



# Annotated Checklist of Vascular Flora

## *Colorado National Monument*

Natural Resource Technical Report NPS/NCPN/NRTR—2009/231



**ON THE COVER**

Wedding Canyon, Colorado National Monument, Colorado. National Park Service/Ron Young.

---

# Annotated Checklist of Vascular Flora

## *Colorado National Monument*

Natural Resource Technical Report NPS/NCPN/NRTR—2009/231

### Authors

Tim Hogan  
Nan Lederer  
University of Colorado Museum Herbarium  
218 UCB  
Boulder, CO 80309

Walter Fertig  
Moenave Botanical Consulting  
1117 W. Grand Canyon Dr.  
Kanab, UT 84741

### Editing and Design

Alice Wondrak Biel  
Northern Colorado Plateau Network  
National Park Service  
P.O. Box 848  
Moab, UT 84532

July 2009

U.S. Department of the Interior  
National Park Service  
Natural Resource Program Center  
Fort Collins, Colorado

The National Park Service, Natural Resource Program Center publishes a range of reports that address natural resource topics of interest and applicability to a broad audience in the National Park Service and others in natural resource management, including scientists, conservation and environmental constituencies, and the public.

The Natural Resource Technical Report Series is used to disseminate results of scientific studies in the physical, biological, and social sciences for both the advancement of science and the achievement of the National Park Service mission. The series provides contributors with a forum for displaying comprehensive data that are often deleted from journals because of page limitations.

All manuscripts in the series receive the appropriate level of peer review to ensure that the information is scientifically credible, technically accurate, appropriately written for the intended audience, and designed and published in a professional manner. This report received informal peer review by subject-matter experts who were not directly involved in the collection, analysis, or reporting of the data.

Views, statements, findings, conclusions, recommendations, and data in this report are those of the author(s) and do not necessarily reflect views and policies of the National Park Service, U.S. Department of the Interior. Mention of trade names or commercial products does not constitute endorsement or recommendation for use by the National Park Service.

This report is available from the Northern Colorado Plateau Network website, <http://www.nature.nps.gov/im/units/NCPN>, as well as at the Natural Resource Publications Management web site, <http://www.nature.nps.gov/publications/NRPM>.

Please cite this publication as:

Hogan, T., N. Lederer, and W. Fertig. 2009. Annotated checklist of vascular flora: Colorado National Monument. Natural Resource Technical Report NPS/NCPN/NRTR—2009/231. National Park Service, Fort Collins, Colorado.

# Contents

Figures .....	v
Tables .....	v
Abstract .....	vii
Acknowledgements .....	ix
1 Introduction .....	1
1.1 Background and justification.....	1
1.2 Objectives.....	1
1.3 Study area .....	1
1.3.1 History and setting.....	1
1.3.2 Geology .....	2
1.3.3 Vegetation.....	2
1.3.4 Previous botanical studies .....	2
2 Methods.....	7
3 Results.....	9
3.1 Summary of the flora of Colorado National Monument.....	9
3.2 Life form and biogeographic diversity.....	10
3.3 Plants of special concern .....	10
3.4 Non-native species and noxious weeds.....	10
4 Discussion .....	13
5 Literature Cited .....	15
Appendices .....	19
Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes.....	21
Appendix B. Potential (unconfirmed) vascular plant taxa of Colorado National Monument. ....	65
Appendix C. Rejected (falsely reported or questionable) vascular plant taxa of Colorado National Monument.....	83
Appendix D. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by life form with ecological notes.....	88



# **Figures**

Figure 1.3.1. Location of Colorado National Monument, Mesa County, Colorado.....	3
Figure 1.3.4. Increase in the number of plant taxa confirmed as present in Colorado National Monument by decade, 1930–2005.....	6

# **Tables**

Table 1.3.4. Chronology of plant-collecting efforts in Colorado National Monument.....	5
Table 3.1. Statistical summary of the flora of Colorado National Monument.....	9
Table 3.3. Plant species of conservation concern from Colorado National Monument.....	11
Table 3.4. Noxious weed species of Colorado National Monument. ....	12



# Abstract

In 2005–2006, the National Park Service’s Northern Colorado Plateau Network received funding to develop a revised checklist of the vascular plant flora of Colorado National Monument. This entailed a thorough review of existing literature, re-examination of specimens from the Colorado National Monument herbarium and other state and national museum collections, and additional field work to corroborate unverified species reports and locate new species. Based on this study, 467 vascular plant taxa have been confirmed or reliably reported as occurring in the monument (414 are known from validated herbarium specimens and 53 from unvouchered literature reports). Another 46 species formerly considered part of the monument flora have now been shown to be falsely reported. The current flora of Colorado National Monument represents about 15% of the known flora of Colorado, and 25% of the flora of the Colorado Plateau ecoregion within Colorado. Although no plant taxa are listed as threatened or endangered, at least 20 are considered species of concern by the state’s natural heritage program. Introduced plants make up 14% of the monument flora (66 species), of which 15 species are considered noxious weeds by the State of Colorado. Further surveys in Colorado National Monument are likely to find additional new species (at least 296 taxa are known from similar habitats outside the monument boundary), especially among late-flowering, weedy, or wetland taxa.



# Acknowledgements

We would like to thank the following individuals for their assistance with this project. Dr. Angela Evenden, botanist and former leader of the Northern Colorado Plateau Network (NCPN) program in Moab, Utah, was an active proponent of this project and helped secure funding for field work and herbarium studies in 2006. Libby Nance (former NCPN database specialist) and Margaret Beer (former NCPN database manager) assisted with development and quality control of the monument's NPSpecies database. Libby Nance, Janet Coles, and Helen Thomas also provided data from recent vegetation mapping and wetland inventories on the monument. Thanks to Colorado National Monument staff for providing logistical help with the herbarium review phase of the project. To any others whom we may have inadvertently forgotten, please accept our apologies (and thanks). Funding for this project was provided by the National Park Service Unit through the University of Wyoming.



# 1 Introduction

In 2006, the National Park Service (NPS) established a cooperative agreement with the University of Wyoming, through the Rocky Mountains Cooperative Ecosystem Studies Unit, to produce a series of technical reports summarizing the vascular plant flora of each of the 16 national park units of the Northern Colorado Plateau Network (NCPN). These reports are based on existing information in the park service's NPSpecies database system and augmented by further data mining, reviews of state and regional herbaria, and new field surveys to resolve the status of many reported and unconfirmed species. The objective of these reports is to summarize the current state of knowledge of the flora of each park for the benefit of NPS biologists and interpretive staff, outside researchers, and the general public. The following report addresses the vascular flora of Colorado National Monument, in west-central Colorado. Other NCPN park units are addressed in separate reports.

## 1.1 Background and justification

One of the primary missions of the NPS is "to conserve unimpaired the natural and cultural resources and values of the national park system for the enjoyment of this and future generations" (NPS 2000). Due to their high degree of protection and distribution across a wide variety of habitat types, the nation's national park units make a significant contribution to the protection of biological diversity (Noss and Cooperrider 1994). Unfortunately, the full contribution of the National Park System is not known, as many park units have traditionally lacked comprehensive biological inventories or monitoring programs to identify the composition and condition of their biota. Knowing the status of park flora and fauna is critical for effective park management and for systematically identifying and filling gaps in the nation's protected area network (Margules and Pressey 2000).

To rectify this shortcoming, Congress passed the National Parks Omnibus Management Act in 1998, to provide guidance and funding for an inventory and monitoring program across the entire National Park System. Since 2000, the NCPN Inventory and Monitoring Program has been developing and verifying species lists of vertebrates and

vascular plants for each park unit in the network (Evenden et al. 2002). This effort has entailed reviewing existing species checklists, corroborating the identification of specimens in park museum and herbarium collections, locating additional specimen records from other museums, mining relevant literature and datasets, and conducting field surveys to locate new taxa or confirm unsubstantiated reports.<sup>†</sup> All of these data have been synthesized in NPSpecies, the park service's standardized database for documenting park status (present, probably present, unconfirmed, falsely reported), abundance, residency, nativity, and rarity. With the production of a technical series of reports on the flora of each park, the NPSpecies data will now be available to a broader audience.

## 1.2 Objectives

The objectives of this project were to:

1. Document the current status (present, reported, potential, or falsely reported) of all vascular plant species that have been cited as occurring in Colorado National Monument, based on a review of herbarium collections and past literature.
2. Develop an annotated checklist of the flora of Colorado National Monument, with supplemental information on taxonomic synonyms, distribution, within-park abundance, flowering period, growth form, nativity, habitat, and sources for each record.

## 1.3 Study area

### 1.3.1 History and setting

John Otto settled in the Grand Junction area of western Colorado in the early 1900s, and soon became a champion of the colorful mesa and canyon country bordering the southern end of Grand Valley. Although considered an eccentric by many, Otto successfully persuaded local civic leaders to lobby the U.S. government to create a park to preserve the area's unusual erosional features and scenery (Kania 1984). In May 1911, President William Howard Taft established Colorado National Monument, and John Otto became its first official caretaker. In 1933, President Herbert Hoover expanded the monument to include additional lands of historic and scientific interest (Evenden et al. 2002).

<sup>†</sup>Taxa refer to all named species, subspecies, and varieties.

Colorado National Monument (NM) encompasses 20,534 acres (8,310 ha) at the north end of the Uncompahgre Plateau in west-central Mesa County, Colorado. The monument is located south of the Colorado River and Interstate 70, about four miles west of Grand Junction and three miles south of Fruita (Figure 1.3.1). Elevations range from 4,620 feet (1,408 meters) to 7,107 feet (2,166 meters). The climate is typical semi-desert of the Colorado Plateau, with an average of less than 11 inches (280 millimeters) of annual precipitation, hot summer temperatures, and cool winters (Evenden et al. 2002).

### 1.3.2 Geology

The canyons and mesas of Colorado NM are primarily carved from Mesozoic to early Cenozoic sandstones and mudstones (Chronic 1988). The oldest rocks in the monument are 1–2 billion year-old Precambrian metamorphic gneisses and schists exposed in the lower canyon bottoms during uplift of the Uncompahgre Plateau. These strata are covered by three sequences of Triassic-aged sediments: slopes of reddish Chinle sand and mudstone, thick cliffs of Wingate sandstone, and multicolored ledges of Kayenta sandstone and conglomerate. The Chinle and Kayenta formations were deposited in floodplain and stream environments, while the Wingate is derived from fossilized Sahara-like sand dunes. Uplift of the Uncompahgre area in the Jurassic removed any trace of the Navajo and Carmel formations found elsewhere in the Colorado Plateau. Later in the Jurassic, the monument was buried in coastal sand dunes of the Entrada Formation, followed by coastal floodplains of the Summerville and Morrison formations. The highest areas of the monument are capped by late Jurassic and early Cretaceous stream deposits of the Burro Canyon and Dakota formations. Late Cretaceous shales, deposited by an inland sea, underlie much of Grand Valley but were eroded off of monument lands during the most recent uplift of the Uncompahgre Plateau (Chronic 1998).

### 1.3.3 Vegetation

Weber et al. (1982) recognized 15 general landform and vegetation types within Mesa County and Colorado NM. These have been aggregated into four main categories for the sake of documenting habitat affinity of the species listed in this report (Appendix D). A more detailed vegetation classification has been prepared by Von Loh et al. (2007).

Plateau areas and canyons of the monument are mostly vegetated by dense stands of two-needle pinyon (*Pinus edulis*) and Utah juniper (*Sabina [Juniperus] osteosperma*). One isolated mesa supports a relict stand of two-needle pinyon and alder-leaf mountain mahogany (*Cercocarpus montanus*) (Van Pelt et al. 1991). The upper reaches of some drainages are clothed by thickets of Gambel oak (*Quercus gambelii*). More open areas, especially in canyon bottoms, are dominated by communities of big sagebrush (*Seriphidium [Artemisia] tridentatum*), rabbitbrush (*Chrysothamnus nauseosus*), and greasewood (*Sarcobatus vermiculatus*). The long history of grazing in Colorado NM by cattle (and later by bison), has resulted in an extensive flora of non-native weedy species, especially along roadsides (Evenden et al. 2002). Although there are no perennial streams or rivers within Colorado NM, several seeps and ephemeral washes support riparian vegetation of coyote willow (*Salix exigua*), river birch (*Betula occidentalis*), Russian olive (*Elaeagnus angustifolia*), and tamarisk (*Tamarix ramosissima*) (Springer et al. 2006; Von Loh et al. 2007).

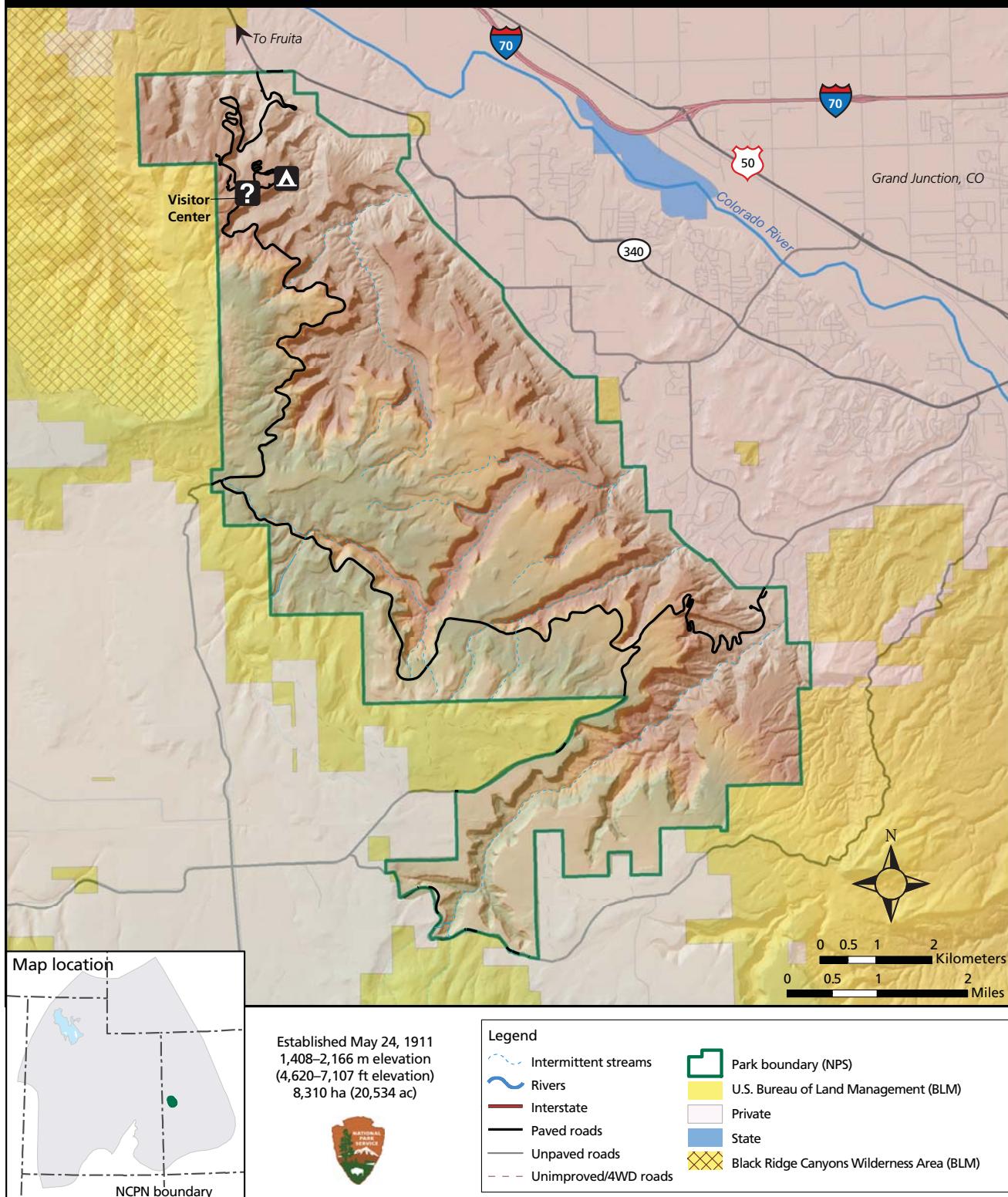
### 1.3.4 Previous botanical studies

Alice Eastwood, a Denver schoolteacher and later curator of the California Academy of Science herbarium in San Francisco, visited the Grand Junction area in May 1892, and collected type specimens of at least 13 new vascular-plant species previously unknown to science (Weber et al. 1982). Location data from these specimens are vague, so it is unknown whether Eastwood actually collected within the area that would become Colorado National Monument. Colorado lumberman and amateur botanist George Osterhout also collected in the Grand Junction area in 1921, and collected holotypes of three new species to science. One of these specimens, named Osterhout's cryptanth (*Oreocarya osterhoutii*) by Edwin Payson, was collected from "Monument Park," which may have been from Colorado NM. The oldest collections that irrefutably come from within the monument were made by Francis Pennell and R. L. Schaeffer in 1938 (Table 1.3.4).

In 1948, Dr. William Weber, curator of the University of Colorado Herbarium, began his long-term association with Colorado NM by collecting vouchers of 95 new plant species (Table 1.3.4, Figure 1.3.4). Weber and his students continued to add new records for the monument during the 1950s (47 new species), but discoveries of new species tapered off in the 1960s (14 new taxa) and

# Colorado National Monument

Colorado



MAP CREATED BY ANETH WIGHT, NCPN (DERIVED FROM EVENDEN ET AL. 2002)

Figure 1.3.1. Location of Colorado National Monument, Mesa County, Colorado.

1970s (6 new taxa). Over this same period, Weber and colleagues collected extensively just outside Colorado NM and documented several dozen species that have good potential to ultimately be found within the park (Appendix B).

During this same period, several other collectors added new species to the flora of Colorado NM. Superintendent Pat Miller (assisted by Carol Miller and Pauline Bogart) collected 28 new taxa from 1959 to 1961. Several specialists visited the monument to collect species of research interest during the mid-1960s, including penstemon expert Francis Crosswhite and C. L. Porter, long-time curator of the Rocky Mountain Herbarium at the University of Wyoming. Phil Hackney collected more than 100 plant vouchers for the Colorado NM herbarium in 1975, in the course of which he documented 35 new species.

Systematic floristic research resumed in the early 1980s, under the leadership of William Weber. From 1980 to 1984, 173 new species were documented by Weber and fellow University of Colorado botanists Vlad Siplivinsky, Claudia Rector, and Hans Beck (Weber et al. 1982). This effort increased the documented flora of Colorado NM by nearly 73% (Figure 1.3.4).

Recent studies, sponsored by the NCPN, have resulted in a new wave of floristic discovery at Colorado NM. Dewey and Andersen (2005) developed a noxious-weed map for the monument in 2003, and reported (without vouchers) two new exotic species. The NCPN vegetation-mapping team reported at least 50 new species for Colorado NM while producing a new vegetation map and classification (Von Loh et al. 2007). In 2005, researcher Larry Stevens documented five new riparian plant species while surveying seeps and springs in the monument (Springer et al. 2006).

**Table 1.3.4. Chronology of plant-collecting efforts in Colorado National Monument.**

Year	Collector(s)	# of new taxa	Comments
1892	A. Eastwood	0	Alice Eastwood collected the holotypes of at least 13 species from the vicinity of Grand Junction, although apparently none from within Colorado National Monument itself (Weber and Wittmann 1992).
1921	G. Osterhout	1?	George Osterhout collected the type of Osterhout's cryptanth ( <i>Oreocarya osterhoutii</i> ) from "Monument Park, Grand Junction," which may be in Colorado NM (or immediate vicinity), as well as two other type specimens in the Grand Junction area (Weber and Wittman 1992).
1938	F. W. Pennell & R. L. Schaeffer, Jr.	2	Collections of bluestem penstemon ( <i>Penstemon cyanocaulis</i> ) and flixweed ( <i>Descurainia sophia</i> ) are the earliest specimens irrefutably taken from Colorado NM.
1948	W. A. Weber	95	First major floristic survey of Colorado NM and vicinity initiated by Weber and students from the University of Colorado.
1951–1955	W. A. Weber & S. Shushan	47	Additional collecting done in Colorado NM and vicinity.
1959–1961	P. Miller, C. Miller, & P. Bogart	28	Pat Miller, Superintendent of Colorado NM, and colleagues collected 28 new species for the local flora.
1962	W. A. Weber	14	Weber collected numerous additional specimens outside the monument (many of these taxa could potentially occur in the park).
1962–1968	F. S. Crosswhite, C. Davis, C. L. Porter	8	Fewer than 20 collections were made during this period, mostly by specialists focusing on particular taxa, rather than general floristic research.
1975	P. Hackney	35	Phil Hackney (thought to be a park employee) made more than 100 collections for the Colorado NM herbarium (Hogan & Lederer 2006).
1978–1979	W. A. Weber, C. Rector, V. Black, & K. Hambly	6	Large number of collections by Weber, but mostly from just outside the monument.
1980–1984	W. A. Weber, V. Siplivisnky, H. Beck, C. Rector	173	Major floristic survey initiated by Weber and colleagues from the University of Colorado herbarium, funded by the National Park Service (Weber et al. 1982). Additional collections by Steve Popovich (then an NPS seasonal) in 1984 have not been relocated (Hogan & Lederer 2006).
1990	P. Larson	1 reported	Pete Larson (1990) mapped populations of Canada thistle ( <i>Breva arvensis</i> ).
2003	S. Dewey, K. Andersen, & NCPN vegetation mapping team	52 reported	Dewey and Andersen (2005) documented 2 new weed species (without vouchers) and the NCPN vegetation-mapping team reported 50 new species (also without vouchers) (Von Loh et al. 2007).
2005	L. Stevens	5	Five new riparian species were discovered during NCPN springs and seeps inventory (Springer et al. 2006).

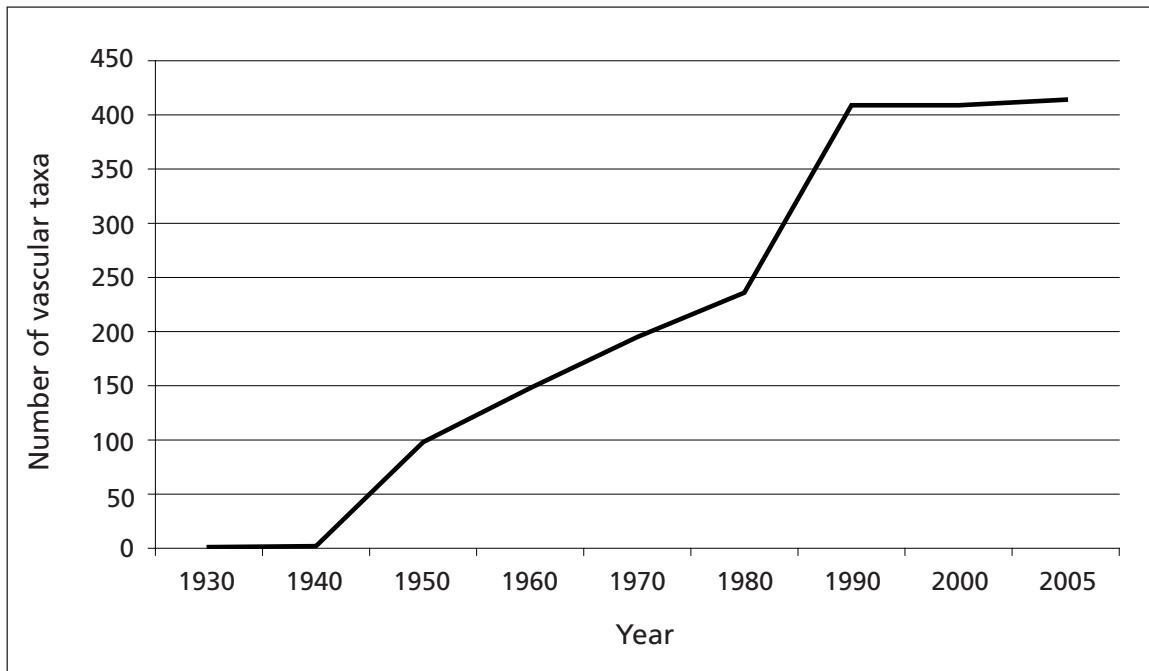


Figure 1.3.4. Increase in the number of plant taxa confirmed as present in Colorado National Monument by decade, 1930–2005.

## 2 Methods

In 2005, Tim Hogan and Nan Lederer, of the University of Colorado Museum Herbarium, reviewed all mounted specimens in the Colorado National Monument (COLM) herbarium to determine whether each was correctly identified to species, subspecies, or variety following the nomenclature of Weber and Wittmann (2001). Hogan and Lederer (2006) also reviewed relevant herbarium collections from the University of Colorado (COLO). As necessary, they made corrections and annotations to each specimen and to the voucher records in the monument's Automated National Cataloging System (ANCS+) and NPSpecies database.

Based on this herbarium work and a review of park references (Dewey and Andersen 2005; Springer et al. 2006; Von Loh et al. 2007; Weber et al. 1982, 2005), we developed four lists:

1. A revised checklist of species that were present in the monument (confirmed by an authenticated voucher; included in Appendices A and D);
2. A list of species that were reported in the literature but not corroborated with a voucher (equivalent to “probably present” in NPSpecies terminology; included in Appendices A and D);
3. A list of potential species (“unconfirmed” in NPSpecies) known from the vicinity of Colorado NM based on Weber et al. (1982) and data from the University of Colorado Museum Herbarium digital specimen database ([www.cumuseum.colorado.edu/Research/Botany/Databases/search.php](http://www.cumuseum.colorado.edu/Research/Botany/Databases/search.php)) (included in Appendix B); and
4. A list of species that are now known to be misidentified or highly questionable (Appendix C).

Each list was annotated with supplemental information on life form, geographic range (within the context of Colorado), population size in the monument (derived from Von Loh et al. 2007, Weber et al. 1982, and field observations), flowering period, distribution across general vegetation types, nativity, data source (collector and collection number from a sample specimen or literature citation), year of earliest collection (from herbarium records), and relevant synonymy and taxonomic problems (based on review of Barkworth et al. 2003, 2007; Barneby 1989; Cronquist 1994; Cronquist et al. 1972, 1977, 1984, 1997; Dorn 2001; Flora of North America Editorial Committee 1993, 1997, 2000, 2002a, 2002b, 2003, 2005, 2006a, 2006b, 2006c; Holmgren et al. 2005; Kartesz 2003; and Welsh et al. 2003). The annotations to these lists and label data from the COLM herbarium review were then incorporated into the NPSpecies database for the monument.



# 3 Results

## 3.1 Summary of the flora of Colorado National Monument

Tim Hogan and Nan Lederer, of the University of Colorado Museum, examined 1,844 vascular plant specimens in the COLM and COLO herbaria in 2005, to check for misidentifications and update nomenclature (Hogan and Lederer 2006). Of these collections, 83 were misidentified (4.5%), 252 were revised to a more current name (13.7%), 24 had variety or subspecies names added (1.3%), and 1,485 were found to be correctly determined (80.5%). Based on these collections and additional specimens from the NCPN springs and seeps survey (Springer et al. 2006), the number of plant taxa confirmed as occurring in Colorado National Monument with authenticated vouchers stands

at 414 (Table 3.1, Appendices A, D).

Currently, 53 additional taxa have been reported for Colorado NM but have not been corroborated with a voucher specimen (Table 3.1, Appendix A). Of these, 50 were based on observations by the NCPN vegetation-mapping crew (Von Loh et al. 2007) and 3 from recent weed-mapping studies (Dewey and Andersen 2005; Larson 1990). Taken together, the number of confirmed and reported vascular plant taxa in Colorado NM is 467 (Table 3.1, Appendices A, D).

Based on a review of literature and herbarium specimens, we recognize 296 species (Appendix B) that could still potentially be found within Colorado NM (Weber et al. 1982, 2005; Hogan and Lederer NPSpecies database 2006). Most of these species are known from comparable habitats elsewhere in Mesa County or have been collected

**Table 3.1. Statistical summary of the flora of Colorado National Monument.**

Category	Number confirmed in park	Number additionally reported for park	Total
<b>Taxonomic diversity</b>			
Total taxa (including varieties and subspecies)	414	53	467
Full species (excluding varieties and subspecies)	406	52	458
Families	77	3	80
<b>Life form diversity</b>			
Tree taxa	18	3	21
Shrub taxa	63	8	71
Perennial forb taxa	182	26	208
Annual forb taxa	70	8	78
Perennial graminoid taxa	57	6	63
Annual graminoid taxa	14	2	16
Fern taxa	10	0	10
<b>Biogeographic diversity</b>			
Introduced taxa	56	10	66
Native taxa			
Locally endemic taxa	3	0	3
Regionally endemic taxa	41	2	43
Disjunct taxa	0	0	0
Peripheral taxa	17	2	19
Sparse taxa	4	0	4
Widespread taxa	293	39	332
<b>Total native taxa</b>	<b>358</b>	<b>43</b>	<b>401</b>

The number of taxa and families is based on taxonomic concepts of Weber and Wittmann (2001). See appendices for an explanation of the various categories.

from within a 5–7-mile radius of the monument.

Of the pool of species documented or reported for Colorado NM, we have found that 36 taxa were falsely reported based on misidentified voucher specimens in the COLM and COLO herbaria. We consider an additional 10 species cited (but not vouchered) by the NCPN vegetation-mapping team (Von Loh et al. 2007) to be questionable based on the absence of suitable habitat or the distance of Colorado NM to the known or expected range of each species (Appendix C).

The confirmed and reported flora of Colorado NM represents 14.8% of the 3,145 native and naturalized taxa documented for the state of Colorado by Weber and Wittmann (1992), and 50% of the state's 160 plant families (Table 3.1). At the ecoregional scale, Colorado NM contains 24.6% of the 1,898 species reported for the Colorado portion of the Colorado Plateau (Kartesz 2003).

### 3.2 Life form and biogeographic diversity

Although ecologically dominant, tree and shrub species make up only 19.7% of the confirmed and reported plant taxa of Colorado NM (see Table 3.1). Perennial forbs are the most species-rich life form in the monument's flora, with 208 known and reported taxa (44.5% of the total flora). Annual forbs and grass-like plants comprise 20% of the flora. Like trees and shrubs, perennial graminoids are ecologically important but relatively species-poor, representing just 13.5% of the total flora. The diversity of ferns and fern-allies in Colorado NM is especially low (2.1%) (see Table 3.1).

Of the monument's 401 native taxa, 332 (82.8%) are widespread across Colorado and western North America. Only three species (0.7% of the native flora) have extremely limited global distributions (local endemics found within an area of less than 1° of latitude × 2° of longitude; see appendices for complete definitions of biogeographic categories). Regional endemics (largely restricted to the Colorado Plateau) comprise an additional 10.7% of the native monument flora (see Table 3.1). Species at the extreme edge of their global range in Colorado (peripherals) and those found sparsely over a wide range, make up 4.7% and 1.0% of the monument's native flora, respectively (see Table 3.1).

### 3.3 Plants of special concern

Colorado National Monument has no plants listed as threatened or endangered under the U.S. Endangered Species Act. Canyonlands lomatium (*Aletes latilobus*) is the only species known from the monument that was formerly a Category 2 candidate for listing under the act (Table 3.3) (Spackman et al. 1997). The Colorado Natural Heritage Program (2007) tracks 18 taxa known from Colorado NM as species of concern and 2 others on its watch list of potential species of concern (Table 3.3). Lyon et al. (1996) discuss the distribution of 14 rare plants within the monument in more detail.

### 3.4 Non-native species and noxious weeds

Introduced plant species (not historically native to Colorado or North America) make up 14.1% of the confirmed and reported flora of Colorado NM (see Table 3.1). This figure is lower than the statewide average of 15.6% for non-native species (Rejmanek and Randall 1994). Of the monument's 66 introduced plant species, 15 are listed as noxious by the State of Colorado (Table 3.4) (Dewey and Andersen 2005; CDA 2007). Plants on the Colorado state noxious-weed list fall into three categories with differing management objectives and requirements (Colorado Noxious Weed Act of 1996 Title 35 Article 5.5). Weeds on List A are designated for full eradication wherever they occur. Containment of infestations is the goal for species on List B, and voluntary control, education, and research is the objective for species on List C. Currently, seven species from Colorado NM are on List B and eight are on List C; none is on List A (Table 3.4). Dewey and Andersen (2005) and Larson (1990) mapped infestations of 16 non-native species within the monument. In general, weedy species are most prevalent along roadsides, wash bottoms, and areas impacted by past bison grazing (Evenden et al. 2002).

