

# the current

abundant wild fish · healthy waters · better California

Fall 2017

CALIFORNIA TROUT



FISH · WATER · PEOPLE

## Southern Steelhead Surviving Against All Odds

New Addition:  
**CRAIG'S  
CORNER**  
Watch  
Now!



### LEGISLATION

An update on the bills  
we're following in  
Sacramento



### PHOTO CONTEST

Announcing the winners  
of the 2017 CalTrout  
Photo Contest





# A message to you

Our goal with each issue of *The Current* is to bring our stories and projects to life, with more images, videos and links... offering you a rich perspective on the work **your support makes possible**. We are thankful to you, our donors, who help us ensure that there will always be abundant populations of wild fish thriving in healthy waters for a better California.

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Adaptable, persistent, resilient – Southern California steelhead. CalTrout is working to help this endangered salmonid persist despite the myriad of threats they face.

Cover photo: Will Boucher

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M. Wier

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# On the Brink

## Rainbows of Hope for a Steelhead Tomorrow



Can steelhead and humans not only live,  
but thrive together?

Southern California is home to 22 million people and an amazing Mediterranean-type climate. As more people have moved into coastal areas to take advantage of the great weather and activities, land use has changed, habitat has been fragmented, and the Southern California steelhead has been excluded from its historic range. At one time, this area supported miles of river that are essentially aquatic corridors for steelhead to migrate between spawning sites in the headwaters and the ocean. Due to a variety of threats, Southern California steelhead (Southern steelhead) between the Santa Maria River in the north and the Tijuana River near the border with Mexico were listed as endangered in 1997 by the National Marine Fisheries Service. This region includes CalTrout focal steelhead recovery rivers in Santa Barbara, Ventura and Los Angeles





Alisan Amrhein

*CalTrout Communications Associate*

*Alisan has a masters in Environmental Science and Management from the Bren School, UCSB and has been an invaluable member of the team since she joined CalTrout in 2016 .*

OW



Counties (Santa Ynez River, Santa Clara River, Ventura River, Malibu Creek, and San Gabriel River) and San Diego and Orange Counties (San Juan Creek, San Mateo Creek, Santa Margarita River, and San Luis Rey River).

Can steelhead and humans not only live, but thrive together? The good news is that Southern steelhead are survivors. They have adapted to seasonally dry streams in the semi-arid climate at the extreme southern end of their range. Their amazing resiliency is a major reason why we need to protect this species. They may offer clues that could help other fish populations weather hotter water and a warming climate. Our resident rainbow trout offer ultimate hope for recovery. Wild Southern steelhead genetics have persisted in our landlocked resident rainbow trout, behind dams, roads, and diversions. Reconnecting isolated populations and allowing access to diverse habitat will be instrumental in building abundance and resilience.



# Southern Steelhead

*Oncorhynchus mykiss irideus*



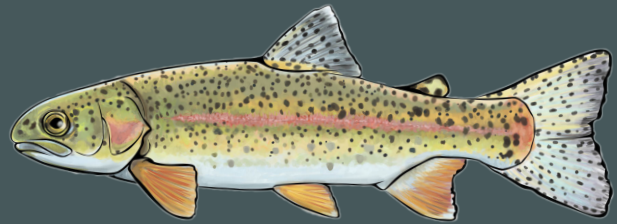
Steelhead are the anadromous, or ocean-going, form of rainbow trout. Like salmon, steelhead make the round trip between fresh water and the ocean but unlike salmon they can repeat this cycle several times. They are born in freshwater, and within twelve months or so some of them experience a physiological transformation known as smoltification. Smolts are destined to migrate to the ocean, and they undergo changes in their physical appearance and their physiology that allows them to survive in the ocean's different salinity. Propelling their migration toward saltwater are the same winter

floods that later will guide them through the country spawning grounds. Steelhead developed larger bodies than other coastal species and are capable of passage through difficult terrain. Historically, tens of thousands of steelhead would return to Southern California rivers, but only a few hundred remain today. Steelhead numbers have declined significantly, and it is rare to see them in the wild. Steelhead is California's native fish.



## What's the difference between steelhead and rainbow trout?

Rainbow trout have two basic life histories with different names: steelhead (anadromous) and rainbow trout (resident). The relationship between steelhead and rainbows is beautifully flexible and complex, making the species one of most successful salmonids in the world, but creating headaches for managers.



Anadromous steelhead regularly produce to resident trout offspring. Resident trout populations regularly produce anadromous smolts. In populations where both forms occur, they regularly interbreed. This varied life history has a strong adaptive genetic basis.

This diversity of life histories appears to be particularly important in California, where both fresh water and ocean environments can undergo dramatic multi-year fluctuations in habitat quality. For example, if survival is low during down-stream migration or in the ocean for an extended period, then resident trout will have an adaptive advantage. If ocean conditions are good and promote high survival and growth, then offspring of migratory steelhead females will predominate in fresh water. Resident trout also thrive above natural barriers to anadromy (e.g., waterfalls) while steelhead can re-colonize streams where resident fish have been eliminated by natural causes (e.g. volcanic eruptions, catastrophic wildfire). In watersheds with both steelhead and wild resident Rainbow trout, the fish are part of a single, complex gene pool, which allows them to adapt to river systems that are highly variable.

Recognizing their diverse domestic and wild origins, the 'Coastal Rainbow trout' is not really a discrete genetic entity. Coastal Rainbow trout are resident Rainbows that mostly inhabit watersheds upstream of natural and man-made barriers without access to the ocean, although robust populations of resident trout are now found in tailwater habitats below dams throughout the state.



*Photo by Barbara Wampole*

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lands upstream. Southern  
onger, more streamlined  
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reams.

ousands of adult steelhead  
n California streams. Today,  
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ild. They are the unicorn of



## Threats at every curve

The Southern California environment has been engineered to serve human needs – reliable water supplies and flood control. The hard-scape impacts of pavement, bridges, dams, and other in-stream structures block and hinder steelhead access to headwater spawning and rearing tributaries and also restrict the emigration of juveniles to the ocean. Estuaries and lagoons, which are critical nursery habitats for juvenile steelhead and important transition zones, have been significantly reduced in size and function in Southern California due to human activities. What little is left of steelhead habitat has been urbanized and degraded through development and land use practices that did not take into account the need for steelhead passage and headwaters residence. These impacts coupled with climate change, competition from exotic species, and severe wildfires have pushed Southern steelhead to the brink of extinction.

These threats are identified in the National Marine Fisheries Service 2012 Southern Steelhead Recovery Plan. Led by CalTrout in partnership with over 50 organizations and agencies, coalitions are now in place to implement the federal recovery plan and set a viable path forward for de-listing the species.





