

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

2012 - 2014 Review

**Triennial Report to
Governor Hickenlooper**



A Legacy of Protecting Colorado's Natural Treasures

The Colorado Natural Areas Program (CNAP), within Colorado Parks and Wildlife, has been recognizing and conserving Colorado's most important natural places for over 35 years. By working cooperatively with landowners we protect the state's most unique and extraordinary examples of rare species habitats, geologic features, fossils, and representative ecosystems. CNAP specializes in rare species and natural features that can only be seen in Colorado and nowhere else in the world. Partnering with both public and private landowners has been the key to our success.

CNAP was established in 1977 by the Colorado Natural Areas Act (C.R.S. 33-33) which states:

“It is in the public interest of present and future generations to preserve, protect, perpetuate, and enhance specific examples of [Colorado's] natural features and phenomena as an enduring resource.”

The Colorado Natural Areas Program strives to efficiently monitor our state's natural treasures with 1 full-time employee, a handful of seasonal employees, and nearly 100 dedicated volunteers.

2012-2014 has been a time of transition and growth for CNAP. We have continued to build and strengthen partnerships, advance the Natural Areas registry, and support an outstanding volunteer program.



West Creek Falls Natural Area, Rocky Mountain National Park



Badger Wash Natural Area, Mesa County

Colorado Natural Areas Council

The Colorado Natural Areas Council was created with the signing of the 1977 Colorado Natural Areas Act. The Council serves an advisory role for the Program and provides recommendations to the Parks and Wildlife Commission on designations of natural areas. The Council includes representatives from the Parks and Wildlife Commission and the State Land Board Commission. The remaining members of the council are appointed by the governor.

“There is hereby created the Colorado Natural Areas Council as an advisory council to the Colorado Parks and Wildlife Commission. The council shall advise the Commission on the administration of the program and shall approve the registry and recommend the designation of natural areas by the commission.” (C.R.S. 33-33-106)



Colorado Natural Areas Council and Staff

Colorado Natural Areas Council: Current Members

Governor Appointed

Tom Nesler, Chair

Retired Division of Wildlife Conservation
Manager
Appointed 2011

Bruce Schumacher, Vice-Chair

U.S. Forest Service Paleontologist
Appointed 2009

Renée Rondeau

Colorado Natural Heritage Program
Team Leader & Ecologist
Appointed 2007

Julia Kintsch

Conservation Ecologist
Appointed 2014

Ken Strom

Retired Colorado Audubon Director
Appointed 2014

Board and Committee Representatives

Michele Bloom

Board of Land Commissioners
Appointed 2007

Michelle Zimmerman

Parks and Wildlife Commission
Appointed 2012

Previous Council Members

Jill Ozarski

Dorothea Farris



*“A thing is right when it tends to
preserve the integrity, stability, and
beauty of the biotic community. It is
wrong when it tends other-wise.”*

Aldo Leopold

Lake San Cristobal Registered Natural Area, Hinsdale County

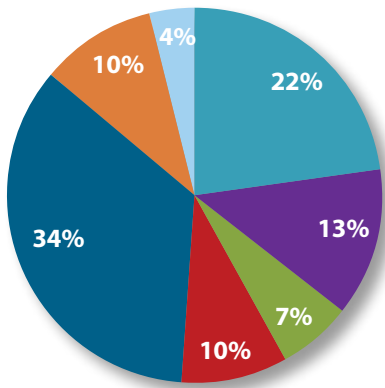
New Colorado Natural Areas



Northern Leopard Frog



Miramonte Reservoir Natural Area



Land Ownership of Designated Natural Areas

- Bureau of Land Management
- State Land Board
- Private
- U.S. Forest Service
- Colorado Parks & Wildlife
- Local Government
- National Park Service

Our primary mechanism for protecting our state's significant natural areas is through voluntary conservation agreements with landowners. The Colorado Natural Areas Program strives to recognize landowners for their exemplary stewardship of unique or rare habitats, species, and geologic or paleontological features. Designated Natural Areas have formal agreements in place while Registered Natural Areas are in the process of becoming designated.

