

Level 4 Potential Conservation Area (PCA) Report

Name Mosquito Range

Site Code S.USCOHP*375

IDENTIFIERS

Site ID 342 **Site Class** PCA
Site Alias Hoosier Rirdge Macrosite
Site Alias Mosquito Peaks Cirques Macrosite
Site Alias Mosquito Peaks Megasite
Site Alias Tenmile Macrosite

Network of Conservation Areas (NCA)

<u>NCA Site ID</u>	<u>NCA Site Code</u>	<u>NCA Site Name</u>
-		No Data

LOCATORS

Nation United States **Latitude** 391913N
State Colorado **Longitude** 1060426W

Quad Code Quad Name

39106-C2	Climax
39106-D1	Breckenridge
39106-D2	Copper Mountain
39106-C1	Alma
39106-B1	Fairplay West
39106-B2	Mount Sherman
39106-A2	South Peak
39105-D8	Boreas Pass
39105-C8	Como
39106-E1	Frisco
39106-E2	Vail Pass
39106-A1	Jones Hill

County

Watershed Code Watershed Name

10190001	South Platte Headwaters
14010002	Blue
11020001	Arkansas Headwaters

SITE DESCRIPTION

Minimum Elevation	10,500.00	Feet	3,200.00	Meters
Maximum Elevation	14,200.00	Feet	4,328.00	Meters

Site Description

This site incorporates nearly the entire alpine area of the Mosquito Range. The predominant habitats are characterized by alpine meadows, rock outcrops, scree slopes, boulder fields, alpine lakes, willow carrs, snowmelt streamlets, and permanent snow fields. Snow melt flows down the north and south-facing slopes in intermittent drainages from the top of the ridges. The slopes are typified by tufted hairgrass / golden avens (*Deschampsia cespitosa* / *Geum rossii*) and kobresia / golden avens (*Kobresia myosuroides* / *Geum rossii*) communities, with scattered patches of willows (*Salix glauca* and *Salix brachycarpa*) and krummholz Engelmann spruce (*Picea engelmannii*). Moist areas with mossy ground cover provide the necessary habitat for Penland alpine fen mustard (*Eutrema penlandii*), which is one of the elements of primary importance in this site. This site supports an extraordinarily high concentration of rare plant species. To date, 20 globally rare plant species and several state rare species have been documented within this site. High elevation outcrops of Leadville Limestone are said to be a predominant factor in setting the stage for such high densities of rare plant species. Many of the rarest plants in this site, including Penland alpine fen mustard, are thought to be restricted to this geologic substrate. Several 14,000 foot peaks occur in the site and this area is known for its gold mining at the turn of the 1900 century. Evidence of historic mining is prevalent in some areas while other areas are little affected. Particular exemplary areas within this large site include Hoosier Ridge, North Star Mountain, and Blue Lakes.

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Key Environmental Factors

Blue Lakes, located in Summit County near the Park and Lake county lines, are reservoirs that have been created by the town of Colorado Springs.

Climate Description

No Data

Land Use History

No Data

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes

Mapped Date 03/30/2001

Designer Spackman, S.C.

Boundary Justification

The boundary includes all known elements and potential conservation areas in the Mosquito Range alpine zone. This boundary is thought to incorporate a large enough area to support all of the ecological processes of the Mosquito Range. This area will provide suitable habitat where additional individuals can become established over time. In the Blue Lakes area, the site includes the reservoir spillway, which is vital to the survival of *Draba weberi*.

Primary Area 105,323.30 Acres

42,623.00 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B1: Outstanding Biodiversity Significance

