

## CWMA Volunteer Days Turnout

During the White Pine County CWMA (Cooperative Weed Management Area) meetings, each CWMA set goals for the upcoming season, which included community engagement activities. Steptoe Valley, White River Valley, Snake Valley, and Spring Valley CWMAs voted to bring back the tradition of hosting a volunteer workday to clean up the weeds in their community areas that lie within their CWMAs. Our CWMAs hadn't had volunteer days for the past three years, due to a variety of reasons, but they went off without a hitch this year.

The Steptoe Valley CWMA workday was held on Saturday, March 14 at the White Pine Corrals, and other nearby community areas. The White River Valley CWMA workday took place at the Lund Rodeo grounds, the fire house, and other nearby community areas on May 20. The joint Snake Valley and Spring Valley CWMA workday was held at Baker Ranch and at Great Basin National Park Visitor Center on June 18.

Each of our CWMA workdays were followed by a weed identification workshop led by John Ashworth with Tri-County Weed Control. He did a wonderful job of pointing out specific weed characteristics to aid in identification, which in turn increases awareness and understanding of different weed species' natural history



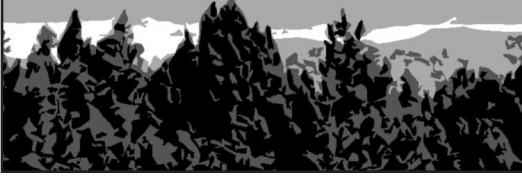
**Tri-County Weed Control's John Ashworth leading the weed identification workshop after the Steptoe Valley CWMA Workday near the White Pine Corrals.**

and the importance of managing the infestations before they get out of hand.

All told, 84.69 acres were treated throughout the four CWMAs during their spring volunteer workdays.

We want to thank all our wonderful volunteers who came out to help treat and learn about weeds: Steptoe Valley CWMA members, White River Valley CWMA members, Snake Valley CWMA members, Spring Valley CWMA members, Tri-County Weed Control, US Forest Service, Bureau of Land Management, National Park Service, and the Boys and Girls Club.

## Eastern Nevada Landscape Coalition



### Our Mission

The mission of the Eastern Nevada Landscape Coalition is to restore the dynamic, diverse, resilient landscapes of the arid and semi-arid West for present and future generations through education, research, advocacy, partnerships, and the implementation of on-the-ground projects.

### Our Vision

We envision a future where the ecosystems of the arid and semi-arid West thrive. Functioning, diverse ecosystems will be the result of restoration achieved and maintained with naturally occurring disturbances such as fire, in combination with other management prescriptions, including traditional uses. The Eastern Nevada Landscape Coalition, a 501(c)(3) non-profit, will be a recognized contributor and leader in this effort for future generations of Americans.

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# Changing of Seasons

Susi Algrim  
ENLC Executive Director



The scent of autumn is in the air. Leaves of deciduous trees are beginning to turn, the squirrels are storing food, and the hummingbirds that guarded our feeders are on the move southbound. Change can be tricky at times, but it's something everyone has experienced and is necessary for growth.

Moreover, I am Eastern Nevada Landscape Coalition's new Executive Director, and this September marks the beginning of my second year with ENLC. I transitioned from a specialist position to the directors' position within a year of my arrival in Nevada.

Although I am not a native Nevadan, I am a fourth-generation farmer and rancher's daughter and have observed the changing of seasons intimately throughout my life. Alongside the plants and animals preparing for the changing of seasons, humans are doing many similar activities. Growing, canning, preserving, and storing food in our cabinets is similar to trees and plants preparations for the upcoming cold weather. Trees and plants convert carbon dioxide and sunlight into sugar and oxygen. Then, that sugar is converted into starch for long-term storage in their roots and trunks, like our cache of canned goods and preserved meats. Furthermore, just like when our neighbors need help and we are called to action, trees in a forest can communicate and transport nutrients by a mycorrhizal network that interconnects individual plants. I find so much joy in observing nature's relationships and transitions, which is why I have dedicated my life's work to conservation and restoration of these incredible landscapes and the organisms that occur within them. I am excited to bring my experiences and my passion for ecological restoration and wildlife conservation together to further the mission of the Eastern Nevada Landscape Coalition.





**Great Basin Kids Workshop visits Great Basin National Park to learn about geology, plants and wildlife.**  
**Photo by Genevieve Merrill**

## Great Basin Kids Workshop

On July 7-9, 2022, Eastern Nevada Landscape Coalition (ENLC), Nevada Outdoor School (NOS), Society for Mining, Metallurgy & Exploration (SME) and White Pine County 4H all partnered for our 2022 Great Basin Kids Workshop. Our focus this year was primarily water and weeds, but we added a little bit of geology and Leave No Trace activities to the mix.

