



U.S. Fish & Wildlife Service

Yreka Fish and Wildlife Office

Winter-Spring 2020 Newsletter

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Reptile & Amphibian Edition



Notes from the Field Supervisor

During this extraordinary time of global pandemic, we invite you to take a few minutes to enjoy the delightful and curious creatures that are the focus of this edition of our newsletter. Reptiles and amphibians often inspire a sense of wonder. When I was a young child, the fascination I felt for frogs, turtles and salamanders set me on a path that led to a career in conservation and a life-long love of nature, in all its diverse and sometimes slimy forms.

Equally as engaging as the critters themselves are the beliefs and stories that have grown up around them. In this edition, you'll learn how the Karuk regard the Pacific giant salamander (púfpuuf), a descendant of the First People, as responsible for monitoring water quality and quantity in our springs and creeks.

Over the past half century, we have seen populations of both reptiles and amphibians decline across the globe. For example, it is estimated that about thirty percent of the world's approximately 7,000 species of amphibians are in decline. Reptiles and amphibians have ancient roots and have survived and adapted to Earth's changing conditions for millennia. Some, like the Shasta salamander are considered relic species, endemic to ancient geologic formations, such as the Devonian Kennett, Permian McCloud Limestone, and Triassic Hosselkus formations.

Listing species under the Endangered Species Act is one way to protect them. In addition, as described in various articles herein, we use pre-listing conservation tools in collaboration with federal, state and local partners to protect and restore populations and their habitats. In some cases, these actions can preclude the need to list species and help find balance between regulatory burdens and added protections for sensitive or at-risk species.

Also featured in this issue is our work with private landowners and a diverse array of local partners to restore wetland, riparian, and upland landscapes that provide habitat for reptile and amphibian species. The techniques used by our Habitat Restoration Branch are process-based, meaning they rely on natural processes inherent in the ecosystem to ensure resiliency and adaptation to unpredictable future conditions.

We always enjoy sharing our knowledge of the natural world through public events and activities. However, under the current state-wide shelter-in-place order, we cancelled events during the month of April, including our annual phlox walk. We also cancelled or postponed events scheduled for May. It is still unclear whether we will be able to offer events in June. This will depend on the lifting of state and local restrictions limiting the number of participants to less than ten, and ensuring the practice of social distancing. So, please stay tuned, stay well and take care!



*Jenny Ericson, Field Supervisor
Yreka Fish and Wildlife Office*





Frogs, Turtles and Riparian Restoration

On a bright day this spring, you may be lucky enough to get out and enjoy a peaceful patch of nature that is bursting with life. In one secluded spot on French Creek, willows rustle in the wind, water trickles around and over a beaver dam analogue*, birds chitter chatter in the bushes, and small fish dart about in the shallow water. Sometimes a little patch of serenity is anything but quiet.

This site looks very different now than it did just a few years ago, before the landowners initiated a series of restoration projects designed to jumpstart the natural river processes and set the creek on a course of self-recovery. It also hints of how the Scott Valley might have looked 300 years ago, before widespread beaver trapping and extensive gold mining altered the form and function of the streams and rivers.

Imagine thousands of beavers hard at work, with large parts of the gently-sloping valley floors likely covered by broad swaths of wetlands striped by beaver dams and bursting with lush thickets of willows and cottonwoods supporting billions of beneficial native insects. The calls of ducks, cranes, and frogs filled the air each spring, and Western pond turtles basked on fallen logs. Frogs and salamanders lurked under rocks and in pockets of decaying leaf litter while ring-necked snakes patrolled for bite-sized morsels.

As a result of human-caused and natural actions over the centuries, the landscape from ridgetops to river bottoms has been altered, reducing the size and complexity of wetland and upland habitats and decreasing species diversity. While salmonids and spotted owls often prevail in today's headlines, all strands of nature's food web were affected by these habitat changes. Amphibians and reptiles, which sit squarely in the center of the food web, have experienced global declines.

The Yreka FWO Habitat Restoration branch is currently working with a diverse array of local partners. We use a "process-based" restoration approach wherein the lightest touch possible nudges the system into a trajectory of self-recovery. Often, rebalancing natural ecosystem processes that create and maintain habitats is more successful than attempting to design static solutions for dynamic environments.

