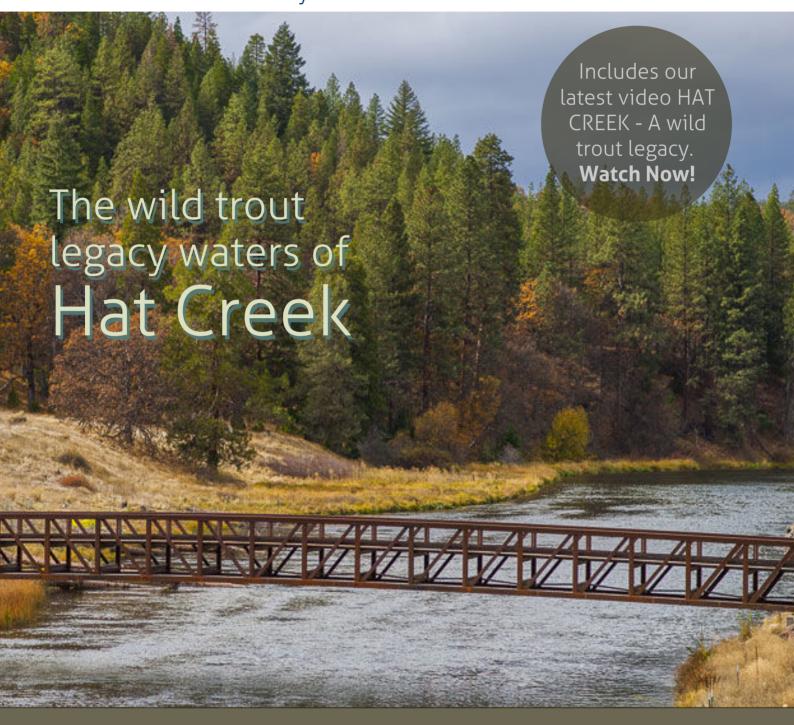
the Current

CALIFORNIA TROUT



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LEGISLATION

An update on the bills we're following in Sacramento



WOODMAN CREEK

Reconnecting 14 miles of key salmon and steelhead habitat in the Eel watershed

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 ensure there will always be resilient wild fish thriving in healthy waters for a better California.

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Cover photo: Mike Wier

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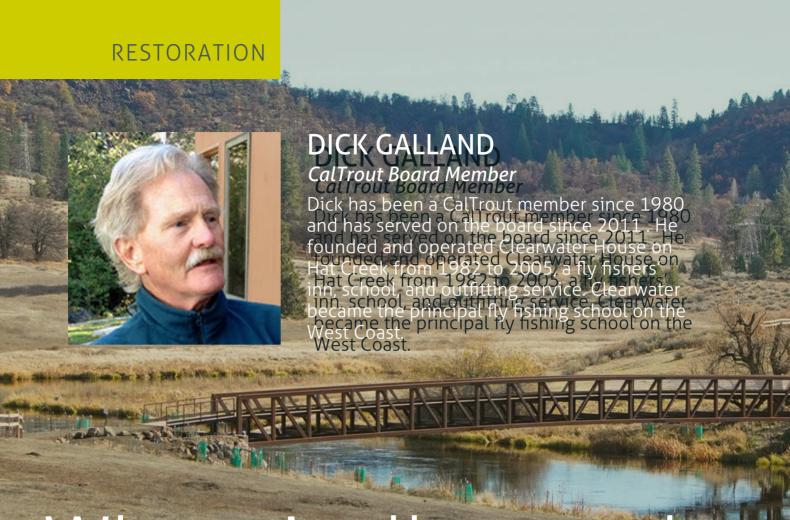
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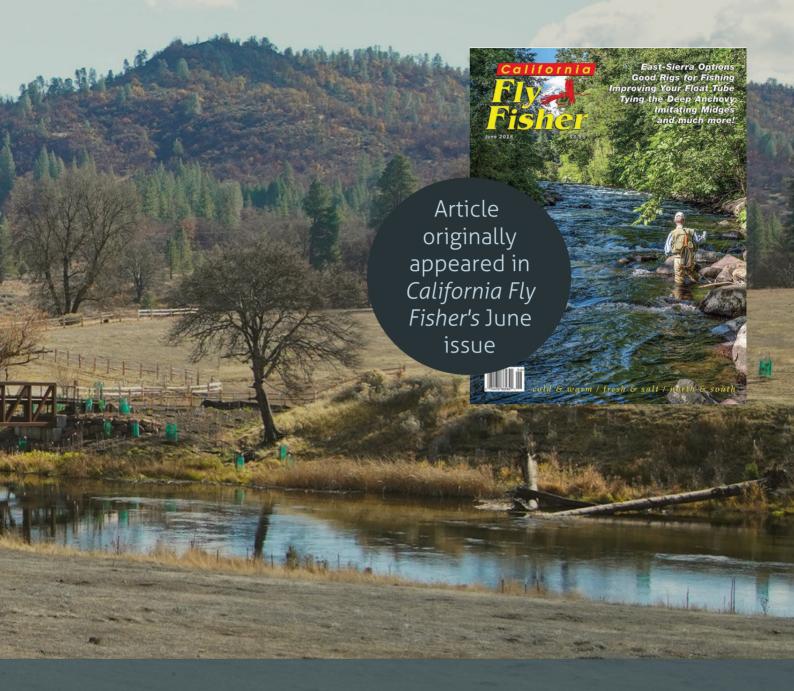
Where it all started

Hat Creek restoration brings CalTrout home

Drew Braugh stood on the new footbridge spanning Hat Creek and pointed upstream at the 15-inch rainbow trout finning in the lee of a large clump of aquatic vegetation. The trout was easily visible in the clear water. It swung from side to side in the gentle current, now and then taking a nymph. "Two years ago," he said, "there were almost no plants here. This part of the creek looked like a desert — gray sand flats, no place for a trout. Since we put in the large wood structures, the current has slowed, and the vegetation has begun to return."

Several large patches of elodea, looking like dark green pillows on the sandy bottom, undulated in the slow current. Other trout became visible as we watched, moving around the edges of the plants, seeking food, competing for territory.

"See how the wood structures create pool habitat for fish by concentrating



flow and scouring sediment?" He pointed to an area of restored streambed where the redirected flow had flushed the gray sand downstream. Against the stream bank, dense aquatic vegetation flourished and plants were taking hold for the first time in years. "Over there, the vegetation has grown in, and it's full of bugs and trout."

Drew is the man who has led the Hat Creek restoration. As the Shasta/Klamath Regional Director for California Trout, he has guided the process from its conception in 2010 to the beginning of actual work in 2012. He and his team have raised the money to make it possible. He supervised the instream habitat restoration and the installation of the footbridge. In partnership with the Pit River Tribe and the Lomakatsi Restoration Project, he helped coordinate the extensive planting and trail-building efforts. The first phase was completed in the fall of 2017.





JOE PAUL, 1915 - 1972

Successful efforts by organized anglers to protect, preserve, and improve California's wild trout waters and free-flowing rivers began along the banks of Hat Creek in 1967. A remarkable man led the way.

The Hat Creek Wild Trout Project, which rehabilitated the famous trout stream, was headed by Joseph Paul, who conceived and refined teh project's purpose, meaning, and direction, and who worked tirelessly to make ita reality. It was Joseph Paul who conceived and founded the California Committee of Two Million and who directed that coalition of citizens to sponsor and finally win the historic victory which became The California Wild and Scenic Rivers Act. It was Joseph Paul who conceived and co-founded, along with Richard May, California Trout, an organization of anglers destined to achieve many successes for the benefit of wild trout and steelhead and their habitat. And it was Joseph Paul who guided his co-workers to plan and win the establishment of The California Wild Trout Program which placed a score of trout waters under special management similar to Hat Creek and based upon the lessons learned at the iconic fishery.





