

Level 4 Potential Conservation Area (PCA) Report

Name Bruno Canyon

Site Code S.USCOHP*28135

IDENTIFIERS

Site ID 2699 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 372959N
State Colorado Longitude 1034146W

Quad Code Quad Name

37103-E6 O V Mesa
37103-D6 Johnson Canyon

County

Las Animas (CO)

Watershed Code Watershed Name

11020010 Purgatoire

SITE DESCRIPTION

Minimum Elevation	4,510.00 Feet	1,374.65 Meters
Maximum Elevation	4,880.00 Feet	1,487.42 Meters

Site Description

Bruno Canyon is a striking red rock canyon that enters the Purgatoire River just upstream of Chacuaco Canyon. This narrow and restricted canyon is noted for the abundance of red walls and smooth rock slopes. Access into the canyon generally requires rock scrambling unless accessed from the Purgatoire River. The oldest strata (Permian and Triassic age) in southeast Colorado make up the canyon walls and is seldom seen elsewhere in eastern Colorado. Once inside the canyon a suite of riparian trees grow beside the ephemeral creek. Plains cottonwoods (*Populus deltoides*), peach leaf willow (*Salix amygdaloides*) and boxelder maple (*Acer negundo*) are the most common trees. Coyote willow (*Salix exigua*) is common in patches throughout the canyon. Unlike many eastern plains streams, this stream is dominated by a native understory of grasses and forbs due to its limited use by livestock. Common grasses include Indian grass (*Sorghastrum nutans*), switch grass (*Panicum virgatum*), scratchgrass (*Muhlenbergia asperifolia*), and Springfield's beardgrass (*Bothriochloa springfieldii*). Although Bruno Creek is ephemeral, springs are scattered throughout the canyon creating permanent ponds with cattails lining the edges. The vegetation changes frequently throughout the canyon based on floodplain width and depth of soil and proximity to channel, thus making it hard to generalize the overall community type. A few tamarisk were found near the confluence with Purgatoire River. During good precipitation years the Plains leopard frog is abundant in the deeper pools. One pool near the confluence appears to be permanent and was full of small fishes. The landuse by humans is limited due to the difficult access however periodic stray cattle will graze the canyon bottom during the winter months although few cattle signs exist in the canyon.

Key Environmental Factors

Surface and ground water flows are critical to the vegetation and aquatic animal community associated with the creek and canyon bottom. Periodic flash floods are needed for cottonwood regeneration. Groundwater is critical to the maintenance of the numerous seeps and springs found throughout the canyon.

Climate Description

No Data

Land Use History

Periodic livestock grazing occurs but this is predominantly a wild canyon.

Cultural Features

Native American artifacts were present.

SITE DESIGN

Site Map Y - Yes Mapped Date 02/03/2010
Designer Rondeau, R.J.

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Boundary Justification

The boundary is drawn to include the canyon bottom, slopes, and rimrock of Bruno Canyon. All known occurrences of rare elements associated with Bruno Canyon were included. The boundary was digitized while referencing a one meter digital color orthophoto quad and a 1:24,000 digital quad.

Primary Area 722.33 Acres 292.32 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B2: Very High Biodiversity Significance

Biodiversity Significance Comments

The site supports an excellent (A-ranked) occurrence of the globally imperiled (G2/S2) *Populus deltoides* / *Panicum virgatum* - *Schizachyrium scoparium* plains cottonwood riparian forest and a good (B-ranked) occurrence of the state rare (G5/S2) plant *Lobelia cardinalis*.

Other Values Rank No Data

Other Values Comments

This canyon represents one of the highest quality riparian occurrences in eastern Colorado.

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>
24879	<i>Populus deltoides</i> / <i>Panicum virgatum</i> - <i>Schizachyrium scoparium</i> Woodland	Plains Cottonwood Riparian Forests	G2	S2	Yes
19024	<i>Lobelia cardinalis</i>		G5	S2	No

REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
198519	Rondeau, R.J., J.R. Sovell, J.E. Stevens, D. Clark and L. Grunau. 2010. Final Report: Southeast Colorado Survey of Critical Biological Resources 2009. Addendum to the 2007 Survey. Colorado Natural Heritage Program, Fort Collins, CO.

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 02/03/2010
Version Author Rondeau, R.J.

Disclaimer

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