

# Level 4 Potential Conservation Area (PCA) Report

Name Black Mountain at Aspen Park

Site Code S.USCOHP\*1699

## IDENTIFIERS

Site ID 1866 Site Class PCA

Site Alias Black Mountain

## Network of Conservation Areas (NCA)

| NCA Site ID | NCA Site Code | NCA Site Name |
|-------------|---------------|---------------|
| -           |               | No Data       |

## County

Jefferson (CO)

Park (CO)

## SITE DESCRIPTION

### Site Description

This site is located about five air miles west of the town of Aspen Park near the western boundary of Jefferson County. There is a very small section of the site in Park County on the west side of the site. The area to the south of the summit of Black Mountain includes numerous spectacular cliffs and outcrops of granite. The riparian areas which include the headwaters of Black Mountain Creek, are characterized by quaking aspen (*Populus tremuloides*) meadows, montane lodgepole pine (*Pinus contorta*) and Douglas-fir (*Pseudotsuga menziesii*) forests, subalpine forests of limber pine (*Pinus flexilis*) and Engelmann spruce (*Picea engelmannii*), rock outcrop communities, and a waterfall/granitic seep community. Near the headwaters of Black Mountain Creek are also limited areas of an interesting shrubland consisting of waxflower (*Jamesia americana*) and oceanspray (*Holodiscus dumosus*). Near the northernmost extent of Staunton State Park and the Black Mountain Creek headwaters is an occurrence of a globally rare plant that is endemic to Colorado, the budding monkeyflower (*Erythranthe gemmipara* formerly *Mimulus gemmiparus*). It occurs in granite seeps, outcrops, and slopes, and on wet banks and rocks between 8,400 and 10,500 feet in elevation. Granitic seeps are evidently extremely rare in the park. Three large sub-populations of the rare James' teleonix (*Telesonix jamesii*) were found among the numerous cliffs and outcrops of granite flanking the south slopes of Black Mountain. in cracks on cliffs, boulder fields, and granitic gravel. The occurrences are surrounded by subalpine forests of Engelmann spruce, lodgepole pine, limber pine, and patches of quaking aspen. Mat-forming plant species such as spotted saxifrage (*Saxifraga bronchialis* var. *austromontana*), alumroot (*Heuchera bracteata*), twisted fruit whitlowwort (*Draba streptocarpa*), and chiming bells (*Mertensia lanceolata*), with James' teleonix, are the major components of the rock outcrop plant community. Boulder fields below and adjacent to cliffs also support James' teleonix, and shrublands of waxflower and currant (*Ribes* sp.). Most cliffs are south to southwest-facing. The site also includes abundant animal life, providing nesting and foraging area for Northern Goshawks (*Accipiter gentilis*), Juncos (*Junco hyemalis*), Northern Flickers (*Colaptes auratus*), Chickadees (*Poecile* spp.) and others. Igneous and metamorphic rock outcrops dominate the area and include gravelly soils derived from the Pikes Peak granite (Tweto 1979). To a lesser extent the Legault-Tolvar-Rock and the Raleigh-Rock outcrop complexes with 50-70% slopes are found along the edges of the site with the Legault-Hiwan-Rock outcrop complex with 30-50% slopes found in the northernmost section (USDA NRCS 2008).

### Key Environmental Factors

The unaltered hydrological features of the park are significant and contribute to the health of the rare wetland plants and plant communities. The physical topography and the unaltered landscape provide a high diversity of habitats for both plants and animals.

### Climate Description

Staunton State Park lies on the western edge of the central portion of Jefferson County and the habitats include upper montane and subalpine components. Weather station data from Bailey, CO which is just south and west of the site, shows an average total precipitation of 16.6 inches from 1901 to 2012. Snowfall is greatest February through April and summer rains peak in April, May, July and August. The average annual maximum temperature is 58.2°F (14.5°C) and the average annual minimum is 24.9°F (-4°C, WRCC 2006).

### Land Use History

Roughly half of this occurrence is on Staunton State Park which was homesteaded in the past. Staunton State Park has been open to the public since 2013. The remaining landscape in the north section is owned by private landowners and the U.S. Forest Service.