A 21st Century

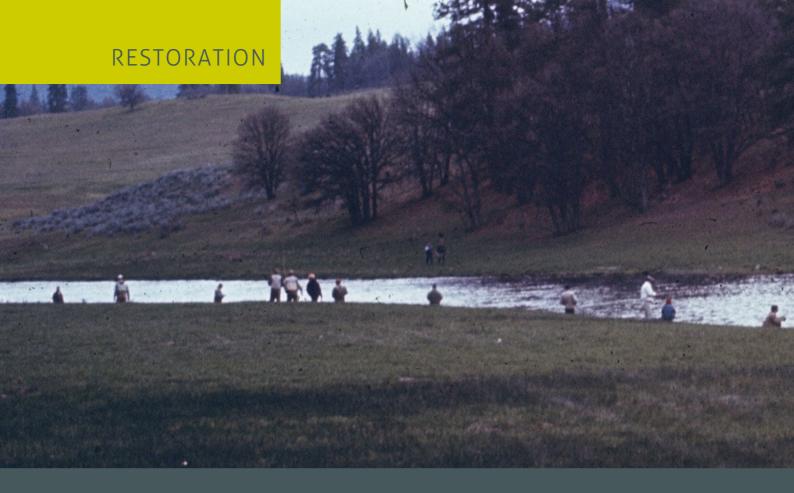
Drew is in his mid-thirties, open, earnest face. His eas minded determination. His calling upon all his skills of rand communication to bala demands of the several stake Electric Company, which ow Department of Fish and Wilfishery for the public; and bicyclists, who use and valuand the Illmawi band of the lived in the area for thousa deep spiritual attachment to



Joe Paul

with blond hair and an sy smile belies a singlejob has been daunting, negotiation, compromise, nce the often competing eholders: Pacific Gas and ns the land; the California dlife, which manages the lers, hikers, birders, and le the land for recreation; Pit River Tribe, who have ands of years and have a to the place.

Hat Creek gained national prominence in the late 1960s when, in a radical departure from the long practice of planting catchable trout, Hat became the first stream in the West to be managed exclusively for wild fish. California Trout was born on its banks, in the energy and efforts of a small group of anglers who hoped to demonstrate that a suitable stream holding only wild trout and care fully managed through regulations could provide a rich and rewarding fishing experience, an experience measured not in fish kept, but in fish caught and carefully released - in the quality of the fish and the fishing experience. The group saw to the construction of a fish barrier, the removal of several tons of rough fish, and the restocking of native trout.



California's premier spring-creek destination

Success was immediate. Hat soon became California's premier spring-creek destination. Fly shops opened in Burney and Fall River to serve visiting anglers. From the 1970s into the 1990s, Hat was the place to challenge oneself on the most demanding trout in the state. The creek was rich and weedy, with 16 fishable hatches. The trout numbered over six thousand per mile, mostly Pit River rainbows and a smattering of brown trout. During the 1970s, the catch rate was nearly ten thousand fish per year. Virtually all these fish were released.

In the 1980s, plumes of gray sand began to appear in the flats below the Powerhouse 2 Riffle. As the sand moved downstream, it buried plants and filled in the deeper parts of the creek above Carbon Flats, destroying habitat diversity. The fish were pushed downstream, and spawning declined. Fishing success and satisfaction declined, as well.

The original restoration in 1968 had proved the concept that an intact stream, carefully managed for wild trout, could provide a quality angling experience. This time around, the challenge was very different. Hat Creek was no longer intact. The sediment — over fifty thousand cubic yards of volcanic ash, enough material to cover a football field to the very top of the goalposts — was composed of the ash and fine materials from the eruptions of Mount Lassen that began



on the afternoon of May 22, 1915. That epic blast sent a hot slurry of ash, mud, and water flowing nearly thirty miles down the Hat Creek Valley, burying farms and killing fish.

In the years since the eruptions, the valley has been in a slow process of recovery. The spring flows of Hat Creek, Lost Creek, and Rising River have slowly reestablished their streambeds, moving the volcanic ash downstream to settle out in the slow, deep water in Cassel and in Baum Lake, just upstream of the Wild Trout Area.

This process was stable for many decades. In the 1980s, all that began to change. While the dynamics are not entirely clear, it appears that sinkholes and lava tubes under Baum Lake had been slowly filling with sediment since the eruption. These were unexpectedly flushed out during construction work on the Baum Lake dam, immediately above the Wild Trout Area. This material, hundreds of times greater than Hat's moderate flows could move quickly, overwhelmed the flats, burying everything as it went, covering plants and spawning areas, destroying insect habitat, and displacing trout. The creek became shallower. The bottom became as featureless as a beach. The fish had less and less suitable feeding and holding water. Fish surveys in the 1990s counted fewer than 2,000 fish per mile.

Hat Creek restoration plan for all

A study done in the 1990s suggested that at the rate the sediment slug was moving, it would pass through the two-mile flat-water section and go under the Highway 299 bridge in about 2020, then into the faster water of lower Hat Creek and on to the fish barrier by 2025. In the past 29 years, the sediment has moved from the Powerhouse Riffle to just above the highway bridge.

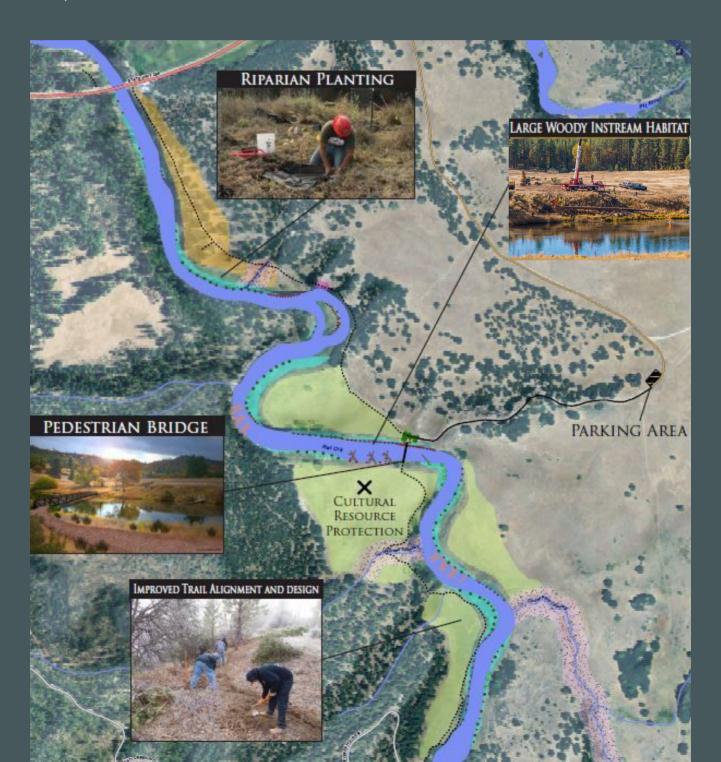
It was reassuring to know that the devastation the sediment brought to the flat water would eventually end, but there was impatience to do something to speed the process and repair the damage. In 2010, the Hat Creek Resource Advisory Committee began to pursue active restoration options. With data about the creek from in-stream studies and with a recreation master plan for anglers, hikers, bikers, birders, and other outdoor enthusiasts, the committee created a comprehensive restoration plan.

The Carbon reach, midway between the Powerhouse and the 299 bridge, was known for its deep channel, slow currents, and lush, rooted aquatic vegetation. The vegetation supported the abundant trout population by providing cover, remarkable insect variety, and outstanding habitat. Upward of three thousand trout had lived there during Hat Creek's heyday. By 2010, not only did Carbon Flats look like a beach — flat gray sand, uniform and weedless — but the stream banks had retreated under prolonged pressure from cattle, muskrats, and anglers. Carbon seemed the natural place to begin the restoration.

Drew and his team got to work raising the money. In 2012, CalTrout received the first grant of \$700,000 from the California Natural Resources Agency. Subsequent grants followed, and by 2014, the total available was over \$1 million. In 2015, another \$1.4 million was given to CalTrout and the Pit River Tribe by the Stewardship Council to support the habitat restoration work of the tribal youth crews planting native trees and shrubs along the creek, realigning and enlarging the trail, building rail fences, and controlling weeds.