Biodiversity Significance Comments

This site supports all the known occurrences in the world for two critically imperiled (G1) plants: Mosquito Range mustard (*Eutrema edwardsii ssp. penlandii*) and Weber's draba (*Draba weberi*). The site includes an excellent (A-ranked) and several good (B-ranked) occurrences of Mosquito Range mustard (federally listed as a threatened species) and the only known occurrence in the world of Weber's draba. The Mosquito Range is one of the botanical "hotspots" in Colorado. There are few other areas in the state supporting the number and rarity of plant species found here. Nine globally imperiled (G2) plant species occur within the site including globe gilia (*Ipomopsis globularis*), another very narrowly restricted species found in this site and nowhere else in the world. Weber saussurea (*Saussurea weberi*) (G2) is known from Summit and Park counties in Colorado, northern Wyoming, and western Montana but is considered to be rare throughout its range. An additional nine globally vulnerable (G3) plant species occur within the site as well as several state rare species. Many of the globally common (G5) but state rare (S1 or S2) species that are found here are disjunct from arctic distributions, such as Sea pink (*Armeria maritima ssp. sibirica*), which is absent between Alaska/Northern Territories and Colorado and then occurs in a few alpine sites in our state. The Polixenes arctic butterfly is also known from this area as well as several globally and/or state imperiled plant communities. The Lynx and Wolverine are known here from historical documentation.

Other Values Rank No Data

Other Values Comments

No Data

LAND MANAGEMENT ISSUES

Land Use Comments

No Data

Natural Hazard Comments

No Data

Exotics Comments

No Data

Offsite

No Data

Information Needs

In general, Hoosier Ridge is an excellent area for botanical research because of the high number of rare plant species that are found here, including species that are endemic to Colorado and species that are disjunct from

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their primary distributions. All research activities should be designed to have little or no impact on the imperiled species. The Research Natural Area designation includes detailed information on management guidelines which should be followed as much as possible.

ASSOCIATED ELEMENTS OF BIODIVERSITY

<u>Element</u>			<u>Global</u>	<u>State</u>	<u>Driving</u>
<u>State ID</u>	<u>State Scientific Name</u>	<u>State Common Name</u>	<u>Rank</u>	<u>Rank</u>	<u>Site Rank</u>
17560	<i>Draba incerta</i>	Yellowstone whitlow-grass	G5	S1	No
17281	<i>Draba porsildii</i>	Porsild's whitlow-grass	G3G4	S1	No