# Level 4 Potential Conservation Area (PCA) Report

Name Black Mountain at Aspen Park

Site Code S.USCOHP\*1699

## Cultural Features

No Data

|                   |           |      |          |        |
|-------------------|-----------|------|----------|--------|
| Minimum Elevation | 9,100.00  | Feet | 2,774.00 | Meters |
| Maximum Elevation | 10,600.00 | Feet | 3,231.00 | Meters |

## SITE DESIGN

|          |             |             |            |
|----------|-------------|-------------|------------|
| Site Map | Y - Yes     | Mapped Date | 07/22/1999 |
| Designer | Pague, C.A. |             |            |

## Boundary Justification

The boundary is drawn to include the extent of the occurrences of James' telesonix and budding monkeyflower. Adjacent potential habitat is included where suitable rock outcrops and cliffs were noted. Because budding monkeyflower could be extirpated by alterations to the hydrological regime of Black Mountain, it is particularly important that no changes are made that would affect the source of water for the seep and waterfall that supports it. Management decisions within the upper Black Mountain Creek valley will affect both of the element occurrences within this site. The habitats that are included provide for the local ecological processes of natural migration, pollination and dispersal, which are important to the long term persistence of the occurrence. Private lands which are included for the northeast section of the site were not surveyed in 2011 or 2022. Only lands specified within a permit granted by the Colorado State Parks were surveyed. The boundary was digitized while referencing a digital color orthophoto quad and a 1:24,000 digital quad.

|              |        |       |        |          |
|--------------|--------|-------|--------|----------|
| Primary Area | 389.86 | Acres | 157.77 | Hectares |
|--------------|--------|-------|--------|----------|

## SITE SIGNIFICANCE

|                                |                                           |
|--------------------------------|-------------------------------------------|
| Biodiversity Significance Rank | B1: Outstanding Biodiversity Significance |
|--------------------------------|-------------------------------------------|

## Biodiversity Significance Comments

This site contains an excellent (AB-ranked) occurrence of the globally critically imperiled (G1/S1) budding monkeyflower (*Erythranthe gemmipara*) and an excellent (A-ranked) occurrence of the globally imperiled (G3G4/S3) James' telesonix (*Telesonix jamesii*). The budding monkeyflower is a globally rare Colorado endemic, with a limited distribution in the Front Range and Tarryall Mountains that is also a SWAP (State Wildlife Action Plan) Tier 1 species of concern and a USFS sensitive species. There are 12 natural occurrences and several introduced occurrences (CNHP 2023). The budding monkey flower is an annual and populations tend to fluctuate widely apparently depending on precipitation and moisture. The taxonomy of the budding monkey flower has been updated to *Erythranthe gemmipara* in the Phrymaceae family (Ackerfield 2022). Three large sub-populations of James' telesonix (*Telesonix jamesii*), a SWAP Tier 2 and USFS sensitive species, were found on the cliffs and outcrops of granite flanking the south slopes of Black Mountain.

|                   |         |
|-------------------|---------|
| Other Values Rank | No Data |
|-------------------|---------|

## Other Values Comments

Within the site were an amazing variety of plant species that ranked a 7 or above on the Colorado Floristic Quality Index (Rocchio 2007): budding monkeyflower (*Mimulus gemmiparus*), limber pine (*Pinus flexilis*), shooting star (*Dodecatheon pulchellum*), James' telesonix (*Telesonix jamesii*), oceanspray (*Holodiscus discolor*), alum-root (*Heuchera bracteata*), Front Range alum-root (*Heuchera hallii*), spotted saxifrage (*Ciliaria austromontana*), twisted fruit whitlowwort (*Draba streptocarpa*), and milkflower willow herb (*Epilobium lactiflorum*). Coefficient of Conservation values range from 0-10 with 10 ranks representing species that are always found in unaltered high quality habitats. Therefore, the presence of species with high FQI values (7-10) is indicative of the high quality of this area.

## ASSOCIATED ELEMENTS OF BIODIVERSITY

| Element  |                              |                             | Global | State | Driving   |
|----------|------------------------------|-----------------------------|--------|-------|-----------|
| State ID | State Scientific Name        | State Common Name           | Rank   | Rank  | Site Rank |
| 19611    | <i>Telesonix jamesii</i>     | James' Telesonix            | G3G4   | S3    | N         |
| 18872    | <i>Erythranthe gemmipara</i> | Rocky Mountain Monkeyflower | G1     | S1    | Y         |

# Level 4 Potential Conservation Area (PCA) Report

Name Black Mountain at Aspen Park

Site Code S.USCOHP\*1699

## LAND MANAGEMENT ISSUES

### Land Use Comments

Much of the area (about 50 percent) has been off limits to the public for the last 10 years.

### Natural Hazard Comments

Steep terrain with sheer cliffs and boulderfields.

### Exotics Comments

None observed.

### Offsite

No Data

### Information Needs

Need to carefully survey additional potential habitat.

