

Session Coordinators: Eli Asarian, *Riverbend Sciences*, and Sarah Phillips, *Marin Resource Conservation District*



This session featured "lightning" (5 minutes or less) talks in which presenters share nuggets of hope and inspiration. On this heating planet, a career in ecological restoration is bound to have discouraging moments. In 1949, Aldo Leopold wrote "One of the penalties of an ecological education is that one lives alone in a world of wounds." However, given the current widespread understanding of global environmental degradation, you are no longer actually alone even if it sometimes feels like it. In addition, despite daunting challenges, all hope is not lost. Against all odds, the fish are still here. The world is still wondrous and beautiful. New generations are bringing diverse perspectives and re-envisioning the future. Come share your story! Here are some thought-provoking questions the coordinators posed to presenters:

- What motivates you to keep going?
- Who has had the greatest impact on you and why?
- What do you know now that you wish someone had told you years or decades ago?
- What is your favorite book/article/lecture/quote, and how does it guide and/or inspire you?
- What have you found to be a hidden gem that needs more time in the limelight?

Presenters shared a distilled and focused insight with the SRF community. Presenters wove their philosophical musings and heart-stirring experiences. Session Coordinators welcomed any and all to share their gems of wisdom that have carried them through the days, months, years, or decades. Participants left this session feeling replenished, motivated, energized, and connected.

Presentations



| • | The Future of Restoration is Bright Alison O'Dowd, PhD, Department of Environmental Science & Management, Cal Poly Humboldt | Slide 7 |
|---|---|----------|
| • | Listening to the River with Youth Shannon Wedgley, Scott River Watershed Council | Slide 30 |
| • | A Watershed Runs Through You - Wisdom from Freeman House Drew Barber, Vollmar Natural Lands Consulting | Slide 42 |
| • | Sapiens, Braiding Sweetgrass, and Re-Envisioning Humanity's Role on Planet Earth Eli Asarian, Riverbend Sciences | Slide 56 |
| • | Recovery: the Common Ground Between Coho Salmon and Major Depressive Disorder Elizabeth Ruiz, California Department of Fish and Wildlife | Slide 61 |
| • | Help the Fish *and* Help the People Julie Weeder, NOAA Fisheries | Slide 63 |

Presentations



| • | Lessons from Tyson Yunkaporta's Aunties Mary Power, UC Berkeley, Angelo Coast Range Reserve |
|---|--|
| • | Hitch Magic Kevin Swift, Swift Water Design |
| • | Everything but the Kitchen Sink Approach to Keeping Your Batteries Charged: One Fish Biologist's Perspective |
| | on Inspiration & Lesson Learned Sarah Beesley, MS, Yurok Tribe Fisheries Department |
| • | River Ecologist: Profession or Disease? |
| | Bill Trush, Cal Poly Humboldt River Institute |
| • | Close Encounters of the Coho Kind |
| | Jonathan Warmerdam, North Coast Regional Water Quality Control Board |
| • | Proof of Concept |
| | Erik Stromberg, PLA, CERP, Restoration Design Group, Inc |

Presentations



| • | A Lightning Lightning Tale Karen Pope, PhD, USDA Forest Service, Pacific Southwest Research Station | Slide 92 |
|---|--|-----------|
| • | Mostly Natural- Collaborative Management Strategies in the Trinity River, CA Justin Alvarez, Hoopa Valley Tribal Fisheries | Slide 127 |
| • | It Takes More Than a Village: Restoration / Reconciliation of the Laguna de Santa Rosa Clayton Creager Jaguna de Santa Rosa Foundation | Slide 128 |

Lightning Tales: Sharing Stories of Hope & Inspiration

Salmonid Restoration Federation Conference 2024



Eli Asarian, Riverbend Sciences, SRF Board Sarah Phillips, Marin RCD, SRF Board Thursday, March 28th





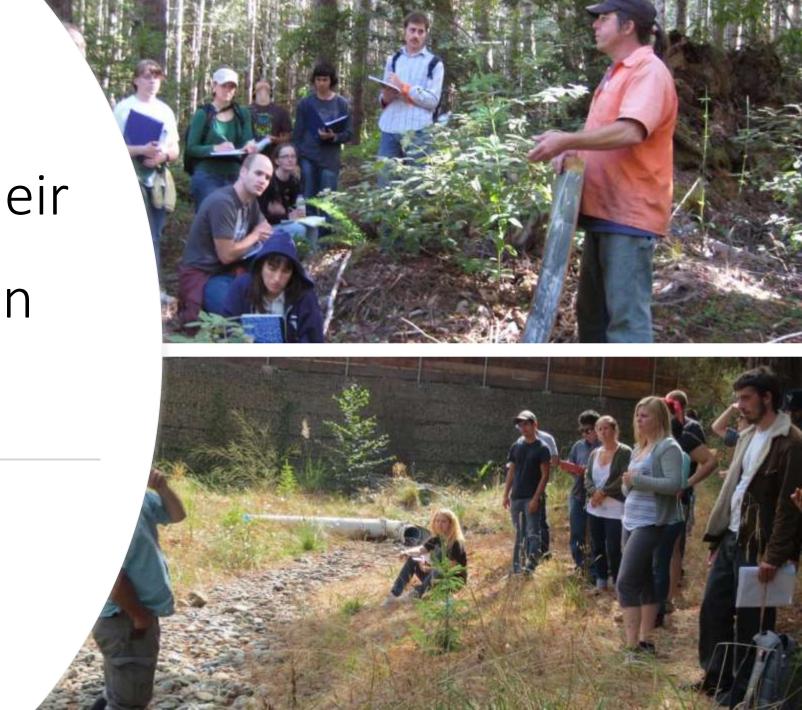


A lot of interest in Ecological Restoration!

(~150-200 students in "Eco Resto" each year)

Students gain foundations in soils, botany, watershed science, GIS, env law and policy, conflict resolution, communication, grant writing, plant taxonomy, etc.

Students show their knowledge when visiting restoration sites with professionals





Explore newly implemented restoration projects





Students jump at the chance to do hands-on field courses about restoration













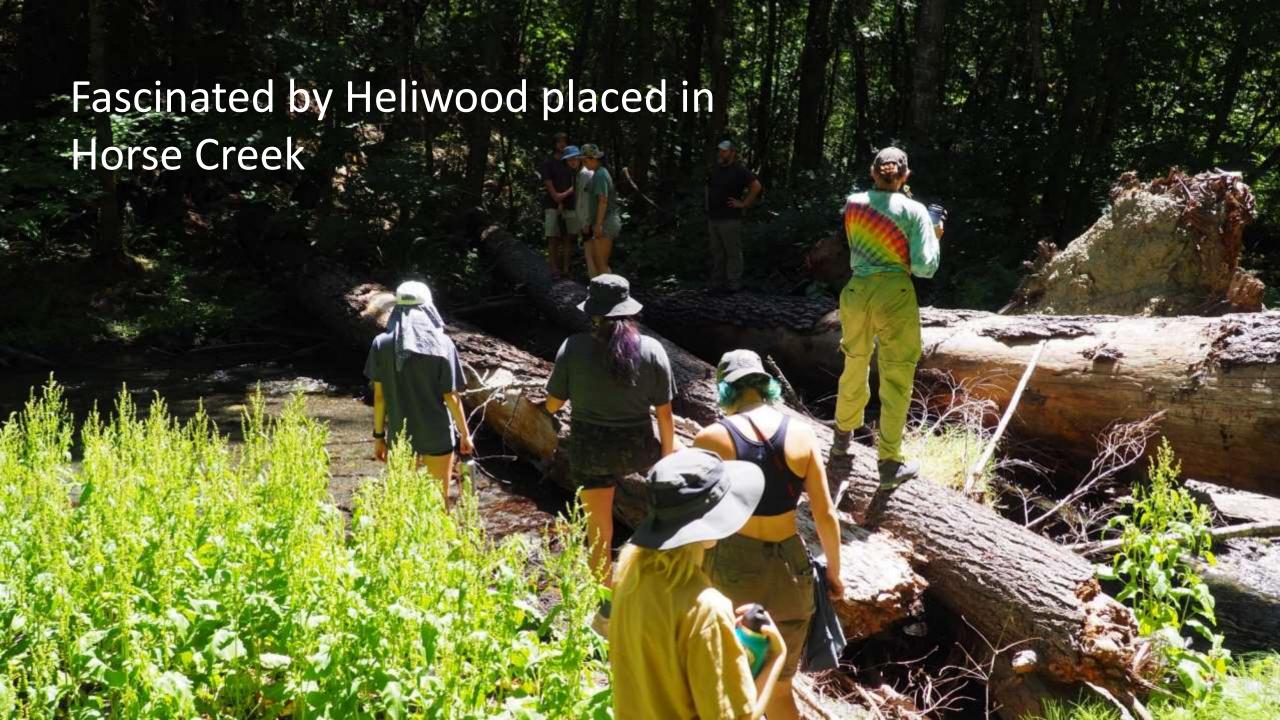
Evaluating bank erosion potential with Scott River Watershed Council





Seining and pit tag demonstration with Karuk Tribal Fisheries













Rough-skinned newt



Botanizing







I'm inspired by my grad students – look where are they now!



