

# The Field Press

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## From The Desk Of The Coordinator

By Raquel Wertsbaugh, CNAP Coordinator

Another spring season is upon us and after this snowy winter I am hopeful for plenty of green vegetation that lasts well into the summer months. This winter has been a good time to work on projects that have been lingering on that ever-growing to-do list. These projects have been particularly enjoyable and reflective in looking at both CNAP's past and the future.

Last season, previous CNAP staff Lucy Haggard initiated an oral history project (read more about it on Page 5), that included interviews of past CNAP directors, coordinators, Council members, long-time partners and volunteer stewards. Reading through the results has been both inspirational and enlightening. Through the lens of past CNAP leaders, it is encouraging to feel the continued passion, value, and support of the program. Notably, many of the challenges the program faced decades ago are still present to some degree. However CNAP has continued to persevere, grow, and remain an incredibly valuable conservation program over the course of its nearly five decades of existence. Our program's success can be tied to many things, but mainly the dedication of staff, Council members, volunteer stewards, and positive partnerships stand out the strongest. I think we can all be very proud of the steadfast mission and accomplishments of CNAP over the program's 45+ years.

Other exciting recent projects include the pending designation of a new State Natural Area, called Coal Creek Tallgrass Prairie Natural Area, and expansions of two existing State Natural Areas, White Rocks and Colorado Tallgrass Prairie Natural Areas. All three properties are owned by City Boulder Open Space and Mountain Parks. We are nearing the final steps of the new designation and expansions. You can learn more about these properties on Page 3 of this newsletter. I hope you all have a wonderful 2023 and on behalf of the CNAP team, we hope to see many of you in the field this season!

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CNAP staff and volunteer steward at Gateway Palisade Natural Area



# CNAP Staff Update: Meet The 2023 Team

**CNAP coordinator:** CNAP has one permanent full-time position, the CNAP coordinator. Raquel Wertsbaugh has filled this role since 2014. Raquel oversees the program and staff, manages contracts, grants, and program budget, facilitates the Colorado Natural Areas Council, and serves as CPW's liaison with rare plant partners.

**Contractor:** CNAP is fortunate to have former seasonal technician, Savanna Smith, serving as our 5-year botany contractor through the Colorado Natural Heritage Program (CNHP). Savanna leads the natural areas monitoring, coordinates the volunteer steward program, and serves as our botany expert.

**Seasonal field technician:** Our field technician this season is Victoria Oliu. Victoria will assist with the statewide natural areas monitoring, and help with our volunteer steward program and many other various projects. Get to know more about Victoria below...



2023 CNAP staff: Raquel Wertsbaugh, Savanna Smith, and Victoria Oliu

## New CNAP Team Member for 2023:

### Victoria Oliu



Victoria grew up on the Space Coast of Florida. She spent her childhood in and around the Indian River Lagoon, fishing, drawing the animals that she would see, and running around in the rain. Learning about human impacts on the environment

that she loved inspired her to work in a field where she could help to preserve and protect ecosystems for years to come. She headed out west to Colorado State University to study Ecosystem Science and Sustainability. She also minored in Environmental Affairs in order to focus on policy and communication in the field of natural resources. Her hope is to eventually teach middle school or high school environmental science or ecology. In her free time, she enjoys trying out new mediums of art, snagging concert tickets, and laughing with friends.

Victoria worked for the National Park Service at Rocky Mountain National Park for two seasons as a Plant Technician, and was a Siegle Conservation Science Intern for the Colorado Natural Heritage Program. She is excited to start this journey with CNAP and expand her horizons of field monitoring and mapping to understand the broader ecological pictures within the state.



## Colorado Natural Areas Program

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<https://cpw.state.co.us/aboutus/Pages/CNAP.aspx>

Jared Polis, *Governor*

Dan Gibbs, *Executive Director*  
*Department of Natural Resources*

Heather Dugan, *Acting Director*  
*Colorado Parks and Wildlife*

### Colorado Natural Areas Council:

Lynn Riedel, *Chair*

Phyllis Pineda Bovin, *Vice Chair*

Denise Culver, *Member*

Jessica Pierce, *Member*

Courtney Krause, *Member*

Josie Heath, *State Board of Land*  
*Commissioners*

Taishya Adams, *Parks and Wildlife*  
*Commissioner*

# Program Updates: Upcoming Designation and Expansions with City of Boulder

For over a decade, City of Boulder Open Space and Mountain Parks grassland ecologist Lynn Riedel has been working with CNAP staff to expand important State Natural Area designations and recognize new areas in order to help highlight and protect imperiled tallgrass prairie communities along the Front Range. The vision is finally becoming a reality. We are in the final steps of designating and expanding several state natural areas with the City of Boulder.