To kick off our workshop, parents and all 18 campers attended an orientation at Broadbent Park followed by snacks, ice breaker games, and learning Leave No Trace activities. The following day, we visited Great Basin National Park, where we learned about

different types of rocks from an SME geologist. Then we learned about different types of plants (i.e., native, introduced, noxious and invasive) from one of ENLC's board members. The final day of the workshop, campers learned about water quality from an SME Environmental Engineer, learned how to tie fishing knots, fished and had a family barbecue at Comins Lake. Thank you to our sponsors, partners, presenters, campers, and parents for another wonderful Great Basin Kids Workshop. Please stay posted for next summers' workshop details.

# Bats in Spring Valley

**Bryan Hamilton,  
Great Basin National Park**

**Published in *The Midden*,  
Summer 2022 Issue**

<https://www.nps.gov/grba/learn/news/the-midden-summer-2022-issue.htm>



Joey Danielson, Kelsey Ekholm, and I recently had a paper published in the peer reviewed journal Population Ecology on Mexican free-tailed bats. These bats are one of the most abundant mammals on earth. They consume vast quantities of insects and provide \$23 billion dollars annually in economic benefits to agriculture in the United States. A single colony in Texas was valued at over \$3,000,000 in annual pest insect suppression services. But like many common species, Mexican free-tailed bats are often ignored by conservationists and biologists. A major emerging threat to Mexican free tailed bats is wind energy development.

Millions of bats are killed worldwide by wind energy facilities each year. Migratory, high flying, open foraging bat species, such as Mexican free-tailed bats, are at high risk for wind turbine strikes and barotrauma. Two studies quantifying bat mortality at wind energy facilities near large roosts or in greater concentrations of this species found most fatalities (85% and 94%) were Mexican free-tailed bats (Miller, 2008; Piorkowski & O'Connell, 2010).

Mitigating wind energy mortality requires data on biology of the affected populations. But often these data are not available, especially for common species like Mexican free-tailed bats. To address this, we collected data on Mexican free-tailed bats at a large roost in eastern Nevada. Two million bats use this roost. Did I mention the roost is 6 km from a 152-MW industrial wind energy facility?

We used a harp trap to capture 46,353 Mexican free-tailed bats over 5 years. Although just over half of the bats were nonreproductive adult males (53.6%), 826 pregnant, 892 lactating, 10,101 post-lactating, and 4,327 nonreproductive adult females were captured. Juveniles comprised 11.5% of captures.

Roost use by reproductive females and juvenile bats demonstrates this site is a maternity roost, with significant ecological and conservation value. To our knowledge, no other industrial scale wind energy facilities exist in such proximity to a heavily used bat roost in North America.

Given the susceptibility of Mexican free-tailed bats to wind turbine mortality and the proximity of this roost to a wind energy facility, we need to continue work at this site. We need more information on bat mortality and the effects of mitigation. Pattern energy has been an excellent partner and works hard to protect bats at their facility. I hope we can publish the results of this work soon.

Surprisingly, we have almost no information on migration patterns of Mexican free-tailed bats in the southwest and California in particular. We hope to use the MOTUS network (<https://motus.org>) to understand these migration patterns. This information would allow much more precise siting of wind energy facilities and help with local mortality mitigation.

Read the paper here: <https://esj-journals.onlinelibrary.wiley.com/doi/full/10.1002/1438-390X.12119>

# Targeted Grazing Can Reduce Communities' Vulnerability to Wildfire



**Beef cows grazing in Sonoma County rangeland. Photo by Roger Praplan.**

<http://westernipm.org/index.cfm/ipm-in-the-west/natural-areas/targeted-grazing-can-reduce-communities-vulnerability-to-wildfire/>

With the West in a state of permanent drought and under constant threat of wildfires, it's more important than ever for land managers to control undesirable vegetation. For fire-prone communities scattered throughout the West's tinder-dry hills and woods, it can be a matter of life and death.

One tool that can help manage vegetation is grazing.

"There's a trend now to use livestock and targeted grazing to reduce fuels, reduce fire risk and reduce fire intensity," explained Stephanie Larson, a University of California livestock and range management advisor for Sonoma and Marin counties. "But there are questions that need to be answered about the nutritional value of the forage and animal welfare."