*Photo by Mike Wier*

## Bringing them back from the brink

California Trout is working with Coalition partners to recover the Southern steelhead species by restoring estuaries and riverine habitat, and removing barriers along the entire stretch from headwaters to the ocean. We operate through Coalition Strategic Plans that help prioritize projects in a watershed-level approach; and match project leads with funding sources for efficient implementation. Here is a snapshot of some of our projects that show how we are helping pave the way for the rebound of this important species.






*Photo courtesy Department of Fish and Wildlife*



## Restoring Estuaries

Estuary restoration is key to allow for adequate rearing environment and easier seasonal passage. According to the National Marine Fisheries Service (NMFS), the Santa Clara River estuary is a high priority site for recovery actions to save the endangered species. Unlike most other basins in Southern California, the Santa Clara River continues to produce steelhead smolts. Unfortunately, the estuary has been dramatically reduced in size (15% of its historical extent) and quality due to land development and hydrologic modifications within the watershed since the 1850's. Through the Santa Clara River Steelhead Coalition (SCRSC), the Santa Clara River estuary is the focus of a restoration project led by the Wishtoyo Foundation (a Coalition member). In 2015 Wishtoyo completed a feasibility study to expand and enhance estuarine habitat and restore 30 acres. We participated in design workshops to provide material feedback and review during the study. This project fulfills an immediate steelhead recovery need, while through the SCRSC, CalTrout is collectively assessing long-term and large-scale estuary restoration objectives in light of sea level rise and climate change, along with our partners— the California Coastal Conservancy, the Nature Conservancy, and the National Oceanic and Atmospheric Administration Restoration Center.

 **Restoring Habitat**
 **Removing Barriers**
 **Recovering Estuaries**
 **Land-locked Resilient Trout Population**
 **Litigation**

- ① Solvang
- ② Hilton Creek
- ③ Bradbury Dam/Cachuma

### CalTrout-led Barrier Remediation and Advocacy Efforts

- ④ Matilija Dam Funding Plan
- ⑤ Vern Freeman Diversion
- ⑥ Harvey Diversion Project
- ⑦ Pyramid Dam (FERC State Water Project)
- ⑧ Santa Felicia Dam (FERC)
- ⑨ Castaic Dam
- ⑩ Rindge Dam
- ⑪ Cogswell Reservoir
- ⑫ Trabuco Creek Fish Passage Projects (with TU)

## Restoring Riverine

In Ventura County, CalTrout is focused on restoring one of the most popular rivers for steelhead migratory adults. Sespe Creek has a high diversity of fish species. This diversity and availability of habitat make it as a stronghold under the Northridge Wildlife Foundation has set up a program for planting of aquatic invasive species in a tributary to the Sespe, and also for steelhead recovery in the watershed and in the





## Habitat    Sespe Creek/Rose Valley Lakes

ocused on the upper Sespe Creek and its tributaries. Historically, the Sespe was for fishing and boasted a healthy resident population of steelhead as well as osts the most diverse steelhead habitat in all of the Santa Clara River watershed. i high value habitats led to the designation of the Santa Clara River watershed n American Salmon Stronghold Partnership. A grant from the National Fish and up to complete a feasibility study, the objective of which is to prevent further cies and eliminate warm water habitat in Rose Valley Lakes, a prime spring-fed address four fish passage barriers. This project supports steelhead population creases native species resiliency to future disturbances, such as drought and fire.



# Restoring Riverine Habitat (cont.)

## Santa Margarita River Non-Native Removal

Further south in coastal San Diego, Orange, and Riverside Counties, CalTrout is leading steelhead habitat enhancement efforts in the headwaters of the Santa Margarita River. The Santa Margarita River offers one of the best opportunities for steelhead recovery in Southern California and is a NMFS-designated high priority recovery watershed. This river has year-round flow and pristine headwaters in an undeveloped state. However, it is over-run with non-native aquatic species such as large-mouth bass, bluegill, and crayfish, which are a major threat to steelhead because they out-compete native species for food and prey on their eggs and juveniles. With support from the Southern California Wetlands Recovery Project, Earth Island Institute, and US Fish & Wildlife Service, CalTrout is working with California Department of Fish and Wildlife and the California Conservation Corps to remove non-native species and also reduce sediment in the Santa Margarita River to improve spawning gravels and rearing areas for steelhead.

## San Luis Rey River Water Conservation

CalTrout is also providing a platform to empower Coalition partners to improve watershed health consistent with steelhead recovery. The San Luis Rey Watershed Council is lead on a water conservation and trout habitat improvement project in the San Luis Rey River. This river has special significance for steelhead recovery in Southern California. The West Fork San Luis Rey River has the most southern native rainbow trout population of steelhead lineage in the United States. The nearby tributary Pauma Creek hosts the largest wild rainbow trout population in the region. The water conservation project at the base of Pauma Creek is an innovative pilot project to install a weather station and soil moisture sensors to improve agricultural irrigation efficiency, and do residential grey-water installations throughout the community. The goal of the project is to sustainably manage water availability to residents and businesses while providing habitat protection for the resilient trout and steelhead populations.





To read more about CalTrout's projects to restore Southern steelhead habitat, check out the Spring 2016 issue of the Current.





*I-5 Trabuco barrier in San Juan Capistrano, photo courtesy of Baker, CalTrans*

## Removing Barriers

Fish passage among the complex array of concrete infrastructure that covers Southern California is a major concern for steelhead recovery.

Dams are one of the largest and more cumbersome barriers, since their removal takes a significant amount of funding and planning. The Matilija Dam blocking the Ventura River is one we've had our eyes on for decades. Originally constructed to store water for agriculture, the dam was condemned in 1965, less than 20 years after its construction due to it being structurally unsound. The obsolete dam remains there today, blocking steelhead access to prime upstream spawning and rearing habitat. CalTrout is a long-standing member of the Matilija Coalition, along with Patagonia and the Ventura chapter of Surfrider Foundation. As a member of the Matilija Dam Funding Committee, and with funding from Patagonia, CalTrout helped develop the Matilija Dam Removal 65% Design and Permitting Project that was funded by California Department of Fish and Wildlife Prop 1 Watershed Restoration Grant Program. In April 2017, with support from the Resources Legacy Fund and their Open Rivers Fund, CalTrout developed a Matilija Dam Removal Ecosystem Restoration Project Funding Plan that outlines a funding strategy for the \$118 million program.

Another significant fish passage blockage in Southern California is the Interstate





*Photo by Mike Wier*

5 (I-5) bridge array at Trabuco Creek, a major tributary to San Juan Creek in Orange County. The stream channel runs below an array of five bridges and is present as a concrete flood control channel spanning a quarter of a mile. CalTrout is leading the Phase I engineering design in partnership with Trout Unlimited. The project entails technical studies and engineering design to reconnect fragmented habitats which will enable passage of juvenile and adult steelhead and access to 15 miles of upstream high quality habitat. This project charts a path to integrate natural processes into managed landscapes—creating water management solutions that support wildlife, enhance flood protection, and secure water resources. This approach demonstrates that endangered species are not an inevitable consequence of development, but that ecology and urban infrastructure can co-exist.

