

Level 4 Potential Conservation Area (PCA) Report

Name Hungry Gulch

Site Code S.USCOHP*28248

IDENTIFIERS

Site ID 2749 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 384245N
State Colorado Longitude 1051225W

Quad Code Quad Name

38105-F2 Cripple Creek South

County

Teller (CO)

Watershed Code Watershed Name

11020002 Upper Arkansas

SITE DESCRIPTION

Minimum Elevation	7,800.00	Feet	2,377.44	Meters
Maximum Elevation	9,600.00	Feet	2,926.08	Meters

Site Description

The Hungry Gulch site is located in the montane zone foothills on the west slope of the Front Range and south of the City of Cripple Creek. Topography is characterized by rolling hills topped by rocky ridges and cut by steep, narrow, and deep, south-trending canyons. Streams draining these canyons begin in the upper canyon reaches as shallow groundwater discharge that coalesces into low gradient Rosgen type C streams and, as the canyons deepen in lower reaches, transition to type B streams with the channel characterized by large boulders, plunge pools and waterfalls. Surrounding upland habitat is a mosaic of communities that vary with aspect and soil conditions. Ponderosa pine / Arizona fescue (*Pinus ponderosa* / *Festuca arizonica*) woodlands and savannas dominate mesas, hilltops and slopes in a complex mosaic with shrublands, dry grasslands and moist forests. Rocky ridges are dominated by limber pine (*Pinus flexilis*) while northwest-facing slopes and canyon walls, where soil moisture is higher, are dominated by mixed Douglas-fir (*Pseudotsuga menziesii*) and white fir (*Abies concolor*) forests and drier, south-facing canyon walls are characterized by shrubland communities with species such as Gambel oak (*Quercus gambelii*) and mountain mahogany (*Cercocarpus montanus*). These remote, deep, steep-walled canyons provide protected habitat for Peregrine Falcons (*Falco peregrinus*) as well as American black bears (*Ursus americanus*) and mountain lions (*Felis concolor*). Quaking aspen (*Populus tremuloides*) woodlands occupy moist gullies Riparian habitat is characterized by willow (*Salix* spp.) shrublands and mesic herbaceous meadows. Bedrock geology is comprised of igneous granitic rocks of 1,700 to 1,400 m.y. and includes Cripple Creek granite (Tweto 1979). Soils are typically moist with a thick litter and duff layer. A variety of soil types occur in this site including Rogert-Rock outcrop complex and very sandy loam, Cathedral-Rock outcrop complex, warm, Cathedral very gravelly sandy loam, warm, and Ivywild-Catamount complex (USDA NRCS 2010).

Key Environmental Factors

Key ecological processes that impact site biota include, fire, hydrology and grazing and logging. The fire regime at this site fire has been altered. Grazing is ubiquitous throughout the site and variously impacts vegetation composition and structure as well as local hydrology. Historic logging has altered forest age class distribution, species composition and system hydrology.

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 8,700 feet, from 1971 through 2000, coldest temperatures occurred in January with an average maximum of 34.50 °F and a minimum of 11.41 °F. Warmest temperatures occurred in July with an average maximum of 72.72 °F and an average minimum of 46.71 °F. Annual average maximum precipitation was 17.67 inches. July and August were the wettest months of the year with 3.59 and 3.56 inches of precipitation respectively. Driest months are December, January and February with 0.41, 0.38 and 0.36 inches of precipitation respectively. March through June and September

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through November have intermediate amount of precipitation (Prism 2010).

Land Use History

The City of Cripple Creek, which is located north of Hungry Gulch site, was a gold mining camp and the site of the last great Colorado gold rush which occurred in 1894. Prior to the gold rush the area was ranching country with fewer than 500 residents. By 1900, with the discovery of gold, the population in and around Cripple Creek had increased to over 55,000 people. Gold mining declined after 1900 and so did the population (Cripple Creek History 2010). Recently, although underground mines were exhausted, open pit mining began in 1994. This open pit operation, which is the largest gold mining site in the United States (Cripple Creek and Victor Gold Mining Company 2010), has dramatically altered the landscape. Historically, surrounding habitats were ranched and logged. Market hunting was also common throughout the region and was a key cause of the extirpation of many native wildlife species (Fitzgerald et al. 1994).

