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Yreka Fish and Wildlife Office

Summer/Fall 2018 Newsletter

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Notes from the Field Supervisor

I'm happy to be able to share this inaugural edition of the Yreka Fish and Wildlife Office (Yreka FWO) newsletter with you. We plan to produce this newsletter on a regular basis and hope to present you with articles that provide insights into our work, including the challenges and opportunities that engage us across the vast forests and working landscapes of this beautiful area. We have a great staff here and are proud to work with numerous, dedicated partners at the local, state, Tribal and regional levels.

By way of background, this office was established in 1987 as the Klamath River Fisheries Resource Office and has evolved over time to include programs that focus on working with private landowners, Tribal relations, fisheries and endangered species conservation and recovery. It is one of four U.S. Fish and Wildlife Service offices in the Klamath Basin that include the Klamath Basin National Wildlife Refuge Complex and the Klamath Falls Fish and Wildlife Office located in Oregon, and the Arcata Fish and Wildlife Office located to the southwest along the coast (*see map on last page*). Since 2010, we have invested nearly $15 million in private lands restoration in the Klamath Basin, including dozens of projects in Siskiyou County.

One of Secretary Ryan Zinke's national priorities is to create a conservation stewardship legacy, second only to Teddy Roosevelt. What a wonderful goal! Balancing the needs of local communities with the natural resources on which we depend is a central component that will help us achieve this goal. The contined drought and increasing frequency of fires in our communities come to mind as among the most pressing. We are so fortunate to have had such a first rate response to the recent Klamathon Fire by CALFIRE, the Siskiyou County Sheriff's office and other first responders. Without their speedy response and coordination, even more damage would have ensued.

Last fall, I had the opportunity to join Siskiyou County Supervisors Haupt and Kobseff on the Water Tour. Elizabeth Nielsen, natural resources policy specialist for Siskiyou County, did a great job coordinating participants who were able to spend time with local ranchers and landowners learning about their water-related needs and challenges. As a result of this tour, our office is planning to provide funding and technical assistance to one of the ranchers we visited to ameliorate streambank erosion issues and conserve fish and wildlife. You can read more about this type of project in the following pages.

You are welcome to stop by our office at any time and say hello. We hope you enjoy this and future newsletters!

All the best,

Jenny Ericson
Field Office Supervisor

Restoring Habitat: It's About the Birds and Beavers

The moon is waxing. It's a crisp summer morning as the sun starts to peek out over the top of the Scott Mountains and blanket the valley with a warm embrace. A host of insects are buzzing as the subdued ripples of Sugar Creek merge with the Scott River. A lone drake wood duck preens while juvenile Coho swim beneath his feet. The accelerating, whistling notes from a yellow warbler signal that dawn has come.

- Ryan Fogerty

A mere four years ago, this stretch of lower Sugar Creek was completely dry. Today it's a flowing wetland abundant with life. It's a transformed landscape. What caused this amazing ecological shift? An idea and a rodent…beavers.

Beavers are nature's engineers. Natural beaver dams have been shown to have a wide range of positive benefits including: increase in aquatic and terrestrial biodiversity, reduced downstream flooding, decreased aquatic pollutants, groundwater recharge, reduced stream velocities, and creating ponds and wetlands.

Historically, the Scott Valley was referred to as "Beaver Valley". The fur trade in the 1800s greatly reduced the population and most beaver dams were demolished by humans or washed out by winter storms.

In 2014, seeing an opportunity to improve stream conditions, the Yreka FWO's habitat restoration branch designed a project utilizing a newly emerging and innovative technique, beaver dam analogues, or BDAs.

The biologists learned of this technique from Michael Pollock, an Ecosystems Analyst with NOAA Fisheries - Northwest Fisheries Science Center. The combined knowledge of the Yreka FWO and the Scott River Watershed Council (SRWC) paired well with Pollock's expertise in watershed restoration.

To create BDAs, wooden poles are driven into the dry creek bed and willow branches are woven between them to simulate the effects of a natural beaver dam (*see photo at left*). The intent of these structures is to recreate the positive effects natural beaver dams provide.