- **12,493 acres** were added to the Natural Areas system between 2012 and 2014.
- **Five new Designated Natural Areas** were added:
 - **Arikaree River Natural Area**, in Yuma County, supports high-quality examples of Eastern Plains Riparian community and tallgrass prairie. A rich of array of flora and fauna can be found here including Greater Prairie Chickens and Eastern Plains little fishes.
 - **Haviland Lake Natural Area**, in La Plata County, contains high-quality wetlands that are extremely diverse biologically, including rare plants and wildlife species.
 - **Miramonte Reservoir Natural Area**, in San Miguel County, contains excellent populations of two rare plant species and active leks of the Gunnison Sage Grouse.
 - **Hoosier Ridge Natural Area**, in Park County, contains populations of sixteen rare plant species including one that is federally listed under the Endangered Species Act.
 - **East Lost Park Natural Area**, in Park County, contains populations of at least four rare plant species.
- **Three new Registered Natural Areas** were added to the Program between 2012 and 2014, creating and continuing partnerships with private landowners, municipalities, and the Colorado State Land Board. Outstanding features at these sites include rare plants, wildlife, and world class paleontological resources.

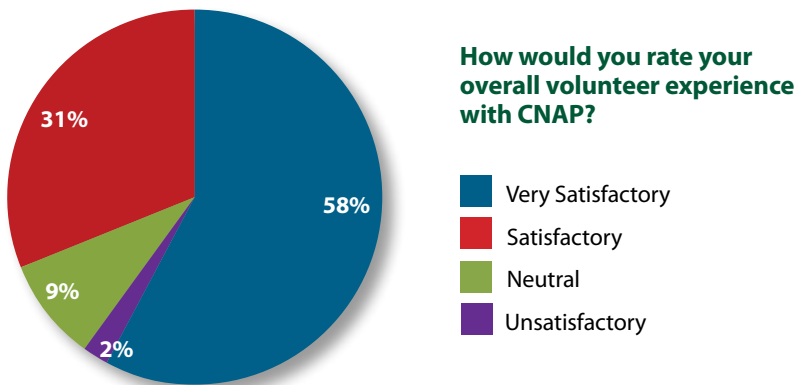
The Colorado Natural Areas system now encompasses **230,601 acres**, consisting of **92 Designated and 24 Registered Natural Areas in 40 counties**. These sites are monitored by CNAP Staff and volunteers to ensure that their high-quality natural features are not being degraded.

Volunteer Stewards: The Workforce Behind CNAP

Our hard-working and dedicated volunteers are vital to the Program's success. The CNAP volunteer stewards are skilled citizen scientists that provide valuable on-the-ground information about each Natural Area. They help us keep an eye on populations of rare plants and animals, and alert us to any threats to the integrity of the natural features on each designated natural area.

- From 2012-2014, our cadre of **99 volunteer stewards contributed 5,751 hours of service with a value of \$129,685.**

In 2013, CNAP conducted a survey of our current volunteer stewards. Many of our volunteers have been part of the program for over 10 years. We wanted to learn how we could better serve our volunteers, and what motivates them to do such hard work on behalf of Colorado's natural resources. The majority of the stewards joined the program not only to have the opportunity to visit and learn about these unique places but also out of a strong desire to "give back." Our volunteers are integral to our Program and we would not be nearly as successful without them. More results from the survey are presented below.



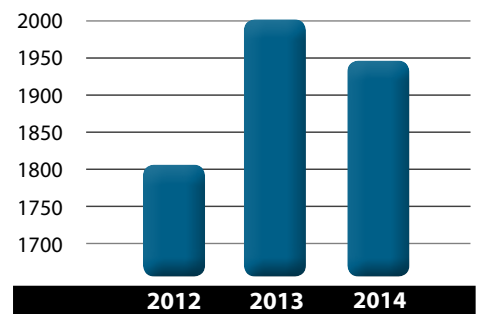
Q. What is most satisfying about being a CNAP volunteer steward?

“Developing a personal connection to the site, really getting to know and care about it.”

“Being involved in meaningful stewardship of Colorado’s incredible resources, as well as being exposed to lifetime learning opportunities.”

“Knowing that my observations can help preserve fragile plants, animals, and landscapes.”

CNAP Annual Volunteer Hours



Gateway Natural Area Volunteers, Mesa County



Volunteers at Fourmile Creek Natural Area, Park County

Partnerships That Last

Building long-lasting collaborative partnerships is the key to successfully protecting our state's most significant natural features, including our outstanding Natural Areas. Since the Program's inception in 1977 we have built partnerships with other government agencies, non-profit organizations, industry, and private landowners to ensure successful conservation outcomes for our most imperiled and unique plant and wildlife species, their habitats, and other natural features.