17281	<i>Draba porsildii</i>	Porsild's whitlow-grass	G3G4	S1	No
17281	<i>Draba porsildii</i>	Porsild's whitlow-grass	G3G4	S1	No
17281	<i>Draba porsildii</i>	Porsild's whitlow-grass	G3G4	S1	No
17753	<i>Castilleja puberula</i>	downy indian-paintbrush	G2G3	S2S3	No
16688	<i>Askellia nana</i>	dwarf hawksbeard	G5	S2	No
16688	<i>Askellia nana</i>	dwarf hawksbeard	G5	S2	No
16688	<i>Askellia nana</i>	dwarf hawksbeard	G5	S2	No
16702	<i>Delphinium ramosum</i> var. <i>alpestre</i>	Colorado larkspur	G2	S2	No
17794	<i>Draba grayana</i>	Gray's Peak whitlow-grass	G2	S2	No
17794	<i>Draba grayana</i>	Gray's Peak whitlow-grass	G2	S2	No
17794	<i>Draba grayana</i>	Gray's Peak whitlow-grass	G2	S2	No
17794	<i>Draba grayana</i>	Gray's Peak whitlow-grass	G2	S2	No
18585	<i>Salix lanata</i> ssp. <i>calcicola</i>	lime-loving willow	G4G5T4	S1	No
19017	<i>Draba fladnizensis</i>	arctic draba	G4	S2S3	No
19017	<i>Draba fladnizensis</i>	arctic draba	G4	S2S3	No
18353	<i>Ranunculus gelidus</i> ssp. <i>grayi</i>	tundra buttercup	G4G5	S2	No
18353	<i>Ranunculus gelidus</i> ssp. <i>grayi</i>	tundra buttercup	G4G5	S2	No
18353	<i>Ranunculus gelidus</i> ssp. <i>grayi</i>	tundra buttercup	G4G5	S2	No
18353	<i>Ranunculus gelidus</i> ssp. <i>grayi</i>	tundra buttercup	G4G5	S2	No
18353	<i>Ranunculus gelidus</i> ssp. <i>grayi</i>	tundra buttercup	G4G5	S2	No
18546	<i>Armeria scabra</i> ssp. <i>sibirica</i>	sea pink	G5T5	S1	No
18813	<i>Draba exunguiculata</i>	clawless draba	G2	S2	No
18813	<i>Draba exunguiculata</i>	clawless draba	G2	S2	No
18092	<i>Aquilegia saximontana</i>	Rocky Mountain columbine	G3	S3	No
18092	<i>Aquilegia saximontana</i>	Rocky Mountain columbine	G3	S3	No
18092	<i>Aquilegia saximontana</i>	Rocky Mountain columbine	G3	S3	No
20071	<i>Oeneis polixenes</i>	Polixenes Arctic	G5	S3	No
20071	<i>Oeneis polixenes</i>	Polixenes Arctic	G5	S3	No
20071	<i>Oeneis polixenes</i>	Polixenes Arctic	G5	S3	No
20244	<i>Phippisia algida</i>	snow grass	G5	S2	No
20244	<i>Phippisia algida</i>	snow grass	G5	S2	No
20244	<i>Phippisia algida</i>	snow grass	G5	S2	No
20244	<i>Phippisia algida</i>	snow grass	G5	S2	No
20244	<i>Phippisia algida</i>	snow grass	G5	S2	No
20244	<i>Phippisia algida</i>	snow grass	G5	S2	No
20244	<i>Phippisia algida</i>	snow grass	G5	S2	No
20266	<i>Oxytropis parryi</i>	Parry's crazy-weed	G5	S1	No
20152	<i>Eutrema edwardsii</i> ssp. <i>penlandii</i>	Mosquito Range mustard	G1G2	S1S2	No
20152	<i>Eutrema edwardsii</i> ssp. <i>penlandii</i>	Mosquito Range mustard	G1G2	S1S2	No
20152	<i>Eutrema edwardsii</i> ssp. <i>penlandii</i>	Mosquito Range mustard	G1G2	S1S2	No
20152	<i>Eutrema edwardsii</i> ssp. <i>penlandii</i>	Mosquito Range mustard	G1G2	S1S2	No
20152	<i>Eutrema edwardsii</i> ssp. <i>penlandii</i>	Mosquito Range mustard	G1G2	S1S2	No