**Table 3.3. Plant species of conservation concern from Colorado National Monument.**

Family	Species	Common name	TNC global rank	Legal status	CNHP status
Alliaceae	<i>Allium nevadense</i>	Nevada onion	G4		SOC, S2
Apiaceae	<i>Aletes eastwoodiae</i> ( <i>Lomatium eastwoodiae</i> )	Eastwood's desert-parsley	G3		Watch, S3
Apiaceae	<i>Aletes latilobus</i> ( <i>Lomatium latilobum</i> )	Canyonlands lomatium	G1	CO BLM: Sensitive, USFWS: former C2 candidate	SOC, S1
Asteraceae	<i>Grindelia fastigiata</i>	erect gumweed	G3		SOC, S3?
Boraginaceae	<i>Oreocarya longiflora</i> ( <i>Cryptantha longiflora</i> )	long-flower cryptanth	G3		SOC, S3
Boraginaceae	<i>Oreocarya osterhoutii</i> ( <i>Cryptantha osterhoutii</i> )	Osterhout's cryptanth	G2G3	CO BLM: Sensitive	SOC, S2
Crossosomataceae	<i>Forsellesia meionandra</i>	spiny greasebush	G5T3		SOC, S3
Fabaceae	<i>Astragalus eastwoodiae</i>	Eastwood's milkvetch	G3		SOC, S3
Fabaceae	<i>Pediomelum aromaticum</i>	aromatic breadroot	G3	CO BLM: Sensitive	SOC, S2
Fabaceae	<i>Pediomelum megalanthum</i>	large-flowered breadroot	G4?		Watch, S3S4
Gentianaceae	<i>Centaurium exaltatum</i>	Great Basin centaury	G5		SOC, S1
Hydrophyllaceae	<i>Nama dichotomum</i>	wishbone fiddleleaf	G4		SOC, S1
Poaceae	<i>Muhlenbergia depauperata</i>	sixweeks muhly	G5		SOC, S1
Poaceae	<i>Sporobolus flexuosus</i>	mesa dropseed	G5		SOC, S1S2
Polemoniaceae	<i>Gilia stenothyrsa</i>	Uinta gilia	G2	CO BLM: Sensitive	SOC, S1
Polemoniaceae	<i>Leptodactylon watsonii</i>	Watson's prickly-phlox	G3G5		SOC, S2
Polygonaceae	<i>Eriogonum palmerianum</i>	Palmer's wild buckwheat	G4		SOC, S1
Portulacaceae	<i>Portulaca halimoides</i> ( <i>P. parvula</i> )	dwarf purslane	G5		SOC, S1
Sinopteridaceae	<i>Argyrochosma fendleri</i>	Fendler's cloak-fern	G3		SOC, S3
Sinopteridaceae	<i>Pellaea atropurpurea</i>	purple cliff-brake	G5		SOC, S2S3

This list was derived from the Colorado Natural Heritage Program (CNHP 2007). All species are confirmed as present in the monument except for *Gilia stenothyrsa*.

Codes: **TNC global rank** assesses abundance and conservation priority on a scale of 1–5 (1 being extremely vulnerable and 5 being secure) for full species (G) and varieties or subspecies (T) across their entire range. A "?" indicates uncertainty in the rank, Q = taxonomic questions, and NR = not ranked. A comparable scoring system is used to measure state abundance (S) in Colorado under the column CNHP status. TNC = The Nature Conservancy. Under **legal status**, USFWS = U.S. Fish and Wildlife Service. CO BLM = U.S. Bureau of Land Management, Colorado Office. C2 = Category 2 candidate (a former category used for taxa that might warrant being proposed for threatened or endangered status following additional research). Under **CNHP status**, SOC denotes plants on the state "Species of Concern" list and Watch indicates species on the watch list that may ultimately warrant listing as species of concern (CNHP 2007).

**Table 3.4. Noxious weed species of Colorado National Monument.**

Family	Species	Common name	Park status	CO noxious weed list
Apiaceae	<i>Conium maculatum</i>	poison-hemlock	Reported	List C
Asteraceae	<i>Acroptilon repens</i> ( <i>Centaurea repens</i> )	Russian knapweed	Present	List B
Asteraceae	<i>Arctium minus</i>	burdock	Present	List C
Asteraceae	<i>Breva arvensis</i> ( <i>Cirsium arvense</i> )	Canada thistle	Reported	List B
Asteraceae	<i>Cichorium intybus</i>	chicory	Present	List C
Asteraceae	<i>Cirsium vulgare</i>	bull thistle	Present	List B
Chenopodiaceae	<i>Halogeton glomeratus</i>	halogeton	Present	List C
Convolvulaceae	<i>Convolvulus arvensis</i>	field bindweed	Present	List C
Elaeagnaceae	<i>Elaeagnus angustifolia</i>	Russian-olive	Present	List B
Poaceae	<i>Anisantha tectorum</i> ( <i>Bromus tectorum</i> )	cheatgrass	Present	List C
Poaceae	<i>Elytrigia repens</i> ( <i>Elymus repens</i> )	quackgrass	Present	List B
Scrophulariaceae	<i>Linaria vulgaris</i>	butter-and-eggs	Present	List B
Scrophulariaceae	<i>Verbascum thapsus</i>	woolly mullein	Present	List C
Tamaricaceae	<i>Tamarix ramosissima</i> ( <i>Tamarix chinensis</i> )	five-stamen tamarisk	Present	List B
Zygophyllaceae	<i>Tribulus terrestris</i>	puncture vine	Present	List C

This list was derived from the Colorado Department of Agriculture (2007).

## **4 Discussion**

Thanks primarily to long-term research by Dr. William Weber and colleagues associated with the University of Colorado Museum Herbarium, 414 vascular plant taxa have been confirmed as occurring in Colorado National Monument (Appendix A). Another 53 species have been recently reported for the monument (without herbarium vouchers) and 296 additional species have been documented from the vicinity (Appendix A, B).

Should all of these potential species be found, the flora of Colorado NM would increase by nearly 38%. Many of the “missing” potential or reported taxa consist of cryptic species that flower late in the growing season, or occur in undersampled wetland or weedy habitats. Confirmation of reported species should remain a high priority, as some of these taxa may ultimately prove to be erroneous. Additional studies would also be useful to better refine the abundance and distribution of species of high management interest (especially rare plants and invasive non-natives).



## 5 Literature Cited

- Barkworth, M. E., K. M. Capels, S. Long, and M.B. Piep, eds. 2003. *Magnoliophyta: Commelinidae (in part): Poaceae, part 2*. Flora of North America north of Mexico, volume 25. New York: Oxford University Press. 783 pp.
- Barkworth, M. E., K. M. Capels, S. Long, L. K. Anderton, and M. B. Piep, eds. 2007. *Magnoliophyta: Commelinidae (in part): Poaceae, part 1*. Flora of North America north of Mexico, volume 24. New York: Oxford University Press. 911 pp.
- Barneby, R. C. 1989. Volume 3, Part B. Fabales. In Cronquist, A., A. H. Holmgren, N. H. Holmgren, J. L. Reveal, and P. K. Holmgren, eds., *Intermountain flora: Vascular plants of the Intermountain West, U.S.A.* Bronx, N.Y.: New York Botanical Garden. 279 pp.
- Chronic, H. 1988. Pages of stone: Geology of western national parks and monuments: Grand Canyon and the plateau country. Seattle, Wa.: The Mountaineers. 158 pp.
- Colorado Department of Agriculture (CDA). 2007. Colorado noxious weed list. [www.cepep.colostate.edu/noxious.htm#CONWA](http://www.cepep.colostate.edu/noxious.htm#CONWA).
- Colorado Natural Heritage Program (CNHP). 2007. Tracked vascular plant species (8/16/2007 version). [www.cnhp.colostate.edu/tracking/vascular.html](http://www.cnhp.colostate.edu/tracking/vascular.html).
- Cronquist, A. 1994. Volume 5, Asterales. In Cronquist, A., A. H. Holmgren, N. H. Holmgren, J. L. Reveal, and P. K. Holmgren, eds., *Intermountain flora: Vascular plants of the Intermountain West, U.S.A.* Bronx, N.Y.: New York Botanical Garden. 496 pp.
- Cronquist, A., A. H. Holmgren, N. H. Holmgren, and J. L. Reveal, eds. 1972. Volume 1, Geological and botanical history of the region, its plant geography and a glossary. The vascular cryptogams and the gymnosperms. *Intermountain flora: Vascular plants of the Intermountain West, U.S.A.* Bronx, N.Y.: New York Botanical Garden. 270 pp.
- Cronquist, A., A. H. Holmgren, N. H. Holmgren, J. L. Reveal, and P. K. Holmgren, eds. 1977. Volume 6, The monocotyledons. *Intermountain flora: Vascular plants of the Intermountain West, U.S.A.* Bronx, N.Y.: New York Botanical Garden. 584 pp.
- . 1984. Volume 4, Subclass Asteridae (except Asteraceae). *Intermountain flora: Vascular plants of the Intermountain West, U.S.A.* Bronx, N.Y.: New York Botanical Garden. 573 pp.
- Cronquist, A., N. H. Holmgren, and P. K. Holmgren, eds. 1997. Volume 3, Part A, subclass Rosidae (except Fabales). *Intermountain flora: Vascular plants of the Intermountain West, U.S.A.* Bronx, N.Y.: New York Botanical Garden. 446 pp.
- Dewey, S., and K. Andersen. 2005. An inventory of invasive non-native plants in Colorado National Monument (2003): Final report. Utah State University. Weed Science Research Project # SD0516A.
- Dorn, R. D. 2001. *Vascular plants of Wyoming*. Third edition. Cheyenne, Wy.: Mountain West Publishing. 412 pp.
- Evenden, A., M. Miller, M. Beer, E. Nance, S. Daw, A. Wight, M. Estenson, and L. Cudlip. 2002. Northern Colorado Plateau Vital Signs Network and Prototype Cluster plan for natural resources monitoring: Phase I report. October 1. Two volumes. National Park Service, Northern Colorado Plateau Network, Moab, Ut. 138 pp + app.
- Flora of North America Editorial Committee. 1993. Pteridophytes and gymnosperms. *Flora of North America north of Mexico*, volume 2. New York: Oxford University Press. 475 pp.
- . 1997. *Magnoliophyta: Magnoliidae and Hamamelidae*. Flora of North America north of Mexico, volume 3. New York: Oxford University Press. 590 pp.
- . 2000. *Magnoliophyta: Alismatidae, Arecidae, Commelinidae (in part), and Zingiberidae*. Flora of North America north of Mexico, volume 22. New York: Oxford University Press. 352 pp.
- . 2002a. *Magnoliophyta: Commelinidae (in part): Cyperaceae*. Flora of North America north of Mexico, volume 23. New York: Oxford University Press. 608 pp.
- . 2002b. *Magnoliophyta: Liliidae: Liliales and Orchidales*. Flora of North America north of Mexico, volume 26. New York: Oxford University Press. 723 pp.

- . 2003. Magnoliophyta: Caryophyllidae, part 1. Flora of North America north of Mexico. Volume 4. New York: Oxford University Press. 559 pp.
- . 2005. Magnoliophyta: Caryophyllidae, part 2. Flora of North America north of Mexico. Volume 5. New York: Oxford University Press. 656 pp.
- . 2006a. Magnoliophyta: Asteridae, part 6: Asteraceae, part 1. Flora of North America north of Mexico. Volume 19. New York: Oxford University Press. 579 pp.
- . 2006b. Magnoliophyta: Asteridae, part 7: Asteraceae, part 2. Flora of North America north of Mexico. Volume 20. New York: Oxford University Press. 666 pp.
- . 2006c. Magnoliophyta: Asteridae, part 8: Asteraceae, part 3. Flora of North America north of Mexico. Volume 21. New York: Oxford University Press. 616 pp.
- Hogan, T., and N. Lederer. 2006. Vascular plant species list project: COLM herbarium review and species list for Colorado National Monument (COLM) final report. University of Colorado Museum Herbarium, Boulder, Co.
- Holmgren, N. H., P. K. Holmgren, and A. Cronquist. 2005. Volume 2, part B, subclass Dilleniidae. Intermountain flora: Vascular plants of the Intermountain West, U.S.A. Bronx, N.Y.: New York Botanical Garden. 488 pp.
- Kania, A. J. 1984. John Otto of Colorado National Monument. Boulder, Co.: Roberts Rinehart, Inc. 183 pp.
- Kartesz, J. T. 2003. Synthesis of the North American flora, Version 2.0.
- Larson, P. 1990. Assessment of Canada thistle in Colorado National Monument. University of Northern Colorado, Greeley, Co. 7 pp.
- Lyon, P., C. Pague, R. Rondeau, L. Renner, C. Slater, and C. Richard. 1996. Natural heritage inventory of Mesa County, Colorado. Report to Mesa County Commissioners. Colorado Natural Heritage Program, Fort Collins, Co.
- Margules, C. R., and R. L. Pressey. 2000. Systematic conservation planning. *Nature* 405:243–253.
- National Park Service. 2000. Management Policies. U.S. Department of Interior, National Park Service, Washington, D.C. Publication # NPS D1416. 137 pp.
- Noss, R. F., and A. Y. Cooperrider. 1994. Saving nature's legacy: Protecting and restoring biodiversity. Washington, D.C.: Island Press. 416 pp.
- Rejmanek, M., and J. M. Randall. 1994. Invasive alien plants in California: 1993 summary and comparison with other areas in North America. *Madrono* 41(3):161–177.
- Sheviak, C. J., and W. F. Jennings. 2006. A new *Platanthera* (Orchidaceae) from the Intermountain West. *Rhodora* 108:19–31.
- Spackman, S., B. Jennings, J. Coles, C. Dawson, M. Minton, A. Kratz, and C. Spurrier. 1997. Colorado rare plant field guide. Prepared for the Bureau of Land Management, U.S. Forest Service, and U.S. Fish and Wildlife Service by the Colorado Natural Heritage Program, Ft. Collins, Co.
- Springer, A. E., L. E. Stevens, and R. Harms. 2006. Inventory and classification of selected National Park Service springs on the Colorado Plateau. Northern Arizona University, Flagstaff, Az. NPS Cooperative Agreement # CA 1200-99-009; Task # NAU-118.
- Van Pelt, N. S., C. D. Schelz, and D. W. Johnson. 1991. Relict vegetation site descriptions, volume I: Canyonlands National Park, Natural Bridges National Monument, and Colorado National Monument. Report prepared for the National Park Service by The Nature Conservancy Great Basin Field Office, Salt Lake City, Ut. 160 pp.
- Von Loh, J., K. Langdorf, A. Evenden, T. Owens, S. Blauer, and M. Reid. 2007. Vegetation classification and mapping project report, Colorado National Monument. Natural Resource Report NPS/NCPN/NRTR/2007/061. National Park Service, Ft. Collins, Co.
- Weber, W. A., V. Siplivinsky, and C. Rector. 1982. Checklist of vascular plants of Colorado National Monument. Report prepared by the University of Colorado Museum, Boulder, Co.

- Weber, W. A., V. Siplivinsky, H. Beck, and C. Rector. 2005. Checklist of vascular plants of Mesa County, Colorado, and Colorado National Monument, preliminary working document. Report prepared by the University of Colorado Museum, Boulder, Co.
- Weber, W. A., and R. C. Wittmann. 1992. Catalog of the Colorado flora: A biodiversity baseline. Niwot, Co.: University Press of Colorado. Revised electronic version, January 2000, [http://cumuseum.colorado.edu/Research/Botany/Databases/vascular\\_plants.pdf](http://cumuseum.colorado.edu/Research/Botany/Databases/vascular_plants.pdf).
- . 2001. Colorado flora: Western Slope. Third edition. Boulder: University Press of Colorado. 488 pp.
- Welsh, S. L., N. D. Atwood, S. Goodrich, and L. C. Higgins. 2003. A Utah flora. Third edition, revised. Provo, Ut.: Brigham Young University. 912 pp.



# Appendices

The following appendices contain annotated checklists of the vascular flora of Colorado National Monument.

Appendix A lists all species that have been confirmed for the flora with an authenticated voucher specimen (including extant and historical records) or that have been reliably reported for the monument in the literature (Dewey and Andersen 2005; Springer et al. 2006; Von Loh et al. 2007; Weber et al. 1982, 2005). Vouchers were examined from the Colorado NM (COLM) and University of Colorado (COLO) herbaria and the digital museum database of Colorado State University (CSU). Species entries in Appendix A are organized alphabetically by family and genus.

Appendix B includes species that may potentially occur within Colorado NM, based on the proximity of the monument to other populations or the presence of suitable habitat.

Appendix C lists species that have been previously reported for Colorado NM, but are now considered erroneous because they are based on misidentified specimens or questionable literature records.

Appendix D contains the same confirmed, historical, and reported taxa as in Appendix A, but organized by life form rather than by family in order to better meet the needs of NPS interpretive specialists.

The codes and references for each field in the appropriate appendices are summarized below.

## Family (Appendices A, B, C, and D)

Family concepts and nomenclature follow *Colorado Flora: Western Slope, third edition* (Weber and Wittmann 2001). Alternative family names and treatments from other regional floras (Dorn 2001; Flora of North America Editorial Committee 1993, 2002b; Holmgren et al. 2005; Welsh et al. 2003) are listed in parentheses.

## Species name (Appendices A, B, C, and D)

Nomenclature for scientific names and taxonomic concepts are derived from Weber and Wittmann (2001). Scientific names are listed in alphabetical rather than phylogenetic order.

## Synonyms/Taxonomic notes (Appendices A, B, and C)

Pertinent synonyms are included for species with alternative scientific names in other recent state and regional floras (Barkworth et al. 2003, 2007; Barneby 1989; Cronquist 1994; Cronquist et al. 1972, 1977, 1984, 1997; Dorn 2001; Flora of North America Editorial Committee 1993, 1997, 2000, 2002a, 2002b, 2003, 2005, 2006a, 2006b, 2006c; Hol-

mgren et al. 2005; Welsh et al. 2003). No effort has been made to identify additional synonyms from monographs and floras preceding the early 1970s.

## Common name (Appendices A, B, C, and D)

Common names are derived primarily from Welsh et al. (2003) and the *Intermountain Flora* (Barneby 1989; Cronquist 1994; Cronquist et al. 1972, 1977, 1984, 1997; Holmgren et al. 2005).

## Life form (Appendices A, B, C, and D)

Life form is based on the stature and growth habit of typical members of a species at reproductive maturity. Trees are woody perennials with a single stem or trunk and are typically over 3.5 m tall. Shrubs are woody perennials with one to many trunks arising from near the base of the plant and are usually less than 3.5 m tall. Perennial Forbs (PerF) are broad-leaved dicots or monocots with non-woody stems (at least above ground level) that live for multiple years. Annual Forbs (AnnF) are broad-leaved dicots or monocots with non-woody stems that complete their life cycle (mature, flower, and die) in one year. Perennial Graminoids (PerG) are linear-leaved, grass-like monocots that live for multiple years. Annual Graminoids (AnnG) are linear-leaved, grass-like monocots that complete their life cycle (mature, flower, and die) in one year. Ferns and fern-allies (Fern) are non-flowering vascular plants that reproduce by spores.

## Range (Appendices A, B, and C)

Range represents the distribution of a species within Colorado and the state's contribution to the plant's overall global range. Disjunct (Disj) taxa have their Colorado distribution separated from the main, contiguous portion of their range by a gap of more than 800 km (ca 500 miles). Introduced (Intro) taxa are those that are not native to Colorado or North America but which have become naturalized (breeding on their own without human assistance). Local Endemics (LocEn) are taxa whose entire global range is restricted to an area of less than 16,500 km<sup>2</sup> (ca 6,370 mi<sup>2</sup>, or 1° of latitude × 2° of longitude). Peripheral (Periph) taxa have a widespread global distribution but occur at the margin of their contiguous range in Colorado and occupy less than 5% of the state's area (usually only within a few miles of the state border). Regional Endemics (RegEn) are taxa with a global range of 16,500–250,000 km<sup>2</sup> (an area about the size of the state of Wyoming). Sparse taxa occur widely across Colorado or North America but their range within Colorado is small and patchy, with populations restricted to specialized or uncommon habitats. Widespread (Wide) taxa have global ranges exceeding 250,000 km<sup>2</sup> and occur over at least 10% of the state.

## Park status (Appendices A, C, and D)

Park status identifies whether a species is Present (Pres),

Historical (**Hist**), or Reported (**Rep**) for Colorado NM. Species are considered Present if a confirmed voucher or documented observation has been made within monument boundaries since 1970. Historical species have been confirmed with a voucher from the monument but have not been relocated since before 1970. Reported species are listed for the monument in the literature (Springer et al. 2006; Von Loh et al. 2007; Weber et al. 1982, 2005), but have not been corroborated with a voucher specimen. Species that may potentially occur in Colorado NM are listed in Appendix B. Rejected taxa (listed in Appendix C) have either been falsely reported (**FalsRep**) in the literature based on misidentified herbarium specimens or are considered Questionable (**Ques?**) because park reports are from well outside their known or expected range.

#### **Pop. size (Appendix A)**

Population size refers to the abundance and frequency with which a species occurs within Colorado NM. Abundance data are derived from Von Loh et al. (2007), Weber et al. (1982), and personal observations. Abundant (**Abun**) taxa have large populations, a broad ecological amplitude (often being dominant in one to several vegetation types), or occur extensively across the monument. Common (**Com**) taxa have large local populations but may be restricted to a single vegetation type or do not occur across the entire monument. Uncommon (**Unc**) taxa have low to medium-sized populations, typically have a narrow ecological amplitude (or at least contribute relatively little to total vegetative cover), or have a small range across the monument. Rare taxa usually have low population numbers and are restricted to a single location within the monument. A "?" indicates that population size is unknown.

#### **Source (Appendix A)**

Sources are the evidence for the assigned park status. In the case of Present and Historical taxa, sources are herbarium records (with collector, collection number, and repository) that were corroborated during this study. For reported taxa, the source is a published or unpublished reference citing the species within the monument. Specimen repositories include the Colorado NM herbarium (**COLM**), University of Colorado (**COLO**), and Colorado State University (**CSU**).

#### **Year doc. (Appendix A)**

Year documented indicates the first year in which a species was confirmed or reported to occur in Colorado NM. This year does not necessarily correspond with the date of the voucher specimen cited under Source. "NA" indicates that the first year is not known (used only for "reported" taxa).

#### **Comments (Appendices A, B, C, and D)**

This column includes additional comments on the status of a particular species in the monument, the place of origin for introduced species, legal status, and other data.

#### **Nativity (Appendix D)**

Nativity indicates whether a species is native to Colorado or Introduced (**Intro**) based on Weber and Wittmann (2001) and the Flora of North America Editorial Committee (1993, 1997, 2000, 2002a, 2002b, 2003, 2005, 2006a, 2006b, 2006c).

#### **Flower time (Appendix D)**

Flower time refers to the months in which a species is most likely to be in flower. NA indicates a species that is a non-flowering fern or gymnosperm.

#### **Habitat (Appendix D)**

The distribution of species across generalized habitats in Colorado NM is indicated by an "X" in the columns Sage Shrub through Wet, and is derived from Von Loh et al. (2007) and Weber et al. (1982). **Sage Shrub** = communities dominated by big sagebrush. **PinJun** = two-needle pinyon-Utah juniper woodlands/rimrock. **Oak Shrub** = woodlands dominated by Gambel oak and other montane shrubs. **Wet** = Wetlands (including seeps and springs). Additional comments are included for species that are restricted to a particular soil/geologic type or are found mostly in disturbed sites.

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Aceraceae	<i>Acer glabrum</i>	Includes vars. <i>glabrum</i> , <i>douglasii</i> , <i>neomexicanum</i> , & <i>triflorum</i>	Rocky Mountain maple	Shrub	Wide	Pres	Unc	Siplivinsky & Beck 3790 (COLM)	1959	
Aceraceae	<i>Negundo aceroides</i> ssp. <i>interius</i>	<i>Acer negundo</i> A. <i>negundo</i> var. <i>interius</i>	box elder	Tree	Wide	Pres	Unc	Siplivinsky & Beck 4285 (COLM)	1982	
Aceraceae	<i>Negundo aceroides</i> ssp. <i>violaceum</i>	<i>Acer negundo</i> var. <i>violaceum</i>	box-elder	Tree	Intro	Pres	Rare	black & Hambly s.n. (COLM)	1979	
Agavaceae	<i>Yucca harrimaniae</i>	<i>Y. harrimaniae</i> var. <i>harrimaniae</i>	Harriman's yucca	Shrub	Wide	Pres	Unc	Weber 3895 (COLO)	1948	
Alliaceae (Liliaceae)	<i>Allium acuminatum</i>		taper-tip onion	PerF	Wide	Pres	Unc	Miller & Bogart s.n. (COLM)	1961	
Alliaceae (Liliaceae)	<i>Allium nevadense</i>		Nevada onion	PerF	Periph	Pres	Rare	Weber 3884 (COLO)	1948	
Alliaceae (Liliaceae)	<i>Allium textile</i>		textile onion	PerF	Wide	Pres	Unc	Weber 17474 (COLO)	1982	
Alliaceae (Liliaceae, Themidaceae)	<i>Androstaphium breviflorum</i>		pink funnel-lily	PerF	Wide	Pres	Unc	Siplivinsky 3162 (COLM)	1948	
Alsinaceae (Caryophyllaceae)	<i>Eremogone fendleri</i>	<i>Arenaria fendleri</i> var. <i>fendleri</i>	Fendler's sandwort	PerF	Wide	Rep	Unc	Von Loh et al. (2007)	2003	Reports may represent <i>E. kingii</i> ssp. <i>uintahensis</i> .
Alsinaceae (Caryophyllaceae)	<i>Eremogone hookeri</i>	<i>Arenaria hookeri</i>	Hooker's sandwort	PerF	Wide	Rep	Unc	Von Loh et al. (2007)	2003	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Alsinaceae (Caryophyllaceae)	<i>Eremogone kingii</i> ssp. <i>uintahensis</i>	<i>E. kingii</i> var. <i>glabrescens</i> , <i>E.</i> <i>eastwoodiae</i> , <i>Arenaria kingii</i> ssp. <i>uintahensis</i> , <i>A. kingii</i> ssp. <i>plateaeensis</i> , <i>A.</i> <i>kingii</i> ssp. <i>compacta</i> , <i>A. fendleri</i> var. <i>glabrescens</i>	basin sandwort	PerF	Wide	Pres	Com	Weber, Wittmann, & Rector 16109 (COLM)	1948	May include reports of <i>Arenaria</i> <i>fendleri</i> from NCPN veg mapping team. Type locality of <i>E. eastwoodiae</i> is Grand Junction, Mesa Co., CO (Eastwood s.n. NY)
Amaranthaceae	<i>Amaranthus albus</i>		tumble pigweed	AnnF	Intro	Pres	Unc	Siplivinsky 5030 (COLM)	1982	Native to tropical America
Anacardiaceae	<i>Rhus aromatica</i> ssp. <i>trilobata</i>	<i>R. trilobata</i> var. <i>trilobata</i>	squawbush	Shrub	Wide	Pres	Com	Weber 15799 (COLO)	1948	Siplivinsky # 5030 belongs to var. <i>simplicifolia</i> (considered a 'forma' by Weber & Wittmann 2001)
Anacardiaceae	<i>Toxicodendron rydbergii</i>	<i>Rhus radicans</i> , <i>T.</i> <i>radicans</i>	western poison ivy	Shrub	Wide	Pres	Unc	Rector 3 (COLO)	1980	
Apiaceae (Umbelliferae)	<i>Aletes eastwoodiae</i>	<i>Lomatium</i> <i>eastwoodiae</i> . Included in <i>L. parryi</i> by some authors.	Eastwoods desert-parsley	PerF	LocEn	Pres	Unc	Weber 3814 (COLO)	1948	Type locality is Grand Junction, Mesa Co., CO (Eastwood s.n. US)
Apiaceae (Umbelliferae)	<i>Aletes latifolius</i>	<i>Lomatium latifolium</i>	Canyonlands lomatium	PerF	LocEn	Pres	Unc	Weber 15804 (COLO)	1980	USFS: Region 4 Sensitive, CO BLM: Sensitive, USFWS: former C2 candidate. Type locality is Wilson Mesa, Grand Co., UT (Rydberg & Garrett 8371 NY)
Apiaceae (Umbelliferae)	<i>Conium maculatum</i>		poison-hemlock	PerF	Intro	Rep	Rare	Dewey and Andersen (2005)	2003	CO state noxious weed (List C). Native to Eurasia.
Apiaceae (Umbelliferae)	<i>Cymopterus bulbosus</i>		onion spring- parsley	PerF	Wide	Pres	Unc	Siplivinsky & Rector 3353 (COLM)	1948	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Apiaceae (Umbelliferae)	<i>Cymopterus fendleri</i>	<i>C. acaulis</i> var. <i>fendleri</i> , <i>C. glomeratus</i>	Fendler's cymopterus	PerF	Wide	Pres	Unc	Sipilivinsky 3180 (COLM)	1954	
Apiaceae (Umbelliferae)	<i>Cymopterus purpureus</i>	<i>C. purpureus</i> var. <i>purpureus</i>	Colorado Plateau spring-parsley	PerF	RegEn	Pres	Unc	Sipilivinsky & Rector 3368 (COLM)	1954	
Apiaceae (Umbelliferae)	<i>Lomatium grayi</i>	<i>L. grayi</i> var. <i>grayi</i>	milfoil lomatium	PerF	Wide	Rep	?	Von Loh et al. 2003 (2007)	2003	
Apocynaceae	<i>Apocynum cannabinum</i>	Includes vars. <i>cannabinum</i> , <i>glaberrimum</i> , & <i>angustifolium</i>	common dogbane	PerF	Wide	Pres	Unc	Sipilivinsky & Beck 3830 (COLO)	1982	
Asclepiadaceae	<i>Asclepias asperula</i> ssp. <i>asperula</i>		spider milkweed	PerF	Wide	Pres	Unc	Rector 685 (COLO)	1961	
Asclepiadaceae	<i>Asclepias cryptoceras</i>	<i>A. cryptoceras</i> var. <i>cryptoceras</i>	pallid milkweed	PerF	Wide	Pres	Unc	Sipilivinsky 3169 (COLO)	1948	
Asclepiadaceae	<i>Asclepias speciosa</i>		showy milkweed	PerF	Wide	Pres	Rare	Rector & Kaeding BK5 (COLM)	1984	
Asclepiadaceae	<i>Asclepias subverticillata</i>	<i>A. galloides</i>	whorled milkweed	PerF	Wide	Pres	Unc	Sipilivinsky & Beck 3752 (COLO)	1975	
Asparagaceae (Liliaceae)	<i>Asparagus officinalis</i>		asparagus	PerF	Intro	Pres	Unc	Rector 12 (COLO)	1980	Native to Eurasia.
Aspleniaceae (Polypodiaceae or Athyriaceae)	<i>Cystopteris fragilis</i>	Some authors include <i>C. utahensis</i> , <i>C. reevesiana</i> , & <i>C. tenuis</i>	brittle bladder fern	fern	Wide	Pres	Rare	Sipilivinsky, Weber, Rector, & Wingate 3109 (COLM)	1982	
Asteraceae (Compositae)	<i>Acropitilon repens</i>	<i>Centaurea repens</i>	Russian knapweed	PerF	Intro	Pres	Unc	Sipilivinsky & Beck 4992 (COLM)	1982	CO state noxious weed (List B). Native to Eurasia
Asteraceae (Compositae)	<i>Ageratina herbacea</i>		white thoroughwort	PerF	Wide	Pres	Unc	Sipilivinsky 5074 (COLM)	1980	
Asteraceae (Compositae)	<i>Ambrosia acanthicarpa</i>	<i>Franseria acanthicarpa</i>	bur ragweed	AnnF	Wide	Pres	Com	Hackney 854 (COLM)	1975	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Asteraceae (Compositae)	<i>Ambrosia psilostachya</i> var. <i>coronopifolia</i>	<i>A. coronopifolia</i>	western ragweed	PerF	Wide	Pres	Rare	Siplivinsky 5111 (COLO)	1982	
Asteraceae (Compositae)	<i>Antennaria marginata</i>		sandstone pussytoes	PerF	Wide	Pres	Unc	Siplivinsky 5118 (COLO)	1982	
Asteraceae (Compositae)	<i>Antennaria parvifolia</i>		common pussytoes	PerF	Wide	Pres	Rare	Siplivinsky & Rector 3371 (COLM)	1982	
Asteraceae (Compositae)	<i>Arctium minus</i>		burdock	PerF	Intro	Pres	Unc	Siplivinsky & Beck 4994 (COLM)	1982	Native to Eurasia. CO state noxious weed (List C)
Asteraceae (Compositae)	<i>Artemisia biennis</i>	<i>A. biennis</i> var. <i>biennis</i>	biennial wormwood	PerF	Intro	Pres	Unc	Siplivinsky 5149 (COLM)	1982	
Asteraceae (Compositae)	<i>Artemisia bigelovii</i>		Bigelow's sagebrush	Shrub	Wide	Pres	Com	Weber, Siplivinsky, & Rector 15938 (COLO)	1968	
Asteraceae (Compositae)	<i>Artemisia frigida</i>		fringed sagebrush	Shrub	Wide	Pres	Unc	Siplivinsky & Beck 4121 (COLM)	1982	
Asteraceae (Compositae)	<i>Artemisia ludoviciana</i> ssp. <i>albula</i>		Louisiana wormwood	PerF	Wide	Pres	Unc	Siplivinsky 2360 (COLO)	1968	
Asteraceae (Compositae)	<i>Artemisia ludoviciana</i> ssp. <i>incompta</i>		Louisiana wormwood	PerF	Wide	Pres	Unc	Siplivinsky & Beck 5003 (COLM)	1982	
Asteraceae (Compositae)	<i>Aster lanceolatus</i> ssp. <i>hesperius</i>	<i>A. hesperius</i> , <i>Symphytichum lanceolatum</i> var. <i>hesperium</i>	Siskiyou aster	PerF	Wide	Pres	Rare	Stevens s.n. (COLM)	2005	
Asteraceae (Compositae)	<i>Aster orthophyllus</i>	Hybrid between <i>Virgulaster ascendens</i> & <i>Aster falcatus</i> or <i>A. lanceolatus</i> ssp. <i>hesperius</i> .	hybrid aster	PerF	RegEn	Pres	Unc	Weber & Rector 16839 (COLO)	1982	Type locality is Gunnison, Gunnison Co., CO (Baker 570 NDG)

