

# Virtual Salmonid Restoration Conference

## April 21-23, 2021



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# Virtual Salmonid Restoration Conference

## *Adaptation in Motion*

### April 21-23, 2021

Salmonid Restoration Federation (SRF) is offering our first (and perhaps last) virtual Salmonid Restoration Conference, April 21-23, 2021. When SRF had to cancel our 2020 Conference last year due to COVID-19, it was hard to fathom that a year later, we would still be trying to navigate how to provide technical education to the salmon restoration community. So much of the experience of attending the SRF Conference is the in-person convening of restoration practitioners from engineers to consultants, policy makers to planners, academics to students, and on-the-ground practitioners. Producing a virtual conference is truly a process of adaptation and learning new and inventive ways to communicate and engage.

The virtual conference will highlight ocean conditions, food webs, dam removal, reintroduction strategies, anadromous salmonid habitat suitability criteria, and strategies to accelerate steelhead and coho salmon recovery efforts.

Conference technical workshops will include a full day on Assessing Ecological Risks from Streamflow Diversions in Coastal California Streams. Two half day workshops, Accelerating Coho and Steelhead Recovery and Speaking of Science will allow participants to explore methods for prioritizing specific restoration projects and how to be better science communicators.

The SRF Plenary session will feature Rene Henery, California Science Director of Trout Unlimited will present on how preserving salmon diversity requires a diverse set of approaches that foster social and scientific interactions in a talk called *Deep Restoration (Without and Within): Tending Old Wounds, Healing Systems, and Recovering Belonging*. Chuck Bonham, Director of the California Department of Fish and Wildlife, will discuss *The Difference A Year Makes*. Nate Mantua of NOAA/NMFS Southwest Fisheries Science Center will give a talk on *Ocean Conditions and the Emergence of Thiamine Deficiency in Central Valley Chinook Salmon*. Dr. Drew Harvell will speak on *Ocean Outbreaks Heating Up with Climate Change*.

Other conference events will include the SRF annual membership meeting, access to a screening and panel discussion of the film "Gather", a free professional development session, and a virtual poster session.

To see the full agenda, please visit:

[www.calsalmon.org/conferences/salmonid-restoration-virtual-conference](http://www.calsalmon.org/conferences/salmonid-restoration-virtual-conference)



**Design & Layout by**  
**Jeri Fergus, Trees Foundation**



*The "California Salmonscape" poster was illustrated by the legendary artist Ray Troll, and sponsored by National Marine Sanctuary Foundation. "The California Salmonscape ranges from the Klamath River in the north to the Tijuana River in the south... Migrating from their home streams to the ocean and back again, they mature from egg to adult, sharing the landscape with human activities across the most populous state in the nation." This is our California, this is the era in which we live, this is the species we look to for guidance and inspiration.*

# Workshops

## Wednesday, April 21

### Exploring the Riffle Crest Thalweg (RCT) as a Tool for Assessing the Ecological Performance of Streamflow Diversion

**Workshop Coordinators:** Bill Trush, PhD, River Institute and Department of Environmental Science and Management, Humboldt State University; Valerie Zimmer, State Water Resources Control Board; Katrina Nystrom, Salmonid Restoration Federation.

By restricting streamflow (Q) diversions to a relatively small percentage change in ambient riffle crest thalweg depth (RCT) in unregulated streams, key ecological processes will be protected. This workshop (1) introduces basic RCT concepts, (2) reviews recent RCT research/monitoring, (3) connects stream hydraulics to stream ecosystem processes for evaluating ecological performance, and (4) prioritizes ample opportunity for discussion, hands-on data analysis, and practical applications.