## The Future of Southern Steelhead

These are just some of the projects CalTrout and our partners are engaged in to bring back this magnificent fish from the brink. Our headwater-to-ocean recovery approach will ensure the long-term persistence of self-sustaining wild populations of steelhead, ultimately resulting in the removal of Southern steelhead from the federal list of endangered species. The aptitude of this native fish to persevere despite human impacts and climate change threats gives us great hope. Recent restoration interventions have shown success with adult steelhead returning to their natal waters. These incidences of effective

*Photos by Mike Wier*



## WHAT THE SCIENCE SAYS

In this column we highlight important scientific publications, by CalTrout staff and others, that expand upon our understanding of the management or science regarding trout, steelhead and salmon in California.



By DR. ROB LUSARDI

*CalTrout/UC Davis Wild &  
Coldwater Fish Research Lead*



and DARREN MIERAU

*CalTrout North Coast Director*

# Instream Flows

A new regional approach

Defining protective stream flow requirements (environmental flows) for native trout and salmon is often a source of contention in California. This is particularly amplified in agricultural landscapes where the demand for water is increasing and precipitation patterns are changing. To complicate matters, California's Mediterranean climate is highly variable, providing the vast majority of water during winter with little precipitation during the summer growing season. This supply-demand mismatch means that water for fish and agriculture is often at a premium during California's long, dry summers.

Quantifying environmental flows for salmon and trout in California has traditionally focused on regulated rivers where hydropower and water storage dams require flow release prescriptions, but is complicated in unregulated watersheds where water availability and streamflow requirements vary by





n and key features that enhance stream biodiversity below dams

region, watershed, and species. Additionally, there are numerous “competing” methods to quantify ecologically protective streamflows. One thing most biologists agree on is that environmental flows should reflect the natural variability of a river’s hydrograph (e.g., the size and frequency of a flow event, the timing and duration of those events, and the rate of change of those events). Less clear, however, is 1) exactly how much water can be diverted without negatively affecting stream ecology and 2) which attributes of a river’s hydrograph are necessary to capture when designing environmental flows for regulated rivers.

Two recent published papers in the latest edition of *Freshwater Biology* address these questions and others.

*Photo by Mike Wier, South Fork Eel*



### How much is enough?

Mierau et al. (2017) present a regional water allocation method called Modified Percent of Flow (MPOF). The method is particularly applicable to the North Coast of California, a region that has experienced immense growth in agriculture (orchards, vineyards, and cannabis) and increasing demand for irrigation. The region also supports three federally listed species: steelhead, Coho and Chinook salmon. Increasing flow diversions have compromised aquatic habitat for these species, particularly during the summer and early fall low-flow seasons. MPOF differs from other instream flow methods in a couple ways. First, most percent of flow methods recommend a fixed percentage of flow for diversion. Yet, these fixed percentages are not readily defensible and, in some cases, may be arbitrary. Second, and related, POF methods generally do not link fixed diversion percentages back to meaningful ecological criteria. The MPOF method presented in Mierau et al. (2017) improves on earlier methods by defining the total amount of water available for diversion in a watershed as a percentage of a streamflow baseline and, importantly, links those cumulative diversions to aquatic habitat for fish. Specifically, the method directly links cumulative diversions to effects on stream depth referenced to the riffle crest, an important hydraulic feature for salmonids. Because the method uses daily flow data to construct a streamflow baseline, the method is also well suited for the variable hydrology that characterizes North Coast watersheds. Although developed specifically for North Coast watersheds, MPOF may also be calibrated for use in central and south coast watersheds and perhaps elsewhere.

In a second paper that was published in the same issue of *Freshwater Biology*, Steel et al. (2017) studied the effects of different flow regimes on stream food webs in the Central Valley's American and Yuba River watersheds. The authors examined the effects of regulated (dammed) and unregulated (undammed) flows on downstream food webs over three years during the summer low flow period. Specifically, Steel et al. (2017) sought to understand whether the flow regimes of regulated and unregulated rivers promoted differences in biodiversity and, if so, could those differences be attributed to specific components of the flow regime?





*Photos by Bob Hickox*



### Science informing policy

The authors found pronounced differences in the food webs of regulated and unregulated rivers, with unregulated rivers generally supporting higher rates of biodiversity. When they looked closer at the flow regimes of each river, they found that the spring snowmelt recession (the period of snowmelt during spring) was most strongly correlated with ecosystem biodiversity. The findings are important because they suggest that the spring snowmelt recession, despite receiving little attention in environmental flow management, is critical to promoting healthy and robust river ecosystems. The results also suggest that the spring snowmelt recession should be incorporated into environmental flow targets in order to enhance aquatic biodiversity, particularly in large regulated snowmelt-dominated rivers.

Instream flow science has developed over the last several decades. Importantly, today's methods are beginning to link environmental flows to ecological indicators and biological response. The papers presented here are important because they are either regionally specific and can be incorporated quickly into environmental flow planning or shed new light on how flow regimes affect biodiversity in California rivers. To that end, these publications are informing instream flow policy throughout the state and empowering regulators to set ecologically protective flows that are scientifically defensible to protect salmon and trout, particularly during periods of resource conflict.

*Dr. Robert Lusardi is the California Trout-UC Davis Wild and Coldwater Fish Scientist and Darren Mierau is California Trout's North Coast Director.*

The original articles are currently available as early online view in *Freshwater Biology*:

Mierau DW, WJ Trush, GJ Rossi, JK Carah, MO Clifford, and JK Howard. 2017. *Managing diversions in unregulated streams using a modified percent-of-flow approach*. *Freshwater Biology* 2017; 1-17.

Steel, AE, RA Peek, RA Lusardi, and SM Yarnell. 2017. *Associating metrics of hydrologic variability with benthic macroinvertebrate communities in regulated and unregulated snowmelt-dominated rivers*. *Freshwater Biology* 2017; 1-15.



Protect Strongholds • Restore Headwaters • Wild Fish, Working Landscapes

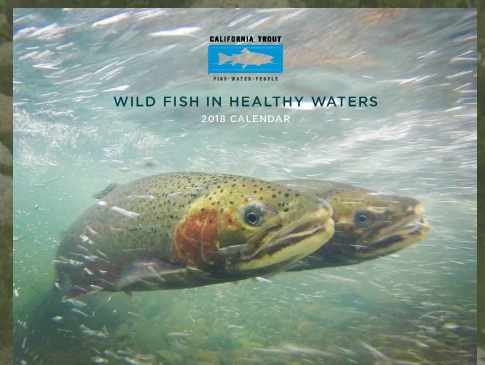


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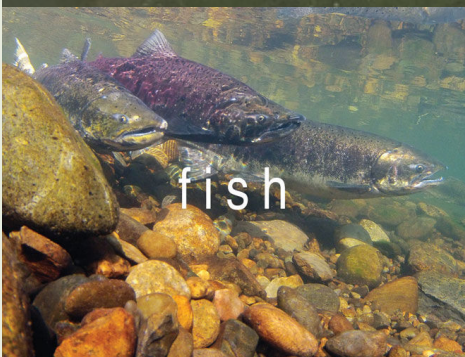
Our recently published *SOS II: Fish in Hot Water* report made clear that our native fish need our support now more than ever.

