

Level 4 Potential Conservation Area (PCA) Report

Name High Park

Site Code S.USCOHP*28247

IDENTIFIERS

Site ID 2748 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 384308N
 State Colorado Longitude 1051717W

Quad Code Quad Name
 38105-F3 High Park

County
 Fremont (CO)
 Teller (CO)

Watershed Code Watershed Name
 11020002 Upper Arkansas

SITE DESCRIPTION

Minimum Elevation	7,684.00 Feet	2,342.08 Meters
Maximum Elevation	7,792.00 Feet	2,375.00 Meters

Site Description

The High Park site is located in the lower montane zone foothills on the west slope of the Front Range in the south western region of Teller County and is characterized by low rolling hills cut by deep canyons and drained by several ephemeral and perennial streams. Habitat variety is high in this topographically complex landscape with a mosaic of grasslands, woodlands and shrublands. Pinon pine - Rocky Mountain juniper (*Pinus edulis* - *Juniperus scopulorum*) woodlands occupy ridgetops, hilltops and east-facing slopes. West-facing slopes and canyon rims are characterized by a mosaic of ponderosa pine (*Pinus ponderosa*) woodlands and shrublands which include communities of Gambel oak (*Quercus gambelii*) and mountain mahogany (*Cercocarpus montanus*). Grasslands occur in forest and shrubland openings occupying lowslopes, valleys and terraces and ridge, where grazing intensity is low, are often dominated by Parry's oatgrass (*Danthonia parryi*). Moist canyon walls and gullies are occupied by Douglas-fir (*Pseudotsuga menziesii*) whereas drier sites are characterized by a variably dense cover of shrubs and herbs with a few scattered conifers. Riparian habitat in canyon bottoms is dominated by an overstory canopy of narrowleaf cottonwood (*Populus angustifolia*) with an understory of willow (*Salix* spp.) and non-willow shrubs. Local hydrology is driven by soil characteristics, precipitation and infiltration. The natural hydrologic regime has been altered by fire suppression-induced changes to vegetation and by grazing-induced changes to soil and vegetation. Geology is comprised of Tertiary age Wall Mountain tuff, age 35 to 36 m.y. (Tweto 1979). Soils are a patchy mosaic of classes including Teaspoon-Rock outcrop complex, 5 to 45 percent slopes, Jode loam, 0 to 6 percent slopes, Corpen-High complex, 5 to 25 percent slopes, Cathedral very gravelly sandy loam, warm, 20 to 50 percent slopes and Catamount-Guffey complex, 15 to 40 percent slopes (USDA NRCS 2008). This patchy mosaic of varied habitats provides a diversity of resources for bird species. Observed birds included Red-tailed Hawk (*Buteo jamaicensis*), Mourning Dove (*Zenaidura macroura*), Northern Flicker (*Colaptes auratus*), Downy Woodpecker (*Picoides pubescens*), Cordilleran Flycatcher (*Empidonax occidentalis*), Western Kingbird (*Tyrannus verticalis*), Loggerhead Shrike (*Lanius ludovicianus*), Pinyon Jay (*Gymnorhinus cyanocephalus*), Western Scrub Jay (*Aphelocoma californica*), Common Raven (*Corvus corax*), Mountain Chickadee (*Parus gambelii*), Bushtit (*Psaltriparus minimus*), Red-breasted Nuthatch (*Sitta canadensis*), Mountain Bluebird (*Sialia currucoides*), American Robin (*Turdus migratorius*), Eastern Bluebird (*Sialia sialis*), Black-headed Grosbeak (*Pheucticus melanocephalus*), Lazuli Bunting (*Passerina amoena*), Spotted Towhee (*Pipilo maculatus*), Green-tailed Towhee (*Pipilo chlorurus*), Brewer's Sparrow (*Spizella breweri*), Vesper's Sparrow (*Poocetes gramineus*), Chipping Sparrow (*Spizella passerina*), Western Meadowlark (*Sturnella neglecta*), Pine Grosbeak (*Pinicola enucleator*) and Pine Siskin (*Carduelis pinus*). Several of these species are vulnerable to climate-change induced population declines. At this site, of the species observed, this includes Cordilleran Flycatcher, Western Kingbird, Pinyon Jay, Lazuli Bunting and Western Meadowlark (NABCI 2010).

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Key Environmental Factors

Key factors that influence site biota include environmental processes, especially fire and grazing intensity (Rondeau 2001). Fire has been suggested as a management tool in some cases where pine is encroaching into the grassland meadows. Parry's oatgrass (*D. parryi*) is considered to be very palatable to livestock, and overgrazing has been reported in some stands to reduce the abundance of *Danthonia parryi* (NatureServe 2010).

Climate Description

Although the site is located in the montane zone the climate is somewhat dry. At this site at an elevation of 7,800 feet coldest temperatures occurred in January with an average maximum of 40.51 °F and a minimum of 11.19 ° F. Warmest temperatures occurred in July with an average maximum of 79.03 °F and an average minimum of 49.42 °F. Annual average maximum precipitation was 17.18 inches. July and August were the wettest months of the year with 2.67 and 3.05 inches of precipitation respectively. Driest months are December, January and February with 0.50, 0.47 and 0.50 inches of precipitation respectively. March through June and September through November have intermediate amount of precipitation (Prism 2010).

Land Use History

No Data

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes

Mapped Date 12/28/2010

Designer Malone, D.G. and J.R. Sovell

Boundary Justification

The boundary was delineated to encompass the known and potential extent of the occurrence and to provide a buffer for protection. Only those areas with written landowner permission were surveyed.

Primary Area 2,028.60 Acres

820.95 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B3: High Biodiversity Significance

Biodiversity Significance Comments

The site is drawn for a good (B-rank) occurrence of the globally vulnerable (G3/S3) Parry's oatgrass (*Danthonia parryi*) grassland. This association has a limited distribution in the Rocky Mountains of Colorado and southern Wyoming. It is suspected that many stands have been altered or destroyed by improper livestock grazing. Many remaining stands are small and/or have been impacted by anthropogenic activities, and are degraded to some degree (NatureServe 2010). The site also includes a fair (C-ranked) occurrence of the Gunnison's prairie dog (*Cynomys gunnisoni*). This occurrence of the prairie dog is within the montane portion of the species population range, which occupies south-central Colorado and north-central New Mexico. The montane population of the Gunnison prairie dog is considered globally imperiled (G5T2) and is designated as a candidate population by the U.S. Fish and Wildlife Service under the Endangered Species Act.

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

Non-native plants documented included cheat grass (*Bromus tectorum*) and bull thistle(*Cirsium vulgare*).

Offsite

No Data

Information Needs

No Data

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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>
44176	<i>Cynomys gunnisoni</i> pop. 1	Gunnison's Prairie Dog - Montane Population	G5T2	S2	No
19228	<i>Danthonia parryi</i> Herbaceous Vegetation	Montane Grasslands	G3	S3	Yes

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 .
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.
198652	U.S. Fish and Wildlife Service (Web Page). Accessed 2010. The State of the Birds: 2010 Report on Climate Change. http://www.stateofthebirds.org

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date	12/28/2010
Version Author	Malone, D.G. and J.R. Sovell

Disclaimer

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