

# The Confluence



Fall/Winter  
2021

Credit: Justin Clifton



## Notes from the executive director's desk

I'm thrilled to report that 19 months of the pandemic haven't slowed our restoration efforts. But it sure has made gathering with groups a challenge. Sharing our love of the watershed and the natural processes that create and sustain high quality water and dynamic habitats is a key element to our work.

To counteract our inability to gather folks up and share the watershed with them, we took small groups to the watershed. Thirty-three of our supporters joined us for tours of the Almeda Fire area near Phoenix. We organized 27 volunteers who spent 160 hours hand pulling blackberries, planting native trees and shrubs, and watering those plants at the Suncrest Rest Area near Talent. And we partnered with the Klamath Bird Observatory (among others) and engaged 35 community scientists to monitor birds that are providing insights into the health of streamside forests from Ashland to Central Point.



*Volunteers staking willows in Payne Creek.*

Our efforts in 2021 look a lot different from the previous six years. But the results, we think, are better. Please be on the lookout for additional tour and volunteer activities in 2022. And, by all means, join us out there!

## Remembering Phylis McIntosh

The RRWC Board of Directors lost a significant asset with the unexpected death of Phylis McIntosh. When Phylis retired as a buyer for plant nurseries in the Portland area she moved to the Rogue Valley and brought with her an extensive knowledge of Pacific Northwest flora and ecosystems and a love of learning new things (such as the taxonomy and distribution of the bees of southern Oregon). She lived in a home in Grants Pass with a wall of windows facing the Rogue River, where she could watch her tomatoes ripen in her garden. In 2020, she joined the Board and brought her thoughtful, fresh ideas to a variety of situations as well as a willingness to get physical when a job required it. Her death leaves a huge hole in the Board. She will be missed and we are grateful for all she did for RRWC.



# Drone's eye view

Pat Whitney, South Fork Little Butte Landowner

## South Fork Little Butte Creek 7.6

Credit: P.A. Whitney & Assoc.



When you mention drones to most people, they think of the toy that was given to their kids last Christmas that flew around the house knocking things over. While that may be what most people think, nothing could be further from the truth when drones are put into professional hands.

Completed large wood structures on South Fork Little Butte Creek.

Credit: P.A. Whitney & Assoc.



South Fork Little Butte Creek photo-mosaic.

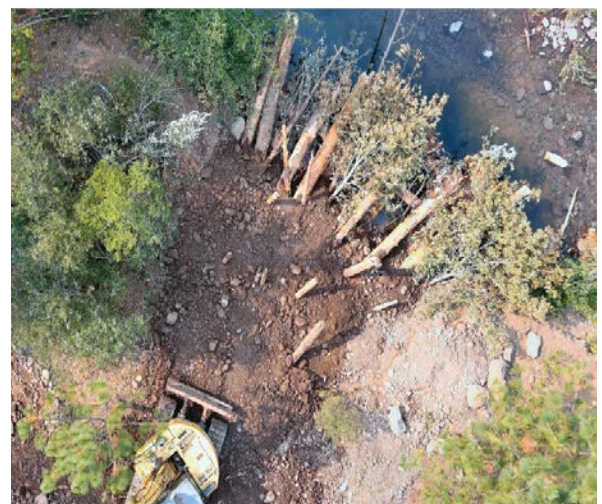
We use drones in environmental work, to create stitched photo-mosaics (shooting hundreds of vertical photos to provide a composite picture) that provide close-ups and photos of large wood structures and construction activity from viewpoints which would have been impossible to achieve using normal photographic methods.

For example, at the South Fork Little Butte Creek project this summer, we provided site overviews using photo-mosaics, still photographs, and videos.

All in all, a drone in the right hands is an invaluable tool for documenting restoration work in any number of ways.

Professional drones are data gatherers, either visual images or actual data. We at P.A. Whitney & Associates use drones to capture visual images from viewpoints unattainable by any other means. Think of it as an extremely versatile camera platform with exceptional quality... your handheld camera on steroids.

A professional drone contains any number of micro-computers, propulsion motors, stability and obstacle avoidance systems, a GPS location system, and a high-resolution camera system that is gimbaled for image stability.



Excavator creating a large wood structure on South Fork Little Butte Creek.

Credit: P.A. Whitney & Assoc.

# Community-powered bird surveys

Dr. Sarah Rockwell, Research Biologist, Klamath Bird Observatory

## Bear Creek

How healthy is our local Bear Creek watershed? You could start to answer this by measuring water quality (like oxygen or pollution levels), fish abundance or amount of spawning habitat, or the number of invasive weeds compared to native vegetation on the creek's banks. One measuring stick for watershed health you may not have thought of is the abundance and diversity of bird species. Birds have acted as our canaries in the coal mine ever since the days when miners would bring caged birds with them underground to test the air quality.

