

Level 4 Potential Conservation Area (PCA) Report

Name Chico Basin Dunes

Site Code S.USCOHP*22000

IDENTIFIERS

Site ID 1075 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 383230N
State Colorado Longitude 1041518W

<u>Quad Code</u>	<u>Quad Name</u>
38104-E3	Hanover SE
38104-E2	Edison School

County

El Paso (CO)

<u>Watershed Code</u>	<u>Watershed Name</u>
11020005	Upper Arkansas-Lake Meredith

SITE DESCRIPTION

Minimum Elevation	5,280.00 Feet	1,609.00 Meters
Maximum Elevation	5,433.00 Feet	1,656.00 Meters

Site Description

Within the expansive sandsage prairie is a small, active sand dune complex contributing to the mosaic pattern of the landscape. The active sand dunes occur in two small patches (about 2 acres (1 ha) each) and one larger patch (about 25 acres (10 ha)) and make up the Chico Basin Dunes site. The location and size of the sand dunes will probably shift with time in response to climatic variation. During wetter periods, the dunes probably shrink as they are stabilized by vegetation and during drier periods the dunes probably grow as the stabilizing vegetation dies back. The most active part of the dunes support a plant community of blowout grass with lemon scurfpea (*Redfieldia flexuosa* - *Psoralidium lanceolatum*). The vegetative cover is sparse and generally comprises less than 1 percent cover. Other plants growing on the dunes include sandhill muhly (*Muhlenbergia pungens*), sand bluestem (*Andropogon hallii*), sand dropseed (*Sporobolus cryptandrus*), poverty threeawn (*Aristida divaricata*), longspine sandbur (*Cenchrus longispinus*), sunflower (*Helianthus* sp.), annual buckwheat (*Eriogonum annuum*), and Texas croton (*Croton texensis*). Two globally common species of tiger beetles were collected on the dunes (*Cicindela formosa* and *C. splendida*) (Kondratieff and Pineda 2001). The largest documented occurrence of *Redfieldia flexuosa* - *Psoralidium lanceolatum* is at the 6,000-acre Great Sand Dunes in the San Luis Valley. Like at the Chico Basin Dunes, the *Redfieldia* occurs on the most active part of the dunes. At the Great Sand Dunes, at least six species of insects endemic to the dunes exist, including the Great Sand Dunes tiger beetle (*Cicindela theatina*) (Pineda et al. 1999). The dunes are on the Chico Basin Ranch, an 86,000-acre property owned by the State Land Board and leased for cattle grazing. The dunes are on the eastern edge of the ranch near the transition from sandsage prairie to shortgrass prairie.

Key Environmental Factors

No Data

Climate Description

No Data

Land Use History

No Data

Cultural Features

No Data

SITE DESIGN

Site Map Y - Yes Mapped Date 06/15/2001
Designer Doyle, G.A.

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Boundary Justification

The boundary encompasses the dune complex and intervening sand sage prairie.

Primary Area 2,584.62 Acres 1,045.96 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B2: Very High Biodiversity Significance

Biodiversity Significance Comments

This site contains a fair (C-ranked) occurrence of a globally critically imperiled (G1?/S1) sand dune community of blowout grass with lemon scurfpea (*Redfieldia flexuosa* - (*Psoralidium lanceolatum*)). The ranking as "fair" is based solely on the small size of the dune complex; the condition and landscape context of the community are considered good to excellent.

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

Element State ID	State Scientific Name	State Common Name	Global Rank	State Rank	Driving Site Rank
22969	<i>Redfieldia flexuosa</i> - (<i>Psoralidium lanceolatum</i>) Herbaceous Vegetation		G1?	S1	Yes
22969	<i>Redfieldia flexuosa</i> - (<i>Psoralidium lanceolatum</i>) Herbaceous Vegetation		G1?	S1	No

REFERENCES

Reference ID	Full Citation
169085	Doyle, G.A. 2000. Colorado Natural Heritage Program Field Survey of Wetland and Riparian Areas in Pueblo and El Paso Counties.
162855	Doyle, G.A., J. Gionfriddo, D. Anderson, and D. Culver. 2000. Final Report: Survey of Critical Wetlands and Riparian Areas in El Paso and Pueblo Counties, Colorado. Colorado Natural Heritage Program, Fort Collins, CO.
161192	Pineda, P.M., R.J. Rondeau, A. Ochs. 1999. A biological inventory and conservation recommendations for the Great Sand Dunes and San Luis Lakes, Colorado. Colorado Natural Heritage Program, College of Natural Resources, Colorado State University, Fort Collins, Colorado. Final Report prepared for and submitted to The Nature Conservancy, San Luis Valley Program, Saguache, Colorado.

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date 06/15/2001

Version Author Doyle, G.A.

Disclaimer

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