For example, goats were recently used to graze down brush near the Sonoma County city of Headsburg. But because the area that needed to be grazed was also an area listed as habitat for ground-nesting birds, the goats couldn't be introduced before August and by then the brush was dry and inactive.

"So our question is when is the optimal time for grazing, taking in the nutritional needs of the animals

and the fire-reduction potential of the grazing?" Larson said.

Larson and her research partner, Dan Macon, the University of California livestock and natural resources advisor for Placer, Nevada, Sutter and Yuba counties, recently received a grant from the Western

Sustainable Agriculture Research and Education program to answer that question.

"We've got six herders working with us who run goats, sheep and cattle in Sonoma and Marin counties in the Bay Area, and in Placer and Nevada counties in the Sierra Nevada," she said. "One element of the project is that we are going to collect forage samples of different plants at different times of the year to determine their nutritional values at different times of the year."

The research team also plans to produce a field guide for herders with pictures and descriptions of common brush species – both ones to target and ones to avoid – and conduct public education and outreach activities explaining the value and process of targeted grazing to the public.

"For example, it might not look to some people that these animals are getting enough food," Larson explained. "Our research is designed to determine if their nutritional needs are being met through grazing, or if they'll need to be supplemented with hay or feed in tubs. We want to be able to show that to the public and document the role of grazers and herders."

One audience for the research is wildland firefighters.

*Continued on page 7*



# Safflower Found in Eastern Nevada

**Greg Gust, ENLC Botanist**

In mid-July, while visiting ENLC’s retired executive director, Betsy Macfarlan, she asked me to take a look at a weed growing next to her barn. There was a lone spiny plant growing up through the gravel of the driveway. I immediately recognized it to be a member of the Cardueae tribe within the Aster family, but was certain I had never seen the plant before and it was not a member of the Nevada Noxious Weed list. Betsy took some additional photos, before properly dispatching of the plant. Later that evening, I consulted several botanical sources to confirm that the plant is safflower (*Carthamus tinctorius*), a rather unusual plant to find in these parts. It is the same safflower used to produce cooking oil (derived from its seed), a saffron alternative, and has been cultivated by humans for over 4,000 years.

Originally native to the eastern Mediterranean, safflower is only known to survive today in cultivation and as an escapee. Our individual made its way to Betsy’s ranch as part of a birdseed mix she purchased. Safflower has been recorded at least twice in southern Nevada, in 2006 from Overton and from the Spring Mountains 2019, but there is very little information of



it adventively occurring in our fine state. Although it does not appear to be particularly problematic, please keep your eyes peeled for it.

The wild progenitor of safflower commonly named “wild safflower” (*Carthamus oxycantha*), was located in Monterey County, CA back in 1978. The population was eradicated and has not been observed in the U.S since. It is on the federal USDA Noxious Weed list and has moderate risk of becoming invasive according to APHIS. For more information on the “wild safflower” please visit: [https://www.aphis.usda.gov/plant\\_health/plant\\_pest\\_info/weeds/downloads/wra/carthamus-oxycantha.pdf](https://www.aphis.usda.gov/plant_health/plant_pest_info/weeds/downloads/wra/carthamus-oxycantha.pdf)

Calendar of Events	
October 15	ENLC Board of Trustees meeting – Bristlecone Convention Center 9:00 a.m.
November 8	Newark/Long Valley CWMA Meeting, Eureka 10:00 a.m.
November 8	Steptoe Valley CWMA Meeting – TCWC office 5:00 p.m.
November 9	Spring Valley CWMA Meeting – Yelland Ranch 1:00 p.m.
November 9	Snake Valley CWMA Meeting – Baker Community Center 4:00 p.m.
November 15	Railroad Valley CWMA Meeting – Current Community Center 2:30 p.m.
November 15	White River Valley CWMA Meeting – Lund Community Center 4:00 p.m.
November 17	Upper Meadow Valley CWMA Meeting - Ronda Hornbeck’s ranch 11:30 a.m.
November 17	Pahranagat Valley CWMA Meeting – Alamo Annex 4:00 p.m.
November 10-12	Nevada Farm Bureau’s Annual Meeting – Carson City, NV <a href="http://nvfb.org">nvfb.org</a> for more info.
November 17	Southern Nevada CWMA Meeting – Call-In 1:00 p.m.
November 24-25	ENLC Office closed
Nov 30-Dec 2	Nevada Cattlemen’s Association Annual Convention – Sparks, NV
December 26	ENLC Office closed
January 2, 2023	ENLC Office closed
January 4-5	Winter Weeds Conference, Bristlecone Convention Center, Ely, NV

# Targeted Grazing to Reduce Wildfire Risk

*Continued from page 5*

“When we talk to fire professionals, they say grazing works for fire prevention. They’ve seen it,” Larson said. “So we’re engaging them and giving them information they can use to educate the public. They’re trusted professional in communities that may not have a connection to ag production and may think of animal agriculture in negative terms.”

