

C O L O R A D O   P A R K S   &   W I L D L I F E

# Colorado Natural Areas Program 2021-2023 Review

TRIENNIAL REPORT TO GOVERNOR POLIS



Arikaree River State Natural Area

©CNAP/CPW

# Contents

---

<b>Colorado Natural Areas Program</b> .....	<b>3</b>
<b>Colorado Natural Areas Council</b> .....	<b>7</b>
<b>Volunteer Stewardship in Action</b> .....	<b>8</b>
<b>Monitoring Colorado's Natural Areas</b> .....	<b>9</b>
<b>Rare Plant Conservation</b> .....	<b>10</b>
<b>2021-23 in Review</b> .....	<b>12</b>
<b>Natural Areas Status Report</b> .....	<b>13</b>



## Colorado Parks and Wildlife Commission Members

Dallas May, Chair  
Richard Reading, Vice Chair  
Karen Bailey, Secretary

Jessica Beaulieu  
Marie Haskett  
Jack Murphy

Gabriel Otero  
Duke Phillips IV

James Jay Tughton  
Eden Vardy



**State of Colorado**  
Governor: Jared Polis



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



**Colorado Parks and Wildlife**  
Jeff Davis, Director

This program receives Federal financial assistance from the U.S. Fish and Wildlife Service. Under Title VI of the 1964 Civil Rights Act, Section 504 of the Rehabilitation Act of 1973, Title II of the Americans with Disabilities Act of 1990, the Age Discrimination Act of 1975, and Title IX of the Education Amendments of 1972, the U.S. Department of the Interior prohibits discrimination on the basis of race, color, national origin, age, sex, or disability. If you believe that you have been discriminated against in any program, activity, or facility, or if you need more information, please write to: Office of Diversity, Inclusion and Civil Rights, U.S. Department of the Interior 1849 C Street, NW Washington, D.C. 20240





# Colorado Natural Areas Program

The Colorado Natural Areas Program (CNAP) is a statewide conservation program created in 1977 by the Colorado Natural Areas Act (C.R.S. 33-33). The Program is housed within Colorado Parks and Wildlife (CPW) and is advised by the Colorado Natural Areas Council (CNAC), a seven member Governor appointed board. Program staff includes one full-time coordinator, one or two seasonal technicians, and support from a contract botanist and over 50 dedicated volunteer stewards. For more information about CNAP please visit [cpw.info/CNAP](https://cpw.info/CNAP).

## Mission

*To identity, evaluate, and protect specific examples of natural features and phenomena as enduring resources for present and future generations, through a statewide system of Designated Natural Areas. [C.R.S 33-33-102]*

