Virtual Salmonid Restoration Conference
April 21-23, 2021

Conference Co-sponsors

Balance Hydrologics, Cachuma Operation and Maintenance Board, California Conservation Corps,
Cal Trout, Cardno, cbet, inc., East Bay Municipal Utility District, ESA, Eureka Water Probes,
GHD, Green Diamond Resource Company—CA Timberlands Division,
Guadalupe-Coyote Resource Conservation District (GCRCD),
Hanford ARC of Community Foundation of Sonoma County, HDR, Inc.,
Humboldt and Mendocino Redwood Companies, ICF International,
Lyme Redwood Forest Company, LLC, Marin Municipal Water District, McBain Associates,
Mendocino County Resource Conservation District, Michael Love and Associates,
MidPeninsula Regional Open Space District, Mother Earth Engineering,
Northern California Water Association, Northwest Hydraulic Consultants, Onset,
Pacific States Marine Fisheries Commission, Prunuske Chatham, Inc., RES, Redwood Forest
Foundation, Inc. and Usal Redwood Forest Company, Rincon Consultants, Inc.,
SHN Engineers and Geologists, Inc., South Yuba River Citizens League,
The Nature Conservancy, Trinity River Restoration Program, Valley Water,
Accelerating Coho and Steelhead Recovery (9am-12:30pm)
Workshop Coordinators:
Matt Clifford, Trout Unlimited, and Monty Schmitt, The Nature Conservancy
State of the Salmon
Curtis Knight, California Trout
Implementing Priority Recovery Actions for Coho Salmon in the Central California Coast
Stephen Swales, Ph.D., California Department of Fish and Wildlife and Erin Seghesio, NOAA Fisheries
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
The North Coast Salmon Project: a Synergistic Approach to Coho Salmon Recovery
Jonathan Nelson, California Department of Fish and Wildlife
Accelerating Steelhead and Coho Recovery Using the Habitat Restoration and Enhancement Act and other Programmatic Permits
Katie Haldeman, Sustainable Conservation; and Lucy Haworth, California Department of Fish and Wildlife
Building Local Capacity: An Overlooked Element in the Implementation of Habitat Restoration
Kellyx Nelson, San Mateo RCD
Exploring the Riffle Crest Thalweg (RCT) as a Tool for Assessing the Ecological Performance of Streamflow Diversion (9am-5pm)
Workshop Coordinators:
Bill Trush, Ph.D., 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.

Speaking of Science (9am-12:30pm)
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.

Professional Development Panel (2-4pm)
Making Restoration a Career in Five Words—Curiosity, Interdisciplinary, Collaborating, Sharing, and Amplifiers
Mike Love, Engineer and Founder, Michael Love and Associates
Goldi-Lorax’s Pursuit of Here, There, and Everywhere
Sarah Phillips, Urban Streams Program Manager, Marin Resource Conservation District
Fisheries Biology: Endangered Species, Introversion, and the Deep Love of a Creek
Eric Ettlinger, Aquatic Ecologist, Marin Municipal Water District
Civil Servant: Cultivating a Career in Public Service with a Vision of Being Replaced
Raquel Ortega, District Director, California Conservation Corps

Gather Film Screening
Join the film screening panel with Director Sanjay Sanjay Rawal and Ancestral Guard representative, Sammy Gensaw, for a discussion.
### Thursday, April 22

#### Plenary Session (9am-12:30pm)

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>9am</td>
<td>Master of Ceremonies: Thomas Williams, NOAA Fisheries</td>
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<td>Deep Restoration (Without and Within):</td>
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<td></td>
<td>Tending Old Wounds, Healing Systems, and Recovering Belonging</td>
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<td></td>
<td>Rene Henery, Ph.D., <em>California Science Director</em>, Trout Unlimited</td>
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<td>The Difference A Year Makes</td>
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<td>Chuck Bonham, <em>Director of the California Department of Fish and Wildlife</em></td>
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<td>12:30pm</td>
<td>Lifetime Achievement Awards</td>
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<td>Ocean Conditions and the Emergence of Thiamine Deficiency</td>
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<td>in Central Valley Chinook Salmon</td>
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<td></td>
<td>Nate Mantua, Ph.D., <em>NOAA/NMFS Southwest Fisheries Science Center</em></td>
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<tr>
<td>1-1:15pm</td>
<td>Ocean Outbreaks Heating Up with Climate Change</td>
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<td>Drew Harvell, Ph.D., <em>Professor, Ecology and Evolutionary Biology</em>, Cornell University</td>
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#### Virtual Book Signing