CalTrout is championing Sierra meadow restoration to benefit not just native fish like the Golden trout, but all wildlife living in meadows.

*Your gift today* will help ensure wild fish thrive for future generations to experience.



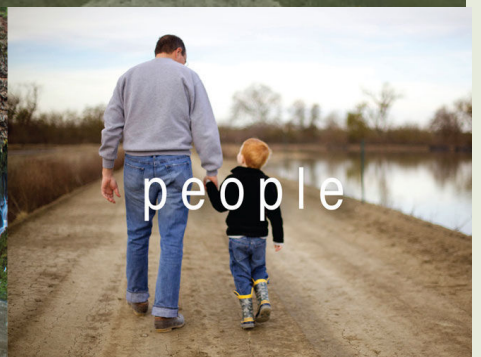
Support CalTrout today and receive a 2018 calendar



fish



water



people





## 2017 Five Rivers Challenge ends in a tight race

That's a wrap on the 2017 Five Rivers Challenge! Six teams, three days, five of the best blue ribbon trout waters in the country and nearly 3,500 inches of wild trout caught. This is the second year of the event's resurrection which originated back in 1998 by CalTrout board member Dick Galland. Owner of Clearwater House at the time, he created the event to call attention to the great wild trout waters in the Burney area of Northern California, between Mt. Lassen and Mt. Shasta.

As teams headed out for the third and final day of fishing, they all felt they had a shot to bring home the prize, and indeed they did. While the team that held first place for the first two days, Frank Eldredge and Bill Zuraleff (both members of San Jose Flycasters club) guided by Dave Neal, had caught 421 fish inches, the second place team of Les Hand and George Revel guided by Brooks Provence were only 38 inches behind and still had the productive McCloud and Upper Sacramento rivers to fish. As well, the third through fifth place teams were separated by only 22 fish inches going into the final day. It was a tight race.

The leaders had their free water in the morning, choosing to fish the Pit, and Fall River in the afternoon slot. Neither were that good to them. George and Les on the other hand, well, let's just say they slayed it on the Upper Sac, catching 222 fish inches there alone. They topped that off with another 162 on the McCloud. Meanwhile, the sleeper team of Richard West and Dan McMillan guided by Jason Cockrum, who were in fifth place after two days, crushed it on the Fall River reeling in 240 inches for the final day and launched them into second place.





*Photo by Val Atkinson*



## EVENT



You'd be hard pressed to find a more perfect spot for an event like the Five Rivers Challenge than the Clearwater Lodge and surrounding waters. Beyond its impeccable host Michelle Titus and delicious food prepared by Nicole, the lodge is centrally located to some of the most beautiful and diverse wild trout waters in the country. Where else can you be tottering through baby head boulders on the Pit one day, casting into emerald green pools of the McCloud the next, and feeding line for the perfect drift from a boat on the Fall with Mount Shasta in perfect view the following?

Thank you to the participants for supporting CalTrout and taking an interest in our work; to the event sponsors Patagonia, Sage, Redington, and Rio for donating prizes; and to Michelle Titus at Clearwater Lodge for her graciousness and hospitality.

After all was said and done, the winners of the 2017

Five Rivers Challenge

### **1st Place**

Les Hand and George  
Brooks Provence with

### **2nd Place**

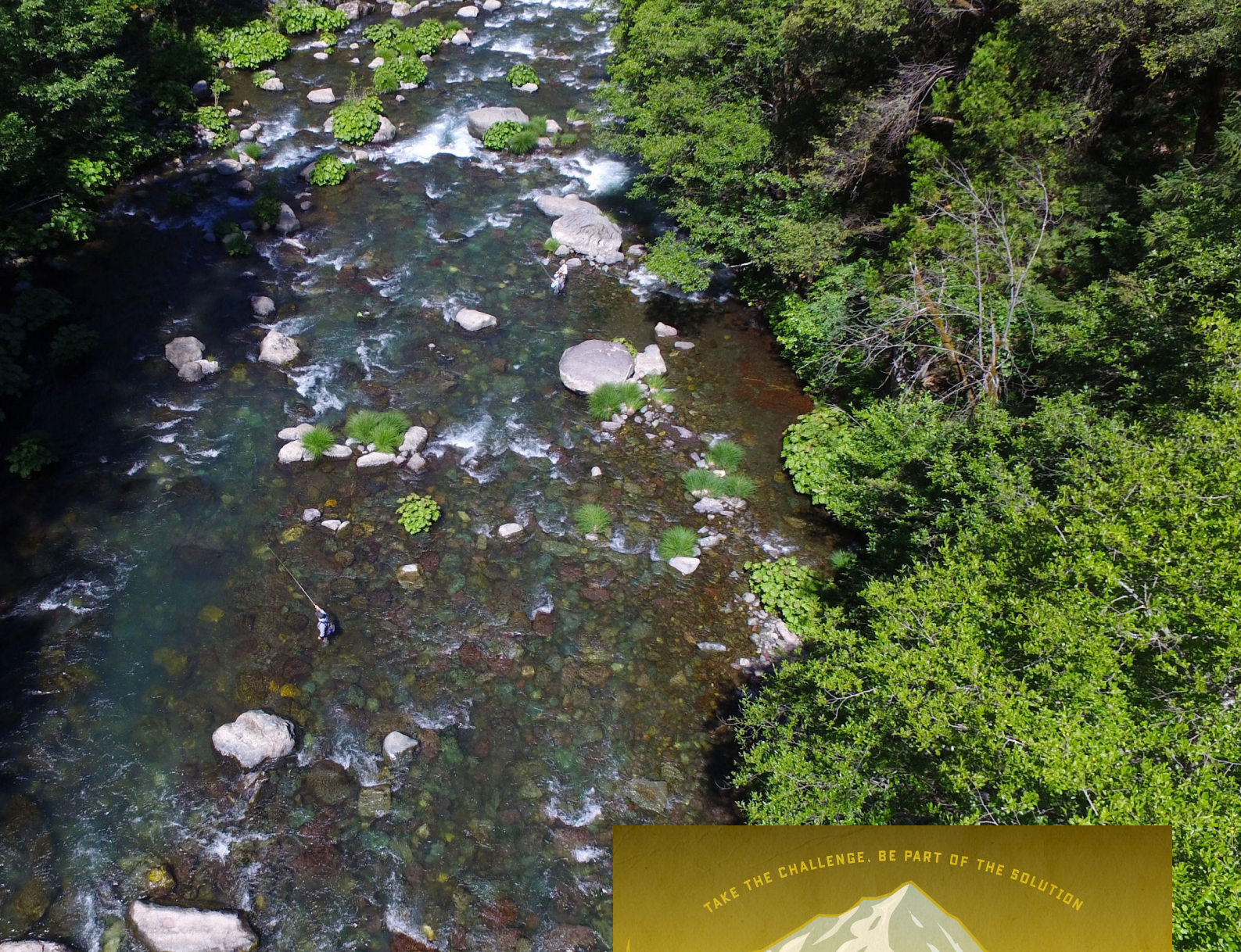
Rich West and Dan  
Jason Cockrum with

### **3rd Place**

Geof and Laura Wy  
Mike Peters with 54

**Register now**





ge were:

ge Revel with Clearwater Guide  
with 788" of fish caught.