The restoration had four main goals:

- 1. restore over six acres of native riparian vegetation. This includes planting alders, ash, hawthorns, willows, and numerous native shrubs.
- 2. improve nearly three and a half miles of trails: relocating, grading, improving drainage, and building footbridges and split-rail fences. This also has included getting vehicles out of the immediate stream corridor by relocating parking areas and providing signage to educate and direct visitors.
- 3. Place large woody debris in the stream to restore habitat for plants, insects, and fish.
- 4. Restore trout populations from the current two thousand to five thousand fish per mile.



Getting it done

Pit River tribal youth work crews began replanting the meadows and stream banks with native vegetation in 2012. Willows along the banks stabilize the ground and prevent further widening. Native trees and shrubs in two miles of streamside meadows are creating diversity for wildlife and insects and eventually will shade the water and provide cover for fish. Over five thousand native trees and shrubs have been planted and are being carefully monitored. The variety of species can be adjusted as biologists understand what does well in each planted area.

To restore complexity to the streambed, the planners studied the trees that had fallen into the creek at Hat Creek Park, a mile downstream from Carbon. These trees have created prime plant and fish habitat. It was decided to imitate those conditions in the Carbon Reach.

In November 2015, a Firehawk helicopter arrived at Carbon. Over 60 feet long and with two 1100-horsepower jet engines, the Firehawk shuttled precut mature pines weighing nearly nine thousand pounds each from the nearby forest to the creek. Eighty feet long and trimmed of their limbs and tops, but with some of their roots attached, each tree was



deftly placed with the roots on the bank and the trunk sloping down into the water, mimicking the way a naturally fallen tree would lie there. A 110-ton crane made the final adjustments of the logs in the creek. In all, four groups of large woody debris structures were built and installed. These large log structures deflect the current and redistribute sediment to create conditions that encourage aquatic vegetation to grow and prosper. The vegetation, in turn, creates depth and cover for trout and habitat for aquatic insects—condos for bugs. Lots of condos means lots of bugs. Hat Creek has always had a remarkable variety of mayflies, caddisflies, stoneflies, midges, damselflies, and dragonflies, as well as scuds, snails, and leeches. Provided with a suitable habitat, this rich diversity of bug life is returning. This, in turn, is bringing the fish back.

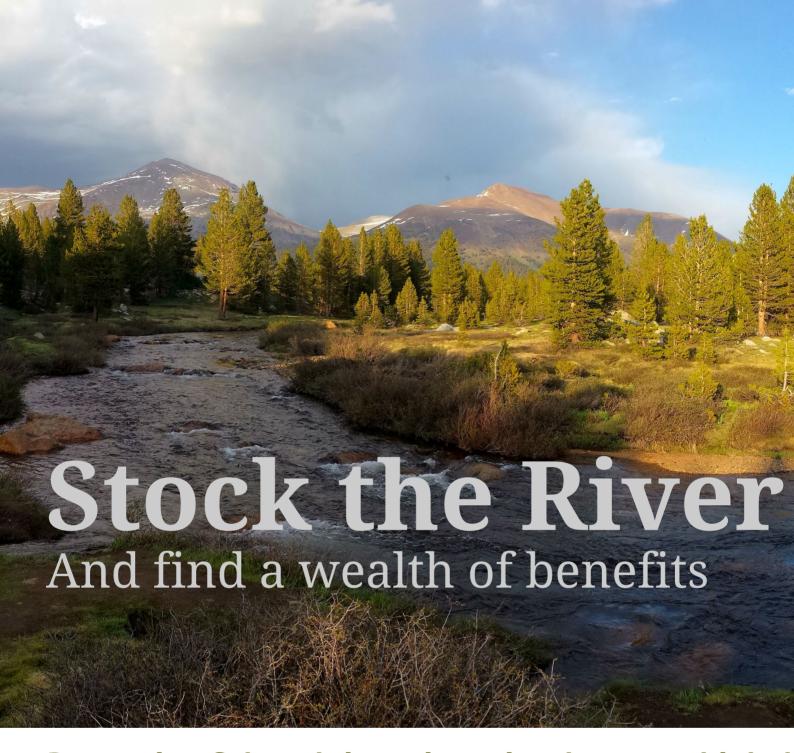
In July 2016, a steel footbridge was installed at Carbon. Built in three sections and assembled on-site, the bridge spans 160 feet across Hat Creek at the historic Carbon Bridge site. The bridge makes it easy for anglers and others to explore the entire Hat Creek Wild Trout Area on the improved trail system. (*Continued on page 60.*)



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Bridging cultures

Partners hold ceremony celebrating 3-year Hat Cree

California Trout and Lomakatsi Restoration Project held a ribbon-cutting ceremony on June 19, 2018 to celebrate the opening of the new pedestrian bridge over lower Hat Creek, one of California's most important Wild Trout Areas, and commemorate the incredibly productive last three years of restoration work.

The ceremony marks a major milestone in the ongoing ecological restoration of lower Hat Creek. The new bridge symbolizes the work that CalTrout, Lomakatsi Restoration Project, and their project partners have done to bridge cultures and reduce the socio-economic divide in the region, as well as to support the robust native fish populations, healthy rivers, and thriving communities. It also allows anglers and hikers to access both sides of the



Photos by Mike Wier

k project

creek without disrupting the ecological restoration work that has been done to improve conditions for wildlife and aquatic species.

The lower Hat Creek restoration effort is the result of a partnership among several diverse stakeholders: state and federal agencies, the Illmawi Band of the Pit River Tribe, landowner Pacific Gas & Electric, and the Stewardship Council, which works to protect and enhance the beneficial public values and uses of watershed lands, and to improve the lives of young Californians through connections to the outdoors. Additional project partners include the US Fish and Wildlife Service, UC Davis Center for Watershed Sciences, Waterways Engineering, Inc., National Fish and Wildlife Foundation, and Orvis.

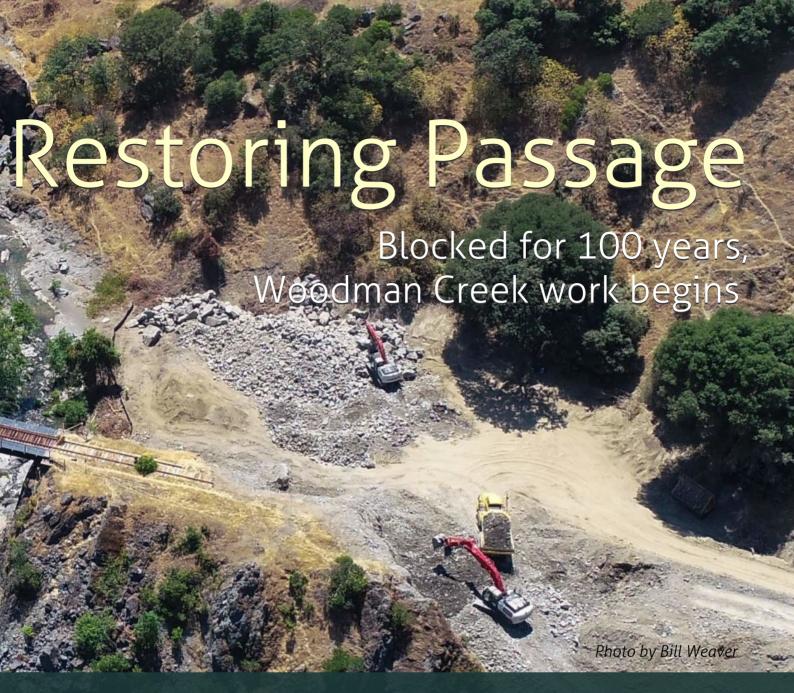




Woodman Creek, located five miles north of Dos Rios, is a tributary of the Eel River which is one of California's most significant salmon and steelhead strongholds. CalTrout is overseeing a major project to restore fish passage to Woodman Creek where salmon have not found their way into its watershed for over a century.

The Northwestern Pacific Railroad was constructed in 1914 through the Eel River Canyon which permanently blocked the migration pathway for salmon and steelhead into Woodman Creek. Now, a century after it was built, this story takes a turn in favor of fish restoration. The Woodman Creek Fish Passage Project will remove the railroad embankment that buried the mouth of Woodman Creek, which will open access to high-quality steelhead and salmon habitat.

