For more information: *info@lostcoast.org.*

## Ocean-Going Coho End Season Strong

### Salmon Protection And Watershed Network

This year's coho salmon smolt season in Marin County's San Geronimo Creek marked a significant year for the endangered species!

After installing a fyke net trap on San Geronimo Creek—the largest free-flowing tributary to Lagunitas Creek—and monitoring coho migration for seven weeks in mid-April, the Salmon Protection

**SPAWN monitors coho salmon smolts in San Geronimo Creek.**
PHOTO BY SPAWN

And Watershed Network, or SPAWN, captured a total of 2,732 healthy coho smolts that were then released back downstream to continue their journey out to the ocean. This is among the largest numbers of coho smolts that SPAWN has recorded emigrating downstream originating in San Geronimo Creek.

"The numbers we've seen this season are very exciting for our endangered coho salmon, but it does not mean we can relax in our efforts to protect them," said Ayano Hayes, SPAWN's watershed biologist.

This large smolt class was the offspring of the adult spawners of 2018–2019, when an above-average spawning cohort made their way up San Geronimo Creek to spawn. When coho salmon are born in freshwater creeks, they spend 12–15 months growing and preparing for their adult phase in the ocean, where they will spend another 1.5 years before returning to the freshwater world where they were born to lay their eggs. The process, known as "smoltification," prepares salmon for saltwater intake and the ocean environment—the fish change physiologically and morphologically, internally and externally.

SPAWN timed the installation of the trap following the lunar cycle, ensuring the trap was in the creek on the darkest night of the month due to a theory that fish will take advantage of the dark night as they move downstream, in order to swim unseen by any predators. Coincidentally, in the days following the new moon, SPAWN observers saw large numbers of fish migrating, a noticeable difference from only days before. On the contrary, as the full moon approached, SPAWN recorded dwindling counts of fish migrating. This apparent connection to the lunar cycle is an interesting aspect of the coho smolt life-history.

This large number of coho smolts makes clear that the habitat in and along San Geronimo Creek must be protected and restored in order to safeguard this rare, wild coho salmon population. To ensure that large groups of coho salmon smolts continue to survive and rear in Marin County, maintaining creekside riparian habitat is paramount. That is why, in addition to monitoring coho salmon populations, SPAWN is actively fighting for a creekside development ordinance in Marin County that will help stop damaging development that eliminates creekside riparian habitat. In a watershed that has suffered a lot of damage, San Geronimo Creek must be better protected in the future.

For more information: *https://seaturtles.org/our-work/our-programs/Salmon/*

## Virtual Spring-run Chinook Symposium

July 23-24, 2020

**Salmonid Restoration Federation**

Salmon River Restoration Council and Salmonid Restoration Federation are hosting the 10th Spring-run Chinook symposium virtually on Thursday, July 23, 2020 and Friday, July 24, 2020. Sessions on both days will take place from 12:30-4pm. This is a truly collaborative educational

event with diverse partners including the Karuk Tribe, and the U.S. Forest Service.

SRF is excited to join our partners from the Salmon River watershed, which is the center of community-based Spring-run Chinook recovery and restoration efforts in the Klamath Basin. Nestled in a beautiful river canyon, the Salmon River is fed by snowmelt from the Trinity Alps and Marble Mountains and is the second largest tributary flowing into the Klamath River. Salmon River Restoration Council (SRRC) has been a leader in Spring-run Chinook (aka springers) recovery efforts and has co-hosted the annual cooperative dives to count springers in the Salmon River since 1995. SRRC's mission is to protect and restore the Salmon River watershed, and especially its anadromous fisheries, with the active participation of the local community.

Due to COVID-19 precautions, this year's symposium will take place entirely online. While we are sad to not be able to gather in person, we hope this event will be more accessible to our constituents who might not have been able to join us in our typical remote location.

Thursday's session will include a joint keynote address by Ron Reed, a Karuk tribal member and activist, and Dr. Kari Norgaard, a professor of sociology at the University of Oregon. The keynote will be followed by an exciting session called Spring Chinook: Historical and Cultural Knowledge with two speakers. Charley Reed, a Humboldt State University student and Karuk tribal member, will give a talk on "Differentiation of Spring- and Fall-run Chinook in the Klamath-Trinity Watershed from an Indigenous Perspective," and John Hamilton will describe "Spring-run Chinook Survey Trends for the Klamath Basin Downstream of Iron Gate Dam." The final talks of the afternoon will address the current status and trends of Spring-run Chinook, with Eli Asarian of Riverbend Sciences and Karuna Greenberg of the Salmon River Restoration Council.

Friday's sessions will focus on the future for Spring-run Chinook, with talks that address habitat restoration, as well as genetics and reintroduction. The Habitat Restoration session will focus on implementing recovery strategies for Spring-run Chinook including innovative floodplain and mine tailing remediation projects; the Yurok Tribe's heliwood projects on the South Fork Trinity; and an instream restoration project on the North Fork Salmon River. The Genetics and Reintroductions session will address the reintroduction of Spring-run Chinook into tributaries of Upper Klamath Lake and a summary of the current state of the science regarding the genetic and evolutionary basis of spring run-timing in Chinook. The agenda will conclude with time for questions and farewells.

In 2018, the Karuk Tribe and Salmon River Restoration Council filed a petition to list Klamath-Trinity Spring Chinook under the California Endangered Species Act (CESA). On February 6, 2019, the California Fish and Game Commission made this species a candidate for listing under the CESA. A similar petition to list Klamath-Trinity Spring Chinook under the federal Endangered Species Act was found to present substantial scientific information and a full status review of Chinook in the Upper Klamath-Trinity basin is currently underway.

For those who miss the symposium, we will make a recording available on this same webpage.

To see the full agenda and register for the symposium, please visit: *www.calsalmon.org/programs/spring-run-chinook-symposia/10th-annual-spring-run-chinook-symposium*

**A springer** PHOTO BY MICHAEL BRAVO

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# Celebrating the Removal of Statues and Monuments to Genocide of Indigenous Peoples

Save California Tribal Water Organizer and Pit River Tribal Member, Morning Star Gali (in center with fist raised) spoke at Sutter's Fort State Historic Park in Sacramento on Tuesday, June 16, 2020, for the removal of pioneer statues. Gali told reporters, "This is day one of three days of events where we're focused on the removal of these pioneer statues. Yesterday we claimed a victory with the removal of the Sutter statue outside of Sutter Hospital. That came down prior to this event we're holding today as a teach-in and a community conversation.

PHOTO BY H. J. TSINHNAHJINNIE

**We really see this as an opportunity to be able to tell the truth of our histories; to be able to tell our stories, and not those stories that were written by non-native peoples, that depicted us, in a way, as unhumanlike…."**

"…We're in a moment when people are paying attention to that, and people are listening to us, and people are listening when we say that it's time to tear down white supremacy, it's time to get rid of these racist statues, that we don't need monuments to genocide anymore. That's part of why I'm here, to help give my community that platform so then they'll be able to tell their own stories in their own voices."

For more, turn to page 5.

PHOTO FROM SACRAMENTO CBSLOCAL.COM

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