Salmonid Restoration Federation

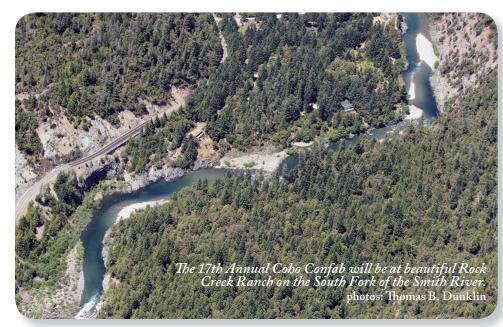
17th Annual Coho Confab on the South Fork of the Smith River August 22-24, 2014

The 17th Annual Coho Confab will be held at the beautiful Rock Creek Ranch on the South Fork of the Smith River. Salmonid Restoration Federation and Trees Foundation are the permanent co-hosts of this educational event that is sponsored by the California Department of Fish & Wildlife. The Coho Confab is a symposium to explore watershed restoration, learn restoration techniques to recover coho salmon populations, and to network with other fish-centric people.

The Coho Confab will open with a Friday evening community dinner and orientation presentations. Justin Garwood, Aquatic Specialist, California Department of Fish and Wildlife, will give a talk on *The Historic and Current Spatial Structure of Coho Salmon Populations in Northern California.* Will Harling, Executive Director, Mid-Klamath Watershed Council, will present on *Creating Coho Off-Channel* Rearing Habitat in the Middle Klamath Sub-basin: Results and Lessons Learned.

Saturday morning field tours include *Fish Passage Projects in Smith River Tributaries: Vortex Weir*

Fishways, Roughened Channels, and Stream Simulation presented by Mike Love & Associates. Geologist Rocco Fiori and Sarah Beesley from the Yurok Tribal Fisheries Program will lead a full-day tour on Reconnecting Stream & Floodplain Habitats in Lower Klamath Tributaries. Saturday afternoon will include a Juvenile Salmonid Identification workshop in the Lower Smith River with Jesse Nolan and Jolyon Walkley of the California Department of Fish and Wildlife and Smith River Alliance. Engineer Travis James of GHD and foresters with Green Diamond will tour instream large woody debris projects and





Coho salmon on the Smith River.

Summer 2014

fish passage projects in Rowdy Creek and Dominie Creek.

Saturday will also feature an open forum about the release of the final SONCC Coho Recovery Plan and implementation strategies on the Smith River. This long summer day will culminate with a traditional salmon feast prepared by Yurok restoration tribal members, an evening film screening of Thomas Dunklin's *Wild and Scenic Smith River* video, and a lively campfire.

Sunday morning field tours will include a tour of Strawberry Creek Wetland Restoration: Coho, Beaver, and Invasive Vegetation with fish passage engineer Mike Love and veteran restorationist Mitch Farro of Pacific Coast Fish, Wildlife and Wetlands Restoration Association. Lathrop Leonard of the National Park Service will lead a tour of Watershed Restoration: Integrating Multi-disciplinary Restoration Priorities at the Landscape Scale in Mill Creek. HSU graduate fisheries student, Marisa Parish, and Michael Pollock, NOAA Fisheries (invited) will lead a tour of beaver sites and salmon population monitoring sites on the main stem of the Smith River. This will be an exciting opportunity to see thermal refugia and beaver sites along the river.

To register for the Confab or to view the full agenda visit www.calsalmon.org

Staff

Dana Stolzman *Executive Director*

Sara Schremmer Project Coordinator

Dian Griffith Bookkeeper

Board of Directors

Freddy Otte (Board President) City of San Luis Obispo

Don Allan (Vice-President) Natural Resources Division, Redwood Community Action Agency

Margo Moorhouse (Treasurer) Lindsay Creek Watershed Coordinator

Natalie Arroyo (Secretary) Redwood Community Action Agency

Steve Allen (alternate) GHD

Don Baldwin (alternate) Instream Flows Program, CA Department of Fish and Wildlife

Katherine Brown (alternate) CalTrans

Karen Gardner (alternate) Masters of Non-Profit Administration Candidate, Sonoma State University

Anna Halligan Trout Unlimited

Jennifer Hemmert (alternate) CA Department of Fish and Wildlife

Zoltan Matica CA Department of Water Resources

Larry Notheis California Conservation Corps

Will Pier Fisheries Habitat Consultant

Matt Smith (alternate) Environmental Restoration Services

George Sutherland (alternate) South Coast Chapter, Trout Unlimited

Amber Villalobos State Water Quality Contro<u>l Board</u>



Design & Layout by Trees Foundation



Next Steps for SRF's Redwood Creek Water Conservation Project

In the summer of 2014, with funding from the Department of Fish and Wildlife's Fisheries Restoration Grant Program, Salmonid Restoration Federation will be moving forward with exciting new public outreach and education efforts as part of our ongoing Redwood Creek Water Conservation Project.