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Asteraceae (Compositae)	<i>Breva arvensis</i>	<i>Cirsium arvense</i>	Canada thistle	PerF	Intro	Rep	Unc	Larson (1990)	1990	Native to Eurasia. CO state noxious weed (List B)
Asteraceae (Compositae)	<i>Brickellia californica</i>	California brickellbush	Shrub	Wide	Pres	Unc	Siplivinsky 5147 (COLM)	1981		
Asteraceae (Compositae)	<i>Brickellia grandiflora</i>	tassel-flower brickellbush	PerF	Wide	Pres	Unc	Siplivinsky & Beck 4977 (COLM)	1975		
Asteraceae (Compositae)	<i>Brickellia longifolia</i>	<i>B. longifolia</i> var. <i>longifolia</i>	longleaf brickellbush	Shrub	Periph	Pres	Unc	Weber 15523 (COLO)	1979	
Asteraceae (Compositae)	<i>Brickellia microphylla</i> var. <i>scabra</i>	rough brickellbush	Shrub	Wide	Pres	Com	Siplivinsky 4970 (COLO)	1962		
Asteraceae (Compositae)	<i>Brickellia oblongifolia</i>	<i>B. oblongifolia</i> var. <i>linifolia</i>	Mohave brickellbush	Shrub	Wide	Pres	Unc	Weber & Rector 16101 (COLM)	1948	
Asteraceae (Compositae)	<i>Chaenactis douglasii</i>	<i>C. douglasii</i> var. <i>montana</i> , includes var. <i>douglasii</i>	hoary dusty- maiden	PerF	Wide	Pres	Unc	Siplivinsky & Beck 3799 (COLM)	1982	
Asteraceae (Compositae)	<i>Chaenactis steviooides</i>	stevia dusty- maiden	AnnF	Wide	Pres	Unc	Weber, Wittmann, & Rector 16123 (COLM)	1955		
Asteraceae (Compositae)	<i>Chrysanthemum depressus</i>	dwarf rabbitbrush	Shrub	Wide	Pres	Unc	Siplivinsky 5055 (COLO)	1982		
Asteraceae (Compositae)	<i>Chrysanthemum linifolius</i>	<i>Lorandersonia</i> <i>linifolia</i>	spear-leaf rabbitbrush	Shrub	Wide	Rep	?	Von Loh et al. (2007)	2003	
Asteraceae (Compositae)	<i>Chrysanthemum nauseosus</i> ssp. <i>graveolens</i>	<i>Ericameria nauseosa</i> var. <i>graveolens</i> , <i>E. nauseosa</i> var. <i>glabrata</i>	glabrate rabbitbrush	Shrub	Wide	Pres	Abun	Weber & Rector 16394 (COLO)	1961	
Asteraceae (Compositae)	<i>Chrysanthemum nauseosus</i> ssp. <i>leiospermus</i>	<i>Ericameria nauseosa</i> var. <i>leiosperma</i>	smoothseed rabbitbrush	Shrub	RegEn	Pres	Unc	Siplivinsky 4967 (COLO)	1982	
Asteraceae (Compositae)	<i>Chrysanthemum parryi</i> ssp. <i>parryi</i>	<i>Ericameria parryi</i> var. <i>parryi</i>	Parry's rabbitbrush	Shrub	Wide	Pres	Unc	Siplivinsky & Beck 4985 (COLM)	1982	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Asteraceae (Compositae)	<i>Chrysothamnus vaseyi</i>	Vasey's rabbitbrush	Shrub	Wide	Rep	Rare	Von Loh et al. (2007)	Von Loh et al. (2003)	2003	Siplivinsky & Beck 5011 (COLO, COLM) and Gierisch 3046 (COLO) cited as present by Weber et al. (2005) were collected from outside the monument.
Asteraceae (Compositae)	<i>Chrysothamnus viscidiflorus</i> ssp. <i>stenophyllus</i>	Var. not recognized in <i>Flora of North America</i> (2006).	slenderleaf rabbitbrush	Shrub	Wide	Pres	Com	Siplivinsky & Beck 4973 (COLO)	1968	
Asteraceae (Compositae)	<i>Cichorium intybus</i>		chicory	PerF	Intro	Pres	Rare	Siplivinsky & Beck 4998 (COLM)	1982	Native to Eurasia. CO state noxious weed (List C)
Asteraceae (Compositae)	<i>Cirsium calcareum</i>	<i>C. calcareum</i> var. <i>calcareum</i> ; included in <i>C. arizonicum</i> var. <i>bipinnatum</i> ( <i>Flora of North America</i> 2006)	Caineville thistle	PerF	RegEn	Pres	Unc	Weber 8678 (COLO)	1954	
Asteraceae (Compositae)	<i>Cirsium neomexicanum</i>	<i>C. neomexicanum</i> var. <i>neomexicanum</i> ; vars. not recognized in <i>Flora of North America</i> (2006)	New Mexico thistle	PerF	Wide	Pres	Unc	Weber 15797 (COLO)	1954	
Asteraceae (Compositae)	<i>Cirsium tracyi</i>	<i>C. undulatum</i> var. <i>tracyi</i>	Tracy's thistle	PerF	RegEn	Pres	Unc	Siplivinsky & Beck 3793 (COLO)	1954	Type locality is Mancos, CO (Baker, Earle, & Tracy 90). Includes reports of <i>C. undulatum</i> from NCPN COLM veg mapping report
Asteraceae (Compositae)	<i>Cirsium vulgare</i>		bull thistle	PerF	Intro	Pres	Unc	Siplivinsky & Beck 5016 (COLM)	1982	Native to Europe. CO state noxious weed (List B).

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Asteraceae (Compositae)	<i>Conyza canadensis</i>	<i>C. canadensis</i> var. <i>glabrata</i> ; vars. not recognized in <i>Flora of North America</i> (2006)	Canadian horseweed	AnnF	Wide	Pres	Unc	Siplivinsky 5043 (COLO)	1982	
Asteraceae (Compositae)	<i>Eriigeron concinnum</i> var. <i>aphanactis</i>	<i>E. aphanactis</i> var. <i>aphanactis</i>	hairy daisy	PerF	Wide	Pres	Com	Weber 8686 (COLM)	1954	
Asteraceae (Compositae)	<i>Eriigeron condensatus</i>	<i>E. pumilus</i> var. <i>condensatus</i>	vernal daisy	PerF	Periph	Pres	Rare	Siplivinsky 3158 (COLO)	1982	First record for CO?
Asteraceae (Compositae)	<i>Eriigeron divergens</i>	<i>E. divergens</i> var. <i>divergens</i>	spreading daisy	PerF	Wide	Pres	Rare	Siplivinsky & Beck 3860 (COLM)	1982	
Asteraceae (Compositae)	<i>Eriigeron engelmannii</i>		Engelmann's daisy	PerF	Wide	Pres	Rare	Weber, Siplivinsky, & Rector 15820 (COLO)	1980	
Asteraceae (Compositae)	<i>Eriigeron flagellaris</i>		trailing daisy	PerF	Wide	Pres	Unc	Weber, Siplivinsky, & Rector 15833 (COLO)	1980	
Asteraceae (Compositae)	<i>E. pulcherrimus</i>	<i>E. pulcherrimus</i> var. <i>wyomingia</i>	basin daisy	PerF	Wide	Pres	Unc	Siplivinsky & Rector 3360 (COLM)	1982	
Asteraceae (Compositae)	<i>Eriigeron speciosus</i>	<i>E. speciosus</i> var. <i>macranthus</i>	aspen daisy	PerF	Wide	Pres	Rare	Siplivinsky & Beck 3807 (COLM)	1982	
Asteraceae (Compositae)	<i>Eriigeron utahensis</i>	<i>E. utahensis</i> var. <i>utahensis</i>	Utah daisy	PerF	RegEn	Pres	Unc	Siplivinsky 5079 (COLO)	1982	
Asteraceae (Compositae)	<i>Eucephalus glaucus</i>	<i>Eurybia glauca</i> , <i>Aster glaucodes</i> , <i>Herrickia glauca</i> var. <i>glauca</i>	blueleaf aster	PerF	Wide	Pres	Com	Kaeding 15 (COLM)	1960	
Asteraceae (Compositae)	<i>Euthamia occidentalis</i>	<i>Solidago occidentalis</i>	western goldenrod	PerF	Wide	Pres	Rare	Siplivinsky 5044 (COLO)	1982	
Asteraceae (Compositae)	<i>Gaillardia pinnatifida</i>		Hopi blanketflower	PerF	Wide	Pres	Unc	Siplivinsky 5109 (COLM)	1962	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Asteraceae (Compositae)	<i>Grindelia fastigiata</i>	Included in <i>G. hirsutula</i> in <i>Flora of North America</i> (2006)	erect gumweed	PerF	RegEn	Pres	Unc	Kaeding 1 (COLM)	1982	Type locality is Grand Junction, Mesa Co., CO (Greene s.n.)
Asteraceae (Compositae)	<i>Grindelia squarrosa</i> var. <i>serrulata</i>	Vars. not recognized in <i>Flora of North America</i> (2006)	curl-cup gumweed	PerF	Wide	Pres	Unc	Sipilivinsky 2252 (COLO)	1979	
Asteraceae (Compositae)	<i>Gutierrezia sarothrae</i>		broom snakeweed	Shrub	Wide	Pres	Abun	Porter & Porter 10587 (COLM)	1961	
Asteraceae (Compositae)	<i>Helianthus annuus</i>	<i>H. annuus</i> ssp. <i>lenticularis</i> ; ssp. not recognized in <i>Flora of North America</i> (2006)	common sunflower	AnnF	Wide	Pres	Unc	Sipilivinsky 5037 (COLO)	1982	
Asteraceae (Compositae)	<i>Heterotheca villosa</i>	<i>H. villosa</i> var. <i>villosa</i> , <i>Chrysopsis villosa</i> var. <i>villosa</i>	hairy golden- aster	PerF	Wide	Pres	Com	Sipilivinsky 2391 (COLO)	1948	
Asteraceae (Compositae)	<i>Hymenopappus filifolius</i> var. <i>cinereus</i>	<i>H. filifolius</i> var. <i>lugens</i> , <i>H. filifolius</i> var. <i>pauciflorus</i> , <i>H. filifolius</i> var. <i>tomentosus</i> .	common halineherb	PerF	Wide	Pres	Unc	Hackney 862 (COLM)	1948	
Asteraceae (Compositae)	<i>Hymenopappus filifolius</i> var. <i>megacephalus</i>	Included in var. <i>cinereus</i> by some authors	fine-leaf woolly- white	PerF	Periph	Pres	Rare	Miller 26 (COLO)	1961	
Asteraceae (Compositae)	<i>Iva axillaris</i>	<i>I. axillaris</i> var. <i>axillaris</i> ; vars. not recognized in <i>Flora of North America</i> (2006).	poverty-weed	PerF	Wide	Pres	Unc	Sipilivinsky 5025 (COLM)	1982	
Asteraceae (Compositae)	<i>Lactuca serriola</i>		prickly lettuce	AnnF	Intro	Pres	Unc	Sipilivinsky & Beck 5002 (COLM)	1982	Native to Europe
Asteraceae (Compositae)	<i>Lactuca tatarica</i> var. <i>pulchella</i>	<i>L. pulchella</i> , <i>L. oblongifolia</i> , <i>Mulgedium pulchellum</i>	blue lettuce	PerF	Wide	Rep	?	Von Loh et al. (2007)	2003	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Asteraceae (Compositae)	<i>Leucelene ericoides</i>	<i>Aster arenosus, Chaetopappa ericoides</i>	rose-heath	PerF	Wide	Pres	Unc	Siplivinsky 3153 (COLM)	1954	
Asteraceae (Compositae)	<i>Lygodesmia grandiflora</i>	<i>L. grandiflora</i> var. <i>grandiflora</i>	showy rush-pink	PerF	Wide	Pres	Unc	Weber, Rector, & Wittmann 10687 (COLO)	1948	
Asteraceae (Compositae)	<i>Machaeranthera canescens</i>	<i>M. canescens</i> var. <i>canescens</i> , <i>Aster canescens</i> , <i>Dieteria canescens</i> var. <i>canescens</i>	hoary aster	PerF	Wide	Pres	Com	Siplivinsky & Beck 4981 (COLO)	1960	
Asteraceae (Compositae)	<i>Machaeranthera grindeliaeoides</i>	<i>M. grindeliaeoides</i> var. <i>grindeliaeoides</i> , <i>Haplopappus rufulilii</i> , <i>Xanthisma grindeliaeoides</i> var. <i>grindeliaeoides</i>	gumweed aster	PerF	Wide	Pres	Unc	Hackney 859 (COLM)	1954	
Asteraceae (Compositae)	<i>Malacothrix sonchoides</i>		sowthistle desert-dandelion	AnnF	Wide	Pres	Unc	Weber 3888 (COLO)	1948	
Asteraceae (Compositae)	<i>Malacothrix torreyi</i>		Torrey's desert-dandelion	AnnF	Wide	Pres	Rare	Weber 3854 (COLO)	1948	Weber 3854 is a mixed collection with <i>M. sonchoides</i>
Asteraceae (Compositae)	<i>Oligosporus dracunculus</i> ssp. <i>glaucus</i>	<i>O. dracunculus</i> , <i>Artemisia dracunculus</i> ssp. <i>glaucia</i> ; vars. not recognized in <i>Flora of North America</i> (2006)	tarragon	PerF	Wide	Pres	Unc	Siplivinsky 5137 (COLM)	1982	
Asteraceae (Compositae)	<i>Packera multilobata</i>		<i>Senecio multilobatus</i> basin groundsel	PerF	Wide	Pres	Unc	Siplivinsky 3289 (COLM)	1948	
Asteraceae (Compositae)	<i>Petradoria pumila</i>	<i>P. pumila</i> var. <i>pumila</i> , <i>Solidago petradoria</i>	rock-goldenrod	PerF	Wide	Pres	Com	Siplivinsky & Beck 5015 (COLM)	1982	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Asteraceae (Compositae)	<i>Picradenia richardsonii</i>	<i>P. richardsonii</i> var. <i>richardsonii</i> , <i>Hymenoxys richardsonii</i> var. <i>richardsonii</i>	Colorado rubber-plant	PerF	Wide	Rep	?	Von Loh et al. (2007)	2003	Weber 11304 (COLO) cited by Weber et al. (2005) as present was collected outside the monument.
Asteraceae (Compositae)	<i>Picrothamnus desertorum</i>	<i>Artemisia spinescens</i>	bud sagebrush	Shrub	Wide	Rep	Rare	Von Loh et al. (2007)	2003	Weber 11304 (COLO) cited by Weber et al. (2005) as present was collected outside the monument.
Asteraceae (Compositae)	<i>Platyschkuhria integrifolia</i> var. <i>oblongifolia</i>	<i>Bahia nudicaulis</i> var. <i>oblongifolia</i>	San Juan bahia	PerF	RegEn	Pres	Unc	Weber, Wittmann, & Rector 16102 (COLO)	1954	
Asteraceae (Compositae)	<i>Psilocheinia occidentalis</i>	<i>Crepis occidentalis</i> var. <i>occidentalis</i>	western hawksbeard	PerF	Wide	Pres	Rare	Siplivinsky & Rector 3358 (COLO)	1982	
Asteraceae (Compositae)	<i>Psilostrophe bakeri</i>		Baker's paperflower	PerF	RegEn	Pres	Rare	Abbey & Kaeding 30 (COLM)	1984	Type locality is near Montrose, CO (Baker 14 NDG)
Asteraceae (Compositae)	<i>Senecio integerimus</i>	<i>S. integerimus</i> var. <i>exaltatus</i>	western groundsel	PerF	Wide	Rep	Unc	Von Loh et al. (2007)	2003	
Asteraceae (Compositae)	<i>Senecio multicapitatus</i>	<i>S. spartioides</i> var. <i>multicapitatus</i> ; vars. not recognized in <i>Flora of North America</i> (2006)	many-headed groundsel	PerF	Wide	Pres	Unc	Siplivinsky & Beck 3765 (COLM)	1982	
Asteraceae (Compositae)	<i>Seriphidium novum</i>		black sagebrush	Shrub	Wide	Pres	Com	Siplivinsky 5053 (COLO)	1965	
Asteraceae (Compositae)	<i>Seriphidium tridentatum</i> ssp. <i>tridentatum</i>		basin big sagebrush	Shrub	Wide	Pres	Com	Hackney 843 (COLM)	1961	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Asteraceae (Compositae)	<i>Seriphidium</i> <i>tridentatum</i> var. <i>wyomingense</i>	<i>Artemisia tridentata</i> var. <i>wyomingensis</i>	Wyoming big sagebrush	Shrub	Wide	Rep	Abun	Von Loh et al. (2007)	2003	
Asteraceae (Compositae)	<i>Solidago velutina</i>	<i>S. sparsiflora</i> , <i>S. velutina</i> var. <i>sparsiflora</i>	three-nerve goldenrod	PerF	Wide	Pres	Unc	Siplivinsky & Beck 3870 (COLO)	1981	
Asteraceae (Compositae)	<i>Sonchus asper</i>		spiny-leaf sow- thistle	AnnF	Intro	Pres	Unc	Rector 687 (COLM)	1982	Native to Europe
Asteraceae (Compositae)	<i>Stenotus acaulis</i>	<i>Haplopappus acaulis</i> var. <i>acaulis</i> , <i>S. acaulis</i> var. <i>acaulis</i>	stemless goldenweed	PerF	Wide	Rep	Unc	Von Loh et al. (2007)	2003	Report from NCPN veg mapping team may represent <i>S.</i> <i>armerooides</i>
Asteraceae (Compositae)	<i>Stenotus armerooides</i>	<i>Haplopappus</i> <i>armerooides</i> var. <i>armerooides</i>	thrift goldenweed	PerF	Wide	Pres	Unc	Siplivinsky 3160 (COLM)	1954	
Asteraceae (Compositae)	<i>Stephanomeria</i> <i>exigua</i>	<i>S. exigua</i> spp. <i>exigua</i>	white-plume wire-lettuce	AnnF	Wide	Pres	Unc	Hackney 866 (COLM)	1975	
Asteraceae (Compositae)	<i>Stephanomeria</i> <i>pauciflora</i>		brown-plume wire-lettuce	PerF	Wide	Rep	?	Von Loh et al. (2007)	2003	Reports from Weber et al. (2005) are based on misidentified specimens of <i>S.</i> <i>tenuifolia</i> .
Asteraceae (Compositae)	<i>Stephanomeria</i> <i>tenuifolia</i>	<i>S. minor</i> var. <i>minor</i> , <i>S. tenuifolia</i> var. <i>tenuifolia</i> , <i>S. wrightii</i> . Vars. not recognized in <i>Flora of North America</i> (2006).	slender wirelettuce	PerF	Wide	Pres	Com	Siplivinsky & Beck 3753 (COLM)	1961	Includes report of <i>S. wrightii</i> (Siplivinsky 1930, COLO) from Weber et al. (2005)
Asteraceae (Compositae)	<i>Taraxacum</i> <i>officinale</i>		common dandelion	PerF	Intro	Pres	Unc	Siplivinsky 3342 (COLO)	1982	Native to Eurasia
Asteraceae (Compositae)	<i>Tetradymia</i> <i>canescens</i>		spineless horsebrush	Shrub	Wide	Pres	Unc	Siplivinsky & Beck 4983 (COLM)	1982	
Asteraceae (Compositae)	<i>Tetradymia</i> <i>spinosa</i>	<i>T. spinosa</i> var. <i>spinosa</i>	shortspine horsebrush	Shrub	Wide	Pres	Unc	Siplivinsky 3265 (COLO)	1948	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Asteraceae (Compositae)	<i>Tetraneurus acaulis</i> var. <i>acaulis</i> , <i>T. acaulis</i> var. <i>acaulis</i>	<i>Hymenoxys acaulis</i> stemless <i>hymenoxys</i>		PerF	Wide	Rep	Unc	Von Loh et al. (2007)	2003	Previous reports (Weber 3752 COLM) were based on misid. specimens of <i>T.</i> <i>ivesiana</i> .
Asteraceae (Compositae)	<i>Tetraneurus</i> <i>ivesiana</i>	<i>Hymenoxys argentea</i> var. <i>ivesiana</i> , <i>H.</i> <i>acaulis</i> var. <i>ivesiana</i>	Canyonlands <i>hymenoxys</i>	PerF	Wide	Pres	Com	Siplivinsky 3163 (COLM)	1948	
Asteraceae (Compositae)	<i>Townsendia</i> <i>incana</i>		hoary townsendia	PerF	Wide	Pres	Unc	Miller 36 (COLO)	1948	
Asteraceae (Compositae)	<i>Tragopogon</i> <i>dubius</i> var. <i>major</i>	<i>T. dubius</i>	yellow salsify	PerF	Intro	Pres	Unc	Weber 3879 (COLO)	1948	Native to Europe
Asteraceae (Compositae)	<i>Virgulaster</i> <i>ascendens</i>	<i>Aster chilensis</i> ssp. <i>adscendens</i> , <i>A. ascendens</i> , <i>Symphyotrichum</i> <i>ascendens</i>	Pacific aster	PerF	Wide	Pres	Unc	Siplivinsky 5100 (COLM)	1982	
Asteraceae (Compositae)	<i>Xanthium</i> <i>strumarium</i>	<i>X. pensylvanicum</i> , <i>X. saccharatum</i> , <i>X. strumarium</i> var. <i>canadense</i> ; vars. not recognized in <i>Flora</i> of North America (2006).	rough cocklebur	AnnF	Wide	Pres	Unc	Hackney 871 (COLM)	1975	
Berberidaceae	<i>Mahonia</i> <i>fremontii</i>		Fremont's mahonia	Shrub	Wide	Pres	Rare	Miller 13 (COLM)	1961	
Berberidaceae	<i>Mahonia repens</i>	<i>Berberis repens</i>	Oregon-grape	Shrub	Wide	Pres	Unc	Siplivinsky 5120 (COLM)	1982	
Betulaceae	<i>Betula fontinalis</i>	<i>B. occidentalis</i>	water birch	Tree	Wide	Pres	Unc	Siplivinsky & Beck 3805 (COLO)	1980	
Boraginaceae	<i>Cryptantha</i> <i>crassisepala</i> var. <i>elachantha</i>		thick-sepaled cryptanth	AnnF	Wide	Pres	Unc	Siplivinsky 3155 (COLO)	1954	
Boraginaceae	<i>Cryptantha</i> <i>fendleri</i>		sand dune cryptanth	AnnF	Wide	Rep	?	Von Loh et al. (2007)	2003	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Boraginaceae	<i>Cryptantha</i> <i>gracilis</i>	slender cryptanth	AnnF	Wide	Pres	Unc	Weber, Wittmann, 7 Rector 16120 (COLM)	Weber, Wittmann, 7 Rector 16120 (COLM)	1948	
Boraginaceae	<i>Cryptantha</i> <i>pterocarya</i>	<i>C. pterocarya</i> var. <i>pterocarya</i>	wing-nut cryptanth	AnnF	Wide	Pres	Unc	Weber s.n. (COLM)	1954	
Boraginaceae	<i>Lappula</i> <i>marginata</i>	<i>L. texana</i> , <i>L.</i> <i>occidentalis</i> var. <i>cupulata</i> , <i>L.</i> <i>redowskii</i> var. <i>cupulata</i>	cupseed stickseed	AnnF	Wide	Pres	Unc	Siplivinsky 3171 (COLO)	1982	
Boraginaceae	<i>Lappula redowskii</i>	<i>L. occidentalis</i> var. <i>occidentalis</i> , <i>L. redowskii</i> var. <i>redowskii</i>	western stickseed	AnnF	Wide	Pres	Com	Weber s.n. (COLM)	1954	
Boraginaceae	<i>Lithospermum</i> <i>incisum</i>		showy stoneseed	PerF	Wide	Pres	Rare	Weber, Siplivinsky, & Rector 15939 (COLO)	1981	
Boraginaceae	<i>Oreocarya flava</i>	<i>Cryptantha flava</i>	plateau yellow cryptanth	PerF	Wide	Pres	Com	Siplivinsky 3178 (COLO)	1948	
Boraginaceae	<i>Oreocarya</i> <i>flavoculata</i>	<i>Cryptantha</i> <i>flavoculata</i>	yellow-eye cryptanth	PerF	Wide	Pres	Com	Weber s.n. (COLM)	1954	
Boraginaceae	<i>Oreocarya humilis</i> ssp. <i>nana</i>	<i>Cryptantha humilis</i> , <i>O. nana</i>	dwarf cryptanth	PerF	Wide	Pres	Unc	Weber, Wittmann, & Rector 16106 (COLM)	1955	Type locality of <i>O. nana</i> is Grand Junction (Eastwood s.n. CAS)
Boraginaceae	<i>Oreocarya longiflora</i>		long-flower cryptanth	PerF	RegEn	Pres	Rare	Weber s.n. (COLM)	1948	Type locality is Palisades, Mesa Co., CO (Crandall s.n. RM)
Boraginaceae	<i>Oreocarya nitida</i>	<i>Cryptantha</i> <i>fulvoanessens</i> var. <i>nitida</i> ; includes <i>O.</i> <i>fulvoanessens</i>	tawny cryptantha	PerF	RegEn	Pres	Unc	Weber 15337 (COLO)	1954	Type locality is Deer Run, CO (Baker 95 NDG)

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Boraginaceae	Oreocarya <i>osterhoutii</i>	<i>Cryptantha</i> <i>osterhoutii</i>	Osterhout's cryptanth	PerF	RegEn	Pres	Unc	Weber 11305 (COLO)	1951	CO BLM: Sensitive. Type locality is Monument Park [Colorado NM], near Grand Junction, Mesa Co., CO (Osterhout 6138 RM)
Brassicaceae (Cruciferae)	Alyssum <i>parviflorum</i>	<i>A. parviflorum</i> var. <i>micranthum</i> , <i>A.</i> <i>simplex</i> , <i>A. minus</i> var. <i>micranthum</i>	European madwort	AnnF	Intro	Rep	?	Von Loh et al. (2007)	2003	Young s.n. (COLO) & Wilken et al. 12612 (CS) cited as present by Weber et al. (2005) were collected outside the monument. Native to Eurasia.
Brassicaceae (Cruciferae)	Boechera <i>pulchra</i> ssp. <i>pallens</i>	<i>Arabis pulchra</i> var. <i>pallens</i>	desert rockcress	PerF	Wide	Pres	Unc	Siplivinsky 3277 (COLM)	1948	Type locality is Westwater, Grand Co., UT (Jones s.n. US)
Brassicaceae (Cruciferae)	Boechera <i>selbyi</i>	<i>B. selbyi</i> var. <i>selbyi</i> , <i>Arabis selbyi</i>	Selby's rockcress	PerF	Wide	Pres	Com	Weber 17473 (COLO)	1954	
Brassicaceae (Cruciferae)	Camelina <i>microcarpa</i>		little-pod false flax	AnnF	Intro	Rep	Rare	Von Loh et al. (2007)	2003	Reported by NCPN veg mapping team. Specimen from COLO herbarium may be from outside the monument. Native to Asia.
Brassicaceae (Cruciferae)	<i>Capsella bursa-</i> <i>pastoris</i>		shepherd's-purse	AnnF	Intro	Pres	Unc	Siplivinsky & Beck 3787 (COLM)	1982	Native to Europe
Brassicaceae (Cruciferae)	<i>Cardaria</i> <i>chaleensis</i>	<i>C. draba</i> ssp. <i>chaleensis</i> , <i>C. draba</i> var. <i>repens</i>	orbicular whitetop	PerF	Intro	Pres	Rare	Rector 706 (COLO)	1983	Native to Europe