McMillan with Clearwater Guide  
h 555" of fish caught.

att with Clearwater Guide  
48" of fish caught.

y for next year's event >

TAKE THE CHALLENGE. BE PART OF THE SOLUTION

CALIFORNIA TROUT

**FIVE RIVERS**  
CHALLENGE

U.SACRAMENTO / McCLOUD / PIT / HAT / FALL

HOSTED BY  
CLEARWATER LODGE

**JUNE**  
19-23  
2018

GREATEST INCH TOTAL WINS!

SWAG & PRIZES BY:  
PATAGONIA / SAGE / REDINGTON / RIO  
LOON / NATURE BOY DESIGNS

patagonia CLEARWATER LODGE  
CALTROUT.ORG/5-RIVERS-CHALLENGE/





# Legacy Giving by Richard May

Dear fellow CalTrout supporters, this is my story...

Each of us has one, and whatever yours is, I'm hoping you will join me in considering making your own legacy gift to CalTrout. Typically that would be through a Will or Trust, like I am doing, but it could be anytime with good advance Estate Planning.

I'm a local guy, born in Berkeley, raised in Oakland, high school in Lafayette, earned a business degree at Cal Berkeley in 1957, followed by two years military service as was customary in that decade.

I can't say exactly what brought me to a love of trout and fly fishing for them. I caught my first one at age ten but it wasn't until I was out of the Navy and had begun a San Francisco business career that my passion and concern for trout and the natural systems that support them was truly sparked. Noontime meetings with fellow anglers at a downtown fly shop, where we swapped fishing

glories (yes, some were discussions about the sport: water development; pollution; excessive bag activities were quickly d California to sustain qual To us, loading up hatch inbred rainbow trout was

Soon, a few of us coined "Trout Management," formed and went to work to force we feared.

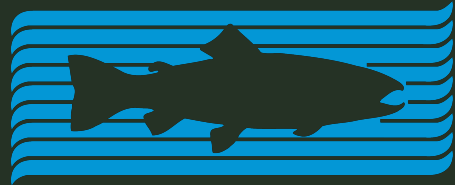
What followed over the game changing: the pre Wild Trout Project; The W of premium waters given California Wild and Scenic



*Left: CalTrout's founder with a beautiful fish in undisclosed location (he will never tell exactly where).*

*Far left: The young Richard May surviving his first catch. The fish, unfortunately, did not!*

**CALIFORNIA TROUT**



**FISH · WATER · PEOPLE**

*The Richard May  
Legacy Circle*

e lies), soon evolved to mounting threats to our pment; deforestation; limits; and other human iminishing the ability of ility fishing for wild trout. very trucks with inferior s not the answer.

the concept of "Natural ned California Trout, Inc. efully change the future

next twenty years was edent setting Hat Creek ld Trout Program; dozens special management; The c Rivers System (including

federal status); successful promotion of catch-and-release as the modern angling ethic; The Smith River National Recreation Area; and much more.

I made big changes in my life to make good things happen for wild trout against a tide of threats to those remarkable critters. Sold my insurance business, led CalTrout first as a volunteer, then first employee, because in our sport "It's About The Fish" and we need to sustain and maintain them through the ages.

That is why I have arranged a legacy gift to CalTrout. It's like paying off an IOU for all the pleasure those fish have given me and those with whom I shared the joy. Consider making your own legacy gift. Join me in The Circle.

Contact Julie Seelen for more info: [JSeelen@caltrout.org](mailto:JSeelen@caltrout.org), 415-392-8887 xt102.

*R. Valentine Atkinson*



*"The successful recovery of any threatened species requires cooperation from many parties. I'm confident that the remarkable range of stakeholders working together in this Partnership bodes well for the future of salmon and steelhead in the Central Valley."*

*- Secretary of Natural Resources John Laird*

## Busy Day in the Capitol

It was expected to be a sweltering day on the State's Capitol, not unusual for late August. But today, Tuesday, August 29, things were already heating up on the Capitol Lawn before 9 am. It was a big day for CalTrout, kicking off with the signing of the Central Valley Salmon Habitat Partnership (CVSHP) charter. California Secretary for Natural Resources John Laird along with a broad group of stakeholders gathered to officially launch the Partnership. The CVSHP includes state and federal water and wildlife agencies, farmers and water suppliers, fishermen, and conservationists working together to restore and protect vital salmon habitats.

Central Valley rivers and their tributaries have been, historically, the third-most productive region for salmon on the West Coast. However, native salmon runs and steelhead populations have declined drastically here. Today, two of the four distinct runs of Central Valley Chinook salmon, as well as steelhead, are listed as threatened or endangered.





These fish migrate between inland rivers and streams and the ocean for different parts of their lives. In the process, they face many challenges including blocked access to spawning grounds; a lack of cold water at critical times of year; and a dramatic reduction in habitat. Quality habitat is vital for providing food and shelter for young salmon to grow and for adult salmon to spawn. The Partnership will use its combined expertise to improve salmon habitat and support widespread recovery of Central Valley salmon and steelhead.

The Partnership's first order of business will be to identify, find funding for, and execute the best opportunities to improve salmon habitat. The group is modeled after the highly successful Central Valley Joint Venture through which a similar group of stakeholders has been working for decades to recover native and migratory bird populations. Partnership members provide expertise on a broad range of issues, from scientific study to securing permits for habitat restoration.



## Science-based, collaborative approach

*"This group will take meaningful, decisive action to restore the types of habitat – in the right places – that these fish need to survive and even thrive,"* said Curtis Knight, Executive Director of California Trout.

By approaching habitat restoration in a collaborative, outcomes-based manner, the CVSHP hopes to see meaningful improvement in habitat conditions relatively quickly. An implementation plan will highlight measurable, geographically-specific goals within a set time frame to improve the prospects of these fish. Because both public agencies and private organizations are currently involved in habitat restoration, this unified approach ensures that the most important projects will be implemented first, maximizing opportunities for native fish to recover.







