

Summer/Fall 2016

# The Confluence

Newsletter of the Rogue River Watershed Council

## Grave Creek: A Watershed of Opportunities

by Jonas Parker

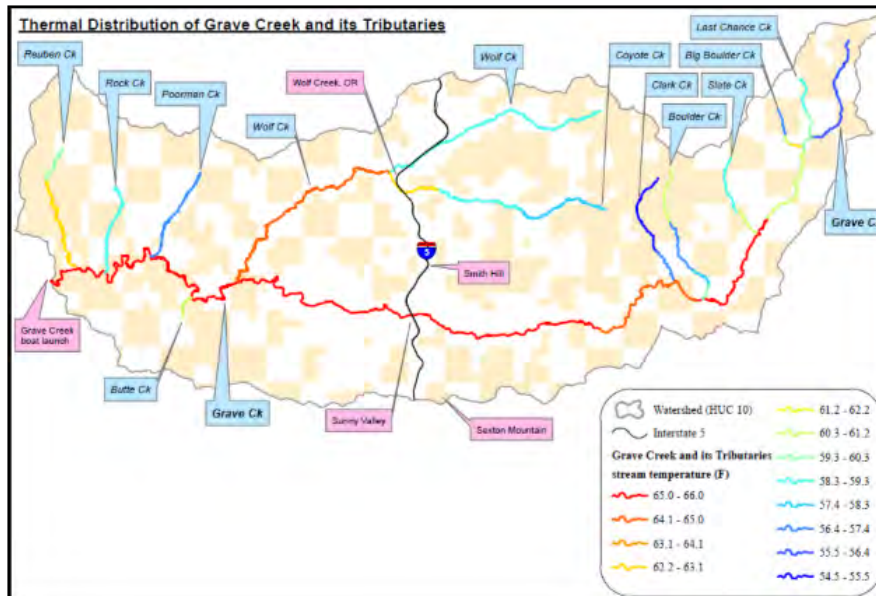
The Grave Creek watershed is unique in that it's long and skinny. Most of its human residents live within a few miles of the I-5 corridor, which bisects the watershed. The lower half of the watershed is etched with steep, yet sinuous canyons. Conversely, the upper half of the watershed is much gentler; wide floodplains and valuable beaver habitat abound. With the exception of some agriculture, a few residences, and mining claims, the entire watershed is forested.

As is often the case, most land managed by the Bureau of Land Management (BLM) in the watershed is at higher elevations where there are few mainstem land holdings. That's where the Rogue River Watershed Council (RRWC) comes into play! The BLM is actively pursuing partnership development with the RRWC to improve salmonid habitat, stream form and function, and potentially even beaver habitat across multiple land ownerships throughout the watershed.

To get the ball rolling, I recently conducted a rapid bio-assessment of the Grave Creek watershed examining two things: 1) thermal gradients and 2) macroinvertebrate assemblages. Stream temperature is important to salmonids because water that is too warm increases their metabolism to a point where growth (length and weight) is limited. While mainstem drainages often exceed water quality and salmonid rearing thresholds, tributaries can provide clean, cool water for refugia. Similarly, stream temperature plays a role in macroinvertebrate assemblages. While cool water provides desirable habitat for clean-water indicator species such as mayflies and stoneflies, the cooler temperature limits density and diversity. Conversely, warm water leads to increased primary production (algae), which generally leads to higher macroinvertebrate density and richer species diversity.



Sampling for macroinvertebrates Photo by Christina Beslin



Stream temperatures generally increase as you move from west to east. However, notice that cold water inputs from Clark and Boulder Creeks actually drop the temperature of Grave Creek for several miles!

(Continued on page 3)

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## The Confluence Summer/Fall 2016

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<https://www.facebook.com/RogueRiverWatershedCouncil/>

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*RRWC's mission: Stewardship of the Rogue River watershed through restoration, education, and community involvement.*

*RRWC is tax-exempt under section 501(c)(3) of the Internal Revenue Code and a recognized watershed council. Watershed councils were authorized by the Oregon Legislature in 1995 to promote and implement voluntary cooperative conservation actions.*

## Notes from the Executive Director's Desk

**Work.** It's the focus of this issue of *The Confluence*.

Our watersheds, and the plants and animals that live in them, do a lot of work. They

- provide us (and all the other animals out there) with nourishment;
- break down leaves and wood and other organic material and turn them into soil and fertilizer;
- help regulate the climate;
- pollinate crops and other plants;
- regulate diseases; and
- filter our water.