This process-based approach is both cost effective and more resilient to unpredictable future conditions than historically-used approaches that attempted to create specific and unchanging habitats, often to benefit only a single species.

For example, rather than designing a stream channel with specifically

engineered bends at evenly spaced intervals, a stream's inherent geofluvial power is harnessed to "let the water do the work," creating suitable instream habitats more effectively. By placing large wood back in streams, restoring healthy riparian corridors, and improving the function of floodplains, rivers naturally develop and maintain habitats supporting a broad array of species.

Providing habitat for native amphibians and reptiles through process-based restoration can even start in your own backyard. Leaving leaves on the ground in the fall, planting native plants to attract beneficial insect populations, and dedicating yard space to remain 'wild' all are ways to help these important species survive and flourish.

- Rebecca Reeves
fish and wildlife biologist

**If you would like to learn more about beaver dam analogues, see Restoring Habitat, pg. 2, Summer/Fall 2018 newsletter.*

Above: A large wood structure placed in French Creek by the Scott River Watershed Council in partnership with private landowners. Credit: Erich Yokel/SRWC

Foundations: Pre-listing Conservation

Finding ways to reduce regulatory burdens is a priority for the U.S. Fish and Wildlife Service. One way to reduce regulation is to promote conservation and recovery of at-risk species before they become listed under the Endangered Species Act (ESA). In fact, most species' conservation happens without the protections of the ESA. For example, many federal agencies like the Bureau of Land Management and the U.S. Forest Service have sensitive species programs that require the agencies to consider conservation of these species in the actions they take.

When a species is listed under the ESA it happens through a process known as classification. If that species is classified as endangered, that means it is in danger of becoming extinct. If a species is listed as threatened, that means it is expected to become endangered in the foreseeable future.

Decisions to list species are not based on a species rarity but rather on the threats a species faces. Often an individual or an organization petitions the Service to list a particular species. If the petition provides substantial information that listing may be warranted, a species status review is conducted. This determines if protection under the ESA is appropriate. Status reviews can also be conducted for species outside the petition process.

Pre-listing conservation occurs when we work on species conservation with our partners before a species needs or receives the protections of the ESA. The species may have already been petitioned for listing and may already be in the classification process, but prelisting conservation enables us to be proactive rather than reactive in our efforts. And it may help avoid the need to list a species under the ESA. It can also benefit our partners who do species conservation and help them retain management flexibility outside of the ESA arena.

The Yreka FWO continues to focus on pre-listing conservation. Below are some of the efforts being conducted by this office.

Shasta salamanders: In March 2019, a Rapid Assessment Workshop was held which summarized the current information on this species' habitat needs, population dynamics, potential threats, genetic information, and information gaps for additional research. Surveys are ongoing by the U.S. Geological Survey. (*see Successful Partnerships on pg. 4*)

Siskiyou Mountains and Scott Bar salamanders: We are working with partners to develop a conservation strategy for the Scott Bar and the southern population of the Siskiyou Mountains salamanders. The draft conservation strategy balances the protection of suitable and occupied habitat with management, such as hazardous fuel removal efforts. (*see Conservation Strategies for Salamanders on pg. 5*)

Land snails, Shasta Lake: A Rapid Assessment Workshop was conducted in May 2019. We are currently working with Shasta-Trinity National Forest to develop a pre-listing conservation strategy.

Foothill yellow-legged frog: The Service is working with federal, state, and non-governmental partners to develop a conservation strategy. This will prioritize where surveys are most needed to better assess the

species' status, and where conservation will afford the most gain.

Western pond turtles: The Service is part of the Western Pond Turtle Range-Wide Conservation Coalition which includes federal, state, and non-governmental partners, particularly zoos. The group met in March 2020 to develop a range-wide strategy for both western pond turtle species.

Many thanks to our various partners who collaborate with us on this important conservation work.