The historic railroad line was built through an area known to have high geological and tectonic activity including gigantic 'deep-seated landslides' slumping into the Eel River, catastrophic earthquakes, and powerful floods



which often ravaged through the canyon. The 1997 flood caused a bedrock cliff to shear off next to Woodman, where a portion of the tunnel collapsed into the river thus ending any prospect of railroad service ever returning to this line.

As mentioned in the Eureka Times Standard, "railroad workers at the time filled in about 500 feet of the creek and blasted a large hole in the bedrock in order to complete a bridge. These changes altered the mouth of the creek so that fish would now have to leap up a series of steep cascades to access the creek, which essentially cut off access to most fish."

The Woodman Creek Fish Passage Project has taken the better part of seven years for CalTrout and numerous partners to plan and prepare for. This project, which is led by our North Coast Regional Director Darren Mierau, will support quality local jobs while providing significant ecological benefits to the region.

Support
CalTrout's
project to
Reconnect
Habitat
CLICK HERE

Access after 104 years

Project highlights include:

• This \$2+ million project is funded by the California Department of

Fish and Wildlife Fisheries Restoration Grant Program, with support from the State Coastal Conservancy and the NOAA-American Rivers grant programs, due to the significant benefit it will provide to imperiled species.

- CalTrout has focused contractor hiring on Humboldt County businesses for this project, including Pacific Earthscapes, Pacific Watershed Associates and Mike Love & Associates to plan and complete the required work. Twelve full-time, prevailing wage local jobs will be created in the process.
- After years of advocacy and negotiation, the bridge removal received

the full support of the railroad authority, which acknowledged that restoring service through this canyon was untenable.

The project is on track to be completed by early September this year. Be sure you are on CalTrout's mailing list to receive the most recent updates on the Woodman Creek project.

The 2017 State of the Salmonids II: Fish in Hot Water report states that 74% of CA's native salmon, steelhead and trout species are likely to be extinct in 100 years. With major dams listed as a top human-caused threat to salmon and steelhead resilience, CalTrout is dedicated to reconnecting habitat and giving the fish access to diverse habitat by removing barriers and obsolete dams. CalTrout is currently engaged in several projects with the goal of dam removal including the Klamath Dams and Potter Valley Project in the north and Matilia Dam in the south."





Photos courtesy: Pacific Watershed Associates Drone photos: Bill Weaver

Nail-biter finish in 2018 Five Rivers Challenge

We're still riding that high from the 2018 Five Rivers Challenge! The competition wrapped up with a sneaky win by Bruce Skinner and Josh Udesen guided by John Fochetti. The team pulled ahead on the last day, landing an epic 715 inches and 70 fish on the Fall River. Very close behind in second place was Steve Johnson and David Moser guided by Brooks Provence. Third place went to Richard Kropp and Pearce Hurley guided by Brian "Bucko" Theriot; they had a great final day on the McCloud and Upper Sacramento rivers. The remaining 5 teams performed outstanding as well, all ending the competition very close to each others' scores. (See below for all final scores.)

This is the 3rd 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. Proceeds from the event go toward restoration and research projects in the area like our Hat Creek Restoration Project and the Volcanic Aquifers Assessment and Protection program.

We're glad to be back raising awareness of these pristine ecological areas and our efforts to ensure there will always be abundant wild fish in these waters. Each of the five rivers (Fall, Pit, McCloud, Upper Sac rivers and Hat Creek) is one of the original waters in the California Wild Trout Program and have anglers testing the versatility of their skills on the varied rivers.





THANK YOU to our participants who came out for a fun time and to support CalTrout's work restoring California's native fisheries. As always, incredible thanks to Michelle, owner of Clearwater Lodge, for the amazing accommodations and meals.

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 were:

1st Place

Bruce Skinner and Josh Udesen guided by John Fochetti: 1290 inches, 123 fish.

2nd Place

Steve Johnson and Provence: 1200.5 in

3rd Place

Richard Kropp and "Bucko" Theriot: 992

- Loretta Keller and Sinches, 65 fish.
 Peggy Anderson and inches, 63 fish.
- Mikk and Cirith And 60 fish.
- Laura and Geof Wy 57 fish.

Rich West and Paul \ fish.



David Moser guided by Brooks ches, 97 fish.

Pearce Hurley guided by Brian 2.5 inches, 102 fish.

Sydnie Kohara guided by Scott: 599

Kurt Anderson guided by Fuzz: 593

erson guided by Colton: 544 inches,

yatt guided by Dave: 527.5 inches,

/ais guided by Joel: 521 inches, 58





I started fishing at agwhen we were on so vacation on Catalina I still like to fish the calico bass and oth from the pier in Avalo

The first time I fly fishe in Burney Creek. I was caught a small rainbo with a Pale Morning D dad still has it in h When I was ten I got r fly rod and learned I cast properly at fly camp. I also learned rig my own rod and tie so now my dad doesn to do it for me anyr learned to wet my before touching a fis how to safely release so it can grow bigge can catch it again. Las I started tying my ow My favorite is the Bugger and at camp th I caught eight trout wi

I think California is the place in the world to the large in the large

Jmmer Island. ere for er fish n.

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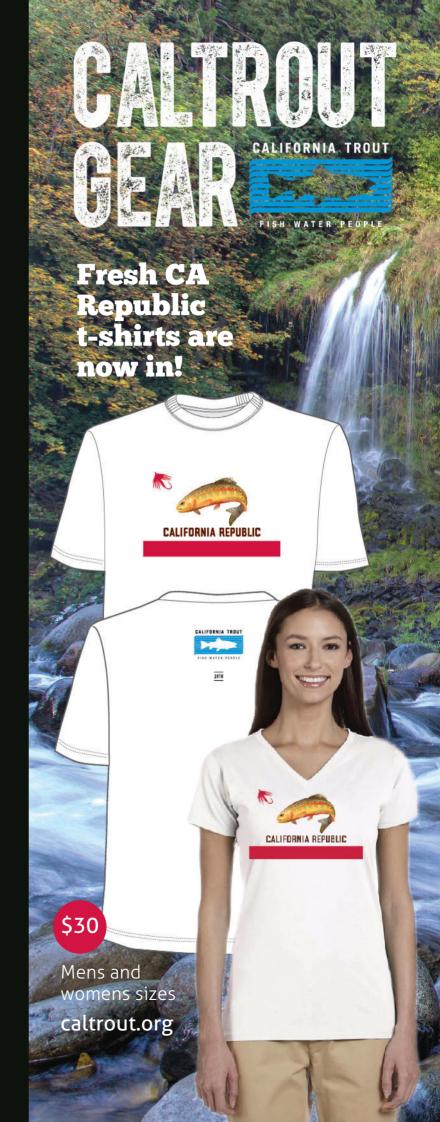
ne best fly fish. n some from .averas o Lake he top ne day and I liver in

reek in

ge five the afternoon, and then we fished the hex hatch on the Fall River in the evening. My dad says I don't know how lucky I am to have all these amazing places to go fishing and that we need to protect them.

> There aren't many kids who fly fish and even fewer girls. I think it's kind of cool that I'm the only girl in my class who knows the difference between a stonefly, a caddis fly, and a mayfly, and who can roll cast from under a tree.

> The best thing about fly fishing is that you get to go to great places but the very, very best thing is when I catch a fish and my dad doesn't. Our next trip is to Mammoth Lakes to fish in Hot Creek and the Owens River and I really want to catch my first brown trout there. I hope that I will always be able to fly fish in California and that there will always be enough clean and cold water for the trout to live in our rivers and lakes.



Legislation and Advocacy

Shaping policy to protect fish and their waters

CalTrout has deep roots in using advocacy to create change. From day one, we championed wild trout management and the concept of catch and release, spearheading efforts to enact programs and legislation to protect California's trout resources.

We continue in those efforts today by engaging targeted legislative members and staff on key local, regional, and statewide issues. Retaining a political consulting firm to address State issues, CalTrout identifies key decision makers and builds enduring relationships with them, supporting their leadership on issues that advance the mission and programs of CalTrout.