California is still in the throes of an extreme and persistent drought, and many of the coastal streams and tributaries that rural families depend on in Southern Humboldt County and elsewhere are likely to reach perilously low levels or dry up completely as the summer progresses. For people, this translates to reduced water security and increased health risks associated with poor water quality. For juvenile salmonids, low flows can reduce their chances for survival as pools become shallower, warmer, and disconnected.

The Redwood Creek Water Conservation Project is a collaborative, multistakeholder response to this drought. With the guidance of Sanctuary Forest, SRF spearheaded a community outreach campaign to empower local residents to become responsible water users and to encourage participation in water conservation efforts. In the first phases of the feasibility study for the project, public outreach was conducted and low flow studies were initiated. Quantitative and qualitative data were collected to inform the type of water conservation program that would be appropriate and acceptable to residents and be most effective in increasing streamflows in the watershed. The study is still ongoing, but the findings thus far have indicated that many residents are eager to voluntarily change their water use, and that education and outreach are needed to inform residents of the various methods and opportunities for reducing their water footprints.

Over the course of the summer, SRF will create educational materials and do media outreach regarding simple water conservation techniques that can reduce rural residential water use. Water conservation techniques that will be publicized will include float valves for water tanks, mulching, fixing summer leaks, low-flow toilets, and drip irrigation. These materials will be displayed at local businesses, including garden supply and hardware stores, where store sections will spotlight fish-friendly products, water conservation supplies, and relevant water- and drought-related information.

SRF will also be taking steps to address some of the financial and bureaucratic barriers that residents and landowners face when they wish to install winter water storage tanks on their properties. SRF is disseminating information about the Emergency Tank Registration program and continuing to educate residents about water rights. SRF will also be designing large colorful and permanent educational road signs that indicate flow levels on the five populated tributaries in the Redwood Creek watershed so residents know when to stop diverting water. Our approach is

to create educational materials that will be useful and applicable to all North Coast watersheds. SRF is also meeting with landowners, road associations, and planners to distribute information about the value of filing riparian and appropriative water rights.



Redwood Creek at high water in the winter 2014 photo: Dana Stolzman

32nd Annual Salmonid Restoration Conference Recap

March, Salmonid Restoration In Federation hosted the 32nd Annual Salmonid Restoration Conference in Santa Barbara, California. The theme of the conference was "Recovery Strategies Coastal Salmonids" and the for conference agenda highlighted habitat techniques, monitoring, restoration methodologies, and practices to restore and recover salmonids. The conference agenda explored the science and applied practice informing the development of key recovery strategies for salmonids in an era of climate change and water shortages.

Field tours visited the Ventura River Parkway, urban creek and fish passage projects in Santa Barbara, projects on the Gaviota Coast and Santa Ynez River, and representative anadromous fish habitat restoration projects in the Santa Clara River watershed. Workshops examined fish passage, innovative stormwater and water conservation practices, steelhead and beaver interactions, and coastal monitoring.

This year's conference agenda had a Southern Steelhead track that featured southern steelhead life histories, habitat restoration techniques from estuaries to tributaries, and recovery strategies. Other sessions included Monitoring Restoration Effectiveness through Fish Habitat Relationships, Landscape Ecology of Salmonids, Living with and Without Dams, California's Salmonid Restoration Economy, Urban Creek Restoration, and Historical Ecology of Salmonids.



Previous and Current Restorationists of the Year: Meredith Hardy, Steph Wald, Philip LaFollette, and Dave Highland (from left to right). photo: Freddy Otte

The Plenary session featured Frances Malamud-Roam, co-author of *The West Without Water*, who discussed the paleoclimate record of California and the state's long history of droughts. Charlotte Ambrose, the Central Coast Recovery Coordinator of NOAA Fisheries, West Coast Region, presented on *Recovery Strategies for Coastal Salmonids and the Social Science of Saving Salmon and Steelhead*. Professor Edward Keller presented on *Southern Steelhead Habitat: It's All About Water and Boulders.* George Pess of the Northwest Fisheries Science Center gave an inspiring presentation on *Adaptive Monitoring to a Large-Scale Restoration Action* focused on the demolition of Elwha Dam.