Kelsey McDonald – Environmental Scientist at CDFW (working on restoration projects including Ocean Ranch Unit)



Katrina Nystrom Sheldon – Project Coordinator at SRF



Emily Cooper-Hertel – Klamath Meadows Partnership Coordinator at Watershed Research and Training Center



Thomas Starkey-Owens – Hydropower Compliance & Research Scientist at WA State Dept of Ecology



Monique Silva Crossman – forestry consultant as a biologist, and with a USFW ecologist as a GIS analyst



Jasmine
Williamshen –
Fisheries
Biologist II at
Cramer Fish
Sciences



Lara Jansen – Postdoc at EPA



Ben King – CDFW working with Klamath Watershed Program











LISTENING TO THE RIVER WITH YOUTH

PRESENTED BY SHANNON WEDGLEY







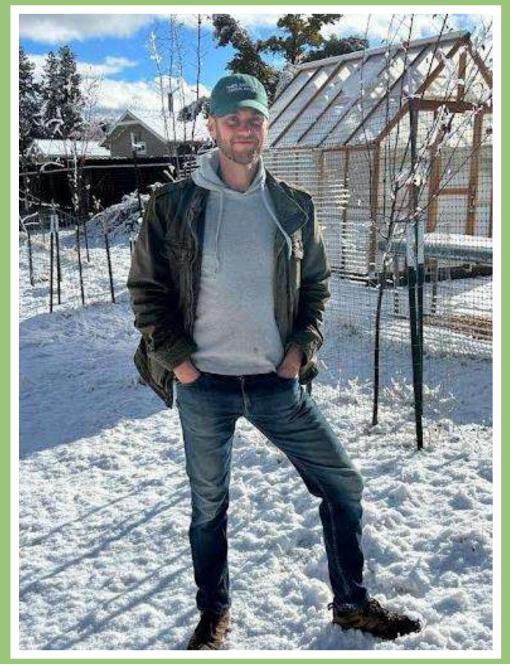


WHO AM I?

Youth Counselor/Field Tech/Project manager
 Scott River Watershed Council

Firefighter/EMT/Explorer
 Counselor
 Fort Jones Firedepartment

Regular guy with a regular life



THE YESS PROGRAM

- A summer intern program that serves youth in Siskiyou county
 - Its a paid job that last 6 weeks
 - Exposed to different resource and conservation based work
 - Filed and Camping trips (zero technology)
 - Study points/ Work reflections/Journaling



THE CREW

- an incredibly diverse group of kids from different backgrounds.
 - All youth went though an interview/hiring process.
 - unlike a "normal" job, youth was selected to offer opportunities and fresh persepectives





OUR WORK/ADVENTURES

- Most of our projects involve outdoor, science-based activities within the local area.
- We work together with other organizations and local youth summer groups in Siskiyou to synergize our initiatives.



INSPIRATION OVER 9000!!!

- They love to play!(hunger for life)
- Curiosity that is fresh and genuine.
 - Pushed themselves and challenged each other
- Open to exploring new possibilities
- Camp fire talks about EVERYTHING!





LET THE INSPIRATION KEEP ON FLOWING!!

YESS kids independently pursue education and opportunities in resource management, conservation work, and more

- Shasta Forestry Challange
- FFA(Future Farmers of America)
- Explorer Program(FF) Theater

Ongoing support for interns and assistance on senior projects.

FEATURED NEWS, SCOTT VALLEY

Students From ETNA HIGH SCHOOL Participate in 2023 Shasta Forestry Challange

October 9, 2023 4:15 pm by Jay A. Martin

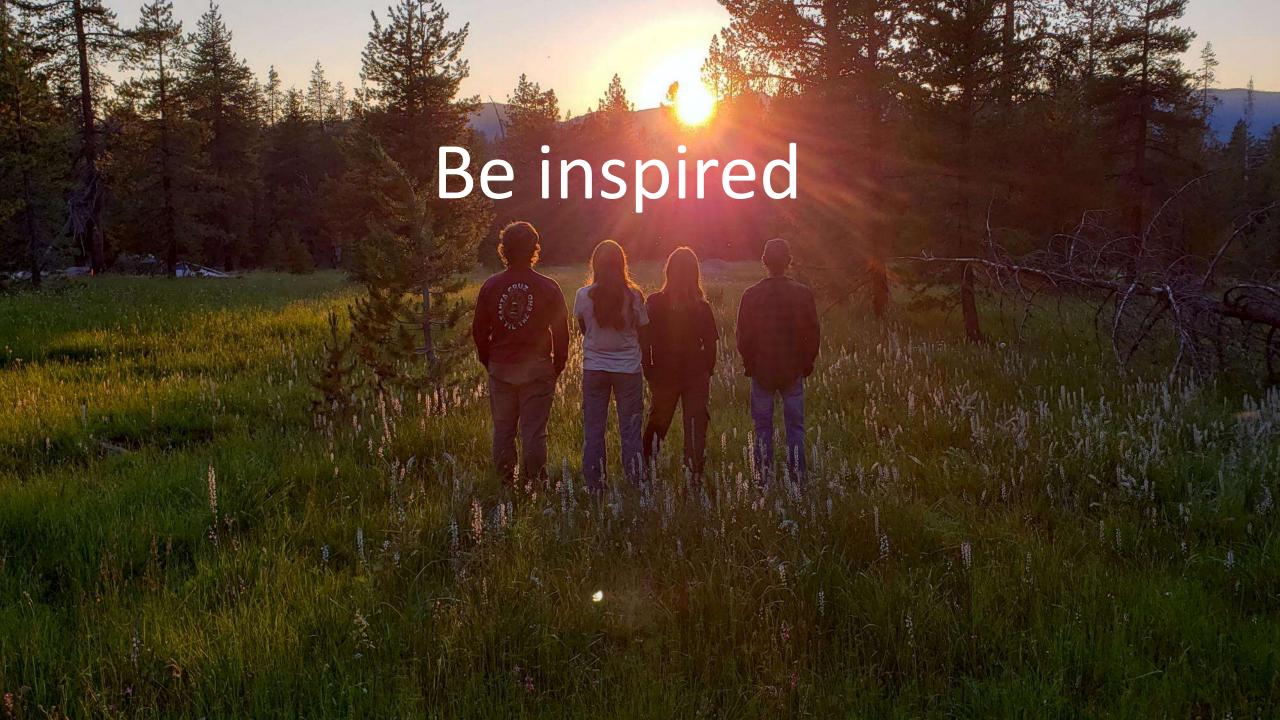
Views: 368

tna High School students assessed the potential for a shaded fuelbreak at Noble Demonstration State Forest and recommended future forest management activities that will help protect the adjacent community.



Front row, left to right: Kellie Harget (advisor), Enzlie Harget, Connor Steckmyer, Jacob Holland, Skya Callahan, Emely Scovill









Afterlife

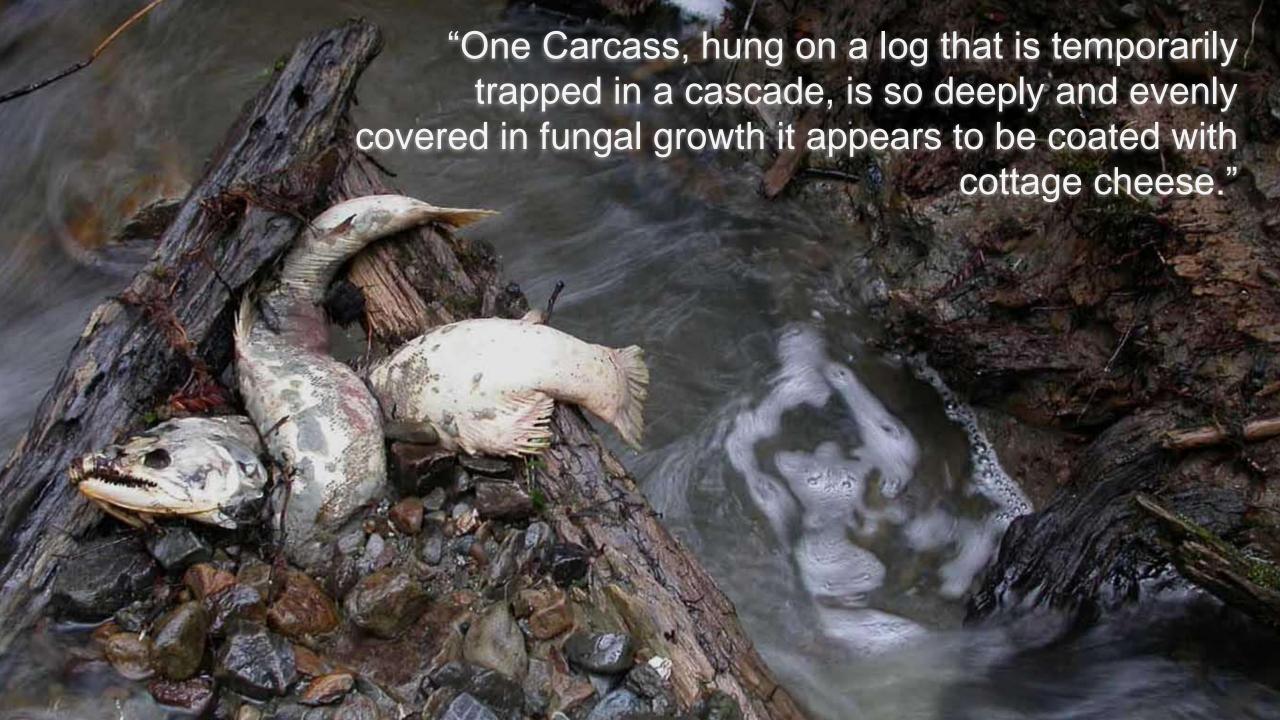
Written by Freeman House

Excerpted from:
A Watershed Runs Through You

Images by Thomas B. Dunklin Reading by Drew Barber



"I am a man part made of salmon, so it doesn't seem strange to me now to be pondering their lives after death."