Of course, the Rogue River Watershed Council (RRWC) has implemented a lot of work over its first 21 months. RRWC has successfully transitioned from an organization scurrying to complete projects initiated two, three, and four years ago by our precursor watershed councils, into one that is developing and implementing large-scale initiatives. These projects (and the partnerships needed to carry them out) are leading to improved water quality conditions, restored habitat in and along streams for the benefit of all manner of plants and wildlife, and engaged citizenry. In addition, the RRWC Board is working hard at developing a strategic plan to guide the organization's work over the next five years.

I hope it will be clear to you that RRWC is making progress on our mission to increase the investment of watershed health stewardship along the rivers and streams within our area of influence. Please honor the organization with your support as a volunteer, join our Friends Program (*see page 7 for more information*), or make a donation directly to the organization. Your help will make it easier for RRWC to do effective and significant work in our treasured watershed.

## ...and from the Board Chair

It is becoming easier as our organization moves through its second year to see the positive impacts and community recognition of our staff's many hours of hard work – often with the cooperation of numerous agency and private partners – in planning and carrying out habitat restoration, water quality improvement and monitoring, and community outreach and education.

A little more indirect, but just as important to mission accomplishment, has been the ongoing work of the fifteen-member volunteer Rogue River Watershed Council Board of Directors. Part of our initial heavy workload was invested in hiring a highly qualified professional executive director to plan and implement – under board direction – the multiple actions required to meet our goals. We then assisted him in selecting three other full-time staffers to help accomplish program development and delivery.

Our initial workload also involved creating or modifying from prior originating council policies many specific policies – from budget rules to partner relations – necessary for ongoing administration of the new organization.

To enhance our potential future actions, the board continues to spend a large amount of work time in and between monthly board meetings developing a long range strategic plan, which with modification for unforeseen events, will hopefully see us through the next five years. We hope to complete this effort within the next few months.

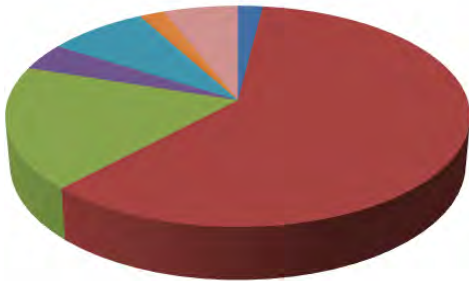
Stay tuned – we'll keep you abreast of our progress.

*Grave Creek: A Watershed of Opportunities  
(Continued from page 1)*

**A Sampling of Macroinvertebrates in Grave Creek**

**Lower Grave Creek**

The lowest sample point in the Grave Creek watershed shows rich species diversity (seven macroinvertebrate orders) and density (50 specimens in 1 ft<sup>2</sup>). Warmer stream temperatures and greater primary production are contributing factors.



**Legend**

- mayflies
- caddisflies
- stoneflies
- beetles
- true flies
- crayfish
- molluscs
- aquatic worms

**Middle Grave Creek**

The sample point in the middle of the Grave Creek watershed showed stream temperature several degrees cooler than at the mouth and a higher stream gradient, which both contribute to reduced macroinvertebrate diversity and density.



**Upper Grave Creek**

The upper-most sample point, which netted only three macroinvertebrates from two macroinvertebrate orders in 1 ft<sup>2</sup>, was also 10 degrees cooler than the stream temperature at the mouth, some 26 miles distant.



*Jonas Parker is the district hydrologist for the US Bureau of Land Management based out of Medford.*

*Editor's note: If you are a landowner or know someone who owns property abutting Grave Creek from the Brushy Gulch confluence to the Quartz Mill Gulch confluence, Poorman Creek, Slagle Creek, Tom East Creek (near Placer), or Shanks Creek, RRWC would like to visit with you about implementing projects to improve watershed health. We are particularly interested in reaches of streams with large areas of contiguous landholdings and those properties that either border publicly-managed lands or other protected areas. Contact our office for more information.*

Please note: we have a new office phone number  
541-423-6158

***Upcoming Events around the Watershed***

- **Native tree planting & mulch installation:** early November, Bitter Lick Creek (Elk Creek watershed)
- **Carcass toss:** January/February, Elk Creek watershed
- **Middle Rogue Working Group meeting:** first Monday of the month, Grants Pass
- **Bear Creek Working Group meetings:** second Monday of the month, Medford

We'll post more information on our online [calendar](#) as details emerge. Call us now if you're interested in participating!

