

The winter season provides prime opportunities for night sky viewing



This stunning photo by local photographer Erik Long was one of the winners in our CSERC photo contest last spring. Just viewing the photo may provide you with sufficient incentive to go out on clear nights this winter to be awed by the starlit heavens.

With all the holiday pressures and seasonal commitments, it can be easy to ignore the smells and scenery of the season, or to put off taking that long-delayed snowshoe hike, or to watch TV instead of going birdwatching along trails in the foothills.

As our CSERC staff continues our year-round surveys for rare wildlife and our watchdog monitoring in the national forest and in Yosemite Park, we often see the scenic beauty of our vast region. Being out in nature can remind all of us why it's important to defend precious places.

Chelsea and Stan have evolved to lead key programs as our staff multi-tasks to respond to so many conservation issues

It takes teamwork to participate in countless meetings, to juggle many complex local environmental issues, and to do the essential monitoring and fieldwork that CSERC does on behalf of the local region. Stan Dodson and Chelsea Lewandowski joined the staff a year ago, and their roles have greatly expanded due to their stellar efforts, their dedication, and their many skills and talents.

Chelsea has taken the lead in dealing with local land planning and development issues – testifying at many County planning commission and board of supervisors hearings. She's become our Center's point person participating in the local Tuolumne-Stanislaus IRWM watershed stakeholder group, plus she's been learning the complex technical issues of FERC hydroelectric river management planning and other regional water issues.





Both Stan and Chelsea are the Center's primary fieldwork specialists – taking on the set-up and maintenance of CSERC's photo-detection cameras in remote areas and overseeing all the meadow monitoring, site visits to streams and riparian areas, and monitoring for violations of national forest policies. They are the eyes and ears of CSERC for much of our watchdog monitoring.

For CSERC members who have partnered with us for years, it's worth noting how effectively Chelsea and Stan have gained credibility for our Center with so many positive community connections and agency contacts that are important to our wide range of efforts. As CSERC's program manager, Stan oversees the Center's administrative tasks, website matters, and inhouse accounting responsibilities. He serves on two forest stakeholder groups as well as a new regional task force committee intended to utilize state-funded economic incentives for businesses and projects that adapt to climate change and bolster local economies.

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CSERC is a 501(c)(3) non-profit organization working to protect the water, wildlife, and wild places of the Northern Yosemite region. CSERC relies entirely on grants and donations from people like you to do that critical mission.

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The Forest Service unveils "SERAL 2.0" – the agency's new proposed plan for doing forest treatments at an increased pace and scale



One goal of the plan is to reduce forest risk from highseverity wildfires and lower tree mortality due to drought or bark beetles. Reducing wildfire risk would benefit forest communities. A second purpose is to boost local economic opportunities by producing wood products and providing jobs.

CSERC sees both positive and negative aspects of the SERAL 2.0 proposal. CSERC <u>supports</u> keeping most of the thinning logging and fuel reduction treatments the same as in the first SERAL project. Our staff <u>opposes</u> the new proposal to use herbicides for potential treatments on thousands of acres of fuel breaks. We also have concerns over the Project's hazard tree logging proposal and the intention to cut very large trees (up to 40" dbh) for various reasons. It is also not clear that the emergency planning process is needed. Last year the Forest Service approved the SERAL project – a huge "large landscape" plan for doing forest treatments within 94,000 acres of local national forest lands. Over the past field season, many miles of new fuel breaks were constructed; thousands of acres of prescribed burns were done; and other forest treatments were prepped so they can start next year.

Now the Stanislaus Forest staff is proposing to use an "emergency authorization" planning process to speedily approve an even larger <u>SERAL 2.0</u> project for 119,000 acres of local national forest land.

WHERE AND WHY?

The SERAL 2.0 project would allow for logging, mechanical shredding of brush fields, biomass removal, broadcast burning, and other forest treatments in two defined areas. The smaller area is located to the northwest of Beardsley Reservoir and south of Big Trees State Park. The much larger main SERAL 2.0 area covers lands southeast of Highway 108, stretching to the Tuolumne River.



Calaveras Big Trees State Park continues prescribed fire treatments, while the status of "the Orphans" has improved

CSERC staff visited Big Trees Park last month to monitor the effects of the latest prescribed burn treatment in the heart of the North Grove, which contains more than 100 mature giant sequoias.