Other conference highlights included the premiere screening of Matt Stoecker's incredible film *DamNation* at the SRF membership dinner, the lively poster session, and the awards ceremony and banquet.

Next year's SRF conference will be March 11-14 in Santa Rosa, CA. The call is open for session, workshop, and field tour proposals and the first call for abstracts will be posted in August.

Conference panoramas by Thomas B. Dunklin



Resilience in a Time of Drought

By Sara Schremmer, SRF Project Coordinator

Early in 2013, Sanctuary Forest and Salmonid Restoration Federation initiated a study to determine the feasibility of conducting a "technology transfer" of Sanctuary Forest's Mattole headwaters voluntary water storage and forbearance program to Redwood Creek on the South Fork Eel River in Northern California. The Redwood Creek Water Conservation Project was designed in order to gather data about human water use and low flows in the watershed, to gauge community interest in establishing a voluntary water conservation program similar to the one in the Mattole, and to understand the type of water conservation program that might be appropriate for the Redwood Creek watershed and its rural residents. Sanctuary Forest's voluntary water conservation model and the subsequent feasibility study for the Redwood Creek Water Conservation Project have been translated into a brand new step-by-step guide for watershed stakeholders, in the hopes that what we have learned can be taken and applied in other locations on the North Coast.

Resilience in a Time of Drought: A Transferable Model for Collective Action in North Coast Watersheds is a practical guide for community members, restoration practitioners, non-profits, and other stakeholders on how to transfer successful water conservation practices and technologies from one setting to another while accounting for the unique social and ecological variables that exist in every watershed. The steps outlined in the guide are meant to be applied in watersheds where a rural population is

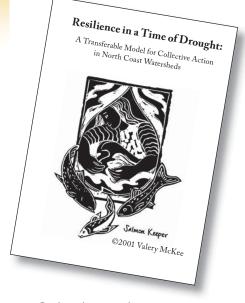


dependent on a local watercourse for their agricultural and household needs, and where changing human use has the potential to increase streamflows.

While the guide was being developed, California was experiencing its worst drought since recordkeeping began in the 1840s, with one paleoclimatologist suggesting that this "could potentially be the driest water year in 500 years" (Hockensmith cf. Ingram 2014). While climatologists predict that changes in global climate will continue to manifest in unexpected ways in the Pacific Northwest, longer dry seasons (i.e. months without rainfall) are an impact already being felt in Northern California, which can result in reduced water quality and quantity for increased periods of time.

The ongoing challenge of low water flows galvanized many concerned residents and stakeholders in Southern Humboldt to raise a challenging question: How can we become more resilient in a time of drought, and what can we do to keep more water in the rivers, tributaries, and streams so that people and fish have enough to survive?

In instances where policy prescriptions or state control of resource systems have been unsuccessful in accomplishing specific restoration or conservation goals, a move toward self-governed collective action by resource users may be a viable alternative. The theory of collective action requires that resource users (in this case, rural residents) self-organizing to conserve water must make a binding commitment to a cooperative strategy of their own device that significantly constrains their behaviors. In the Mattole watershed, Sanctuary Forest's strategy of voluntary water storage and forbearance resulted in measurable improvements in streamflow within their project area, as well as a noticeable paradigm shift toward watershed stewardship among residents. In the Redwood Creek watershed, SRF is working with multiple partners and funding agencies to develop



Link to the manual: http://calsalmon.org/files/ documents/tools/GuideForCollectiveAction_2014.pdf

a collective action strategy for managing human water use that will meet the unique ecological and social conditions of the watershed where implementation will take place.

In my graduate research, entitled *Resilience in a Time of Drought: Building* a Transferable Model for Collective Action in North Coast Watersheds, I advocate for a place-based emphasis when developing a collaborative streamflow improvement strategy for North Coast watersheds. Such a strategy would: a) put a high value on local and inter-generational knowledgesharing and participation; b) emphasize the intrinsic value of non-human creatures indigenous to the watershed (particularly of native salmon); and c) be motivated by a desire to improve the landscape for the benefit and enjoyment of future generations. With these conditions in mind, the steps outlined in the guide offer recommendations on how to develop a place-based collective action strategy that will have the potential to increase streamflows for salmonids and water security for rural residents. Under the right circumstances, place-based collaborative restoration can provide an effective framework for encouraging local citizens to become active participants and caretakers of the places that they call home.