## Teaming Up to Tackle Blackberries

This summer the Rogue River Watershed Council, in partnership with the Jackson Soil & Water Conservation District (JSWCD), received a \$198,000 grant from the Oregon Department of Agriculture to help landowners in the Wagner Creek watershed install best management practices that will benefit water quality.

On the heels of a community meeting in January with local residents and natural resource experts who identified the Wagner Creek watershed as a Strategic Implementation Area for water quality improvement, we set forth recruiting creekside landowners who needed help alleviating water pollution resulting from activities on their properties. After multiple site visits and kitchen table conversations, we developed projects with eight creekside landowners to tackle twelve acres of invasive blackberries along both sides of a near-contiguous 0.6-mile reach of Wagner Creek. By removing blackberries and establishing native riparian vegetation along the stream, our landowners will create lasting shade to cool late-summer water temperatures. We will also help landowners install livestock fencing to keep animals out of the creek and floodplain. Unrestricted livestock access can cause erosion, damage habitat, and contribute nutrients and bacteria to the stream.

The Wagner Creek water quality improvement project is a signature watershed health project for the RRWC because it represents the size, scale, and community commitment to watershed health that we hope to generate throughout the Rogue Basin. Please contact our office if you are interested in developing similar projects on your property.



Wagner Creek bank covered in Himalayan blackberries



### UNDER THE SURFACE

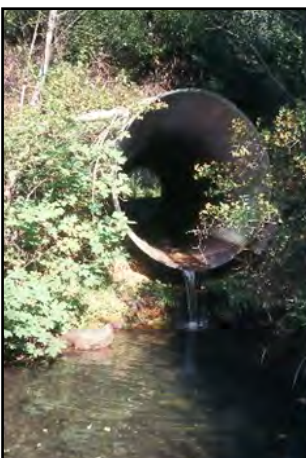
## Some Like It Hot...But Not Everyone

by Jay Doino

It's hot. Like super hot. And I am a cold water fish (read: juvenile salmon and steelhead). Quite the conundrum, don't you think? Must find refuge from this heat. What to do, what to do? I know, migrate! But which way? Upstream? Downstream? Have to do something. I'm going up. (Swimming, swimming, swimming). Dang it! A perched undersized culvert beneath this road. I hate these things. They create such problems – like this two-foot jump just to get into the culvert, not to mention the flow inside is too shallow to swim through. Shoot!



From Field Guide to the Pacific Salmon, by Adopt-a-Stream



A perched culvert  
Photo by Jay Doino

OK. Plan B. Downstream. (Swimming, swimming, swimming). Darn this degraded riparian area letting the sun beat down on me and warming the water – what little water is left, that is. Man, humans use a lot of water. I know they need water for drinking and crops but c'mon! I need water too! Back to business – need cold water quick. Oh, yeah...I remember hearing from a smolt (hope she's making it to the ocean OK) that she spent last summer in Jay's-the-Best Creek. She said the local watershed council completed several restoration projects to improve the habitat and help keep water cold. They even helped a water user become more efficient with irrigation water so more could be left in the creek for fish like me! Let's see (swimming, swimming swimming), she said swim downstream past the double boulders, through the next two riffles, the bedrock chute, over the concrete dam (Ouch! Disoriented! Watch for predators!) and it's on river left. I think I can feel it. Oh my goodness, yes. This is it. I'm in! Now, where to find some emerging mayflies...?

Jay Doino is a biologist with Oregon Department of Fish and Wildlife (ODFW) and has been working in fisheries in the Rogue Basin since 1999.

SPECIES SPOTLIGHT

# White Alder: Working for Stream Health

by Max Bennett

White alder is among the most common streamside tree species at lower elevations in the Rogue Basin. It’s a true riparian obligate – you won’t find it far from running water. Easily recognized by its white bark, egg-shaped leaves with toothed margins, and small brown “cones,” white alder does a lot of work to maintain stream health: Its dense root system anchors the bank and prevents erosion. Its leaves are an important food source for macroinvertebrates, which in turn feed fish. The trees’ canopy casts shade, helping keep streams cool. The trees are habitat for wildlife, particularly older, decaying trees that can be excavated by cavity-nesters. And alders even fertilize the soil! How? Pull up an alder seedling and you’ll see some funny-looking growths on the roots, called nodules. These are inhabited by bacteria that are able to pull nitrogen directly from the atmosphere. The nitrogen is available for the tree’s use, and when the roots die and decay, the nitrogen is returned to the soil, enhancing its fertility.

Like cottonwood, white alder is a “live fast, die young” species. It establishes on gravel bars or other mineral soil exposed or deposited by floodwaters and requires ample sunlight for good growth. As a result, heavy blackberry thickets inhibit alder regeneration. White alder grows quickly early in life but seldom exceeds a century in age.