The latest burn - contained in two units totaling 39 acres - appears to have met Park goals. Woody fuels that had accumulated over decades were consumed in a mosaic pattern. Bare mineral soil is now exposed to sunlight, making giant sequoia regeneration possible. And most importantly, it doesn't appear that any mature or old-growth trees were damaged by the treatments.



This State Park photo shows fire crews working at night.

The undesirable charring of the Orphans serves as a reminder that prescribed burning is a blunt, imprecise treatment that can have both positive and negative effects. There are many factors during a prescribed fire that can alter the intensity of burn effects.

Our Center is a strong supporter of frequent prescribed fire treatments in the Park, but only if the utmost care is taken to protect the iconic, irreplaceable centuries-old mature trees. If both the Orphans do end up surviving and thriving, it is a testament to the resilience of giant sequoias.



The North Grove Overlook Trail was used to help contain the fire.

As reported in our summer newsletter, a prescribed burn last year caused controversy when two giant sequoias at the edge of the North Grove known as "the Orphans" suffered extensive charred bark and crown damage from the planned burn.

Recently, Park officials enthusiastically issued a press release and gave news interviews declaring that both of the iconic trees had bounced back, and that thousands of giant sequoia seedlings are also now growing near the trees. CSERC staff agrees that one of the Orphans has produced a lot of new growth and definitely looks to be on its way to thriving once again. But the viability of the second tree, in our eyes, is still debatable, due to so little green foliage.



A planned burn in the South Grove is postponed (again) until 2024 due to wet weather, but pre-burn prep work will continue around old-growth sequoias, cedars, and sugar pines.

The Amador Calaveras Consensus Group (ACCG) is poised to develop the largest forest treatment project in the region

It can be hard to keep track of all the collaborative stakeholder interests when it comes to forests and water across our vast region. **One important local forest stakeholder group is ACCG**.



ACCG was initially formed to respond to the need for more forest projects for the Calaveras District of the Stanislaus National Forest. ACCG expanded to include the Amador District of the Eldorado National Forest since the two districts each manage half of national forest lands in the Mokelumne River watershed.

In contrast to the more project-focused YSS forest stakeholder group, participants in the ACCG group have gone to great lengths to model collaboration, consensus-based decision-making, and raising members' awareness by organizing educational presentations. Scientists, tribal representatives, and other presenters have covered a wide range of topics at ACCG sessions.

In 2016 one of the key members of ACCG - the Upper Mokelumne River Watershed Authority (UMRWA) - signed a Master Stewardship Agreement with the Forest Service to allow UMRWA to help plan and administer projects in the national forest.

Since that time UMWRA and ACCG have partnered to gain approval for a large **Phase 1 forest treatment project** to masticate brush, hand cut small trees, and apply prescribed fire within roughly 25,700 acres on the Amador District. That project is tiny compared to the current proposal by UMWRA and ACCG to jointly plan a gigantic **Phase 2 project** to authorize a range of forest treatments within 220,000 acres. As envisioned, fuel reduction and forest health treatments would be done in both the Amador District and the Calaveras District.

CSERC continues to be a highly active participant in the main stakeholder group and various work groups and committees. We are supportive of the Phase 2 project planning that could eventually result in a decade's worth of work to be done as funding allows.



Wildlife in peril -- Local species are the focus of federal designations or proposals to list them as Threatened or Endangered

In a world with a skyrocketing human population, widespread habitat destruction, high levels of pollution, and ever-expanding effects caused by the changing climate, it's perhaps surprising that even more species of wildlife are not in severe decline. Currently the U.S. Fish and Wildlife Service (USFWS) is either finalizing protective requirements or proposing new measures for four different wildlife species tied to our local region.

THE WESTERN POND TURTLE

Scientists estimate that historically there were over 10 million pond turtles just in the Central Valley region of California, but widespread habitat loss, the expanding effects of climate change, and predation by non-native bullfrogs and bass have reduced turtle numbers to a small fraction of historic levels.

CSERC just submitted comments to USFWS in support of listing pond turtles as "Threatened." We strongly urged that there be stricter protective requirements for federal forest projects that treat riparian and upland habitat adjacent to ponds, lakes, and streams.



Photo credit – Dave Hardin

THE WOLVERINE

A wolverine looks like a cross between a small bear and a huge, stocky weasel. They are known for their strength, fearlessness, and voracious appetite, as well as their ability to travel vast distances across open territory. For more than a century, wolverines were ruthlessly poisoned, trapped, and shot – but their aversion to humans also drove them away from prime habitat areas.