"The lifecycle of the salmon has been anthropomorphized and romanticized beyond the bounds of decency. I've been guilty of it myself."





"Bears, or racoons or otters wade in and put a compassionate end to the slow decline, and the river becomes an assisted death facility."

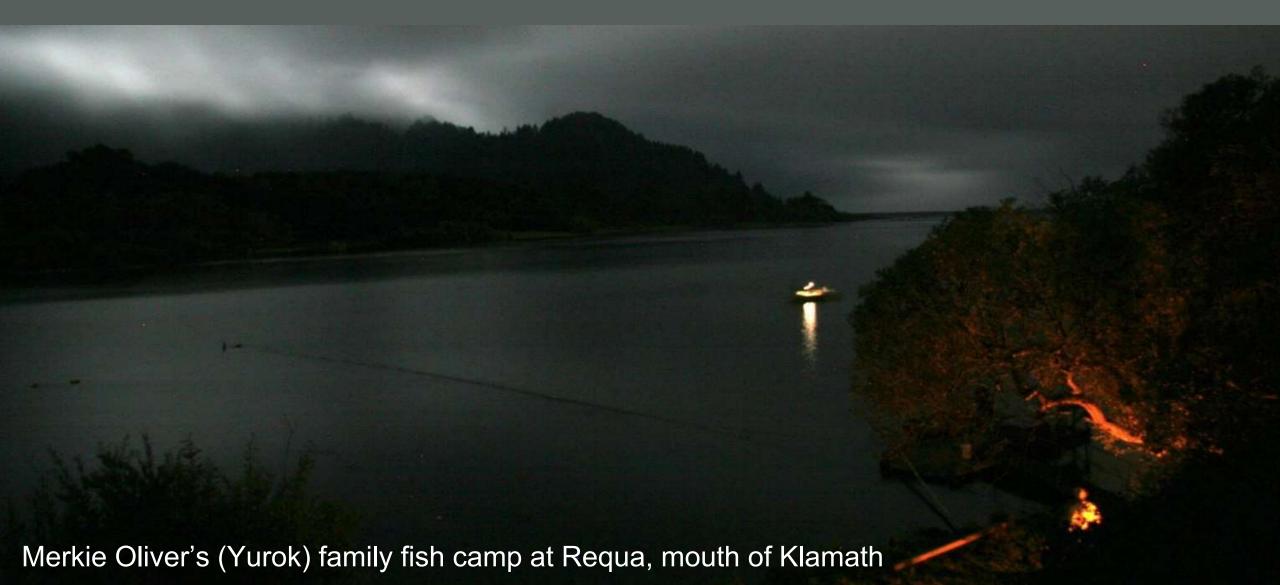


"Now it seems as if some whistle has been blown, calling all creatures to the work of carrying the salmon-borne ocean nutrients into the terrestrial home."



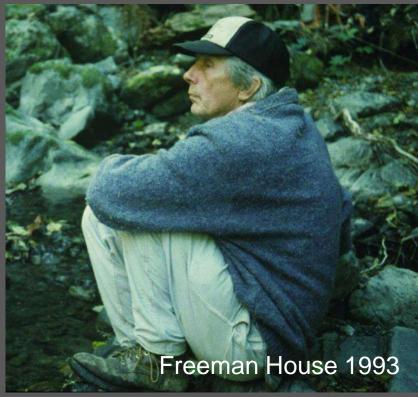


"Some species have found their relationship with salmon so important that the timing of their life strategies has adjusted itself to the timing of spawning runs."



"...I'm walking over the bones of my ancestors - of all species - wherever I go, each step a tick on the clock of my own mortality."







"The earth will claim me as its own. Which I am. If I can come to understand this fully, I will know most of what I'm able to know about death."







"Sapiens tackles the biggest questions of history and of the modern world, and it is written in unforgettably vivid language."

—JARED DIAMOND, Pulitzer Prize-winning author of Guns, Germs, and Steel

Yuval Noah Harari

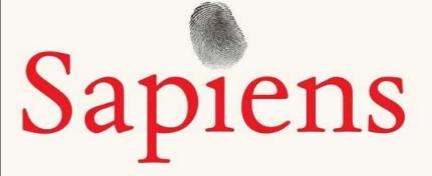


A Brief
History of
Humankind

"Sapiens tackles the biggest questions of history and of the modern world, and it is written in unforgettably vivid language."

— JARED DIAMOND, Pulitzer Prize-winning author of Guns, Germs, and Steel

Yuval Noah Harari



A Brief
History of
Humankind

A hymn of love to the world.

—ELIZABETH GILBERT

BRAIDING SWEETGRASS



Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants

ROBIN WALL KIMMERER





Elizabeth Ruiz, CA Department Fish & Wildlife

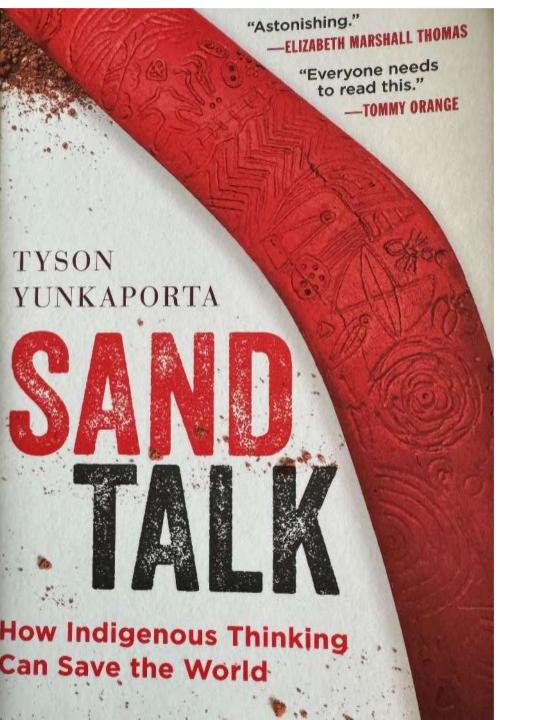


Julie Weeder, NOAA Fisheries 707-702-1584 (call or text me)
Julie.weeder@noaa.gov

Tribal relations training:
Olin Jones Consulting
ojonesconsults@gmail.com
916-893-0833 (call or text)



Native-land.ca (tribal entities define their own ancestral territory here)





TYSON YUNKAPORTA

is an academic, an arts critic, and a researcher who belongs to the Apalech clan in Queensland, Australia. He works as a senior lecturer in Indigenous Knowledges at Deakin University in Melbourne.

Indigenous

Respect Connect Reflect Direct

Colonizers

Epíthemía's Spheroid (to Neil Young, Last Trip To Tulsa)

I used to be a free cell you know, kept myself alive With my own photosynthesis and that nitrogen fixing jive I lived in boundless oceans and fresh waters so clear, I drew my nitrogen from air, milking the atmosphere

chorus:

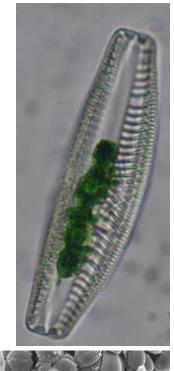
I'm Epithemia's spheroid, endosymbiOsis is my fate If you're a snail or tadpole, you'll want me on your plate.

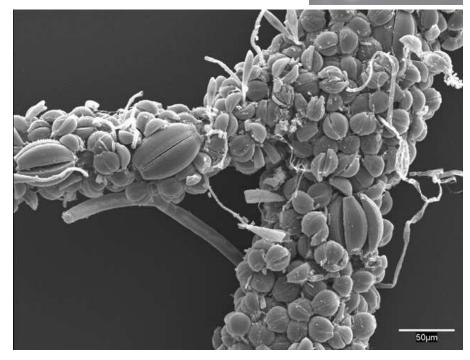
I was a simple coccoid cell but lived a life so free I'd grow and split and soon there would be billions more of me... Since then I've changed from free cell to something strange Now I'm an endosymbiont, no longer free to range... **Chorus**

15,000,000 years ago, I got swallowed up alive By some greedy diatom, but somehow I survived By soaking in its sugar, trading for my stash Of precious fixed ammonia and my amino acid cache.... **Chorus**

So that diatom grew tasty, with me inside to make 23 amino acids animals need but cannot fake The diatom provided more, it was nutritious too PUFAs and carotenoids of gold and orange hue... Chorus