The research team will also work with the six cooperating herders to develop more infrastructure to support targeted-grazing operations sustainably, including identifying land ideal for targeted grazing, and helping herders develop long-term contracts.

“We want to look at how we get new people in the business,” Larson said.

In a fire-prone area like Sonoma County, Larson believes grazing is an essential component in any integrated vegetation management plan. It is also textbook integrated pest management.

“Grazing is biological control for removal of invasive species,” Larson said. “The land owner or manager doesn’t need to use mechanical or chemical methods to remove the undesired or invasive species because the grazers do it.”

The bottom line, Larson believes, is that long-term resiliency plans require using all available tools and options, and the best long-term vegetation management option is grazing.

“Folks can’t hire hand crews every year or do prescribed burning,” she said. “But they can have their land grazed, and while grazing won’t stop fires, it can slow down their spread and intensity.”

# ENLC Appoints New Board Member

The ENLC Board of Trustees invited Bill Wolf to join their ranks in June. Bill accepted the nomination and is now our newest board member.

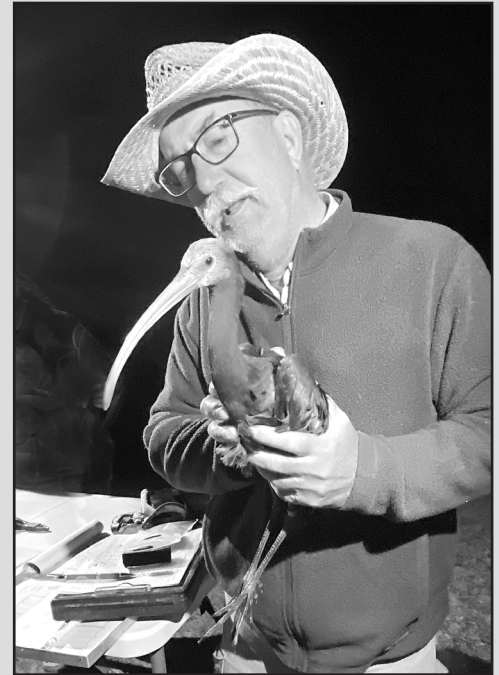
Bill is a native of Carson City, NV but has made Ely his home and has sunk his roots into eastern Nevada’s dry, rocky soil.

Bill graduated from Utah State University in

Outdoor Recreation and is very passionate about natural resource management. He retired as Nevada Department of Forestry’s Northern Region Forester, with most of his career taking place in eastern Nevada, making him very familiar and well-versed in managing the Great Basin ecosystem and its natural resources. He also worked for Great Basin Institute as the Eastern Nevada Coordinator.

Although he is retired, he remains active in our community, serving as the chairman on the City Tree Board, the White Pine Main Street Board, a board member for Nevada Plants (a non-profit created to address food deserts and accessibility throughout Nevada), and a member of ENLC’s Pinyon-Juniper Partnership. Previously, he served on the Nevada Fire Safe Council Board, was chairman of the Northeast Great Basin Resource Advisory Council (BLM), and chairman of the Ely Film Festival.

Bill looks forward to serving on the board to enhance ENLC’s restoration efforts and to encourage good land stewardship of this beautiful area. Bill and his wife, Judy, are avid downhill and backcountry skiers and they have explored most of eastern Nevada camping and hiking.



**Bill Wolf with ibis.**



**Eastern Nevada  
Landscape Coalition**

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## ENLC Membership Reminder

Our annual ENLC membership renewal will occur this fall 2022. By supporting ENLC as a member, you are supporting our annual programs and workshops. These events aren't covered by project or agreements, so your memberships are critical to keep these events going. A few of these events are our Great Basin Kids

Workshop, our Annual Winter Weeds Conference, and our CWMA Volunteer Workdays, which are all events that ENLC hosts that are supported by its members.

If you have any questions, please don't hesitate to contact Susi Algrim, ENLC's executive director, at 775-289-7974 extension 1#.

### ENLC Membership

**Name** \_\_\_\_\_

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*Membership contributions are tax deductible as allowed by law.*

<b>Student</b> <b>(enrolled in school)</b>	<b>\$ 15</b>
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