- Yreka FWO
Forest Resources Branch



Below: The Foothill yellow-legged frog (Rana boylei) is named for the distinctive yellow color under its rear legs. This frog is found from Oregon to Los Angeles County. Credit: Gary





Successful Partnerships: Sleuthing for Shasta Salamanders

It's a chilly, rainy day in the forested slopes around Shasta Lake. A tiny web-footed salamander crawls out of a crevice and clings to a rocky outcrop. Most cold-blooded animals remain dormant in cooler weather, but the Shasta salamander (*Hydromantes* spp.) is only active under these conditions. They spend both frozen and hot, dry days hiding deep within rock crevices, under logs, or inside limestone caves.

These are difficult places to access, making it a challenge for surveyors to find these salamanders. However, through a collaboration with the U.S. Geological Survey (USGS) progress is being made on these important surveys.

The Yreka FWO is partnering with USGS biologists at the Western Ecological Research Center to survey for the Shasta salamander, which is currently under review for listing under the Endangered Species Act.

Shasta salamanders have the smallest range of any Pacific Northwest amphibian – just 3,200 km² (79,700 acres) in the Shasta Lake region. This area is ecologically diverse, with its unique limestone geology untouched by volcanoes, uplift, and similar disruptive geological events common throughout California.

Shasta salamanders are lungless and need

to live in moist areas so they can breathe through their skin. Contrary to other amphibians like frogs, which start as tadpoles, Shasta salamanders are purely terrestrial and have no aquatic life stage – a newborn salamander looks like a miniature adult.

The Shasta salamander was recently divided and categorized into three different species (*Hydromantes shastae*, *H. samweli*, and *H. wintu*). The populations are genetically diverse because the species' don't travel far, and individuals are likely to spend their entire life in an outcrop or cave no bigger than a tennis court.

"Working with USGS to survey and assess the distribution and abundance of the species will help us comprehensively evaluate the impact of potential threats, such as habitat loss or disturbance," said Christine Jordan, Yreka FWO fish and wildlife biologist.

This past winter USGS surveyors braved wet weather, lots of poison oak, and steep, slippery terrain to search for these cryptic creatures. They surveyed areas identified by the Service and other experts through a rapid assessment process where prior surveys had not been completed, with the goal of refining survey protocols and analyzing the probability of detecting salamanders across their range.

Dr. Brian Halstead, USGS research wildlife biologist heading the survey efforts, is also using occupancy models* to better pinpoint salamander distributions.

"Occupancy models must consider false absences, which is when surveys don't detect salamanders even though they're present," said Halstead. "It is important to understand what affects salamander activity and how certain we are that we are finding these unique amphibians."

By attempting to fill knowledge gaps about Shasta salamander abundance and populations, this partnership supports the Service's efforts to evaluate the status of the species to make a listing decision.

- Anne Loggins
fish and wildlife biologist

*If you would like to learn more about occupancy modeling, see *Absent or Undetected*, pg. 4, Winter/Spring 2019 newsletter.

Above: A Shasta salamander rests on a limestone outcrop. They typically live in rock crevices, under logs or deep inside caves, which makes surveying them a challenge. Credit: Jackson Shedd

Conservation Strategies for Salamanders

Siskiyou Mountains salamander (*Plethodon stormi*) and Scott Bar salamander (*P. asupak*) are found only in the Klamath-Siskiyou Mountains of southern Oregon and northern California. Like the Shasta salamander, they don't have lungs and do not live in water, and therefore require cool, moist conditions to breathe through their skin. This means they are active above ground during short periods of time in the late fall and spring, and during the winter when temperatures are above freezing.

A Siskiyou Mountains salamander conservation strategy was developed for the northern portion of the species' range in 2007. The purpose of the conservation strategy is to maintain well-distributed populations and provide for long-term persistence of salamander populations on federal lands.

The U.S. Forest Service (Rogue River-Siskiyou National Forest), U.S. Bureau of Land Management (Medford District) and U.S. Fish and Wildlife Service (Roseburg Field Office) subsequently signed a conservation agreement in 2007 based on this conservation strategy.

Elements of the Agreement include protecting habitat for over one hundred high-priority salamander sites and integrating fire ecology into forest management strategies on federal lands in the Applegate River watershed in southern Oregon.