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Above: A series of beaver dam analogues in Sugar Creek, showing ponding effect which benefits native riparian plants and wildlife. Left: Sugar Creek BDA under construction. Credit: USFWS

Above: Sugar Creek BDA after construction created an upstream pool. Credit: USFWS

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BDAs have proven to be a cost-effective and ecologically beneficial way to increase aquifer recharge and slow water velocities while still providing passage for fish. For example, a strategically placed BDA on the Scott River helped a rancher improve a streambank near his pasture. The site on Sugar Creek was chosen because of prior beaver activity. Excitingly, beaver have returned and are now maintaining the structure.

The Yreka FWO has partnered with and provided funding and technical assistance to the SRWC for almost twenty years. Since 2014, we have collaborated with SRWC to construct BDAs in multiple locations across the Scott and Colestin Valleys. In addition, we have invested over $450,000 in construction and maintenance of BDAs in partnership with nine private landowners.

Charnna Gilmore, SRWC Executive Director praised the benefits of the watershed projects. "The work not only provided ecological benefit for Coho salmon habitat, but also provided jobs in the community, which is huge in an area where work is hard to come by," Gilmore said. "We also host annual educational field tours to an array of sites, including BDAs, for students from local high schools, Humboldt State University and Stanford University."

Extensive monitoring, including vegetation, bird diversity and fish abundance, has been conducted at BDA sites. The adjacent riparian vegetation has responded tremendously. The willows and dogwood are booming and with them the migratory birds. Bird abundance and diversity has been tied directly to ecosystem health. Site monitoring in the fall of 2016 and 2017 found 106 bird species within 100 meters of the BDAs.

So the next time you're enjoying the serene beauty of the Scott River system and you hear a bird singing, you might just have a beaver to thank!

- Ryan Fogerty, supervisory fish and wildlife biologist

Strengthening Partnerships: Pit River Tribal Consultation

An introductory Tribal Consultation meeting occurred in November 2017 between the Pit River Tribe (Tribe) council representatives, staff and elders, U.S. Fish and Wildlife Service (Service) Pacific Southwest Regional Director Paul Souza, as well as Service regional, field office and refuge staff.

After this initial meeting, the Tribe requested we meet on a regular basis. The Service is greatly honored by this invitation and as a result has met with the Tribe twice and are scheduling future meetings on a quarterly basis.

Led by the Tribe, topics of discussion include a shared vision of habitat restoration and conservation, recovery and protection of native fish and wildlife, environmental stewardship, Tribal sovereignty, updates on the proposed eagle permit ruling and the development of a Memorandum of Understanding between the Tribe and the Service.

Communication between the Tribe and the Service has been informative and rewarding. The Service looks forward to continued dialogue and further building of a lasting collaborative relationship with the Pit River Tribe.

- Trevor Super, Native American program specialist

Landscape Connectivity: Locating Pathways for At-Risk Species

How does an animal navigate through its landscape? How does it decide which paths to take? Natural landscapes are becoming increasingly isolated from one another. Connections between fragmented landscapes increase animal movement and improve species viability.

For species of high conservation concern such as the Pacific fisher and American marten, locating important areas for connectivity can help guide on -the-ground management actions and accelerate the conservation of at-risk species before ESA regulation is necessary.

In October of 2017, the Yreka FWO began working with the Conservation Biology Institute (CBI) to assess connectivity across the landscape for the marten and fisher in northern California and southern Oregon.

The goal of this effort is to help manage public lands, and where appropriate and feasible, restore habitat within the range of these species. The process allows for identification of areas where federal agencies, willing landowners and other conservation partners can make contributions towards recovery of at-risk species. Knowing where to focus outreach efforts allows us to improve efficiencies and possibly avoid further regulation.

The models and underlying data produced by this effort will be discussed in a series of informal stakeholder workshops hosted by the Yreka FWO and CBI. These workshops are part of the mid-Klamath Strategic Habitat Conservation initiative, which strengthens and expands the partnerships developed by the Arcata Fish and Wildlife Office in the Lower Klamath Basin.

At these workshops, partners will have the opportunity to review the product to ensure the mapped priority areas make sense. Decision makers and managers will be tasked with defining key management questions and objectives related to habitat connectivity for the fisher and marten and determining if the model answers these questions.

They will also help identify how the data generated by this project can be used to improve conservation for these species. The product can be used for management planning but is not regulatory and workshop participation is voluntary.