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes

Mapped Date 12/28/2010

Designer Malone, D.G.

Boundary Justification

The site boundary was delineated to encompass the known element occurrences and their potential extent as well as the ecological processes essential to their long-term persistence. Especially essential to this ecosystem is the inclusion of a natural fire regime to shaping sustainable ponderosa pine woodlands (Rondeau 2001). Additional area was included to provide appropriate and sufficient habitat for native wildlife, particularly Peregrine Falcon (*Falco peregrinus*) which was observed at this site. Only those sites with written permission from the landowner were surveyed. In Colorado, Peregrine Falcons breed on cliffs and rock outcrops from 1,370 m to more than 2,740 m (4,500-9,000 ft) in elevation. They most commonly choose cliffs that lie within pinon - juniper and ponderosa pine zones and hunt in adjacent open meadows, forested tree top areas, around lakes and rivers, and shrubsteppe (Partners in Flight 2010). It is important to protect not only nesting habitat, but also foraging habitat and a prey base.

Primary Area 3,889.44 Acres 1,574.01 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B4: Moderate Biodiversity Significance

Biodiversity Significance Comments

The Hungry Gulch site was drawn for a good (B-ranked) occurrence of a globally apparently secure (G4/S4) ponderosa pine / Arizona fescue (*Pinus ponderosa* / *Festuca arizonica*) woodland. A century of anthropogenic changes have altered the density and distribution of ponderosa pines (Rondeau 2001). Heavy grass cover in ponderosa pine / Arizona fescue grasslands favors surface fires which tend to reduce canopy cover. The absence of fire could result in denser tree canopy cover and subsequently reduced grass cover. High intensity grazing has been widespread and has reduced, and in many cases even eliminated, Arizona fescue (*F. arizonica*) from stands in western United States (NatureServe 2010).

Other Values Rank No Data

Other Values Comments

The state rare Peregrine Falcon (*Falco peregrinus*) was observed in the site, but too little information was documented to warrant an occurrence. Peregrine Falcon is listed as sensitive by the USFS and Partners in Flight identifies Peregrine Falcon as a high priority species in the Southern Rocky Mountain Region which includes this site. Bird species, such as Peregrine Falcon, that use cliff/rock habitat for nesting are highly specialized and may be more susceptible to loss of nesting habitat than many other species because they rely completely on cliffs as nest sites. Thus, the number of suitable nest sites is finite and because all suitable nest sites in some areas may be used, every usurpation of a nest site by humans result in a direct reduction in the population (Partners in Flight 2010).

LAND MANAGEMENT ISSUES

Land Use Comments

No Data

Natural Hazard Comments

No Data

Level 4 Potential Conservation Area (PCA) Report

Name Hungry Gulch

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Exotics Comments

Alien plant species cover total 5% including smooth brome (*Bromus inermis*), cheatgrass (*Bromus tectorum*), common timothy (*Phleum pratense*), Canada thistle (*Cirsium arvense*), yellow sweetclover (*Melilotus officinalis*), white clover (*Trifolium repens*) and redtop (*Agrostis gigantea*).

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>
24558	<i>Pinus ponderosa</i> / <i>Festuca arizonica</i> Woodland	Lower Montane Forests	G4	S4	No

REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
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 .
198647	Partners in Flight (Web Page). Accessed 2010. Colorado: Land Bird Conservation Plan. http://www.rmbo.org/pif/bcp
198649	Prism Climate Group (Web Page). Accessed 2010. Spatial Climate Analysis. http://www.prism.oregonstate.edu/
190863	Rondeau, R. 2001. Ecological system viability specifications for Southern Rocky Mountain ecoregion. First Edition. Colorado Natural Heritage Program, Colorado State University, Fort Collins, CO. 181 pp.
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.
198651	U.S. Department of Agriculture (Web Page). Accessed 2010. Natural Resource Conservation Service, Soil Data Mart. http://soils.usda.gov/survey/

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date	12/28/2010
Version Author	Malone, D.G.

Disclaimer

Level 4 Potential Conservation Area (PCA) Report

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