## 7th Annual Casting Call on the Capitol Lawn

CalTrout and Trout Unlimited's Casting Call is a great way for legislators to meet with our organization and members of the public, raising awareness for, and celebrating, California's native cold-water fish populations. Through our work, and by developing positive relationships in Sacramento, CalTrout has become the go-to organization for legislators for guidance on issues pertaining to fish, water, and people.

The highlight of Casting Call is the casting competition. Out on the Capitol lawn, Assemblymembers, Senators, and natural resource agency members braved the Sacramento heat and joined us for casting lessons and a friendly competition. The winner of this year's casting competition was the Department of Fish and Wildlife

squad with an assist from Senator Dodd (*photo at left*).

CalTrout Executive Director Curtis Knight and Trout Unlimited's Brian Johnson also met with legislators throughout the day to discuss issues our organizations support such as: securing funds for Central Valley multi-benefit projects in Senate Bill 5 (in which CalTrout was wildly successful!); securing funding for wetland and mountain meadows in the Greenhouse Gas Reduction Fund budget process; Senator Mike McGuire's Senate Joint Resolution 7 which supports California's commitment to establish salmon and steelhead support from the federal government; as well as many other water conservation initiatives.

*Photos by Mike Wier*



# Legislation and Advocacy

Shaping policy to protect fish and their waters

CalTrout has a strong history of advocacy. From spearheading the “committee of two-million” to pass the Wild and Scenic Rivers Act in 1971 to having a strong voice in the successful push for a portion of the tax revenue from marijuana sales under Prop 64 to go to conservation efforts. This has been a particularly exciting year in the California legislature. There has been a whirlwind of activity in the environmental sector including support for a bill aiming for a complete overhaul of the California Environmental Protection Act to reflect the potential gutting of the federal standard, and more niche efforts to revamp the salmon and steelhead report cards. While this is exciting, it makes for a crowded field where it is difficult to predict what will pass.

That being said, CalTrout has been successful in its advocacy this legislative cycle. We’ve influenced active legislation, participated in key stakeholder meetings on issues ranging from marijuana flow policy to greenhouse gas legislation, and worked to create and foster relationships with legislators. Here is a peek into some legislation that has been passed into law, awaits the signature of the Governor, or is headed for the ballot in June of 2018:

## BUDGETARY PRIORITIES

### **SB 144 (McGuire and Wood): Salmon and Steelhead Report**

#### **Card**

CalTrout has worked with California Department of Fish and Wildlife and supports McGuire and Wood’s SB 144, which was signed by the Governor in September and extends the steelhead report-restoration card system until 2022. The program charges anglers \$5 annually, tracks angling trends, and creates funds to be used for restoration work throughout California. The expenditure of the funds must be used for projects that benefit both steelhead populations and the angling community. CalTrout is committed to making sure this funding mechanism remains a valuable tool to support our work throughout the state.

**STATUS: Signed by Governor in September 2017.**





The Woodman Creek fish passage project is the type of salmon and steelhead restoration work that could be funded with the continuation of the Salmon and Steelhead Report Card Program.

*Photos by Mike Wier*



### LEGISLATIVE PRIORITIES

#### **SB 5 (De Leon): Park Bonds**

One of the largest environmental efforts this legislative cycle was the collision course of two large park bonds in the senate and the house. On the senate side DeLeon introduced SB 5: California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018; and on the house side Assemblyman Garcia introduced AB 18: California Clean Water, Climate, Coastal Protection, and Outdoor Access For All Act of 2018.

Luckily for the legislature and environmentalists alike, Assemblyman Garcia agreed to fold his measure into SB 5 and it just inched over the finish line thanks to support of environmental groups and the leadership in Sacramento. The bill was passed well after midnight on the final day of the session after a hectic week of negotiations and compromises.

This is far from the end, however, as this bill heads for the polls in June of 2018 and still needs the anticipated, but not executed, signature from Governor Brown. A committee has been formed to support the ballot passing in June 2018, and CalTrout remains an active supporter as it heads towards the vote next summer.

**STATUS: Bill passed. On ballot in June 2018.**

#### **SB 667 (Atkins): Department of Water Resources: Riverine and Riparian Stewardship Improvements**

Senator Atkins of San Diego has been an avid supporter of fisheries restoration and CalTrout has worked with Atkins to make sure SB 667 will have a positive impact on promoting restoration throughout California. SB 667 will allow closer coordination with agencies on restoration and fish passage projects and should facilitate technical and financial assistance to entities like CalTrout who implement watershed-based riverine and riparian stewardship projects.

**STATUS: Passed the legislature. Signed by the Governor in October 2017.**





\$30 million is slated for the removal of Matilija dam in SB 5, the parks bond. Vote YES on SB 5 this June.



Fisheries restoration and fish passage projects will be funded with the signing of SB 667.

*Photos by Mike Wier*



### **SB 49 (DeLeon and Stern): California Environmental, Public Health, and Workers Defense Act of 2017**

Without diving too deep into the impetus for this bill, the government of California dove in head first to preserve the federal protections that might be on the chopping block in Washington D.C. SB 49 makes existing federal laws like the Clean Air and Water Acts, enforceable under California law. CalTrout, along with many conservation groups, was tasked with analyzing which federal standards are essential to preserving California's freshwater ecosystems. Although there are concerns which we hoped SB 49 will address, CalTrout is pleased to write that California already has a healthy host of environmental protections encoded into law. SB 49 was ultimately rejected by the legislature, partly due to the success of the passage of the Park Bond and the packed schedule. California is still susceptible to major blows to federal environmental protections, and this bill should resurface if we lose any ground in D.C.

**STATUS: On hold.**

### **Senate Joint Resolution 7 (McGuire)**

Passed by the legislature and signed into action by the Governor, this measure urges state and federal departments and agencies responsible for the stewardship of public resources, as specified, to make collaborative, statewide salmon fishery restoration an urgent and high priority. The measure also urges the federal government to undertake all appropriate measures to provide necessary disaster relief for California salmon fisheries for 2017.

**STATUS: Passed legislature. Signed by the Governor.**

### **AB 109: Greenhouse Gas Reduction Fund**

CalTrout supported amendments in AB 109 to make sure that the Greenhouse Gas Reduction Fund bill approves various investments to fight climate change. Besides the potential funding pot, the recognition of mountain meadow restoration as an important step towards combating climate change supports and verifies our Sierra Office's greenhouse gas work.

**STATUS: Passed legislature. Awaits Governor's signature.**





Salmon fisheries benefit from Senate Joint Resolution 7

*Photo by Glenn Kubacki*



Mountain meadow restoration, proven to combat climate change by sequestering greenhouse gases, could get funding through AB 109.