- CNAP continues to strengthen our relationship with Oxy USA to protect federally listed plant species on their private lands while responsibly developing energy resources by moving forward on the addition of a new parcel to an existing Natural Area.
- CNAP has a long-standing partnership with the Colorado Natural Heritage Program with whom we collaborate on projects to study and protect sensitive species statewide.
- CNAP staff provides rare plant expertise, volunteer management, and monitoring assistance within the Department of Natural Resources including the State Land Board.
- For over 30 years, CNAP has had a cooperative agreement for rare plant conservation with the U.S. Fish and Wildlife Service. This legacy has ensured that these outstanding natural features have been getting the resources and protection they deserve.



Partners at Staunton Registered Natural Area, Park County

“The hope of the future lies not in curbing the influence of human occupancy—it is already too late for that—but in creating a better understanding of the extent of that influence and a new ethic for its governance.”

Aldo Leopold



Staff, landowner, and volunteers repairing fence at High Mesa Natural Area, Fremont County



CNAP staff and partners at Colorado Tallgrass Natural Area, Boulder County

Natural Area Status Reports

Table 1—Features & Conditions of Designated Natural Areas

Table 2—Features & Conditions of Registered Natural Areas



Table 1: Colorado Natural Areas – Features and Conditions

Natural Area Name	Owner	County	Significant Features Type	Condition/Management Action
Aiken Canyon	SLB	El Paso	Plant Communities, Geology	Stable
Antero - Salt Creek	SLB	Park	Wildlife, Plants, Plant Communities	Stable; Ecosystem Services review
Arikaree River	SLB	Yuma	Plant Communities, Wildlife	Stable
Badger Wash	BLM	Mesa	Plants, Plant Communities	Stable
Blacks Gulch	BLM	Rio Blanco	Fossils	Stable
Blue Mountain-Little Thompson Fault	Private	Larimer	Geology, Plants	Stable; flood impacts
Bonny Prairie	CPW	Yuma	Plant, Plant Communities	Stable; rare plant monitoring
Boulder Mountain Park	City	Boulder	Plants, Plant Communities	Stable; flood impacts
Brush Creek Fen	Private	Custer	Plants, Plant Communities	Stable; noxious weed management
California Park	SLB	Routt	Wildlife, Plant Communities	Stable
Castlewood Canyon	CPW/SLB	Douglas	Plants, Plant Communities	Stable; intensive recreation management
Chalk Bluffs	SLB	Weld	Wildlife, Plants, Plant Communities, Geology	Stable; energy development being monitored
Colorado Tallgrass Prairie	City	Boulder	Plant Communities	Stable
Comanche Grassland Lesser Prairie Chicken	USFS	Baca	Wildlife	Lesser Praire Chickens no longer occur on site, drought impacts
Copeland Willow Carr	City	Grand	Plant Communities	Stable
Cross Mountain Canyon	BLM	Moffat	Wildlife, Geology, Fossils, Plants	Stable
Dakota Hogback	County	Jefferson	Geology, Fossils, Plants	Stable
Deer Gulch	BLM	Rio Blanco	Plant Communities, Plants	Stable
Dome Rock	CPW	Teller	Wildlife, Geology, Plant Communities	Stable; noxious weed management
Droney Gulch	BLM/SLB	Chaffee	Plants	Stable
Duck Creek	BLM	Rio Blanco	Plants	Stable; rare plant monitoring
Dudley Bluffs	BLM	Rio Blanco	Plants, Plant Communities	Stable; energy development being monitored
East Lost Park	USFS	Park	Plants	Stable
East Sand Dunes	SLB	Jackson	Geology, Plants	Stable; ongoing plant research
Elephant Rocks	BLM	Rio Grande	Geology, Plants	Stable
Escalante Canyon	BLM	Delta/ Montrose	Wildlife, Plants, Plant Communities, Geology	Stable
Fairview	BLM	Montrose	Plants	Stable; rare plant monitoring
Fourmile Creek	SLB	Park	Plant Communities, Plants	Stable; Ecosystem Services review
Fruita Paleontological Locality	BLM	Mesa	Fossils	Stable
Garden Park Fossil Locality	BLM	Fremont	Fossils, Plants	Stable; rare plant monitoring
Gateway Palisade	BLM	Mesa	Geology, Plants	Stable; rare plant monitoring
Geneva Basin Iron Fen	County	Clear Creek	Plants, Plant Communities	Stable
Gothic	USFS	Gunnison	Plant Communities	Secure
Gunnison Gravels	BLM	Mesa	Geology	Secure
Haviland Lake	CPW	La Plata	Plants, Plant Communities, Wildlife	Stable
High Creek Fen	TNC/SLB	Park	Plants, Plant Communities	Stable; noxious weed management
High Mesa Grassland	BLM	Fremont	Plants, Plant Communities	Stable; fence repair
Hoosier Ridge	USFS	Park	Plants	Stable; rare plant monitoring
Hurricane Canyon	USFS	El Paso	Plants Communities	Stable
Indian Spring	NPS	Saguache	Insects, Geology	Stable
Indian Springs Trace Fossil Locality	Private	Fremont	Fossils	Secure
Irish Canyon	BLM/SLB	Moffat	Geology, Plants, Plant Communities	Stable
Jimmy Creek	SLB	Larimer	Plants	Stable; noxious weed management
Ken Caryl Ranch	Private	Jefferson	Plants, Plant Communities, Geology	Stable; recreation improvements
Kremmling Cretaceous Ammonite Locality	BLM/SLB	Grand	Fossils	Stable
Limestone Ridge	BLM	Moffat	Geology, Plants, Plant Communities	Stable
Lookout Mountain	BLM	Moffat	Geology, Plants, Plant Communities	Stable

