40th Annual Salmonid Restoration Conference

April 25-28, 2023 Fortuna, CA

Deep Roots

—Celebrating 40 Years of Watershed Restoration

Conference Co-Sponsors

Balance Hydrologics, Inc., Cachuma Operation and Maintenance Board, Caltrans, Cal Trout, California Department of Fish and Wildlife, cbec, inc., Department of Water Resources, East Bay Municipal Utility District, Environmental Science Associates, GHD, Green Diamond Resource Company, Guadalupe-Coyote Resource Conservation District, Hanford, HDR, Inc., Humboldt Redwood Company, ICF, Mainspring Consulting, Marin Municipal Water District, McBain & Associates, McMillen, Michael Love and Associates, NOAA Restoration Center, Northern California Water Association, Pacific States Marine Fisheries Commission, Prunuske Chatham, Inc., Redwood Forest Foundation, Inc. and Usal Redwood Forest Co., Redwood Timber Company, RES, Restoration Design Group, Samara Restoration, Stillwater Sciences, Tenera Environmental Inc, Trees Foundation, Trinity River Restoration Program, Trout Unlimited, The Nature Conservancy, Valley Water, Wildlife Conservation Board

Thursday April 27

Plenary Session

River Lodge, 9am—noon

Master of Ceremonies
Michael Belchik, Yurok Tribe

Natural History of the Klamath Mountains: How Honesty, Accuracy, and Receptivity Guide us to Better Stewardship of Definable Landscapes
Justin Garwood and Michael Kauffmann
(Co-authors of Klamath Mountains Natural History)

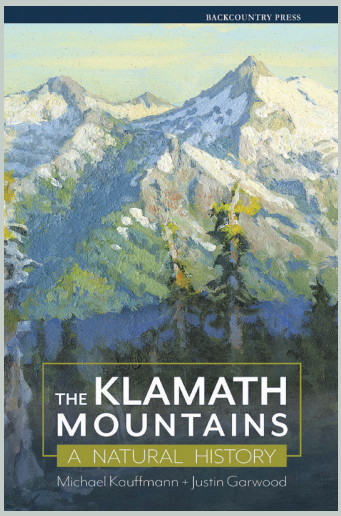
The Water Remembers: A Calling to Follow Indigenous Knowledge and Law to Restore Ecosystem and Community Resiliency in the Klamath Basin
Amy Cordalis
Ridge to Riffles

Connecting the Omics: Genomics, Phenomics, and TEK are Keys in Restoring the Klamath Basin Post Dam Removal
Keith Parker
Senior Fisheries Biologist, Yurok Tribe

Why We Fish: Decolonizing Salmon Rhetorics & Governance for Climate Resilient Futures
Cutcha Rising Baldy
Department Chair Native American Studies,
Cal Poly Humboldt

Booksigning 12:30pm

Natural History of the Klamath Mountains



Poster Session 7-10pm

SIERRA NEVADA

12:15pm Lunch Outside and Steelhead Room

Afternoon

Evolving Policies and Tools to Advance Salmon Restoration: Flows, Cannabis, and Funding Opportunities
Session Coordinators:
***Kelly Souza**, California Department of Fish and Wildlife; **Matt Clifford**, Trout Unlimited; and **Monty Schmitt**, The Nature Conservancy*

Room

Coho Room

1:30pm

Using Satellite Imagery to Assess Watershed Conditions and Anthropogenic Water Use, Redwood Creek,
***Kelly Souza**, California Department of Fish and Wildlife*

How CDFW's Cannabis Restoration Grant Program Can Contribute to Salmonid Restoration,
***Virginia O'Rourke**, California Department of Fish and Wildlife*

Modeling Streamflow Depletion from Cannabis Cultivation in California's North Coast Salmon-Bearing Streams, *Philip Georgakakos, UC Berkeley*

Break 3:15-3:30pm

Efficient Science Tools to Identify Streamflow Objectives to Support Flow Enhancement Project Development and Implementation, and Trigger Management Actions Under Critically Dry Conditions,
***Jennifer Carah**, The Nature Conservancy*