Birds continue to be important bellwethers of environmental health, and can act as an early warning sign when an ecosystem is stressed. In this way, they can help paint a broader picture of watershed health than water quality alone.

To help paint this picture, local conservation organizations and southern Oregon birdwatchers have come together to monitor long-term changes in the bird community over time. The goal of the Bear Creek Community Bird Survey (BCCBS) is to use bird populations as one indicator of watershed health, and to measure whether riparian areas along our local Bear Creek Greenway are improving through ongoing restoration efforts or continuing to degrade from factors like human development or climate change.

Surveys have occurred twice a month at seven different sites between Ashland and Central Point since January 2021. As the first year of the Bear Creek Community Bird Survey nears its end, the dataset this volunteer scientist team has collected is impressive! Over 30,000 records have been submitted to [eBird.org](https://eBird.org) so far, including thousands of American Robins, Lesser Goldfinches, Red-winged Blackbirds, and Acorn Woodpeckers. Riparian specialists such as Song Sparrow, Yellow-breasted Chat, and Yellow Warbler have also been detected frequently - plus several interesting, less common species such as Peregrine Falcon, Common Nighthawk, Solitary Sandpiper, and Virginia Rail.



Credit: Frank Lospalluro

*Yellow-breasted Chat perched in riparian vegetation.*

## Partnering organizations



# Community-powered bird surveys cont'd

## Bear Creek

The amount of riparian habitat in Oregon has been reduced to a small extent of its historical coverage, yet it supports a great diversity of plants and animals. It provides critical habitat for many bird species that rely on deciduous plants and nearby water to raise young, survive the winter, or rest and refuel during migration. The Bear Creek Greenway is a 20-mile paved path that runs through a large swath of riparian habitat in an otherwise mostly urban part of the Rogue Valley. It is an important resource for both human recreation and wildlife habitat.



Credit: Frank Lospalluto

Bear Creek along the Bear Creek Greenway.

In September 2020, multiple fires burned across the Rogue Valley, devastating neighborhoods and altering much of the riparian habitat along the Bear Creek Greenway. As our resilient local communities have come together to rebuild, the natural system has begun to regenerate as well. While not an originally planned purpose of the Bear Creek Community Bird Survey, we now have the opportunity to use survey data to study how bird populations were affected by the 2020 fires, and how they respond as riparian vegetation recovers, alterations are made to the Greenway to reduce fire risk, and habitat restoration efforts take effect.

The bird data – narrowed to a focused list of bird species that nest in the streamside vegetation in summer – will also be used to create a report card-style grade of riparian bird populations that can be tracked over time. In the future, we plan to expand the survey effort to sites in the Rogue River watershed beyond Bear Creek. Results will be combined with several other metrics collected by Rogue River Watershed Council and other partners (such as water quality parameters, fish populations, fish habitat availability, noxious weed cover, etc.).

The goal is to create a Rogue River Watershed Health Report Card that will be a useful barometer of watershed health over the years. Stay tuned for more updates!



Credit: David Rockwell

BCCBS volunteer at North Mountain Park, Ashland.

## Survey by the numbers

35 community scientists    1,000 walking hours

30,000 records on [eBird](#)    4 organization partners

ONE new bird community monitoring program

# Applegate River

One project, three dam removals, 15 stream miles more accessible

Slate Creek



*Harboldt Dam site prior to removal.*



*Harboldt Dam site after removal and placement of large wood structures.*

The multi-faceted Harboldt Dam project involved the removal of three dams on Slate and Welter Creeks, immediately west of Grant Pass. The result was substantially improved access to approximately 15 miles of habitat for spawning salmon and trout, among other native fish and aquatic species. The dams' water diversion function was updated with a fish-friendly, solar powered, screened, and metered pump. Slate and Welter Creeks are now entirely free-flowing at the former dam sites for the first time in at least 80 years.

## Celebrate the Rogue! 2021

Special thank you to all our generous Celebrate the Rogue! 2021 supporters this year including our individual donors and business sponsors.

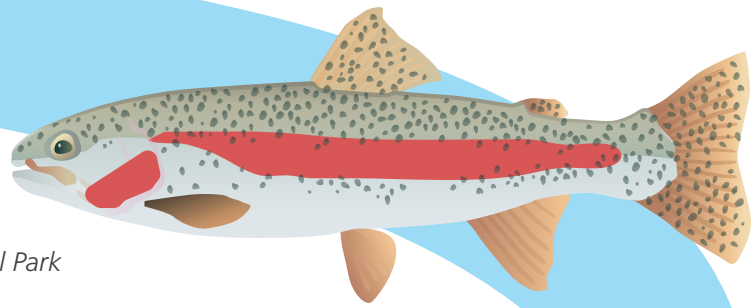
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# Species spotlight: Cutthroat Trout

*David Hering, Aquatic Ecologist/Fish Biologist, Crater Lake National Park*



An under-appreciated Pacific Northwest salmonid is the Coastal Cutthroat Trout (*Oncorhynchus clarkii clarkii*). Less renowned than its more famous salmon and steelhead cousins, this strikingly beautiful little fish is often unnoticed by people despite its widespread distribution in our region. Coastal Cutthroat face challenges from habitat loss and human disturbance like other coldwater fishes, yet they persist in streams, rivers, and estuaries throughout their native range from Northern California to Alaska.