BLM: Bureau of Land Management, CPW: Colorado Parks and Wildlife, SLB: State Land Board, TNC: The Nature Conservancy, USFS: US Forest Service

Table 1: Colorado Natural Areas – Features and Conditions - continued

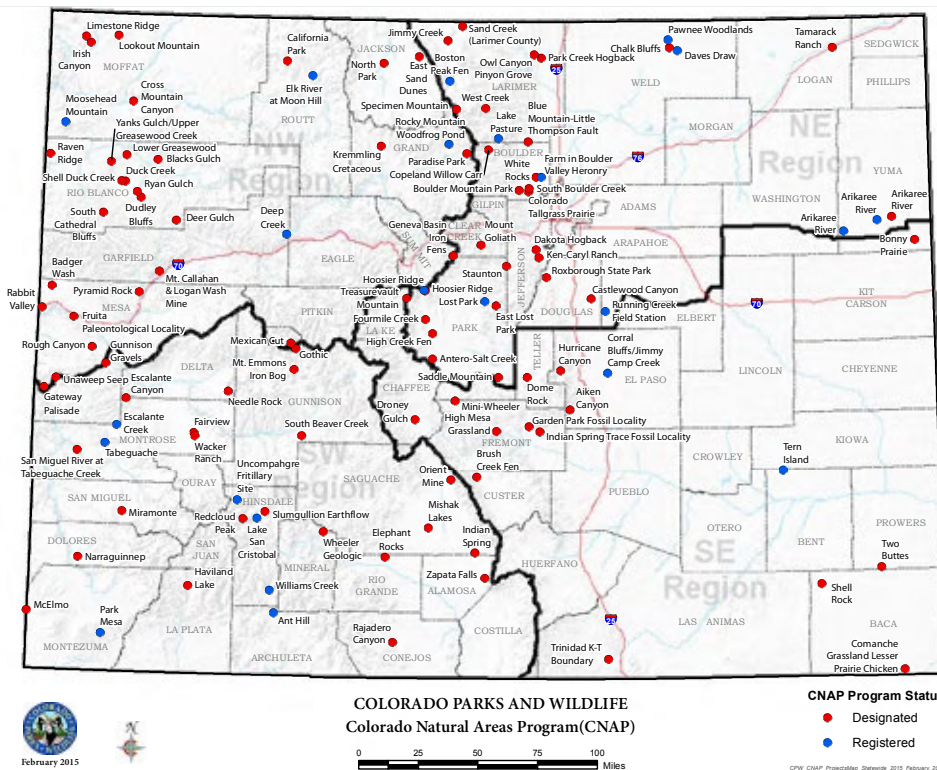
Natural Area Name	Owner	County	Significant Features Type	Condition/Management Action
Lower Greasewood Creek	BLM	Rio Blanco	Plants, Plant Communities	Stable; rare plant monitoring
McElmo	BLM	Montezuma	Wildlife, Geology	Stable
Mexican Cut	TNC	Gunnison	Plants, Geology, Wildlife	Secure
Mini-Wheeler	SLB	Fremont	Geology, Plant Communities	Stable
Miramonte Reservoir	CPW	San Miguel	Wildlife, Plants	Stable
Mishak Lakes	TNC	Saguache	Wildlife, Plant Communities	Stable
Mount Callahan & Mount Callahan Saddle	Private	Garfield	Plants, Plant Communities	Stable; rare plant monitoring; Best Management Practices
Mount Emmons Iron Fen	USFS	Gunnison	Insects, Plants, Plant Communities	Stable
Mount Goliath	USFS	Gunnison	Plant Communities	Stable
Narraguinnee	USFS	Dolores	Plant Communities	Stable; post-fire monitoring
Needle Rock	BLM	Delta	Geology	Stable
North Park	BLM	Jackson	Plants	Stable; rare plant monitoring
Orient Mine	Private	Saguache	Wildlife, Plant Communities	Stable; bat species monitoring
Owl Canyon Pinyon Grove	SLB/Private\ CPW	Larimer	Plant Communities	Stable
Paradise Park	NPS	Boulder	Wildlife, Plant Communities	Secure
Park Creek Hogback	SLB	Larimer	Plants	Stable; right of way construction being monitored; rare plant monitoring
Pyramid Rock	BLM	Mesa	Geology, Plants	Stable; rare plant monitoring
Rabbit Valley	BLM	Mesa	Fossils	Stable
Rajadero Canyon	BLM/SLB	Conejos	Plants	Stable; rare plant monitoring
Raven Ridge	BLM	Rio Blanco	Geology, Plants	Stable; rare plant monitoring
Redcloud Peak	BLM	Hinsdale	Insects	Stable