By bringing policy expertise, on the ground experience, community support, science, media and advocacy experience to the table, we help advance mission critical policies programs and funding. Using an experienced team of political consultants to complement our executive staff, we develop legislative initiatives, support or oppose legislation, help shape the state/federal budget, engage in stakeholder groups and work directly with key decision makers.

2018 POLICY OVERVIEW

The 2018 legislative cycle has been an interesting mixed bag for water and natural resource issues. With Prop 68 containing over a billion dollars worth of natural resources and water funding, the Governor's budget has held back in funding water specific projects in anticipation of Prop 68 passing. That being said, CalTrout has remained focused on securing funding for natural resource management and restoration as well as shoring up protections for vulnerable California ecosystems. Here's a high level rundown of the important policy areas CalTrout is focusing on this cycle:



LEGISLATIVE PRIORITIES

Proposition 68 (De Leon): Water and Parks Bond

CalTrout has followed the progress of Prop 68 since it was an idea hatched in the legislature last year. Before Prop 68 landed on the June ballot, it was first passed through the California legislature as SB 5. CalTrout worked to ensure that the Bond measure included natural resources funding and we succeeded in securing language that included funding for multi-benefit flood plain projects (Nigiri) and for barrier removal projects (Matilija).

Once passed out of the legislature with language we could support, CalTrout continued its efforts to support Prop 68 leading up to the June ballot. CalTrout joined the Executive Board of The Committee for Clean Water, Natural Resources & Parks, which, together with other conservation and urban parks groups, advocated for the passage of Prop 68. Although we will continue to advocate for natural resource interests outside of bond measures, we are pleased that Prop 68 passed.

STATUS: Bill passed.

AB 2528 (Bloom): Source Waters

This year CalTrout has sponsored Assemblymember Bloom's AB 2528 measure, which highlights some of CalTrout's key areas of interests: source watersheds, mountain meadows, strongholds, and estuaries. Every three years the Natural Resource Agency produces a research-heavy Climate Adaptation Strategy paper, and AB 2528 would make sure that these four climate resiliency areas are analyzed for their importance in the climate change and climate adaptation conversation. AB 2528 addresses gaps in protections for California's most resilient watershed, riverine and coastal ecosystems in the face of unavoidable climate change. This bill calls out these "resilience areas" because they have either fallen into protection gaps or because California has not yet made it a priority to protect the best remaining resilience areas.

STATUS: AB2528: Now has passed through the Assembly entirely and sits in the Senate (where it waits for a vote after passing through Senate Natural Resources and Water Committee). Please check in with CalTrout in September to see if this bill has passed!



Legislation We Oppose

Although CalTrout does its best to be a productive partner in the policy world, sometimes we use our influence to oppose bills that we view as potentially harmful to our interests.

AB 3102: CalTrout is opposing AB 3102 SB, which is a repeat bad bill intended to limit environmental review for projects that require California Environmental Quality Act and fall under the Fish and Game Code authorization for lake and streambed alterations. Simply put, this bill would make it easier for water districts to move dirt in potentially sensitive ecological areas.

AB 2649: CalTrout is also opposing AB 2649, which makes groundwater recharge a per se beneficial use of water in California. This is a major change in water right's law, but beyond that, it categorically allows for potentially contaminated water systems to recharge potentially pristine groundwater systems. This is a dangerous precedent to set and one CalTrout opposes.

Legislation We Support

When CalTrout does not directly author bills, we oftentimes will pledge our support of legislation that reflects our core mission and values.

AB 2975: CalTrout is thrilled to hear that Assemblymember Friedman is authoring AB 2975, which would counteract any federal move to delist or remove protections for Wild and Scenic River systems in California.

Prop 3: Proposition 3 is a \$8.9 billion dollar bond that augments the \$1.6 billion in water-related bond money found in Prop 68. Prop 3 will be on the November 6th ballot and CalTrout has endorsed this measure as it provides a much-needed boost to watershed restoration and fish and wildlife protection to our efforts statewide.

AB 2640: CalTrout also supports Assemblymember Wood's AB 2640, which would authorize a temporary take permit for the short-nosed sucker. While this has the sound of a potentially bad bill, this is part of a planned strategy for the removal of all four Klamath Dams. Once these structures are removed, CalTrout believes that the health of the Klamath River will support both suckers and salmon at numbers not possible before removal.



Cannabis Update: Beyond Prop 64

CalTrout helped lend a conservation voice to Prop 64 and we have been closely monitoring the bill's implementation since January. Currently, the tax revenue from legalized cannabis have been rumored to be disappointing. This is not uncommon, as States like Colorado and Oregon have also had slower than expected returns on tax revenue from their legalization processes. Because of the lack of available revenue, the agencies tasked with receiving and expelling the funds from Prop 64 have been slow to develop expenditure plans.

CalTrout is working with its conservation partners to make sure the agencies spend that money wisely and we are monitoring any legislative changes proposed in the legislature. So far we are opposing an initiative to lower the tax on cannabis cultivation and sales, and we are looking closely at bills that define the scope of enforcement. We think that Prop 64 can be a consistent funding source for environmental restoration and to make sure all water users

conform to the existing regulations on water use in California. That being



By Alec Dickinson Lomakatsi Restoration Project

Ecosystem restoration is a complex endeavor. And while the act of changing conditions in a project area for the benefit of species is complicated in and of itself, it becomes exponentially more so when human factors, such as land ownership, traditional use, and recreation are introduced. The Hat Creek Riparian Restoration, Cultural Protection and Recreation Improvement Project is no exception. With partnerships that brought together just the right mix of expertise, the five-year project has been a remarkable success story restoring a reach of stream on the aboriginal lands of the Illmawi Band of the Ajumawi/Atsuge Nation.

California Trout partner, Lomakatsi Restoration Project, is one of those partners capable of lending technical, administrative, programmatic and onthe-ground skills that keep projects rolling, from planning, to implementation, to long-term maintenance. The grassroots ecological restoration nonprofit, based in Ashland, Oregon, takes a three-pronged approach to restoration: Restore ecosystems and the sustainability of



Issi Wah Tribal Youth Program Participants on the first day of the program
Photos courtesy of Lomakatsi Restoration Project

communities, cultures and economies. With this guiding credo, the organization works throughout Oregon and Northern California on a variety of large-scale restoration operations, and brings decades of experience working with Native American tribal communities in the region.

In the case of the Hat Creek Project, Lomakatsi joined the effort in 2013, lending its technical capacity to develop the Hat Creek Wild Trout Area Riparian Restoration Planting Plan, Recreation Trail Plan, and Noxious Weed Plan that guided the project. Lomakatsi additionally developed the Riparian Planting Plan that mapped species selection and planting locations for the more than six-thousand native trees, plants and shrubs used in the restoration. Lomakatsi also implemented an innovative approach, reaching out to tribal elders to incorporate traditional ecological knowledge of the Illmawi into the planting plan, ensuring culturally important species were given proper priority in the restoration.



Issi Wah Tribal Youth Program Participants on the newly completed Carbon Bridge at Hat Creek

Detailed assessment of a site and a solid restoration plan are absolutely essential for a successful project, but a plan is just a plan. There have to be boots on the ground to complete the work, and that's where Lomakatsi's twenty-plus years of experience as an ecological workforce training outfit comes into play. Working with the Inter-Tribal Ecosystem Restoration Network and members of the Illmawi Band of the Ajumawi/Atsuge Nation (Pit River Tribe), Lomakatsi implemented both youth and adult Tribal Workforce Training and Employment Programs to build tribal capacity to manage lands surrounding Hat Creek. Over the course of the project, more than thirty band members underwent training in plant species identification, ecological thinning via chainsaw operation and controlled burning, and erosion control. Participants were trained in all aspects of riparian restoration planting, including site selection and preparation, installation, mulching, and caging. Additionally, tribal crew members learned how to transplant native trees and shrubs into larger containers for future plantings, providing necessary training for long-term sustainable restoration of the site.