Kevin Swift, Swift Water Design



BREAK



Everything but the Kitchen Sink Approach to Keeping your Batteries Charged



Sarah Beesley - Yurok Tribal Fisheries Department

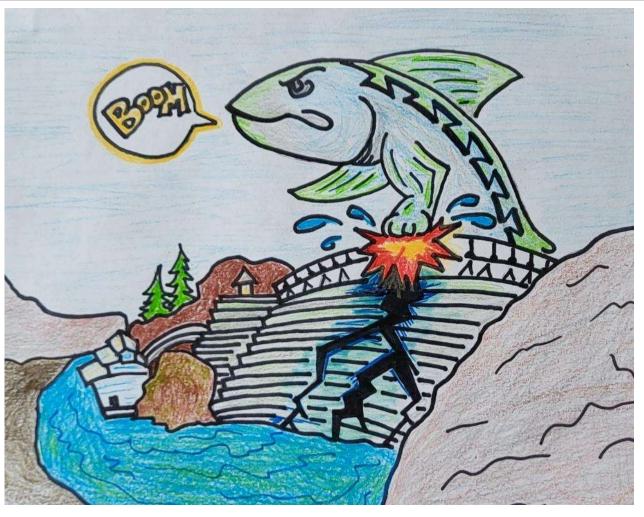
Sarah Beesley - Yurok Tribal Fisheries Department

March 2024









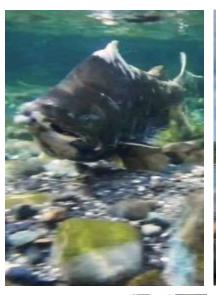
Yurok Tribal Fisheries Department





















































Klamath River Dam Removal



Draining Iron Gate Reservoir - January 11, 2024

* * Revitalization of Cultural Burning * * *











Fire Photos by Matt Mais

Prey-Go-Neesh (CA Condor) Re-Introduction







OAEC's Bring Back the Beaver Campaign 🔎 🔎





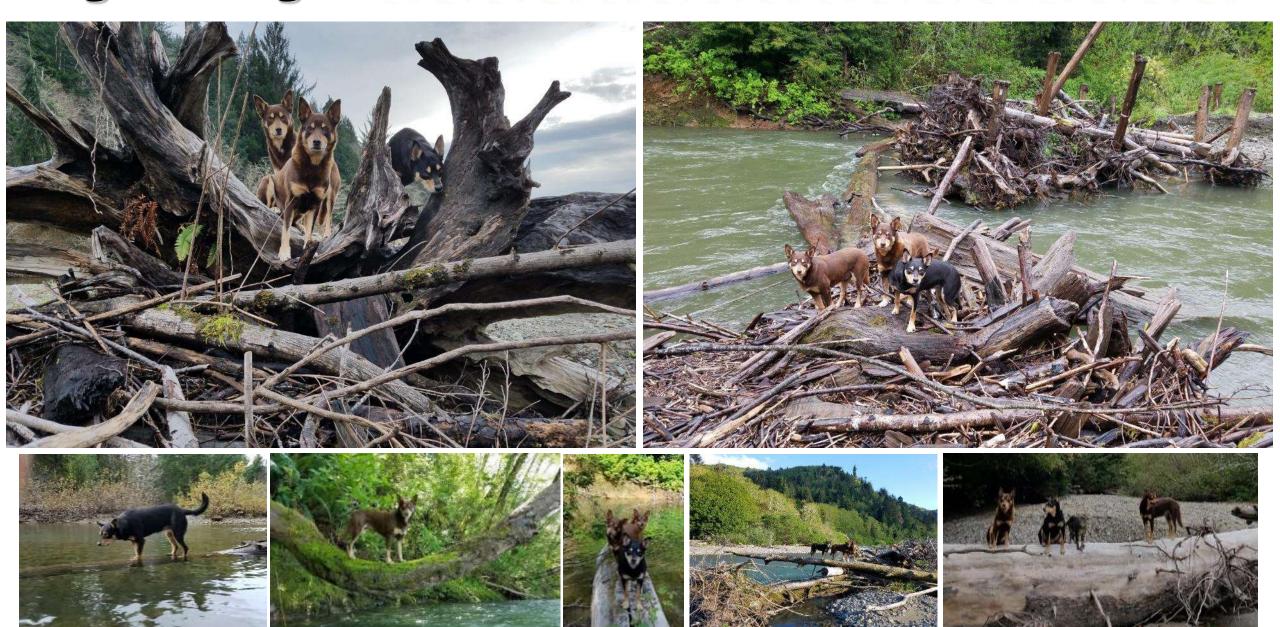


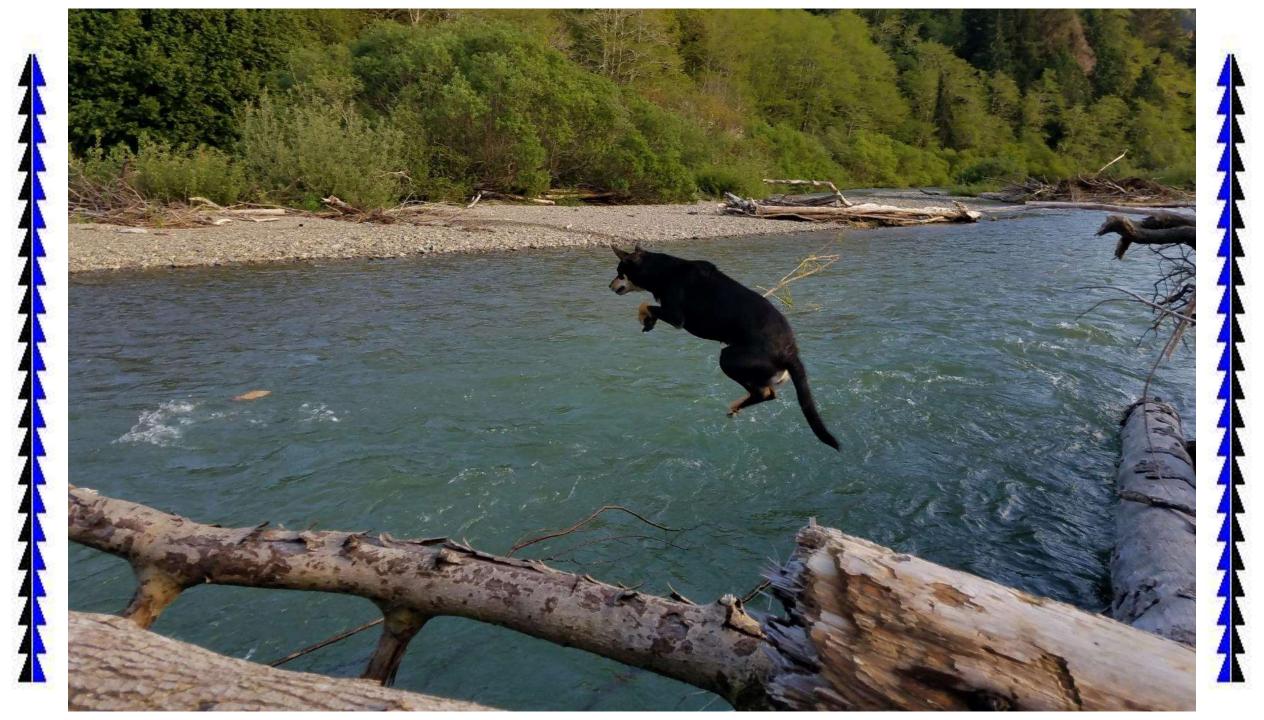












*** Wok-hlew' ** * * * **



Bill Trush, Cal Poly Humboldt River Institute



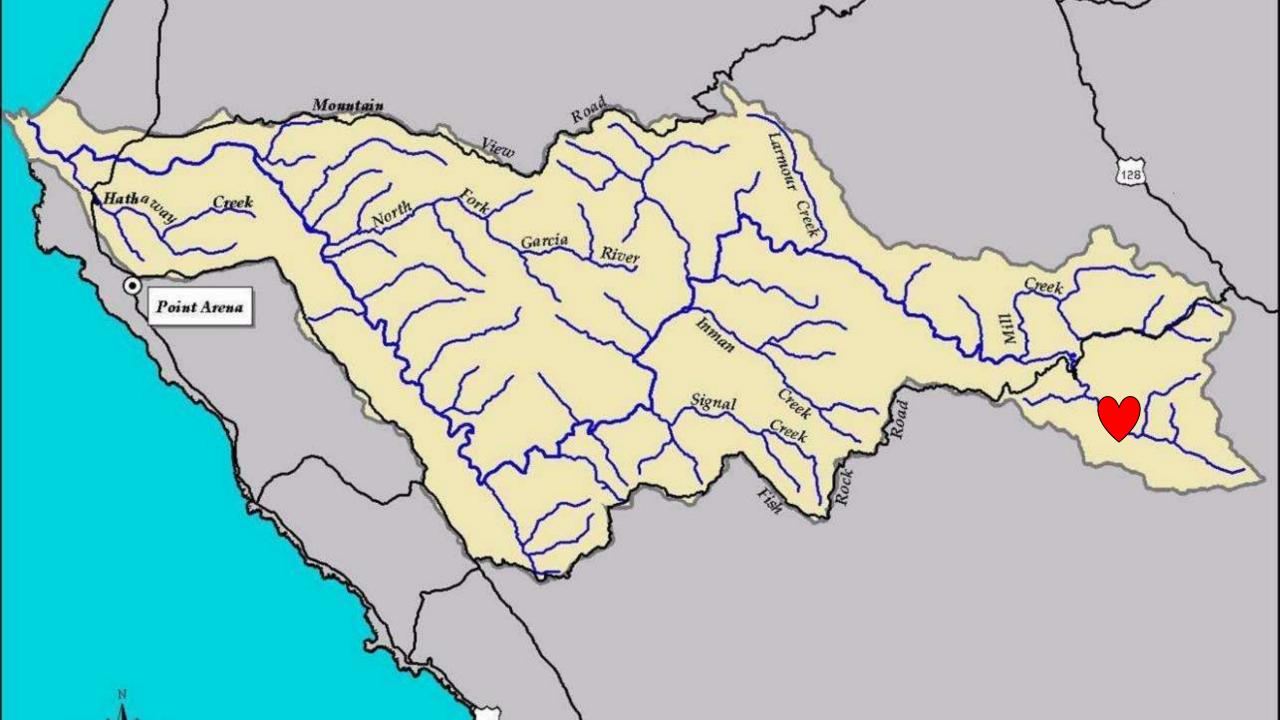
Close Encounters of the Coho Kind

Jonathan Warmerdam North Coast Water Board March 28, 2024













Scientists thrilled by surprising find of fish

Endangered coho seen in heavily logged watershed

> By Peter Fimrite CHRONICLE STATE WRITTER

Jennifer Carah is a scientist who doesn't normally squeal, esnecially not when she is under water, but a recent snockeling expedition in an obscure creek on the North Coast caused her to abandon all scholarly protocol.