*Photo by Mike Wier*





EEC  
Environmental &  
Energy Consulting



Reed Addis  
*Principal, EEC*

California Environmental and Energy Consulting (“EEC”) works with non-profit organizations and other natural resource groups to support their policy and advocacy agendas in California and Washington D.C. We have partnered with CalTrout since our formation and have enjoyed a great working relationship.

Working with CalTrout offers a unique opportunity to engage with water conservation, fisheries, and agency folks in addition to fostering relationships with members of the legislature. Our work with the organization includes making connections with legislators in all of CalTrout’s regions, influencing legislation and budget plays that affect CalTrout’s mission, and generally working with CalTrout to ensure that the organizations legislative priorities are being addressed each year.

As we look back at a packed legislative cycle in 2017, you can be sure of one thing about the policy and political landscape; it certainly hasn’t been boring! January saw the inauguration of a new President, and with him, new appointments and policy and budget proposals. There have been a series of high level appointees in the natural resources and water agencies, such as the lifelong hunter/fisherman Secretary Ryan Zinke. However, as of October 1st, 10 of the 17 highest level appointments at the Interior Department still need to be filled, including the US Fish and Wildlife Service Director. The President’s proposed budgets would significantly impact natural resources priority investments. And certain policy proposals related to the Endangered Species Act and Waters of the United States could undermine progress we’ve made in past years.





Photo by Mike Wier



## DONOR PROFILE

Click to  
**JOIN John**  
in supporting  
CalTrout



**John Tobin**  
**Pasadena, CA**

CalTrout Member since 2005

If you ask me why I have long supported CalTrout, I only need to review the waters I have been regularly fishing since the 1980's to be reminded. The Owens River, Hot Creek, the Kern and Kings rivers, the creeks of the Golden Trout Wilderness, and in my own backyard here in southern California, the West Fork of the San Gabriel River. Each of these has been the beneficiary of CalTrout's commitment to "protect and restore" trout, especially native trout, and their habitat. From riparian fencing on the Owens and Kern rivers, to restoring alpine habitat for Golden trout, to returning water to Mono Lake (and thereby establishing an important legal precedent for stream flows) and to the Owens gorge, CalTrout has been a major force. As the Conservation Chair for my local fishing club, the Pasadena Casting Club, I am especially grateful for CalTrout's long-standing commitment (almost 30 years now) to the West Fork Long-term Management plan, to which they are a signatory. And just to round off the list, here are two more reasons, items which younger or more recent fly fishers might take for granted: California's Wild Trout and Heritage Wild Trout programs, and the development of the Catch and Release ethic in fishing.

Thank you, CalTrout!



### *EEC Partner Profile (continued)*

At the State level, we worked hard on CalTrout's behalf to capitalize on the California Legislature's appetite for environmental protections from potential federal rollbacks. Governor Brown and legislative leaders did not disappoint. We supported the passage of a Senate Joint Resolution 7 which reaffirmed California's commitment to salmon and steelhead rehabilitation, inserted language into a greenhouse gas restoration fund that will protect mountain meadows now and into the future, extended the steelhead report card fund until 2022, and influenced countless other pieces of legislation on behalf of CalTrout. Additionally, a resolution was reached on a \$4.1B water and parks bond, which provides hundreds of millions for multi-benefit flood control projects, water acquisition, fisheries enhancements, funding to support CalTrout's Central Valley Salmon Habitat Partnership, and many other natural resource priorities. This measure will be placed before the voters in June 2018, and we encourage Californians to vote YES!

2018 will provide both opportunities and challenges. Here at home we will be instrumentally involved in the bond campaign through June. At the same time, the Legislature will reconvene to discuss thousands of bills, many related to water operations and natural resources management. At the federal level, the midterm elections may alter the calculations and agendas on Capitol Hill. Meanwhile, the President's agenda should hit its stride at the agency level as appointments get filled in and policy implementation continues.

EEC is proud to work with the staff and volunteers at CalTrout, protecting our natural resources, clean water, meadows, and wetlands, and supporting innovative working partnerships that combine the benefits of agriculture, flood control, and fisheries.

**If you are 70 1/2 or older, you can make a tax-free distribution from your IRA.**

If you are 70½ or older, you can make a tax-free distribution from your traditional or Roth IRA to CalTrout. You can donate without incurring income tax on your withdrawal – it's an efficient way to support the causes that matter to you most.

**CALIFORNIA TROUT**



FISH · WATER · PEOPLE

Request more information today, email or call Julie Seelen at 415.392.8887 xt 102 or [JSeelen@CalTrout.org](mailto:JSeelen@CalTrout.org)





# Spot Check

By MIKEY WIER

## Legends of the Fall

Did you know the Fall River is the largest spring-fed river in the western United States? Several icy aquifers coming from the snow and glaciers of Mount Shasta sustain the Fall River's flows. As such, it also holds one of the largest populations of wild trout! In fact, it is designated a Wild Trout and Heritage Trout fishery by the Department of Fish and Wildlife and is world famous for its large hard-pulling Rainbow trout.

The Fall River winds 21 miles through a lush valley near the city of Fall River Mills in the northeast corner of Shasta County. The Fall is the largest tributary to the Pit River and was originally named by explorer John C. Fremont for the cascades where it abruptly "falls" from the low gradient valley plateau and drops into the Pit River canyon.





As a kid I heard legends of the Fall River spoken in fly fishing lore. I heard about the prolific hatches and consistent dry fly fishing; the crystal clear, cold meandering waters; the epic hex hatch in the early summer; and the massive Rainbows and occasional browns. These stories were mostly told by wealthy anglers who flew into private airstrips and only fished with guides from private estates along the river. As a young angler and guide I didn't have those kinds of resources. My impression of the Fall River was that it was basically a private playground for rich fly fishers. Now that I've had the chance to spend more time up there, some of my early perceptions remain, but some have changed. While the river is mainly surrounded by private property, there is also public access and fishing opportunities for the DIY angler as well.

*Photo: Mike Wier*





## Spring Source Waters

As a devout California fly fisher it's almost embarrassing to admit the first time I visited Fall River was only 5 years ago when I started working with CalTrout. While on a tour of CalTrout projects in Northern California, I was invited to a talk by our Mt. Shasta Regional Director Andrew Braugh and Carson Jeffres from UC Davis Center for Watershed Science. It was eye-opening to hear all about the volcanic aquifers that feed thousands of gallons of cold spring water into the Fall River and how some of the water is sent to the valley for agriculture. The rest then goes on to generate power through several stations along the Pit River, eventually making its way into Shasta Reservoir. From there, it moves down the Lower Sacramento River and into the State Water Project, the nation's largest state-built water conveyance system that fuels urban hubs, even all the way down to Los Angeles! That's when I began to view the river as more than just a fun place to fish. Turns out that the Fall River is one of California's most valuable spring source water resources and, as such, deserves special management and protection. California Trout has been an instrumental force in protecting the wild trout and cold water resources for over 40 years.