White alder, red alder, what’s the difference? The easiest way to tell them apart is to look at the leaves. Red alder leaves have margins that are tightly rolled under. White alder margins aren’t. The bark of mature white alders is often platy, while red alder’s is smooth. Both species occur in our area, but red alder tends to be found in riparian zones that are cooler and moister.



Photo by Brad Withrow-Robinson, OSU Extension

Max Bennett has worked for the Oregon State University Extension Service in southern Oregon since 1999, managing forestry and natural resource education programs for landowners and natural resource professionals.



## Swimming with Salmon



Anyone with a license can fish for salmon in the Rogue basin, but it takes a real fan to swim with salmon. This summer our team of hardy volunteers donned their wetsuits and snorkels, splashed down on their bellies, and ventured up five area streams to document juvenile fish populations. By floating underwater, we can see juvenile fish up close, making it easier to identify them. Snorkel monitoring is a great way for volunteers to observe fish in their natural habitat; learn how to identify various juvenile fish species; and get hands-on experience collecting data that will help RRWC plan and evaluate restoration projects.

We are always looking for more volunteers to help us collect this important data. We need both snorkelers and data recorders. The RRWC juvenile snorkel survey season lasts from mid-June through August. If you are interested in learning more about becoming a snorkel monitoring volunteer, please contact us!



### *New Workspace for RRWC!*

RRWC will be moving into a new workspace later this fall. The Jackson Soil & Water Conservation District is expanding their building, allowing RRWC to move from two offices on separate floors into one RRWC-dedicated space. See our unfinished second-floor digs above, and come see us when it's finished!



RRWC volunteers at work



### *What People are Saying about the Rogue River Watershed Council*

The background and expertise the Rogue River Watershed Council has on staff for grant writing and project management, along with knowledge of contacts in the professional field, will help the City on our Eagle Point Lagoon project. I'm looking forward to working with all of you!

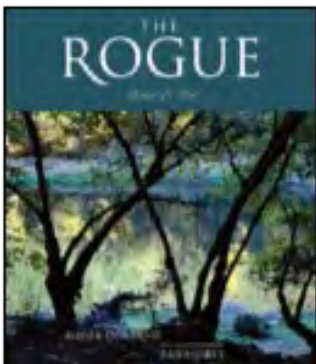
~ Gary Shipley, City of Eagle Point



### *A Banner Year*

It's always good to get noticed at outreach events. Our new banner purchased with funds from a Meyer Memorial Trust grant should guarantee that! The centerpiece of the banner is a stunning image of the Rogue River taken near Meadow Creek, in the Wild Section of the river. Professional artist Roger Dorband generously donated a one-time use right to his photo for this effort.

This photo is one of many that Mr. Dorband has taken of the Rogue, and is included in *The Rogue, Portrait of a River*, a gorgeous coffee table book that visually traces the river from its birth in the Cascades to its broad mouth at the Pacific Ocean. The book is filled with over 100 color photos of the river, as well as many historical black and white images. Dorband, who spent his childhood along the river in Grants Pass, peppers the book with a text that is part cultural history, part natural history, part autobiography, but totally informative and inspiring.



This book is the next best thing to actually being on or along the river. The book is available for purchase at your local bookstore, online through Amazon Smile, or from the artist's website (autographed copies).

<http://www.ravenstudiosart.com/roguebook.html>.



## OFF THE RESOURCE SHELF

**Working to ID the “Little Guys”**

Just how easy is it for our snorkeling volunteers to identify what species of fish they’re observing? Well, if they were looking at adult fish, it wouldn’t be much of a problem...after all, if you’re a seasoned angler (which most of our crew are) you know the difference between an adult Coho Salmon and a steelhead (or at least you’d better be able to!). But how about those little guys, those in that fry-to-smolt stage like these parr? How would you do on our snorkeling team? Do you know what species you’re looking at here?



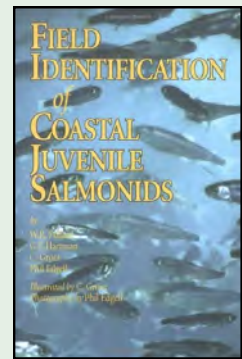
For help in learning how to use fin characteristics such as shape, size, and color; parr markings—those vertical “blotches” you see on the sides of the fish; and other diagnostics to identify the difference between steelhead, Chinook, and Coho Salmon, visit one of the following websites or check out the book, *Field Identification of Coastal Juvenile Salmonids*.