*SRF's flow monitor, Katrina Nystrom, measuring low flows and dissolved oxygen in Redwood Creek, SF Eel. By Alexandra Hootnick*

### Acceleration Coho and Steelhead Recovery

**Workshop Coordinators:** Matt Clifford, Trout Unlimited, and Monty Schmitt, The Nature Conservancy

Coastal California steelhead and coho salmon have been protected under federal and/or state endangered species acts for two decades. Although regulatory and restoration actions have been taken according to recovery plans, these species continue to decline. This workshop will focus on efforts to re-assess the approaches the agencies and the larger restoration community are taking to recovering these species. Topics of interest include: methods for prioritizing specific restoration projects at the watershed level to guide grant funding, more effective implementation of regulatory authority over water diversion and stream

alteration, more efficient permitting of habitat restoration projects, and more effective monitoring of populations of both species.

**State of the Salmon,** Curtis Knight, California Trout

**Implementing Priority Recovery Actions for Coho Salmon in the Central California Coast,** Stephen Swales, California Department of Fish and Wildlife and Erin Seghesio, NOAA Fisheries

**The North Coast Salmon Project: A Synergistic Approach to Coho Salmon Recovery,** Jonathan Nelson, California Department of Fish and Wildlife

**How to use the Salmon Habitat Restoration Priorities (SHaRP) Process to Enhance Inclusion and Support in On-the-ground Restoration Planning,** Julie Weeder, NOAA Fisheries, Allan Renger, California Department of Fish and Wildlife

**Accelerating Steelhead and Coho Recovery Using the Habitat Restoration and Enhancement Act and other Programmatic Permits,** Katie Haldeman and Erika Lovejoy, Sustainable Conservation

**Building Local Capacity: An Overlooked Element in the Implementation of Habitat Restoration,** Kellyx Nelson, Creek Lands Conservation

### Speaking of Science

**Workshop Coordinator:** Janine Castro, USFWS Vancouver, WA

This workshop is focused on improving oral presentation skills for planners, scientists, engineers, and others who participate in restoration and conservation projects. Participants will leave the workshop with an improved skill set, including a checklist to develop and deliver impactful presentations. The workshop is highly interactive and builds on the collective experience of the audience and the instructor.



*The Accelerating Recovery workshop will explore the limiting factors impeding recovery efforts and identify the barriers and opportunities to effectively implement recovery actions.*



# 2021 Conference Logistics & Events

The entire conference will take place via live Zoom meetings. Everything will be hosted through a virtual platform called *CrowdCompass*, which can be accessed on a mobile device or computer browser. We will also record all the presentations, so participants will be able to watch anything they cannot attend live at a later date.

We are really excited about this new virtual platform because it provides several different options for networking. Everyone who is registered for the conference will create a user profile that shows their name, contact information, and allows them to message each other.

The poster session will allow any attendee to upload a pdf of a poster or other materials to showcase their current projects or research. Presenters can film a video of themselves presenting their poster and link to that video in their profile. Those will be available throughout the conference. We will also host a live poster session Q&A, via the social functions in the platform.

Registered attendees and co-sponsors will be able to log onto the app in early April to populate their profiles with contact information, photos, and additional links. The conference site is: <https://event.crowdcompass.com/srf-2021>

## Conference Events and Schedule

The **SRF Annual Membership Meeting** will be at 5:30pm on Wednesday, April 21.

The **Plenary Session** will be 9am to noon on Thursday, April 22.

The **Panel Discussion for the film *Gather*** will be held at 5:30pm on Friday, April 23.

A **Professional Development Workshop** will be offered in the afternoon on Wednesday, April 21. This event is free and is open to all attendees.

**Gather Film Screening**  
“Gather” is a new documentary about the growing movement amongst Native Americans to reclaim their spiritual, political, and cultural identities through food sovereignty, while battling the trauma of centuries of genocide.

In lieu of our annual membership dinner and film screening fundraiser, this film will be available for on-demand screening during the entire week of the conference, April 19-25.

Please select the film screening option on your registration form to receive your unique link to view the film.