Workshops on ecocultural restoration and Traditional Ecological Knowledge were incorporated into the training by Tribal Elders and Cultural Specialists throughout the program. This model of leveraging Lomakatsi's workforce training capacity to partner with indigenous people on their traditional land base is a hallmark of Lomakatsi's model of place-based learning, and has been replicated in large-scale forest and watershed restoration initiatives throughout Oregon and Northern California.

In addition to the Tribal Workforce Training Program, Lomakatsi has been implementing youth training and employment programs for over a decade now, one of which was established during the Hat Creek Restoration Project.



Lomakatsi Tribal Staff for the Hat Creek Project, Belinda Brown, Cecilia Silvas, Joe Ochoa, Andrew Mike, Ginger Mike-Mercado, and Executive Director, Marko Bey

The Issi Wah Tribal Youth Training and Employment Program, conducted for four weeks each summer during the restoration of Hat Creek, employed tribal youth under the guidance of Lomakatsi tribal staff and restoration specialists, traditional Tribal Elders, and ecocultural specialists to blend traditional cultural and ecological knowledge into a cutting-edge restoration workforce training program. Over two years, ten tribal youth were employed on their ancestral lands, learning restoration workforce skills that provide economic opportunity in their tribal communities.

The end result of all of this on-the-ground training on an active restoration project was impressive, with tribal crews restoring three miles of river trail and constructing 3000 feet of new trail to provide fishing access while protecting streambanks. Tribal crews also constructed 4,000 feet of split rail fencing to protect sensitive streamside areas, installed log cribs to stabilize eroding streambanks, as well as constructing five benches and an informational kiosk at the site. Eight acres of oak habitat restoration took place, and along with the planting of native trees and shrubs, thousands of willows were transplanted for later use in streambank stabilization. Additionally, more than two miles of wire fencing were removed from the sight, and a mile-and-a-half stretch of Hat Creek was treated for invasive weeds. Lomakatsi also developed the Hat Creek Native Plant Species Guide to enhance both the learning and recreational experience at Hat Creek.

Lomakatsi Restoration Project currently manages contracts for the continued maintenance of the site so the good work done at Hat Creek will continue to benefit the ecosystem, the community, and the anglers that fish at Hat Creek for years to come.

For more information about Lomakatsi's work, visit www.lomakatsi.org



CT: When did you first become involved in CalTrout and why?

SK: For years, I'd seen CalTrout bumper stickers on cars and thought wow, a group dedicated to trout fishing. I loved to fish but knew nothing about trout except what I had read in "Field and Stream" when I was a kid and watching Brad Pitt (I know, I know, his body double) land that huge trout in the movie, "A River Runs Through It". Then board member Loretta Keller invited me on last year's CalTrout steelhead trip to the Trinity River. Not only did I meet an amazing group of women who love to fish, but I learned so much about the rivers the fish call home and the people dedicated to saving those waters.

CT: How did you get into fly-fishing?

SK: Fishing's in my genes. My Japanese grandmother fished; my mother was a very good angler. She bought me a fly rod when I was five years old. Back then, it was a glorified cane pole but it made me feel I was a real fisherman. When I was a little older, she added a reel and taught me to roll cast under the moss hanging from cypress trees and how to work a popping bug to catch bluegill and bream. But this was Louisiana so I spent more time bass fishing with artificial lures and plastic worms. Work got in the way of fishing for a few decades and I didn't pick up a fly rod again until about eight years ago when I started fishing in the Bay Area. It became my "spa day", a chance to get out on the water and enjoy nature and if I was lucky, catch a few fish.

CT: What is your favorite angling memory?

SK: Wow, so may good ones...I participated in this year's Five Rivers Challenge, fishing these iconic native trout streams I had always heard about. And I'm trying to keep my balance in the fast moving water of the Pit while fighting a strong rainbow racing toward a little waterfall and my guide is practically swimming to get it in the net. And at that moment I see it all at once: The fish, the clear waters, the forest, the blue sky. It's really a spiritual experience; I can't describe it any other way.

When I was about 10, my older brother and his friend were going bass fishing early one morning and my mother forced him to take me. I got stuck in the back of the boat while they talked trash about my fishing skills. A big bass jumped and I told them I would catch it. Almost seven pounds. I got my picture in the local paper and got a little respect from my brother. He still complained when he had to take me duck hunting, though.

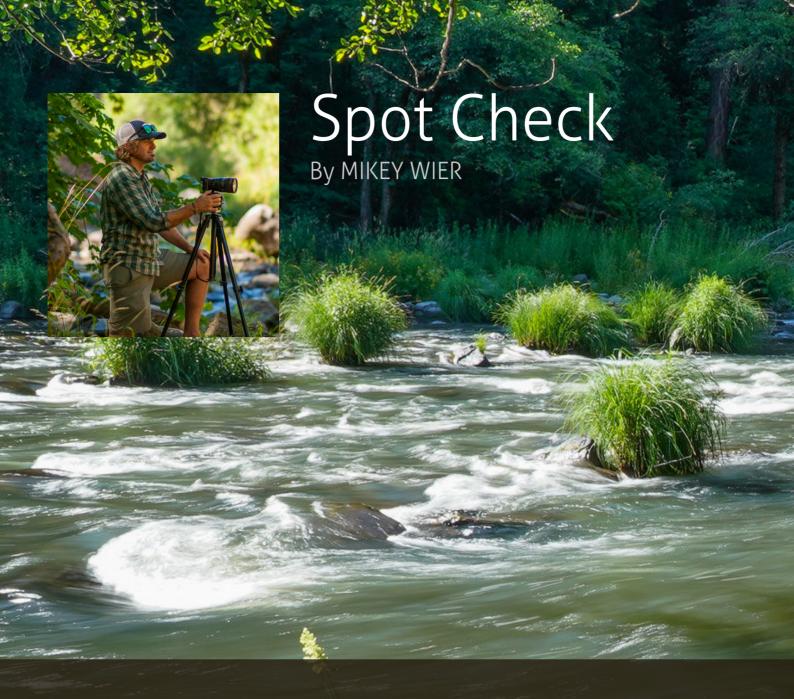
Oh, and catching a 28 lb. striped bass on a fly this year is up there, too, on my list of great memories.

CT: What is it about CalTrout's work that you find most inspiring?

SK: I am truly amazed at the level of inclusion and network of partners the organization has developed. From the farmers raising young trout in their rice fields to the ranchers offering access to rivers flowing through their property. I recently attended a bridge dedication on the Hat River and met members of the local tribe whose youth worked with CalTrout to restore wetlands around the river. PG&E reps were there to support the project. So many groups focused on the same goal of preserving our waters. It is truly inspirational to witness the depth and breadth of outreach for such a small organization and its team. CalTrout brings people together to do good. And they do. That is no small feat.

CT: Why are you passionate about conservation?

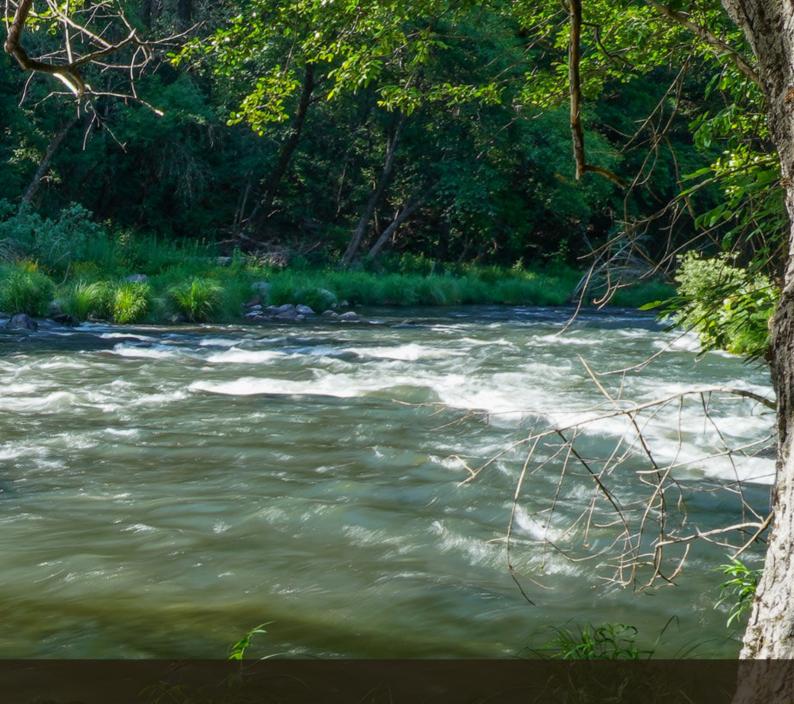
SK: My childhood fishing and camping trips brought a wealth of experiences to my life that I've never forgotten and appreciate even more now that I'm older. I feel I have a responsibility to protect the waters that bring me so much joy and what I hope – with CalTrout's help - will bring joy to my grandchildren. I consider it an honor to be able to support their efforts. That CalTrout bumper sticker means so much more when I see it now. I'm proudly showing off mine.



