

# Level 4 Potential Conservation Area (PCA) Report

Name Chapin Mesa

Site Code S.USCOHP\*140

## IDENTIFIERS

Site ID 1721 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>
1856	S.USCOHP1*1957	Mesa Verde

## LOCATORS

Nation United States Latitude 370957N  
State Colorado Longitude 1083036W

## Quad Code Quad Name

37108-C5	Cortez
37108-C4	Point Lookout
37108-B4	Moccasin Mesa
37108-B5	Wetherill Mesa
37108-A4	Greasewood Canyon
37108-A5	Moqui Canyon

## County

Montezuma (CO)

## Watershed Code Watershed Name

14080107	Mancos
14080202	Mcelmo

## SITE DESCRIPTION

<b>Minimum Elevation</b>	5,540.00	<b>Feet</b>	1,688.59	<b>Meters</b>
<b>Maximum Elevation</b>	8,290.00	<b>Feet</b>	2,526.79	<b>Meters</b>

## Site Description

The vegetation of Mesa Verde consists of dense pinon - juniper woodland on mesa tops. The pinon - juniper woodlands of Mesa Verde are among the oldest known, as they have apparently remained unburned in some areas since the 1300's when the area became depopulated by the Ancestral Puebloans. Mesa Verde is dissected by deep shaded canyons that support forests of Douglas-fir (*Pseudotsuga menziesii*) and scrub oak. The soils of the mesa tops are deep, reddish loess deposited over the past one million years, and are still being deposited today. Two recent fires have impacted a large portion of the known population of Schmolli's milkvetch (*Astragalus schmolliae*) in Mesa Verde National Park (MVNP). The Chapin 5 Fire burned the northernmost populations known on Park Mesa in 1996. Preliminary studies of the impacts of fire on Schmolli's milkvetch were initiated shortly after the discovery of these populations. In 2002 the Long Mesa Fire burned much of the MVNP portion of Chapin Mesa and impacted a large portion (37.9 %) of the known population of Schmolli's milkvetch in MVNP.

## Key Environmental Factors

No Data

## Climate Description

No Data

## Land Use History

No Data

## Cultural Features

No Data

## SITE DESIGN

Site Map P - Partial Mapped Date 08/31/2004  
Designer Anderson, D.G.

## Boundary Justification

The boundary circumscribes a heterogeneous area of mesa tops incised by deep canyons. Much of the site has burned in the last 20 years and it is thus a patchwork of seral, post-fire vegetation (often dominated by noxious weeds) and old-growth pinon-juniper woodland. The boundary includes all of Chapin Mesa, Wetherill

# Level 4 Potential Conservation Area (PCA) Report

Name Chapin Mesa

Site Code S.USCOHP\*140

Mesa, Park Mesa, Wildhorse Mesa, East Eagle Eye Mesa, and Moccasin Mesa. Most element occurrences in the site are known from the first three mesas listed above, but management actions (i.e., noxious weed management, fire management) have considerable potential for impacts to the elements known from other mesas.

Primary Area 53,375.04 Acres 21,600.20 Hectares

## SITE SIGNIFICANCE

Biodiversity Significance Rank B1: Outstanding Biodiversity Significance

### Biodiversity Significance Comments

This site contains excellent (A-ranked) and good (B-ranked) occurrences of the globally critically imperiled (G1/S1) Schmoll's milkvetch (*Astragalus schmolliae*) and historical occurrences of the globally critically imperiled (G1/S1) Mesa Verde stickseed (*Hackelia gracilentia*). It also contains historical occurrences of the globally imperiled (G1G2/S1S2) plant species, Cliff Palace milkvetch (*Astragalus deterior*), whose populations were previously documented in excellent and good condition. The globally imperiled (G2/S2) Alkaline pepperwort (*Lepidium crenatum*) is also historically known from the site.

Other Values Rank No Data

### Other Values Comments

No Data

## LAND MANAGEMENT ISSUES

### Land Use Comments

Many activities within this site have resulted in considerable localized impacts, and such impacts are ongoing. Some anthropogenic impacts within the occupied habitat of Schmoll's milkvetch include construction (roads, pathways, buildings, and buried cables and pipelines), visitor impacts, and mechanical reduction of hazardous woodland fuels accumulations. Indirect human impacts include weed infestations, erosion, and possibly post-fire management practices. Use of pesticides (including insecticides, herbicides, and algicides) throughout MVNP for weed or other pest control may also have impacts on the elements supported within this site including Schmoll's milkvetch. Decreasing air quality throughout the Four Corners Area is probably having a large biological impact on Mesa Verde. Over the last 10 years the pH of rainfall in the area has dropped from 5.5 to 4.9, which may be affecting numerous biological processes, possibly including seed and seedling survival of Schmoll's milkvetch.

### Natural Hazard Comments

No Data

### Exotics Comments

No Data

### Offsite

No Data

### Information Needs

Look for historical populations of Alkaline pepperwort, Mesa Verde stickseed, and Cliff Palace milkvetch.