Wheeler Geologic Natural Area



# What We Help Protect:

## Natural Features

**GEOLOGY**

**RARE PLANTS**

**FOSSILS**

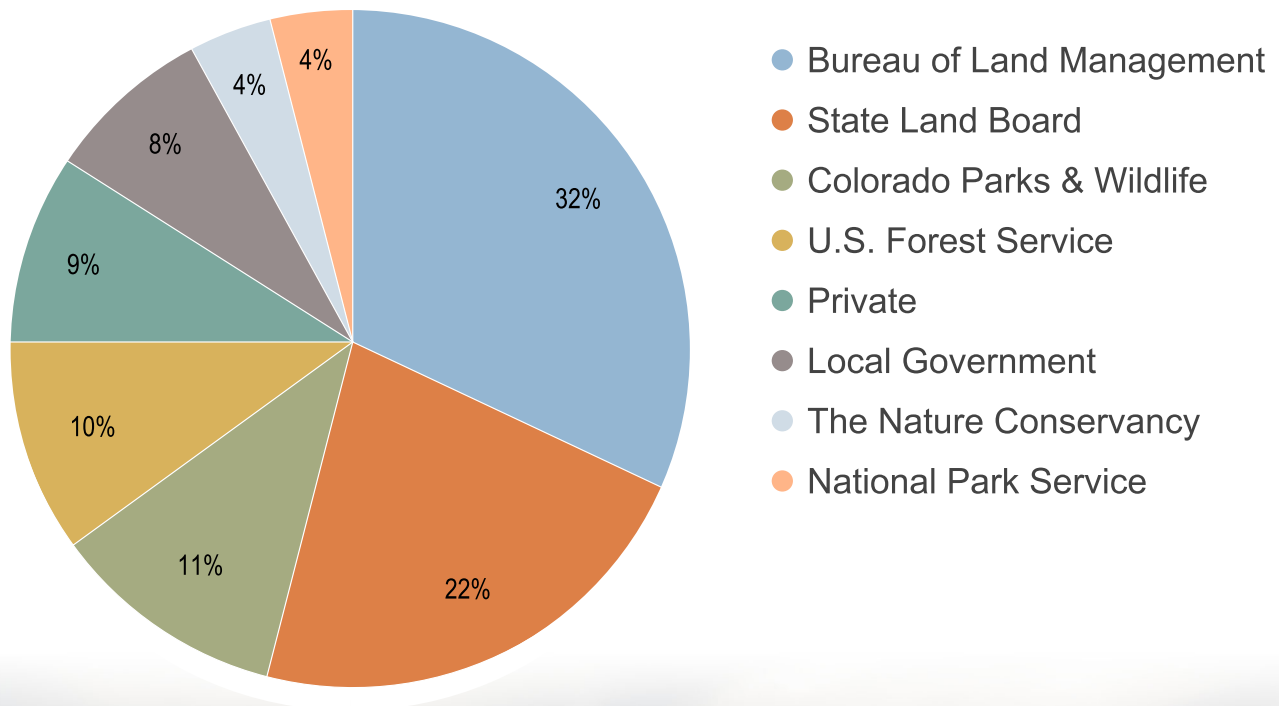
**WILDLIFE & INVERTEBRATES**

**NATURAL COMMUNITIES**



# Who We Work With:

## Owners of Designated Natural Areas



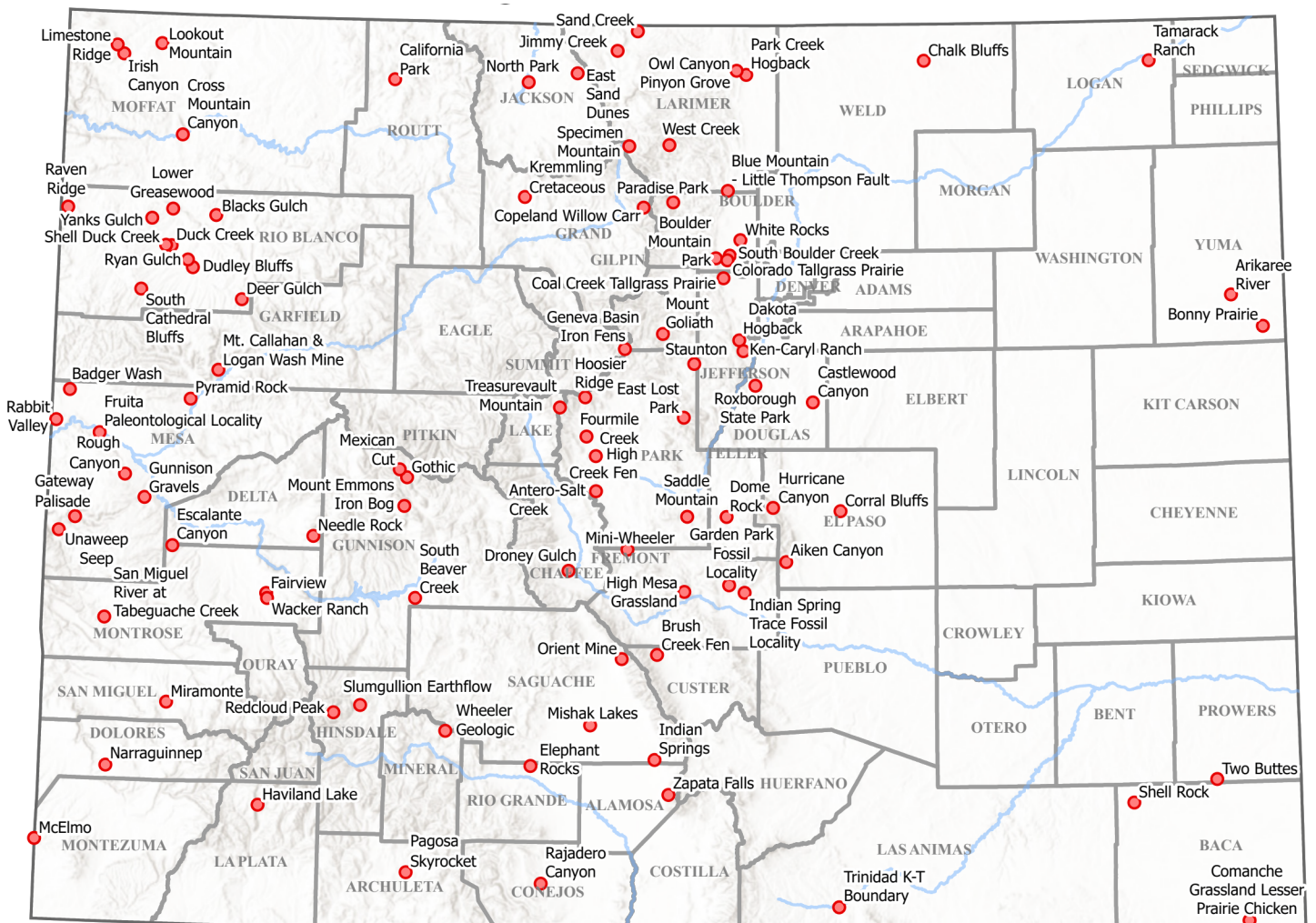
CNAP staff and partners monitoring at  
Pagosa Skyrocket Natural Area