## REFERENCES

| <u>Reference ID</u> | <u>Full Citation</u>                                                                                                                                                                                                                                                                          |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 299850              | Ackerfield, J. 2022. Flora of Colorado. Second Edition. Bot. Misc. 60. BRIT Press, Fort Worth Botanic Garden/Botanical Research Institute of Texas, U.S.A. 861 pp.                                                                                                                            |
| 300787              | Colorado Natural Heritage Program (CNHP). 2023. Biodiversity Tracking and Conservation System (Biotics 5). Colorado Natural Heritage Program, Colorado State University, Fort Collins.                                                                                                        |
| 163932              | Duff, M. and K. Mingo. 1992. Field Survey of Jefferson County.                                                                                                                                                                                                                                |
| 165373              | Duff, Mark. 1992. Field survey of Jefferson County.                                                                                                                                                                                                                                           |
| 302503              | Sovell, J. and P. Smith. 2022. CNHP Final Report: Jefferson County Biodiversity Assessment 2020-2022. Colorado Natural Heritage Program, Colorado State University, Fort Collins, CO.                                                                                                         |
| 198851              | Sovell, J., P. Smith, D. Culver, S. Panjabi and J. Stevens. 2012. CNHP Final Report: Survey of Critical Biological Resources in Jefferson County, Colorado. Colorado Natural Heritage Program, Fort Collins, CO.                                                                              |
| 160766              | Spackman, S., D. Anderson, J. Siemers, P. Pineda, and J. Handwerk. 1999. Staunton State Park Biological Inventory.                                                                                                                                                                            |
| 192747              | Tweto, O. 1979. Geologic Map of Colorado, 1:500,000. United States Geological Survey, Department of Interior, and Geologic Survey of Colorado, Denver, CO.                                                                                                                                    |
| 198885              | USDA Natural Resource Conservation Service (NRCS). 2008. Soil Survey Geographic (SSURGO) Database for Golden Area, Colorado, Parts of Denver, Douglas, Jefferson and Park Counties, Colorado. Fort Worth, TX: United States Department of Agriculture, Natural Resource Conservation Service. |
| 198883              | WRCC. 2011. Western Regional Climate Center. Division of Atmospheric Sciences, Desert Research Institute. Reno, Nevada. Accessed 2011.                                                                                                                                                        |

## ADDITIONAL TOPICS

### Additional Topics

Original site design by Pague, C.A. 1999-07-12. Updated by Spackman 2001-02-15.

## LOCATORS

Nation United States Latitude 393145N  
State Colorado Longitude 1052331W

### Quad Code Quad Name

39105-E4 Meridian Hill

### Watershed Code Watershed Name

10190002 Upper South Platte

## VERSION

Version Date 05/08/2023

Version Author Smith, P.F.

## DISCLAIMER

Copyright © 2024. Colorado State University. Colorado Natural Heritage Program. All Rights Reserved.

# Level 4 Potential Conservation Area (PCA) Report

Name Black Mountain at Aspen Park

Site Code S.USCOHP\*1699

---

These data are a product and property of Colorado State University, Colorado Natural Heritage Program (CNHP). These data are strictly "on loan" and should be considered "works in progress". Data maintained in the Colorado Natural Heritage Program database are an integral part of ongoing research at CSU and reflect the observations of many scientists, institutions and our current state of knowledge. These data are acquired from various sources, with varying levels of accuracy, and are continually being updated and revised. Many areas have never been surveyed and the absence of data in any particular geographic area does not necessarily mean that species or ecological communities of concern are not present. These data should not be regarded as a substitute for on-site surveys required for environmental assessments. Absence of evidence is NOT evidence of absence. Absence of any data does not mean that other resources of special concern do not occur, but rather CNHP files do not currently contain information to document this presence. CNHP is not responsible for whether other, non-CNHP data providers have secured landowner permission for data collected.

**These data are provided for non-commercial purposes only.** Under no circumstances are data to be distributed in any fashion to outside parties. To ensure accurate application of data, tabular and narrative components must be evaluated in conjunction with spatial components. Failure to do so constitutes a misuse of the data. The Colorado Natural Heritage Program shall have no liability or responsibility to the data users, or any other person or entity with respect to liability, loss, or damage caused or alleged to be caused directly or indirectly by the data, including but not limited to any interruption of service, loss of business, anticipatory profits or indirect, special, or consequential damages resulting from the use of operation of the data. Data users hereby agree to hold CNHP, Colorado State University, and the State of Colorado harmless from any claim, demand, cause of action, loss, damage or expense from or related to data users use of or reliance on the data, regardless of the cause or nature thereof, and even in the event that such cause is attributable to the negligence or misconduct of CNHP.

These data are provided on an as-is basis, as-available basis without warranties of any kind, expressed or implied, INCLUDING (BUT NOT LIMITED TO) WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT. Although CNHP maintains high standards of data quality control, CNHP, Colorado State University, and the State of Colorado further expressly disclaim any warranty that the data are error-free or current as of the date supplied