"This is a great example of a mutually beneficial proactive effort that reconciles federal forest management activities with species conservation," said Jim Thrailkill, field supervisor of the Service's Roseburg Field Office. "It's a win-win."

The Yreka FWO is working with others to develop a conservation strategy to guide management of the Scott Bar salamander and the southern population of the Siskiyou Mountains salamander.

Conservation strategies are a great way to conserve species and effectively manage the landscapes where species live. They enhance and strengthen our partnerships, and are an important pre-listing tool that can help us keep species from needing protection under the Endangered Species Act. (see *Foundations: Pre-listing Conservation on pg. 3.*)

As part of the ongoing salamander conservation efforts, in 2006, the Yreka FWO embarked on a long-term field study to collect data on the number, age, and body condition of salamanders at sites across the species' ranges in California. The Yreka FWO partnered with the California Department of Fish and Wildlife, private timber companies, Forest Service, and Redwood Sciences Lab to design the study and collect data.

Surveying for these secretive salamanders is not a glamorous job either. Biologists slowly walk hunched over, carefully lifting wet, moss-covered talus rock where salamanders are most likely to be hiding.

The talus slopes provide spaces where these animals can retreat during the hot, dry summers and freezing winters typical of the Klamath-Siskiyou mountains. Since salamanders only come out when it's cool and moist, field work is often wet and cold. One survey biologist likened the search for salamanders to a very damp Easter egg hunt, except the reward is turning over a rock and finding one of these elusive amphibians.

Currently, Humboldt State University and the Arcata FWO are analyzing the survey data. During the 10 year effort, a total of 558 Siskiyou Mountains and 565 Scott Bar salamanders were detected at 56 study sites. Studies such as this can provide a better understanding of habitat needs and help guide the management of these species.

- Jennifer Jones,
fish and wildlife biologist



Left: A Siskiyou Mountains salamander discovered during a recent survey in its preferred habitat of moss-covered talus rocks. Credit: Sam Cuenca

The Karuk and púfpuuf: Pacific Giant Salamander



The Pacific Giant Salamander, púfpuuf, is descended from the *ikxareeyav* - the First People. As such, the Karuk know it as their relation who is responsible for monitoring the springs and creeks for water quality and quantity. The púfpuuf is an indicator species, considered by Karuk people as the keeper of pure and clean water. The healthy presence of púfpuuf is indicative of a healthy riparian freshwater ecosystem.

Púfpuuf occurs in moist and riparian forests in or near clear, cold streams and rivers, springs, creeks, lakes, and ponds. Population densities are highest in creeks that have numerous large rocks and woody materials in or under which púfpuuf can take shelter.

Púfpuuf larvae are born in water where they swim using an enlarged tail fin and breathe with filamentous

external gills. They eventually transform into four-legged salamanders that live on the land and breathe air with lungs. Some adults retain their gills and continue to live in water.

Lisa Hillman of the Karuk Tribe stated the importance of fire and the Pacific giant salamander to the Karuk people and culture.

“Aah karu púfpuuf - fire and the Pacific giant salamander - they’re both our close and beloved relations,” Hillman said. “With them, we can meet our responsibilities in this world: to protect, preserve and perpetuate cultural and environmental revitalization.”

Fire is key to the vitality of púfpuuf. High severity fire has the potential to burn terrestrial adults, their prey and shelter (woody material), as well as have effects on forest moisture levels that are vital for salamander habitat.

Karuk cultural burning, which occurs as low-intensity fire, provides benefits to aquatic salamander habitats by increasing stream productivity. In addition, mixed severity cultural burning serves as an intermediate renewal process that reduces detrimental effects from high-severity fire.

Hillman further explained about the cultural importance of fire.

“Without cultural burning, we may lose the púfpuuf. Being Karuk, the world renewal people, we strive for the continuance of púfpuuf through the practice of our culture, which includes the use of fire for land and wildlife management.”

- Trevor Super, Native American Program Specialist.