Water From Bedrock: Efforts to Condition New Groundwater Wells to Protect Streamflow for Salmon in Sonoma County,
***Monty Schmitt**, The Nature Conservancy and **Matt Clifford**, Trout Unlimited*

Granting Equity. The Future of CDFW's Granting Programs,
***Timothy Chorey**, California Department of Fish and Wildlife*

Concurrent Sessions

Large-Scale Fisheries Habitat Restoration in Working Landscapes

Session Coordinators:
***Jay Stallman**, Stillwater Sciences, and **Ann Willis**, American Rivers, California Regional Director*

Chinook Room

Klamath Reservoir Reach Restoration Plan: Assessing Habitat Conditions and Prioritizing Restoration Post-Dam Removal,
***Bob Pagliuco**, NOAA Restoration Center*

Forest and Mountain Meadow Resiliency, Fisheries Restoration and River Recovery Actions on Working Lands in the Scott River,
***Charnna Gilmore**, Scott River Watershed Council*

Habitat Restoration on the Working Landscapes of the Smith River Plain,
***Marisa Parish Hanson** and **Monica Scholey**, Smith River Alliance*

A Vision, Plan, and Strategy for Comprehensive Recovery of Lower Elk River,
***Darren Mierau**, California Trout*

Trout Unlimited's North Coast Coho Project—Over 20 Years of Restoration on Working Forest Lands,
***Anna Halligan**, Trout Unlimited*

Garcia River Estuary Enhancement Project and TNC's Approach to Restoration on the Mendocino Coast,
***Peter van de Burgt**, The Nature Conservancy and **Lauren Hammack**, PCI Ecological Design and Planning*

Modeling Salmonid Habitat: Stream State, Forest Conditions, and Future Climates

Session Coordinator:
***Jonathan Halama, MPH, Ph.D.**, US EPA*

CCC Room

Habitat Mosaics Support Variation in Salmon Foraging and Growth Potential Under Extreme Drought Conditions,
***Rachael E. Ryan**, Ph.D. Candidate, UC Berkeley*

Modeling Benefits of Refuge Habitat for Salmonid Populations with InSTREAM,
***Steven F. Railsback, Ph.D., PD**, Lang Railsback & Associates*

Modeling the Influences of Diversions and Forest Practices on Streamflow in Streeter Creek Near Laytonville, CA,
***Julia Petreshen**, Thomas Gast & Associates*

Streams Across Lands (SAL): A New Stream Flow Modeling Method,
***Jim Graham, Ph.D.**, Cal Poly Humboldt*

Habitat Modeling of Salmonid Movement and Survival in Degraded and Restored Watersheds,
***Greg Blair**, ICF*

Individual-Based Modeling of Stage 0 Treatment on Juvenile Chinook,
***Aleah Hahn**, MS Student, Oregon State University*

Predicting Fish Movement near Infrastructure in Different River and Reservoir Environments,
***R. Andrew Goodwin, Ph.D., PE**, U.S. Army Corps*

Fish Passage Design and Implementation Lessons Learned

Session Coordinators:
***Jason White**, Environmental Science Associates; **Travis James**, Michael Love & Associates; and **Lucas Walton**, Prunuske Chatham, Inc.*

Steelhead Room

Lesson Learned Constructing a Horizontal Fish Screen at Derby Dam,
***Dan Kaler, PE**, Farmers Conservation Alliance*

Carmel River Reroute and Dam Removal Project: Challenges in Design and Construction of a Step-pool Channel,
***Robert Mussetter**, Tetra Tech, Inc.*

Mill Creek Fish Passage Project: Design, Construction & Lessons Learned,
***Justin Bodell, RLA**, PCI*

Embrace Change: Combining Engineering and Geomorphic Principles to Design Resilient Fish Passage on San Geronimo Creek,
***Jason Q. White**, Environmental Science Associates*