**Virtual Book Signing with Drew Harvell, *Ocean Outbreak***

#### Afternoon Concurrent Sessions (1:30pm-5pm)

<table>
<thead>
<tr>
<th>Time</th>
<th>Session 1</th>
<th>Session 2</th>
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<tbody>
<tr>
<td>1:30pm</td>
<td>Understanding Historical Context to Inform Current Salmonid Recovery Planning</td>
<td>The Influence of Food Webs on Salmonid Growth and Performance: A Forgotten Link to Species Resilience</td>
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<td></td>
<td><em>Session Coordinator</em>: Jay Stallman, Stillwater Sciences</td>
<td><em>Session Coordinator</em>: Robert Lusardi, Ph.D., UC Davis and California Trout</td>
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<td>Forgotten Legacies: Understanding and Mitigating Historical Human Alterations of River Corridors</td>
<td>Food Webs and Juvenile Steelhead Behavior in Coastal California—Towards a Foodscape Perspective</td>
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<td>Ellen Wohl, Ph.D., Colorado State University, Fluvial Geomorphology Department</td>
<td>Gabriel Rossi, Ph.D., UC Berkeley</td>
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<td></td>
<td>Years in their Ears: What do Fish Earbones Tell us about Spring-run Chinook Salmon Success?</td>
<td>Abundant Prey Availability Improves Juvenile Coho Growth Under Warming Stream Temperatures</td>
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<td>Flora Cordoleani, Ph.D., UC Santa Cruz and National Oceanic and Atmospheric Administration</td>
<td>Robert Lusardi, Ph.D., UC Davis and California Trout</td>
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<td>What Ancient Salmon Bones Can Teach us about Recovering California’s Salmon Populations</td>
<td>Eye Lenses as an Archival Tool to Determine Off-Channel Habitat Use During Juvenile Out-migration in Adult Winter-run Chinook</td>
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<td>Malte Willmes, UC Santa Cruz and NOAA Fisheries</td>
<td>Carson Jeffres, Ph.D., UC Davis</td>
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<td>3pm</td>
<td>Break</td>
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<td>Yuba River Salmon Impacted since the Gold Rush: An Analysis to Modify Aging Infrastructure,</td>
<td>Water Residence Time Drives Aquatic Ecosystem Productivity on a Managed Floodplain</td>
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<td>Restore Volitional Passage and Remove Mercury from the Aquatic Environment</td>
<td>Jacob Montgomery, Central Valley Science Program</td>
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<td>Carrie Monohan, Ph.D., The Sierra Fund and California State University Chico</td>
<td>Director, California Trout</td>
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<td>Novel Physical Evidence of the Historical Nativity of Chinook Salmon “Oncorhynchus tshawytscha” in the Guadalupe River Watershed of Santa Clara County, California</td>
<td>Summer Foraging Behaviour in Juvenile Coho Salmon and Steelhead Trout Across a Heterogeneous Landscape</td>
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<td>Richard B. Lanman, MD, Guadalupe-Coyote Resource Conservation District and Institute for Historical Ecology</td>
<td>Rachael Ryan, UC Berkeley</td>
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<td>Legacy Effects of Timber Harvesting on Salmonid Habitat at Caspar Creek and Avenues for Improving Habitat During</td>
<td>Making Sense of Making Salmon: Recipes for Routing Landscape Carbon into Fisheries Biomass</td>
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<td>Future Timber Harvests</td>
<td>Jacob Katz, Ph.D., Lead Scientist, California Trout</td>
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<td>Paul Richardson, USDA Forest Service</td>
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<td>Pacific Southwest Research Station</td>
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5:30pm  | Poster Session                                                                                                       |
**Friday, April 23**

**Morning Concurrent Sessions (9am-12:30pm)**

**9am**

(Un)Dam it! Dam Removal and Fish Passage Projects in California  
*Session Coordinators: Darren Mierau, CalTrout*