Photo credit - National Park Service

After years with no sightings in the Sierra Nevada, a solitary wolverine was spotted this spring - twice in the eastern Sierra and once in Yosemite Park. Scientists noted it could have come from as far away as Canada or the Rocky Mountains.

On November 29, 2023, the USFWS formally listed wolverines in the contiguous United States as "Threatened with an interim final 4(d) rule." That means that many potential threats to the species will still be allowed to continue as long as federal agencies will first consult with USFWS to design mitigation measures that will meaningfully reduce a project's potential risk to the wolverine.

A turtle, a powerful carnivore, a frog, and an owl... Threats to wildlife extend across a wide range of species

THE FOOTHILL YELLOW-LEGGED FROG

A few months ago, USFWS finalized Endangered Species status for the foothill yellow-legged frog in the Central Sierra region. The species' troubles are mostly man-made. Contamination of water, erosion from roads and logging, and widespread impacts to streams and riparian areas by livestock have all proven negative for the frog. The introduction of non-native species such as the bullfrog, smallmouth bass, and non-native species of crayfish have all affected frog survival.



Photo credit – Amy Lind/USFS

Mating and egg-laying by the foothill yellowlegged frog are triggered by the natural transition from strong, cold stream flows in the spring to lower flows and warmer water temperatures. If eggs are laid too early, spring storm events can wash them away. If eggs are laid too late, receding water levels can strand the egg masses, causing them to dry and fail. Dams, water diversions, and pulse flow releases for agriculture and recreation all add to the challenges of flows matching frog needs.

The effects of climate change add to all the other threats. The chytrid fungus disease spread from Africa has become a major factor in dwindling frog survival rates, not just for the foothill yellow-legged frog, but for hundreds of amphibian species. Over the years CSERC staff has periodically been fortunate to still glimpse small numbers of the frogs in a very few local waters.

THE CALIFORNIA SPOTTED OWL

Long used as a key "indicator species" by the U.S. Forest Service, the CA spotted owl has been the focus of debate for decades. This year the USFWS determined that there are two distinct populations of the owl – one in the Sierra Nevada region and one along the coast and in Southern California.



For the Sierra Nevada "distinct population segment," the agency proposes to list the owl as Threatened, while the population on the coast and in Southern California is proposed as Endangered.

Similar to the wolverine, the USFWS plans for the listing of the owl to be based on the Section 4(d) Rule that allows threats to the owl to continue as long as federal agencies consult with USFWS to design protective measures when planning federal projects.

CSERC supports listing the Sierra Nevada population of the California spotted owl as Threatened; and we also support USFWS requiring clear, meaningful measures in projects to protect prime owl habitat.

USFS adopts new national policies for applying fire retardant

The aerial application of fire retardant has long been a key tool for suppressing wildfires that threaten communities and precious resources. But a legal debate has persisted for two decades over whether the Forest Service adequately analyzed the effects of unintended "intrusions" of retardant drops that fall into streams and rivers or into habitat of endangered species.

Due in part to the years of fire experience of CSERC's director, our Center was one of the only organizations in the nation to engage in the years of complicated debate. We've supported the continued use of retardant to protect lives and property, but we also noted that the degree that pilots avoid contaminating water with retardant drops varied greatly across the country. The reporting of errant drops also varied widely.

Last month a long-awaited decision by the agency determined that key adjustments should be applied, but the use of fire retardant is both needed and beneficial. Except when human life or public safety is threatened, the decision prohibits retardant drops in "avoidance areas" such as waterways and their buffers (if water is present) and in habitat of certain endangered species.

CONTEXT FOR THIS NEW DECISION

Record of Decision

Nationwide Aerial Application of Fire Retardant on National Forest System Lands



The Forest Service has used fire retardant chemicals for 70 years. As retardant products have been refined and strategically applied, fire officials have consistently lauded retardant for effectively slowing the rapid spread of extreme wildfires and allowing fire crews to safely protect communities, high value recreation areas, and vulnerable natural resources. Lawsuits forced the agency to evaluate whether retardant use posed unacceptable risk and whether all reasonable measures were being taken to avoid "misapplications." Based upon new analysis, with the new policies, the Forest Service has adopted stronger protective requirements.