(Content derived from the Karuk Tribe Climate Vulnerability Assessment)



Above: The Pacific giant salamander, or púfpuuf, holds deep cultural significance for the Karuk nation. In Karuk beliefs, púfpuuf is a spiritual being who transformed into a salamander to monitor spring and creek water quality and quantity. The presence of púfpuuf is indicative of a healthy riparian and aquatic fresh water ecosystem. Credit: Gary Nafis/californiaherps.com

Left: Aja Conrad, coordinator for the Karuk Tribe Environmental Workforce Development and Internships uses a drip torch to light a prescribed burn in Orleans, CA. Credit: Jenny Staats

We are Yreka FWO: Meet Becca Reeves

Each newsletter, we introduce a member of the Yreka FWO team. This issue, we feature Rebecca “Becca” Reeves, a fish and wildlife biologist in the Partners for Fish and Wildlife Program.

Reeves grew up on the East Coast, chasing frogs and playing in creeks. That interest led her to the University of Maryland Baltimore County (UMBC), where she completed her undergraduate studies. Reeves was one of two students in the UMBC Environmental Science program, and credits her instructors for supporting and nurturing her interests.

“I had a lot of cool research opportunities as an undergrad,” said Reeves. “My favorite was working in the stream ecology lab, not realizing at the time the role it would play in my career.”

Graduate school in Iowa followed, where Reeves studied amphibian populations in restored agricultural wetlands.

“I quickly learned that tiny frogs can see and hear someone slogging through the wetlands from far away, especially on bright moonlit nights,” Reeves said. One memorable experience was when ideal frog-catching conditions kept her out all night, and she mistakenly missed her statistics final the next day. “Thank goodness my professor let me take it later.”

Reeves’ first post-college position was as a Hurricane Sandy Resilience biologist at Edwin B. Forsythe National Wildlife Refuge in New Jersey. Her first day was spent flying around in a helicopter surveying the storm-damaged marshes she would work to restore. “That was really fun, but I was pretty nervous about getting sick up there,” said Reeves (she didn’t).

Soon, a new job opportunity as an

endangered species biologist in the Carlsbad Fish and Wildlife Office enticed Reeves to the West Coast. Within eight months, she completed both a Section 7 consultation and a Habitat Conservation Plan, a daunting task even for seasoned biologists. The experience was invaluable for her next move, which came in January 2017 when she was hired for what she calls her dream job at the Yreka FWO.

“This is my niche, it’s where I want to be,” Reeves said. “I can do stream restoration one day, plant an area for monarch butterflies another day or work on restoring an upland meadow project. I’ll never get bored.”

Besides the rewards of learning new skills and working with professionals from many agencies, Reeves said the job is not without its challenges, such as the

constant and overwhelming flow of technical information

“There is so much to learn, it’s like drinking from a fire hose all the time,” said Reeves. “Sometimes I feel I could use an engineering degree for some projects. Fortunately, I am privileged to work with a lot of smart people in the Service with whom I’m able to collaborate and get the job done.”

- Susan Sawyer, Klamath Basin public affairs officer



Above: In her off-hours, Becca Reeves enjoys exploring the Cascade mountains and the valleys of the Klamath Basin with her dog Bailey. Credit: Becca Reeves

Left: Reeves checks a trail camera which helps her monitor a restoration project site on the Scott River. Credit: Gina Glenne/USFWS

Species Spotlight: Western Pond Turtles

If you visit a pond or slow-moving stream along the West Coast, you might see a small head peeking up.

Western pond turtles are the region's only native freshwater turtles ranging from Baja California north through Washington state. Recently this turtle was split into two species: the northwestern and southwestern pond turtles, based on their range (see map below right.)

The turtles are mostly visible in warmer months, often seen regulating their body temperature by basking on logs, vegetation and other stream debris.

Omnivores and scavengers, these turtles feed on anything from insect larvae to small fish and plants. These expert swimmers can actually spend much of the year on land, hibernating in cold and hot weather (aestivating), nesting, or traveling between wetlands. Hatchlings usually overwinter in the nest and venture into water in the spring.

Unfortunately, western pond turtle numbers are declining, and, in response, California has listed them as Species of Special Concern.