## Fall's World Class Fishery

As far as the fishing goes, it's world class! The cold spring waters support a huge biomass of aquatic insects. There are hatches every month of the year that provide anglers with opportunities for dry fly fishing in the morning, evening, and sometimes all day long! If the fish aren't rising you can always entice a bite with well-presented nymphs or slowly swung and stripped streamers. Dead drifting nymphs under an indicator with a downstream bump mend feeding line is the most effective technique. A variety of bugs will produce fish, but your most consistent eats will usually be small mayfly patterns and beatle imitations.

As you slowly motor, row, or drift along through the crystal clear waters you can see dozens of trout hovering around and moving above the weed beds and muddy shoals. You'll soon realize that if you're not getting bites, it's not because a lack of fish. You just need to refine your technique or wait for a hungry one to see your bugs.

*Photos in Spot Check by Mike Wier*





## Accessing the River

The best way to access the river is by boat. The majority of anglers either fish with local guides, own property there, or know someone with property that has river access. But if you're a DIY guy, you are in luck! As far as I know, CalTrout owns the only public access and boat launch on the Fall River proper. And it's free! Several years ago CalTrout bought a small piece of land and maintain it as a launch point that is open to the public. The only hitch is you cannot launch motorized boats. Only human or electric-powered craft can launch from the CalTrout property. Luckily there is great fishing within close proximity in both directions.

If you're new to Fall River and have the means, I'd recommend going out with a guide. There's no shortage of great guides in the area. They will have a boat already parked somewhere on the river with private access. The last few times I fished Fall River was with the guides from Clearwater Lodge. They are all awesome and have been great sharing knowledge and expertise of the fishery. I'd also recommend staying a night or two if you can. Michelle, owner of Clearwater, runs a great operation. The Lodge is a beautiful historic building right on the Pit River and just ten minutes from Fall River. The entire property is more like a park, plus the cuisine they serve is the talk of the town. That's almost worth the price of a stay right there! There's also a small restaurant in Fall River Mills called Crumbs that's worth a stop.

## The Hex Hatch

If you're looking for a truly unique experience, come during the hottest parts of summer for the hex hatch. *Hexagenia limbata* is the largest species of mayfly found in North America. They hatch typically in late July and through August. The lodge offers special two hour hex trips after dinner. Typically, you will leave around 7:30 to reach the water for the last hour of light. As the afternoon winds calm down and the setting sun paints the clouds, you will buzz out across the still waters and find a nice place for the fireworks. As darkness starts to set in you will hear giant gulps. If you didn't know better you might think the sounds are from beavers slapping their tail. But in fact it's actually giant rainbows absolutely crushing two inch long bright yellow mayflies. (continued on page 58)









# Craig's Corner

by Craig Ballenger, CalTrout Ambassador

## Forces of nature

When you hear boulders boom as they slowly tumble beneath the pressure of water during a mountain river flood, it sinks in why river rocks are smooth and round. The forces of water and erosion are astonishing. Geologic events are right before your eyes and in your ears.

Jeffery Mount of the Public Policy Institute of California calls this State "North America's most variable climate." Drought, flood and fire come to mind, with earthquakes and volcanic eruptions tossed in as well.

Flood in particular, raise questions about the survival of trout, steelhead and salmon during such events. The Pacific Rim in general beg the question of how such species exist instead of ending up as





an evolutionary dead end eons ago. Any creature surviving beneath the water at such times seems dubious.

Each time, as an angler, you touch even a small wild trout, a window into the life of an extraordinary creature is before you. Few have the opportunity of close contact with such an iconic creature. We're fortunate that landing a wild trout is not as unlikely as finding a wallet in a mall.



REFLECTIONS

Winners of the 2017 CalTrout Photo Contest

GRAND PRIZE WINNER: WILL BOUCHER, "*Steelhead Siz*



REFLECTIONS



ing Each Other Up"





REFLECTIONS

Winners of the 2017 CalTrout Photo Contest

PEOPLE'S CHOICE AWARD: PHIL REEDY, *End of a Perfect*





ct Day





REFLECTIONS

Winners of the 2017 CalTrout Photo Contest

BEST PICTURE WINNERS









## CALTROUT VIDEO VAULT



## EPIC PROMISE DAYS

This year CalTrout partnered with Kirkwood Mountain for their Epic Promise Day on September 16th. We helped lead a team of 112 volunteers to do some restoration activities in the Kirkwood Meadow.



## SOUTHERN STEELHEAD - AGAINST ALL ODDS

CalTrout produced ocumentary about one of California's most magnificent and endangered native fish species.



## SURFING THE WEB

### A RIVER'S LAST CHANCE

By Shane Anderson North Fork Studios - A film about salmon, timber, weed, and wine along Northern California's Eel River.



### STEELHEAD LIFE HISTORY

By Santa Clara River Steelhead Recovery Coalition - The first of 5 Water Talks in 2017 featuring presentations from the experts on fish and water-related issues in Southern California.



# Who We Are

## IN THE SPOTLIGHT



**PATRICK SAMUEL** *Bay Area Program Manager*  
Patrick Samuel has been with CalTrout since 2015 and recently took on the role of Bay Area Program Manager. Patrick was a key contributor to the *State of the Salmonids II* report published in partnership with UC Davis Center for Watershed Sciences. Patrick and his wife Lauren have a 1 1/2 year old son, Leo, and live in the Redwood City. In his free time, he loves to fly fish, of course!

Photos: Mike Wier

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 Dr. Rob Lusardi, Leader, CalTrout/  
 UC Davis Wild Fish Partnership

##### Humboldt State

Dr. Walt Duffy  
 Dr. Bill Trush

##### UC Merced

Dr. Steve Hart

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Dr. Sudeep Chandra

##### UC Santa Barbara

Dr. Tom Dudley

##### Sacramento Advocacy Consultants

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## Spot Check *continued from page 47*

At first you will start to see rings here and there. Then you'll notice some bugs in the air and the gulping will get more intense. By dark the entire river will be covered in bugs and spent shucks and you won't be able to distinguish your fly from the naturals. There's typically a sweet spot window that lasts anywhere from 30 minutes to an hour when the fish are most active and you can see your fly easily. By the end of the night there will sometimes be so many flies on the water you can try just throwing yours out, lift when you hear a gulp and hope for the best. Eventually the fish gorge on so many flies they get full and stop eating. If you get a couple fish, it's a good session, but I assure you the size and quality of the fish will blow your mind. Fishing the Hex hatch is unreal! It's an experience all fly fishers should experience at some point.





# CALTROUT GEAR

\$22



\$25



\$20



CALIFORNIA TROUT  
  
FISH · WATER · PEOPLE

2017

\$30

\$10







*R Valentine Atkinson*

Thanks for spending time with  
*The Current*

Please send us your emails, photos  
and comments to [current@caltrout.org](mailto:current@caltrout.org)  
We want to hear from you!