*Sammy Gensaw is a Yurok tribal member and the director of the Ancestral Guard—an indigenous organizing network. Sammy will be joining us in the *Gather* film screening panel.*

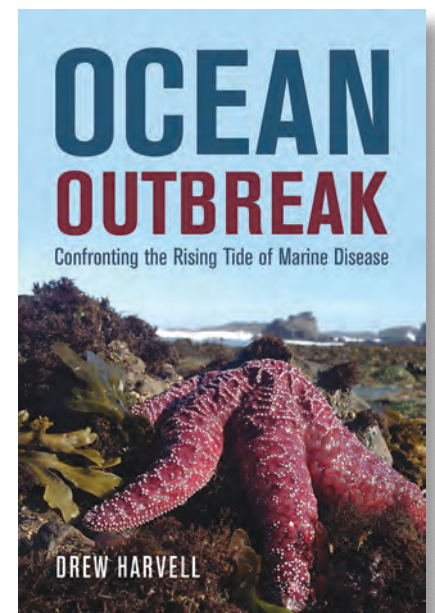
After concurrent sessions end on Friday, April 23, join SRF and Director Sanjay Rawal, and Sammy Gensaw for a discussion of the film. The panel discussion is open to all conference participants, no screening ticket purchase is necessary.

## Poster Session

The Poster Session will take place via our virtual conference platform. Posters will be available to view in pdf form throughout the conference.

## Ocean Outbreak by Dr. Drew Harvell

SRF is excited to announce a presentation by plenary speaker Dr. Drew Harvell, whose new book “Ocean Outbreak: Confronting the Rising Tide of Marine Disease” is available now. Ocean Outbreak follows renowned scientist Dr. Harvell and her colleagues into the field as they investigate how four iconic marine animals—corals, abalone, salmon, and starfish—have been devastated by disease. Based on over twenty years of research, this firsthand account of the sometimes gradual, sometimes exploding impact of disease on our ocean’s biodiversity ends with solutions and a call to action. Only through policy changes and the implementation of innovative solutions from nature can we reduce major outbreaks, save some ocean ecosystems, and protect our fragile environment.





# Conference Sessions

## Plenary Session

**Deep Restoration (Without and Within): Tending Old Wounds, Healing Systems, and Recovering Belonging**, Rene Henery, PhD, California Science Director, Trout Unlimited

**The Difference A Year Makes**, Chuck Bonham, Director of the California Department of Fish and Wildlife

**Ocean Conditions and the Emergence of Thiamine Deficiency, in Central Valley Chinook Salmon**, Nate Mantua, PhD, NOAA/NMFS Southwest Fisheries Science Center

**Ocean Outbreaks Heating Up with Climate Change**, Dr. Drew Harvell, Professor, Ecology and Evolutionary Biology at Cornell University

**What Ancient Salmon Bones Can Teach Us About Recovering California's Salmon Populations**, Malte Willmes, University of California Santa Cruz, Institute of Marine Sciences, National Oceanic and Atmospheric Administration, Southwest Fisheries Science Center

**Yuba River Salmon Impacted since the Gold Rush: An Analysis to Modify Aging Infrastructure, Restore Volitional Passage and Remove Mercury from the Aquatic Environment**, Carrie Monohan, PhD, The Sierra Fund and California State University Chico

**Novel Physical Evidence of the Historical Nativity of Chinook Salmon "*Oncorhynchus tshawytscha*" in the Guadalupe River Watershed of Santa Clara County, California**, Richard B. Lanman, MD, Guadalupe-Coyote Resource Conservation District and Institute for Historical Ecology

**Legacy Effects of Timber Harvesting on Salmonid Habitat at Caspar Creek and Avenues for Improving Habitat During Future Timber Harvests**, Paul Richardson, USDA Forest Service Pacific Southwest Research Station

## Thursday Afternoon

### Understanding Historical Context to Inform Current Salmonid Recovery Planning

**Session Coordinator:** Jay Stallman, Stillwater Sciences

**Forgotten Legacies: Understanding and Mitigating Historical Human Alterations of River Corridors**, Ellen Wohl, PhD, Colorado State University, Fluvial Geomorphology Department