The powerful Pit River

Ever been to Pit 3? Or 4 or 5? Ask any seasoned California fly fisherman about the Pit and most will say it's one of their favorites, if not their absolute favorite trout stream in the state. The Pit has a hard earned reputation as one of the top fly-fishing destinations in California.

The Pit River originates way up in North Eastern California by Goose Lake. From there it winds and finds its way through miles of high desert and farm land down to where it meets up with the Fall River just above Pit River Falls outside the town of Fall River Mills. The falls were most likely the end of the line for salmon back in the day and a great place for native fisherman to dip net the seasonal fish. Fall River is the largest spring source river in California and dumps quite a bit of cold fresh water into the Pit. There's a cascading water fall at the end of Fall River Valley that still spills some of the contents



of Fall River into the Pit. The rest of the Fall River water is delivered back into the Pit at Pit 1 Powerhouse via a tunnel and pipe right through the mountain. Clearwater Lodge at the Pit River is located right there on the old PG&E grounds, owned by the power company for many years after it's construction in the 1920s. Now, it's one of, if not the best, fly-fishing lodges in the state.

Pit 1 can be a good fishery as well but the water warms by mid-summer so, along with trout, it supports a decent population of bass and pike minnow that come up from Lake Britton.

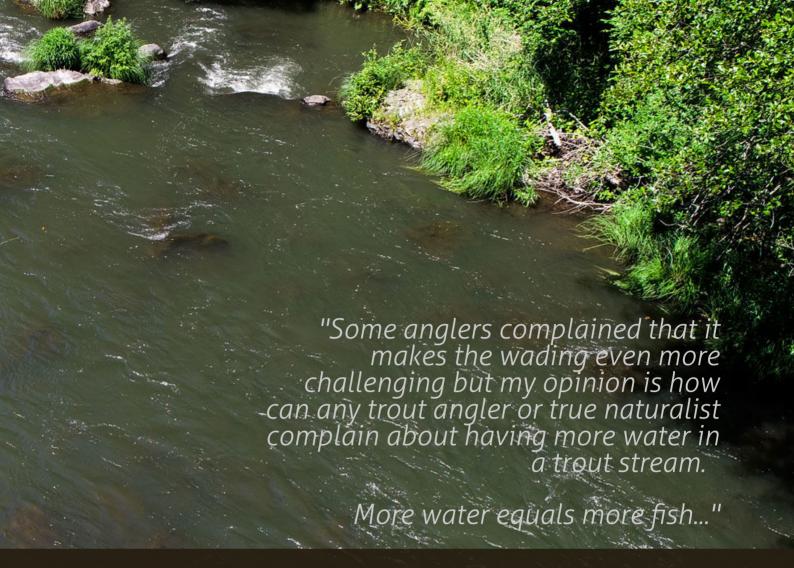
From below lake Britton the sections of river are named after the number of the powerhouse at the top of each run. All together there are seven powerhouses along the Pit before it ends in Shasta Reservoir making it one of the biggest power producers in the region and a significant contributor of spring water to the State Water Project.



Hard wading, lots of fish

When most people talk about fly fishing on the Pit they are referring to the Pit 3 and 4 reaches below Lake Britton. Pit 3 and 4 are wild trout fisheries so no stocking typically occurs in these reaches--which is a good thing! The Pit has great natural reproduction for wild fish. In fact, the Pit is an absolute fish factory. Its flows originate from the bottom of Lake Britton so the water stays relatively cold all summer. Temperatures can start to climb by the dog days of summer so it's still a good idea to take a thermo and check the water if it feels warm. Please do not fish if it climbs over 68 degrees.

Because the Pit has good natural spawning you will encounter a large range of fish sizes but the average catchable trout will be in the 10-20 inch range. There has been healthy juvenile recruitment into the system the past couple of years with spring flows and temps staying good all year. This has contributed to a successful spawn the past two seasons. There are a good number of smaller fish in the system but you won't typically catch too many of them on standard fly fishing techniques. From my observations, the population of the



Pit 3 and 4 consists mainly of rainbows with the very occasional good sized brown in the mix.

The Pit is famous for it's tough wading conditions. There are a lot of easy public access points along Clark's Creek Road between Lake Britton and Big Bend. Getting to the water is no problem, it's getting around once you are in the water that is the challenge. Pit 3 has been described as trying to walk on greased bowling balls. There are not really any sand bars or long grassy banks. It's all a canyon with steep rocky and heavily wooded banks and the entire sub straight of the river is rocky cobble and boulders for the most part. In between are tuts of tall grass and elephant ears making it a bit challenging to maneuver in some spots. Flows average around 350 cfs in Pit 3 and jump up an additional 100 cfs for each proceeding reach, on average. So there are not a ton of places you can easily cross the river though there are a few spots where you can get across without taking a swim. The thing is, you really don't need to cover as much water on the Pit as you would on other rivers. There are so many little pockets and nooks and crannies and there are fish in every just about every one. So that's the trade off. More fish per mile but harder to cover distance while fishing. I'll take the larger fish count any day.



More water equals more fish

For a period in the 50's, 60's and 70's Pit 3 had hardly any water in it at all. The water was diverted around Pit 3 and released back into the river further down for power. It was CalTrout that got involved in the FERC relicensing process and helped advocate for fish flows in the early 80's. Once water started flowing in the Pit 3 reach anglers started to see almost immediate results. Over the next few decades the reach blossomed into an incredible fishery and started to gain attention from fly-fisherman statewide. CalTrout once again entered the next round of FERC relicensing in 2011 and advocated for better fish flows in the Pit 3, 4 and 5 reaches.

In the end a compromise was struck between recreational boating interest and anglers. The result was base flows were bumped up from around 250 cfs summer flows to an average of 350 cfs. Some anglers complained that it



makes the wading even more challenging but my opinion is how can any trout angler or true naturalist complain about having more water in a trout stream.

More water equals more fish and that certainly has been the case. It goes back to what I mentioned above, that you have to cover less water to have shots at the same amount of fish now. And if you can cover more water, you will encounter that many more fish.

Also the higher flows have opened up the option of floating the Pit 3 reach and parts of the Pit 5 reach and even Pit 5 in small water craft such as a ducky or small raft. I would only recommend this option for experienced white water boaters. Especially Pit 4 and 5. Both can get a little rowdy on the whiter water. (continued on page 61)



Craig's Corner

by Craig Ballenger, CalTrout Ambassador



Forces of nature

Wading a river and hunting trout is also an up close opportunity to glimpse the world of life under and around the water.

The snakes capturing the sculpin and Pacific tree frog, for example, are Oregon aquatic garter snakes. Not to be confused with the eastern water snake which is an invasive species now taking over on the lower Sacramento and San Joaquin tributaries.

The stonefly nymphs from the Mount Shasta region are often called helgramites by locals, yet the true helgramite becomes the Dobsonfly, which as you can see, is quite a different creature.

The Northern Pacific rattlesnake also reflects some local myths. Herpetologists remind us that the number of 'rattles' does not always designate the age of the snake; only adding another each time they shed their skin, which may be more than once a year. As well, the beads break off, making the age of a snake often more vague.