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20152	<i>Eutrema edwardsii</i> ssp. <i>penlandii</i>	Mosquito Range mustard	G1G2 S1S2	No
20152	<i>Eutrema edwardsii</i> ssp. <i>penlandii</i>	Mosquito Range mustard	G1G2 S1S2	Yes
20152	<i>Eutrema edwardsii</i> ssp. <i>penlandii</i>	Mosquito Range mustard	G1G2 S1S2	No
20152	<i>Eutrema edwardsii</i> ssp. <i>penlandii</i>	Mosquito Range mustard	G1G2 S1S2	No
20152	<i>Eutrema edwardsii</i> ssp. <i>penlandii</i>	Mosquito Range mustard	G1G2 S1S2	Yes
20152	<i>Eutrema edwardsii</i> ssp. <i>penlandii</i>	Mosquito Range mustard	G1G2 S1S2	Yes
19637	<i>Saussurea weberi</i>	Weber saussurea	G2G3 S2	No
19637	<i>Saussurea weberi</i>	Weber saussurea	G2G3 S2	No
19637	<i>Saussurea weberi</i>	Weber saussurea	G2G3 S2	No
19637	<i>Saussurea weberi</i>	Weber saussurea	G2G3 S2	No
19637	<i>Saussurea weberi</i>	Weber saussurea	G2G3 S2	No
19637	<i>Saussurea weberi</i>	Weber saussurea	G2G3 S2	No
19637	<i>Saussurea weberi</i>	Weber saussurea	G2G3 S2	No
19637	<i>Saussurea weberi</i>	Weber saussurea	G2G3 S2	No
19637	<i>Saussurea weberi</i>	Weber saussurea	G2G3 S2	No
19637	<i>Saussurea weberi</i>	Weber saussurea	G2G3 S2	No
19684	<i>Ptilagrostis porteri</i>	Porter feathergrass	G2 S2	No
19684	<i>Ptilagrostis porteri</i>	Porter feathergrass	G2 S2	No
19684	<i>Ptilagrostis porteri</i>	Porter feathergrass	G2 S2	No
19134	<i>Draba borealis</i>	northern rockcross	G4 S2	No
19134	<i>Draba borealis</i>	northern rockcross	G4 S2	No
19134	<i>Draba borealis</i>	northern rockcross	G4 S2	No
20190	<i>Astragalus molybdenus</i>	Leadville milkvetch	G3 S2	No
20190	<i>Astragalus molybdenus</i>	Leadville milkvetch	G3 S2	No
20190	<i>Astragalus molybdenus</i>	Leadville milkvetch	G3 S2	No
20190	<i>Astragalus molybdenus</i>	Leadville milkvetch	G3 S2	No
20190	<i>Astragalus molybdenus</i>	Leadville milkvetch	G3 S2	No
20190	<i>Astragalus molybdenus</i>	Leadville milkvetch	G3 S2	No
20190	<i>Astragalus molybdenus</i>	Leadville milkvetch	G3 S2	No
19895	<i>Braya humilis</i>	alpine braya	G5 S2	No
19895	<i>Braya humilis</i>	alpine braya	G5 S2	No
19895	<i>Braya humilis</i>	alpine braya	G5 S2	No
19895	<i>Braya humilis</i>	alpine braya	G5 S2	No
19895	<i>Braya humilis</i>	alpine braya	G5 S2	No
19895	<i>Braya humilis</i>	alpine braya	G5 S2	No
19895	<i>Braya humilis</i>	alpine braya	G5 S2	No
21234	<i>Draba streptobrachia</i>	Colorado Divide whitlow-grass	G3 S3	No
21234	<i>Draba streptobrachia</i>	Colorado Divide whitlow-grass	G3 S3	No
21234	<i>Draba streptobrachia</i>	Colorado Divide whitlow-grass	G3 S3	No
21234	<i>Draba streptobrachia</i>	Colorado Divide whitlow-grass	G3 S3	No
21234	<i>Draba streptobrachia</i>	Colorado Divide whitlow-grass	G3 S3	No
21234	<i>Draba streptobrachia</i>	Colorado Divide whitlow-grass	G3 S3	No
22774	<i>Parnassia kotzebuei</i>	Kotzebue's grass-of-parnassus	G5 S2	No
22774	<i>Parnassia kotzebuei</i>	Kotzebue's grass-of-parnassus	G5 S2	No
21274	<i>Draba crassa</i>	thick-leaf whitlow-grass	G3G4 S3	No
21274	<i>Draba crassa</i>	thick-leaf whitlow-grass	G3G4 S3	No
21274	<i>Draba crassa</i>	thick-leaf whitlow-grass	G3G4 S3	No
21274	<i>Draba crassa</i>	thick-leaf whitlow-grass	G3G4 S3	No
21274	<i>Draba crassa</i>	thick-leaf whitlow-grass	G3G4 S3	No
21274	<i>Draba crassa</i>	thick-leaf whitlow-grass	G3G4 S3	No