# What We Do:

- ▶ CNAP's statewide system of Natural Areas highlights and supports the protection of Colorado's most rare and unique natural features
- ▶ State Natural Area designations are accomplished through voluntary conservation agreements with willing landowners
- ▶ There are currently 96 designated Natural Areas across Colorado, representing nearly 184,000 acres

## Designated State Natural Areas





# Colorado Natural Areas Council



CNAC members and staff at Colorado Tallgrass Prairie Natural Area

The Colorado Natural Areas Council (CNAC), a seven member governor-appointed advisory council, was established alongside CNAP in 1977.

- ▶ The CNAC consists of five Governor appointees, one representative from the Colorado Parks & Wildlife Commission, and one representative from the State Board of Land Commissioners
- ▶ The CNAC meets quarterly and provides guidance to CNAP on Natural Areas identification, registration, designation, and program strategic planning and implementation
- ▶ The CNAC underwent a legislative sunset review in 2023 and was reauthorized for another 10 years by HB24-1257

## CURRENT MEMBERS

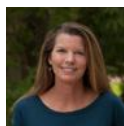
### Governor Appointed



**Lynn Riedel, Chair**  
Appointed 2019 (2nd term)



**Phyllis Pineda Bovin, Vice Chair**  
Appointed 2020 (2nd term)



**Jessica Pierce**  
Appointed 2021



**Courtney Krause**  
Appointed 2022



**Steve Armstead**  
Appointed 2024

### Board & Commission Representatives



**Josie Heath**  
Appointed 2019



**Richard Reading**  
Appointed 2023

### Previous Council Members

Ken Strom • Denise Culver • Taishya Adams



CNAC members and staff at Aiken Canyon Natural Area



CNAC members at Coal Creek Tallgrass Prairie Natural Area field tour



# Volunteer Stewardship in Action

**CNAP's volunteer steward program has been going strong for 25 years!**

Volunteer stewards are assigned one or more Natural Areas and commit to annual monitoring for at least three years. Many of our volunteers have been visiting their sites for well over a decade.

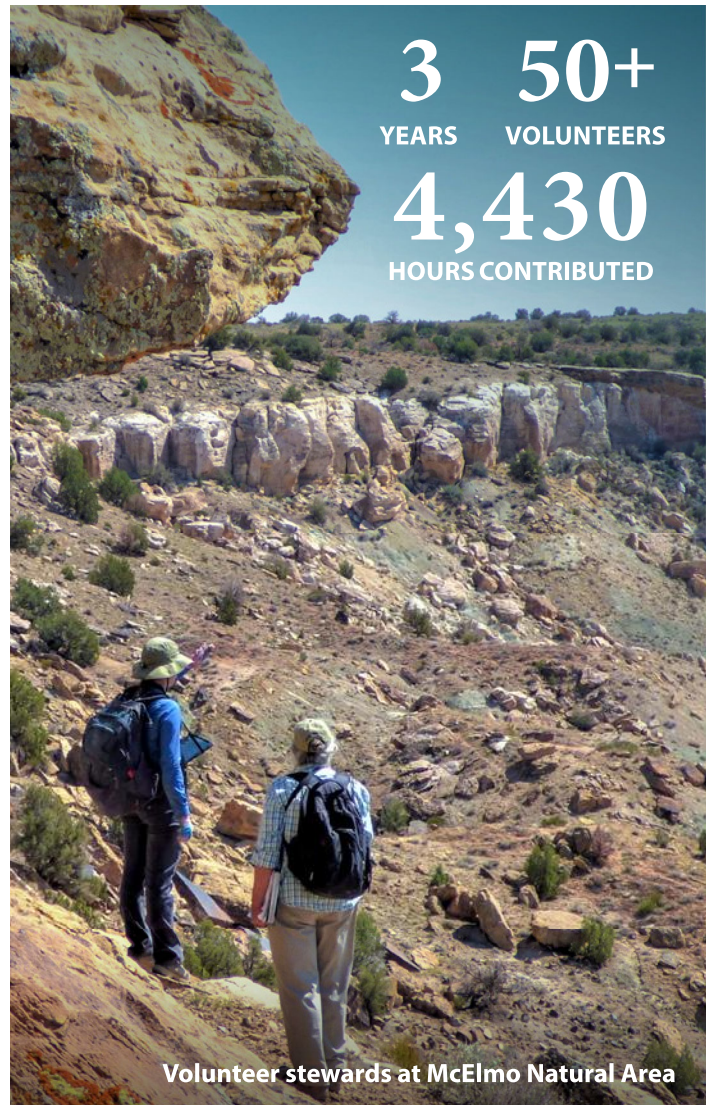
CNAP's dedicated volunteers help monitor the status of rare plants and other significant features, providing valuable information to the program's myriad landowners.