"Yereee hreeeee," she shrieked through her socikel upon spotting a mass of little fish behind a rock in Pardaloe Creek, a remote tributory of the Garcia River, in the heavily logged forests of Mendocinn County.

The critters that elicited the squeal were endangered coho salmon. In fact, jovenile coho were found in 10 places where they had not been seen in years in the 72,000 acre Carcia River water- especially given the fact that cobo

"I was pretty excited to find them there," said Carab, a field scientist for the Nature Conserenated a whole lot of enthusiasm,



are pretty much on the brink of extinction.

The discovery of coho in the headwaters of the Garcin River is vancy. "We've checked the data of especially eye-opening because other agencies and haven't heard the watershed once was destroyed accounts of coho being up there by logging. Now it is part of a before. These sightings have gen-unique experiment that involves > C080: Four A4

Endangered coho salmon found up a remote creek

From Page A1

what conservationists call sustainable forestry, or selective logging.

"As we all know, parks are strug-Chris Kelly, the California pro- in the watershed. gram director for the Virginiation and management of the prop-

managing the forest by repairing out of the water. roads, fixing erosion and hiring stands and remove sich trees.

In exchange, the land is protected forever from residential and vineyard development.

ground for this type of strategy be- habitut.

cause it is in this region that coho salmon once were extremely

Decline of the coho

A large American Indian fish. ing village once was located on the gling to manage the lands they al- Garcia River, but when white men ready own, and local govern- arrived in the 1850s and 1860s, the ments, particularly in rural coun- native Bokova, or Central Pomo ties, don't like to see big swaths of Indians, were moved out, land was private land put into parks because cleared, and lumber production it takes it off the tax roles and takes began. By the late 1870s, more the land out of public use," said than a dozen mills were operating

Meanwhile, salmon from the based Conservation Fund, which Garcia River were netted by the paid the timber company Coastal thousands, smoked and shipped to Forestlands \$18 million in 2004 San Francisco. The Nature Confor the 23,780-acre Garcia River servancy's Carah estimates that as age it as a productive forest and use squirmed and wriggled their way

The Nature Conservancy paid no County remember spearing co-\$3.5 million for a conservation bo in the Garcia. After the first easement on the property that allows them to conduct studies and be seen in every pool and eddy. monitor fish and wildlife popula. They were so abundant that peotions in the watershed. The Con-ple simply ignored the 25-fish limservation Fund is in charge of it sometimes just scooping the fish

The fish began to disappear loggers to selectively thin out when the widespread clear-cutting of forests began after World War II. The rampant building of cies Act. On top of that, fisheries logging roads in the watershed. the removal of riparian vegetation The forests of Menducino and huge amounts of silt running County are a crucial testing off into the creeks ruined their



Associate Carata smorkels in Pandaloe Creek, a tributary of the Garcia River in Mendocino County, where she discovered small schools of coho salmon fry, a species on the brink of extinction.

been clear-cut twice, the last time working together to build wood in the 1900s, according to Kelly.

Forest. "Why not own it and man-many as 500,000 coho once I percent of their historic population on the North Coast. The con-choosing only non-thriving trees the timber to pay for the restura- up California streams every year as struction of dams, pollution and to harvest. the emergence of global warming Old-timers living in Mendoci- appears to be making things even worse. So few spewning chinook salmon returned to the Sacramento River and its tributaries this year hard to measure, Carab said, and that ocean fishing for salmon was one field survey is hardly definitive

> to water temperature and quality than other salmonid species, are in worse shape than chinool. The species was listed as endangered in 2005 under the Endangered Speanalysts report a 73 percent decline in the already dismal number of coho returning to the creeks and especially way up in the headand tributaries along the coast of California during the 2007-08 spawning season. Coho in Oregon showed a 70 percent decline.

"Encouraging sign"

Pardaloe Creek, which at 2,470 feet is the highest point of the Carcia watershed, hud been surveyed six times between 1975 and 1999 land and say it doesn't meet my 8 by the state Department of Fish or 10 percent seturn on investand Came and the Mendocino ment, but we don't have a rase of County Resource Conservation District. Not a single coho was do is pay the bills," Kelly said. "I spotted in any of the surveys. In look at it as an intervention. We fact, the farthest up coho were are preserving the viability of the found was in Imman Creek in 1997. 11 miles downstream from Parda-Ine Creek.

The Nature Conservancy and

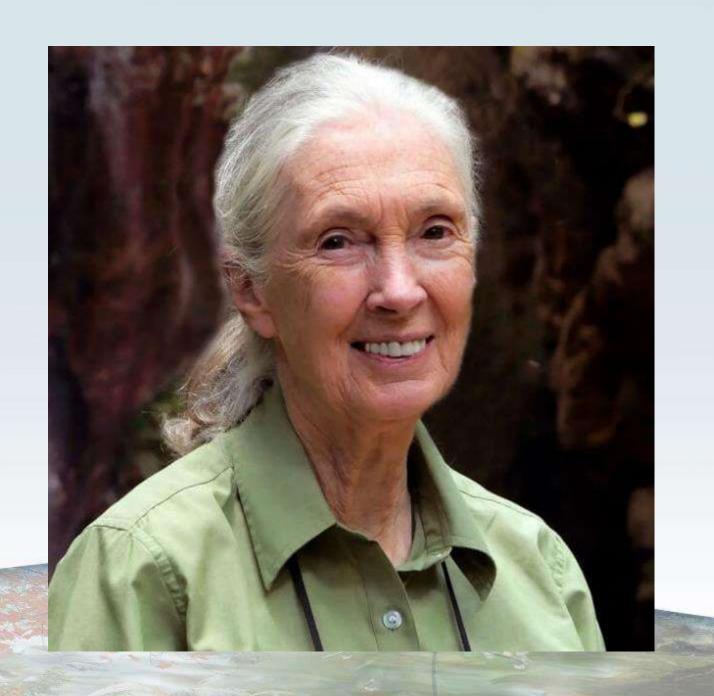
The Garcia River Forest has the Conservation Fund have been structures in the streams to create Coho now make up about pools for fish, upgrading logging roads to reduce sediment and

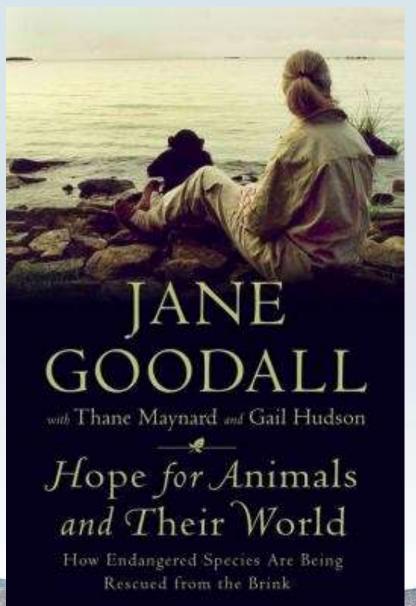
The coho were discovered during the first survey of the upper reaches of the watershed since the restoration work began. Success is bunned in California and Oregon. evidence of a recovery, but she Coho, which are more sensitive thinks the little fish she saw in the creek are a message that better times could be ahead.

"Because coho are so sensitive. they really serve as kind of a camery in the coal mine for Northern California coastal rivers and streams." Carah said. "It is a really encouraging sign to find them in 10 places waters given the status of coho in the state. I think it does indicate that we are having some success."

Kelly said the kind of forest management being practiced in the Garcia watershed might be the hest way left to preserve woodland ecosystems, watersheds and fish.