Recently, working at the McCloud Preserve, we saw what is the first, for me, realistic rattlesnake bite to a guy traipsing along the riverbank. After he drove out to the hospital, he returned the next day, quite proud of his newfound notoriety. The report from nurses, combined with inspecting the wound myself, which was on his shin, led to the conclusion it was actually a dry bite. No swelling, no bluish color, only the two small blood red marks of the fangs.

A day on the river offers many windows into the riparian world. The existence of trout and stoneflies are an easy measurement of the quality of the water in a river. Neither can tolerate fouled, warm, or low oxygenated water.

Hunting trout is really a trip to natures own outdoor zoo; each season bringing some new development to a river. A mountain river is always revealing new secrets for those who walk quietly and pay attention.

REFLECTIONS

Featuring photos of Hat Creek throughout the decade

VAL ATKINSON, "Rainbow over Chalk Bluffs"





REFLECTIONS

Featuring photos of Hat Creek throughout the decade

CALTROUT ARCHIVES, "On the banks of Hat Creek"





Featuring photos of Hat Creek throughout the decade

DAN RHODES, "Hat Creek summertime"





REFLECTIONS Featuring photos of Hat Creek throughout the decade VAL ATKINSON, "Geezers on holiday"

Who We Are



IN THE SPOTLIGHT



CASEY O'SULLIVAN Donor Database Associate
Casey O'Sullivan has been with CalTrout since March
of 2017 and is in charge of Membership. Casey knows
our 3,000+ members are the bedrock of our
organization and enjoys meeting, interacting and
fishing with them. Casey and his girlfriend moved to
California early last year and reside in Redwood City.
Casey enjoys fishing and coaching youth ice hockey in
his spare time!

Photo:s Dan Rhodes (background), Mike Wier

Central Office Staff

Executive Director

Curtis Knight, cknight@caltrout.org

Finance & Administration Director

Alan Roesberry, aroesberry@caltrout. org

Advancement Director

Julie Seelen, CFRE, jseelen@caltrout.org

Institutional Giving Director

Gaby Roff, groff@caltrout.org

Marketing & Communications Director

Tracey Diaz, tdiaz@caltrout.org

Grants Associate

Melissa Racklyeft, mracklyeft@caltrout. org

Staff Attorney

Walter Redgie Collins, J.D., rcollins@caltrout.org

Finance & Compliance Manager

Nathan Lubarov, nlubarov@caltrout.org

Communications Associate

Megan Nguyen, mnguyen@caltrout.org

Donor Database Associate

Casey O'Sullivan, cosullivan@caltrout.
org

Development Associate

Joceln Winkler, jwinkler@caltrout.org

In the Field

Fly Fishing Ambassador

Craig Ballenger craig@craigballenger.

Fly Fishing & Community Outreach

Mike Wier

mwier@caltrout.org

Friends & Partners

Governors

Andrew Bassak, Chair Richard West, Treasurer Rick Kaufman, Secretary Linda Rosenberg Ach Gary Arabian George Choe Ed De La Rosa Andy Eckert Bill Epstein Dick Galland Amelie Kappes Loretta Keller Charles Linker Laureston McLellan Taylor Moore Bob Payne **Bob Rosenberg** Scott Tucker Paul Vais





Conservation Staff

Mt. Shasta/Klamath Drew Braugh dbraugh@caltrout.org

Tuli Potts tpotts@caltrout.org

Phoenix Lawhon Isler plawhonisler@calrout.org

North Coast
Darren Mierau
dmierau@caltrout.org

Mary Burke mburke@caltrout.org

Marissa Adams madams@caltrout.org

Sierra Headwaters Janet Hatfield jhatfield@caltrout.org

Central Valley Jacob Katz, PhD jkatz@caltrout.org

Jacob Montgomery jacob@calrout.org

Jayme Ohlhaver johlhaver@calrout.org

South Coast Sandra Jacobson, PhD sjacobson@caltrout.org

Russell Marlow rmarlow@calrout.org

Bay Area
Patrick Samuel
psamuel@caltrout.org

Academic/Science Partners

UC Davis, Center for Watershed Sciences

Dr. Peter Moyle

Dr. Jeff Mount

Dr. Jay Lund

Carson Jeffres

Dr. Andrew Rypel, Peter B. Moyle and CalTrout Endowed Chair in Coldwater Fishes

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

Humbolt State

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University Nevada-Reno

Dr. Sudeep Chandra

UC Santa Barbara

Dr. Tom Dudley

Sacramento Advocacy Consultants

Environmental and Energy Consulting Conservation and Natural Resources Group (CNRG)

Strategic/Legal Advisors

Environmental Defense Center Manatt, Phelps & Phillips Shute, Mihaly & Weinberg Water Power & Law Group, Richard Roos Collins

Contact us

360 Pine St., 4th Floor San Francisco, CA 94104 (415) 392-8887 info@caltrout.org Visit us on the web: caltrout.org

Monitoring Success

The Department of Watershed Sciences at UC Davis, in partnership with the DFW and CalTrout, is monitoring the effects of restoration efforts in the stream and measuring their success in three ways: in terms of an increase in aquatic vegetation, a return of insect communities, and an increase in fish numbers.

In less than two years, they have seen rapid changes around the tree structures at Carbon. The bottom shape and profile are shifting, creating niches for plants. With those plants have come bugs in enough variety and numbers to suggest that Hat is on its way to recovering the variety of hatches that has always made it such a remarkable fishery. And the fishing on the Carbon Flats this past season was better than it has been in decades.

Back on the Carbon Flats footbridge, Drew reflected on the challenges the project has presented and how his greatest satisfactions have come in unexpected places. He smiles as he speaks about the young people on the Pit River tribal work crews who have done the land clearing, the replanting, and the trail building. They have come to see the very real possibility of earning a living working in the outdoors on their

ancestral lands — in the local timber industry, with state and federal agencies on other restoration projects, even guiding visiting anglers. The project is helping them imagine bigger futures for themselves.

He talks about the relationships that have developed and the trust that has been built among the partners. The tribe is committed to keeping the project moving forward. They wish to maintain what has been achieved and work on further improvements, include adding more woody debris as the results of the log structures at Carbon are fully understood.

Drew says, "CalTrout has an incredible 45-year legacy on Hat Creek, which demonstrates our long-term commitment to projects and partnerships. This is just the beginning of a new chapter for Hat Creek. Now we have a proven science-based strategy for restoring habitat in spring-fed streams. More importantly, we have a partnership with the Pit River Tribe that will pass on stewardship responsibilities to the next generation so that we can protect this place for another 45 years. The future is bright for Hat Creek."

Spot Check

As far as fishing techniques go, nymphs are going to be the preferred tactic on the lower reaches of the Pit. There can occasionally be some great dry fly fishing on the random caddis hatch in the evening but for fishing through the hot hours of the day, nymphs will take ten to one over dries. You can use bobbers or high stick. The nature of the big boulder pockets and slightly stained water lends itself well to tight line or high stick nymphing because you can fish closer to the pockets without spooking the fish.

lf indicatorless European or nymphing is something your getting into and want to hone your skills, the Pit is one of the best places to come work on those techniques with a good success rate of catching feisty wild rainbows. Try using slightly smaller flies like in the 14-18 range. Birds nests, pheasant tails, copper johns, brassier midges and mico mays will all produce fish on the Pit. There are stoneflies in the system but not as many as in the Upper Sac or McCloud. I tend to do better on mayfly patterns or midge imitations. Don't be afraid to switch it up though and try different patterns as those fish do see a little pressure by the end of summer. And while nymphing will produce the most fish, don't be afraid to tie on a big sculpin or crawdad streamer in a likely looking pool and swing it out there.

If your looking for a good local guide to show you around, contact Michelle at Clearwater lodge and she can set you up with one of the boys from the lodge. There are also some great independent guides in the area like Art Teter or Jay Cockrum that know the river really well.

It's also worth mentioning that there are some nice camp spots along the river if your planning an extended stay in the canyon or weekend getaway. It can also be worth checking out the hot springs at Big Bend in the spring or fall when the temps cool off a bit.

Good luck and have fun. Michael Wier

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Thanks for spending time with The Current

Please send us your emails, photos and comments to current@caltrout.org
We want to hear from you!