We are optimistic this effort will generate further discussion about how collaboration and use of existing land-use planning tools can support management decisions or actions in areas that are important for connectivity.

Since habitat loss and fragmentation are increasingly cited as the main drivers for population declines, we hope that a collaborative, landscape-focused effort can help connect fisher and marten habitat.

- Dr. Michelle Reilly, fish and wildlife biologist

Above: Pacific fisher, left and American marten, right, are two at-risk species that will benefit from this landscape connectivity modeling effort. Credit: USFWS

Left: Map depicts the connectivity analysis boundary in red. Credit: Conservation Biology Institute

Working with Neighbors

Over the past decade, the Yreka FWO has worked closely with private landowners and other partners to address water quality issues in the Scott River. Since 2014, we have funded six private land projects along the river totaling over $440,000.

Between 1992 and 1998 the Environmental Protection Agency added the Scott River to California's Impaired Waters and Total Maximum Daily Loads (TMDL) list because of elevated sediment levels and high water temperatures. According to the Scott River TMDL Action Plan, the reduction of shade-providing vegetation was the primary factor causing higher water temperatures and stream bank failure was a major source of increased sediment in the river.

We address high water temperatures and elevated sediment levels by designing and implementing projects to stabilize stream banks and improve riparian (near stream) conditions to benefit fish and wildlife.

Our techniques include the strategic placement of engineered logjams, willow deflectors and mats to divert the flow of water away from failing streambanks as depicted in the photo at left. *(Credit: Preston Harris/Siskiyou Resource Conservation District)*

These engineered features arrest the lateral (sideways) migration of the river, which reduces sediment and promotes the growth of natural riparian vegetation along stream banks. Additionally, to accelerate the establishment of shade producing and bank stabilizing vegetation, we plant native species.

Along with addressing water quality issues, these projects increase in-stream complexity and create spawning and rearing habitat for anadromous (migratory) fish. Healthy riparian areas also provide habitat for migratory and resident birds.

- Dave Johnson, fish and wildlife biologist

New EEO Training

This past April, Dr. Michelle Reilly, Yreka FWO biologist, developed and presented an Equal Employment Opportunity (EEO) training titled "Deaf Community, Statistics, and Ideology." The class provided information on the deaf population in the U.S., historical facts, as well as perspectives on the deaf community via Ted Talk videos.

The goal was to gain familiarity with the deaf community and recognize their contributions to society. One important concept that was introduced was that of "deaf gain." Deaf Gain is defined as a reframing of "deaf" as a form of sensory and cognitive diversity that has the potential to contribute to the greater good of humanity. Just as other cultures have intrinsic value, so does deaf culture.

Slide from presentation created by Dr. Michelle Reilly of the Yreka FWO. The training is being developed into a webcast through the Office of Diversity and Inclusion.

Mentoring Moment

The Region 8 Mentoring Program was launched in 2014 as a way to improve employee morale and foster cross-programmatic relationships for leadership development. The program aligns with the Secretary's national priority of achieving our goals and leading our team forward.

The program is open to all Service employees, regardless of series or grade level, and facilitates a 1:1 relationship between a mentee and mentor, where the mentee has a confidential sounding board to explore topics such as employee and career development, and personal leadership skills.

Serena Doose and Rebecca Reeves, fish and wildlife biologists from the Yreka FWO, are participants in the 2018 Mentoring Program.

Mentee/mentor assignments were revealed at a two-day workshop in Auburn, California. The teams are expected to meet regularly for at least nine months.

Doose was paired with an experienced mentor from the Sacramento Field Office. They discuss progress on set objectives for both personal and professional development during their regularly scheduled phone calls. Doose's mentor visited her in Yreka, and Doose recently met her mentor in Sacramento for a series of job shadows, site visits and informational interviews.

Reeves and her mentee, a fisheries technician, are working on career development and leadership skills and have thoroughly enjoyed their discussions so far. Reeves was a mentee in 2017, found it valuable and is excited to give back to the program this year.

Doose appreciates the mentoring opportunity as well. "As a new employee to Region 8, this program has been very helpful in finding my way forward as well as helping me gain a broader perspective on where I am now and where I want to be in the future," said Doose. "This is an exceptional program for the development of all employees at all career stages careers."