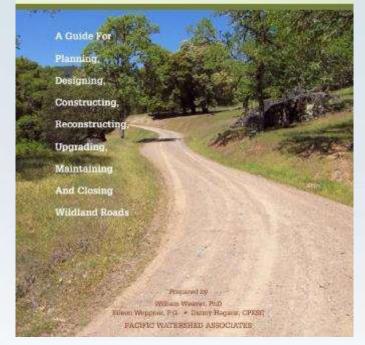
"A forester would look at this return expectation. All we need to forest and watershed in a feasible way that over the next 10 or 15 years could restore the productivity and volume of timber and again make the timber industry mean-







Forest, Ranch & Rural ROADS

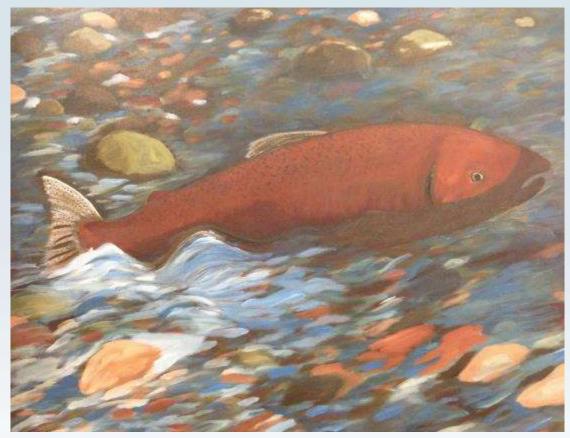








Thank you



Jonathan W. Warmerdam (707) 576-2468

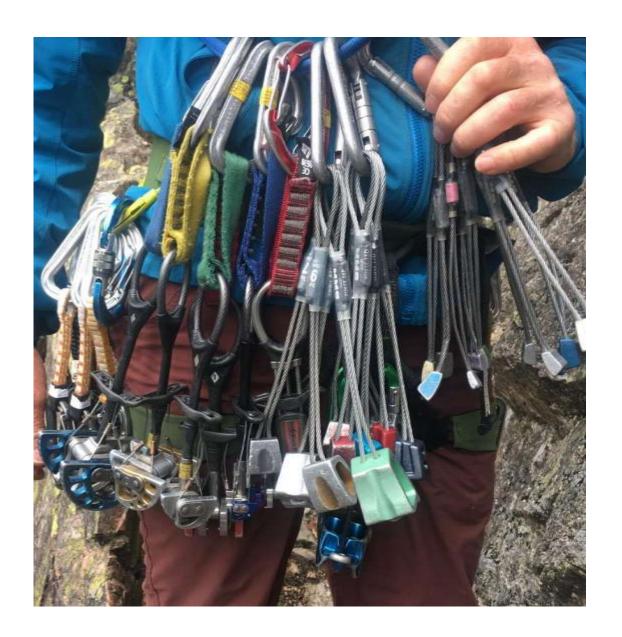
Jonathan.Warmerdam@waterboards.ca.gov



© Jonathan Warmerdam





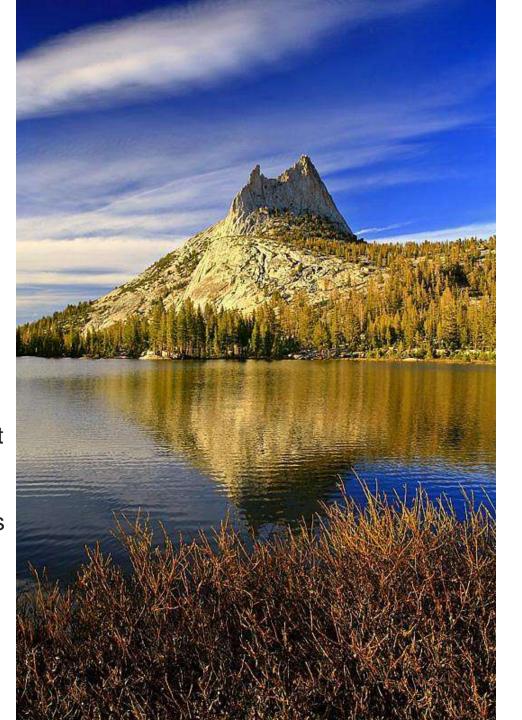






NPS Advice

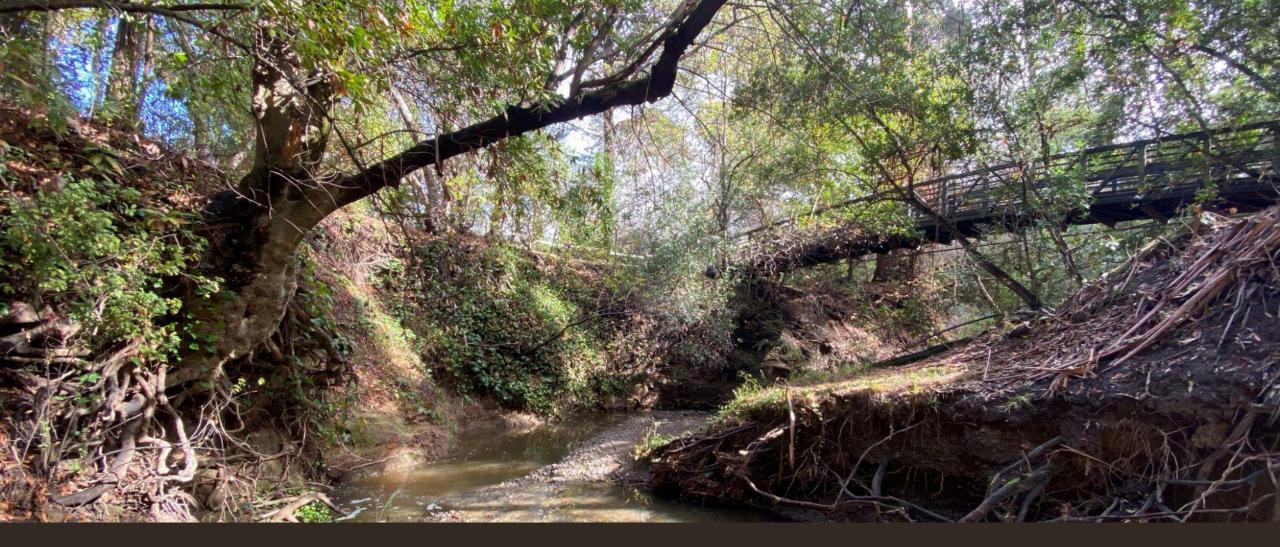
- Pay attention to shifting weather conditions
- Be prepared and willing to turn around at any time
- Do NOT take shelter under exposed, overhanging rock.
- In a forested area spread out but remain within earshot of one another.
- Learn seasonal weather patterns of the area
- Check the most up-to-date weather forecast



"As we take risks with our own lives, we risk a part of the lives of all those who love and care for us". Andrew Betts, hit by lightning on Cathedral Peak, 2000