Drought Emergency Measures Streamlined Water Tank Storage Registration Program

The State Water Resources Control Board and the California Department of Fish and Wildlife have a vested interest in ensuring that rural residents comply with state water law and register their water diversions and storage. However, the permitting process can be lengthy and presents a bureaucratic hurdle for rural residents who are eager to conserve water during California's severe drought. State water rights law requires all people diverting surface waters (from springs, streams, and rivers), including diversion of water from subterranean streams flowing in known and definite channels, to file a basic Statement of Use. Additionally, if a resident is interested in conserving water through the storage and forbearance method (i.e. storing water during the winter season for use during the dry summer months when streamflows are at their lowest levels), they are required by law to file for an appropriative water right.

As California's unprecedented drought continued to wreak havoc on local water supplies, watershed stakeholders on the North Coast and state agency personnel conversed on how to streamline the registration process so that rural residents could begin storing winter water quickly, without fear of legal or regulatory repercussions. In March of 2014, CDFW essentially "pre-approved" the installation of storage tanks that meet



Rain catcher water tanks are a long-term investment that can enable landowners to forbear from diverting water during the dry summer months.

the general criteria. The State Water Board has agreed to incorporate these criteria as conditions of approval, and to expedite the issuance of the registrations. This action was the direct result of suggestions made by local communities and fish conservation organizations such as Trout Unlimited, Sanctuary Forest, and Salmonid Restoration Federation.



Roofwater rain catchment is a great way to capture and store water. photo: Trees Foundation archives

While California's Drought Emergency declaration is in effect, the Emergency Tank Storage Registration program will enable landowners to register their storage without a streambed alteration permit (1600 Agreement) or a site inspection from CDFW, as long as they meet the general criteria. Landowners will need to meet the following conditions:

- Registration must be submitted while the Drought Emergency Declaration is in effect;
- The registration is for water storage that is comprised of rigid materials (no bladder tanks or ponds);
- Landowners must agree to forbear from pumping for at least 60 days during the required forbearance period based on their declared household water budget;
- The project is located in coastal streams within the boundaries of the California Department of Fish and Wildlife's Region 1 or Region 3



- Landowners can not pump at a rate of more than 10 Gallons Per Minute (GPM)
- Landowners must sign and submit a self-certification that they meet the necessary criteria.

Though far from an all-encompassing solution, CDFW's pre-approval of storage tanks under the SDU registration program represents a victory for collaborative watershed restoration efforts on the North Coast.

What are the Benefits of Registering My Water Storage While the Emergency Tank Storage Registration is in Place?

There is no better time to register your water storage than now. Under the emergency program, you can selfcertify that you meet the criteria for a Small Domestic Use registration. There will be a five year grace period before the Department of Fish and Wildlife will require a site visit to inspect the diversion(s) and ensure that they are not endangering wildlife. Additionally, it is much easier to come into compliance with state water law before receiving a notice of violation, rather than after. Be proactive and register your water storage today!

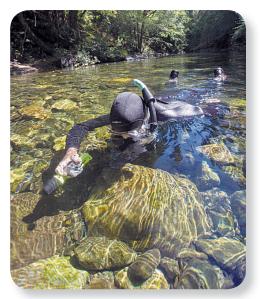
SRF recently developed an Emergency Tank Registration Program FAQ Booklet that can be viewed at *http://calsalmon.org/srf-projects/water-conservation-education*

Smith River – One of California's Last Salmon Strongholds

California's northwest coast is home to the Smith River, which drains a watershed area of 719 square miles in Del Norte County. In addition to supplying the majority of public water systems in the county, the free-flowing Smith River remains undammed—a rarity in much of the United States—and provides crucial salmonid habitat, making it a focal point for conservation as part of the National Wild and Scenic River program.