Turtles need access to both water and upland areas. Threats to survival include urban development, habitat destruction, and road traffic. Non-native species, such as bullfrogs and bass, eat hatchlings. Released pets, like the red-eared slider turtle, compete with western pond turtles for food and space. A mysterious disease also causes shell deterioration in some populations (especially those in Washington state).



The U.S. Fish and Wildlife Service is currently reviewing the status of western pond turtles in response to a petition to list them under the Endangered Species Act.

The Service is also participating in the Western Pond Turtle Range-Wide Conservation Coalition with other federal and state agencies and the Association of Zoos and Aquariums. By improving our knowledge of western pond turtle distribution, threats, and conservation tools, we can support the recovery of these important freshwater residents.

- Anne Loggins,
fish and wildlife biologist

Top: Western pond turtles are found in streams from Washington to Baja California, often basking on rocks or logs. Credit: CDM Smith

Right: Western pond turtle range map. Red outline indicates northwestern and blue is the southwestern population. Credit: USFWS/Ventura FWO

Left: Northwestern pond turtle hatchling. Credit: Oregon Zoo



Connecting People with Nature: Critters in the Classroom

Last December, Jennifer Jones, Yreka FWO fish and wildlife biologist, was invited to teach an interactive lesson about wildlife to 2nd and 3rd grade students at the Willow Wind Community Learning Center in Ashland, Oregon.

Jones used the Yreka FWO wildlife education kit to teach 40 students about local wildlife and their adaptations, feeding strategies, and how to track them. Jones talked about how wildlife biologists are “nature detectives” because they often don’t see the animal, but must find clues such as feathers, fur, tracks and scat that an animal has left behind.

To illustrate this point, Jones told a story about tracking a mountain lion by following its paw prints across a shallow river and discovering the spot where the lion had killed a deer. The students were spellbound hearing of her encounter with the lion when it came out of the forest to check on the deer.

Jones also taught the students various calls of the northern spotted owl, which was a literal hoot! The students also enjoyed stories about Jones’ encounters with other wildlife, including skunks, river otters and bears.

Students learned how to identify carnivores, herbivores and omnivores based on the teeth, shape of skull, and other features. They also learned how to distinguish between members of the cat and dog families by looking at their tracks, scat, skins, and skulls. After the presentation, the students made plaster molds of wildlife tracks to take home.

“We’ve been learning about animals and their unique adaptations, but this presentation really helped bring our



learning to life,” said Mira Peterson-Adams, a 2nd grade teacher at Willow Wind. “When students compared the teeth of carnivores and herbivores, or touched the fur of a wolf and a rabbit that they’ve been reading about, it really created a connection they can’t get from a book.”

The star of the day was Tiger, Jones’ four foot-long Sonoran Mountain kingsnake. Students had the opportunity to touch Tiger, which helped some overcome their fear of snakes.

Above: Jennifer Jones, Yreka FWO biologist, shares the world of wildlife with 2nd and 3rd graders at Willow Winds Community Learning Center in Ashland, Oregon.

Right: Tiger, a Sonoran Mountain kingsnake, was the hit of the day with young students. Photos: Mira Peterson-Adams/Willow Winds CLC

“I was nervous because snakes kind of freak me out,” said Mila Gutierrez Langer, a 2nd grader. “But I liked the slipperiness of his scales on my hand.”

Tiger had a similar effect on 3rd grader Peri Elder. “I thought snakes were icky at first, but now since I saw one I think they are super, super, super cool.”

*- Jennifer Jones,
fish and wildlife biologist*



Community Outreach Summary of Past Events - *Fall/Winter 2019-2020*

Monarch butterfly lesson for Jackson County, OR and Siskiyou County, CA elementary schools. Helped classes raise, tag, and release monarchs.

Monarch presentation for K-12th graders and their families from Logos Public Charter School, OR. Planted their new pollinator garden.

Bat presentation and education using interactive games and activities for K-2nd graders at Willow Wind Learning Center, OR, to celebrate National Bat Education Week.

Truffles nature walk on Mt. Shasta, CA.