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Brassicaceae (Cruciferae)	<i>Chorispora tenella</i>	blue mustard	AnnF	Intro	Pres	Unc	Weber, Wittmann, & Rector 16093 (COLM)	1982	Native to Asia	
Brassicaceae (Cruciferae)	<i>Descurainia pinnata</i> ssp. <i>halictorum</i>	D. <i>pinnata</i> var. <i>osmiarum</i>	western tansy- mustard	AnnF	Wide	Pres	Abun	Weber 11290 (COLO)	1961	
Brassicaceae (Cruciferae)	<i>Descurainia sophia</i>		flixweed	AnnF	Intro	Pres	Unc	Pennell & Schaaffer 22141 (COLO)	1938	Native to Europe
Brassicaceae (Cruciferae)	<i>Draba cuneifolia</i>	D. <i>cuneifolia</i> var. <i>cuneifolia</i>	wedgeleaf draba	AnnF	Wide	Pres	Rare	Siplivinsky 3346 (COLM)	1948	
Brassicaceae (Cruciferae)	<i>Draba reptans</i>		dwarf draba	AnnF	Wide	Rep	Unc	Von Loh et al. (2007)	2003	Weber 11250 (COLO) cited as present by Weber et al. (2005) was probably collected outside the monument.
Brassicaceae (Cruciferae)	<i>Erysimum capitatum</i>	E. <i>asperum</i> var. <i>elatum</i> , E. <i>asperum</i> var. <i>arkansanum</i> , E. <i>capitatum</i> var. <i>capitatum</i>	western wallflower	PerF	Wide	Pres	Com	Siplivinsky 3187 (COLO)	1975	
Brassicaceae (Cruciferae)	<i>Lepidium alyssoides</i> var. <i>eastwoodiae</i>	L. <i>montanum</i> var. <i>spathulatum</i> , L. <i>eastwoodiae</i>	Eastwood's tall pepperwort	PerF	RegEn	Pres	Unc	Weber 3850 (COLM)	1948	
Brassicaceae (Cruciferae)	<i>Lepidium densiflorum</i>	L. <i>densiflorum</i> var. <i>densiflorum</i> ; some authors combine vars. <i>macrocarpum</i> & <i>densiflorum</i> .	prairie pepperwort	AnnF	Wide	Pres	Unc	Rector 702 (COLM)	1982	
Brassicaceae (Cruciferae)	<i>Lepidium lasiocarpum</i>	L. <i>lasiocarpum</i> var. <i>lasiocarpum</i>	hairy-pod pepperwort	AnnF	Wide	Pres	Unc	Weber, Wittmann, & Rector 16095 (COLO)	1955	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Brassicaceae (Cruciferae)	<i>Lepidium</i> <i>montanum</i> var. <i>montanum</i>	mountain pepperwort		PerF	Wide	Pres	Abum	Kaeoing 4 (COLM)	1984	
Brassicaceae (Cruciferae)	<i>Lepidium</i> <i>perfoliatum</i>	clasping pepperwort		AnnF	Intro	Pres	Unc	Siplivinsky & Beck 3764 (COLM)	1948	Native to Europe
Brassicaceae (Cruciferae)	<i>Lesquerella</i> <i>ludoviciana</i>	<i>Physaria ludoviciana</i>	silver bladderpod	PerF	Wide	Pres	Unc	Weber & Rector 15813 (COLO)	1980	
Brassicaceae (Cruciferae)	<i>Lesquerella</i> <i>rectipes</i>	<i>Physaria rectipes</i>	Colorado Plateau bladderpod	PerF	RegEn	Rep	?	Von Loh et al. (2007)	2003	
Brassicaceae (Cruciferae)	<i>Malcolmia</i> <i>africana</i>	African mustard	AnnF	Intro	Pres	Unc	Weber, Wittmann, & Rector 16092 (COLM)	1948	Native to Africa	
Brassicaceae (Cruciferae)	<i>Physaria acutifolia</i>	<i>P. acutifolia</i> var. <i>acutifolia</i> , <i>P. australis</i>	sharp-leaf twinpod	PerF	Wide	Pres	Unc	Siplivinsky & Beck 3836 (COLO)	1948	Type locality is Grand Junction (Eastwood s.n.)
Brassicaceae (Cruciferae)	<i>Schoenocrambe</i> <i>linifolia</i>	<i>Sisymbrium</i> <i>linifolium</i>	flax-leaved plainsmustard	PerF	Wide	Pres	Unc	Weber 3819 (COLO)	1948	
Brassicaceae (Cruciferae)	<i>Sisymbrium</i> <i>altissimum</i>		tumble mustard	AnnF	Intro	Pres	Com	Weber 11371 (COLM)	1962	Native to Europe
Brassicaceae (Cruciferae)	<i>Stanleya pinnata</i> var. <i>pinnata</i>	<i>S. pinnata</i>	prince's-plume	PerF	Wide	Pres	Unc	Miller 33 (COLO)	1948	
Brassicaceae (Cruciferae)	<i>Streptanthella</i> <i>longirostris</i>		long-beak fiddle- mustard	AnnF	Wide	Pres	Com	Siplivinsky & Rector 3205 (COLM)	1954	
Brassicaceae (Cruciferae)	<i>Streptanthus</i> <i>cordatus</i>	<i>S. cordatus</i> var. <i>cordatus</i>	heart-leaf jewelflower	PerF	Wide	Pres	Unc	Siplivinsky 3316 (COLM)	1954	
Brassicaceae (Cruciferae)	<i>Thelypodiosis</i> <i>elegans</i>		elegant thelypody	PerF	RegEn	Pres	Unc	Weber & Rector s.n. (COLO)	1948	Type locality is Westwater, Grand Co., UT (Jones s.n. POM)
Brassicaceae (Cruciferae)	<i>Thelypodium</i> <i>integerrifolium</i>	<i>T. integrifolium</i> var. <i>integerrifolium</i>	entire-leaf thelypody	PerF	Wide	Pres	Unc	Siplivinsky 2358 (COLO)	1981	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Brassicaceae (Cruciferae)	<i>Thelypodium</i> <i>laxiflorum</i>	<i>T. wrightii</i> var. <i>tenellum</i>	slate thelypody	PerF	Wide	Rep	?	Von Loh et al. (2007)	2003	
Cactaceae	<i>Echinocereus</i> <i>triglochidiatus</i>	Includes vars. <i>melanacanthus</i> , <i>inermis</i> , & <i>gonacanthus</i> , <i>E.</i> <i>coccineus</i> var. <i>coccineus</i> . Vars. not recognized in <i>Flora</i> of North America (2003).	claretcup	PerF	Wide	Pres	Com	Siplivinsky 3157 (COLM)	1982	Weber, Wittmann, & Rector 16128 (COLM) represents var. <i>inermis</i>
Cactaceae	<i>Opuntia erinacea</i>	<i>O. erinacea</i> var. <i>erinacea</i> , <i>O.</i> <i>polyacantha</i> var. <i>erinacea</i>	common prickly- pear	PerF	Wide	Rep	Com?	Von Loh et al. (2007)	2003	Reports cited by Weber et al. (2005) are based on misidentified specimens of <i>O.</i> <i>polyacantha</i> .
Cactaceae	<i>Opuntia fragilis</i> var. <i>brachyarthra</i>	<i>O. fragilis</i>	brittle prickly- pear	PerF	Wide	Pres	Com	Siplivinsky & Beck 3798 (COLM)	1982	
Cactaceae	<i>Opuntia</i> <i>phaeacantha</i>	<i>O. phaeacantha</i> var. <i>phaeacantha</i> ; vars. not recognized in <i>Flora of North</i> <i>America</i> (2003)	berry pricklypear	PerF	Wide	Pres	Unc	Weber, Rector, & Wittmann 10689 (COLO)	1980	
Cactaceae	<i>Opuntia</i> <i>polyacantha</i>	<i>O. polyacantha</i> var. <i>polyacantha</i> . <i>Flora</i> of North America (2003) includes vars. <i>rufispina</i> & <i>trichophora</i> in var. <i>polyacantha</i> .	plains prickly- pear	PerF	Wide	Pres	Abun	Weber, Rector, & Wittmann 16088 (COLM)	1948	
Cactaceae	<i>Pediocactus</i> <i>simpsonii</i> var. <i>minor</i>	Includes var. <i>simpsonii</i>	Simpson's hedgehog cactus	PerF	Wide	Pres	Unc	Siplivinsky & Rector 3367 (COLO)	1982	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Cactaceae	<i>Sclerocactus whipplei</i> var. <i>intermedius</i>	<i>S. parviflorus</i> , <i>S. whipplei</i> var. <i>roseus</i> ; includes <i>S. contortus</i> & <i>S. terraecanyonae</i>	small-flower fishhook cactus	PerF	RegEn	Pres	Unc	Weber, Wittmann, & Rector 16090 (COLM)	1948	
Calochortaceae (Liliaceae)	<i>Calochortus gunnisonii</i>	<i>C. gunnisonii</i> var. <i>gunnisonii</i>	Gunnison's mariposa	PerF	Wide	Rep	Unc	Von Loh et al. (2007)	2003	
Calochortaceae (Liliaceae)	<i>Calochortus nuttallii</i>	segolily	PerF	Wide	Pres	Unc	Siplivinsky 3152 (COLM)	1948		
Capparaceae (Cleomaceae)	<i>Cleome lutea</i>	yellow beeplant	AnnF	Wide	Pres	Rare	Miller & Miller s.n. (COLM)	1948		
Capparaceae (Cleomaceae)	<i>Cleome serrulata</i>	Rocky Mountain beeplant	AnnF	Wide	Pres	Rare	Siplivinsky 1932 (COLO)	1981		
Capparaceae (Cleomaceae)	<i>Polanisia dodecandra</i>	<i>P. trachysperma</i> , <i>P. dodecandra</i> var. <i>trachysperma</i>	clammy-weed	AnnF	Wide	Pres	Unc	Rector 7 (COLO)	1980	
Caprifoliaceae	<i>Symphoricarpos longiflorus</i>	longflower snowberry	Shrub	Periph	Rep	?	Von Loh et al. (2007)	2003		
Caprifoliaceae	<i>Symphoricarpos rotundifolius</i>	<i>S. oreophilus</i> var. <i>utahensis</i>	mountain snowberry	Shrub	Wide	Pres	Unc	Siplivinsky & Beck 3828 (COLM)	1982	
Caryophyllaceae	<i>Silene antirrhina</i>	sleepy catchfly	AnnF	Wide	Pres	Com	Weber 3874 (COLO)	1948		
Celastraceae	<i>Paxistima myrsinoides</i>	mountain-lover	Shrub	Wide	Pres	Unc	Siplivinsky & Beck 3827 (COLO)	1982		
Chenopodiaceae	<i>Atriplex brandegeei</i>	<i>A. brandegeei</i> , <i>Zuckia brandegeei</i> var. <i>brandegeei</i>	Brandegee's saltbush	Shrub	RegEn	Pres	Unc	Siplivinsky 3270 (COLO)	1962	Type locality is San Juan River, CO (Brandegee s.n. GH)
Chenopodiaceae	<i>Atriplex canescens</i>	Includes vars. <i>canescens</i> & <i>occidentalis</i>	fourwing saltbush	Shrub	Wide	Pres	Com	Porter & Porter 10591 (COLM)	1954	
Chenopodiaceae	<i>Atriplex confertifolia</i>	shadscale	Shrub	Wide	Pres	Abun	Siplivinsky 3269 (COLM)	1948		

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Chenopodiaceae	<i>Atriplex corrugata</i>		mat saltbush	Shrub	RegEn	Pres	Rare	Weber s.n. (COLM)	1954	
Chenopodiaceae	<i>Atriplex gardneri</i> var. <i>gardneri</i> , <i>A. nuttallii</i>	Gardner's saltbush	Gardner's saltbush	Shrub	Wide	Rep	Rare	Von Loh et al. (2007)	2003	
Chenopodiaceae	<i>Atriplex grayi</i>	<i>A. spinosa</i> , <i>Grayia</i> <i>spinosa</i>	spiny hop sage	Shrub	Wide	Pres	Com	Weber 3890 (COLO)	1948	
Chenopodiaceae	<i>Atriplex rosea</i>		tumbling orach	AnnF	Intro	Pres	Unc	Siplyinsky 5064 (COLO)	1982	Native to Eurasia
Chenopodiaceae	<i>Atriplex saccaria</i>	Includes vars. <i>caput-medusae</i> & <i>saccaria</i>	stalked orach	AnnF	RegEn	Pres	Unc	Cudlip 191 (COLO)	1982	
Chenopodiaceae	<i>Atriplex wolfii</i>	<i>A. wolfii</i> var. <i>tenuissima</i> , <i>A.</i> <i>tenuissima</i>	slender orach	AnnF	RegEn	Pres	Rare	Weber s.n. (COLM)	1954	
Chenopodiaceae	<i>Bassia hyssopifolia</i>		five-horn smotherweed	AnnF	Intro	Pres	Unc	Siplyinsky 5061 (COLO)	1982	Native to Eurasia
Chenopodiaceae	<i>Bassia sieversiana</i>	<i>B. scoparia</i> , <i>Kochia</i> <i>Scoparia</i>	summer-cypress	AnnF	Intro	Pres	Unc	Siplyinsky 2345 (COLO)	1981	Native to Eurasia
Chenopodiaceae	<i>Chenopodium</i> <i>album</i>	<i>C. album</i> var. <i>album</i>	lambsquarter	AnnF	Intro	Rep	?	Von Loh et al. (2007)	2003	Native to Eurasia
Chenopodiaceae	<i>Chenopodium</i> <i>foliosum</i>	<i>C. capitatum</i> var. <i>parvicapitatum</i> , <i>C.</i> <i>overi</i>	smallhead goosefoot	AnnF	Wide	Pres	Rare	Siplyinsky 3855 (COLM)	1982	
Chenopodiaceae	<i>Chenopodium</i> <i>fremontii</i>	<i>C. fremontii</i> var. <i>fremontii</i>	Fremont's goosefoot	AnnF	Wide	Pres	Rare	Kaedling 3 (COLM)	1984	
Chenopodiaceae	<i>Chenopodium</i> <i>glaucum</i>	<i>C. glaucum</i> var. <i>salinum</i> , <i>C. salinum</i>	oakleaf goosefoot	AnnF	Wide	Pres	Rare	Siplyinsky 5060 (COLM)	1982	
Chenopodiaceae	<i>Chenopodium</i> <i>leptophyllum</i>		narrow-leaf goosefoot	AnnF	Wide	Pres	Rare	Siplyinsky 5143 (COLM)	1982	
Chenopodiaceae	<i>Halogeton</i> <i>glomeratus</i>		halogeton	AnnF	Intro	Pres	Unc	Hackney 833 (COLM)	1975	Native to Eurasia. CO state noxious weed (List C)
Chenopodiaceae	<i>Kochia americana</i>	<i>Bassia americana</i>	greenmolly	PerF	Wide	Pres	Rare	Siplyinsky 3268 (COLM)	1948	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Chenopodiaceae	<i>Krascheninnikovia lanata</i>	<i>K. lanata</i> var. <i>lanata</i> , <i>Ceratooides lanata</i> , <i>Eurotia lanata</i> . Vars. not recognized in <i>Flora of North America</i> (2003).	winterfat	Shrub	Wide	Pres	Unc	Siplivinsky 5105 (COLO)	1975	
Chenopodiaceae	<i>Salsola australis</i>	<i>S. kali</i> , <i>S. iberica</i> , <i>S. pestifer</i> , <i>S. tragus</i>	Russian-thistle	AnnF	Intro	Pres	Com	Miller 41 (COLO)	1961	Native to Asia
Chenopodiaceae (Sarcobataceae)	<i>Sarcobatus vermiculatus</i>	greasewood	Shrub	Wide	Pres	Com	Hackney 836 (COLM)	1975		
Chenopodiaceae	<i>Suaeda depressa</i>	broom seepweed	AnnF	Wide	Rep	?	Von Loh et al. (2007)			
Chenopodiaceae	<i>Suaeda calceoliformis</i>	<i>S. depressa</i>	Torrey's seepweed	PerF	Wide	Pres	Unc	Kaeoing 10 (COLM)	1962	
Chenopodiaceae	<i>Suaeda moquinii</i>	<i>S. nigra</i> , <i>S. torreyana</i> var. <i>ramosissima</i> , <i>S. intermedia</i>	starry false Solomon's-seal	PerF	Wide	Pres	Unc	Siplivinsky & Beck 3782 (COLO)	1982	
Convallariaceae (Liliaceae, Ruscaceae)	<i>Maianthemum stellatum</i>	<i>Smilacina stellata</i>	field bindweed	PerF	Intro	Pres	Unc	Hackney 872 (COLM)	1975	Native to Eurasia. CO state noxious weed (List C)
Convolvulaceae	<i>Convolvulus arvensis</i>		lance-leaved stonecrop	PerF	Wide	Pres	Rare	Siplivinsky & Beck 3820 (COLO)	1982	
Crassulaceae	<i>Amerosedium lanceolatum</i>	<i>Sedum lanceolatum</i>	spiny greasebush	Shrub	RegEn	Pres	Rare	Weber, Wittmann, & Rector 16103 (COLM)	1948	Type locality is Surface Creek, Mesa Grande, Delta Co., CO (Purpus 71)
Crossosomataceae (Celastraceae)	<i>Forsselia meionandra</i>	<i>Glossopetalon spinescens</i> var. <i>meionandrum</i>	common juniper	Shrub	Wide	Rep	Unc	Von Loh et al. (2007)	2003	
Cupressaceae	<i>Juniperus communis</i> ssp. <i>alpina</i>	<i>J. communis</i> var. <i>depressa</i>	Utah juniper	Tree	Wide	Pres	Abun	Miller 43 (COLO)	1951	
Cupressaceae	<i>Sabina osteosperma</i>									
Cuscutaceae (Convolvulaceae)	<i>Grammica indecora</i>	<i>Cuscuta indecora</i> var. <i>neuropetala</i>	large-seed dodder	AnnF	Wide	Pres	Unc	Weber 15520 (COLO)	1979	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Cyperaceae	<i>Bolboschoenus</i> <i>maritimus</i> ssp. <i>paludosus</i>	<i>Scirpus maritimus</i> var. <i>paludosus</i> , <i>Schoenoplectus</i> <i>maritimus</i>	alkali bulrush	PerG	Wide	Pres	Unc	Siplivinsky 5063 (COLM)	1982	
Cyperaceae	<i>Carex microptera</i>	<i>C. microptera</i> var. <i>microptera</i> , <i>C. festivella</i> , <i>C.</i> <i>macloviana</i> var. <i>microptera</i> ; some authors include <i>C.</i> <i>limnophila</i>	small-wing sedge	PerG	Wide	Pres	Rare	Weber 11372 (COLM)	1962	
Cyperaceae	<i>Carex nebrascensis</i>		Nebraska sedge	PerG	Wide	Pres	Rare	Siplivinsky & Beck 3844 (COLO)	1982	
Cyperaceae	<i>Carex rossii</i>	<i>C. deflexa</i> var. <i>bootii</i> ; <i>C. brevipes</i> , <i>C. pityophila</i>	Ross' sedge	PerG	Wide	Pres	Rare	Weber, Siplivinsky, & Rector 15826 (COLM)	1980	Includes reports of <i>C. geophila</i> from Weber et al. (2005)
Cyperaceae	<i>Eleocharis</i> <i>macrostachya</i>	<i>E. palustris</i> ; includes <i>E. erythropoda</i> , & <i>E.</i> <i>uniglumis</i>	common spikerush	PerG	Wide	Pres	Unc	Siplivinsky 1923 (COLO)	1975	
Cyperaceae	<i>Schoenoplectus</i> <i>lacustris</i> ssp. <i>acutus</i>	<i>Schoenoplectus</i> <i>acutus</i> vars., <i>occidentalis</i> & <i>acutus</i> , <i>Scirpus acutus</i>	hardstem bulrush	PerG	Wide	Pres	Unc	Siplivinsky 5057 (COLO)	1982	
Cyperaceae	<i>Schoenoplectus</i> <i>lacustris</i> ssp. <i>validus</i>	<i>Schoenoplectus</i> <i>tabernaemontani</i> , <i>Scirpus validus</i>	soft-stem bulrush	PerG	Wide	Pres	Rare	Siplivinsky 1924 (COLO)	1982	
Cyperaceae	<i>Schoenoplectus</i> <i>pungens</i>	<i>Scirpus pungens</i> var. <i>polyphyllus</i> ; includes vars. <i>longispicatus</i> , <i>polyphyllus</i> , & <i>pungens</i>	three-square bulrush	PerG	Wide	Pres	Unc	Weber 11321 (COLM)	1948	
Elaeagnaceae	<i>Elaeagnus</i> <i>angustifolia</i>		Russian-olive	Tree	Intro	Pres	Com	Weber, Siplivinsky, & Rector 15827 (COLO)	1948	Native to Europe. CO state noxious weed (List B)

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Elaeagnaceae	<i>Shepherdia argentea</i>	silver buffaloberry	Shrub	Wide	Pres	Rare	Weber s.n. (COLM)	1954		
Ephedraceae	<i>Ephedra torreyana</i>	Torrey's mormontea	Shrub	Wide	Pres	Rare	Weber 11266 (COLO)	1962		
Ephedraceae	<i>Ephedra viridis</i>	<i>E. viridis</i> var. <i>viridis</i>	green ephedra	Shrub	Wide	Pres	Abun	Siplivinsky 3173 (COLO)	1962	
Equisetaceae	<i>Equisetum arvense</i>		field horsetail	fern	Wide	Pres	Unc	Rector 705 (COLM)	1983	
Equisetaceae	<i>Hippochaete hyemalis</i> var. <i>affinis</i>	<i>Equisetum hyemale</i> var. <i>affine</i> , <i>E.</i> <i>praealtum</i>	tall scouring-rush	fern	Wide	Pres	Unc	Weber, Siplivinsky, & Rector 15829 (COLM)	1980	
Equisetaceae	<i>Hippochaete laevigata</i>	<i>Equisetum laevigatum</i> , <i>E.</i> <i>kansanum</i>	smooth scouring- rush	fern	Wide	Pres	Unc	Siplivinsky 3319 (COLM)	1982	
Ericaceae	<i>Arctostaphylos patula</i> ssp. <i>platyphylla</i>		greenleaf manzanita	Shrub	Wide	Pres	Unc	Hughes & Kaedy s.n. (COLM)	1983	
Euphorbiaceae	<i>Chamaesyce fendleri</i>	<i>Euphorbia fendleri</i>	Fendler's spurge	PerF	Wide	Pres	Com	Siplivinsky 5046 (COLO)	1948	
Euphorbiaceae	<i>Chamaesyce glyptosperma</i>	<i>Euphorbia glyptosperma</i>	ridge-seeded spurge	AnnF	Wide	Pres	Unc	Porter & Porter 10590 (COLM)	1968	
Euphorbiaceae	<i>Tithymalus brachyceras</i>	<i>Euphorbia robusta</i> , <i>E. brachycera</i> , <i>E.</i> <i>brachycera</i> var. <i>robusta</i>	shorthorn spurge	PerF	Wide	Pres	Unc	Siplivinsky & Beck 3840 (COLM)	1948	
Fabaceae (Leguminosae)	<i>Astragalus amphioxys</i> var. <i>vespertinus</i>		Sheldon's milkvetch	PerF	RegEn	Pres	Unc	Weber s.n. (COLM)	1948	Type locality is near Grand Junction, Mesa Co., CO (Eastwood 6109 MIN)
Fabaceae (Leguminosae)	<i>Astragalus chamaeleuce</i>	<i>A. chamaeleuce</i> var. <i>chamaeleuce</i>	cicada milkvetch	PerF	RegEn	Pres	Unc	Siplivinsky 3164 (COLO)	1948	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Fabaceae (Leguminosae)	<i>Astragalus convallarius</i>	<i>A. convallarius</i> var. <i>convallarius</i> , <i>A. diversifolius</i> var. <i>camppestris</i>	lesser rushy milkvetch	PerF	Wide	Pres	Rare	Siplivinsky & Beck 3811 (COLM)	1982	
Fabaceae (Leguminosae)	<i>Astragalus desperatus</i>	<i>A. desperatus</i> var. <i>desperatus</i>	rimrock milkvetch	PerF	RegEn	Pres	Com	Siplivinsky & Rector 3213 (COLO)	1948	Type locality is near Cisco, Grand Co., UT (Jones s.n. POM)
Fabaceae (Leguminosae)	<i>Astragalus eastwoodiae</i>		Eastwood's milkvetch	PerF	RegEn	Pres	Unc	Siplivinsky 3283 (COLM)	1948	Type locality is Westwater, Grand Co., UT (Jones s.n. POM)
Fabaceae (Leguminosae)	<i>Astragalus flavus</i>	Includes vars. <i>flavus</i> & <i>candidans</i>	yellow milkvetch	PerF	Wide	Pres	Com	Weber 3820 (COLO)	1948	
Fabaceae (Leguminosae)	<i>Astragalus lentiginosus</i> var. <i>palans</i>		straggling milkvetch	PerF	RegEn	Pres	Unc	Siplivinsky 3379 (COLO)	1948	Type locality is Montezuma Canyon, San Juan Co., UT (Eastwood s.n. POM)
Fabaceae (Leguminosae)	<i>Astragalus megacarpus</i> var. <i>parryi</i> ; includes var. <i>megacarpus</i> . Vars. not recognized in Barneby (1989)		great bladder milkvetch	PerF	Periph	Pres	Unc	Siplivinsky 3349 (COLM)	1982	
Fabaceae (Leguminosae)	<i>Astragalus mollissimus</i> var. <i>thompsoniae</i>		woolly milkvetch	PerF	Wide	Pres	Com	Weber, Siplivinsky, & Rector 15822 (COLO)	1948	
Fabaceae (Leguminosae)	<i>Astragalus nuttallianus</i> var. <i>micranthiformis</i>		small-flowered milkvetch	AnnF	RegEn	Pres	Unc	Weber 15335 (COLO)	1978	Type locality is Towaoc, Montezuma Co., CO (Ripley & Barneby 8390 CAS)
Fabaceae (Leguminosae)	<i>Astragalus praelongus</i> var. <i>ellisiae</i>		Ellis' milkvetch	PerF	Wide	Pres	Rare	Weber, Siplivinsky & Rector 15934 (COLO)	1962	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Fabaceae (Leguminosae)	<i>Astragalus tenellus</i>		pulse milkvetch	PerF	Wide	Pres	Unc	Siplivinsky & Beck 3856 (COLM)	1980	
Fabaceae (Leguminosae)	<i>Astragalus wingatanus</i>		Fort Wingate milkvetch	PerF	RegEn	Pres	Unc	Siplivinsky & Rector 3211 (COLO)	1948	
Fabaceae (Leguminosae)	<i>Dalea candida</i> var. <i>D. oligophylla</i> , <i>Petalostemon candidum</i> , <i>P. occidentale</i>		white prairie-clover	PerF	Wide	Rep	?	Von Loh et al. (2007)	2003	
Fabaceae (Leguminosae)	<i>Glycyrrhiza lepidota</i>	<i>G. lepidota</i> var. <i>lepidota</i>	licorice-root	PerF	Wide	Pres	Unc	Siplivinsky 1920 (COLO)	1981	
Fabaceae (Leguminosae)	<i>Hedysarum boreale</i>	<i>H. boreale</i> var. <i>boreale</i>	northern sweetvetch	PerF	Wide	Pres	Unc	Weber 11306 (COLO)	1948	
Fabaceae (Leguminosae)	<i>Lathyrus leucanthus</i>	<i>L. lanszwertii</i> var. <i>leucanthus</i>	whiteflower sweetpea	PerF	RegEn	Pres	Unc	Siplivinsky & Beck 3829 (COLO)	1982	Type locality is Ojo, Huerfano Co., CO (Rydberg & Vreeland 6020 NY)
Fabaceae (Leguminosae)	<i>Lupinus argenteus</i>	<i>L. argenteus</i> var. <i>argenteus</i>	silvery lupine	PerF	Wide	Pres	Unc	Cox, Dunn, & Harmon 214 (COLO)	1968	
Fabaceae (Leguminosae)	<i>Medicago lupulina</i>		black medick	AnnF	Intro	Pres	Unc	Siplivinsky 5078 (COLM)	1982	Native to Europe
Fabaceae (Leguminosae)	<i>Medicago sativa</i>	<i>M. sativa</i> var. <i>sativa</i>	alfalfa	PerF	Intro	Pres	Unc	Siplivinsky & Beck 3773 (COLM)	1982	Native to Europe
Fabaceae (Leguminosae)	<i>Melilotus albus</i>	<i>M. alba</i> ; included in <i>M. officinalis</i> by some authors	white sweet-clover	AnnF	Intro	Pres	Unc	Weber & Rector 16390 (COLO)	1982	Native to Europe
Fabaceae (Leguminosae)	<i>Melilotus officinalis</i>		yellow sweet-clover	PerF	Intro	Pres	Unc	Hackney 932 (COLM)	1975	Native to Europe
Fabaceae (Leguminosae)	<i>Pediomelum aromaticum</i>	<i>Pediomelum aromaticum</i> var. <i>aromaticum</i> , <i>Psoralea aromatica</i> ; vars. not recognized in Barneby (1989)	aromatic breadroot	PerF	LocEn	Pres	Rare	Siplivinsky 3291 (COLO)	1982	CO BLM Sensitive. Type locality is near Bedrock, Paradox Valley, CO (Payson 451 RM)

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Fabaceae (Leguminosae)	<i>Pediomelum megalanthum</i>	<i>Pediomelum megalanthum</i> var. <i>megalanthum</i> , <i>Psoralea megalantha</i>	large-flowered breadroot	PerF	RegEn	Pres	Unc	Weber, Wittmann, & Rector 16100 (COLM)	1948	
Fabaceae (Leguminosae)	<i>Vicia americana</i>	<i>V. americana</i> var. <i>americana</i>	American vetch	PerF	Wide	Rep	?	Von Loh et al. (2007)	2003	
Fagaceae	<i>Quercus gambelii</i>	<i>Q. gambelii</i> var. <i>gambelii</i>	Gambel oak	Tree	Wide	Pres	Com	Hackney 886 (COLM)	1975	
Fagaceae	<i>Quercus havardii</i> var. <i>tuckeri</i>	<i>Q. weishi</i> <i>Q. tuckeri</i>	shinnery oak	Shrub	RegEn	Pres	Unc	Siplivinsky 2385 (COLO)	1981	Type locality of <i>Q. havardii</i> var. <i>tuckeri</i> is Low Pass E of Kens Lake, San Juan Co., UT (Welsh & Higgins 23630 BRY)
Fagaceae	<i>Quercus undulata</i>	<i>Q. x pauciloba</i> , hybrid of <i>Q.</i> <i>turbinella</i> x <i>Q.</i> <i>gambelii</i>	few-lobe oak	Shrub	Wide	Pres	Rare	Rector 714 (COLM)	1983	
Gentianaceae	<i>Centaureum exaltatum</i>		Great Basin centaury	AnnF	Periph	Pres	Unc	Kaeoing 6 (COLM)	1982	
Geraniaceae	<i>Erodium circutarium</i>		stork's-bill	AnnF	Intro	Rep	Com	Dewey and Andersen (2005)	2003	Weber 3804 (COLO) cited as present by Weber et al. (2005) but may have been collected outside the monument. Native to Europe. CO state noxious weed (List B)
Grossulariaceae (Saxifragaceae)	<i>Ribes inerme</i>		whitestem gooseberry	Shrub	Wide	Rep	?	Von Loh et al. (2007)	2003	
Grossulariaceae (Saxifragaceae)	<i>Ribes leptanthum</i>		trumpet gooseberry	Shrub	Wide	Pres	Rare	Weber, Siplivinsky, & Rector 15835 (COLO)	1980	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Helleboraceae (Ranunculaceae)	<i>Aquilegia micrantha</i>		alcove columbine	PerF	RegEn	Pres	Unc	Siplivinsky 3297 (COLM)	1948	Type locality is Bluff, San Juan Co., UT (Wetherill s.n. CAS)
Helleboraceae (Ranunculaceae)	<i>Delphinium andersonii</i> var. <i>scaposum</i>	<i>D. scaposum</i>	pale larkspur	PerF	Wide	Rep	?	Von Loh et al. (2007)	2003	
Helleboraceae (Ranunculaceae)	<i>Delphinium nuttallianum</i>	<i>D. nelsonii</i>	Nuttall's larkspur	PerF	Wide	Pres	Rare	Siplivinsky 3323 (COLM)	1982	
Hydrangeaceae (Saxifragaceae)	<i>Fendlera falcata</i>	<i>F. rupicola</i> var. <i>rupicola</i>	Fendlerbush	Shrub	Wide	Pres	Com	Rector 2 (COLO)	1948	
Hydrangeaceae (Saxifragaceae)	<i>Philadelphia microphyllus</i>	<i>P. microphyllus</i> var. <i>occidentalis</i> , <i>P. occidentalis</i> var. <i>occidentalis</i>	littleleaf mock-orange	Shrub	Wide	Pres	Rare	Siplivinsky 5069 (COLO)	1982	
Hydrophyllaceae	<i>Nama dichotomum</i>		wishbone fiddleleaf	AnnF	Sparse	Pres	Rare	Siplivinsky 5122 (COLO)	1982	
Hydrophyllaceae	<i>Phacelia crenulata</i>	<i>P. crenulata</i> var. <i>crenulata</i>	crenulate phacelia	AnnF	Wide	Pres	Rare	Rector 711 (COLM)	1983	
Hydrophyllaceae	<i>Phacelia ivesiana</i>		Ives' phacelia	AnnF	Wide	Pres	Rare	Weber s.n. (COLM)	1954	
Juncaceae	<i>Juncus arcticus</i> ssp. <i>ater</i>	<i>J. arcticus</i> var. <i>balticus</i> , <i>J. balticus</i> var. <i>montanus</i> ; includes var. <i>mexicanus</i> .	Baltic rush	PerG	Wide	Pres	Com	Siplivinsky & Beck 3838 (COLM)	1948	
Juncaceae	<i>Juncus longistylis</i>		longstyle rush	PerG	Wide	Pres	Unc	Miller 20 (COLM)	1961	
Juncaceae	<i>Juncus saximontanus</i>	<i>J. ensifolius</i> var. <i>montanus</i> ; includes <i>J.</i> <i>tracyi</i> , <i>J. xiphoides</i>	mountain rush	PerG	Wide	Pres	Unc	Miller s.n. (COLM)	1961	
Juncaceae	<i>Juncus torreyi</i>		Torrey's rush	PerG	Wide	Pres	Unc	Siplivinsky & Beck 3865 (COLO)	1980	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Juncaceae	<i>Juncus trecy'i</i>	Included in <i>J. ensifolius</i> var. <i>montanus</i> by some authors	Tracy's rush	PerG	Wide	Pres	Rare	Siplivinsky & Beck 3841b (COLO)	1982	
Lamiaceae (Labiateae)	<i>Dracocephalum parviflorum</i>	<i>Moldavia parviflora</i> smallflower dragonhead	PerF	Wide	Rep	?	Von Loh et al. (2007)	Von Loh et al. (2003)		
Lamiaceae (Labiateae)	<i>Mentha arvensis</i>	<i>M. arvensis</i> var. <i>canadensis</i> , <i>M. arvensis</i> var. <i>glabrata</i>	field mint	PerF	Wide	Rep	Rare	Von Loh et al. (2007)	Von Loh et al. (2003)	
Linaceae	<i>Adenolinum lewisii</i>	<i>Linum perenne</i> ssp. <i>lewisii</i> , <i>L. lewisii</i> var. <i>lewisii</i>	blue flax	PerF	Wide	Pres	Unc	Siplivinsky & Rector 3369 (COLO)	1975	
Linaceae	<i>Mesynium puberulum</i>	<i>Linum puberulum</i> downy flax	AnnF	Wide	Pres	Rare	Weber & Rector 16645 (COLM)	Weber & Rector 16645 (COLM)	1983	
Loasaceae	<i>Acrolasia albicalvis</i>	<i>A. gracilis</i> , <i>Mentzelia albicaulis</i> , <i>M. obscura</i> blazingstar	white-stem	AnnF	Wide	Pres	Unc	Hackney 937 (COLM)	1954	
Malvaceae	<i>Sphaeralcea coccinea</i> ssp. <i>dissecta</i>	Includes ssp. <i>coccinea</i> , & <i>elata</i>	scarlet globe-mallow	PerF	Wide	Pres	Unc	Hackney 938 (COLM)	1948	
Malvaceae	<i>Sphaeralcea parvifolia</i>		small-leaf globemallow	PerF	Wide	Pres	Unc	Siplivinsky 5106 (COLM)	1948	
Melanthiaceae (Liliaceae)	<i>Toxicoscordion paniculatum</i>	<i>Zigadenus paniculatus</i>	foothills death-camas	PerF	Wide	Pres	Rare	Siplivinsky & Rector 3365 (COLM)	1982	
Melanthiaceae (Liliaceae)	<i>Toxicoscordion venenosum</i>	<i>Zigadenus venenosus</i> var. <i>venenosus</i>	meadow death-camas	PerF	Wide	Pres	Unc	Hackney 935 (COLM)	1975	
Nyctaginaceae	<i>Abronia elliptica</i>	<i>A. fragrans</i> var. <i>elliptica</i> , <i>A. nana</i> var. <i>harrisi</i>	fragrant sand-verbena	PerF	Wide	Pres	Unc	Siplivinsky 5154 (COLM)	1948	Reports of <i>A. fragrans</i> for COLM probably belong here.
Nyctaginaceae	<i>Allionia incarnata</i>	<i>A. incarnata</i> var. <i>incarnata</i>	trailing four-o'clock	PerF	Periph	Pres	Rare	Hackney 941 (COLM)	1975	
Nyctaginaceae	<i>Mirabilis glandulosa</i>	<i>M. multiflora</i> var. <i>glandulosa</i>	Colorado four o'clock	PerF	Wide	Pres	Unc	Weber 3896 (COLM)	1948	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Nyctaginaceae	<i>Mirabilis multiflora</i>	<i>M. multiflora</i> var. <i>multiflora</i>	showy four- o'clock	PerF	Wide	Pres	Unc	Siplivinsky & Beck 4999 (COLM)	1954	
Nyctaginaceae	<i>Mirabilis oxybaphoides</i>		spreading four- o'clock	PerF	Wide	Pres	Rare	Siplivinsky 5115 (COLO)	1982	
Nyctaginaceae	<i>Oxybaphus linearis</i>	<i>Mirabilis linearis</i> var. <i>linearis</i> , O. <i>decumbens</i>	narrow-leaf four- o'clock	PerF	Wide	Pres	Com	Siplivinsky & Beck 4284 (COLM)	1948	
Oleaceae	<i>Forestiera pubescens</i>	<i>F. neomexicana</i>	desert olive	Shrub	Wide	Pres	Unc	Siplivinsky 5006 (COLO)	1980	
Oleaceae	<i>Fraxinus anomala</i>		singleleaf ash	Shrub	Wide	Pres	Com	Davis 163 (COLM)	1948	Type locality is Labyrinth Canyon, San Juan Co., UT (Newberry s.n. NY)
Onagraceae	<i>Calylophus lavandulifolius</i>	<i>C. hartwegii</i> ssp. <i>lavandulifolius</i>	lavender-leaf sundrops	PerF	Wide	Pres	Unc	Hackney 945 (COLM)	1948	
Onagraceae	<i>Epilobium ciliatum</i>	<i>E. ciliatum</i> var. <i>ciliatum</i> , <i>E. watsonii</i> , <i>E. adenocaulon</i>	northern willow- herb	PerF	Wide	Pres	Unc	Siplivinsky & Beck 3852 (COLM)	1982	
Onagraceae	<i>Oenothera albicaulis</i>		white-stem evening- primrose	AnnF	Wide	Pres	Unc	Siplivinsky 3174 (COLM)	1982	
Onagraceae	<i>Oenothera cespitosa</i> ssp. <i>macroglossis</i>		plains evening- primrose	PerF	Wide	Pres	Unc	Siplivinsky & Beck 3859 (COLM)	1959	
Onagraceae	<i>Oenothera cespitosa</i> var. <i>marginata</i>		long-tube evening- primrose	PerF	Wide	Pres	Rare	Miller 22 (COLO)	1960	
Onagraceae	<i>Oenothera pallida</i> ssp. <i>trichocalyx</i>		pale evening- primrose	PerF	RegEn	Pres	Com	Siplivinsky & Beck 4996 (COLO)	1948	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Onagraceae	<i>Oenothera villosa</i> var. <i>strigosa</i>	<i>O. strigosa</i> , <i>O. biennis</i>	biennial evening- primrose	PerF	Wide	Rep	?	Von Loh et al. (2007)	2003	Fenton & Clark s.n. (COLO) cited as present by Weber et al. (2005) was collected outside the monument.
Orchidaceae	<i>Corallorrhiza</i> <i>maculata</i>	<i>C. maculata</i> var. <i>maculata</i>	spotted coral- root	PerF	Wide	Pres	Unc	Siplivinsky & Beck 3847 (COLO)	1982	
Orchidaceae	<i>Limnorchis</i> <i>hyperborea</i>	<i>Platanthera</i> <i>äquilonis</i> , <i>P.</i> <i>hyperborea</i> , <i>Habenaria</i> <i>hyperborea</i>	northern bog orchid	PerF	Wide	Rep	?	Von Loh et al. (2007)	2003	Previous reports from COLM are based on misidentified specimens of <i>Platanthera</i> <i>tescarnii</i> .
Orchidaceae	<i>Platanthera</i> <i>tescarnii</i>	Includes specimens formerly referred to <i>Limnocharis ensifolia</i>	desert river bog- orchid	PerF	Wide	Pres	Unc	Jennings 90- 11 (COLO)	1982	Described as a new species in 2006 (Sheviak and Jennings, 2006)
Orobanchaceae	<i>Aphyllon</i> <i>fasciculatum</i>	<i>Orobanche</i> <i>fasciculata</i>	clustered broomrape	PerF	Wide	Pres	Rare	Siplivinsky 3347 (COLM)	1982	
Orobanchaceae	<i>Orobanche</i> <i>ludoviciana</i>	<i>O. ludoviciana</i> var. <i>ludoviciana</i> , <i>O.</i> <i>cooperi</i>	Cooper's broomrape	PerF	Wide	Pres	Unc	Siplivinsky & Beck 4289 (COLO)	1982	Includes reports of <i>O. multiflora</i> from Weber et al. (2005)
Pinaceae	<i>Picea pungens</i>	blue spruce	Tree	Wide	Rep	Unc	Von Loh et al. (2007)	2003	State tree of Colorado	
Pinaceae	<i>Pinus edulis</i>	two-needle pinyon	Tree	Wide	Pres	Abun	Weber, Wittmann, & Rector 16098 (COLM)	1982		
Pinaceae	<i>Pinus ponderosa</i> var. <i>scopulorum</i>	<i>P. ponderosa</i>	ponderosa pine	Tree	Wide	Pres	Rare	Rector & Barbeau 656 (COLM)	1981	
Pinaceae	<i>Pseudotsuga</i> <i>menziesii</i>	<i>P. menziesii</i> var. <i>glauca</i>	Douglas-fir	Tree	Wide	Pres	Unc	Siplivinsky & Beck 4125 (COLO)	1982	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Plantaginaceae	<i>Plantago lanceolata</i>	English plantain	PerF	Intro	Pres	Unc	Siplivinsky 3869 (COLO)	1982	Native to Eurasia	
Plantaginaceae	<i>Plantago major</i>	Includes var. <i>pachyphylla</i> (considered by some authors to be a native strain)	common plantain	PerF	Intro	Pres	Siplivinsky & Beck 3854 (COLM)	1982	Mostly native to Europe	
Plantaginaceae	<i>Plantago patagonica</i>	<i>P. patagonica</i> var. <i>patagonica</i> ; includes vars. <i>gnaphalooides</i> , <i>spinulosa</i> , & <i>breviscapa</i>	woolly plantain	AnnF	Wide	Pres	Unc	Hackney 949 (COLM)	1948	
Poaceae (Gramineae)	<i>Achnatherum aridum</i>	<i>Stipa arida</i>	Mormon needlegrass	PerG	Periph	Pres	Unc	Weber 11292 (COLO)	1962	
Poaceae (Gramineae)	<i>Achnatherum hymenoides</i>	<i>Oryzopsis hymenoides</i> , <i>Stipa hymenoides</i>	Indian ricegrass	PerG	Wide	Pres	Abun	Weber s.n. (COLM)	1948	
Poaceae (Gramineae)	<i>Achnatherum speciosum</i>	<i>Stipa speciosa</i> , <i>Jarava speciosa</i>	desert needlegrass	PerG	Periph	Pres	Unc	Weber 8698 (COLM)	1954	
Poaceae (Gramineae)	<i>Agropyron desertorum</i>	<i>A. cristatum</i> var. <i>desertorum</i> ; included within <i>A. cristatum</i> by some authors	clustered wheatgrass	PerG	Intro	Pres	Unc	Weber 11291 (COLO)	1962	Native to Eurasia.
Poaceae (Gramineae)	<i>Agrostis gigantea</i>	Included in <i>A. stolonifera</i> by some authors	redtop	PerG	Intro	Pres	Unc	Siplivinsky & Beck 3868 (COLO)	1982	
Poaceae (Gramineae)	<i>Agrostis stolonifera</i>	<i>A. alba</i> , some authors include <i>A. gigantea</i>	redtop	PerG	Intro	Pres	Rare	Stevens s.n. (COLM)	2005	Native to Eurasia and Africa. Stevens collection may represent <i>A. gigantea</i> .
Poaceae (Gramineae)	<i>Anisantha diandra</i>	<i>Bromus diandrus</i> , <i>B. rigidus</i>	ripgut brome	AnnG	Intro	Pres	Unc	Weber 8691 (COLO)	1954	Native to Eurasia
Poaceae (Gramineae)	<i>Anisantha tectorum</i>	<i>Bromus tectorum</i>	cheatgrass	AnnG	Intro	Pres	Abun	Miller 27 (COLO)	1948	Native to Eurasia. CO state noxious weed (List C)