CNAP staff work closely with volunteers and have improved the volunteer program over the past three years through expanded recruitment to a more diverse audience, improved communication & data sharing, and additional opportunities for volunteer appreciation.

Fossil sightings noted in one volunteer's annual report prompted excavations and the discovery of several well-preserved Miocene-era fossils, including an extinct horse from the genus *Merychippus*.



A group of volunteer bryologists surveyed several Natural Areas on the West Slope in 2021 and discovered a new moss species that was previously unknown within Colorado.



Volunteer stewards at McElmo Natural Area



Volunteer steward at Badger Wash Natural Area



Volunteer stewards at Limestone Ridge Natural Area



Volunteer stewards at Paradise Park Natural Area



# Monitoring Colorado's Natural Areas

99

Staff Natural  
Area Visits

192

Volunteer  
Steward  
Natural  
Area Visits

101

SWAP Species  
of Greatest  
Conservation  
Need observed

CNAP and State Land Board  
staff monitoring at Chalk Bluffs  
Natural Area

While volunteer stewards visit annually, CNAP staff visit designated Natural Areas on a three-year cycle. Monitoring objectives vary depending on the landowner and significant features of the site. Typically, staff retake photos at established photo monitoring points, record qualitative data, revisit known locations for natural features, and take note of any management issues such as invasive weeds, damage, etc.

We prioritize surveys and monitoring for species identified within the State Wildlife Action Plan, with a strong focus on rare plants. In addition to regular staff and volunteer monitoring, we encourage and facilitate research on State Natural Areas, including participation in complimentary community science programs such as Bumble Bee Watch and iNaturalist.

CNAP staff have established photo monitoring points that allow us to track landscape change (or lack thereof) over time. In the following photos, photo monitoring has helped document post-fire recovery of lodgepole pine over the past 12 years within the West Creek Natural Area.

WEST CREEK  
NATURAL AREA

2011

2014

2023



250+

CNHP Element  
Occurrence  
records visited  
and updated

63

Herbarium  
specimens  
deposited  
at regional  
herbaria

CNAP staff monitoring cushion bladderpod at  
Miramonte Natural Area



# Rare Plant Conservation

CNAP continues to be a leader in Colorado's rare plant conservation efforts. The program works collaboratively with rare plant partners to implement conservation actions for the state's 117 plant Species of Greatest Conservation Need, which includes species listed under the Endangered Species Act. These actions help protect and conserve these species for generations to come. Additional rare plant conservation highlights include:

- ▶ CNAP has completed six years of quantitative monitoring for the federally endangered Pagosa skyrocket (*Ipomopsis polyantha*) at the Pagosa Skyrocket Natural Area. We are fortunate to have the help of the Colorado Natural Heritage Program, U.S. Fish & Wildlife Service, and numerous students and volunteers with our monitoring efforts.
- ▶ CNAP coordinates with several partners to implement a multitude of conservation actions for rare plants included in the State Wildlife Action Plan. Species we currently focus on include Parachute penstemon, Rocky Mountain monkeyflower, cushion bladderpod, Pagosa skyrocket, Brandegee's wild buckwheat, Dudley Bluffs bladderpod, and clay-loving wild buckwheat.
- ▶ CNAP continues to work tirelessly on behalf of CPW/ Department of Natural Resources to help preclude the need to federally list and assist in recovery of plant species under the Endangered Species Act. In the past three years, CNAP has worked collaboratively with USFWS and other partners on recovery actions for Pagosa skyrocket, Parachute penstemon, recovery action planning for Dudley Bluffs bladderpod and Piceance twinpod, and post-delisting monitoring planning for North Park phacelia.

Through funding from CNAP, the Colorado Natural Heritage (CNHP) recently improved the Colorado Rare Plant Guide to include updated species profiles of all 117 Plant Species of Greatest Conservation Need (PGCN). Additionally, CNHP created species distribution models for all PGCN which provide valuable insight into areas that warrant further surveys and potential conservation actions.