Coho salmon, listed under the federal (ESA) and California (CESA) Endangered Species Acts, are currently the only ESA listed salmonid species in the Smith River basin. These listings have prompted the development of recovery plans that include delisting goals for the Southern Oregon Northern California Coho (SONCC) Evolutionary Significant Unit (ESU). "The Smith River basin has been identified as a functionally independent coho salmon population in the central diversity strata for the SONCC ESU by NOAA Fisheries and is recognized as a recovery unit by California Department of Fish and Wildlife," says Justin Garwood, Aquatic Specialist with CDFW and author of the recently published (2014) Reconnaissance of Salmonid Redd Abundance and Juvenile Salmonid Spatial Structure in the Smith River with Emphasis on Coho Salmon. In the report, Garwood describes the significance of the Smith River in terms of coho recovery in the following excerpt:

"The North American Salmon Stronghold Partnership Initiative ranked the Smith River as among the highest for salmonid conservation value. Furthermore, the Smith River is one of two watersheds in California described as "irreplaceable" with respect to salmonid population resiliency and biodiversity (Wild Salmon Center 2012). However, the status of the coho salmon population is among the least understood in California as assessments conducted previously were limited in scale, and almost exclusively restricted to a single sub-basin. This uncertainty around the status of Smith River coho salmon prevents managers from critically assessing ESA recovery goals and prioritizing an effective restoration strategy defined by NOAA and CDFW (Beechie et al. 2003, CDFG 2004)."



In Garwood's study, juvenile coho salmon were detected in five portions of the basin including the lower mainstem Smith River and proximal tributaries, Rowdy Creek, Mill Creek, upper South Fork Smith River, and Baldface Creek (site of proposed mining.) photo: Brett Cole Header photo of N. Fork Smith by: Barbara Ullian

In order to determine the extinction risk and recovery status of the Smith River's coho salmon population, Garwood and his team initiated trend monitoring of two viable salmon population (VSP) parameters. A VSP has a negligible risk for extinction over a 100-year time frame based on their abundance, productivity (population growth rate), spatial structure, and diversity.

The Coastal California Salmon Monitoring Plan (CMP) was developed cooperatively by CDFW and NOAA Fisheries to address data needs for salmon population viability assessments. Garwood's (2014) study "is the first comprehensive effort for monitoring viable salmon population parameters in the Smith River basin as defined by California's Coastal Salmonid Monitoring Program. Monitoring VSP parameters of anadromous salmonids in basins having habitat resiliency and high salmonid conservation value will also benefit recovery priorities throughout the SONCC ESU by comparing data across a wide range of habitat conditions."

Trend monitoring may soon be needed to assess likely impacts to crucial salmon habitat from mining. The headwaters of Baldface Creek, a major Smith River tributary, is a proposed location for a new nickel strip-mining operation. This proposal has alarmed conservationists and local residents alike. This tributary also represents one of two rare inland coho salmon sub-populations occurring in the Smith River basin as identified by Garwood's 2014 study.

In the USDA Forest Service's 1981 technical report on the effects of mining on anadromous fish habitat, the authors reported potential impacts to the aquatic environment as sediment production, changes in pH, toxic heavy metals, and alterations in stream channel and streamflow. Mining operations similar to the one being proposed at the headwaters of the Smith River have been shown to result in legacy impacts of toxic contamination and other sources of environmental degradation that can be detrimental to human populations and wildlife.

A Smith River National Recreation letter opposing the mining states, "Since pollution from destructive mining and mineral processing will not respect state boundaries, this type of mining is a serious threat to the Smith River in California and may have catastrophic consequences to salmon and steelhead populations, water quality and the local economy."

Legislating California's Water Woes

California's historic drought has catalyzed policymakers in Sacramento and Washington D.C. to pursue all manner of policy solutions. Some of these are long-overdue discussions, such as establishing a framework for monitoring and regulating groundwater pumping for agriculture operations. Other proposals in Congress would essentially sacrifice water for salmon to provide more water for agriculture in the San Joaquin valley.

Many of these proposals, including California's proposed water bonds, are at critical stages of evolution as this newsletter goes to press. Check our website to see how these issues progressed.

Money for salmon restoration...

- The budget update that Governor Brown released in May includes an additional six million dollars for salmon restoration, to be split between the Central Valley and the coast.
- There are several proposed water bonds being discussed in Sacramento, one of which will likely replace the \$11.4 billion water bond that is currently on the November 2014 ballot. Several of the proposals include significant funding to support watershed restoration. Both Rendon's (AB 1331) and Wolk's (SB 42) water bonds currently include provisions for no earmarked projects, improving water infrastructure, and clean water quality.

Fish need water, so do farmers. Farmers have a bigger checkbook...