Implementation When Design Cannot Progress Past a Conceptual Level: North Fork Battle Creek Fish Passage Improvement Project,
***P. Travis James, P.E.**, Michael Love & Associates, Inc.*

Beale Lake Dam Removal and Roughened Ramp,
***Mark Gard**, CDFW*

Final Design, Material Sourcing, and Construction Methods of the Nelson Dam Roughened Channel Fishway,
***Michael C. Garello, PE**, HDR Engineering, Inc.*

7-10pm Poster Session and Reception at the River Lodge (all rooms)

April 28 Friday Morning Concurrent Sessions

	The Eel River: A River of Opportunity with Implications Beyond its Basin	Approaches to Build Trust and Engage Our Diverse Communities	Cal-PBR Network: Process Based Restoration in a Changing Climate
	Session Coordinator: *Alicia Hamann, Friends of the Eel River*	Session Coordinators: *Mary Burke, Cal Trout; Natalie Arroyo, Humboldt County Board of Supervisors; and Leslie Wolff, NOAA Fisheries*	Session Coordinators: *Carrie Monohan, Ph.D., The Sierra Fund; Karen Pope, Ph.D., Pacific Southwest Research Station USDA; Kate Lundquist, Occidental Arts and Ecology Center*
Room	**CCC Room**	**Coho Room**	**Steelhead Room**
9:00am	**Past, Present, and Future Work on the Wiya't: Restoring the Wiyot Tribes' Role as Stewards of Their Ancestral Territory,** *Adam Kanter, Wiyot Tribe Natural Resources Department* **Monitoring Populations of Adult Salmonids in the Eel River Basin—Historical Context and Advancing Modern Abundance Estimates to Inform Recovery Targets and Recovery Efforts within the Basin,** *David Kajtaniak, CDFW* **Life History Characterization of Wild Steelhead in the Eel River, California,** *Carlos Garza, Ph.D., Southwest Fisheries Science Center, NOAA Fisheries*	**Starting at Home: Co-Creating an Inclusive Restoration Organization Culture,** *Jen Rice, independent consultant* **Diversifying Connections to Support Healthy Habitats,** *Carla Avila-Martinez and Leslie Parra, Save the Redwoods League* **Bridging Cultural Fault Lines in the Middle Klamath to Build a Restoration Movement,** *Will Harling, Mid Klamath Watershed Council*	**Doing the Impossible Before Breakfast,** *Kevin Swift, Swiftwater Design* **Hydraulic Mines and Process Based Restoration,** *Carrie Monohan, Ph.D., The Sierra Fund* **A Practical Restoration Model for Restoring the Sprague River Valley,** *Mike Edwards, USFWS*
BREAK 10:30-10:45am			
	Totally RAD Impassable Barriers: How Geologic Features Separate Summer and Winter-run Steelhead in the Eel River and Beyond, *Samantha Kannry, TRIB Research* **Physical and Biological Constraints on the Capacity for Life-history Expression of Anadromous Salmonids: an Eel River, California, Case Study,** *Alyssa M. FitzGerald, UC Santa Cruz and Southwest Fisheries Science Center* **Advocacy on the Eel: How an Endangered Species Act Take Claims and Federal Energy Regulatory Commission Litigation Can Remove Barriers to Salmonid Recovery Nationwide,** *Redgie Collins, Esq., California Trout*	**Bedrock Principles for Successful Restoration Partnerships,** *Stephen Greenwood, Portland State University* **Centering Environmental Justice: Examples from the North Coast,** *Natalie Arroyo, Humboldt County Board of Supervisors* **The Intergenerational Struggle of Being a River-based Community in Modern Day America,** *Danielle Frank, Hupa tribal member; Save California Salmon*	**Beaver Dam Analogues—Summary of Five Years of Monitoring in the Scott River,** *Erich Yokel, Scott River Watershed Council* **Looking Forward, Not Back to Inform Restoration Design in a Rapidly Changing Climate,** *Craig Benson, Cal Poly Humboldt* **Beaver Restoration Policy Updates,** *Kate Lundquist, OAEC*
12:15pm	**Lunch outside and Steelhead Room**		