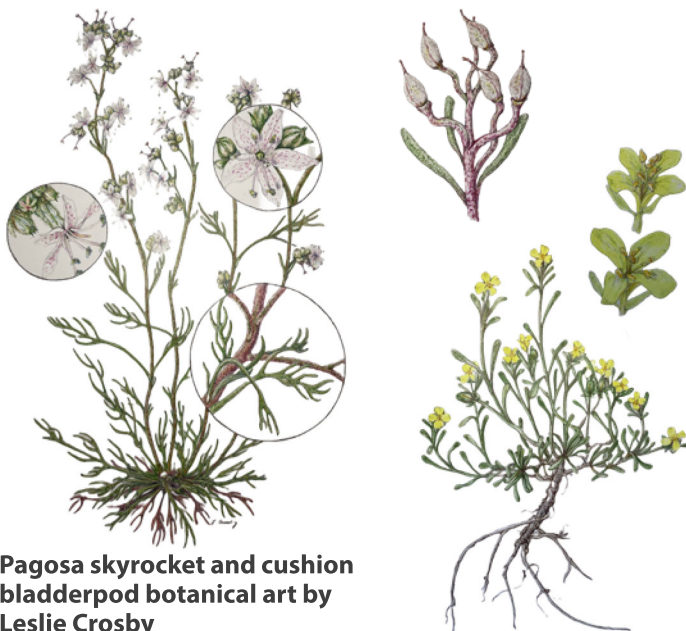
Monitoring the federally endangered Pagosa skyrocket at Pagosa Skyrocket Natural Area



Monitoring the federally threatened Parachute penstemon at Logan Wash Natural Area



The federally threatened Piceance twinpod at Yank's Gulch Natural Area



Pagosa skyrocket and cushion bladderpod botanical art by Leslie Crosby



# 2021-23 in Review

CNAP has been busier than ever and has many exciting accomplishments to share! Along with the implementation of the program's five-year strategic plan, CNAP has completed the designation of our 96th State Natural Area, participated in several new legislatively-driven projects, and continued to support our dedicated volunteer stewards and Colorado Natural Areas Council.

## New Natural Area Designation and Expansions

2023 saw the finalization of over a decade of work to create the 96th State Natural Area and significantly expand two other State Natural Areas, all owned by the City of Boulder Open Space and Mountain Parks.

Coal Creek Tallgrass Prairie Natural Area was officially designated in 2023 and includes 1,470 acres of high-quality tallgrass prairie. 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.

Additionally, both White Rocks and Colorado Tallgrass Prairie Natural Areas were expanded to include a combined additional 2,450 acres of imperiled tallgrass prairie communities, additional unique geologic features, and expanded habitat for associated flora and fauna including numerous SWAP Species of Greatest Conservation Need.



**Fall colors at Coal Creek  
Tallgrass Prairie Natural Area**



**2023 designation event at Coal Creek Tallgrass Prairie Natural Area**



## Legislative Highlights: Native Pollinator Study, Rare Plants & Invertebrates, & CNAC

2023 saw an exciting legislative session for CNAP. The CNAC underwent a legislative sunset review in 2023 and was successfully reauthorized for another 10 years through HB24-1257. CNAP staff assisted with the development of a new invertebrate and rare plant bill (HB24-1117) that was approved in 2024. CNAP staff also served on the state review team for the Colorado Native Pollinating Insects Health Study, a result of SB22-199.

## CNAP Initiates “Legacy” Project for 45th Anniversary

With 2022 being the program’s 45th anniversary, we felt the need to learn more about our program’s past, present, and future. CNAP initiated what we call our “Legacy” project. 2022 outreach specialist, Lucy Haggard, interviewed seven past and current CNAP leaders and supporters and compiled the results into a presentation to staff and council members.

