

Level 4 Potential Conservation Area (PCA) Report

Name Judge Orr Road

Site Code S.USCOHP*22002

IDENTIFIERS

Site ID 558 Site Class PCA
 Site Alias None

Network of Conservation Areas (NCA)

NCA Site ID	NCA Site Code	NCA Site Name
-		No Data

LOCATORS

Nation United States Latitude 385912N
 State Colorado Longitude 1043032W

Quad Code Quad Name

39104-A5	Eastonville
38104-H5	Falcon
38104-H4	Haegler Ranch
39104-A4	Peyton

County

El Paso (CO)

Watershed Code Watershed Name

11020004	Chico
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SITE DESCRIPTION

Minimum Elevation	6,420.00 Feet	1,957.00 Meters
Maximum Elevation	7,200.00 Feet	2,195.00 Meters

Site Description

Low rolling hills of tallgrass, midgrass, and shortgrass prairie with swales containing wet meadows and small ephemeral drainages form a relatively intact landscape in north-central El Paso County. Located south and west of the Black Forest, the site encompasses the upper watershed of Black Squirrel Creek and its tributaries. Remnants of tallgrass prairie occur in Colorado as disjuncts from the historic tallgrass prairie that made up the eastern third of the Great Plains. Historically, tallgrass prairie occupied approximately 60 million hectares, but today less than 2 percent of that remains (Samson and Knopf 1994). Most tallgrass prairie has been converted to cropland or other uses. In Colorado, tallgrass prairie remnants are limited to the plains adjacent to the Front Range where the rainfall and soil is appropriate. As you move further east of the Front Range, the rainfall diminishes and shortgrass prairie dominates. Very few large patches of tallgrass prairie remain in Colorado. Tallgrass prairie is present in scattered patches in El Paso County both along the foothills and out into the plains in the northern portion of the county. Within the Judge Orr Road site, two grassland communities have been described. The first is south of Highway 24 and along both sides of Judge Orr Road where a fairly large occurrence of a big bluestem and prairie sandreed tallgrass prairie (*Andropogon gerardii* - *Calamovilfa longifolia*) is present. The community occurs in patches within about a five square mile area. The occurrence appears to be in good condition with relatively few weeds and sustainable grazing practices. Other grasses present include blue grama (*Bouteloua gracilis*), little bluestem (*Schizachyrium scoparium*), and scattered Indian grass (*Sorghastrum nutans*). Associated with tallgrass prairie are at least five species of skippers (butterflies in the family *Hesperiidae*) known to rely on big bluestem as their primary host plant (Opler and Wright 1999). These eastern Great Plains skippers occur, like tallgrass prairie, as disjunct populations along the Colorado Front Range. Though we have no current records of these species within the Judge Orr Road site, three skippers tracked by CNHP have been documented in El Paso County (Opler et al. 1995, Colorado Natural Heritage Program 2001a). These include the Dusted Skipper (*Atrytonopsis hianna*), Crossline Skipper (*Polites origines*), and Ottoo Skipper (*Hesperia ottoe*). Future surveys may reveal populations of these rare butterflies. North of Highway 24 is another relatively intact grassland. The dominant species appear to be little bluestem, blue grama, and mountain muhly (*Muhlenbergia montana*). The community is described as little bluestem with sideoats grama (*Schizachyrium scoparium* - *Bouteloua curtipendula*), a globally vulnerable midgrass prairie community. Perhaps the most striking aspect of the prairie along Judge Orr Road is the abundance of creeks and wetlands. These creeks and wetlands are supported by regional shallow groundwater resulting from groundwater recharge in the Black Forest to the north. The land gently slopes to the southeast forming the headwaters of Black Squirrel Creek. Many small drainages flow from the area and can form wide wet meadows of up to 40 acres in size. Along Judge Orr

Level 4 Potential Conservation Area (PCA) Report

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Site Code S.USCOHP*22002

Road, the many drainages and wet meadows support a mosaic of wetland communities including Baltic rush (*Juncus balticus* var. *montanus*), Nebraska sedge (*Carex nebrascensis*), clustered sedge (*Carex praegracilis*), woolly sedge (*Carex lanuginosa*), three-square bulrush (*Scirpus pungens*), and saltgrass (*Distichlis spicata*). Another prevalent species is the European pasture grass reedtop (*Agrostis gigantea*). These communities can form monotypic stands or intermingle with adjacent types. The drainages and associated ponds support small fishes (unidentified species), abundant northern leopard frogs (*Rana pipiens*, a species on CNHP's "watchlist"), and a variety of aquatic invertebrates. Birds observed within the site wetlands include Common Snipe, American Coot, Pied-billed Grebe, and Northern Harrier. Aquatic vegetation in the ponds and drainages includes pondweed (*Potamogeton* sp.), hornwort (*Ceratophyllum demersum*), duckweed (*Lemna minor*), and arrowhead (*Sagittaria* sp.). Small-headed rush (*Juncus brachycephalus*), a common wetland in parts of the eastern U.S. and Canada, occurs as a disjunct in Colorado. Streams draining the Black Forest and their associated wet meadows are the only known current Colorado locations for this plant. Small-headed rush has been documented on Black Squirrel Creek and a tributary. Development pressures are intense in this portion of the county. The primary land use is cattle grazing but with increasing encroachment of the town of Falcon. Falcon occurs within the described wetland complex and is in a period of rapid expansion. Water diversion structures have been constructed and wetlands dredged and filled to allow for residential and commercial development. Drainage and diversion structures have the potential to alter the hydrologic regime supporting the larger wetland complex.