- Rebecca Reeves. Serena Doose
fish and wildlife biologists

Class of 2018 Pacific Southwest Region Mentoring Program in Auburn, California. Credit: USFWS

Building Community Relationships: Siskiyou Sportsmen's Expo

This past March, the Yreka FWO partnered with the Klamath National Forest to staff an exhibit at the 13th annual Siskiyou Sportsmen's Expo. Over 3,100 people attended the event, held at the Siskiyou County Fairgrounds. This marks the ninth year for the collaborative effort between the two agencies.

Yreka FWO staff provided information to the public about local wildlife using skins, skulls, scat, tracks and mounted specimens. Becca Reeves, Partners Program biologist commented how the porcupine mount sparked stories from the public about the species being more rare these days than in the past. Many visitors were also stumped trying to identify the long-tailed weasel mount.

Staff learned a few things from the public as well. One hunter demonstrated to Serena Doose, fisheries biologist, the best way to pick up a porcupine: by the tail while it's walking away. Many community members expressed a deep familiarity with local wildlife, whether through trapping, hunting or simple observation.

Christine Jordan, wildlife biologist was surprised as an 11 year-old boy correctly identified all of the various wildlife items displayed on the table.

Christine Jordan, biologist, guides young visitors through wildlife identification at the Siskiyou Sportsmen's Expo. Credit: Sam Cuenca/USFS

Several staff remarked how the exhibit sparked conversations about local wildlife issues and provided an opportunity for dialogue with the public.

Sam Cuenca, wildlife biologist with the Klamath National Forest, appreciated the Expo for the chance it gave agencies to address science and biology with the public in an enjoyable interactive setting.

- Jen Jones, fish and wildlife biologist

Service staff at the Sportsmen's Expo booth. From left: Susan Sawyer, Christine Jordan and Becca Reeves with friends from Klamath National Forest. Credit: Sam Cuenca/USFS

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We Are Yreka FWO: Up Close with - Shaughn Galloway

Each newsletter we will introduce a Yreka FWO staff member. This issue, we feature Shaughn Galloway, fish and wildlife biologist and one of the newest members of the team.

Galloway grew up in Springville, California near Sequoia National Forest and spent a lot of time outdoors camping, fishing and hiking with his family. He credits that along with having a great mentor for providing him direction towards biology.

"My mentor got me started on my current path, which was very helpful when I encountered a fork - or any kind of silverware - in the road," Galloway said with his easy sense of humor.

Shaughn holds a BS degree in Wildlife Ecology and Conservation from University of Nevada/Reno, and is currently working on a Master's degree in Geographic Information Science and Technology from University of Southern California.

When asked why he became a biologist, Galloway answered "because I didn't want to work behind a desk," ironically as he sat at his desk. "That part didn't work out too well, but I realized that being behind a desk is sometimes how you can make the biggest difference in getting the conservation done."

After graduating college, Galloway worked for Great Basin Institute, alongside Nevada Department of Wildlife establishing the California spotted owl monitoring program in the Lake Tahoe basin. Galloway is credited with finding the first reproductive pair of spotted owls on Nevada State Park land in over thirty years. "That was pretty cool and a lot of fun."

From there, Galloway moved to northern Montana and worked as a biologist for a wind farm for two years, studying the impacts to raptors and sharp-tailed grouse. The call offering him the Yreka position came in January 2017. "Within a week, I quit my job in Montana, packed and drove two days pulling a U-Haul trailer in horrific blizzards. That was an experience!"

Galloway's current job involves working on interagency consultations and with private landowners on endangered species management, along with GIS duties.

The diversity of the projects and partners he works with are probably Galloway's favorite part of the job. "It helps keep my work days atypical." He said studying effects of large-scale fire on the landscape is one of the more interesting aspects of work. His challenges include finding information for large management areas, some over 100 thousand acres.

As advice to those considering a biology career, Galloway suggests getting into the field as soon as possible, be willing to work with different species or tools and be flexible - even if it means moving to another state or country in the middle of winter.

- Susan Sawyer, public affairs

Left: Shaughn Galloway holds a fisher that was face-marked as part of the Stirling fisher translocation project in 2017. Galloway says being willing to work with different species is important in a biology career. He most enjoys working with Northern spotted owl and Golden eagles.