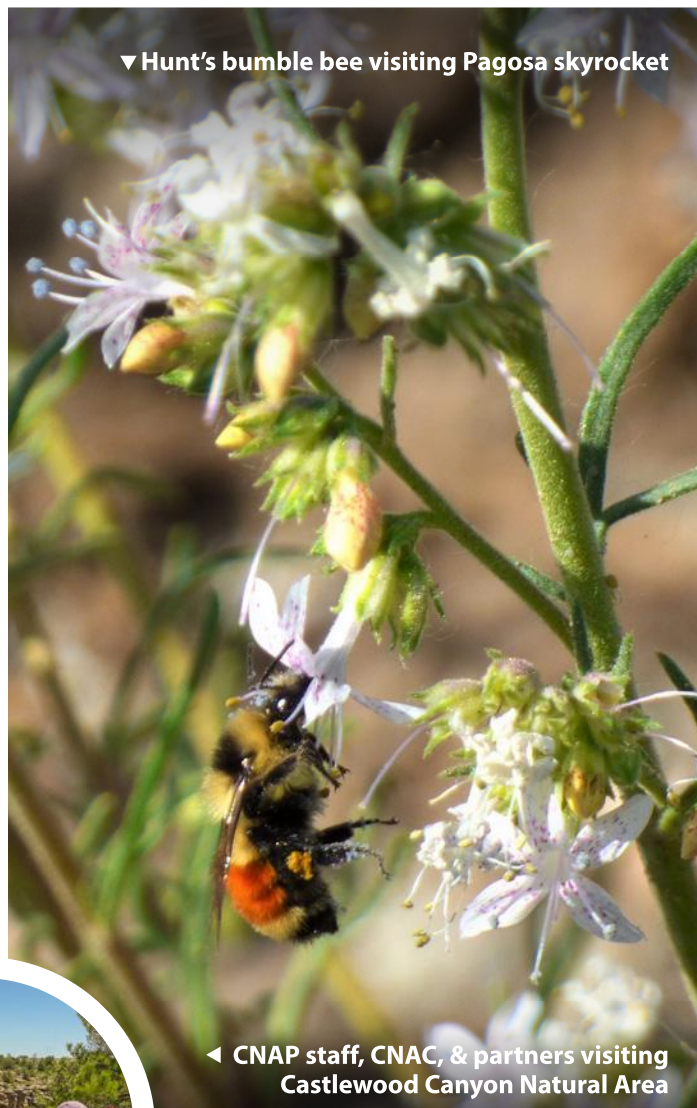
## Evaluating Climate Resiliency in the Natural Areas System

CNAP used The Nature Conservancy’s Resilient & Connected Landscape Tool to assess the climate resiliency of all State Natural Areas. The results of this tool were compiled into a report and also incorporated as a new criteria for evaluating existing and potential State Natural Areas. CNAP’s updated ranking tool allows staff to more comprehensively evaluate and compare Natural Areas using a broad array of criteria.

## A Digital Spotlight On State Natural Areas

In 2021, CNAP staff created a new webpage that highlights many of our State Natural Areas with public access or guided tours. The webpage includes printable fliers as well as an interactive ArcGIS StoryMap that spotlights a selection of State Natural Areas and the incredible natural features that visitors can explore and learn more about. The webpage can be visited here:

[cpw.info/visit-a-natural-state-area](https://cpw.info/visit-a-natural-state-area)



▼ Hunt’s bumble bee visiting Pagosa skyrocket

◀ CNAP staff, CNAC, & partners visiting Castlewood Canyon Natural Area



CNAC members at Coal Creek Tallgrass Prairie Natural Area



CNAC members and CNAP volunteers at Castlewood Canyon Natural Area in 2022



# Natural Areas Status Report

**TABLE 1: FEATURES & STATUS OF DESIGNATED NATURAL AREAS <sup>1</sup>**

<sup>1</sup> Sites that have undergone the formal designation process including completed and signed Articles of Designation.