Please May I Get Upstream? Reintroducing Extirpated Salmon Runs Upstream of Dams
Session Coordinators:
***Eric Ginney**, ESA and **Randy Beckwith**, CA Department of Water Resources*

Chinook Room

Yes You May: Fighting Extinction in the Central Valley with Salmon Reintroductions,
***Brian Ellrott**, NOAA Fisheries, West Coast Region, California Central Valley Office*

Winnemem Wintu Tribe Perspectives on Co-Stewardship of the McCloud River Nur,
***Honorable Chief Sisk**, Winnemem Wintu Tribe*

Considerations for Assisted and Non-Assisted Passage at Large Dams,
***Jon Mann, PE**, California Department of Fish and Wildlife*

Pilot Efforts Supporting Reintroduction: The Juvenile Salmonid Collection System,
***Randy Beckwith**, DWR & **Matthew Silva**, ESA*

Winter-Run Chinook Salmon Swim the McCloud River for First Time Since Construction of Shasta Dam: Drought Action Returns Endangered Salmon to Their Historical Habitat,
***Matthew R. Johnson**, CDFW*

A Release Study Assessing the Survival of Juvenile Spring-Run Chinook Salmon in the Upper Klamath River Basin to Inform Reintroduction,
***Rachelle Tallman**, UC Davis*

Klamath Basin Fisheries Collaborative: Data Integration for Monitoring Dam Removal, Project Effectiveness Monitoring, and Species Management,
***Betsy Stapleton**, Scott River Watershed Council*

Erosion and Sediment Control Field School June 6-8, 2023 in Mendocino

Salmonid Restoration Federation is hosting an Erosion and Sediment Control Field School. This technical field course is part of our Northern California Best Management Practices Education Series funded by the CDFW's Fisheries Restoration Grant Program. SRF is partnering with Pacific Watershed Associates and the Redwood Forest Foundation Inc. to produce this technical event.

24th Annual Coho Confab August 25-27, 2023 Mattole River

Join SRF, Sanctuary Forest, Mattole Restoration Council, Mattole Salmon Group, and other partnering restoration groups for a destination Confab on the Mattole River in Petrolia, CA. This Confab will feature Mattole estuary and headwaters restoration projects, flow enhancement projects including Sanctuary Forest's Baker Creek String of Pearls, large wood projects, grassland restoration, a suite of other techniques that are implemented or are being planned in this critical watershed.