**Years in their Ears: What do Fish Earbones Tell Us About Spring-run Chinook Salmon Success?**, Flora Cordoleani, PhD, University of California Santa Cruz and National Oceanic and Atmospheric Administration

### The Influence of Food Webs on Salmonid Growth and Performance: A Forgotten Link to Species Resilience

**Session Coordinator:** Robert Lusardi, UC Davis

**Food Webs and Juvenile Steelhead Behavior in Coastal California—Towards a Foodscape Perspective**, Gabriel Rossi, UC Berkeley

**Abundant Prey Availability Improves Juvenile Coho Growth Under Warming Stream Temperatures**, Robert Lusardi, UC Davis and California Trout

**Isotopes and Fish Eyes: New Tool to Track Population-level Benefits of Floodplains for Chinook Salmon**, Miranda Bell Tilcock, UC Davis



*Illustration from A Delta Renewed (San Francisco Estuary Institute, 2016)  
Created by Yiping Lu (UC Berkeley)*



*Juvenile coho growth enclosures in Big Springs Creek,  
tributary to the Shasta River. By Rob Lusardi*



Eye Lenses as an Archival Tool to Determine Off-channel Habitat Use During Juvenile Out-migration in Adult Winter-run Chinook, Carson Jeffres, UC Davis

Managed Floodplain Fish Food: Bringing Dry-side Food Webs to Wet-side Fish, Jacob Montgomery, California Trout

Summer Foraging Behaviour in Juvenile Coho Salmon and Steelhead Trout Across a Heterogeneous Landscape, Rachael Ryan, UC Berkeley

## Friday Morning Concurrent Sessions

### (Un)Dam it! Dam Removal and Fish Passage Projects in California

**Session Coordinators:** Darren Mierau and Redgie Collins, Cal Trout

If It's Broke, Why Fix It? Crumbling Concrete Coming to a Small Hydro Project Near You, Chris Shutes, California Sportfishing Protection Alliance

The Eel River Potter Valley Project—Modernizing Hydro-Power Infrastructure in One of California's Wildest Rivers, Redgie Collins, Staff Attorney, California Trout

Battle Creek Salmon and Steelhead Restoration Project, Mary Marshall, USDO, Bureau of Reclamation

Klamath Dam Removal; (Re) Moving Forward, Mike Belchik, Senior Fisheries Biologist, Yurok Tribe

The Impacts of Dam Construction and Removal on the Genetics of Recovering Steelhead (*Oncorhynchus mykiss*) Populations across the Elwha River Watershed Alexandra Fraik, School of Biological Sciences, Washington State University

Progress Towards Removal of Rindge Dam in Malibu Creek, Sandra Jacobson, Cal Trout, Director South Coast Region



*Elwha River post dam-removal*

Photo by Brian Cluer

## Anadromous Salmonid Habitat Suitability Criteria

**Session Coordinator:** Mark Gard, California Department of Fish and Wildlife

Review of Central Valley Anadromous Salmonid Habitat Suitability Criteria, Mark Gard, California Department of Fish and Wildlife

Large Scale Floodplain Rearing Habitat Rehabilitation: Southport Levee Setback, Chris Bowles, cbec eco engineering

Increasing Lateral Connectivity to Benefit Juvenile Salmonids on the Lower Yuba River: The Hallwood Side Channel and Floodplain Restoration Project, April Sawyer, cbec eco engineering

Wanted: Project Site—A Framework for Evaluating Possible Restoration Sites, J.D. Wikert, U.S. Fish and Wildlife Service

Quantifying Dynamic Floodplain Habitat for Juvenile Salmon using a Hydrosatial Approach, Alison Whipple, San Francisco Estuary Institute

Using Aerial Redd Survey Data and a Two-dimensional Hydraulic Models to Construct a Temperature Dependent Spawning Resource Selection Function for Winter-run Chinook Salmon, Peter N. Dudley, NOAA Fisheries