## **New Pending Designation- Coal Creek Tallgrass Prairie:**

Coal Creek Tallgrass Prairie Natural Area includes 1,470 acres and is located in Jefferson County. The property contains a high-quality remnant of a once-extensive area of tallgrass prairie on the glacial outwash surfaces that dot portions of the Front Range. The tallgrass prairie remnant contains a unique and distinctive blend of Great Plains and Southern Rocky Mountain montane plant communities. The property also contains numerous rare plant species, wildlife species of greatest conservation need, and rare butterfly species associated with the tallgrass prairie plant community.

## **New Pending Expansions- White Rocks and Colorado Tallgrass Prairie:**

The original Colorado Tallgrass Prairie Natural Area was designated in 1984, includes 269 acres, and is located southeast of Boulder. The proposed boundary amendment for Colorado Tallgrass Prairie Natural Area includes an additional 1,078 acres. The original parcels for the Colorado Tallgrass Natural Area are relatively small and expanding the acreage will better highlight and conserve Boulder's remnant tallgrass prairies through a more meaningful natural area design. The new boundaries will help protect the imperiled tallgrass prairie communities and the associated flora and fauna species. Additionally, the proposed additions will increase connectivity between existing State Natural Areas (South Boulder Creek and Boulder Mountain Park).

White Rocks Natural Area was originally designated in 1979, includes 105 acres, and is located just east of Boulder. The proposed boundary amendment for White Rocks Natural Area includes an additional 1,372 acres. The proposed boundary amendment for



*Big bluestem grasses at White Rocks Natural Area*

White Rocks includes an additional 1,372 acres. This expansion will include a larger portion of the White Rocks formation, an outstanding geologic feature of Fox Hills sandstone originating from the Cretaceous period and known as “turtlebacks”. The expansion will also encompass additional habitat for rare plant species, unique assemblages of plant communities, and numerous wildlife species of greatest conservation need.

Through the Articles of Designation, the City of Boulder will agree to manage the properties to conserve and protect the natural features for which the properties are designated for. The City of Boulder continues to retain all ownership and management authority, including access to the properties.

The final steps for the pending designation and expansions include approval by the Parks and Wildlife Commission, which is slated for the June commission meeting. The Articles of Designation will be signed by all parties and a certificate of designation including the Governor's signature will be presented to the City of Boulder.



*Fall colors at Coal Creek Tallgrass Prairie*



# The Conservation Corner

## **Pagosa Skyrocket Monitoring in CoNPS Publication**

CNAP recently published an update on ongoing monitoring for the endangered Pagosa Skyrocket (*Ipomopsis polyantha*) in the winter edition of the Colorado Native Plant Society's (CoNPS) *Aquilegia* magazine. The article discussed current monitoring methods and what we've learned so far from six years of data collection. CoNPS members can view the full edition of the magazine online at [CoNPS's website](#).

*Right: Monitoring Pagosa skyrocket at Pagosa Skyrocket Natural Area*



## **Chalk Bluffs Natural Area Fossil Discovery**

During his annual monitoring visit, the CNAP volunteer at Chalk Bluffs Natural Area noticed some interesting fossils peeking out of a rock outcrop. After alerting the State Land Board, experts were hired to conduct fossil surveys and excavations at the site. This led to the removal of a partially complete skeleton of an extinct horse from the genus *Merychippus*. [Click the link to learn more!](#)

*Left: Ancient horse (Merychippus sp.) fossil at Chalk Bluffs Natural Area, photo credit SLB*



## **Black Swift Research at Zapata Falls Natural Area**

Zapata Falls State Natural Area may be iconic for its cascading waterfall, but it is also home to black swifts, a rare bird that exclusively nests behind waterfalls. Bird Conservancy of the Rockies has been monitoring black swifts at many sites in Colorado for years, including Zapata Falls, and recently re-captured a bird that broke the longevity record for the species at 18 years old. [Read more about this story on their blog!](#)

*Left: Black swift banding, photo credit Bird Conservancy of the Rockies*



## **State Pollinator Study Begins**

With the signing of [SB22-199](#), Native Pollinating Insects Protection Study, the Colorado Department of Natural Resources has initiated a collaborative study to gain a better understanding of Colorado's pollinators. The study is being conducted by CSU Extension, the Xerces Society, and CU Museum of Natural History, with collaboration from state and federal agencies, scientists, and reserachers. Read the [Governor's Office announcement](#) for more information.