Sarah Phillips, Marin RCD, SRF Board





Proof of Concept

a reminder of the power of streams



erik stromberg

restoration design group







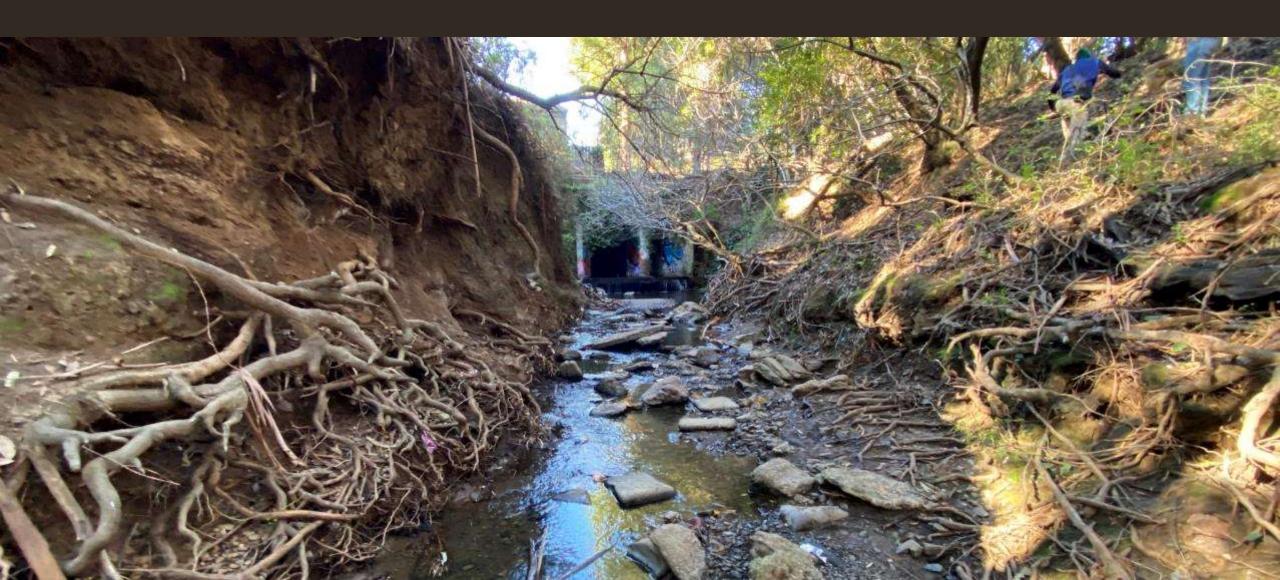




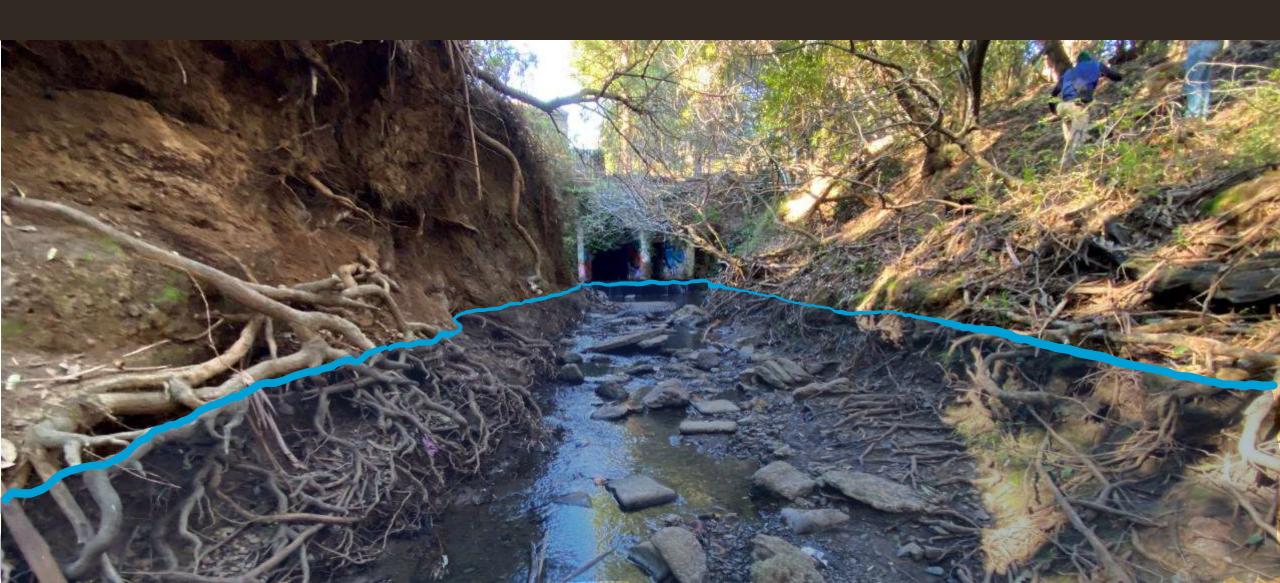




Restoration – Upper Reach

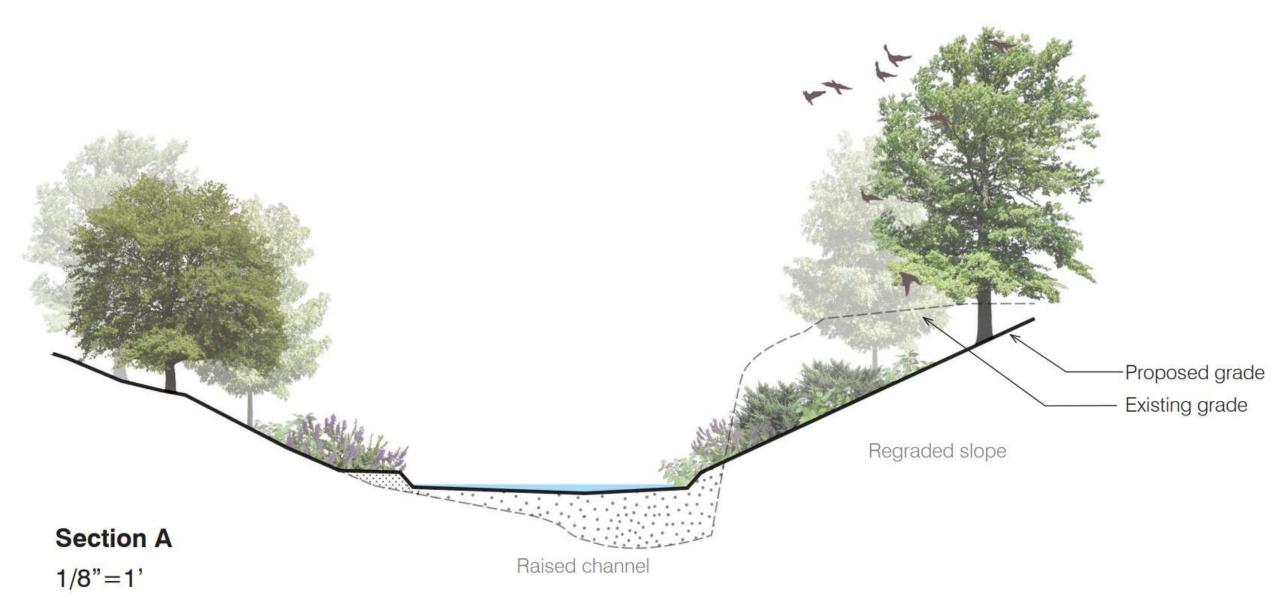


Restoration – Upper Reach









CONCEPT DEVELOPMENT FALL 2022













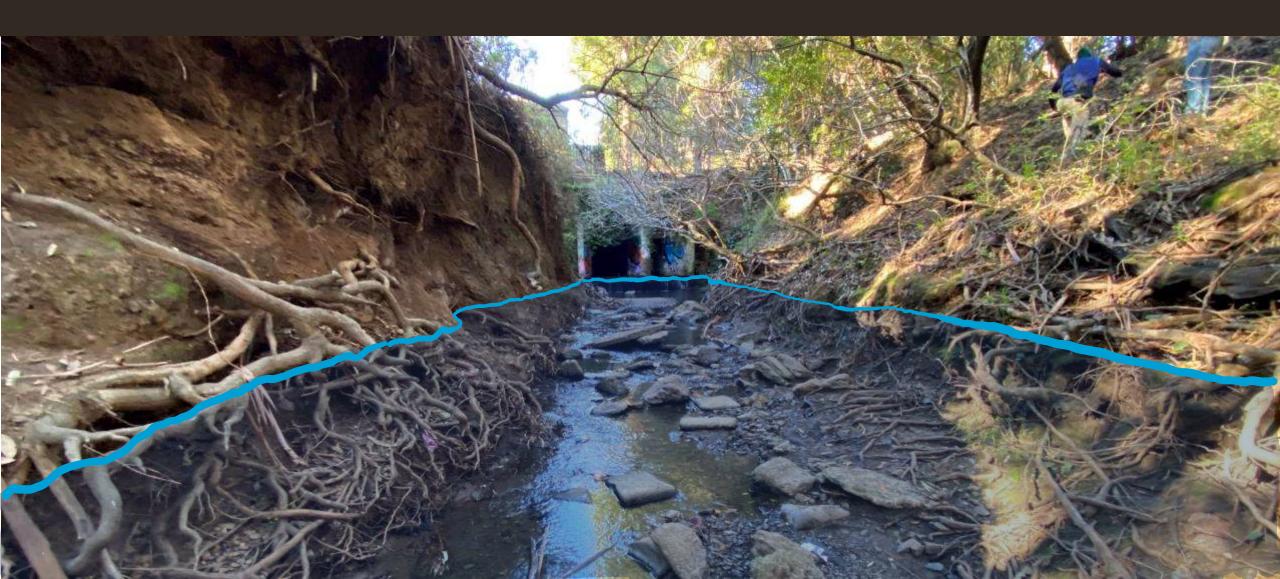








Creek Restoration – Upper Reach

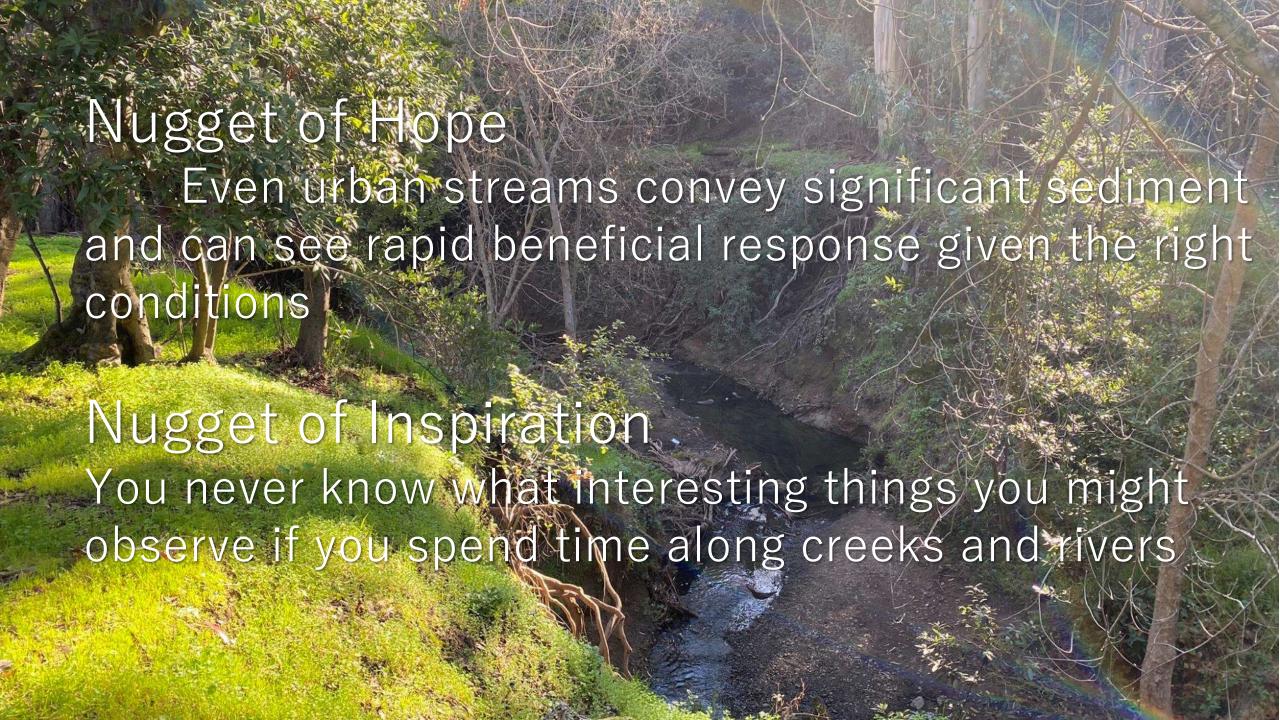












Justin Alvarez, Hoopa Valley Tribal Fisheries



www.ndow.org/species/brown-trout

LAGUNA DE SANTA ROSA WATERSHED RECONCILIATION & STEWARDSHIP

It takes a village!