## Friday Afternoon

### The Science Informing Salmonid Reintroductions

**Session Coordinator:** Carlos Garza, PhD, NOAA Fisheries, Southwest Fisheries Science Center and UC Santa Cruz

The Science Informing Salmonid Reintroductions, Carlos Garza, PhD, NOAA Fisheries, Southwest Fisheries Science Center and UC Santa Cruz

Dam, That Was a Wild Ride. Steelhead Passage Up, Down, and Around the Los Padres Dam in California, Haley Ohms, PhD, UC Santa Cruz/NOAA

The Return of the King: Reintroduction of Chinook Salmon to the San Joaquin River, Anthony Clemento, UC Santa Cruz/NOAA



*Spring-run release on the San Joaquin River* By Elif Fehm-Sullivan

**Salmonid Restoration Federation**





By Michael Bravo

**Supplementing Mendocino Coho Salmon Populations via Captive Rearing, Bob Coey, NOAA Fisheries**

**Recolonization Potential for Coho Salmon to Tributaries to the Klamath River Above Iron Gate Dam, Max Ramos, Humboldt State University**

**Capacity of Two High Sierra Rivers in California for Reintroduction of Anadromous Salmonids, David A. Boughton, NOAA/UC Santa Cruz**

**Head of Reservoir to Ocean; Innovations Connecting Restoration and Reintroductions for ESA Listed Salmonids, Stacie Smith, PhD, NOAA Fisheries**

### **Hydrologic Management Insights from Instrumented Watersheds**

**Session Coordinators:** Tim Bailey, Watershed Research and Training Center and David Dralle, PhD, Research Hydrologist, Forest Service, Pacific Southwest Research Station



*Tributary confluence of Elder Creek and South Fork Eel River at high flow*



*Sunset over Melange stream*

**Hyporheic Restoration: Lessons From Meacham Creek, OR, Byron Amerson, Environmental Science Associates**

**Quantification of Water Storage and Non-perennial Runoff Dynamics in a Semi-arid Catchment, Amanda Donaldson, PhD student, University of California, Santa Cruz**

**Hydrologic Insights from Comparing North Coast Stream Gage Data with Flow Estimation Methods and Geology, Valerie Zimmer, State Water Board**

**Advancing Voluntary Flow Enhancement Projects in California's Small Streams and Rivers, Amy Campbell, The Nature Conservancy, Instream Flows Project Director**

**Effects of Flow Augmentation on Coho Salmon Smolt Passage in Porter Creek, a Tributary to the Russian River, California, Sarah Nossaman Pierce, California Sea Grant**

**The Recession of Freedom—Investigating the Drivers of within-reach Movement for Oversummering Juvenile Steelhead and Coho Salmon in a Drying Stream, Gabriel Rossi, UC Berkeley**

**Variability of Headwater Stream Network Extent is Highly Sensitive to Projected Impacts of Climate Change, Christine Leclerc, Simon Fraser University**



## Virtual Salmonid Restoration Conference

# SRF 2021 Conference Sponsorship

April 21-23, 2021



## Benefits of supporting Salmonid Restoration Federation via a virtual sponsorship will include:



Access to 600+ active participants in the watershed restoration field



Ability to showcase your work via photos, embedded videos, and pdfs on your profile













Provide direct URLs to your website and social media



Direct messaging feature to set up convenient appointments with conference registrants, no need to set up constant staffing!

## Sponsor Benefits

Level	Price	Logo on Website	Name in All Conference Materials	Virtual Exhibitor Space	Number of Conference Passes
Hospitality	\$500				2
General	\$1,000				4
Session	\$5,000				10
Conference	\$10,000				20

If you have any questions about co-sponsorships or exhibitor space, or if you would like to send your logo for us to post on our website, please contact our Project Associate, Katrina Nystrom, [katrina@calsalmon.org](mailto:katrina@calsalmon.org)

Thank you for considering co-sponsoring our first ever virtual conference!