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Poaceae (Gramineae)	<i>Aristida purpurea</i>	<i>A. glauca</i> , <i>A. purpurea</i> var. <i>fendleriana</i> , <i>A. fendleriana</i>	purple three-awn	PerG	Wide	Pres	Com	Sipilivinsky 5048 (COLM)	1954	
Poaceae (Gramineae)	<i>Bouteloua curtipendula</i>	Includes vars. <i>curtipendula</i> & <i>caespitosa</i>	sideoats grama	PerG	Wide	Pres	Unc	Sipilivinsky 2382 (COLO)	1975	
Poaceae (Gramineae)	<i>Bromopsis inermis</i>	<i>Bromus inermis</i> var. <i>inermis</i>	smooth brome	PerG	Intro	Pres	Unc	Weber & Ranolph 17317 (COLM)	1984	Native to Eurasia
Poaceae (Gramineae)	<i>Bromus japonicus</i>	<i>B. arvensis</i> ; some authors include <i>B. commutatus</i>	Japanese brome	AnnG	Intro	Rep	Unc	Von Loh et al. (2007)	2003	Native to Eurasia
Poaceae (Gramineae)	<i>Cenchrus longispinus</i>		field sandbur	AnnG	Wide	Pres	Unc	Hackney 898 (COLM)	1975	
Poaceae (Gramineae)	<i>Chondrosum gracile</i>	<i>Bouteloua gracilis</i>	blue grama	PerG	Wide	Rep	Unc	Von Loh et al. (2007)	2003	Sipilivinsky & Beck # 5013 (COLO) cited as present by Weber et al. (2005)
										was probably collected outside the monument.
Poaceae (Gramineae)	<i>Critesion brachyantherum</i>	<i>Hordeum brachyantherum</i>	meadow barley	PerG	Wide	Rep	Rare	Von Loh et al. (2007)	2003	
Poaceae (Gramineae)	<i>Critesion jubatum</i>	<i>Hordeum jubatum</i>	foxtail barley	PerG	Wide	Pres	Unc	Miller 32 (COLO)	1961	
Poaceae (Gramineae)	<i>Critesion pusillum</i>	<i>Hordeum pusillum</i>	little barley	AnnG	Wide	Pres	Unc	Weber, Wittmann, & Rector 16091 (COLO)	1948	
Poaceae (Gramineae)	<i>Dactylis glomerata</i>		orchard grass	PerG	Intro	Pres	Unc	Hackney 899 (COLM)	1975	Native to Eurasia and Africa
Poaceae (Gramineae)	<i>Dasyochloa pulchella</i>	<i>Erioneuron pulchellum</i> , <i>Tridens pulchellum</i>	fluffgrass	PerG	Periph	Pres	Rare	Sipilivinsky 5151 (COLM)	1982	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Poaceae (Gramineae)	<i>Diplachne fascicularis</i>	<i>Leptochloa fusca</i> var. <i>fascicularis</i> , L. <i>fascicularis</i>	bearded sprangletop	AnnG	Wide	Pres	Rare	Siplivinsky 5059 (COLM)	1982	
Poaceae (Gramineae)	<i>Distichlis stricta</i>	<i>D. spicata</i> var. <i>stricta</i> , <i>D. spicata</i>	desert saltgrass	PerG	Wide	Pres	Unc	Weber 11322 (COLM)	1962	
Poaceae (Gramineae)	<i>Echinochloa crus-galli</i>	Some authors include <i>E. microstachya</i>	barnyard-grass	AnnG	Intro	Pres	Unc	Siplivinsky 1922 (COLO)	1981	Native to Eurasia.
Poaceae (Gramineae)	<i>Elymus canadensis</i>	<i>E. canadensis</i> var. <i>canadensis</i>	Canada wildrye	PerG	Wide	Pres	Unc	Stevens s.n. (COLM)	2005	
Poaceae (Gramineae)	<i>Elymus elymoides</i>	<i>Sitanion hystrix</i> , <i>E. elymoides</i> var. <i>elymoides</i>	squirreltail	PerG	Wide	Rep	Unc	Von Loh et al. (2007)	2003	Weber 3781 (COLO) cited as present by Weber et al. (2005) was probably collected outside the monument.
Poaceae (Gramineae)	<i>Elymus longifolius</i>	<i>Sitanion hystrix</i> , <i>E. elymoides</i> var. <i>brevifolius</i>	bottlebrush squirreltail	PerG	Wide	Pres	Com	Siplivinsky & Beck 3837 (COLO)	1954	
Poaceae (Gramineae)	<i>Elymus trachycaulus</i>	<i>Agropyron caninum</i> , <i>A. subsecundum</i> , <i>A. trachycaulum</i> , <i>A. latiglume</i> , <i>E.</i> <i>alaskanus</i> spp. <i>latiglumis</i> , <i>E.</i> <i>trachycaulus</i> ssp. <i>trachycaulus</i>	slender wheatgrass	PerG	Wide	Pres	Com	Miller & Bogart s.n. (COLM)	1961	
Poaceae (Gramineae)	<i>Elytrigia repens</i>	<i>Agropyron repens</i> , <i>Elymus repens</i>	quackgrass	PerG	Intro	Pres	Unc	Weber 8696 (COLO)	1954	Native to Eurasia. CO state noxious weed (List B)
Poaceae (Gramineae)	<i>Eragrostis barrelieri</i>		Mediterranean lovegrass	AnnG	Intro	Pres	Rare	Siplivinsky 5103	1982	Native to Mediterranean
Poaceae (Gramineae)	<i>Erioneuron pilosum</i>		hairy tridens	PerG	Wide	Pres	Rare	Siplivinsky & Rector 3207 (COLO)	1948	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Poaceae (Gramineae)	<i>Glyceria striata</i>	Includes <i>G. elata</i>	fowl mannagrass	PerG	Wide	Pres	Rare	Siplivinsky & Beck 3835 (COLM)	1982	
Poaceae (Gramineae)	<i>Hesperostipa comata</i>	<i>H. comata</i> var. <i>comata</i> , <i>Stipa comata</i> var. <i>comata</i>	needle-and-thread	PerG	Wide	Pres	Abun	Weber s.n. (COLM)	1948	
Poaceae (Gramineae)	<i>Hesperostipa neomexicana</i>	<i>Stipa neomexicana</i>	New Mexico feathergrass	PerG	Wide	Pres	Unc	Wingate 5702D (COLO)	1962	
Poaceae (Gramineae)	<i>Hilaria jamesii</i>	<i>Pleuraphis jamesii</i>	galleta	PerG	Wide	Pres	Abun	Porter & Porter 10589 (COLM)	1948	
Poaceae (Gramineae)	<i>Koeleria macrantha</i>	<i>K. cristata</i> , <i>K. pyramidata</i> , <i>K. nitida</i>	Junegrass	PerG	Wide	Pres	Unc	Weber 8693 (COLO)	1954	
Poaceae (Gramineae)	<i>Leymus salina</i>	<i>L. ambiguus</i> , <i>Elymus salina</i> , <i>E. salinus</i> , <i>E. ambiguus</i>	Salina wildrye	PerG	Wide	Pres	Abun	Siplivinsky 3170 (COLO)	1948	
Poaceae (Gramineae)	<i>Monroa squarrosa</i>	<i>Munroa squarrosa</i>	false buffalograss	AnnG	Wide	Pres	Unc	Hackney 904 (COLM)	1975	
Poaceae (Gramineae)	<i>Muhlenbergia asperifolia</i>		scratchgrass	PerG	Wide	Pres	Unc	Siplivinsky 5040 (COLO)	1975	
Poaceae (Gramineae)	<i>Muhlenbergia depauperata</i>		sixweeks muhly	AnnG	Periph	Pres	Rare	Siplivinsky 5130 (COLM)	1982	
Poaceae (Gramineae)	<i>Muhlenbergia minutissima</i>		annual muhly	AnnG	Wide	Pres	Rare	Siplivinsky 5129 (COLM)	1982	
Poaceae (Gramineae)	<i>Muhlenbergia richardsonii</i>		mat muhly	PerG	Wide	Rep	?	Von Loh et al. (2007)	2003	Specimens cited by Weber et al. (2005) are based on misidentified <i>M. thurberi</i> .
Poaceae (Gramineae)	<i>Muhlenbergia thurberi</i>	Includes <i>M. curtifolia</i>	Thurber's muhly	PerG	Wide	Pres	Rare	Siplivinsky 5087 (COLM)	1982	
Poaceae (Gramineae)	<i>Panicum capillare</i> var. <i>occidentale</i>		witchgrass	AnnG	Wide	Pres	Unc	Siplivinsky 5104 (COLM)	1975	
Poaceae (Gramineae)	<i>Panicum virgatum</i>		switchgrass	PerG	Wide	Pres	Rare	Hackney 907 (COLM)	1975	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Poaceae (Gramineae)	<i>Pascopyrum smithii</i>	<i>Agropyron smithii</i> , <i>Elymus smithii</i> , includes vars. <i>smithii</i> & <i>palmeri</i>	wheatgrass	PerG	Wide	Pres	Unc	Weber 8694 (COLM)	1954	
Poaceae (Gramineae)	<i>Phragmites australis</i>	<i>P. communis</i>	common reed	PerG	Wide	Pres	Unc	Sipilivinsky & Beck 3792 (COLM)	1982	
Poaceae (Gramineae)	<i>Piptatherum micranthum</i>	<i>Oryzopsis micrantha</i>	littleseed ricegrass	PerG	Wide	Pres	Unc	Sipilivinsky & Beck 3825 (COLO)	1982	
Poaceae (Gramineae)	<i>Poa agassizensis</i>	<i>P. pratensis</i> ssp. <i>agassizensis</i> ; included in <i>P. pratensis</i> by some authors	Agassiz's bluegrass	PerG	Wide	Pres	Com	Sipilivinsky 3378 (COLO)	1961	
Poaceae (Gramineae)	<i>Poa bulbosa</i>		bulbous bluegrass	PerG	Intro	Pres	Rare	Sipilivinsky 3373 (COLM)	1982	Native to Eurasia and Africa
Poaceae (Gramineae)	<i>Poa fendleriana</i>	<i>P. longiligula</i> , <i>P.</i> <i>fendleriana</i> ssp. <i>longiligula</i>	muttongrass	PerG	Wide	Pres	Abun	Weber 3897 (COLM)	1948	
Poaceae (Gramineae)	<i>Poa juncifolia</i>	<i>P. secunda</i> ssp. <i>juncifolia</i> . Included in <i>P. secunda</i> (without variety) by some authors	alkali bluegrass	PerG	Wide	Pres	Rare	Weber, Wittmann, & Rector 16118 (COLO)	1982	
Poaceae (Gramineae)	<i>Poa pratensis</i>	Most authors include <i>P. agassizensis</i>	Kentucky bluegrass	PerG	Intro	Pres	Com	Sipilivinsky & Beck 3784 (COLM)	1961	Native to Europe
Poaceae (Gramineae)	<i>Poa secunda</i>	Includes <i>P. gracillima</i> , <i>P. juncea</i> , <i>P.</i> <i>sandbergii</i> , <i>P. canbyi</i> , <i>P. scabrella</i> , <i>P.</i> <i>nevadensis</i> , <i>P. ampla</i> and all vars. of <i>P.</i> <i>secunda</i>	Sandberg's bluegrass	PerG	Wide	Pres	Com	Sipilivinsky 3263 (COLM)	1948	
Poaceae (Gramineae)	<i>Polypogon monspeliensis</i>		rabbitfoot-grass	AnnG	Intro	Pres	Unc	Sipilivinsky & Beck 3864 (COLM)	1980	Native to Eurasia and Africa

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Poaceae (Gramineae)	<i>Pseudoroegneria spicata</i>	<i>Agropyron spicatum</i> , <i>Elymus spicatus</i> ; includes ssp. <i>inermis</i> & <i>spicata</i>	bluebunch wheatgrass	PerG	Wide	Rep	Unc	Von Loh et al. (2007)	2003	
Poaceae (Gramineae)	<i>Puccinellia airoides</i>	<i>P. nuttalliana</i>	Nuttall's alkaligrass	PerG	Wide	Pres	Rare	Kaeding & Abbe 8 (COLM)	1984	
Poaceae (Gramineae)	<i>Setaria viridis</i>		green bristlegrass	AnnG	Intro	Pres	Unc	Weber & Rector 16391 (COLO)	1982	Native to Eurasia
Poaceae (Gramineae)	<i>Spartina pectinata</i>		prairie cordgrass	PerG	Wide	Pres	Rare	Kaeding 16 (COLM)	1984	
Poaceae (Gramineae)	<i>Sporobolus airoides</i>	<i>S. airoides</i> var. <i>airoides</i>	alkali sacaton	PerG	Wide	Pres	Unc	Weber, Wittmann, & Rector 16125 (COLM)	1975	
Poaceae (Gramineae)	<i>Sporobolus contractus</i>		spike dropseed	PerG	Sparse	Pres	Unc	Porter & Porter 10592 (COLM)	1968	
Poaceae (Gramineae)	<i>Sporobolus cryptandrus</i>		sand dropseed	PerG	Wide	Pres	Unc	Siplivinsky 5142 (COLM)	1954	
Poaceae (Gramineae)	<i>Sporobolus flexuosus</i>		mesa dropseed	PerG	Periph	Pres	Unc	Weber 8689 (COLO)	1954	
Poaceae (Gramineae)	<i>Thinopyrum intermedium</i> ssp. <i>intermedium</i>	<i>Agropyron</i> <i>intermedium</i> , <i>Elytrigia intermedia</i> , <i>Elymus hispoides</i> var. <i>hispoides</i>	intermediate wheatgrass	PerG	Intro	Pres	Unc	Siplivinsky & Beck 4118 (COLM)	1982	Native to Eurasia
Poaceae (Gramineae)	<i>Triticum aestivum</i>		wheat	AnnG	Intro	Rep	?	Von Loh et al. (2007)	2003	Native to Eurasia
Poaceae (Gramineae)	<i>Vulpia octoflora</i>	<i>Festuca octoflora</i> ; includes vars. <i>glaucia</i> , <i>hirtella</i> , & <i>octoflora</i>	six-weeks fescue	AnnG	Wide	Pres	Abun	Siplivinsky 3186 (COLO)	1954	
Polemoniaceae	<i>Gilia ophthalmoidea</i>	Included in <i>G.</i> <i>inconspicua</i> by some authors	eyelash gilia	PerF	Wide	Pres	Unc	Wilken & Kelley 1987 (COLO)	1954	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Polemoniaceae	<i>Gilia sinuata</i>	Included in <i>G. ophthalmoides</i> by some authors, <i>G. inconspicua</i> , <i>G. clokeyi</i> , <i>G. transmontana</i> ; includes vars. <i>inconspicua</i> & <i>sinuata</i>	shy gilia	Annf	Periph	Pres	Unc	Weber 3878 (COLO)	1948	
Polemoniaceae	<i>Gilia stenothyrsa</i>	<i>Aliciella stenothyrsa</i> , <i>Ipomopsis stenothyrsa</i>	Uinta gilia	PerF	RegEn	Rep	Unc	Von Loh et al. (2007)	2003	
Polemoniaceae	<i>Ipomopsis aggregata</i> ssp. <i>aggregata</i>	<i>Gilia aggregata</i> var. <i>aggregata</i>	scarlet gilia	PerF	Wide	Pres	Unc	Siplivinsky 3303 (COLM)	1954	
Polemoniaceae	<i>Ipomopsis roseata</i>	<i>Gilia roseata</i>	San Rafael gilia	PerF	RegEn	Pres	Com	Siplivinsky 2388 (COLO)	1948	Type locality is Grand Junction, Mesa Co., CO (Eastwood s.n. NY)
Polemoniaceae	<i>Leptodactylon pungens</i>	<i>Leptodactylon pungens</i> var. <i>pungens</i> , <i>Linanthus pungens</i>	prickly-phlox	Shrub	Wide	Pres	Unc	Siplivinsky & Beck 4126 (COLM)	1948	
Polemoniaceae	<i>Leptodactylon watsonii</i>	<i>Linanthus watsonii</i>	Watson's prickly-phlox	PerF	Wide	Pres	Unc	Siplivinsky & Beck 4119 (COLM)	1982	
Polemoniaceae	<i>Phlox austromontana</i>	<i>P. austromontana</i> var. <i>austromontana</i> ; var. not recognized in <i>Intermountain Flora</i> (1984)	desert phlox	PerF	Wide	Rep	?	Von Loh et al. (2007)	2003	
Polemoniaceae	<i>Phlox hoodii</i>	<i>P. hoodii</i> var. <i>canescens</i> ; includes ssp. <i>glabrata</i> , <i>hoodii</i> , & <i>viscidula</i>	Hood's phlox	PerF	Wide	Pres	Unc	Siplivinsky & Rector 3352 (COLM)	1982	
Polemoniaceae	<i>Phlox longifolia</i>	Includes vars. <i>longifolia</i> & <i>stansburyi</i>	long-leaf phlox	PerF	Wide	Pres	Unc	Weber 3817 (COLO)	1948	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Polygalaceae	<i>Polygala</i> <i>subspinosa</i>	<i>P. subspinosa</i> var. <i>subspinosa</i>	cushion milkwort	PerF	Wide	Pres	Rare	Weber s.n. (COLM)	1948	
Polygonaceae	<i>Eriogonum</i> <i>cernuum</i>	<i>E. cernuum</i> var. <i>cernuum</i> ; vars. not recognized in <i>Flora</i> of North America (2005)	nodding wild buckwheat	AnnF	Wide	Pres	Unc	Porter & Porter 10580 (COLM)	1961	
Polygonaceae	<i>Eriogonum</i> <i>corymbosum</i> var. <i>orbiculatum</i>		rimrock wild buckwheat	Shrub	RegEn	Pres	Unc	Hackney 956 (COLM)	1975	
Polygonaceae	<i>Eriogonum</i> <i>hookeri</i>		Hooker's wild buckwheat	AnnF	Wide	Pres	Rare	Siplivinsky 5027 (COLM)	1982	
Polygonaceae	<i>Eriogonum</i> <i>inflatum</i>	<i>E. inflatum</i> var. <i>inflatum</i>	desert trumpet	PerF	Wide	Pres	Unc	Hackney 958 (COLM)	1948	
Polygonaceae	<i>Eriogonum</i> <i>lonchophyllum</i>	<i>E. lonchophyllum</i> var. <i>lonchophyllum</i> , <i>E. intermontanum</i> , <i>E. corymbosum</i> var. <i>humivagans</i> . Vars. not recognized in <i>Flora of North</i> <i>America</i> (2005)	longleaf wild buckwheat	Shrub	RegEn	Pres	Unc	Siplivinsky & Beck 4991 (COLO)	1975	
Polygonaceae	<i>Eriogonum</i> <i>microthecum</i> var. <i>laxiflorum</i>		slender wild buckwheat	Shrub	Wide	Pres	Unc	Miller 37 (COLO)	1961	
Polygonaceae	<i>Eriogonum</i> <i>microthecum</i> var. <i>simpsonii</i>	<i>E. microthecum</i> var. <i>foliosum</i> . Welsh et al. (2003) includes <i>E.</i> <i>phoeniceum</i>	slender wild buckwheat	Shrub	Wide	Pres	Unc	Weber 3791 (COLO)	1948	
Polygonaceae	<i>Eriogonum</i> <i>ovalifolium</i> var. <i>ovalifolium</i>	<i>E. ovalifolium</i> , <i>E.</i> <i>ovalifolium</i> var. <i>purpureum</i>	cushion wild buckwheat	PerF	Wide	Pres	Unc	Siplivinsky 3167 (COLM)	1954	
Polygonaceae	<i>Eriogonum</i> <i>palmerianum</i>		Palmer's wild buckwheat	AnnF	Periph	Pres	Rare	Hackney s.n. (COLO)	1975	
Polygonaceae	<i>Eriogonum</i> <i>umbellatum</i>	<i>E. umbellatum</i> var. <i>umbellatum</i>	sulfur wild buckwheat	PerF	Wide	Rep	?	Von Loh et al. (2007)	2003	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Polygonaceae	<i>Polygonum ramosissimum</i>	<i>P. ramosissimum</i> var. <i>ramosissimum</i>	bushy knotweed	AnnF	Wide	Rep	Rare	Von Loh et al. (2007)	2003	
Polygonaceae	<i>Pterogonium alatum</i>	<i>Eriogonum alatum</i>	winged wild buckwheat	PerF	Wide	Pres	Com	Weber 3892 (COLO)	1948	
Polygonaceae	<i>Rumex crispus</i>		curly dock	PerF	Intro	Pres	Unc	Weber 8687 (COLM)	1954	Native to Eurasia
Polygonaceae	<i>Rumex hymenosepalus</i>		canaigre dock	PerF	Wide	Pres	Unc	Siplivinsky & Rector 3215 (COLO)	1948	
Polygonaceae	<i>Rumex triangulivalvis</i>	<i>R. mexicanus</i> , <i>R. salicifolius</i> var. <i>mexicanus</i> , <i>R. salicifolius</i> ssp. <i>triangulivalvis</i> , <i>R. utahensis</i> , <i>R. triangulivalvis</i> var. <i>mexicanus</i> & var. <i>montigenitus</i>	willow dock	PerF	Wide	Pres	Rare	Siplivinsky & Beck 3771 (COLM)	1982	
Polygonaceae	<i>Stenogonium saluginosum</i>	<i>Eriogonum saluginosum</i>	smooth wild buckwheat	AnnF	Wide	Pres	Unc	Siplivinsky 3271 (COLM)	1982	
Portulacaceae	<i>Portulaca halimoides</i>	<i>P. parvula</i>	dwarf purslane	AnnF	Periph	Pres	Rare	Siplivinsky 5127 (COLM)	1982	
Portulacaceae	<i>Portulaca oleracea</i>		common purslane	AnnF	Intro	Pres	Unc	Siplivinsky 5095 (COLO)	1982	Native to E North America
Portulacaceae	<i>Talinum parviflorum</i>	<i>Phemeranthus parviflorus</i> , <i>P. confertiflorus</i>	small-flowered fame-flower	PerF	Wide	Pres	Rare	Siplivinsky 5121 (COLM)	1982	
Primulaceae	<i>Androsace occidentalis</i>		western rock- jasmine	AnnF	Wide	Pres	Rare	Siplivinsky, Rector, Wingate, & Weber 3110 (COLO)	1982	
Primulaceae	<i>Androsace septentrionalis</i>	Includes var. <i>subulifera</i> & ssp. <i>puberula</i> & <i>subumbellata</i>	pygmy-flower rock-jasmine	AnnF	Wide	Pres	Unc	Siplivinsky & Beck 3803 (COLO)	1962	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Ranunculaceae	<i>Ceratocephala orthoceras</i>	<i>C. testiculata,</i> <i>Ranunculus testiculatus</i>	bur buttercup	AnnF	Intro	Pres	Unc	Hackney 967 (COLM)	1948	Native to Eurasia
Ranunculaceae	<i>Clematis ligusticifolia</i>		white virgin's- bower	PerF	Wide	Pres	Unc	Sipilivinsky & Beck 3808 (COLM)	1961	
Ranunculaceae	<i>Halerpestes cymbalaria</i> ssp. <i>saximontana</i>	<i>Ranunculus cymbalaria</i> var. <i>saximontana</i> . Vars. not recognized in <i>Flora of North America</i> (1997)	marsh buttercup	PerF	Wide	Pres	Unc	Sipilivinsky & Beck 3846 (COLM)	1975	
Ranunculaceae	<i>Hecatomia scelerata</i>		blister buttercup	AnnF	Wide	Pres	Rare	Hackney 966 (COLM)	1975	
Ranunculaceae	<i>Amelanchier utahensis</i>		Utah serviceberry	Shrub	Wide	Pres	Abun	Miller 10 (COLO)	1948	
Rosaceae	<i>Armeniaca vulgaris</i>	<i>Prunus armeniaca</i>	apricot	Tree	Intro	Pres	Rare	Sipilivinsky & Beck 5009 (COLM)	1982	Native to China
Rosaceae	<i>Cercocarpus intricatus</i>	<i>C. ledifolius</i> var. <i>intricatus</i>	dwarf mountain mahogany	Shrub	Wide	Pres	Com	Gillbert s.n. (COLO)	1959	
Rosaceae	<i>Cercocarpus ledifolius</i>	<i>C. ledifolius</i> var. <i>intercedens</i> , <i>C.</i> <i>ledifolius</i> var. <i>intermontanus</i>	curl-leaf mountain mahogany	Shrub	Wide	Pres	Unc	Kaedding 17 (COLM)	1984	Hybrids with <i>C. intricatus</i> are present in COLM (Rector 719).
Rosaceae	<i>Cercocarpus montanus</i>		alder-leaf mountain mahogany	Shrub	Wide	Pres	Abun	Sipilivinsky & Rector 3199 (COLM)	1975	Hybrids with <i>C. intricatus</i> are present in COLM (Sipilivinsky & Beck 3756).
Rosaceae	<i>Coleogyne ramosissima</i>		blackbrush	Shrub	Periph	Pres	Rare	Weber 11342 (COLM)	1962	
Rosaceae	<i>Holodiscus discolor</i>	<i>H. dumosus</i>	bush oceanspray	Shrub	Wide	Pres	Unc	Sipilivinsky & Beck 3785 (COLM)	1975	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Rosaceae	<i>Padus virginiana</i> ssp. <i>melanocarpa</i>	<i>Prunus virginiana</i> var. <i>melanocarpa</i>	western chokeberry	Shrub	Wide	Pres	Unc	Siplivinsky & Beck 3826 (COLM)	1982	
Rosaceae	<i>Purshia stansburiana</i>	<i>P. mexicana</i> var. <i>Stansburyana</i> , <i>Cowania mexicana</i>	cliff-rose	Shrub	Wide	Pres	Unc	Weber 3812 (COLO)	1948	
Rosaceae	<i>Rosa woodsii</i>	<i>R. woodsii</i> var. <i>ultramontana</i> ; some authors include <i>R.</i> <i>mancana</i>	Woods' rose	Shrub	Wide	Pres	Unc	Siplivinsky 5134 (COLO)	1960	
Rubiaceae	<i>Galium coloradoense</i>	<i>G. multiflorum</i> var. <i>coloradoense</i>	Colorado bedstraw	PerF	RegEn	Pres	Unc	Siplivinsky & Beck 3783 (COLM)	1948	Type locality is Mancos, Montezuma Co., CO (Eastwood s.n.)
Salicaceae	<i>Populus alba</i>		white poplar	Tree	Intro	Rep	?	Von Loh et al. (2007)	2003	Cultivar that may become naturalized in COLM. Native to Eurasia
Salicaceae	<i>Populus angustifolia</i>		narrow-leaved cottonwood	Tree	Wide	Pres	Unc	Siplivinsky & Beck 3763 (COLM)	1982	
Salicaceae	<i>Populus deltoides</i> ssp. <i>wislizenii</i>	<i>P. fremontii</i> var. <i>wislizenii</i>	Rio Grande cottonwood	Tree	Wide	Pres	Com	Siplivinsky 3381 (COLO)	1954	
Salicaceae	<i>Populus tremuloides</i>		quaking aspen	Tree	Wide	Pres	Unc	Siplivinsky 3834 (COLM)	1982	
Salicaceae	<i>Populus x acuminata</i>	<i>P. acuminata</i> , <i>P. x</i> <i>intercurrens</i> . Hybrid of <i>P. fremontii</i> x <i>P.</i> <i>angustifolia</i>	lance-leaf cottonwood	Tree	Wide	Pres	Unc	Siplivinsky & Beck 4287 (COLO)	1982	
Salicaceae	<i>Salix amygdaloides</i>		peach-leaf willow	Tree	Wide	Pres	Rare	Weber, Wittmann, & Rector 16115 (COLO)	1982	
Salicaceae	<i>Salix bebbiana</i>		Bebb's willow	Shrub	Wide	Pres	Rare	Stevens s.n. (COLM)	2005	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Salicaceae	<i>Salix exigua</i>	<i>S. exigua</i> var. <i>stenophylla</i> , <i>S.</i> <i>exigua</i> var. <i>exigua</i>	coyote willow	Shrub	Wide	Pres	Com	Sipilivinsky & Beck 3845 (COLM)	1961	
Salicaceae	<i>Salix fragilis</i>		crack willow	Tree	Intro	Rep	?	Von Loh et al. (2007)	2003	Native to Eurasia
Salicaceae	<i>Salix gooddingii</i>	<i>S. nigra</i> var. <i>valliscola</i>	Goodding's black willow	Tree	Periph	Pres	Rare	Sipilivinsky 3274 (COLM)	1982	
Salicaceae	<i>Salix ligulifolia</i>	<i>S. eriocephala</i> var. <i>ligulifolia</i>	strapleaf willow	Shrub	Wide	Pres	Unc	Weber, Wittmann, & Rector 16116 (COLO)	1980	
Salicaceae	<i>Salix lucida</i> ssp. <i>caudata</i>	<i>S. lasiandra</i> var. <i>caudata</i>	whiplash willow	Shrub	Wide	Pres	Unc	Weber, Sipilivinsky, & Rector 15831 (COLM)	1980	
Salicaceae	<i>Salix lutea</i>	<i>S. eriocephala</i> var. <i>watsonii</i> , <i>S. rigida</i> var. <i>watsonii</i>	yellow willow	Shrub	Wide	Pres	Rare	Stevens s.n. (COLM)	2005	
Santalaceae	<i>Comandra</i> <i>umbellata</i>	<i>C. umbellata</i> var. <i>pallida</i>	bastard toadflax	PerF	Wide	Pres	Unc	Sipilivinsky & Beck 3867 (COLO)	1948	
Saxifragaceae	<i>Heuchera</i> <i>parvifolia</i>	Includes vars. <i>major</i> , <i>parvifolia</i> , & <i>utahensis</i>	littleleaf alumroot	PerF	Wide	Pres	Unc	Sipilivinsky & Beck 3821 (COLO)	1975	
Scrophulariaceae	<i>Castilleja</i> <i>chromosa</i>	<i>C. angustifolia</i> var. <i>dubia</i> , <i>C. applegatei</i> ssp. <i>martini</i>	desert paintbrush	PerF	Wide	Pres	Unc	Sipilivinsky 3340 (COLM)	1975	
Scrophulariaceae	<i>Castilleja</i> <i>linariifolia</i>		Wyoming paintbrush	PerF	Wide	Pres	Unc	Hackney 981 (COLM)	1961	
Scrophulariaceae	<i>Castilleja minor</i>	<i>C. minor</i> ssp. <i>minor</i> , <i>C. exilis</i>	annual paintbrush	AnnF	Wide	Pres	Rare	Sipilivinsky 1925 (COLO)	1981	
Scrophulariaceae	<i>Castilleja scabrida</i>	<i>C. scabrida</i> var. <i>scabrida</i>	Eastwood's paintbrush	PerF	RegEn	Pres	Unc	Weber & Randolph 17322 (COLM)	1948	Type locality is Grand Junction, Mesa Co., CO (Long s.n. CAS)