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.

Boundary Justification

The boundary encompasses the tallgrass prairie and midgrass prairie element occurrences. The boundary also encompasses the wetlands and riparian areas and a portion of the upstream watershed to account for continued surface flow and periodic flooding. These processes are necessary for the viability of the occurrences and maintenance of ecological functions. The site could be expanded to include a greater proportion of the upstream watershed to ensure maintenance of the ecological and hydrological processes. The wetlands and grasslands extend beyond the boundary of the site; the boundary includes the largest known grasslands/wetlands in good condition with relatively unfragmented ownership. Further investigation might extend the occurrences east of Peyton.

Primary Area 25,625.71 Acres

10,370.40 Hectares

SITE SIGNIFICANCE

Biodiversity Significance Rank B2: Very High Biodiversity Significance

Biodiversity Significance Comments

This site contains a good (B-ranked) occurrence of a state imperiled (GU/S2) big bluestem prairie sandreed tallgrass prairie community (*Andropogon gerardii* - *Calamovilfa longifolia*). This community is most likely globally imperiled, G2, but a full assessment has not occurred. Large occurrences of this community type are rarely encountered and no excellent (A-ranked) occurrences remain in Colorado. The site also includes good (B-ranked) example of a globally vulnerable (G3/S3) montane wet meadow (*Carex pellita*), a good (B-ranked) occurrence of a globally vulnerable (G3G4/S2) clustered sedge wetland (*Carex praegracilis*), a good (B-ranked) occurrence of the globally vulnerable (G3G4/S3) bulrush (*Schoenoplectus pungens*), and a good (B-ranked) occurrence of a globally vulnerable (G3/S3) Great Plains mixed grass prairie (*Schizachyrium scoparium* - *Bouteloua curtipendula*).

Other Values Rank No Data

Other Values Comments

No Data

Level 4 Potential Conservation Area (PCA) Report

Name Judge Orr Road

Site Code S.USCOHP*22002

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>
17188	<i>Distichlis spicata</i> Herbaceous Vegetation	Salt Meadows	G5	S3	No
22403	<i>Carex nebrascensis</i> Herbaceous Vegetation	Wet Meadows	G4	S3	No
22810	<i>Juncus brachycephalus</i>	small-headed rush	G5	S1	No
21815	<i>Carex pellita</i> Herbaceous Vegetation	Montane Wet Meadows	G3	S3	No
18593	<i>Carex praegracilis</i> Herbaceous Vegetation	Clustered Sedge Wetland	G3G4	S2	No
24138	<i>Juncus balticus</i> Herbaceous Vegetation	Western Slope Wet Meadows	G5	S5	No
17188	<i>Distichlis spicata</i> Herbaceous Vegetation	Salt Meadows	G5	S3	No
24967	<i>Schizachyrium scoparium</i> - <i>Bouteloua curtipendula</i> Western Great Plains Herbaceous Vegetation	Great Plains Mixed Grass Prairies (Sandstone/Gravel Breaks)	G3	S2	No
18654	<i>Schoenoplectus pungens</i> Herbaceous Vegetation	Bulrush	G3G4	S3	No
24925	<i>Andropogon gerardii</i> - <i>Calamovilfa longifolia</i> Herbaceous Vegetation	Mesic Tallgrass Prairie	GU	S2	Yes
22810	<i>Juncus brachycephalus</i>	small-headed rush	G5	S1	No
24483	<i>Andropogon gerardii</i> - <i>Sporobolus heterolepis</i> Western Foothills Herbaceous Vegetation	Xeric Tallgrass Prairie	G2	S1S2	No

REFERENCES

<u>Reference ID</u>	<u>Full Citation</u>
193479	Doyle, G., J. Armstrong, Gionfriddo, J., Anderson, D., Stevens, J., and R. Schorr. 2001. Final Report: Survey of Critical Biological Resources of El Paso County, Colorado. Colorado Natural Heritage Program, Fort Collins, CO.
160169	Opler, P.A. and A.B. Wright. 1999. Western Butterflies: Peterson Field Guide. Houghton Mifflin Company. New York, NY.
167377	Samson, F. and F. Knopf. 1994. Prairie Conservation in North America. Bioscience 44:418-421.

ADDITIONAL TOPICS

Additional Topics

No Data

VERSION

Version Date	06/15/2001
Version Author	Doyle, G.A.

Disclaimer

Level 4 Potential Conservation Area (PCA) Report

Name Judge Orr Road

Site Code S.USCOHP*22002

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