

Level 4 Potential Conservation Area (PCA) Report

Name Bison Creek

Site Code S.USCOHP*28269

IDENTIFIERS

Site ID 2759 Site Class PCA
Site Alias None

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 384414N
State Colorado Longitude 1050152W

Quad Code Quad Name
38105-F1 Big Bull Mountain

County
Teller (CO)

Watershed Code Watershed Name
11020002 Upper Arkansas

SITE DESCRIPTION

Minimum Elevation	9,300.00	Feet	2,834.64	Meters
Maximum Elevation	9,600.00	Feet	2,926.08	Meters

Site Description

The Bison Creek site is located in the montane zone on the west slope of the Front Range in Colorado. The site encompasses a variably wide south-trending valley and surrounding hill slopes drained by Bison Creek. Topography on the west side is characterized by rolling hills that are cut by a deep, steep canyon with dramatic steep-walled cliff faces while on the east side, steep rock outcrops dominate. Upland habitat is characterized by a mosaic of mixed deciduous and coniferous trees that include bristlecone pine (*Pinus aristata*), quaking aspen (*Populus tremuloides*), Engelmann spruce (*Picea engelmannii*). Cliff habitat borders each side of the wide valley and extends into side canyons and is occupied by chasmophytes (plants that occur in rock crevices) such as James' teasel (*Telesonix jamesii*), Front Range alumroot (*Heuchera hallii*), Underwood spikemoss (*Selaginella underwoodii*), Oregon woodsia (*Woodsia oregana*), Fendler sandwort (*Eremogone fendleri*), and waxflower (*Jamesia americana*). This rugged canyon/hill landscape provides excellent protected habitat for native wildlife including American elk (*Cervus elaphus*), mountain lion (*Felis concolor*), and American black bear (*Ursus americana*) as well as a diversity of bird species including Northern Goshawk (*Accipiter gentilis*), Pinon Jay (*Gymnorhinus cyanocephalus*), and Clark's Nutcracker (*Nucifraga columbiana*). Grazing and rural development is ubiquitous throughout this landscape and historic logging and mining impacts continue to alter hydrologic and soil processes. Geology is composed of the very friable Pikes Peak granite which decomposes into gravel containing feldspar and quartz grains (Tweto 1979, Chronic and Williams 2007). Soils in this site have a shallow profile with abundant gravel that is unstable and has little water holding capacity.

Key Environmental Factors

Key environmental factors that influence biota include: physical characteristics, especially topography and geology related to cliffs; and ecological processes including hydrology and grazing intensity.

Climate Description

Wide climate variations occur within short distances due to dramatic topographic variation and elevational changes from the high peaks of the Front Range to the rolling foothills to the west. At this site on in the montane zone site at an average elevation of 9,400 feet, from 1971 through 2000, coldest temperatures occurred in January with an average maximum of 33.75 °F and a minimum of 7.77 °F. Warmest temperatures occurred in July with an average maximum of 70.70 °F and an average minimum of 44.83 °F. Annual average maximum precipitation was 21.62 inches. July and August were the wettest months of the year with 4.10 and 4.01 inches of precipitation respectively. Driest months are December, January and February with 0.49 and 0.49 inches of precipitation respectively. March through June and September through November have intermediate amount of precipitation (Prism 2010).

Land Use History

No Data

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Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes

Mapped Date 01/06/2011

Designer Malone, D.G.

Boundary Justification

The site boundary was delineated to encompass known element occurrences and contiguous habitat that potentially supports the rare plants. Additionally, sufficient habitat to enable essential ecosystem processes, specifically hydrologic and geologic processes, and topography, specifically rock outcrops and cliffs, was included in the boundary delineation. Only private lands with written permission were accessed.

Primary Area 1,094.06 Acres

442.75 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B2: Very High Biodiversity Significance

Biodiversity Significance Comments

The site was drawn for an excellent (A-ranked) occurrence of the globally imperiled (G2/S2) James' telesonix (*Telesonix jamesii*). James' telesonix is considered to be only in Colorado and New Mexico. In Colorado (at about 9,000-12,000 feet), it is scattered sporadically on granite tors of the easternmost mountains (in the north-central to central region); in northern New Mexico, it has been reported from one mountain area (NatureServe 2010).

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

No Data

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>
19611	<i>Telesonix jamesii</i>	James' telesonix	G2	S2	Yes

REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
198687	Chronic, H. and F. Williams. 2007. Roadside Geology of Colorado. Second Edition. Mountain Press Publishing Company. Missoula, MT.
198660	Culver, D.R., D. Malone, and A. Shaw. 2011. CNHP Final Report: Survey of Critical Biological Resources in Teller County, Colorado. Colorado Natural Heritage Program, Fort Collins, CO.
198314	NatureServe Explorer (Web Page). Accessed 2010. An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. http://www.natureserve.org/explorer .
198649	Prism Climate Group (Web Page). Accessed 2010. Spatial Climate Analysis. http://www.prism.oregonstate.edu/
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.

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ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 01/06/2011

Version Author Malone, D.G.

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