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Scrophulariaceae	<i>Linaria vulgaris</i>	butter-and-eggs	PerF	Intro	Pres	Unc	Siplivinsky & Beck 3775 (COLM)	1982	Native to Eurasia. CO state noxious weed (List B)	
Scrophulariaceae	<i>Mimulus glabratus</i>	<i>M. glabratus</i> var. <i>fremontii</i> , <i>M. glabratus</i> var. <i>jamesii</i>	glabrous monkeyflower	PerF	Wide	Pres	Rare	Rector 712 (COLO)	1981	
Scrophulariaceae	<i>Mimulus rubellus</i>		reddish monkeyflower	AnnF	Wide	Pres	Unc	Weber 15342 (COLO)	1978	
Scrophulariaceae	<i>Penstemon caespitosus</i>	<i>P. caespitosus</i> var. <i>caespitosus</i>	mat penstemon	PerF	RegEn	Pres	Unc	Siplivinsky 3348 (COLM)	1948	
Scrophulariaceae	<i>Penstemon comarrhenus</i>		dusty penstemon	PerF	RegEn	Pres	Unc	Hackney 982 (COLM)	1975	
Scrophulariaceae	<i>Penstemon cyanocaulis</i>		bluestem penstemon	PerF	RegEn	Pres	Com	Pennell & Schaeffer 22156 (COLO)	1938	Type locality is near Naturita, Montrose Co., CO (Payson 348 RM)
Scrophulariaceae	<i>Penstemon moffatii</i>		Moffatt penstemon	PerF	RegEn	Pres	Unc	Siplivinsky 3161 (COLM)	1955	Type locality is Grand Junction, Mesa Co., CO (Eastwood s.n.)
Scrophulariaceae	<i>Verbascum thapsus</i>		woolly mullein	PerF	Intro	Pres	Unc	Siplivinsky & Beck 4117 (COLM)	1982	Native to Eurasia. CO state noxious weed (List C)
Scrophulariaceae	<i>Veronica catenata</i>	Included in <i>V. anagallis-aquatica</i> by Some authors	chain speedwell	PerF	Wide	Pres	Unc	Siplivinsky 3304 (COLM)	1980	
Selaginellaceae	<i>Selaginella densa</i>	Includes vars. <i>Standleyi</i> , <i>densa</i> , & <i>scopulorum</i> , <i>S. scopulorum</i> .	dense spike-moss	fern	Wide	Pres	Unc	Siplivinsky 1936 (COLM)	1981	
Selaginellaceae	<i>Selaginella mutica</i>	<i>S. mutica</i> var. <i>mutica</i>	blunt-leaf spike-moss	fern	Wide	Pres	Unc	Weber 3871 (COLO)	1948	
Sinopteridaceae	<i>Argyrochosma fendleri</i>	<i>Notholaena fendleri</i> , <i>Cheilanthes cancellata</i>	Fendler's cloak-fern	fern	Sparse	Pres	Rare	Siplivinsky & Beck 4294 (COLM)	1982	

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Sinopteridaceae (Polypodiaceae, Adiantaceae)	<i>Cheiilanthes feei</i>	slender lip-fern	fern	Wide	Pres	Unc	Sipilivinsky & Beck 3812 (COLM)	1948		
Sinopteridaceae (Polypodiaceae, Adiantaceae)	<i>Pellaea atropurpurea</i>	Western U.S. material may be <i>P. gastonyi</i>	purple cliff-brake	fern	Sparse	Pres	Rare	Sipilivinsky 5119 (COLM)	1982	
Solanaceae	<i>Physalis virginiana</i>	Virginia ground- cherry	PerF	Wide	Pres	Unc	Sipilivinsky 5136 (COLM)	1982		
Solanaceae	<i>Solanum rostratum</i>	buffalobur	AnnF	Wide	Pres	Rare	Sipilivinsky & Beck 4974 (COLM)	1982		
Tamaricaceae	<i>Tamarix ramosissima</i>	<i>T. pentandra</i> , <i>T. chinensis</i>	five-stamen tamarisk	Shrub	Intro	Pres	Unc	Hackney 984 (COLM)	1948	Native to Eurasia. CO state noxious weed (List B)
Typhaceae	<i>Typha domingensis</i>	southern cattail	PerG	Periph	Rep	?	Von Loh et al. (2007)	2003	Reports from Weber et al. (2005) are based on misidentified specimens of <i>T.</i> <i>latifolia</i> .	
Typhaceae	<i>Typha latifolia</i>	broad-leaved cattail	PerG	Wide	Pres	Unc	Sipilivinsky 5042 (COLM)	1980		
Ulmaceae (Celtidaceae)	<i>Celtis reticulata</i>	<i>C. laevigata</i> var. <i>reticulata</i>	netleaf hackberry	Tree	Wide	Pres	Unc	Rector 1 (COLM)	1980	
Ulmaceae	<i>Ulmus pumila</i>	Siberian elm	Tree	Intro	Pres	Rare	Sipilivinsky & Beck 5001 (COLM)	1982	Native to Asia	
Valerianaceae	<i>Valeriana edulis</i>	tobacco-root	PerF	Wide	Rep	Unc	Von Loh et al. (2007)	2003		
Verbenaceae	<i>Verbena bracteata</i>	prostrate vervain	PerF	Wide	Pres	Unc	Hackney 988 (COLM)	1975		
Viscaceae	<i>Arceuthobium divaricatum</i>	pinyon dwarf- mistletoe	PerF	Wide	Pres	Unc	Sipilivinsky & Beck 5007 (COLM)	1951	Typically parasitic on <i>Pinus edulis</i>	
Viscaceae	<i>Phoradendron juniperinum</i>	juniper mistletoe	PerF	Wide	Pres	Unc	Weber 6066 (COLO)	1951	Typically parasitic on <i>Juniperus</i> <i>osteosperma</i>	

**Appendix A. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by family and scientific name with taxonomic and biogeographic notes, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Pop. size	Source	Year doc.	Comments
Woodsiaceae (Polypodiaceae, Aspleniaceae)	<i>Woodisia oregana</i> ssp. <i>cathartiana</i>	Oregon woodsia	fern	Wide	Pres	Unc	Siplivinsky 5131 (COLM)		1948	
Zygophyllaceae	<i>Tribulus terrestris</i>	puncture vine	AnnF	Intro	Pres	Unc	Siplivinsky 5110 (COLM)	1982	Native to Eurasia. CO state noxious weed (List C)	

**Appendix B. Potential (unconfirmed) vascular plant taxa of Colorado National Monument.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Comments
Agavaceae	<i>Yucca baccata</i>	<i>Y. baccata</i> var. <i>baccata</i>	Datil yucca	Shrub	Wide	Harrington & Smith # 1150 (CS cited as present by Weber et al. (2005) was collected from outside the monument.
Alliaceae (Liliaceae)	<i>Allium macropetalum</i>		San Juan onion	PerF	Wide	Type locality is Palisade, Mesa Co., CO (Crandall 4082 NY)
Alsinaceae (Caryophyllaceae)	<i>Cerastium fontanum</i>	<i>C. vulgatum</i> , <i>C. fontanum</i> ssp. <i>vulgare</i>	mouse-ear chickweed	PerF	Intro	Native to Eurasia
Alsinaceae (Caryophyllaceae)	<i>Eremogone congesta</i>	<i>Arenaria congesta</i> var. <i>congesta</i> , <i>E. congesta</i> var. <i>congesta</i>	ball-head sandwort	PerF	Wide	
Alsinaceae (Caryophyllaceae)	<i>Holosteum umbellatum</i>	<i>H. umbellatum</i> ssp. <i>umbellatum</i>	holosteum	AnnF	Intro	Native to Europe
Amaranthaceae	<i>Amaranthus blitoides</i>	<i>A. graecizans</i>	prostrate pigweed	AnnF	Wide	
Amaranthaceae	<i>Amaranthus hybridus</i> var. <i>hypochondriacus</i>	<i>A. hypochondriacus</i>	prince's feather	AnnF	Intro	Native to SW North America. May be of hybrid origin between <i>A. powelli</i> x <i>A. cruentus</i>
Amaranthaceae	<i>Amaranthus retroflexus</i>		redroot pigweed	AnnF	Intro	Native to Central America
Apiaceae	<i>Berula erecta</i>	<i>B. erecta</i> var. <i>incisa</i>	cutleaf water-parsnip	PerF	Wide	
Apiaceae (Umbelliferae)	<i>Cymopterus constancei</i>		Constance's spring-parsley	PerF	Wide	
Apiaceae (Umbelliferae)	<i>Cymopterus planosus</i>		Rocky Mountain spring-parsley	PerF	LocEnd	Type locality is Minturn, Eagle Co., CO (Osterhout 2572)
Apiaceae (Umbelliferae)	<i>Daucus carota</i>		Queen Anne's lace	PerF	Intro	Native to Eurasia
Apiaceae (Umbelliferae)	<i>Lomatium dissectum</i>	Includes vars. <i>eatonii</i> & <i>multifidum</i>	fern-leaved desert-parsley	PerF	Wide	
Apiaceae (Umbelliferae)	<i>Lomatium triternatum</i> ssp. <i>platycarpum</i>	<i>L. simplex</i> var. <i>simplex</i>	ternate desert-parsley	PerF	Wide	
Apocynaceae	<i>Amsorbia jonesii</i>		Jones' amsonia	PerF	RegEn	CO BLM: Sensitive
Apocynaceae	<i>Apocynum androsaemifolium</i>	var. <i>androsaemifolium</i>	spreading dogbane	PerF	Wide	
Apocynaceae	<i>Apocynum sibiricum</i>	Included in <i>A. cannabinum</i> by some authors	Siberian dogbane	PerF	Wide	

**Appendix B. Potential (unconfirmed) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Comments
Asclepiadaceae	<i>Asclepias rusbyi</i>	<i>A. engelmanniana</i> var. <i>rusbyi</i>	Rusby's milkweed	PerF	RegEn	
Asteraceae (Compositae)	<i>Achillea lanulosa</i>	<i>A. millefolium</i> var. <i>lanulosa</i> ; vars. not recognized in <i>Flora of North America</i> (2006)	common yarrow	PerF	Wide	
Asteraceae (Compositae)	<i>Almutaster pauciflorus</i>	<i>Aster pauciflorus</i>	alkali aster	PerF	Wide	
Asteraceae (Compositae)	<i>Ambrosia trifida</i>		giant ragweed	AnnF	Wide	Native to C North America.
Asteraceae (Compositae)	<i>Antennaria dimorpha</i>		low pussytoes	PerF	Wide	
Asteraceae (Compositae)	<i>Antennaria rosea</i>	Included in <i>A. microphylla</i> by some authors	rosy pussytoes	PerF	Wide	
Asteraceae (Compositae)	<i>Antennaria rosulata</i>		Breaks pussytoes	PerF	Wide	
Asteraceae (Compositae)	<i>Anthemis cotula</i>		Mayweed	AnnF	Intro	Native to Eurasia
Asteraceae (Compositae)	<i>Baccharis salicina</i>	Includes <i>B. emoryi</i>	Rio Grande seepwillow	Shrub	Wide	
Asteraceae (Compositae)	<i>Bahia dissecta</i>	<i>Amauropoides dissecta</i>	cutleaf	PerF	Wide	
Asteraceae (Compositae)	<i>Balsamorhiza sagittata</i>		arrowleaf balsamroot	PerF	Wide	Weber, Sipilivinsky, & Rector 15959, Sipilivinsky 1234, & Sipilivinsky & Beck 4129 cited as present by Weber et al. (2005) were collected outside the monument.
Asteraceae (Compositae)	<i>Bidens frondosa</i>		Devil's- beggarsticks	PerF	Wide	
Asteraceae (Compositae)	<i>Brachyactis ciliata</i> ssp. <i>angusta</i>	<i>Aster brachyactis, Sympyotrichum ciliatum</i>	rayless alkali aster	AnnF	Wide	
Asteraceae (Compositae)	<i>Carduus nutans</i> var. <i>macrolepis</i>	Includes ssp. <i>leiophyllus</i>	musk thistle	PerF	Intro	Native to Eurasia, CO state noxious weed (List B)

**Appendix B. Potential (unconfirmed) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Comments
Asteraceae (Compositae)	<i>Chamaechaenactis scaposa</i>	<i>C. scaposa</i> var. <i>parva</i>	Eastwood-plant	PerF	Wide	Osterhout 6016 (COLO) cited as present by Weber et al. (2005) was collected from outside the monument. Type locality is near Grand Junction, CO (Eastwood s.n., CAS)
Asteraceae (Compositae)	<i>Coreopsis tinctoria</i>		golden tickseed	AnnF	Intro	Native to C North America.
Asteraceae (Compositae)	<i>Cyclachaena xanthifolia</i>	<i>Iva xanthifolia</i>	marsh-elder	AnnF	Wide	
Asteraceae (Compositae)	<i>Enceliopsis nutans</i>	<i>Encelia nutans</i>	noddinghead	PerF	RegEn	Weber 3865 (COLO) is probably from just outside the monument. Type locality is Orchard Mesa, Grand Junction, Mesa Co., CO (Eastwood s.n.)
Asteraceae (Compositae)	<i>Erigeron colo-mexicanus</i>	<i>E. divergens</i> var. <i>cinerous</i> , <i>E. tracyi</i>	spreading daisy	PerF	Wide	
Asteraceae (Compositae)	<i>Erigeron eatonii</i>	<i>E. eatonii</i> var. <i>eatonii</i>	Eaton's daisy	PerF	Wide	
Asteraceae (Compositae)	<i>Flaveria campestris</i>		marshweed	AnnF	Sparse	
Asteraceae (Compositae)	<i>Gaillardia spathulata</i>		basin blanketflower	PerF	RegEn	
Asteraceae (Compositae)	<i>Helianthus nuttallii</i>	<i>H. nuttallii</i> ssp. <i>nuttallii</i>	Nuttall's sunflower	PerF	Wide	
Asteraceae (Compositae)	<i>Helianthus petiolaris</i>	<i>H. petiolaris</i> ssp. <i>fallax</i>	prairie sunflower	AnnF	Wide	
Asteraceae (Compositae)	<i>Helianthus tuberosus</i>		Jerusalem-artichoke	PerF	Intro	Native to E North America
Asteraceae (Compositae)	<i>Helianeris multiflora</i>	<i>Viguiera multiflora</i>	showy goldeneye	PerF	Wide	
Asteraceae (Compositae)	<i>Lepidotheca suaveolens</i>	<i>Matricaria matricarioides</i> , <i>M. discoidea</i>	pineapple-weed	AnnF	Wide	
Asteraceae (Compositae)	<i>Machaeranthera gracilis</i>	<i>Haploappus gracilis</i> , <i>Xanthisma gracile</i>	slender goldenweed	AnnF	Periph	

**Appendix B. Potential (unconfirmed) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Comments
Asteraceae (Compositae)	<i>Machaeranthera pinnatifida</i>	<i>M. pinnatifida</i> var. <i>pinnatifida</i> , <i>Haplospappus spinulosus</i> var. <i>spinulosus</i>	lacy tansy-aster	PerF	Wide	
Asteraceae (Compositae)	<i>Machaeranthera tanacetifolia</i>		tansyleaf aster	AnnF	Wide	
Asteraceae (Compositae)	<i>Matricaria perforata</i>	<i>M. maritima</i> , <i>Tripleurospermum perforata</i> , <i>T. inodorum</i> , <i>T. maritima</i> ssp. <i>maritima</i>	scentless chamomile	PerF	Intro	Native to Europe
Asteraceae (Compositae)	<i>Oligosporus pacificus</i>	<i>O. campestris</i> ssp. <i>pacificus</i> , <i>Artemisia campestris</i> ssp. <i>pacifica</i> , <i>A. campestris</i> var. <i>scouleriana</i>	sand wormwood	PerF	Wide	
Asteraceae (Compositae)	<i>Onopordum acanthium</i>	<i>O. acanthium</i> var. <i>acanthium</i>	Scotch thistle	PerF	Intro	Native to Eurasia. CO state noxious weed (List B)
Asteraceae (Compositae)	<i>Oxytenia acerosa</i>	<i>Iva acerosa</i>	copperweed	Shrub	Periph	
Asteraceae (Compositae)	<i>Packera neomexicana</i>	<i>Senecio neomexicanus</i> var. <i>mutabilis</i> , <i>P. neomexicana</i> var. <i>mutabilis</i>	New Mexico groundsel	PerF	Wide	
Asteraceae (Compositae)	<i>Prionopsis ciliata</i>	<i>Haplospappus ciliatus</i> , <i>Grindelia papposa</i>	Spanishgold	PerF	Intro	Native to C North America.
Asteraceae (Compositae)	<i>Psilochrenia acuminata</i>	<i>Crepis acuminata</i>	mountain hawksbeard	PerF	Wide	
Asteraceae (Compositae)	<i>Senecio douglasii</i> var. <i>longilobus</i>	<i>S. longilobus</i> , <i>S. flaccidus</i> var. <i>flaccidus</i>	Douglas' groundsel	PerF	Wide	
Asteraceae (Compositae)	<i>Senecio vulgaris</i>		common groundsel	AnnF	Intro	Native to Europe
Asteraceae (Compositae)	<i>Seriphidium vaseyanum</i>	<i>Artemisia tridentata</i> var. <i>vaseyanus</i>	mountain big sagebrush	Shrub	Wide	Siplivinsky 2395 (COLO) cited as present by Weber et al. (2005) was collected outside the monument

**Appendix B. Potential (unconfirmed) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Comments
Asteraceae (Compositae)	<i>Solidago canadensis</i>	<i>S. canadensis</i> var. <i>salebrosa</i> , <i>S. lepida</i> var. <i>salebrosa</i>	Canadian goldenrod	PerF	Wide	
Asteraceae (Compositae)	<i>Solidago gigantea</i>		late goldenrod	PerF	Wide	
Asteraceae (Compositae)	<i>Sonchus arvensis</i>	<i>S. arvensis</i> ssp. <i>arvensis</i>	field sow-thistle	PerF	Intro	Native to Europe
Asteraceae (Compositae)	<i>Sonchus asper</i>		spiny-leaf sow-thistle	AnnF	Intro	Native to Europe
Asteraceae (Compositae)	<i>Sonchus oleraceus</i>		common sow-thistle	AnnF	Intro	Native to Europe
Asteraceae (Compositae)	<i>Sonchus uliginosus</i>	<i>S. arvensis</i> var. <i>glabrescens</i> , <i>S. arvensis</i> ssp. <i>uliginosus</i>	marsh sow-thistle	PerF	Intro	Native to Europe
Asteraceae (Compositae)	<i>Tanacetum vulgare</i>		common tansy	PerF	Intro	Native to Europe
Asteraceae (Compositae)	<i>Tetradymia nuttallii</i>		Nuttall's horsebush	Shrub	RegEn	
Asteraceae (Compositae)	<i>Tetraneurus torreyana</i>	<i>Hymenoxys torreyana</i>	Torrey's hymenoxys	PerF	RegEn	
Asteraceae (Compositae)	<i>Thelesperma subnudum</i>	<i>T. subnudum</i> var. <i>subnudum</i> ; vars. not recognized in <i>Flora of North America</i> (2006).	scapose greenthread	PerF	Wide	
Asteraceae (Compositae)	<i>Townsendia annua</i>		annual townsendia	AnnF	Periph	
Asteraceae (Compositae)	<i>Townsendia exscapa</i>		stemless townsendia	PerF	Wide	
Asteraceae (Compositae)	<i>Tragopogon porrifolius</i>		salsify	PerF	Intro	Native to Europe
Asteraceae (Compositae)	<i>Virgulus falcatus</i>	<i>Aster falcatus</i> var. <i>falcatus</i> , <i>Sympyotrichum</i> <i>falcatum</i> var. <i>falcatum</i>	falcate aster	PerF	Wide	
Asteraceae (Compositae)	<i>Xylorhiza venusta</i>	<i>Machaeranthera</i> <i>venusta</i>	Cisco woodyaster	PerF	RegEn	Type locality is near Cisco, Grand Co., UT (Jones s.n.)
Bignoniaceae	<i>Campsis radicans</i>		trumpet vine	PerF	Intro	Native to E North America

**Appendix B. Potential (unconfirmed) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Comments
Boraginaceae	<i>Cryptantha recurvata</i>	recurved cryptanth	AnnF	Periph	Weber 3761 (COLO) and Osterhout 4556 (COLO) cited as present by Weber et al. (2005) were probably collected outside the monument.	
Boraginaceae	<i>Cynoglossum officinale</i>	common hound's-tongue	PerF	Intro	Native to Eurasia. CO state noxious weed (List B)	
Boraginaceae	<i>Euploca convolvulacea</i> var. <i>californica</i>	<i>Heliotropium convolvulaceum</i>	bindweed heliotrope	AnnF	Wide	
Boraginaceae	<i>Hackelia floribunda</i>	<i>L. echinata</i> , <i>L. squarrosa</i> var. <i>squarrosa</i>	snowy stickseed	PerF	Wide	
Boraginaceae	<i>Lappula squarrosa</i>	European stickseed	AnnF	Intro	Sipilivinsky & Beck 3816 (COLO) cited as present by Weber et al. (2005) was collected outside the monument.	
Boraginaceae	<i>Lithospermum ruderale</i>	western stoneseed	PerF	Wide		
Boraginaceae	<i>Mertensia brevisty/a</i>	short-styled bluebell	PerF	Wide		
Boraginaceae	<i>Oreocarya aperta</i>	<i>Cryptantha aperta</i>	Grand Junction cryptanth	PerF	LocEnd	
Boraginaceae	<i>Oreocarya bakeri</i>	<i>Cryptantha bakeri</i>	Baker's cryptanth	PerF	RegEn	
Boraginaceae	<i>Oreocarya elata</i>	<i>Cryptantha elata</i>	tall cryptanth	PerF	LocEnd	Type locality is Grand Junction, Mesa Co., CO (Eastwood s.n. CAS)
Boraginaceae	<i>Oreocarya mensana</i>	<i>Cryptantha mensana</i>	carbon cryptanth	PerF	RegEn	
Boraginaceae	<i>Oreocarya paradoxa</i>	<i>Cryptantha paradoxa</i>	Paradox cryptanth	PerF	RegEn	Type locality is Paradox Valley, Montrose Co., CO (Payson 458 RM)
Boraginaceae	<i>Oreocarya stricta</i>	<i>Cryptantha stricta</i>	erect cryptanth	PerF	RegEn	Type locality is S of Yampa River along Victory Highway (Osterhout 6195 RM)
Boraginaceae	<i>Plagiobothrys scouleri</i> ssp. <i>penicillatus</i>	<i>P. scouleri</i> var. <i>hispidulus</i>	meadow popcorn-flower	AnnF	Wide	

**Appendix B. Potential (unconfirmed) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Comments
Brassicaceae (Cruciferae)	<i>Alyssum alyssoides</i>	pale madwort	AnnF	Intro	Native to Europe	
Brassicaceae (Cruciferae)	<i>Alyssum desertorum</i>	desert madwort	AnnF	Intro	Native to Europe	
Brassicaceae (Cruciferae)	<i>Barbara orthoceras</i>	northern wintercress	PerF	Wide		
Brassicaceae (Cruciferae)	<i>Barbara vulgaris</i>	European wintercress	PerF	Intro	Native to Eurasia	
Brassicaceae (Cruciferae)	<i>Boechera fendleri</i> var. <i>spatifolia</i>	<i>Arabis fendleri</i> , A. <i>holboellii</i> var. <i>fendleri</i> ; vars. not recognized in <i>Intermountain Flora</i> (2005)	Fendler's rockcress	PerF	Wide	Weber 15950 (COLO) and Young 146 (COLO) cited as present by Weber et al. (2005) were collected outside the monument.
Brassicaceae (Cruciferae)	<i>Boechera lignifera</i>	<i>Arabis lignifera</i>	Sweetwater rockcress	PerF	Wide	
Brassicaceae (Cruciferae)	<i>Boechera perennans</i>	<i>Arabis perennans</i> var. <i>perennans</i>	perennial rockcress	PerF	Wide	
Brassicaceae (Cruciferae)	<i>Boechera retrofracta</i>	<i>B. holboellii</i> var. <i>secunda</i> , <i>Arabis</i> <i>holboellii</i> var. <i>secunda</i> , <i>A. holboellii</i> var. <i>retrofracta</i>	Holboell's rockcress	PerF	Wide	
Brassicaceae (Cruciferae)	<i>Cardaria draba</i>	<i>Lepidium draba</i> , C. <i>draba</i> var. <i>draba</i>	whitetop	PerF	Intro	Native to Europe, CO state noxious weed (List B)
Brassicaceae (Cruciferae)	<i>Conringia orientalis</i>		hare's-ear mustard	AnnF	Intro	Native to Europe
Brassicaceae (Cruciferae)	<i>Descurainia incisa</i>	<i>D. richardsonii</i> var. <i>sonnei</i> , <i>D. incana</i> var. <i>incana</i> , <i>D. incana</i> var. <i>sonnei</i>	mountain tansy- mustard	AnnF	Wide	
Brassicaceae (Cruciferae)	<i>Erysimum repandum</i>		spreading wallflower	AnnF	Intro	Native to Europe
Brassicaceae (Cruciferae)	<i>Euclidium syriacum</i>		Syrian mustard	AnnF	Intro	Native to Europe
Brassicaceae (Cruciferae)	<i>Lepidium crenatum</i>	<i>L. montanum</i> var. <i>spathulatum</i>	alkali pepperweed	PerF	RegEn	Type locality is Mancos, Montezuma Co., CO (Baker et al. 394 NDG)

**Appendix B. Potential (unconfirmed) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Comments
Brassicaceae (Cruciferae)	<i>Lepidium strictum</i>		upright pepperwort	AnnF	Intro	Weber 3855 & 11391 (COLO) cited as present by Weber et al. (2005) were probably collected outside the monument.
Brassicaceae (Cruciferae)	<i>Nasturtium officinale</i>	<i>Rorippa nasturtium-aquaticum</i>	watercress	PerF	Intro	Native to Europe
Brassicaceae (Cruciferae)	<i>Noceaea montana</i>	<i>N. montana</i> var. <i>montana</i> , <i>Thlaspi montanum</i> var. <i>montanum</i>	alpine pennycress	PerF	Wide	
Brassicaceae (Cruciferae)	<i>Physaria floribunda</i>		mesa twinpod	PerF	LocEnd	Type locality is Sangre de Cristo Creek, Costilla Co., CO (Rydberg & Vreeland 6135 NY)
Brassicaceae (Cruciferae)	<i>Sinapis arvensis</i>	<i>Brassica kaber</i>	charlock	AnnF	Intro	Native to Europe
Brassicaceae (Cruciferae)	<i>Sisymbrium loeselii</i>		false London rocket	AnnF	Intro	Native to Eurasia
Brassicaceae (Cruciferae)	<i>Stanleya albensens</i>		white prince's-plume	PerF	RegEn	
Brassicaceae (Cruciferae)	<i>Thlaspi arvense</i>		field pennycress	AnnF	Intro	Native to Europe
Cactaceae	<i>Coryphantha vivipara</i>	<i>Escobaria vivipara</i> var. <i>vivipara</i> ; vars. not recognized in <i>Flora of North America</i> (2003)	pincushion cactus	PerF	Wide	
Cactaceae	<i>Sclerocactus glaucus</i>	Some authors include <i>S. wetlandicus</i> of Utah	Uinta Basin hookless cactus	PerF	RegEn	USFWSS: Threatened
Cannabaceae	<i>Humulus lupulus</i> ssp. <i>americanus</i>	<i>H. lupulus</i> var. <i>neomexicanus</i>	common hops	PerF	Wide	
Caryophyllaceae	<i>Gypsophila paniculata</i>		tall baby's-breath	PerF	Intro	Native to Eurasia
Caryophyllaceae	<i>Melandrium dioicum</i>	<i>Silene latifolia</i> , <i>Lychnis alba</i>	bouncing-bet	PerF	Intro	Native to Europe
Caryophyllaceae	<i>Saponaria officinalis</i>		white campion	PerF	Intro	Native to Europe
Ceratophyllaceae	<i>Ceratophyllum demersum</i>		common hornwort	PerF	Wide	
Chenopodiaceae	<i>Atriplex argentea</i>	<i>A. argentea</i> var. <i>argentea</i>	silver orach	AnnF	Wide	
Chenopodiaceae	<i>Atriplex graciliflora</i>		Blue Valley orach	AnnF	RegEn	