In the Rogue River Basin, Coastal Cutthroat can be found in almost every stream, from headwater tributaries to mainstem rivers. When biologists search small Rogue tributaries to determine fish presence, cutthroat are often the species found farthest upstream. Cutthroat are heavily speckled, colorful fish with a characteristic red mark on the lower jaw. They are spring spawners and may spawn multiple times, with lifespans of roughly 4 to 8 years. One of the species' most interesting traits is its life history diversity. Cutthroat can be anadromous like steelhead, they can migrate within freshwater systems (biologists call this potamodromy), or they can live entirely in small streams. Sea-run cutthroat are common in the lower Rogue, and potamodromous and resident forms dominate higher in the watershed. Some resident fish even populate high elevation Cascades streams in the Upper Rogue, although their distribution above Lost Creek Reservoir is patchy.

What makes the Coastal Cutthroat's varied life history particularly interesting is that it demonstrates behavioral plasticity—individuals may become resident or migratory in response to environmental cues or habitat conditions, as opposed to being “hardwired” to exhibit one behavior or another. Early in my career, I implanted tracking devices in juvenile Cutthroat Trout and followed them as they migrated downstream from small creeks through the massive Columbia River estuary, with its container ships and gillnet fisheries, all the way to the ocean.

At the same time, other cutthroat from the same area, possibly even siblings of the migrants, stayed behind and lived their entire lives in the shelter of small, forested streams. This ability for fish from the same population to live dramatically different lifestyles is what captivates many biologists who study Coastal Cutthroat, and such life history diversity may give the species extra resilience to ecological disturbance or changing climate.

A recent analysis by the Oregon Department of Fish and Wildlife found few concerns about population viability of Coastal Cutthroat Trout in southern Oregon, see [ODFW's Draft Rogue-South Coast Multi-Species Conservation and Management Plan](#), on the agency's website. With continued thoughtful management of its diverse freshwater habitats, the Coastal Cutthroat Trout likely will continue to live quietly among us for generations to come.

# Coming Around Again

Lance Wyss, RRWC Restoration Biologist

Frosty freshness fills the invisible spaces, awakening a focused awareness, and the crisp breath has returned to the early morning light; carrying the fragrant, newly saturated soil and falling leaves that blanket the ground, giving back the nutrients of life

Acknowledgment of annual change has begun, memorialized by geese moving about the landscape preparing for the long journey ahead, the flight patterns appear erratic, crisscrossing the pure blue sky, dotted with white and grey storm clouds

There is an anticipation in the creek water, waiting to receive a recharge of rejuvenating flows, and the return of the creatures who have journeyed into the oceanic vastness, only to come home and leave their legacy

Our nocturnal consciousness moves its presence into prevalence, solitude and comfort provides a pause for reflection and gratitude of experiences and time that have passed

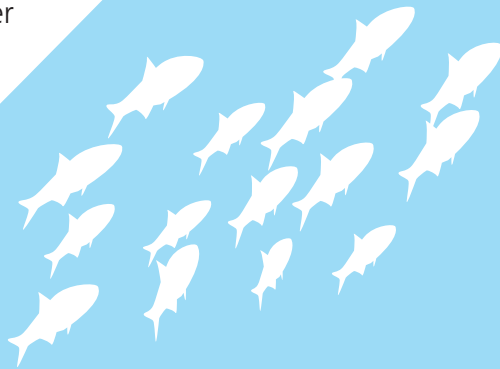
## Welcome, Crystal Nichols!



Back in August, RRWC welcomed Crystal Nichols as the new Community Engagement Project Manager. Crystal is not new to RRWC involvement or the Rogue Valley, but she is excited for this opportunity to use her skills to further the mission of RRWC.

Crystal built upon a foundation of aquatic biology research with environmental education, documentary filmmaking, and most recently science communication experience.

Bringing these passions together, she has one main goal — to engage the Rogue River watershed community in an impactful way that promotes stewardship throughout the Basin.



## Rogue River



## Acknowledgments

Thank you to our guest authors for sharing their valuable insights and perspectives.

Trout and fish school symbols are courtesy of the Integration Application Network symbol library.

All graphics are by RRWC staff unless noted otherwise.

## Pacific Ocean