

Level 4 Potential Conservation Area (PCA) Report

Name Mount Callahan

Site Code S.USWRO1*328

IDENTIFIERS

Site ID 276 Site Class PCA
Site Alias Mount Callahan and Ridge

Network of Conservation Areas (NCA)

<u>NCA Site ID</u>	<u>NCA Site Code</u>	<u>NCA Site Name</u>
2470	S.USCOHP*27039	Roan

LOCATORS

Nation United States Latitude 392601N
State Colorado Longitude 1080723W

<u>Quad Code</u>	<u>Quad Name</u>
39108-D1	Grand Valley
39108-D2	Red Pinnacle

County

Garfield (CO)

<u>Watershed Code</u>	<u>Watershed Name</u>
14010005	Colorado headwaters-Plateau
14010006	Parachute-Roan

SITE DESCRIPTION

Minimum Elevation	7,400.00	Feet	2,256.00	Meters
Maximum Elevation	8,500.00	Feet	2,591.00	Meters

Site Description

The steep shale exposures on the south-facing slopes and cliffs of Mt. Callahan tower 2,500 feet above the Colorado River (I-70) about 15 miles downstream of Rifle, Colorado. These shale exposures provide important habitat for five rare plant species, and support the highest quality known occurrences of the critically imperiled Parachute Penstemon. Surrounding the shale exposures, the more gentle slopes support high quality grasslands and sagebrush shrublands. Douglas-fir is found in north-facing ravines and scattered throughout the grassland. The site has been designated as a State Natural Area.

Key Environmental Factors

No Data

Climate Description

No Data

Land Use History

No Data

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes Mapped Date 11/18/1996
Designer Spackman, S.C. and K.K. Fayette

Boundary Justification

The boundary is drawn to include the area that supports the long-term survival of the Parachute penstemon. This site includes all occurrences on the shale barrens and the occurrences on the adjoining grasslands. A buffer is drawn to protect the element occurrences from indirect and direct disturbances and to encourage the long-term integrity of the various plant communities at the site.

Primary Area	3,458.26	Acres	1,399.51	Hectares
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SITE SIGNIFICANCE

Biodiversity Significance Rank B1: Outstanding Biodiversity Significance

Biodiversity Significance Comments

This site contains five rare plant species which occur on the shale barrens of the Parachute Creek Member of the Green River Formation. The Green River Formation contains some of the largest oil reserves in the United States (Cronquist et al. 1972). This area shows a high rate of endemism in plants. Of most concern is

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the critically imperiled (G1/S1) Parachute penstemon (*Penstemon debilis*), which was recently described in 1986, and seems to occur on only one outcrop of the Parachute Creek Member, the Mahogany Zone. There are only five known sites for this species, all in Garfield County. The two excellent (A ranked) occurrences in this site are the two best in the world. Roan Cliffs blazing star (*Mentzelia rhizomata*) is restricted to west-central Colorado. Its range is only about 30 square miles (NatureServe 2000), where it may be locally common. The occurrences are all found on Green River shale on the Roan Plateau in Garfield County. Two occurrences of Utah fescue (*Argilochloa dasyclada*) are found in the site, including one in good condition (B ranked), observed in 2000. Utah fescue is restricted to Colorado and Utah. Of the occurrences known in Colorado, roughly 70% are in Rio Blanco County. The rest are in Garfield County except for one occurrence in Mesa County. The sun-loving meadowrue (*Thalictrum heliophilum*) grows on sparsely vegetated, steep shale talus slopes of the Green River Formation. It is restricted to Colorado, in Garfield, Mesa and Rio Blanco counties, with 36 known occurrences and approximately 130,000 individuals. Mountain wild mint (*Monardella odoratissima*) is a bushy plant that grows to approximately one foot tall, and has foliage with a very strong and distinctive scent. It is distributed throughout western United States and Canada, but only known from 5 localities in Colorado, in Ouray, Montrose and Garfield counties. The Mount Callahan site also supports three high quality plant communities that are adjacent to this shale barren rare plant location. All of these elements add to the wide range of biodiversity of Mount Callahan.

Other Values Rank No Data

Other Values Comments

No Data

LAND MANAGEMENT ISSUES

Land Use Comments

Land uses include grazing and oil shale mining.

Natural Hazard Comments

Steep scree cliffs.

Exotics Comments

A few small patches of cheatgrass exist, otherwise the area is essentially weed free.

Offsite

No Data

Information Needs

Establish a monitoring program for the rare plant species at this site.

ASSOCIATED ELEMENTS OF BIODIVERSITY

Element State ID	State Scientific Name	State Common Name	Global Rank	State Rank	Driving Site Rank
18994	<i>Argilochloa dasyclada</i>	Utah fescue	G3	S3	No
18994	<i>Argilochloa dasyclada</i>	Utah fescue	G3	S3	No
20696	<i>Penstemon debilis</i>	Parachute penstemon	G1	S1	No
24584	<i>Artemisia nova</i> / <i>Pseudoroegneria spicata</i> Shrubland	Western Slope Sagebrush Shrublands	G4G5	S2?	No
24681	<i>Artemisia tridentata</i> ssp. <i>vaseyana</i> / <i>Pseudoroegneria spicata</i> Shrubland	Western Slope Sagebrush Shrublands	G5	S2	No
17776	<i>Monardella odoratissima</i>	mountain wild mint	G4G5	S2	No
20696	<i>Penstemon debilis</i>	Parachute penstemon	G1	S1	Yes
21414	<i>Thalictrum heliophilum</i>	sun-loving meadowrue	G2	S2	No
19115	<i>Pseudoroegneria spicata</i> Herbaceous Vegetation	Western Slope Grasslands	G2	S2?	No
17361	<i>Mentzelia rhizomata</i>	Roan Cliffs blazing star	G2	S2	No
17361	<i>Mentzelia rhizomata</i>	Roan Cliffs blazing star	G2	S2	No

REFERENCES

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<u>Reference ID</u>	<u>Full Citation</u>
160614	Cronquist, A., A.H. Holmgren, N.H. Holmgren, and J.L. Reveal. 1972. Intermountain Flora, Vascular Plants of the Intermountain West, U.S.A. Volume One. Hafner Publishing CO. Inc. New York and London. 270pp.
193460	Lyon, P., J. Sovell, and J. Rocchio. 2001. Final Report: Survey of Critical Biological Resources, Garfield County, Colorado. Vol. 1. Colorado Natural Heritage Program, Fort Collins, CO.
193480	NatureServe. 2000. An online encyclopedia of life [web application]. Version 1.1. Arlington, VA. Available: http://www.natureserve.org/ .
193549	Spackman, S., K. Fayette, K. Carsey and R.J. Rondeau. 1997. Final Report: Field Survey and Protection Recommendations for the Globally Imperiled Parachute Penstemon, <i>Penstemon debilis</i> O'Kane and Anderson. Colorado Natural Heritage Program, Fort Collins, CO.
159561	Welsh, S.L., N.D. Atwood, L.C. Higgins and S. Goodrich. 1987. Utah Flora, Great Basin Naturalist Memoirs, No. 9. Brigham Young University, Provo, Utah.

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 11/18/1996

Version Author Spackman, S.C. and K.K. Fayette

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