**Appendix B. Potential (unconfirmed) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Comments
Chenopodiaceae	<i>Atriplex heterosperma</i>	<i>A. micrantha</i>	two-seed orach spear orach	AnnF	Intro	Native to Eurasia
Chenopodiaceae	<i>Atriplex patula</i>			AnnF	Sparse	
Chenopodiaceae	<i>Atriplex powelli</i>	<i>A. powelli</i> var. <i>powelli</i>	Powell's orach	AnnF	Wide	
Chenopodiaceae	<i>Chenopodium atrovirens</i>	<i>C. fremontii</i> var. <i>atrovirens</i>	mountain goosefoot	AnnF	Wide	
Chenopodiaceae	<i>Chenopodium berlandieri</i>	<i>C. berlandieri</i> var. <i>zschackei</i> , <i>C. album</i> var. <i>berlandieri</i>	pitseed goosefoot	AnnF	Wide	
Chenopodiaceae	<i>Chenopodium incanum</i>	<i>C. incanum</i> var. <i>incanum</i> , <i>C. incanum</i> var. <i>occidentale</i> , <i>C.</i> <i>fremontii</i> var. <i>incanum</i>	silvery goosefoot	AnnF	Wide	
Chenopodiaceae	<i>Chenopodium rubrum</i>	<i>C. rubrum</i> var. <i>rubrum</i>	red goosefoot	AnnF	Wide	
Chenopodiaceae	<i>Monolepis nuttalliana</i>		Nuttall's poverty-weed	AnnF	Wide	
Chenopodiaceae	<i>Monolepis pusilla</i>	<i>Micromonolepis pusilla</i>	tiny poverty-weed	AnnF	Periph	Type locality is Grand Junction, (Eastwood s.n.)
Chenopodiaceae	<i>Salicornia europaea</i>	<i>S. rubra</i> , <i>S. europaea</i> ssp. <i>rubra</i>	red saltwort	AnnF	Sparse	
Chenopodiaceae	<i>Salsola collina</i>		slender Russian-thistle	AnnF	Intro	Native to Russia
Convolvulaceae	<i>Evolvulus nuttallianus</i>		evolvulus	PerF	Wide	
Cucurbitaceae	<i>Cucurbita foetidissima</i>		buffalo gourd	PerF	Wide	
Cupressaceae	<i>Sabina scopulorum</i>	<i>Juniperus scopulorum</i>	Rocky Mountain juniper	Tree	Wide	Weber & Siplivinsky 15933 (CO) cited as present by Weber et al. (2005) was collected outside the monument.
Cyperaceae	<i>Carex emoryi</i>		Emory's sedge	PerG	Wide	
Cyperaceae	<i>Carex geyeri</i>		elk sedge	PerG	Wide	
Cyperaceae	<i>Carex hassei</i>	CO material may be <i>C.</i> <i>aurea</i> .	Hasse's sedge	PerG	Disj	
Cyperaceae	<i>Carex lanuginosa</i>	<i>C. pellita</i>	woolly sedge	PerG	Wide	
Cyperaceae	<i>Carex occidentalis</i>		western sedge	PerG	Wide	
Cyperaceae	<i>Carex praegracilis</i>		blackcreep sedge	PerG	Wide	
Cyperaceae	<i>Carex utriculata</i>	<i>C. rostrata</i> ( <i>sensu lato</i> )	beaked sedge	PerG	Wide	
Cyperaceae	<i>Cyperus erythrorhizos</i>		redroot flat-sedge	AnnG	Wide	
Cyperaceae	<i>Eleocharis montevidensis</i>		sand spikerush	PerG	Periph	

**Appendix B. Potential (unconfirmed) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Comments
Cyperaceae	<i>Eleocharis rostellata</i>	beaked spikerush	PerG	Sparse		
Cyperaceae	<i>Scirpus pallidus</i>	<i>S. atrovirens</i> var. <i>pallidus</i>	pale bulrush	PerG	Wide	
Ericaceae	<i>Arctostaphylos x coloradensis</i>	Hybrid between <i>A. patula</i> x <i>A. uvæ-ursi</i> .	Colorado manzanita	Shrub	Sparse	
Euphorbiaceae	<i>Poinsettia dentata</i>	<i>Euphorbia davidii</i> , <i>E. dentata</i>	toothed spurge	AnnF	Intro	Native to C North America
Euphorbiaceae	<i>Tithymalus spathulatus</i>	<i>Euphorbia spathulata</i>	prairie spurge	AnnF	Sparse	
Euphorbiaceae	<i>Tithymalus uralensis</i>	<i>Euphorbia esula</i> var. <i>uralensis</i>	leafy spurge	PerF	Intro	Native to Eurasia. <i>E. esula</i> is a CO state noxious weed (List B)
Fabaceae (Leguminosae)	<i>Astragalus asclepiadoides</i>		milkweed milkvetch	PerF	RegEn	Type locality is Cisco, Grand Co., UT (Jones s.n. POM)
Fabaceae (Leguminosae)	<i>Astragalus haydenianus</i>	<i>A. bisulcatus</i> var. <i>haydenianus</i>	Hayden's milkvetch	PerF	Wide	
Fabaceae (Leguminosae)	<i>Astragalus kentrophyta</i> var. <i>elatus</i>		tall kentrophyta	PerF	Wide	
Fabaceae (Leguminosae)	<i>Astragalus linifolius</i>		Grand Junction milkvetch	PerF	LocEnd	Type locality is S of Grand Junction, Mesa Co., CO (Osterhout 6557 RM), CO BLM Sensitive
Fabaceae (Leguminosae)	<i>Astragalus lonchocarpus</i>		great rushy milkvetch	PerF	Wide	
Fabaceae (Leguminosae)	<i>Astragalus oophorus</i> var. <i>caulescens</i>		egg milkvetch	PerF	Wide	
Fabaceae (Leguminosae)	<i>Astragalus pattersonii</i>		Patterson's milkvetch	PerF	RegEn	Type locality is near Grand Canyon of the Grand River, Grand Co., CO (Patterson s.n. GH)
Fabaceae (Leguminosae)	<i>Astragalus scopulorum</i>		Rocky Mountain milkvetch	PerF	Wide	
Fabaceae (Leguminosae)	<i>Lathyrus eucosmus</i>	<i>L. brachycalyx</i> var. <i>eucosmus</i>	seemly sweetpea	PerF	Wide	
Fabaceae (Leguminosae)	<i>Lathyrus latifolius</i>		perennial sweetpea	PerF	Intro	Native to Europe
Fabaceae (Leguminosae)	<i>Lupinus brevicaulis</i>		shortstem lupine	AnnF	Wide	

**Appendix B. Potential (unconfirmed) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Comments
Fabaceae (Leguminosae)	<i>Robinia pseudoacacia</i>	black locust	Tree	Intro	Native to E North America	
Fabaceae (Leguminosae)	<i>Trifolium fragiferum</i>	strawberry clover	PerF	Intro	Native to Europe	
Fabaceae (Leguminosae)	<i>Trifolium gymnocarpon</i>	<i>T. gymnocarpon</i> var. <i>gymnocarpon</i>	dwarf clover	PerF	Wide	
Fabaceae (Leguminosae)	<i>Trifolium repens</i>	white clover	PerF	Intro	Native to Europe	
Fumariaceae	<i>Corydalis aurea</i>	<i>C. aurea</i> var. <i>aurea</i>	golden smoke	PerF	Wide	
Gentianaceae	<i>Frasera speciosa</i>	<i>Swertia radiata</i>	elkweed	PerF	Wide	
Geraniaceae	<i>Geranium caespitosum</i>	Includes vars. <i>caespitosum</i> & <i>parryi</i>	purple cluster crane's- bill	PerF	Periph	
Geraniaceae	<i>Geranium richardsonii</i>		Richardson's crane's- bill	PerF	Wide	
Grossulariaceae	<i>Ribes aureum</i>	<i>R. aureum</i> var. <i>aureum</i>	golden currant	Shrub	Wide	
Grossulariaceae	<i>Ribes cereum</i>	<i>R. cereum</i> var. <i>pedicellare</i> , <i>R. cereum</i> var. <i>inebrians</i>	wax currant	Shrub	Wide	
Helleboraceae (Ranunculaceae)	<i>Aquilegia coerulea</i>	Includes vars. <i>ochroleuca</i> and <i>pinetorum</i>	Colorado columbine	PerF	Wide	State flower of Colorado
Hydrophyllaceae	<i>Hydrophyllum capitatum</i>	<i>H. capitatum</i> var. <i>capitatum</i>	capitate waterleaf	PerF	Wide	
Hydrophyllaceae	<i>Phacelia demissa</i>	<i>P. demissa</i> var. <i>demissa</i>	brittle phacelia	AnnF	RegEn	Type locality is Grand Junction, Mesa Co., CO (Eastwood s.n. CAS)
Hydrophyllaceae	<i>Phacelia splendens</i>		Eastwood's phacelia	AnnF	RegEn	
Iridaceae	<i>Iris missouriensis</i>		Rocky Mountain iris	PerF	Wide	
Iridaceae	<i>Sisyrinchium montanum</i>		mountain blue-eyed grass	PerF	Wide	
Juncaceae	<i>Juncus bufonius</i>	Includes vars. <i>bafonius</i> , <i>occidentalis</i> , <i>halophilus</i> , & <i>ambiguus</i>	toad rush	AnnG	Wide	
Juncaceae	<i>Juncus compressus</i>		compressed rush	PerG	Intro	Native to Europe
Juncaceae	<i>Juncus dudleyi</i>	<i>J. tenuis</i> var. <i>dudleyi</i>	slender rush	PerG	Wide	
Juncaceae	<i>Juncus nodosus</i>		knotted rush	PerG	Wide	

**Appendix B. Potential (unconfirmed) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Comments
Juncaginaceae	<i>Triglochin maritima</i>	<i>T. maritima</i> var. <i>elata</i> , Many authors include <i>T. concinnum</i>	seaside arrowgrass	PerG	Wide	
Lamiaceae (Labiatae)	<i>Lycopus americanus</i>	American bugleweed	PerF	Wide		
Lamiaceae (Labiatae)	<i>Marrubium vulgare</i>	common horehound	PerF	Intro	Native to Eurasia	
Lamiaceae (Labiatae)	<i>Nepeta cataria</i>	catnip	PerF	Intro	Native to Europe	
Lamiaceae (Labiatae)	<i>Salvia sylvestris</i>	<i>S. nemorosa</i>	forest salvia	PerF	Intro	Native to Europe
Lamiaceae (Labiatae)	<i>Teucrium canadense</i>	American germander	PerF	Wide		
Loasaceae	<i>Acrolasia gracilis</i>	<i>Mentzelia gracilis</i> ; included in <i>M. albicaulis</i> by some authors	whitestem blazingstar	AnnF	Wide	
Loasaceae	<i>Acrolasia humilis</i>	<i>Nuttallia humilis</i> , <i>Mentzelia humilis</i> , <i>M. thompsonii</i>	Thompson's stickleaf	AnnF	RegEn	Type locality is N side Grand Junction (Osterhout 6086 RM)
Loasaceae	<i>Nuttallia multicaulis</i>	<i>Mentzelia multicaulis</i> var. <i>multicaulis</i>	many-stemmed blazing-star	PerF	RegEn	
Loasaceae	<i>Nuttallia multiflora</i>	<i>Mentzelia multiflora</i> , <i>M. multiflora</i> var. <i>multiflora</i>	desert stickleaf	PerF	Wide	
Loasaceae	<i>Nuttallia pterosperma</i>	<i>Mentzelia pterosperma</i>	wing-seed stickleaf	PerF	Wide	Type locality is Willow Creek, San Juan Co., UT (Eastwood 31 CAS)
Lythraceae	<i>Ammannia robusta</i>	grand redstem	AnnF	Sparse		
Lythraceae	<i>Lythrum salicaria</i>	purple loosestrife	PerF	Intro	Native to Europe. CO state noxious weed (List A)	
Malvaceae	<i>Abutilon theophrasti</i>	velvetleaf	AnnF	Intro	Native to Old World	
Malvaceae	<i>Hibiscus trionum</i>	flower-of-an-hour	AnnF	Intro	Native to Africa	
Malvaceae	<i>Malva neglecta</i>	common mallow	AnnF	Intro	Native to Eurasia	
Malvaceae	<i>Sphaeralcea leptophylla</i>	slenderleaf globemallow	PerF	Periph		
Moraceae	<i>Maclura pomifera</i>	Osage orange	Tree	Intro	Native to E North America.	
Moraceae	<i>Morus alba</i>	white mulberry	Tree	Intro	Native to China	
Nyctaginaceae	<i>Abronia argillosa</i>	clay sand-verbena	PerF	RegEn	Type locality is 6 miles S of Cisco, Grand Co., UT (Welsh, Welsh, & Welsh 16689 BRY)	
Nyctaginaceae	<i>Abronia nana</i>	<i>A. nana</i> var. <i>nana</i>	low sand-verbena	PerF	RegEn	

**Appendix B. Potential (unconfirmed) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Comments
Onagraceae	<i>Camissonia eastwoodiae</i>	<i>Oenothera eastwoodiae</i>	Eastwood's camissonia	AnnF	RegEn	Type locality is Grand Junction, Mesa Co., CO (Eastwood s.n. G)
Onagraceae	<i>Camissonia minor</i>	<i>Oenothera minor</i>	lesser camissonia	AnnF	Periph	
Onagraceae	<i>Camissonia parvula</i>	<i>Oenothera contorta</i> var. <i>flexuosa</i>	tiny camissonia	AnnF	Wide	
Onagraceae	<i>Camissonia scapoidea</i>	<i>C. scapoidea</i> var. <i>scapoidea</i> , <i>Oenothera</i> <i>scapoidea</i> . Includes ssp. <i>brachycarpa</i>	Paiute suncup	AnnF	Wide	
Onagraceae	<i>Camissonia walkeri</i>		Walker's camissonia	AnnF	Periph	Type locality is Paradox Valley, Montrose Co., CO (Walker 200 RM)
Onagraceae	<i>Epilobium brachycarpum</i>	<i>E. paniculatum</i> var. <i>paniculatum</i>	autumn willow-herb	AnnF	Wide	
Onagraceae	<i>Gaura mollis</i>	<i>G. parviflora</i>	small-flowered gaura	AnnF	Wide	
Onagraceae	<i>Oenothera cespitosa</i> ssp. <i>navajoensis</i>		Paria evening-primrose	PerF	RegEn	Weber 3883 (COLO) was probably collected outside the monument.
Onagraceae	<i>Oenothera elata</i> ssp. <i>hirsutissima</i>	<i>O. elata</i>	western evening-primrose	PerF	Wide	
Orchidaceae	<i>Corallorrhiza striata</i>	Includes vars. <i>striata</i> & <i>vreelandii</i>	striped coral-root	PerF	Wide	Young 26 (COLO) cited as present by Weber et al. (2005) was collected outside the monument.
Orobanchaceae	<i>Aphyllon uniflorum</i>	<i>Orobanche uniflora</i> var. <i>occidentalis</i>	naked broomrape	PerF	Wide	
Oxalidaceae	<i>Oxalis corniculata</i>		creeping yellow wood-sorrel	PerF	Intro	Native to Europe
Oxalidaceae	<i>Oxalis dillenii</i>	Included in <i>O. corniculata</i> by some authors	southern yellow wood-sorrel	PerF	Intro	Native to E North America
Plantaginaceae	<i>Plantago elongata</i>		longleaf plantain	AnnF	Sparse	
Plantaginaceae	<i>Plantago eriopoda</i>		woolly-base plantain	PerF	Wide	

**Appendix B. Potential (unconfirmed) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Comments
Poaceae (Gramineae)	<i>Achnatherum x bloomeri</i>	<i>Stiporyzopsis x bloomei</i> , <i>Stipa x bloomei</i> . Hybrid between <i>Stipa hymenoides</i> and other <i>Stipa</i> species except <i>S. comata</i> .	Bloomer's ricegrass	PerG	Wide	Cudlipp 169 (CODO) cited as present by Weber et al. (2005) is from outside the monument
Poaceae (Gramineae)	<i>Agropyron pectiniforme</i>	<i>A. cristatum</i> var. <i>pectiniforme</i> ; included within <i>A. cristatum</i> (without variety) in <i>Flora of North America</i> (2007)	crested wheatgrass	PerG	Intro	Native to Eurasia
Poaceae (Gramineae)	<i>Avena fatua</i>	<i>A. fatua</i> var. <i>fatua</i>	wild oats	AnnG	Intro	Native to Eurasia
Poaceae (Gramineae)	<i>Calamagrostis scopulorum</i>		Jones' reedgrass	PerG	Wide	
Poaceae (Gramineae)	<i>Chloris verticillata</i>		tumble windmillgrass	PerG	Intro	Native to W North America
Poaceae (Gramineae)	<i>Chloris virgata</i>		feather finger grass	AnnG	Wide	
Poaceae (Gramineae)	<i>Critesion glaucum</i>	<i>Hordeum murinum</i> , <i>H. leporinum</i> , <i>H. murinum</i> ssp. <i>leporinum</i>	rabbit barley	AnnG	Intro	Native to Mediterranean
Poaceae (Gramineae)	<i>Cylindropyrum cylindricum</i>	<i>Aegilops cylindrica</i>	jointed goatgrass	AnnG	Intro	Native to Eurasia. CO state noxious weed (List C)
Poaceae (Gramineae)	<i>Cynodon dactylon</i>		Bermuda grass	PerG	Intro	Native to Africa
Poaceae (Gramineae)	<i>Digitaria sanguinalis</i>		hairy crabgrass	AnnG	Intro	Native to Eurasia
Poaceae (Gramineae)	<i>Eragrostis ciliaris</i>		stinkgrass	AnnG	Intro	Native to Eurasia
Poaceae (Gramineae)	<i>Eragrostis mexicana</i>	<i>E. orcuttiana</i>	Mexican lovegrass	AnnG	Intro	Native to W North America
Poaceae (Gramineae)	<i>Eragrostis minor</i>		little lovegrass	AnnG	Intro	Native to Eurasia
Poaceae (Gramineae)	<i>Eremopyrum triticeum</i>	<i>Agropyron triticum</i>	annual wheatgrass	AnnG	Intro	Native to Asia
Poaceae (Gramineae)	<i>Festuca arundinacea</i>	<i>Schedonorus phoenix</i> , <i>S. arundinaceus</i> , <i>Lolium arundinaceum</i>	tall fescue	PerG	Intro	Native to Europe
Poaceae (Gramineae)	<i>Festuca pratensis</i>	<i>Schedonorus pratensis</i> , <i>Lolium pratense</i>	meadow fescue	PerG	Intro	Native to Eurasia
Poaceae (Gramineae)	<i>Leymus cinereus</i>		Great Basin wildrye	PerG	Wide	
Poaceae (Gramineae)	<i>Lolium perenne</i>		perennial ryegrass	PerG	Intro	Native to Eurasia & Africa
Poaceae (Gramineae)	<i>Melica porteri</i>		Porter's melic	PerG	Wide	

**Appendix B. Potential (unconfirmed) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Comments
Poaceae (Gramineae)	<i>Muhlenbergia arctica</i>		foxtail muhly	PerG	Wide	
Poaceae (Gramineae)	<i>Muhlenbergia racemosa</i>		green muhly	PerG	Wide	
Poaceae (Gramineae)	<i>Phalaroides arundinacea</i>	<i>Phalaris arundinacea</i>	reed canary grass	PerG	Wide	
Poaceae (Gramineae)	<i>Schizachyrium scoparium</i>	<i>Andropogon scoparius</i> , <i>S. scoparium</i> var. <i>neomexicanum</i>	little bluestem	PerG	Wide	
Poaceae (Gramineae)	<i>Thinopyrum ponticum</i>	<i>Elymus elongatus</i> , <i>E. elongatus</i> var. <i>ponticus</i> , <i>Agropyron elongatum</i>	tall wheatgrass	PerG	Intro	Native to Eurasia
Polemoniaceae	<i>Collomia linearis</i>		small collomia	AnnF	Wide	
Polemoniaceae	<i>Eriastrum diffusum</i>		spreading eriastrum	AnnF	Wide	Weber 16108 (COLO) cited a present by Weber et al. (2005) was collected outside the monument.
Polemoniaceae	<i>Gilia clokeyii</i>	Included in <i>G. inconspicua</i> by some authors	Clokey's gilia	AnnF	Wide	
Polemoniaceae	<i>Gilia leptomeria</i>	<i>G. leptomeria</i> var. <i>leptomeria</i> , <i>Aliciella leptomeria</i>	common gilia	AnnF	Periph	
Polemoniaceae	<i>Gilia micromeria</i>	<i>Aliciella micromeria</i> , <i>G. leptomeria</i> var. <i>micromeria</i>	common gilia	AnnF	Periph	
Polemoniaceae	<i>Gilia triodon</i>	<i>Aliciella triodon</i> , <i>Ipomopsis triodon</i> , included in <i>G. leptomeria</i> by some authors	coyote gilia	AnnF	Periph	Weber 12246 (COLO) cited in Weber et al. (2005) is probably a specimen of <i>G. ophthalmoides</i> (Weber 11246).
Polemoniaceae	<i>Ipomopsis congesta</i>	<i>Gilia congesta</i> var. <i>congesta</i>	ball-head gilia	PerF	Sparse	
Polemoniaceae	<i>Ipomopsis polycladon</i>	<i>Gilia polycladon</i>	spreading gilia	AnnF	Wide	
Polemoniaceae	<i>Ipomopsis pumila</i>	<i>Gilia pumila</i>	dwarf gilia	AnnF	Wide	
Polemoniaceae	<i>Microsteris gracilis</i> ssp. <i>humilis</i>	<i>Phlox gracilis</i> ssp. <i>humilis</i>	slender phlox	AnnF	Wide	
Polemoniaceae	<i>Navarretia breweri</i>		yellow navarretia	AnnF	Wide	
Polemoniaceae	<i>Polemonium foliosissimum</i>	<i>P. foliosissimum</i> var. <i>foliosissimum</i>	blue leafy Jacob's-ladder	PerF	Wide	

**Appendix B. Potential (unconfirmed) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Comments
Polygonaceae	<i>Acetosella vulgaris</i>	<i>Rumex acetosella</i>	sheep sorrel	PerF	Intro	Native to Eurasia
Polygonaceae	<i>Eriogonum bicolor</i>		pretty wild buckwheat	PerF	RegEn	Type locality is Thompson's Springs, Grand Co., UT (Jones s.n. POM)
Polygonaceae	<i>Eriogonum brevicaule</i>		shortstem wild buckwheat	PerF	Wide	
Polygonaceae	<i>Eriogonum contortum</i>	Grand Valley wild buckwheat	Shrub	RegEn	Type locality is Grand Junction, Mesa Co., CO (Eastwood s.n., NY). CO BLM Sensitive	
Polygonaceae	<i>Eriogonum gordoni</i>	Gordon's wild buckwheat	AnnF	Wide		
Polygonaceae	<i>Eriogonum leptocladon</i>	CO material is var. <i>ramosissimum</i>	San Juan wild buckwheat	Shrub	RegEn	
Polygonaceae	<i>Eriogonum racemosum</i>	<i>E. racemosum</i> var. <i>racemosum</i>	redroot wild buckwheat	PerF	Wide	
Polygonaceae	<i>Eriogonum shockleyi</i> var. <i>longilobum</i>	Includes var. <i>longilobum</i>	Shockley's wild buckwheat	PerF	Wide	Weber 6087 (COLO) cited as present by Weber et al. (2005) was collected outside the monument
Polygonaceae	<i>Persicaria lapathifolia</i>	<i>Polygonum lapathifolium</i>	willow-weed	AnnF	Intro	Native to Eurasia
Polygonaceae	<i>Persicaria maculosa</i>	<i>Polygonum persicaria</i>	lady's-thumb	AnnF	Intro	Native to Eurasia
Polygonaceae	<i>Persicaria pensylvanica</i>	<i>Polygonum pensylvanicum</i>	pinkweed	AnnF	Intro	Native to E North America
Polygonaceae	<i>Polygonum arenastrum</i>	<i>P. aviculare</i>	yard knotweed	AnnF	Intro	Native to Eurasia
Polygonaceae	<i>Polygonum argyrocoleon</i>	Included in <i>P. ramosissimum</i> by some authors	silver-sheath knotweed	AnnF	Intro	Native to Asia
Polygonaceae	<i>Polygonum douglasii</i>	<i>P. douglasii</i> var. <i>douglasii</i>	Douglas' knotweed	AnnF	Wide	
Polygonaceae	<i>Rumex maritimus</i> var. <i>fueginus</i>	<i>R. fueginus</i>	golden dock	AnnF	Wide	
Polygonaceae	<i>Stenogonum flexum</i>	<i>Eriogonum flexum</i>	bent wild buckwheat	AnnF	RegEn	
Portulacaceae	<i>Claytonia lanceolata</i>	<i>C. lanceolata</i> var. <i>lanceolata</i> . Some authors include <i>C. rosea</i>	lanceleaf springbeauty	PerF	Wide	

**Appendix B. Potential (unconfirmed) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Comments
Portulacaceae	<i>Oreobroma nevadensis</i>	<i>Lewisia nevadensis</i>	Nevada bitterroot	PerF	Wide	
Primulaceae	<i>Dodecatheon pulchellum</i>	<i>D. pulchellum</i> var. <i>pulchellum</i> , <i>D.</i> <i>pauciflorum</i> . Includes "subvars." from UT <i>Flora coriaceum</i> , <i>atwoodii</i> , & <i>huberi</i> (Utah Flora 2003)	dark-throat shooting- star	PerF	Wide	
Primulaceae (Myrsinaceae)	<i>Glaux maritima</i>		sea-milkwort	PerF	Wide	
Ranunculaceae	<i>Myosurus minimus</i>		tiny mouse-tail	AnnF	Wide	
Ranunculaceae	<i>Ranunculus glaberrimus</i>		sagebrush buttercup	PerF	Wide	
Rosaceae	<i>Pentaphylloides floribunda</i>	<i>Potentilla fruticosa</i> , <i>Pentaphylloides</i> <i>fruticosa</i> , <i>Dasiphora</i> <i>fruticosa</i> ssp. <i>floribunda</i> , <i>D.</i> <i>floribunda</i>	shrubby cinquefoil	Shrub	Wide	
Rosaceae	<i>Peraphyllum ramosissimum</i>		squaw-apple	Shrub	Wide	
Rosaceae	<i>Physocarpus alternans</i>		dwarf ninebark	Shrub	Wide	
Rubiaceae	<i>Galium septentrionale</i>	<i>G. boreale</i>	northern bedstraw	PerF	Wide	
Rubiaceae	<i>Galium spurium</i>	<i>G. aparine</i> var. <i>echinospermum</i>	cleavers	AnnF	Wide	
Scrophulariaceae	<i>Collomia parviflora</i>		blue-eyed Mary	AnnF	Wide	
Scrophulariaceae	<i>Cordylanthus wrightii</i>		Wright's bird's-beak	AnnF	Wide	
Scrophulariaceae	<i>Linaria genistifolia</i> ssp. <i>dalmatica</i>	<i>L. dalmatica</i>	Dalmatian toadflax	PerF	Intro	Native to Europe, CO state noxious weed (List B)
Scrophulariaceae	<i>Orthocarpus purpureoalbus</i>	<i>Orthocarpus</i> <i>purpureoalbus</i>	violet owl-clover	AnnF	RegEn	
Scrophulariaceae	<i>Pedicularis centranthera</i>		dwarf lousewort	PerF	Wide	
Scrophulariaceae	<i>Penstemon barbatus</i>	Includes vars. <i>barbatus</i> & <i>torreyi</i>	beardlip penstemon	PerF	Wide	
Scrophulariaceae	<i>Penstemon eatonii</i>	Includes vars. <i>eatonii</i> & <i>undosus</i>	Eaton's firecracker	PerF	Periph	
Scrophulariaceae	<i>Penstemon strictus</i>		Rocky Mountain penstemon	PerF	Wide	

**Appendix B. Potential (unconfirmed) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Comments
Scrophulariaceae	<i>Veronica peregrina</i> ssp. <i>xalapensis</i>		purslane speedwell	AnnF	Wide	
Solanaceae	<i>Datura wrightii</i>	<i>D. meteloides</i>	angel's trumpet	PerF	Sparse	
Solanaceae	<i>Lycium barbarum</i>	<i>L. halimifolium</i>	matrimony-vine	Shrub	Intro	Native to Eurasia
Solanaceae	<i>Solanum dulcamara</i>		European bittersweet	PerF	Intro	Native to Eurasia
Solanaceae	<i>Solanum physalifolium</i> var. <i>nitidibaccatum</i>	<i>S. villosum</i> , <i>S.</i> <i>sarrachoides</i> , <i>S.</i> <i>physalifolium</i>	ground-cherry nightshade	AnnF	Intro	Native to South America
Solanaceae	<i>Solanum triflorum</i>		cut-leaf nightshade	AnnF	Wide	
Tamaricaceae	<i>Tamarix parviflora</i>	<i>T. tetrandra</i>	small-flowered tamarisk	Shrub	Intro	Native to Europe
Violaceae	<i>Viola vallicola</i>	<i>V. nuttallii</i> var. <i>vallicola</i> , <i>V. vallicola</i> var. <i>vallicola</i>	valley violet	PerF	Wide	
Viscaceae	<i>Arceuthobium vaginatum</i>		southwestern dwarf- mistletoe	PerF	Wide	Typically parasitic on <i>Pinus</i> <i>ponderosa</i>
Woodsiaceae (Polypodiaceae, Aspleniaceae)	<i>Woodisia scopulina</i>	<i>W. scopulina</i> ssp. <i>scopulina</i>	Rocky Mountain woodsia	Fern	Wide	
Zannichelliaceae	<i>Zannichellia palustris</i>		horned pondweed	PerF	Wide	

The vascular plant species shown in this table are known from the vicinity of Colorado National Monument in San Juan County, Utah, but have not previously been reported or confirmed for the monument. Species on this list are derived from a checklist of potential species developed by Tim Hogan and Nan Leiderer for Colorado National Monument's NPSpecies database and Weber et al. (1982, 2005). Some species from Appendix C could be considered as potentially occurring in the monument, but are not included here.

**Appendix C. Rejected (falsely reported or questionable) vascular plant taxa of Colorado National Monument.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Comments
Agavaceae	<i>Yucca angustissima</i>	<i>Y. angustissima</i> var. <i>angustissima</i>	narrowleaved yucca	Shrub	RegEn	Ques?	Reported (without a voucher) by NCPN veg mapping team, but this species is not known from Colorado (Weber and Wittmann 2001). Report probably based on <i>Y. harrimaniae</i> .
Agavaceae	<i>Yucca glauca</i>		soapweed yucca	Shrub	Wide	Ques?	Reported (without a voucher) by NCPN veg mapping team, but COLM is well outside the species' expected range. Report probably based on <i>Y. harrimaniae</i> .
Agavaceae	<i>Yucca neomexicana</i>	<i>Y. harrimaniae</i> var. <i>neomexicana</i>	New Mexico yucca	Shrub	RegEn	FalsRep	Reports from COLM based on a misidentified specimen of <i>Y. harrimaniae</i> .
Apiaceae (Umbelliferae)	<i>Cymopterus purpurascens</i>		basin white-cup spring-parsley	PerF	Wide	FalsRep	Not known from Colorado. Reports from COLM based on a misidentified specimen of <i>C. bullatus</i> . Report from NCPN COLM veg mapping report may be based on <i>C. purpureus</i> .
Asteraceae (Compositae)	<i>Artemisia ludoviciana ssp. mexicana</i>		Louisiana wormwood	PerF	Wide	FalsRep	Reports from COLM based on a misidentified specimen of <i>ssp. incompta</i> .
Asteraceae (Compositae)	<i>Cirsium rothrockii</i>	<i>C. arizonicum</i> var. <i>rothrockii</i>	Rothrock's thistle	PerF	RegEn	FalsRep	Reports from COLM based on a misidentified specimen of <i>C. calcareum</i> . Not known from Colorado.
Asteraceae (Compositae)	<i>Cirsium undulatum</i>	<i>C. undulatum</i> var. <i>undulatum</i>	wavy-leaved thistle	PerF	Wide	FalsRep	Reports from COLM based on a misidentified specimen of <i>C. tracyi</i> .
Asteraceae (Compositae)	<i>Erigeron pumilus</i>	<i>E. pumilus</i> var. <i>pumilus</i>	shaggy fleabane	PerF	Wide	FalsRep	Reports from COLM based on a misidentified specimen of <i>E. concinnus</i> .
Asteraceae (Compositae)	<i>Stephanomeria pauciflora</i>		brown-plume wire-lettuce	PerF	Wide	FalsRep	Reports from Weber et al. (2005) are <i>S. tenuifolia</i> .
Asteraceae (Compositae)	<i>Townsendia strigosa</i>	<i>T. strigosa</i> var. <i>strigosa</i>	hairy townsendia	PerF	Periph	FalsRep	Reports from COLM based on a misidentified specimen of <i>T. incana</i> .
Brassicaceae (Cruciferae)	<i>Boechera oxylobula</i>	<i>Arabis oxylobula</i> , A. <i>demissa</i>	Glenwood Springs rockcress	PerF	LocEn	FalsRep	Reports from COLM, COLO, & Weber et al. (2005) are based on misidentified specimens of <i>B. pulchra</i> .