April 28 Friday Afternoon Concurrent Sessions

	Accelerating Restoration —New Tools to Get the Job Done Session Coordinators: ***Ruth Goodfield**, NOAA Restoration Center; **Erika Lovejoy**, Sustainable Conservation; and **Jacob Shannon**, North Coast Regional Water Quality Control Board*	20+ Years of Restoration on the Trinity River: What Have We Learned, and Where Do We Go From Here? Session Coordinators: ***Mike Dixon**, Trinity River Restoration Program, U.S. Bureau of Reclamation, and **Kyle de Juilio**, Yurok Tribal Fisheries Program*	Riparian Corridors, the Link Between Upland and Instream Restoration Session Coordinators: ***Tom Leroy**, Pacific Watershed Associates; **Elise Ferrarese**, Trout Unlimited; and **David Roon**, Oregon State University*
Room	**CCC Room**	**Coho Room**	**Steelhead Room**
1:30pm	**Solving the Puzzle to Accelerate Restoration—Statewide Progress on Efficient Permitting,** ***Erika Lovejoy**, Sustainable Conservation* **Permitting Efficiencies for Restoration Projects Through NOAA Restoration Center,** ***Ruth Goodfield**, NOAA Restoration Center* **Aquatic Restoration Projects Made Easier in California Thanks to New Statewide Programmatic Endangered Species Act Section 7 Consultation Available to Federal Agencies,** ***Marissa Reed**, U.S. Fish and Wildlife Service*	**Focusing Trinity River Science —A Plan for Addressing Key Uncertainties,** ***Darcy Pickard**, Pickard Environmental* **From Rock Piles to Riparian: Recovering Riparian Function and Vegetation on the Trinity River, CA,** ***John Bair**, McBain Associates* **Evolution of Tributary Junctions and Their Capacity for Rearing Juvenile Chinook Salmon (*Oncorhyunchus tshawytscha*) on a Regulated River,** ***Todd Buxton**, Bureau of Reclamation*	**Redwoods Rising: Resetting the Standard of Parks Management,** ***Andrew Morin**, National Park Service* **Incorporating Invasive Species Management into Riparian Restoration Design and Implementation at the Redwood National and State Parks Visitor Center and Restoration Project,** ***Amy Livingston**, McBain Associates* **Evaluating the Effects of Riparian Forest Thinning on Stream Ecosystems in Coastal Northern California Watersheds,** ***David Roon**, Post-doc, OSU*
BREAK 3-3:15pm			
	Applying New Tools to Support Aquatic Habitat Restoration Projects, ***Jake Shannon** and **Jonathan Warmerdam**, North Coast Regional Water Quality Control Board* **Cutting the Green Tape with the California Department of Fish and Wildlife,** ***Brad Henderson**, CDFW* **Constraints and Initial Solutions to Increasing the Pace and Scale of Riverscape Restoration: Summary from the 2023 NOAA Organized Riverscape Restoration Workshop,** ***Brian Cluer**, NOAA Fisheries*	**Assessing Salmon Rearing Habitat with Physical Capacity and Flow Durations in the Trinity River,** ***Emily Cooper-Hertel**, Yurok Tribal Fisheries Department* **Quantifying the Morphologic Underpinnings of Salmonid Habitat,** ***David Gaeuman**, Yurok Tribal Fisheries Department* **Synthesizing 87 years of Scientific Inquiry into Trinity River Water Temperatures,** ***Seth Naman**, National Marine Fisheries Service* **Opportunities for Restoring Ecosystem Function and Phenological Synchronicity Through Flow Management on the Trinity River, CA,** ***Ken Lindke**, California Department of Fish & Wildlife*	**Is More Light Good for Fish?: Results from a Riparian Buffer Manipulation on Private Timberland in the Oregon Coast Range,** ***Ashley Sanders**, OSU* **Effects of Experimental Riparian Canopy Gaps on Fish, Salamanders, Biofilms and Ecosystems Processes in Headwater Streams,** ***Dana Warren**, OSU* **Riparian Canopy Modification Experiment: Lessons Learned and Results from Salmonid and Coastal Giant Salamander Monitoring in an Experimental Watershed in Northwestern CA,** ***Mathew Nannizzi**, Green Diamond Resource Company* **Effectiveness of Meadow and Wet Area Restoration as an Alternative to Watercourse and Lake Protection Rules,** ***Christopher Surfleet**, Cal Poly, SLO*

6:30pm **Banquet, Awards Ceremony, and Dance at the River Lodge**

Planning and Evaluation of Dam Removal, Salmon Recovery, and Habitat Restoration
Session Coordinator:
Mike Belchik, Yurok Tribe

Chinook Room

Overview of Regulatory Processes for Klamath River Dam Removals,
***Matt Robart, MS,** Camas LLC*

Lessons Learned from Flood Impacts to Habitat Improvement Efforts after Dam Removal: Process-based vs Form-based Restoration Efficacy,
***Matt Berry,** Sierra Streams Institute*

Los Padres Alternatives Study: Feasible Alternatives for Maintaining or Removing Los Padres Dam and Implications for Steelhead in the Carmel River Watershed,
***Jonathan Stead,** AECOM*

South-Central/Southern California Steelhead 5-Year Reviews,
***Mark Capelli,** NOAA Fisheries*