Photo credit - BLM/Dept of the Interior

In addition to prohibiting retardant applications into waters, the new national policies require the expanded mapping of avoidance areas, with new requirements for pilots to be provided with avoidance information prior to delivering retardant during fires. There also will be stricter mandates for reporting retardant intrusions. In particular, the policies require any retardant drops into habitat for certain listed species to be fully reported to the U.S. Fish and Wildlife Service. Most of the listed species are salmon, steelhead, and other fish. A key goal is also to phase out the more toxic retardants in favor of less toxic ones.

Restoration project at Ackerson Meadow makes progress with much more work planned for next season



More than a decade ago CSERC was active in efforts to get a large privately owned portion of Ackerson Meadow transferred to public ownership. Other conservation interests took up the cause, and eventually much of the meadow was added to Yosemite Park. The other main property owner at the Meadow is the U.S. Forest Service, which allows livestock grazing on their portion.

The area is a good site for viewing wildlife. Past bird surveys found a wide diversity of species. CSERC staff has watched bears, bobcats, coyotes, owls, and other wildlife when doing visits and wildlife surveys.



In 2021 Yosemite Park and the Stanislaus Forest jointly approved a restoration project to fill in deep, eroded gullies along the stream corridor so that water doesn't drain (and dry out) the sections that historically were prime, wet meadow habitat.

CSERC staff recently visited to see how much of the restoration work has now been completed. In only a limited operating period of roughly two months, a substantial amount of the eroded gully area has been filled in, contoured, and covered with thick jute netting to hold the soil and speed recovery.

The second phase of the restoration project is planned for next summer. That phase includes filling in some of the deepest eroded gullies and revegetating degraded areas with native plants and local seeds. When the project is finished and natural recovery occurs, this easily accessible meadow complex could grow in popularity as a Yosemite destination for families, birders, and hikers.

One issue that's getting attention from the agencies leading the project is the challenge of restoring the deeply eroded stream gully areas without eliminating important small pools and pockets of wetland habitat. That may be pivotal for at-risk amphibians and for the western pond turtle (which is now proposed to be listed as a threatened species). CSERC is supporting restoration adjustments to protect the turtle.

CSERC's online games for kids get amazing numbers of global hits

The Backyard Wildlife Game

Goal: To see if you recognize common backyard wildlife and learn more about them

Wildlife in your backyard?

Do you think that animals seldom visit your yard? Believe it or not, there are many types of wildlife species that come out at night that we normally don't see during the day. Many of them may even visit your own backyard.





How does CSERC work to raise environmental awareness with young people who are often so connected to the digital world and far less to the natural world?

Nearly two decades ago, Heather Campbell of our staff creatively designed some online educational games for kids for our CSERC website. The games featured baby wildlife to be matched with the correct animal parents; or kids visiting the website needed to find an animal hidden in the picture in its natural habitat. Without any real publicity, CSERC's educational games became the most visited part of our website.

Even after she moved to far northern California, Heather has continued working remotely on our staff as she translates articles and newsletters to post on CSERC's Spanish-language website. She's also continued to create new educational games for kids. This year she worked with John to develop the most in-depth game yet - featuring Sammy the Salmon and Wendy the Water Drop. It's a challenging game. It requires players to figure out correct choices and to make the right moves to help Sammy and Wendy move downstream from the mountains through hazards to make it all the way to the ocean.

Just in the past month our analytics show we had more than 27,000 visits to our CSERC website, with the overwhelming majority going to the educational games.

So far this year we've had 288,000 unique website visits including from England, Australia, Chile, Spain, the United Arab Emirates, and Canada as well as other countries. While we don't keep annual counts, we know that over the years we've had a total of more than a million visits to the online nature games. This is one way that CSERC works to raise awareness about nature in the next generation. Many thanks to Heather for her creative role on our staff designing and updating the educational games.



We recognize that CSERC has some big responsibilities to defend



Whether it's doing a site visit to a forest stand prior to a broadcast burn or monitoring stream areas affected by livestock, CSERC's watchdog monitoring helps our staff to be highly informed and effective. Serving as a voice for nature at hearings or in online meetings is also a key focus. Contributions from members like you provide the partnership that enables us to do our wide range of efforts.

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What is the gift that you'll find inside this newsletter?

If you're swamped by mailers, advertising, and all the other materials that may arrive in the mail during the holiday season, you might be thinking: "Why bother to open this newsletter?"

Our CSERC staff has worked hard to deliver you timely news, informative articles, beautiful pictures, and insight about precious places in the region.

All of this is intended to be our gift to you for the holidays. Thanks for your partnership!

Visit our website at: WWW.CSerc.org

WINTER NEWSLETTER