Natural Area Name	Owner *	County	Significant Feature Type	Tier Status
Aiken Canyon	SLB	El Paso	Plant Communities, Geology, Wildlife	Moderate
Antero-Salt Creek	SLB	Park	Wildlife, Plants, Plant Communities	High
Arikaree River	SLB	Yuma	Plant Communities, Wildlife, Plants	Very High
Badger Wash	BLM	Mesa	Plants, Plant Communities	Very High
Blacks Gulch	BLM	Rio Blanco	Fossils	High
Blue Mountain- Little Thompson Fault	Private	Larimer	Geology, Plants	Low
Bonny Prairie	CPW	Yuma	Plants, Plant Communities	Moderate
Boulder Mountain Park	City of Boulder	Boulder	Plants, Plant Communities, Geology, Wildlife	Very High
Brush Creek Fen	Private	Custer	Plants, Plant Communities, Wildlife	Moderate
California Park	SLB	Routt	Wildlife, Plant Communities	Moderate
Castlewood Canyon	CPW/SLB	Douglas	Plants, Plant Communities, Wildlife	High
Chalk Bluffs	SLB	Weld	Wildlife, Plants, Plant Communities, Geology	High
Coal Creek Tallgrass Prairie	City of Boulder	Jefferson	Plants, Plant Communities, Wildlife	Exceptional
Colorado Tallgrass Prairie	City of Boulder	Boulder	Plants, Plant Communities, Wildlife	Very High
Comanche Grassland Lesser Prairie Chicken	USFS	Baca	Wildlife	Moderate
Copeland Willow Carr	City of Longmont	Boulder	Plant Communities	Low
Corral Bluffs	City of Colorado Springs	El Paso	Fossils, Wildlife	Exceptional
Cross Mountain Canyon	BLM	Moffat	Wildlife, Geology, Plants	High
Dakota Hogback	Jefferson County	Jefferson	Geology, Fossils, Plants, Plant Communities, Wildlife	High
Deer Gulch	BLM	Rio Blanco	Plant Communities, Plants	Moderate
Dome Rock	CPW	Teller	Wildlife, Geology, Plant Communities	Moderate
Droney Gulch	BLM/SLB	Chaffee	Plants	Very High
Duck Creek	BLM	Rio Blanco	Plants	High
Dudley Bluffs	BLM	Rio Blanco	Plants, Plant Communities	High
East Lost Park	USFS	Park	Plants	Very High
East Sand Dunes	SLB	Jackson	Geology, Plants	High
Elephant Rocks	BLM	Rio Grande	Geology, Plants	Moderate
Escalante Canyon	BLM	Delta/Montrose	Wildlife, Plants, Plant Communities, Geology	Very High
Fairview	BLM	Montrose	Plants	Very High
Fourmile Creek	SLB	Park	Plant Communities, Plants	High
Fruita Paleontological Locality	BLM	Mesa	Fossils	High
Garden Park Fossil Locality	BLM	Fremont	Fossils, Plants	Very High
Gateway Palisade	BLM	Mesa	Geology, Plants	Exceptional
Geneva Basin Iron Fen	County	Clear Creek	Plants, Plant Communities, Geology	Very High
Gothic	USFS	Gunnison	Plant Communities	Moderate
Gunnison Gravels	BLM	Mesa	Geology	High
Haviland Lake	CPW	La Plata	Plants, Plant Communities, Wildlife	Moderate
High Creek Fen	TNC/SLB	Park	Plants, Plant Communities	Very High
High Mesa Grassland	BLM	Fremont	Plants, Plant Communities	High
Hoosier Ridge	USFS	Park	Plants	Very High
Hurricane Canyon	USFS	El Paso	Plant Communities, Plants	Moderate
Indian Spring	NPS	Saguache	Insects, Geology, Plant Communities	Very High
Indian Springs Trace Fossil Locality	Private	Fremont	Fossils	Exceptional
Irish Canyon	BLM/SLB	Moffat	Geology, Plants, Plant Communities	High
Jimmy Creek	SLB	Larimer	Plants	Moderate
Ken Caryl Ranch	Private	Jefferson	Plants, Plant Communities, Geology, Wildlife	High
Kremmling Cretaceous Ammonite Locality	BLM/SLB	Grand	Fossils	Very High

\*SLB= State Land Board • CPW= Colorado Parks & Wildlife • BLM= Bureau of Land Management • USFS= U.S. Forest Service  
NPS= National Park Service • TNC= The Nature Conservancy