• In Washington D.C., there are a host of efforts to ensure that Big Ag gets all the water they want, to keep the ever-expanding almond orchards fully irrigated. Congressional Republicans are pushing a bill that would prioritize water exports for farmers over water for salmon, eliminate funding for restoration efforts in the San Joaquin River, and override the Wild and Scenic designation for the Merced River. The Senate recently passed California's Senator Dianne Feinstein's slightly less extreme Emergency Drought Relief Act (SB 2198). However these two bills will now go to a conference committee to be merged together, and the possible outcomes are troubling for salmon protections.

State Water Board starting to curtail some water rights...

• In late May the State Water Resources Control Board issued a notice of unavailability of water and immediate curtailment of all diversions under post-1914 appropriative water rights in the Sacramento and San Joaquin watersheds. The Notice also warns that the Board may curtail some pre-1914 appropriative water rights, and even some riparian water rights, in the future if current conditions persist.



An aerial view of the patchwork of almond orchards in bloom in San Joaquin County, California. photo: Blue Diamond c-archives



Almonds are California's most profitable agricultural export — creating a \$4 billion-a-year crop. Almonds require more water than most row crops and cannot lay idle in a dry year. This drought has economic implications and has sparked a huge debate about how water is allocated in California. photo: http://adunnphotography.blogspot.com

• The Board also ordered hundreds of water users in the upper Russian River to stop diverting water if their water rights were from 1954 or later.

The Board has ordered more than 2,600 water agencies and users in the Sacramento Valley to stop pumping water from streams, a drastic response that hasn't occurred since 1977. Most of the affected water users are farmers and large irrigation districts. But they also include major urban water providers.

Water policies are evolving extremely quickly this year. Here are some great water blogs where you can get daily up-to-date information.

- Maven's Notebook http:// mavensnotebook.com
- Brown and Caldwell's Award Winning Water News http:// www.bcwaternews.com/bcwn/ California/053014.html

For a helpful comparison of California's water bond proposals, please google California Detailed Water Bond Proposals to see a chart that compares costs, amend dates, and how the different proposed bonds address water quality, watershed protection, regional water reliability, Delta sustainability, water storage, groundwater sustainability, and water conservation.

Summer 2014

Salmonid Restoration Federation PO Box 784 Redway, California 95560



www.calsalmon.org

Non Profit Org U.S. Postage **PAID** Permit #76 Eureka, CA

Inaugural Steelhead Summit to Take Place in the Ventura River Watershed October 21-22, 2014

Salmonid Restoration Federation, with the valued support of California Department of Fish and Wildlife, will host the inaugural Steelhead Summit to address Central and South Coast regional needs for technical education regarding the restoration and recovery of steelhead.

The National Marine Fisheries Service (NMFS) listed the Southern California steelhead Evolutionarily Significant Unit (ESU) as endangered in 1997 due to a 99% decline in its population in the 20th century, and it is now the most endangered Distinct Population Segment (DPS) in California. The Steelhead Summit will address threats to Southern Steelhead identified in the Steelhead Recovery Plan, including fish passage barriers and water diversions.

The Steelhead Summit will provide technical education and a venue to delve into complex issues of genetics, recovery strategies, and how to best utilize limited resources. Restorationists, planners, and fisheries biologists will have the opportunity to tour newly constructed restoration projects focused



Gyotaku steelhead fish print t-shirt by Andrew Jensen available on SRF's new merchandise page.

on fish passage, bioengineering, restoring the natural hydrograph, and invasive plant removal.

Geneticist Carlos Garza from the Southwest Fisheries Science Center will give a keynote address regarding the origins of life history variation in steelhead/rainbow trout from coastal California. Jacob Katz of Cal Trout will present on resilient fish in an arid landscape and how understanding Southern California steelhead informs the future of west coast salmon management under climate change.

Presentations and panel discussions will address limiting factors for population

recovery, including water quality and quantity, riparian dysfunction, excessive sediment yield, spawning and rearing requirements, and fish passage as well as coastal monitoring efforts and results. Water rights attorneys and water conservation designers will be available to discuss ways to increase instream flows for fish, including rainwater catchment, dry farming, groundwater recharge, water conservation strategies, large-scale water storage, and instream flow dedications. With the inaugural Steelhead Summit, SRF hopes to ensure better quality projects, improve planning and design, and assist restoration practitioners to implement recovery strategies for steelhead.

Save the Pate 33rd Annual Salmonid Restoration Conference

March 11-14, 2015 in Santa Rosa, CA

Call for Abstracts will be posted in August