## 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>
21181	<i>Hackelia gracilentia</i>	Mesa Verde stickseed	G1	S1	No
17626	<i>Epipactis gigantea</i>	helleborine	G4	S2S3	No
21801	<i>Aletes macdougalii</i> ssp. <i>breviradiatus</i>	Mesa Verde aletes	G3T2T3	S1	No
17957	<i>Astragalus deterior</i>	Cliff Palace milkvetch	G1G2	S1S2	No
21181	<i>Hackelia gracilentia</i>	Mesa Verde stickseed	G1	S1	No
23141	<i>Astragalus schmolliae</i>	Schmoll milkvetch	G1	S1	No
17957	<i>Astragalus deterior</i>	Cliff Palace milkvetch	G1G2	S1S2	No
21181	<i>Hackelia gracilentia</i>	Mesa Verde stickseed	G1	S1	No
21181	<i>Hackelia gracilentia</i>	Mesa Verde stickseed	G1	S1	No
23141	<i>Astragalus schmolliae</i>	Schmoll milkvetch	G1	S1	Yes
17957	<i>Astragalus deterior</i>	Cliff Palace milkvetch	G1G2	S1S2	No
17957	<i>Astragalus deterior</i>	Cliff Palace milkvetch	G1G2	S1S2	No

# Level 4 Potential Conservation Area (PCA) Report

Name	Chapin Mesa	Site Code	S.USCOHP*140	
17957	<i>Astragalus deterior</i>	Cliff Palace milkvetch	G1G2	S1S2 No
21647	<i>Astragalus naturitensis</i>	Naturita milkvetch	G2G3	S2S3 No
23708	<i>Collomia grandiflora</i>	showy collomia	G5	S1 No
17957	<i>Astragalus deterior</i>	Cliff Palace milkvetch	G1G2	S1S2 No
23141	<i>Astragalus schmolliae</i>	Schmoll milkvetch	G1	S1 No
21181	<i>Hackelia gracilenta</i>	Mesa Verde stickseed	G1	S1 No
17957	<i>Astragalus deterior</i>	Cliff Palace milkvetch	G1G2	S1S2 No
21181	<i>Hackelia gracilenta</i>	Mesa Verde stickseed	G1	S1 No
17957	<i>Astragalus deterior</i>	Cliff Palace milkvetch	G1G2	S1S2 No
17957	<i>Astragalus deterior</i>	Cliff Palace milkvetch	G1G2	S1S2 No
17957	<i>Astragalus deterior</i>	Cliff Palace milkvetch	G1G2	S1S2 No
23491	<i>Adiantum capillus-veneris</i>	southern maiden-hair	G5	S2 No
21181	<i>Hackelia gracilenta</i>	Mesa Verde stickseed	G1	S1 No
23491	<i>Adiantum capillus-veneris</i>	southern maiden-hair	G5	S2 No
17957	<i>Astragalus deterior</i>	Cliff Palace milkvetch	G1G2	S1S2 No
21181	<i>Hackelia gracilenta</i>	Mesa Verde stickseed	G1	S1 No
23141	<i>Astragalus schmolliae</i>	Schmoll milkvetch	G1	S1 No
17957	<i>Astragalus deterior</i>	Cliff Palace milkvetch	G1G2	S1S2 No
25209	<i>Lepidium crenatum</i>	Alkaline pepperwort	G2	S2 No
25209	<i>Lepidium crenatum</i>	Alkaline pepperwort	G2	S2 No

## REFERENCES

Reference ID	Full Citation
192782	Anderson, D.G. 2004. Final Report: Population Status Survey of Schmoll's Milkvetch ( <i>Astragalus schmolliae</i> Porter). Prepared for the National Park Service, Mesa Verde National Park. The Colorado Natural Heritage Program, Fort Collins, CO.

## ADDITIONAL TOPICS

Additional Topics
Original site design by Spackman, S.C. 2000-11-20.

## VERSION

Version Date	08/31/2004
Version Author	Anderson, D.G.

## Disclaimer

# Level 4 Potential Conservation Area (PCA) Report

Name Chapin Mesa

Site Code S.USCOHP\*140

These data are a product and property of Colorado State University, Colorado Natural Heritage Program (CNHP). These data are strictly "on loan" and should be considered "works in progress". Data maintained in the Colorado Natural Heritage Program database are an integral part of ongoing research at CSU and reflect the observations of many scientists, institutions and our current state of knowledge. These data are acquired from various sources, with varying levels of accuracy, and are continually being updated and revised. Many areas have never been surveyed and the absence of data in any particular geographic area does not necessarily mean that species or ecological communities of concern are not present. These data should not be regarded as a substitute for on-site surveys required for environmental assessments. Absence of evidence is NOT evidence of absence. Absence of any data does not mean that other resources of special concern do not occur, but rather CNHP files do not currently contain information to document this presence. CNHP is not responsible for whether other, non-CNHP data providers have secured landowner permission for data collected.

**These data are provided for non-commercial purposes only.** Under no circumstances are data to be distributed in any fashion to outside parties. To ensure accurate application of data, tabular and narrative components must be evaluated in conjunction with spatial components. Failure to do so constitutes a misuse of the data. The Colorado Natural Heritage Program shall have no liability or responsibility to the data users, or any other person or entity with respect to liability, loss, or damage caused or alleged to be caused directly or indirectly by the data, including but not limited to any interruption of service, loss of business, anticipatory profits or indirect, special, or consequential damages resulting from the use of operation of the data. Data users hereby agree to hold CNHP, Colorado State University, and the State of Colorado harmless from any claim, demand, cause of action, loss, damage or expense from or related to data users use of or reliance on the data, regardless of the cause or nature thereof, and even in the event that such cause is attributable to the negligence or misconduct of CNHP.

These data are provided on an as-is basis, as-available basis without warranties of any kind, expressed or implied, INCLUDING (BUT NOT LIMITED TO) WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NON-INFRINGEMENT. Although CNHP maintains high standards of data quality control, CNHP, Colorado State University, and the State of Colorado further expressly disclaim any warranty that the data are error-free or current as of the date supplied