# Natural Area Tier Status <sup>2</sup>



**Exceptional**  
90-100



**Very High**  
80-89



**High**  
66-79



**Moderate**  
60-65



**Low**  
0-49

**TABLE 1 CONTINUED**

Natural Area Name	Owner	County	Significant Feature Type	Tier Status
Limestone Ridge	BLM	Moffat	Geology, Plants, Plant Communities	High
Lookout Mountain	BLM	Moffat	Geology, Plants, Plant Communities	Moderate
Lower Greasewood Creek	BLM	Rio Blanco	Plants, Plant Communities	Moderate
McElmo	BLM	Montezuma	Wildlife	Moderate
Mexican Cut	TNC	Gunnison	Wildlife, Plant Communities	Very High
Mini-Wheeler	SLB	Fremont	Geology, Plants	High
Miramonte Reservoir	CPW	San Miguel	Wildlife, Plants	Very High
Mishak Lakes	TNC	Saguache	Wildlife, Plant Communities	Low
Mount Callahan, Mount Callahan Saddle & Logan Wash Mine	Private	Garfield	Plants, Plant Communities	High
Mount Emmons Iron Fen	USFS	Gunnison	Plants, Plant Communities, Geology	Moderate
Mount Goliath	USFS	Clear Creek	Plant Communities	High
Narraguinnep	USFS	Dolores	Plant Communities	Moderate
Needle Rock	BLM	Delta	Geology	Moderate
North Park	BLM	Jackson	Plants	Very High
Orient Mine	Private	Saguache	Wildlife, Plant Communities	Very High
Owl Canyon Pinyon Grove	SLB/Private/CPW	Larimer	Plant Communities	High
Pagosa Skyrocket	CPW	Archuleta	Plants, Wildlife	High
Paradise Park	NPS	Boulder	Wildlife, Plant Communities	Moderate
Park Creek Hogback	SLB	Larimer	Plants, Plant Communities	Moderate
Pyramid Rock	BLM	Mesa	Geology, Plants	Very High
Rabbit Valley	BLM	Mesa	Fossils	High
Rajadero Canyon	BLM/SLB	Conejos	Plants, Plant Communities	Moderate
Raven Ridge	BLM	Rio Blanco	Geology, Plants	Exceptional
Redcloud Peak	BLM	Hinsdale	Insects, Plants	Very High
Rough Canyon	BLM	Mesa	Geology, Wildlife, Plants	High
Roxborough	CPW/SLB	Douglas	Geology, Plant Communities, Plants, Wildlife	High
Ryan Gulch	BLM	Rio Blanco	Plants	High
Saddle Mountain	USFS/SLB	Park	Plant Communities	Moderate
San Miguel at Tabeguache Creek	TNC	Montrose	Plant Communities	High
Sand Creek	SLB	Larimer	Plant Communities, Plants	Moderate
Shell Duck Creek	Private	Rio Blanco	Plants	Moderate
Shell Rock	SLB	Baca	Plants	Moderate
Slumguillion Earthflow	USFS/BLM	Hinsdale	Geology	High
South Beaver Creek	BLM	Gunnison	Plants	Very High
South Boulder Creek	City of Boulder	Boulder	Wildlife, Plants, Plant Communities	Very High
South Cathedral Bluffs	BLM	Rio Blanco	Plants, Plant Communities	High
Specimen Mountain	NPS	Larimer/Grand	Wildlife, Plant Communities	High
Staunton	CPW/SLB	Jefferson/Park	Plants, Plant Communities, Wildlife	Very High
Tamarack Ranch	CPW	Logan	Wildlife, Plant Communities	High
Treasurevault Mountain	SLB	Park/Lake	Plants, Plant Communities, Wildlife	High
Trinidad K-T Boundary	CPW	Las Animas	Geology	Very High
Two Buttes	Private	Prowers/Baca	Geology, Wildlife, Plants	High
Unaweep Seep	BLM	Mesa	Insects, Plants, Plant Communities	Moderate
Wacker Ranch	CPW	Montrose	Plants	Very High
West Creek	NPS	Larimer	Wildlife, Plant Communities	Moderate
Wheeler Geologic	USFS	Mineral	Geology	High
White Rocks	City of Boulder	Boulder	Geology, Wildlife, Plants	Very High
Yanks Gulch/Upper Greasewood Creek	BLM	Rio Blanco	Plants, Plant Communities	High
Zapata Falls	SLB	Alamosa	Geology, Wildlife, Plant Communities	Very High

<sup>2</sup>For more information on how CNAP determines Natural Area tier status please visit [cpw.info/cnap-ranking-criteria](http://cpw.info/cnap-ranking-criteria)



**TABLE 2: FEATURES & STATUS OF REGISTERED NATURAL AREAS<sup>3</sup>**

<sup>3</sup> Sites that have been registered by the CNAC with willing landowners and meet the criteria to become a designated State Natural Area, but have not yet undergone the formal designation process.

Natural Area Name	Owner	County	Significant Feature Type	Tier Status
Boston Peak Fen	USFS	Larimer	Plants, Plant Communities	Moderate
Daves Draw	USFS	Weld	Plant Communities	Moderate
Deep Creek	USFS	Garfield	Geology, Plants, Wildlife, Plant Communities	High
Fox Ranch	TNC	Yuma	Wildlife, Plant Communities	High
Hoosier Ridge (West)	USFS	Summit	Plants	High
Moosehead Mountain	BLM	Moffat	Plant Communities, Wildlife	Low
Park Mesa	NPS	Montezuma	Plants, Plant Communities, Wildlife, Geology	Very High
Pawnee Woodlands	Private	Weld	Plants, Plant Communities, Wildlife, Geology	Low
Tern Island	SLB	Bent	Wildlife	Low
Uncompahgre Fritillary Site	USFS	Hinsdale	Insects	High
Williams Creek	USFS	Hinsdale	Plant Communities	Moderate

## Learn More About Colorado Natural Areas



Explore an interactive map and learn more about Colorado's Natural Areas and their natural features with our StoryMap: [cpw.info/cnap-story-map](https://cpw.info/cnap-story-map)



**Gateway Palisade Natural Area**