*Left: Bombus huntii pollinating a rare Pagosa skyrocket*



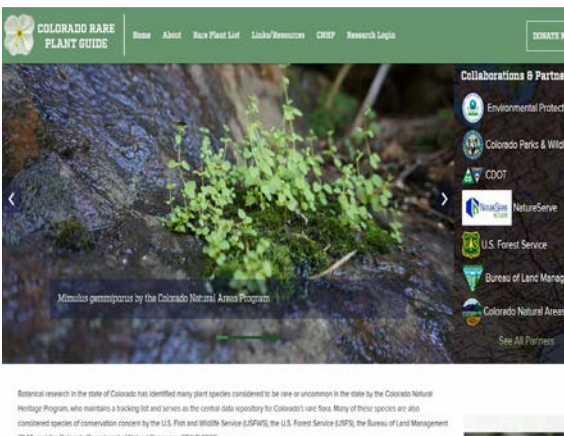
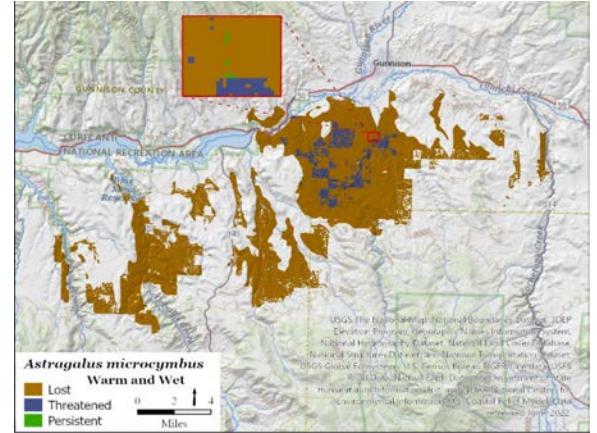


# The Conservation Corner

## Modeling Potential Habitat for Colorado's Plant Species of Greatest Conservation Need

CNHP, with funding from CNAP, recently completed a [project creating species distribution models](#) for all Plants of Greatest Conservation Need listed in the State Wildlife Action Plan. These models provide valuable insight into areas that warrant further surveys and potential conservation actions. Additionally, they used the models to predict future distribution of select species under a changing climate.

Right: screenshot of future habitat suitability model



## Colorado Online Rare Plant Guide- Revamped!

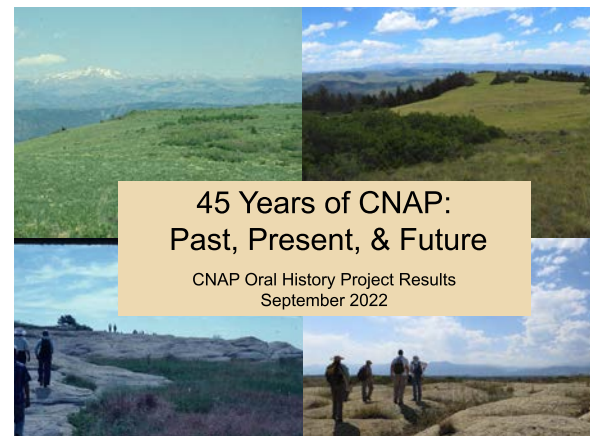
The Colorado Rare Plant Guide, hosted by CNHP, has recently been updated and improved. With funding from CNAP, CNHP has updated species profiles, which now includes all 117 Plant Species of Greatest Conservation Need, and has added new status filters, and generally updated the look of the online guide. Please check out the new and improved [Colorado Rare Plant Guide!](#)

Left: screenshot of the Colorado Rare Plant Guide

## CNAP Initiates "Legacy" Project

With the help and leadership of Lucy Haggard, CNAP's 2022 Outreach Specialist, CNAP initiated what we call our "Legacy" project. With last year being the program's 45th anniversary, we felt the need to learn more about our program's past, present, and future. Lucy interviewed seven past and current CNAP leaders and supporters. You can learn about the project and the results in this [CNAP Legacy Project slideshow](#).