[http://www.fpc.org/bon\\_jda/handleid01.html#SPECIES](http://www.fpc.org/bon_jda/handleid01.html#SPECIES)

[http://fiscusfishtech.weebly.com/uploads/1/5/3/5/15350710/1of2ft\\_salmonid\\_idjan15.pdf](http://fiscusfishtech.weebly.com/uploads/1/5/3/5/15350710/1of2ft_salmonid_idjan15.pdf)

[https://www.oceanconnect.org/packets/connect/2014/presentations/wedpm/Salmon\\_ID.pdf](https://www.oceanconnect.org/packets/connect/2014/presentations/wedpm/Salmon_ID.pdf)

[https://www.adfg.alaska.gov/static/home/library/pdfs/habitat/adfg\\_hr\\_id\\_cards\\_v1.1.pdf](https://www.adfg.alaska.gov/static/home/library/pdfs/habitat/adfg_hr_id_cards_v1.1.pdf)



*Field Identification of Coastal Juvenile Salmonids*

by W.R. Pollard, et al.

Answers to species identification are on the back page.

**We’ll Get by with a Little Help from Our Friends...**

Do you value having clean, swimmable waters in your local streams; watching the spectacular return of spawning Chinook Salmon each fall; hearing the slap of a beaver tail on an off-channel pond; seeing native vegetation – not Himalayan blackberries – along your neighbor’s creekside property? Or perhaps dream of the day you can catch and KEEP a wild Coho Salmon from the Rogue River?

If so, you’re definitely one of our friends. RRWC values the same things and we’re working hard to make sure that the Rogue River watershed keeps, improves, or achieves all those things we, together, value.

Now it’s time you became one of our *Friends* – those individuals, families, and businesses that help us achieve our goals by financially supporting our work through the RRWC Friends Program.

The Friends Program is what some would refer to as a membership program. We think our supporters are much more than just members, however, so we decided to rename our membership program a Friends Program.

Becoming a Friend is easy, the cost is minimal, and the rewards are great. In addition to receiving our newsletter and very cool logo decal, you get the satisfaction of knowing that we – because of your support – are doing everything we can to keep the waters of the watershed clean, cool, and full of wild salmon and steelhead.

Please help us help YOU realize the Rogue River watershed we all value and dream about!

Individuals, families, and businesses who join or renew now will enjoy their membership through 2017. Become a Friend on our [website](#), through our Facebook page, in person, or via the mail. Student (21 years and under) Friendships are just \$5; Individual Friendships, \$20; Family Friendships, \$25; and Business Friendships, \$100.

*For those of you interested in supporting our efforts at a higher level, please contact our office at 541-423-6158.*

## Support Our Work!

### Make a Donation

All donations are greatly appreciated, put to good use, and are tax-deductible. Donate online at <http://www.rogueriverwc.org/get-involved/donate/>.

### Fred Meyers Rewards

Help RRWC earn donations by shopping with your Fred Meyer Rewards Card. Link your card to us at <https://www.fredmeyer.com/topic/community-rewards-4>. Search for us by name.

### AmazonSmile

Online shoppers can go to [smile.amazon.com](http://smile.amazon.com), click on your account and select RRWC as your charity of choice at no cost to you.

Answers to the fish identification from left to right:  
Steelhead, Coho, Chinook

**Rogue River Watershed Council and Surrounding Area**

Legend:  
 Rogue River Watershed Council  
 Other Watershed Councils

Map labels include: Lower Rogue Watershed Council, Rogue River Watershed Council, Seven Basin Watershed Council, Williams Creek Watershed Council, Rogue River, Grants Pass, Rogue River, Gold, Eagle Point, Butte Falls, South Fork Rogue River, Little Rogue River, and Rogue River Watershed Council.

Callout Box 1: "Would you like to help us by distributing RRWC newsletters or rack cards at your place of business? Give us a call!"

Callout Box 2: "It's time to renew your RRWC 'friendship.' Get a cool RRWC decal when you do!"

Callout Box 3: "Stay connected! E-mail us to be added to our e-mail list for the latest RRWC news and announcements. And don't forget to like us on Facebook!  
<https://www.facebook.com/RogueRiverWatershedCouncil/>

Logo: **ROGUE RIVER WATERSHED COUNCIL**  
 Promoting stewardship of the Rogue River watershed

Inset Map: Rogue River Watershed Council

Footer: DDFW, EPA, Esri, NOAA  
 Map by: Geos Institute  
 January 27, 2015