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Name	Mosquito Range		Site Code	S.USCOHP*375	
20475	<i>Botrychium echo</i>	reflected moonwort	G3	S3	No
20475	<i>Botrychium echo</i>	reflected moonwort	G3	S3	No
23143	<i>Townsendia rothrockii</i>	Rothrock townsend-daisy	G2G3	S2S3	No
23143	<i>Townsendia rothrockii</i>	Rothrock townsend-daisy	G2G3	S2S3	No
22486	<i>Cystopteris montana</i>	mountain bladder fern	G5	S1	No
21874	<i>Eriophorum altaicum</i> var. <i>neogaeum</i>	Altai cottongrass	G4?T3T4	S3	No
21874	<i>Eriophorum altaicum</i> var. <i>neogaeum</i>	Altai cottongrass	G4?T3T4	S3	No
22785	<i>Botrychium hesperium</i>	western moonwort	G4	S2	No
23708	<i>Collomia grandiflora</i>	showy collomia	G5	S1	No
23966	<i>Botrychium minganense</i>	Mingan's moonwort	G4	S2	No
23966	<i>Botrychium minganense</i>	Mingan's moonwort	G4	S2	No
23966	<i>Botrychium minganense</i>	Mingan's moonwort	G4	S2	No
23986	<i>Physaria alpina</i>	Avery Peak twinpod	G2	S2	No
23986	<i>Physaria alpina</i>	Avery Peak twinpod	G2	S2	No
23986	<i>Physaria alpina</i>	Avery Peak twinpod	G2	S2	No
23986	<i>Physaria alpina</i>	Avery Peak twinpod	G2	S2	No
23986	<i>Physaria alpina</i>	Avery Peak twinpod	G2	S2	No
23986	<i>Physaria alpina</i>	Avery Peak twinpod	G2	S2	No
23986	<i>Physaria alpina</i>	Avery Peak twinpod	G2	S2	No
23592	<i>Carex scirpoidea</i>	Canadian single-spike sedge	G5	S2	No
23501	<i>Braya glabella</i> var. <i>glabella</i>	arctic braya	G5TNR	S1	No
23921	<i>Machaeranthera coloradoensis</i>	Colorado tansy-aster	G3	S3	No
23921	<i>Machaeranthera coloradoensis</i>	Colorado tansy-aster	G3	S3	No
24679	<i>Cardamine cordifolia</i> - <i>Mertensia ciliata</i> Herbaceous Vegetation	Alpine Wetlands	G4	S4	No
23377	<i>Draba oligosperma</i>	woods draba	G5	S2	No
23377	<i>Draba oligosperma</i>	woods draba	G5	S2	No
23377	<i>Draba oligosperma</i>	woods draba	G5	S2	No
23377	<i>Draba oligosperma</i>	woods draba	G5	S2	No
23377	<i>Draba oligosperma</i>	woods draba	G5	S2	No
23454	<i>Ipomopsis globularis</i>	globe gilia	G2	S2	No
23454	<i>Ipomopsis globularis</i>	globe gilia	G2	S2	No
23454	<i>Ipomopsis globularis</i>	globe gilia	G2	S2	No
23454	<i>Ipomopsis globularis</i>	globe gilia	G2	S2	No
23454	<i>Ipomopsis globularis</i>	globe gilia	G2	S2	No
23454	<i>Ipomopsis globularis</i>	globe gilia	G2	S2	No
23454	<i>Ipomopsis globularis</i>	globe gilia	G2	S2	No
23454	<i>Ipomopsis globularis</i>	globe gilia	G2	S2	No
23454	<i>Ipomopsis globularis</i>	globe gilia	G2	S2	No
23454	<i>Ipomopsis globularis</i>	globe gilia	G2	S2	No
23454	<i>Ipomopsis globularis</i>	globe gilia	G2	S2	No
23454	<i>Ipomopsis globularis</i>	globe gilia	G2	S2	No
23454	<i>Ipomopsis globularis</i>	globe gilia	G2	S2	No
23454	<i>Ipomopsis globularis</i>	globe gilia	G2	S2	No
23454	<i>Ipomopsis globularis</i>	globe gilia	G2	S2	No
19971	<i>Botrychium pallidum</i>	pale moonwort	G3	S2	No
19971	<i>Botrychium pallidum</i>	pale moonwort	G3	S2	No
40637	<i>Phippsia algida</i> Herbaceous Vegetation	Alpine Wetlands	GU	SU	No
40637	<i>Phippsia algida</i> Herbaceous Vegetation	Alpine Wetlands	GU	SU	No
22022	<i>Botrychium simplex</i>	least moonwort	G5	S2	No
22022	<i>Botrychium simplex</i>	least moonwort	G5	S2	No
24110	<i>Draba weberi</i>	Weber's draba	G1	S1	Yes
24726	<i>Pinus aristata</i> / <i>Ribes montigenum</i> Woodland	Upper Montane Woodlands	G3	S1	No

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24836 Salix planifolia / Caltha leptosepala Shrubland Subalpine Riparian Willow Carr G4 S4 No

REFERENCES

Reference ID	Full Citation
172562	Spackman, S., D. Culver, and J. Sanderson. 2001. Final Report: Park County Inventory of Critical Biological Resources. Colorado Natural Heritage Program, Fort Collins, CO.
160738	Spackman, S., K. Fayette, D. Culver, K. Murrell and M. Sherman. 1997. Final Report: Summit County Conservation Inventory Volume I: A Natural Heritage Assessment. Colorado Natural Heritage Program, Fort Collins, CO.

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 03/30/2001
Version Author Spackman, S.C.

Disclaimer

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