Right: screenshot of Legacy Project slideshow



## ESA Updates for Colorado Rare Plants

CNAP continues to work tirelessly on behalf of CPW/DNR to help preclude the need to federally list and assist in recovery of plant species under the Endangered Species Act. Currently, we're working collaboratively with USFWS and other partners on recovery actions for [Pagosa skyrocket](#), [Parachute penstemon](#), recovery action planning for [Dudley Bluffs bladderpod](#) and [twinpod](#), and post-delisting monitoring planning for [North Park phacelia](#).

Left: North Park phacelia, recently recommended for delisting by USFWS



# Colorado Natural Area Highlight: White Rocks

By Lucy Haggard, former CNAP Outreach and Stewardship Specialist, 2022 season

Imagine traveling back in time approximately 65 million years ago, when much of eastern Colorado sat at the edge of an inland sea. Sediment-rich rivers created sandy deltas that hardened into what's now called the Fox Hills sandstone formation. Today, just outside of Boulder, Colorado, passersby can get a glimpse of this geologic phenomenon by way of sandstone cliffs, which emerge from otherwise verdant grasslands. These White Rocks, as they're called, are just as striking in their pale glow as the rare and curious natural features that call the area home.

Archive documents indicate advocates and scientists had been interested in protecting the natural features of White Rocks since at least 1946. An article written by the renowned botanist William A. Weber in 1948 calls attention to the black spleenwort (*Asplenium adiantum-nigrum*), a fern commonly found in Africa and Eurasia, but incredibly rare in the Western Hemisphere. Other ecological curiosities include the forked three-awn grass (*Aristida basiramea*), six-lined racerunner, and multiple invertebrates that are particularly uncommon in Colorado, such as the ephemeral fairy shrimp. There's even a book-length field guide for the many lichens of White Rocks!

The conservation of this unique natural space happened in large part due to a single influential Boulderite. Martha "Ricky" Weiser, well-known in the community for her environmental advocacy, owned a portion of the rock outcroppings, and lived with her family in a house at the western edge. After the 1978 Boulder County Comprehensive Plan officially identified White Rocks as a parcel worth protecting, CNAP approached the Weiser family as well as the other landowners. Ricky volunteered her property for a State Natural Area designation, and just a year later, White Rocks Natural Area was designated as the third State Natural Area on June 26, 1979. Going forward, Ricky became a vocal advocate for CNAP; when the Colorado legislature proposed a \$0 budget for CNAP in 1981, Ricky wrote a letter to the Senate supporting the program.

Shortly after the White Rocks designation, a housing development was proposed on the neighboring Ertl Farm, which greatly



Boulder Creek running through White Rocks Natural Area

concerned CNAP and others in the community. The Nature Conservancy assisted the City of Boulder in purchasing a conservation easement on the Ertle property to avoid any potential new buildings. By the mid-2010s, the City of Boulder had placed a conservation easement on the Weiser property as well, then acquired both the Weiser and Ertl properties, uniting the entirety of the rock outcropping under one landowner. Now, almost 45 years after White Rocks Natural Area's designation, the City of Boulder and CNAP are working together to formally expand the State Natural Area to encompass the entirety of the White Rocks.

Every year from August through October, the City of Boulder leads guided hikes on the White Rocks property, which is otherwise closed to public visitation. Hike availability is limited, to minimize the ecological impact of humans on the landscape. Please visit the [City of Boulder's website](#) to learn more about the guided White Rocks hikes. There are publicly accessible trails around the White Rocks property that include clear views of the Natural Area's distinct geology, including the East Boulder at White Rocks trail and Teller Farm trail. Please review all trail rules and regulations before visiting, and practice Leave No Trace principles while there.