Reintroduction of Spring-run Chinook salmon in the San Joaquin River: Evaluating Efficacy of Decision-making in the Captive-breeding Program,
***Kasey C. Pregler,** UC, Berkeley*

Follow the Science: The Role of Scientific Decision-making in the Big Notch Project,
Dennis Finger,
Department of Water Resources

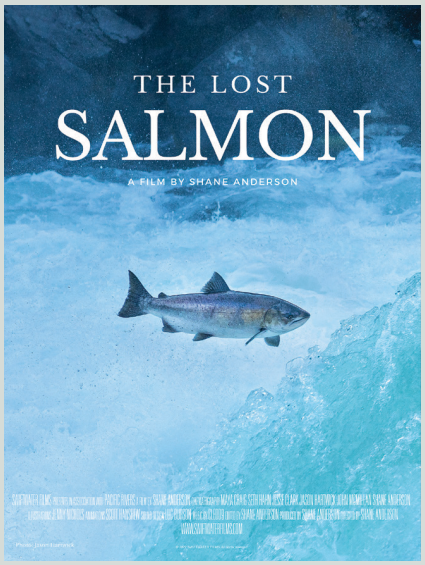
Diet, Growth, and Survival of Juvenile Coho Salmon (*Oncorhynchus kisutch*) in Restored Off-channel Habitats in Tributaries to Humboldt Bay,
Joshua Cahill and Kate Stonecypher,
Cal Poly Humboldt

Conference Events

Wednesday April 26

5:30pm Annual Meeting Coho Room

6:30pm Membership Dinner Chinook Room



With Film Screening of *The Lost Salmon* with filmmaker Shane Anderson

Friday April 28

6:30pm to Midnight SRF Banquet & Awards Ceremony River Lodge Ballroom

Live Music by *Canary and the Vamp*

40th Annual Salmonid Restoration Conference at a Glance

Tuesday

8 - 9am Registration at Fortuna River Lodge Lobby

Workshops and Field Tours
9am - 5pm

Healthy Fire, Healthy Fish Workshop
Chinook Room

Flow Enhancement Workshop
Coho Room

All field tours depart from the River Lodge

Lower Mattole River

McGarvey Creek, Klamath River

Humboldt Bay Estuary Tour

Prairie and Redwood Creeks Tour

Wednesday

Workshops and Field Tours
9am - 5pm

CA Lamprey Workshop and Field Tour
Coho Room

Practical Remote Sensing Tools Workshop
Chinook Room

All field tours depart from the River Lodge

Van Duzen Tour

Prairie and Redwood Creeks Tour

Ocean Ranch and Eel River Estuary Tour

Elk River Tour

5:30pm Annual Meeting
Coho Room

6:30pm Membership Dinner & Film Screening
Chinook Room

Thursday

Plenary Session
9am - noon

Justin Garwood and Michael Kauffman

Amy Cordalis

Keith Parker

Cutcha Risling Baldy

Book Signing

Lunch 12:15 to 1:15 pm
Outside and Steelhead Room

Afternoon Concurrent Sessions
1:30 - 5pm

Working Landscapes
Chinook Room

Fish Passage
Steelhead Room

Modeling Salmonid Habitat
CCC Multi-Purpose Room

Evolving Policies
Coho Room

7-10pm Poster Session
River Lodge (all rooms)

Friday

Morning Concurrent Sessions
9am - 12:15pm

Reintroduction Extirpated Salmon Runs
Chinook Room

Approaches to Build Trust
Coho Room

Eel River
CCC Multi-purpose Room

Process-based Restoration
Steelhead Room

Lunch 12:30 - 1:30pm
Outside and Steelhead Room

Afternoon Concurrent Sessions
1:30 - 5pm

Planning and Evaluation of Dam Removal, Salmon Recovery, and Habitat Restoration
Chinook Room

Trinity River
Coho Room

Riparian Corridors
Steelhead Room

Accelerating Restoration
CCC Multi-purpose Room

6:30pm Banquet
River Lodge Ballroom

Design & Layout
by Jeri Fergus,
Trees Foundation