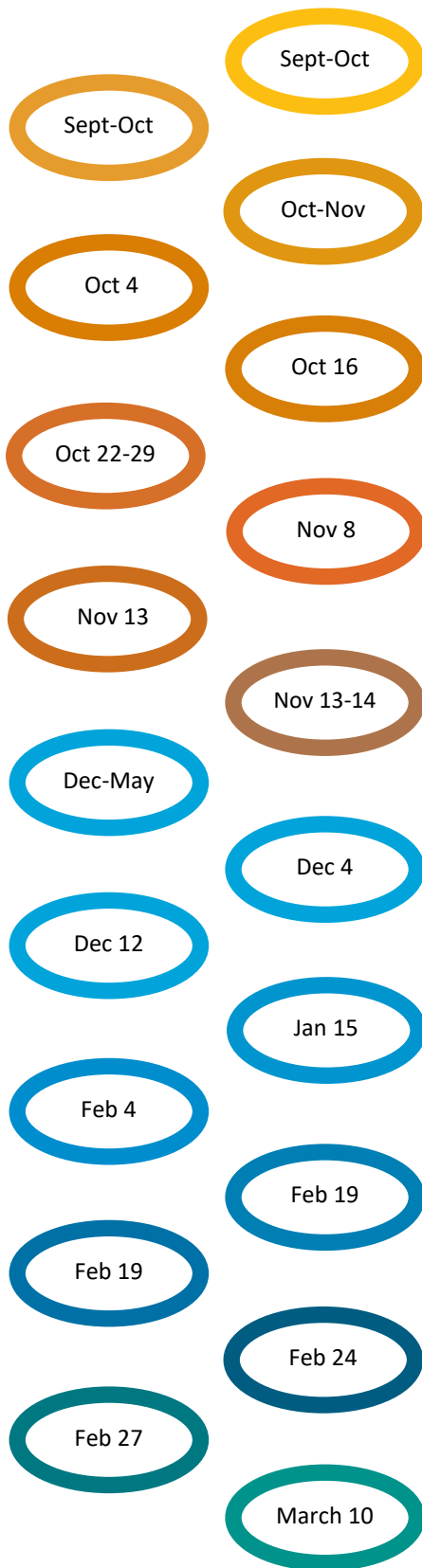
Mentored a Yreka, CA high school student through work experience, including restoration projects, office tasks, and education and outreach.

Wildlife education for 2nd and 3rd graders from Willow Wind Learning Center, OR using tracks, scat, skins, skulls, and a live snake.

Participant in a career workshop at the Western Section of the Wildlife Society conference in Redding, CA.

High school students from Weed, CA job shadowed fisheries biologist during field trip review of restoration projects.

Winter Ecology Tour for elementary students at Mt. Shasta, CA, focusing on wildlife adaptations to winter.



Forest, geology, and riparian field studies for 5th and 6th graders from Jackson Street School at the French Creek Outdoor School, CA.

Two bird education programs using mounts and field lessons for K-5th graders at schools in Jackson County, OR and Siskiyou County, CA.

Trees and Shrubs nature walk at Greenhorn Park, Yreka, CA.

Taught Etna and Ft. Jones elementary school K-4th graders about salmon at the Quartz Valley, CA Salmon Festival.

Taught elementary students the salmon lifecycle at Scott Valley Farm School, CA.

Oaks and Acorns nature program, Yreka, CA.

Waterfowl nature walk at Greenhorn Park, Yreka, CA.

Waterfall nature walk at Greenhorn Park, Yreka, CA.

Wildlife presentation for 1st graders at Ft. Jones Elementary School, CA.

Wildlife presentation for 1st graders at Etna Elementary School, CA.

Summer 2020 Nature Programs

| <u>TOPIC</u> | <u>DATE</u> | <u>TIME</u> | <u>LOCATION</u> |
|--------------|-------------|-------------|----------------------|
| Dragonflies | July 15 | 10am-12pm | Upper Greenhorn Park |
| Riparian | August 19 | 10am-12pm | Oberlin Trailhead |

Due to COVID-19, events are subject to state and local health and safety restrictions.

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*Cover: A northwestern pond turtle basks in an Oregon wetland pond.
Credit: Simon Wray*

Back: The Foothill yellow-legged frog is under review for possible protection under the ESA. Credit: Teejay O'Rear