White Rocks geological formation, also known as "turtle backs"



# Volunteer Corner



*Volunteer steward Alex Laurence-Traynor and staff Savanna Smith at Hoosier Ridge Natural Area*

CNAP's volunteer program currently consists of about 55 dedicated volunteers who are assigned one or more State Natural Areas to steward. Volunteers conduct a monitoring visit of their assigned Natural Area at least once a year, but sometimes more often. They report on site conditions, status of rare plants or other significant features, and more, providing valuable insights on their site for CNAP staff and the landowner. Volunteers get to know their assigned site(s) over many years; about half of our volunteers have been visiting their sites for over 10 years!

## Volunteer Steward Retirements

CNAP would like to thank the following dedicated volunteers who retired in 2022. We are grateful for their many years of service and dedication.

- ▶ Danni Langdon and Carl Jacobson- South Cathedral Bluffs Natural Area, 20 years of service
- ▶ Dave Bathke- Geneva Basin Iron Fen Natural Area, 17 years of service
- ▶ Tom Nesler- multiple Natural Areas, 10 years of service

## Welcome New Volunteer Stewards!

We are grateful for our new volunteers! Thank you for your enthusiasm and willingness to support our program.

- ▶ Lucy Haggard and Peter Rosenthal- Aiken Canyon Natural Area
- ▶ Chris Amador- Lookout Mountain Natural Area
- ▶ Milt Robinson- Fourmile Creek Natural Area
- ▶ Michael Stevens- Trinidad K-Pg Boundary and Garden Park Fossil Locality Natural Areas



*Recent volunteer retiree Dave Bathke at Geneva Basin Iron Fen Natural Area*



*Recent volunteer retiree Tom Nesler and current volunteer Dina Clark at Arikaree Natural Area*



# Volunteer Corner



Volunteer Rebecca Heisler at Treasurevault Mountain Natural Area



Volunteers Steve & Jeanne Wenger at Gateway Palisade Natural Area



Volunteer Dave Tolen at Irish Canyon Natural Area

## CNAP Volunteer Accomplishments 2022

CNAP volunteers contributed over 1,204 hours in 2022, representing 57 different site visits to 37 Natural Areas. We are so grateful to our volunteers who go above and beyond to ensure the long-term monitoring and stewardship of our state's exceptional Natural Areas. Here are some of the many volunteer highlights from 2022:

- ▶ Larry Allison made 11 visits to Badger Wash Natural Area, enabling detailed observations of the phenology and health of several of the site's rare plants.
- ▶ Lindsey Brandt, Melissa Dozier, and Chelsea Beebe backpacked (and bushwhacked) 21 miles to make the annual monitoring trek to Paradise Park Natural Area in Rocky Mountain National Park.
- ▶ Steve and Jeanne Wenger documented new locations for rare plant species, including Rollins' twinpod and Gunnison milkvetch, at South Beaver Creek Natural Area.
- ▶ Rebecca Heisler documented brown-capped rosy finch at Treasurevault Natural Area. This rare bird species is highly vulnerable to the impacts of climate change.
- ▶ Volunteers at Roxborough (Mike Thomas, Tom Zeiner, and Ann Sarg) provided status updates on the wildlife, butterflies, and rare plants found within the park. Additionally, they reported on stewardship activities and efforts to curtail impacts of visitor use.



Volunteers Lindsey Brandt, Chelsea Beebe, and staff Savanna Smith at Paradise Park Natural Area

## Want to be a CNAP Volunteer Steward?

We are currently near capacity, but we have a few open sites for volunteer stewards who are willing to travel and get out to remote places. If you are a current steward looking to take on a new or additional site, a potential new volunteer steward, or have a friend which you would like to refer to the program, please contact: [dnr\\_cnap@state.co.us](mailto:dnr_cnap@state.co.us). [Learn more about our volunteer program here.](#)



# State Wildlife Action Plan (SWAP) Species Highlight: Brandegee's Buckwheat (*Eriogonum brandegeei*)

By Savanna Smith

Brandegee wild buckwheat (*Eriogonum brandegeei*) is a hardy plant found only in Central Colorado near Salida and Cañon City. This long-lived member of the Buckwheat family is recognized by its large, sprawling mats of fuzzy bluish-green leaves and its leafless flowering stalks topped by a pom-pom like ball of white to pink flowers.