If It’s Broke, Why Fix It? Crumbling Concrete Coming to a Small Hydro Project Near You  
*Chris Shutes, California Sport Fishing Protection Alliance*

The Eel River Potter Valley Project—Modernizing Hydro-Power Infrastructure in one of California’s Wildest Rivers  
*Darren Mierau and Redgie Collins, CalTrout*

Battle Creek Salmon and Steelhead Restoration Project  
*Mary Marshall and Trang Nguyen, USDOL, Bureau of Reclamation*

Anadromous Salmonid Habitat Suitability Criteria  
*Session Coordinator: Mark Gard, Ph.D., California Department of Fish and Wildlife*

Review of Central Valley Anadromous Salmonid Habitat Suitability Criteria  
*Mark Gard, Ph.D., 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*

**10:30am**

Break

Progress Towards Removal of Rindge Dam in Malibu Creek  
*Sandra Jacobson, Ph.D., Cal Trout, Director South Coast Region and Danielle LeFer, Ph.D., California Department of Parks and Recreation, Angeles District*

Klamath Dam Removal; (Re) Moving Forward  
*Mike Belchik, Senior Fisheries Scientist, 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, Washington State University*

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 Hydrospatial 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*

**1:30pm**

The Science Informing Salmonid Reintroductions  
*Session Coordinator: Carlos Garza, Ph.D., NOAA Fisheries, Southwest Fisheries Science Center and UC Santa Cruz*

The Science Informing Salmonid Reintroductions  
*Carlos Garza, Ph.D., NOAA Fisheries, Southwest Fisheries Science Center and UC Santa Cruz*

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

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

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

Supplementing Mendocino Coho Salmon Populations via Captive Rearing  
*Bob Coey, and Libby Gilbert-Horvath, NOAA Fisheries*

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

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

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*

**3:15pm**

Break

**Hydrologic Management Insights from Instrumented Watersheds**  
*Session Coordinators: Tim Bailey, Watershed Research and Training Center, and David Dralle, Ph.D., Pacific Southwest Research Station, U.S. Forest Service*

Quantification of Water Storage and Non-perennial Runoff Dynamics in a Semi-arid Catchment  
*Amanda Donaldson, Ph.D. student, UC Santa Cruz*

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

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

Developing California’s Stream Gaging Plan (SB 19)  
*Valerie Zimmer, State Water Board*

**5:30pm**

Gather Panel

**Afternoon Concurrent Sessions (1:30-5pm)**

**1:30pm**

**The Science Informing Salmonid Reintroductions**  
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**Advancing Voluntary Flow Enhancement Projects in California’s Small Streams and Rivers**  
*Amy Campbell, The Nature Conservancy, Instream Flows Project Director*

**5:30pm**

Gather Panel
# SRF Virtual Conference Schedule-at-a-Glance

## Wednesday, April 21

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<tr>
<td>9am-noon Speaking of Science Workshop</td>
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<td>9am-12:30pm Coho and Steelhead Recovery Workshop</td>
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<td>9am-5pm Instream Flow Workshop</td>
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<td>2-4pm Professional Development Panel</td>
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<tr>
<td>5:30-6:30pm SRF Annual Meeting</td>
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## Thursday, April 22

### Plenary and Afternoon Sessions

- 9am-12:30pm Plenary Session
- 1pm Virtual Book Event with Drew Harvell

### Afternoon Concurrent Sessions

- **Understanding Historical Context to Inform Current Salmonid Recovery Planning**
- **The Influence of Food Webs on Salmonid Growth and Performance: A Forgotten Link to Species Resilience**

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<td>5:30pm Interactive Poster Session</td>
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## Friday, April 23

### Concurrent Sessions

- **Morning Concurrent Sessions**
  - 9am-12:30pm **(Un)Dam it! Dam Removal and Fish Passage Projects in California**
  - Anadromous Salmonid Habitat Suitability Criteria

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<tr>
<td>5:30pm Gather Film Screening Panel</td>
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Join the film screening panel with Director Sanjay Rawal and Ancestral Guard representative, Sammy Gensaw, for a discussion of the film.