Rough Canyon	BLM	Mesa	Geology, Wildlife, Plants	Stable
Roxborough	CPW/SLB	Douglas	Geology, Plant Communities	Stable; noxious weed management
Ryan Gulch	BLM	Rio Blanco	Plants	Stable
Saddle Mountain	USFS/SLB	Park	Plant Communities	Stable; road erosion being monitored
San Miguel River At Tabeguache Creek	TNC	Montrose	Plant Communities	Stable
Sand Creek	SLB	Larimer	Geology, Plant Communities	Stable
Shell Duck Creek	Private	Rio Blanco	Plants, Plant Communities	Stable; rare plant monitoring
Shell Rock	SLB	Baca	Plants	Stable; drought impacts being monitored
Slumgullion Earthflow	USFS/BLM	Hinsdale	Geology	Stable; Off-road vehicle management via barriers
South Beaver Creek	BLM	Gunnison	Plants	Stable; rare plant monitoring
South Boulder Creek	City	Boulder	Wildlife, Plants, Plant Communities	Stable; flood impacts
South Cathedral Bluffs	BLM	Rio Blanco	Plants, Plant Communities	Stable
Specimen Mountain	NPS	Larimer/ Grand	Wildlife, Plant Communities	Secure
Tamarack Ranch	CPW	Logan	Wildlife, Plant Communities	Stable
Treasurevault Mountain	SLB	Park/Lake	Plants, Plant Communities	Stable
Trinidad K-T Boundary	CPW	Las Animas	Geology	Stable
Two Buttes	Private	Prowers	Geology, Wildlife, Plants	Stable; drought impacts being monitored
Unawep Seep	BLM	Mesa	Wildlife, Plants, Plant Communities	Stable
Wacker Ranch	CPW	Montrose	Plants	Stable; rare plant monitoring
West Creek	NPS	Larimer	Wildlife, Plant Communities	Secure
Wheeler Geologic	USFS	Mineral	Geology	Stable
White Rocks	City	Boulder	Geology, Wildlife, Plants	Secure
Yanks Gulch/Upper Greasewood Creek	BLM	Rio Blanco	Plants, Plant Communities	Stable
Zapata Falls	SLB	Alamosa	Geology, Wildlife	Stable

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Table 2: Registered Natural Areas