Many of Colorado's rare plants are adapted to specific geologic formations and the Brandegee buckwheat is no exception. The plant is only found on the Dry Union Formation in the Salida area and the Morrison Formation in the Cañon City area. Within these constraints, plants are typically found in barren areas containing a high fraction of bentonite clay. These clay-heavy soils experience wild fluctuations in shrinking and swelling, depending on soil moisture (many Colorado homeowners with cracked foundations may be familiar with this problem). Clay soils can be stressful for plants, but Brandegee buckwheat has evolved to specialize in these soils, giving them an edge over more generalist plant species. Brandegee buckwheat has been observed hanging onto slopes as steep as 90%, likely owing to its deep-reaching, hefty taproot. CNAP staff once observed an exposed taproot almost an inch thick!

The species was petitioned and recently (as of December 2022) determined not warranted for listing under the Endangered Species Act. Over a decade of monitoring has shown that the



Typical habitat for Brandegee buckwheat (Droney Gulch Natural Area)

plant's populations are relatively stable, despite recent years of extreme drought. Land management agencies have also enacted several proactive conservation measures to ensure recreation and other uses do not impact the species or its habitat. CNAP has designated two State Natural Areas that help recognize and protect Brandegee wild buckwheat: Droney Gulch outside of Salida and [Garden Park Fossil Locality](#) outside of Cañon City. You can learn more about Brandegee Wild Buckwheat at the [CNHP Rare Plant Guide](#).



Brandegee buckwheat (*Eriogonum brandegeei*)



# Natural Areas Council News

By Lynn Riedel, Council Chair

In reflecting on the last year, the Colorado Natural Areas Program continues to follow an ambitious work plan, making great progress on implementing the Program's most recent strategic plan. With Raquel Wertsbaugh and Savanna Smith's ecological knowledge, along with Raquel's skillful leadership, there is an ongoing focus on stewardship of CNAP's natural areas portfolio, and an emphasis on rare plant species and community conservation across the state. Despite being a small program, CNAP makes remarkably large contributions toward accomplishing Colorado Parks and Wildlife's State Wildlife Action Plan goals. Strong partnerships with the State Land Board Stewardship Trust program, Colorado Natural Heritage Program, numerous natural area landowners, and other work groups within CPW, create the fabric of CNAP's influential state-wide network. The volunteer stewardship program, orchestrated by staff, assists with monitoring the Program's 95 State Natural Areas while providing the opportunity for citizen involvement. And all this great work happens despite too few staff members, a point acknowledged and emphasized by Colorado Natural Areas Council repeatedly over time.

As I near the end of my current CNAC appointment, along with Denise Culver and Taishya Adams who have contributed their expertise and enthusiasm for CNAP's mission in ways that will be greatly missed, I have been thinking a lot about CNAP's importance to state-wide conservation. The biological diversity and settings where natural processes are represented, protected, and allowed to function within the natural areas, are exceptionally valuable to our state and the region. In the late 1970's, when a formidable group of conservation-minded citizens worked to support the establishment of a natural areas program in Colorado, they recognized the value of even small sites across the state with unique and high quality natural features. Especially in the face of Colorado's population growth and associated development, it became imperative to document and protect the best examples of the state's natural areas. Research and monitoring over CNAP's 45 plus years have added to scientific understanding of the many natural features occurring in these sites. This documentation helps lessen the incidence of shifting baselines of condition as human influences, including climate change, continue to affect Colorado's natural ecosystems. Thus, Colorado Natural Areas can serve as ecological reference sites as strategies for ecological restoration and land management continue to develop in our region.

The Colorado Natural Areas Council has been supporting staff in the strategic goal of increasing state natural area designations in the eastern part of the state. To that end, a new natural area in rare tallgrass prairie, the Coal Creek Tallgrass Prairie, which lies in Jefferson County just east of the prairie-forest interface, has been registered and proposed for designation later this year. Additional potential prairie natural areas are in the process of being identified and registered, mapping out the path for expanding the CNAP portfolio. Further strategic focus for the Program includes increasing opportunities to promote equity and diversity, exploring pathways for integration of Traditional Ecological Knowledge, incorporating the emerging science around climate change action, and enhancing Program outreach. Moving forward with these goals and others, the Council is deeply grateful for the chance to support and participate in this important, highly impactful state program.



CNAP volunteer event at Castlewood Canyon State Park



CNAC members, CNAP staff, and volunteer stewards at Castlewood Canyon State Park and Natural Area, September 2022