Below: Galloway holds a Townsends big-eared bat he caught during a survey on the Sierra National Forest. Credit: Shaughn Galloway

Species Spotlight: Siskiyou Mountains Salamander

A Siskiyou Mountains salamander on rock talus. Credit: USFWS

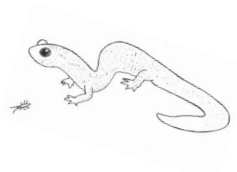
The Klamath-Siskiyou region is world-renowned for its rich biodiversity. Some of the plants and animals live only here - such as the Siskiyou Mountains salamander. This salamander is found in a small area near the Oregon-California border.

Active during wet and warm periods in early spring and late fall, the salamander stays deep underground most of the year, especially during the dry summer and freezing winter months.

This terrestrial salamander is a "lie-in -wait" hunter. It lunges from hiding spots among the rock talus to grab prey such as spiders, beetles and moths as they move within range. Salamanders play a key role in the forest food web by eating small prey that is not available to larger predators.

The Yreka FWO is working with the Klamath National Forest to develop a conservation strategy for the Siskiyou Mountain salamander, to be completed in 2019. Additionally, in Oregon, the Roseburg FWO is currently working with the Rogue River-Siskiyou National Forest and the Medford District Bureau of Land Management to implement a conservation agreement and strategy for this salamander.

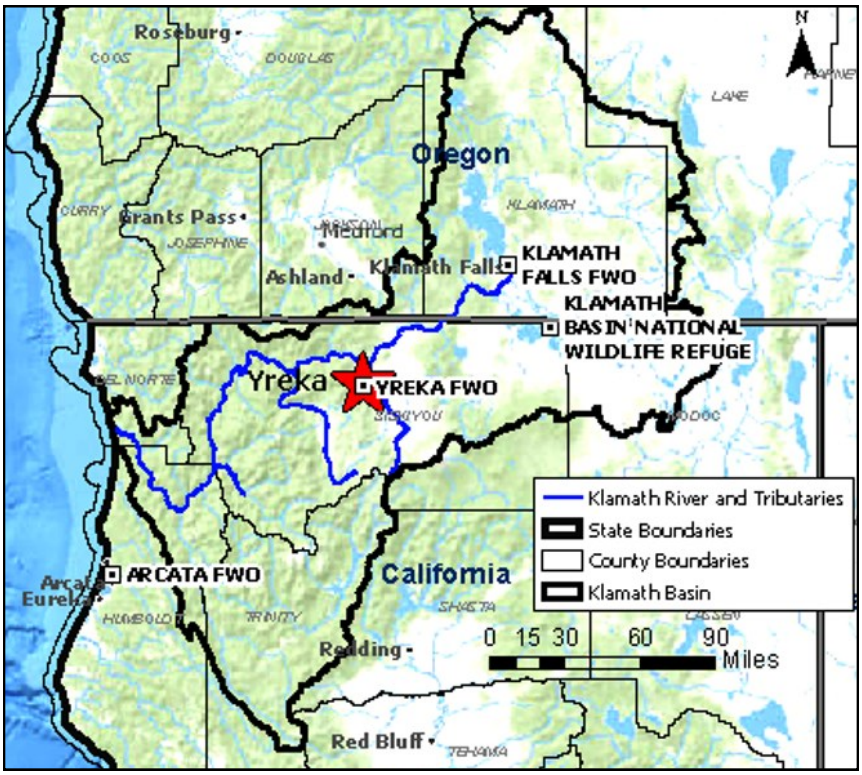
Together, these strategies will help conserve the Siskiyou Mountains salamander on all federal lands across the range of the species.



Where We Are

The Yreka Fish and Wildlife Office is located in Siskiyou County in northern California, 22 miles south of the Oregon border. We are on South Oregon Street, about 2 blocks north of the Klamath National Forest office. Yreka is often confused with Eureka, which is on the coast south of the Arcata FWO.

The black line on the map at right outlines the Klamath Basin, where four Service offices are located. The blue lines show the Klamath River and tributaries, which flow 263 miles from the high desert of southern Oregon southwest to the Pacific Ocean in northern California. The Klamath is the second largest river in California after the Sacramento River.



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On the cover : A beaver silently glides in Sugar Creek near a BDA project site. Credit: Charnna Gilmore/Scott River Watershed Council