Natural Area Name	Owner	County	Significant Feature Type	Condition/Management Action
Ant Hill	Private	Archuleta	Plants, Geology	Stable
Arikaree River	TNC	Yuma	Wildlife, Plant Communities	Stable; noxious weed management
Boston Peak Fen	USFS	Larimer	Plants, Plant Communities	Stable
Corral Bluffs	City	El Paso	Fossils, Geology	Stable
Daves Draw	USFS	Weld	Plant Communities	Stable
Deep Creek	USFS	Garfield	Geology, Plants, Wildlife	Stable
Elk River at Moon Hill	Private	Routt	Plant Communities	Stable
Escalante Creek	USFS	Montrose/Mesa	Plant Communities	Stable
Farm in Boulder Valley Heronry	Private	Boulder	Wildlife	Stable
Hoosier Ridge	USFS	Summit	Plants	Stable
Lake Pasture	Private	Larimer	Plant Communities, Geology	Stable
Lake San Cristobal	Private	Hinsdale	Geology, Plant Community	Stable
Lost Park	USFS	Park	Plants, Plant Communities	Stable
Moosehead Mountain	BLM	Moffat	Plant Communities	Stable
Mount Callahan - Logan Wash Mine	Private	Garfield	Plants	Stable; rare plant monitoring
Park Mesa	NPS	Montezuma	Plants, Plant Communities, Wildlife, Geology	Stable
Pawnee Woodlands	Private	Weld	Plants, Plant Communities	Stable
Rocky Mountain Woodfrog Pond	Private	Grand	Wildlife	Stable
Running Creek Field Station	Private	Elbert	Plant Communities	Stable
Staunton	SLB	Jefferson	Plants, Plant Communities, Wildlife	Stable; rare plant monitoring
Staunton	CPW	Park	Plants, Plant Communities, Wildlife	Stable; rare plant monitoring
Tabeguache	USFS	Montrose	Plant Communities	Stable
Tern Island	SLB	Bent	Wildlife	Wildlife habitat improvements; noxious weed management
Uncompahgre Fritillary Site	USFS	Hinsdale	Insects	Stable
Williams Creek	USFS	Hinsdale	Plant Communities	Stable

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Wood Lily and Swallowtail butterfly



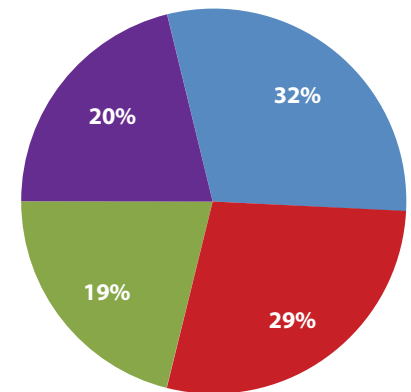
Budding Monkeyflower

Conserving Rare and Sensitive Plant Species

Within the United States, Colorado ranks 13th for plant diversity and 8th for most plant species at risk. There are over 100 plant species in Colorado considered to be globally imperiled and at a significant risk of extinction. Of those, over 60 species are found only in Colorado and nowhere else in the world. There are 16 plant species in Colorado that are currently listed as threatened or endangered under the Federal Endangered Species Act.

The 1977 Natural Areas Act tasked CNAP with identifying and protecting areas which “provide habitat for rare or endangered animal or plant species.” CNAP has taken our unique role of stewarding rare plant species seriously. The Species Conservation Trust Fund (SCTF) has been instrumental to the Program in protecting rare plants throughout the state. We strive to use our funding and partnership wisely to affect positive conservation outcomes. A few of our recent conservation efforts are highlighted below:

- CNAP supported a research project focused on establishing populations of the critically imperiled Budding Monkeyflower which is petitioned for federal listing.
- CNAP partnered on a pilot project with the Colorado Natural Heritage Program and Colorado Department of Transportation to develop recommended Best Management Practices for globally imperiled plants that are known from roadside locations in Colorado.
- CNAP staff, as well as volunteers, assisted the U.S. Fish and Wildlife Service with surveys for new populations of federally listed plants such as DeBeque Phacelia.



Significant Features Within State Natural Areas

- Rare Plants
- Rare Plant Communities
- Rare Animals
- Geology/Paleontology



Pagosa Skyrocket



Colorado Green Gentian



Dudley Bluffs Bladderpod

CNAP specializes in rare species and natural features that can only be seen in Colorado and nowhere else in the world.

STATE OF COLORADO

Governor: John W. Hickenlooper

Department of Natural Resources: Mike King, Executive Director

Colorado Parks & Wildlife: Bob Broscheid, Director

Colorado Natural Areas Council: Tom Nesler, Chair • Bruce Schumacher, Vice-Chair

Michele Bloom, Board of Land Commissioners • Michelle Zimmerman, Parks and Wildlife Commission

Renée Rondeau, Member • Julia Kintsch, Member • Ken Strom, Member

Colorado Natural Areas Program

303-291-7267

cpw.state.co.us/aboutus/pages/CNAP.aspx



Wheeler Geologic Natural Area, Mineral County

Colorado Parks & Wildlife
Colorado Natural Areas Program
6060 Broadway
Denver, Colorado 80216