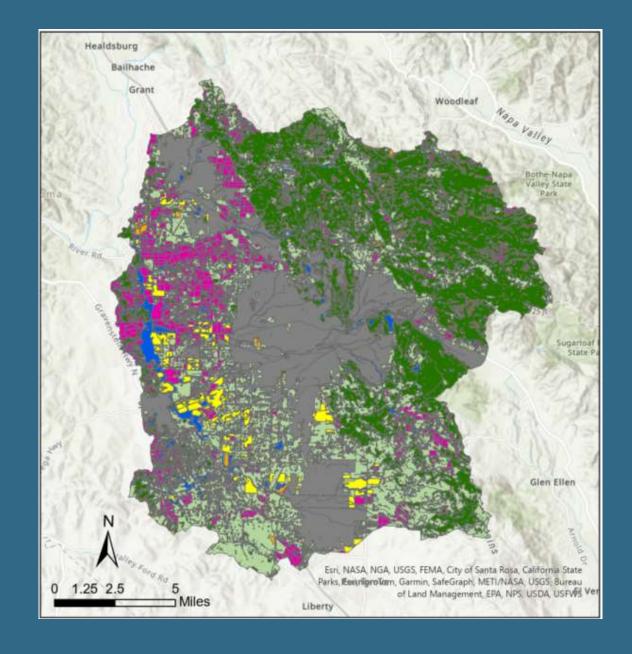
Windsor Fountain Grove Santa Rosa Sebastopol Rolmert Park Copeland Creek Cotati 2,5 Laguna de Santa Rosa Foundation o 2023. Data Sources: California DWR. Laguna de Santa Rosa Foundation, Sonama County ISD, USGS. Map ID No. 8a8-D-3. Cartographly by Hattle Brown and Adrienne Gause.

Laguna de Santa Rosa Watershed

Pre Colonization Land Cover

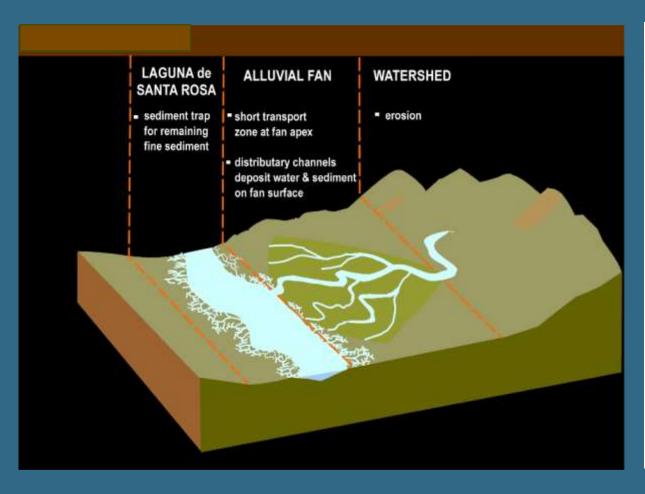
Healdsburg Bailhache Bothe-Napa Valley State Sugarloaf Glen Ellen Esri, NASA, NGA, USGS, FEMA, City of Santa Rosa, California State Parks, EmirigroTom, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, USFV#S Vet Liberty

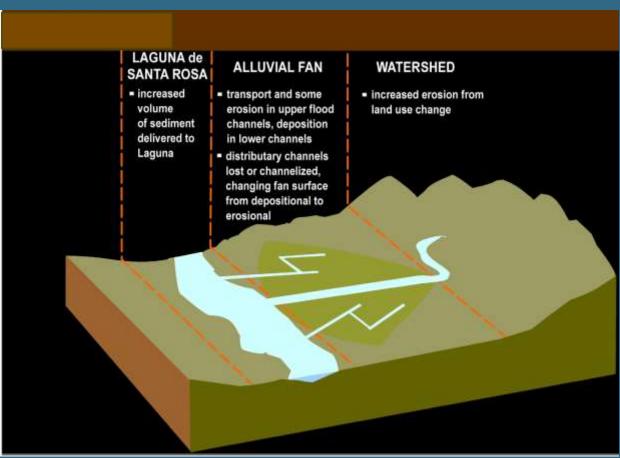
Current Land Cover

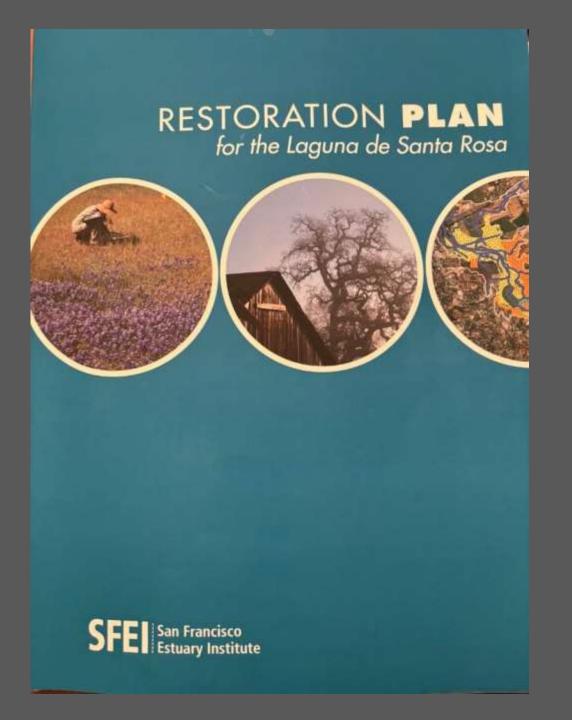


Before European Settlement

Current Hydrology







Laguna Restoration, Reconciliation, and Stewardship Plans

 Restoration Plan for the Laguna de Santa Rosa (SFEI Aquatic Sciences Center 2023): 100-year flood plain (Available at: https://www.sfei.org/)

 Laguna Reconciliation Plan (North Coast Regional Water Board - Under Development): Addresses WQ In Entire Watershed



The Laguna Village Is Growing!





























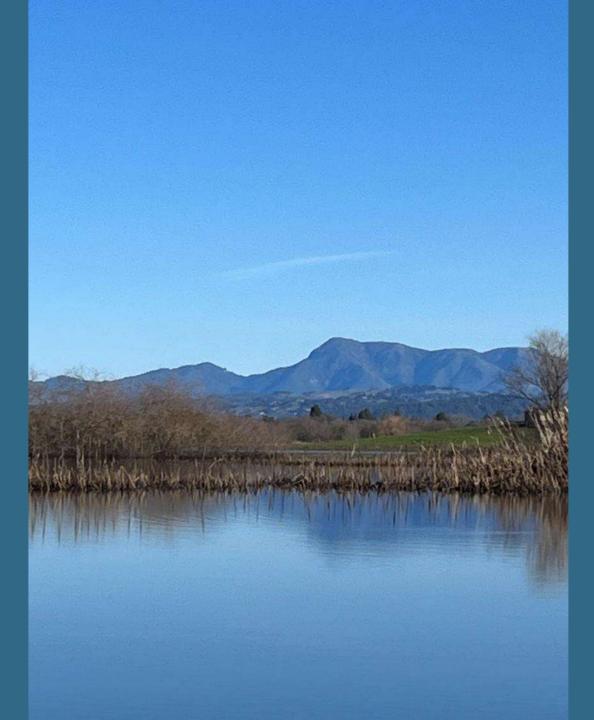


 Others (e.g., UC Davis; Landowners (Aggios, Denners, LaFranchi, others); CSU Stanislaus; City of Rohnert Park, USGS,

Thank You!

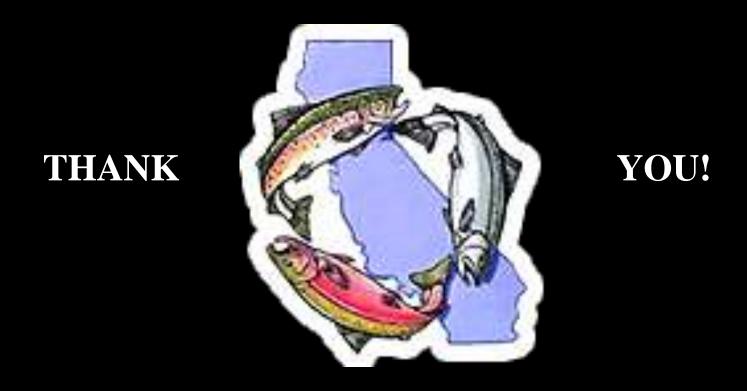
Salmon Restoration Federation

For Building
This Village
Statewide
Since 1986!!!





Lightning Tales: Sharing Stories of Inspiration and Hope Salmonid Restoration Federation Conference 2024



Eli Asarian, Riverbend Sciences, SRF Board Sarah Phillips, Marin RCD, SRF Board Thursday, March 28th