**Appendix C. Rejected (falsely reported or questionable) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Comments
Brassicaceae (Cruciferae)	<i>Lepidium virginicum</i>	<i>L. virginicum</i> var. <i>medium</i>	poor-man's pepperwort	AnnF	Sparse	FalsRep	Reports from COLM based on a misidentified specimen of <i>L. strictum</i> .
Cactaceae	<i>Opuntia erinacea</i> var. <i>utahensis</i>	Variety not recognized in <i>Flora of North America</i> (2003). Considered a few-spined variant of <i>O. polyacantha</i> .	Utah prickly-pear	PerF	Wide	FalsRep	Reports from COLM based on a misidentified specimen of <i>O. polyacantha</i> .
Cactaceae	<i>Opuntia macrorhiza</i>	<i>O. macrorhiza</i> var. <i>macrorhiza</i>	twist-spine prickly- pear	PerF	Wide	FalsRep	Reports from COLM based on a misidentified specimen of <i>O. polyacantha</i> .
Cactaceae	<i>Pediocactus knowltonii</i>		Knowlton's pincushion cactus	PerF	LocEn	FalsRep	Reports from COLM based on a misidentified specimen of <i>P. simpsonii</i> . Not known from Colorado. USFWS: Endangered.
Caprifoliaceae	<i>Symporicarpus occidentalis</i>		western snowberry	Shrub	Wide	Ques?	Reported (without a voucher) by NCPN veg mapping team, but COLM is outside the species' expected range. Reports may be based on <i>S. rotundifolius</i> .
Chenopodiaceae	<i>Atriplex obovata</i>		New Mexico saltbush	Shrub	Wide	Ques?	Reported (without a voucher) by NCPN veg mapping team, but COLM is outside the species' expected range. Report probably based on <i>A. gardneri</i> .
Cyperaceae	<i>Carex geophila</i>		White Mountain sedge	PerG	Wide	FalsRep	Reports from Weber et al. (2005) are based on misidentified specimens of <i>C. rossii</i> .
Cyperaceae	<i>Scirpus americanus</i>	<i>Scirpus olneyi</i> , <i>Schoenoplectus americanus</i>	American bulrush	PerG	Wide	FalsRep	Reports from COLM based on a misidentified specimen of <i>Schoenoplectus pungeus</i> .
Fabaceae (Leguminosae)	<i>Astragalus pattersonii</i>		Patterson's milkvetch	PerF	RegEn	FalsRep	Reports from COLM based on a misidentified specimen of <i>A. praelongus</i> .
Fabaceae (Leguminosae)	<i>Astragalus purshii</i>		Pursh's milkvetch	PerF	Wide	FalsRep	Reports from COLM based on a misidentified specimen of <i>A. mollissimus</i> var. <i>thompsoniae</i> .

**Appendix C. Rejected (falsely reported or questionable) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Comments
Fabaceae (Leguminosae)	<i>Lupinus caudatus</i>	<i>L. argenteus</i> var. <i>utahensis</i> , <i>L. caudatus</i> ssp. <i>caudatus</i>	Utah lupine	PerF	Wide	FalsRep	Reports from COLM and Weber et al. (2005) based on a misidentified specimen of <i>L. argenteus</i> .
Fabaceae (Leguminosae)	<i>Psoralea mephitica</i>	<i>Pediomelum</i> <i>mephiticum</i>	skunk breadroot	PerF	RegEn	FalsRep	Reports from COLM based on a misidentified specimen of <i>Pediomelum megalanthum</i> .
Juncaceae	<i>Juncus nodosus</i>	knotted rush	PerG	Wide	FalsRep	Reports from COLM based on a misidentified specimen of <i>J. torreyi</i> .	
Juncaginaceae	<i>Triglochin concinna</i>	<i>T. concinna</i> var. <i>debilis</i> ; included in <i>T.</i> <i>maritimum</i> in <i>Flora</i> of North America (2000)	low arrowgrass	PerG	Wide	FalsRep	Reports from Weber et al. (2005) are based on misidentified specimens of <i>T. maritimum</i> .
Malvaceae	<i>Sphaeralcea fendleri</i>	Fendler's globemallow	PerF	Periph	Ques?	Reported (without a voucher) by NCPN veg mapping team, but COLM is well outside the species' expected range. Reports may be based on <i>S. paniculata</i> .	
Meliaceae (Liliaceae)	<i>Toxicoscordion venenosum</i>	Zigadenus venenosus	meadow death-camas	PerF	Wide	FalsRep	Reports from COLM based on a misidentified specimen of <i>T. paniculatum</i> .
Nyctaginaceae	<i>Abronia fragrans</i>	<i>A. fragrans</i> var. <i>fragrans</i>	fragrant sand-verbena	PerF	Periph	Ques?	Reported (without a voucher) by NCPN veg mapping team, but COLM is outside the species' expected range. Report probably based on <i>A. elliptica</i> .
Onagraceae	<i>Epilobium saximontanum</i>	Rocky Mountain willow-herb	PerF	Wide	FalsRep	Reports from COLM based on a misidentified specimen of <i>E. ciliatum</i> .	
Orchidaceae	<i>Limnocharis zothecina</i>	<i>Platanthera</i> <i>zothecina</i> , <i>Habenaria</i> <i>zothecina</i>	alcove bog-orchid	PerF	RegEn	FalsRep	Reports from COLM based on a misidentified specimen of <i>Platanthera tescamnis</i> .
Orchidaceae	<i>Imnorchis ensifolia</i>	<i>Habenaria sparsiflora</i> var. <i>laxiflora</i> , <i>Platanthera</i> <i>sparsiflora</i> var. <i>ensifolia</i> . Vars. not recognized in <i>Flora</i> of North America (2002).	few-flower bog-orchid	PerF	Wide	FalsRep	Reports from COLM based on a misidentified specimen of <i>Platanthera tescamnis</i> .

**Appendix C. Rejected (falsely reported or questionable) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Comments	
Orchidaceae	<i>Limnorchis hyperborea</i>	<i>Platanthera aquilonis</i> , <i>P. hyperborea</i> , <i>Habenaria hyperborea</i>	northern bog-orchid	PerF	Wide	FalsRep	Reports from COLM based on a misidentified specimen of <i>Platanthera tescamnis</i> .	
Orobanchaceae	<i>Orobanche multiflora</i>	<i>O. ludoviciana</i> var. <i>multiflora</i> ; included in <i>O. ludoviciana</i> by some authors	many-flowered broomrape	PerF	Wide	FalsRep	Reports from COLM based on a misidentified specimen of <i>Orobanche ludoviciana</i> .	
Poaceae (Gramineae)	<i>Agropyron pseudorepens</i>	<i>Elymus</i> x <i>pseudorepens</i> . Hybrid between <i>E. trachycaulus</i> x <i>E. lanceolatus</i>	false quackgrass	PerG	Wide	FalsRep	Reports from COLM based on a misidentified specimen of <i>Elytrigia repens</i> .	
Polemoniaceae	<i>Gilia leptomeria</i>	<i>G. leptomeria</i> var. <i>leptomeria</i> , <i>Alicieila</i> <i>leptomeria</i>	common gilia	AnnF	Periph	FalsRep	Reports from COLM based on a misidentified specimen of <i>G. ophthalmoides</i> .	
Polygonaceae	<i>Phlox pulvinata</i>	<i>P. sibirica</i> ssp. <i>pulvinata</i> , <i>P. caespitosa</i>	cushion phlox	PerF	Wide	Ques?	Reported (without a voucher) by NCPN veg mapping team, but COLM is well outside the species' expected range. Report may be based on <i>E. umbellatum</i> or <i>E. lonchophyllum</i> .	
Rosaceae	<i>Amelanchier alnifolia</i>	<i>A. alnifolia</i> var. <i>alnifolia</i>	E. <i>flavum</i> var. <i>flavum</i>	yellow wild-buckwheat	PerF	Wide	Ques?	Reported (without a voucher) by NCPN veg mapping team, but COLM is outside the species' expected range. Report probably based on <i>A. utahensis</i> .
Rosaceae	<i>Purshia tridentata</i>		Saskatoon serviceberry	Shrub	Wide	FalsRep	Reports from COLM based on a misidentified specimen of <i>P. stansburiana</i> .	
Salicaceae	<i>Salix laevigata</i>		red willow	Shrub	Wide	FalsRep	Reports from COLM based on misidentified specimens of <i>S. lutea</i> and <i>S. bebbiana</i> . Not known from Colorado.	

**Appendix C. Rejected (falsely reported or questionable) taxa of Colorado National Monument, cont.**

Family	Species name	Synonyms/ Taxonomic notes	Common name	Life Form	Range	Park status	Comments
Salicaceae	<i>Salix monticola</i>		mountain willow	Shrub	Wide	Ques?	Reported (without a voucher) by NCPN veg mapping team, but suitable habitat not present in COLM. Reports may be based on <i>S. lutea</i> or <i>S. ligulifolia</i> .
Scrophulariaceae	<i>Penstemon crandallii</i>	Crandall's beardtongue		PerF	RegEn	FalsRep	Reports from COLM based on a misidentified specimen of <i>P. caespitosus</i> .
Sinopteridaceae (Polypodiaceae, Adiantaceae)	<i>Pellaea glabella</i>	<i>P. glabella</i> var. <i>simplex</i>	western cliffbrake	fern	Sparse	FalsRep	Reports from COLM based on a misidentified specimen of <i>P. atropurpurea</i> .
Typhaceae	<i>Typha domingensis</i>		southern cattail	PerG	Wide	FalsRep	Reports from COLM based on a misidentified specimen of <i>Typha latifolia</i> .
Ulmaceae (Celtidaceae)	<i>Celtis occidentalis</i>		common hackberry	Tree	Intro	FalsRep	Reports from COLM based on a misidentified specimen of <i>Celtis reticulata</i> .
Woodsiaceae (Polypodiaceae, Aspleniaceae)	<i>Woodsia mexicana</i>		Mexican woodsia	fern	Wide	FalsRep	Reports from COLM based on a misidentified specimen of <i>Woodsia oregana</i> ssp. <i>cathcartiana</i> .

The vascular plant species shown in this table have been reported for Colorado National Monument from published and unpublished literature (Weber et al. 1982, 2005) or from herbarium specimens, but are now believed to be erroneous because of misidentifications (False Reports or FalsRep) or because the monument is well outside the known or expected range of the species (Questionable or Ques?).

**Appendix D. Confirmed, historical, and reported vascular plant taxa of Colorado National Monument, organized by life form with ecological notes.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<b>Trees</b>										
Aceraceae	<i>Negundo aceroides</i> ssp. <i>interius</i>	boxelder	Native	Pres	Apr-Jun		X		X	
Aceraceae	<i>Negundo aceroides</i> ssp. <i>violaceum</i>	boxelder	Intro	Pres	Apr-Jun				X	
Betulaceae	<i>Betula fontinalis</i>	water birch	Native	Pres	Apr-May				X	
Cupressaceae	<i>Sabina osteosperma</i>	Utah juniper	Native	Pres	NA		X	X		
Elaeagnaceae	<i>Elaeagnus angustifolia</i>	Russian-olive	Intro	Pres	May-Jul	X	X		X	Disturbed areas
Fagaceae	<i>Quercus gambelii</i>	Gambel oak	Native	Pres	Apr-Jun		X	X		
Pinaceae	<i>Picea pungens</i>	blue spruce	Native	Rep	NA				X	
Pinaceae	<i>Pinus edulis</i>	two-needle pinyon	Native	Pres	NA		X			
Pinaceae	<i>Pinus ponderosa</i> var. <i>scopulorum</i>	ponderosa pine	Native	Pres	NA		X	X		
Pinaceae	<i>Pseudotsuga menziesii</i>	Douglas-fir	Native	Pres	NA		X	X		
Rosaceae	<i>Armeniaca vulgaris</i>	apricot	Intro	Pres	Mar-Apr				X	
Salicaceae	<i>Populus alba</i>	white poplar	Intro	Rep	Mar-Jun				X	Cultivated?
Salicaceae	<i>Populus angustifolia</i>	narrow-leaved cottonwood	Native	Pres	Apr-Jun				X	
Salicaceae	<i>Populus deltoides</i> ssp. <i>viscidissima</i>	Rio Grande cottonwood	Native	Pres	Mar-Jun				X	
Salicaceae	<i>Populus tremuloides</i>	quaking aspen	Native	Pres	Mar-Jun				X	X
Salicaceae	<i>Populus x acuminata</i>	lance-leaf cottonwood	Native	Pres	Apr-Jun				X	X
Salicaceae	<i>Salix amygdaloides</i>	peach-leaf willow	Native	Pres	Apr-Jun				X	X
Salicaceae	<i>Salix fragilis</i>	crack willow	Intro	Rep	Apr-May				X	
Salicaceae	<i>Salix gooddingii</i>	Goodding's black willow	Native	Pres	Apr-May				X	
Ulmaceae	<i>Celtis reticulata</i> (Celtidaceae)	nettleleaf hackberry	Native	Pres	Apr-May	X		X	X	
Ulmaceae	<i>Ulmus pumila</i>	Siberian elm	Intro	Pres	Mar-Apr	X	X			
<b>Shrubs</b>										
Aceraceae	<i>Acer glabrum</i>	Rocky Mountain maple	Native	Pres	Apr-Jun		X	X	X	
Agavaceae	<i>Yucca harrimaniae</i>	Harriman's yucca	Native	Pres	Apr-May	X	X			Rimrock
Anacardiaceae	<i>Rhus aromatica</i> ssp. <i>trilobata</i>	squawbush	Native	Pres	May-Jul	X	X		X	Cliffs & ledges
Anacardiaceae	<i>Toxicodendron rydbergii</i>	western poison ivy	Native	Pres	May-Jun	X			X	

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<b>Shrubs, cont.</b>										
Asteraceae (Compositae)	<i>Artemisia bigelovii</i>	Bigelow's sagebrush	Native	Pres	Aug–Oct	X	X			Rocky areas
Asteraceae (Compositae)	<i>Artemisia frigida</i>	fringed sagebrush	Native	Pres	Jul–Sep	X	X			
Asteraceae (Compositae)	<i>Brickellia californica</i>	California brickellbush	Native	Pres	Aug–Sep	X	X			Rimrock
Asteraceae (Compositae)	<i>Brickellia longifolia</i>	longleaf brickellbush	Native	Pres	Aug–Sep	X	X			
Asteraceae (Compositae)	<i>Brickellia microphylla</i> var. <i>scabra</i>	rough brickellbush	Native	Pres	Aug–Oct	X	X			Sandstone
Asteraceae (Compositae)	<i>Brickellia oblongifolia</i>	Mohave brickellbush	Native	Pres	Jun–Aug	X	X			Clay knolls & Rimrock
Asteraceae (Compositae)	<i>Chrysothamnus depressus</i>	dwarf rabbitbrush	Native	Pres	Jul–Sep	X	X			
Asteraceae (Compositae)	<i>Chrysothamnus linifolius</i>	spear-leaf rabbitbrush	Native	Rep	Jul–Sep				X	
Asteraceae (Compositae)	<i>Chrysothamnus nauseosus</i> ssp. <i>graveolens</i>	glabrate rabbitbrush	Native	Pres	Aug–Oct	X	X	X	X	
Asteraceae (Compositae)	<i>Chrysothamnus nauseosus</i> ssp. <i>leiospermus</i>	smoothseed rabbitbrush	Native	Pres	Aug–Oct	X	X			Rocky areas
Asteraceae (Compositae)	<i>Chrysothamnus parryi</i> ssp. <i>parryi</i>	Parry's rabbitbrush	Native	Pres	Jul–Sep				X	
Asteraceae (Compositae)	<i>Chrysothamnus vaseyi</i>	Vasey's rabbitbrush	Native	Rep	Jul–Sep	X				
Asteraceae (Compositae)	<i>Chrysothamnus viscidiflorus</i> ssp. <i>stenophyllus</i>	slenderleaf rabbitbrush	Native	Pres	Jul–Sep	X	X			
Asteraceae (Compositae)	<i>Gutierrezia sarothrae</i>	broom snakeweed	Native	Pres	Jul–Oct	X	X	X		
Asteraceae (Compositae)	<i>Picrothamnus desertorum</i>	bud sagebrush	Native	Rep	Apr–Jun	X	X			Adobe hills & colluvium
Asteraceae (Compositae)	<i>Seriphidium novum</i>	black sagebrush	Native	Pres	Aug–Oct	X	X			Shallow soils over bedrock

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<b>Shrubs, cont.</b>										
Asteraceae (Compositae)	<i>Seriphidium tridentatum</i> ssp. <i>tridentatum</i>	basin big sagebrush	Native	Pres	Jul–Sep	X	X	X	X	
Asteraceae (Compositae)	<i>Seriphidium tridentatum</i> var. <i>wyomingense</i>	Wyoming big sagebrush	Native	Rep	Jul–Sep	X				
Asteraceae (Compositae)	<i>Tetradymina canescens</i>	spineless horsebrush	Native	Pres	Jun–Sep	X				
Asteraceae (Compositae)	<i>Tetradymina spinosa</i>	shortspine horsebrush	Native	Pres	Apr–Jun	X	X			Adobe hills & colluvium
Berberidaceae	<i>Mahonia fremontii</i>	Fremont's mahonia	Native	Pres	Apr–Jul	X	X			
Berberidaceae	<i>Mahonia repens</i>	Oregon-grape	Native	Pres	Apr–Jun	X	X	X	X	
Caprifoliaceae	<i>Symphoricarpos longiflorus</i>	longflower snowberry	Native	Rep	May–Jul	X	X			
Caprifoliaceae	<i>Symphoricarpos rotundifolius</i>	mountain snowberry	Native	Pres	Jun–Aug	X	X			
Celastraceae	<i>Paxistima myrsinoides</i>	mountain-lover	Native	Pres	May–Aug	X	X			
Chenopodiaceae	<i>Atriplex brandegeei</i>	Brandegee's saltbush	Native	Pres	Jun–Aug	X	X			Adobe hills & colluvium
Chenopodiaceae	<i>Atriplex canescens</i>	fourwing saltbush	Native	Pres	May–Sep	X	X			Sandy soils
Chenopodiaceae	<i>Atriplex confertifolia</i>	shadscale	Native	Pres	May–Sep	X	X			Adobe hills & colluvium
Chenopodiaceae	<i>Atriplex corrugata</i>	mat saltbush	Native	Pres	Apr–Sep	X				Adobe hills & colluvium
Chenopodiaceae	<i>Atriplex gardneri</i>	Gardner's saltbush	Native	Rep	May–Aug	X				
Chenopodiaceae	<i>Atriplex grayi</i>	spiny hopsage	Native	Pres	Apr–Jul	X	X			
Chenopodiaceae	<i>Krascheninnikovia lanata</i>	winterfat	Native	Pres	May–Jul	X	X			
Chenopodiaceae (Sarcobataceae)	<i>Sarcobatus vermiculatus</i>	greasewood	Native	Pres	May–Aug	X			X	Alkaline
Crossosomataceae (Celastraceae)	<i>Forsellasia meionandra</i>	spiny greasebush	Native	Pres	Mar–Jun	X	X			Rimrock
Cupressaceae	<i>Juniperus communis</i> ssp. <i>alpina</i>	common juniper	Native	Rep	NA			X		
Elaeagnaceae	<i>Shepherdia argentea</i>	silver buffaloberry	Native	Pres	Apr–May			X		
Ephedraceae	<i>Ephedra torreyana</i>	Torrey's mormontea	Native	Pres	NA	X				
Ephedraceae	<i>Ephedra viridis</i>	green ephedra	Native	Pres	NA	X	X	X		

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<b>Shrubs, cont.</b>										
Ericaceae	<i>Arctostaphylos patula</i> ssp. <i>platyphylla</i>	greenleaf manzanita	Native	Pres	Mar–Jul		X			
Fagaceae	<i>Quercus havardii</i> var. <i>tuckeri</i>	shiny oak	Native	Pres	Apr–Jun		X			Sandy soils
Fagaceae	<i>Quercus undulata</i>	few-lobe oak	Native	Pres	Apr–Jun		X			
Grossulariaceae (Saxifragaceae)	<i>Ribes inerme</i>	whitestem gooseberry	Native	Rep	Apr–Jul		X		X	
Grossulariaceae (Saxifragaceae)	<i>Ribes leptanthum</i>	trumpet gooseberry	Native	Pres	Apr–Jun	X			X	
Hydrangeaceae (Saxifragaceae)	<i>Fendlera falcata</i>	Fendlerbush	Native	Pres	Apr–Jun		X			Rimrock
Oleaceae	<i>Philadelphus microphyllus</i>	littleleaf mock-orange	Native	Pres	May–Sep		X		X	Rimrock
Oleaceae	<i>Forestiera pubescens</i>	desert olive	Native	Pres	Apr–May		X		X	
Oleaceae	<i>Fraxinus anomala</i>	singleleaf ash	Native	Pres	Apr–May		X		X	Rimrock
Polemoniaceae	<i>Leptodactylon pungens</i>	prickly-phlox	Native	Pres	May–Jul		X		X	
Polygonaceae	<i>Eriogonum corymbosum</i> var. <i>orbiculatum</i>	rimrock wild buckwheat	Native	Pres	Aug–Oct		X			Rimrock
Polygonaceae	<i>Eriogonum lonchophyllum</i>	longleaf wild buckwheat	Native	Pres	Jun–Oct	X	X			
Polygonaceae	<i>Eriogonum microthecum</i> var. <i>laxiflorum</i>	slender wild buckwheat	Native	Pres	Jun–Oct	X	X		X	
Polygonaceae	<i>Eriogonum microthecum</i> var. <i>simpsonii</i>	slender wild buckwheat	Native	Pres	Jun–Oct	X	X			
Rosaceae	<i>Amelanchier utahensis</i>	Utah serviceberry	Native	Pres	Apr–Jun	X	X		X	
Rosaceae	<i>Cercocarpus intricatus</i>	dwarf mountain mahogany	Native	Pres	Apr–Jun	X				Rimrock
Rosaceae	<i>Cercocarpus ledifolius</i>	curl-leaf mountain mahogany	Native	Pres	May–Jun		X			Rocky sites
Rosaceae	<i>Cercocarpus montanus</i>	alder-leaf mountain mahogany	Native	Pres	May–Jun	X	X			Shallow sandy to Clay soil
Rosaceae	<i>Coleogyne ramosissima</i>	blackbrush	Native	Pres	Apr–Jun		X			Rimrock
Rosaceae	<i>Holodiscus discolor</i>	bush oceanspray	Native	Pres	Jun–Aug	X	X			

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<b>Shrubs, cont.</b>										
Rosaceae	<i>Padus virginiana</i> ssp. <i>melanocarpa</i>	western chokecherry	Native	Pres	May–Jul		X	X		
Rosaceae	<i>Purshia stansburiana</i>	cliff-rose	Native	Pres	May–Jun		X	X		Rimrock
Rosaceae	<i>Rosa woodsii</i>	Woods' rose	Native	Pres	May–Jul		X	X		
Salicaceae	<i>Salix bebbiana</i>	Bebb's willow	Native	Pres	May–Jun					
Salicaceae	<i>Salix exigua</i>	coyote willow	Native	Pres	Apr–Aug					
Salicaceae	<i>Salix ligulifolia</i>	strapleaf willow	Native	Pres	Apr–Jun					
Salicaceae	<i>Salix lucida</i> ssp. <i>caudata</i>	whiplash willow	Native	Pres	Apr–Jun					
Salicaceae	<i>Salix lutea</i>	yellow willow	Native	Pres	Apr–Jun					
Tamaricaceae	<i>Tamarix ramosissima</i>	five-stamen tamarisk	Intro	Pres	Apr–Sep					
<b>Perennial Forbs</b>										
Alliaceae	<i>Allium acuminatum</i>	taper-tip onion	Native	Pres	May–Jul	X				Adobe hills & colluvium
Alliaceae	<i>Allium nevadense</i>	Nevada onion	Native	Pres	Apr–Jul	X				Adobe hills
Alliaceae	<i>Allium textile</i>	textile onion	Native	Pres	May–Jun	X	X			Clay flats
Alliaceae	<i>Androstephium breviflorum</i>	pink funnel-lily	Native	Pres	Apr–May	X	X			Adobe hills & colluvium
Alliaceae (Liliaceae, Themidaceae)	<i>Eremogone fendleri</i>	Fendler's sandwort	Native	Rep	May–Sep	X	X			
Alsinaceae (Caryophyllaceae)	<i>Eremogone hookeri</i>	Hooker's sandwort	Native	Rep	Apr–Aug	X	X			
Alsinaceae (Caryophyllaceae)	<i>Eremogone kingii</i> ssp. <i>wintahensis</i>	basin sandwort	Native	Pres	May–Aug	X	X			Clay knolls & Rimrock
Apiaceae (Umbelliferae)	<i>Aletes eastwoodiae</i>	Eastwood's desert-parsley	Native	Pres	Apr–Jun	X	X			Cliffs & Rimrock
Apiaceae (Umbelliferae)	<i>Aletes latilobus</i>	Canyonlands lomatium	Native	Pres	Apr–Jun		X			Cliffs & Rimrock (Entrada & Wingate)
Apiaceae (Umbelliferae)	<i>Conium maculatum</i>	poison-hemlock	Intro	Rep	May–Sep				X	
Apiaceae (Umbelliferae)	<i>Cymopterus bulbosus</i>	onion spring-parsley	Native	Pres	Apr–May	X	X			Rimrock & Adobe hills

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<i>Perennial Forbs, cont.</i>										
Apiaceae (Umbelliferae)	<i>Cymopterus fendleri</i>	Fendler's cymopterus	Native	Pres	Apr–May		X			Adobe hills & colluvium
Apiaceae (Umbelliferae)	<i>Cymopterus purpureus</i>	Colorado Plateau spring-parsley	Native	Pres	Apr–Jun	X	X			Adobe hills & colluvium
Apiaceae (Umbelliferae)	<i>Lomatium grayi</i>	milfoil lomatium	Native	Rep	Apr–May	X	X			
Apocynaceae	<i>Apocynum cannabinum</i>	common dogbane	Native	Pres	Jun–Aug				X	
Asclepiadaceae	<i>Asclepias asperula</i> ssp. <i>asperula</i>	spider milkweed	Native	Pres	May–Jul	X	X			
Asclepiadaceae	<i>Asclepias cryptoceras</i>	pallid milkweed	Native	Pres	Apr–Jun	X	X			Adobe hills & colluvium
Asclepiadaceae	<i>Asclepias speciosa</i>	showy milkweed	Native	Pres	May–Aug				X	Disturbed areas
Asclepiadaceae	<i>Asclepias subverticillata</i>	whorled milkweed	Native	Pres	May–Sep	X	X		X	Disturbed areas
Asparagaceae (Liliaceae)	<i>Asparagus officinalis</i>	asparagus	Intro	Pres	Jun–Jul				X	Disturbed areas
Asteraceae (Compositae)	<i>Acropiton repens</i>	Russian knapweed	Intro	Pres	Jun–Sep	X				Disturbed areas
Asteraceae (Compositae)	<i>Ageratina herbacea</i>	white thoroughwort	Native	Pres	Aug–Oct	X	X			Sandstone ledges
Asteraceae (Compositae)	<i>Ambrosia psilostachya</i> var. <i>coronopifolia</i>	western ragweed	Native	Pres	Aug–Oct	X				Disturbed areas
Asteraceae (Compositae)	<i>Antennaria marginata</i>	sandstone pussytoes	Native	Pres	May–Jul					Disturbed areas
Asteraceae (Compositae)	<i>Antennaria parvifolia</i>	common pussytoes	Native	Pres	May–Jul					
Asteraceae (Compositae)	<i>Arctium minus</i>	burdock	Intro	Pres	Jul–Sep				X	Disturbed areas
Asteraceae (Compositae)	<i>Artemisia biennis</i>	biennial wormwood	Intro	Pres	Aug–Oct	X			X	
Asteraceae (Compositae)	<i>Artemisia ludoviciana</i> ssp. <i>albula</i>	Louisiana wormwood	Native	Pres	Jul–Oct	X	X		X	
Asteraceae (Compositae)	<i>Artemisia ludoviciana</i> ssp. <i>incompta</i>	Louisiana wormwood	Native	Pres	Jul–Oct				X	X
Asteraceae (Compositae)	<i>Aster lanceolatus</i> ssp. <i>hesperius</i>	Siskiyou aster	Native	Pres	Jul–Sep				X	

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<i>Perennial/Forbs, cont.</i>										
Asteraceae (Compositae)	<i>Aster orthophyllum</i>	hybrid aster	Native	Pres	Jul–Sep	X				
Asteraceae (Compositae)	<i>Breea arvensc</i>	Canada thistle	Intro	Rep	Jul–Sep				X	Disturbed areas
Asteraceae (Compositae)	<i>Brickellia grandiflora</i>	tassel-flower brickellbush	Native	Pres	Jul–Oct		X	X		Rimrock
Asteraceae (Compositae)	<i>Chaenactis douglasii</i>	hoary dusty-maiden	Native	Pres	May–Sep		X	X		
Asteraceae (Compositae)	<i>Cichorium intybus</i>	chicory	Intro	Pres	Jul–Oct	X				Disturbed areas
Asteraceae (Compositae)	<i>Cirsium calcareum</i>	Caineville thistle	Native	Pres	Jun–Sep		X			
Asteraceae (Compositae)	<i>Cirsium neomexicanum</i>	New Mexico thistle	Native	Pres	May–Jun	X	X			Rimrock & Adobe hills
Asteraceae (Compositae)	<i>Cirsium tracyi</i>	Tracy's thistle	Native	Pres	Jun–Sep	X	X			Adobe hills
Asteraceae (Compositae)	<i>Cirsium vulgare</i>	bull thistle	Intro	Pres	Jul–Aug				X	Disturbed areas
Asteraceae (Compositae)	<i>Erigeron concinnum</i> var. <i>aphanactis</i>	hairy daisy	Native	Pres	May–Jul	X	X			Sandy soils
Asteraceae (Compositae)	<i>Erigeron concinnum</i> var. <i>condensatus</i>	vernal daisy	Native	Pres	May–Aug		X			
Asteraceae (Compositae)	<i>Erigeron divergens</i>	spreading daisy	Native	Pres	May–Sep	X			X	
Asteraceae (Compositae)	<i>Erigeron engelmannii</i>	Engelmann's daisy	Native	Pres	May–Jul	X	X		X	
Asteraceae (Compositae)	<i>Erigeron flagellaris</i>	trailing daisy	Native	Pres	May–Aug	X	X		X	
Asteraceae (Compositae)	<i>Erigeron pulcherimus</i>	basin daisy	Native	Pres	May–Jun		X			Adobe hills & colluvium
Asteraceae (Compositae)	<i>Erigeron speciosus</i>	aspen daisy	Native	Pres	Jun–Aug		X			
Asteraceae (Compositae)	<i>Erigeron utahensis</i>	Utah daisy	Native	Pres	Apr–Jun	X	X			Sandstone ledges

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<i>Perennial Forbs, cont.</i>										
Asteraceae (Compositae)	<i>Eucephalus glaucus</i>	blueleaf aster	Native	Pres	Jul–Sep		X			Rimrock
Asteraceae (Compositae)	<i>Euthamia occidentalis</i>	western goldenrod	Native	Pres	Jul–Oct				X	
Asteraceae (Compositae)	<i>Gaillardia pinnatifida</i>	Hopi blanketflower	Native	Pres	Apr–Aug	X	X			Adobe hills & colluvium
Asteraceae (Compositae)	<i>Grindelia fastigiata</i>	erect gumweed	Native	Pres	Aug–Sep	X				
Asteraceae (Compositae)	<i>Grindelia squarrosa</i> var. <i>serrulata</i>	curly-cup gumweed	Native	Pres	Jul–Sep	X	X			
Asteraceae (Compositae)	<i>Heterotheca villosa</i>	hairy golden-aster	Native	Pres	May–Sep	X	X			
Asteraceae (Compositae)	<i>Hymenopappus filifolius</i>	common hyalineherb	Native	Pres	May–Oct	X	X		X	
Asteraceae (Compositae)	<i>Hymenopappus filifolius</i> var. <i>megacephalus</i>	fine-leaf woolly-white	Native	Pres	May–Oct	X				Sandy soils
Asteraceae (Compositae)	<i>Iva axillaris</i>	poverty-weed	Native	Pres	May–Sep					
Asteraceae (Compositae)	<i>Lactuca tatarica</i> var. <i>pulchella</i>	blue lettuce	Native	Rep	Jun–Sep				X	
Asteraceae (Compositae)	<i>Leucelene ericoides</i>	rose-heath	Native	Pres	May–Sep	X	X			
Asteraceae (Compositae)	<i>Lygodesmia grandiflora</i>	showy rush-pink	Native	Pres	May–Jun	X	X			
Asteraceae (Compositae)	<i>Machaeranthera canescens</i>	hoary aster	Native	Pres	May–Sep	X	X			Adobe hills & colluvium
Asteraceae (Compositae)	<i>Machaeranthera grindeliaoides</i>	gumweed aster	Native	Pres	May–Jul	X	X			Adobe hills & colluvium
Asteraceae (Compositae)	<i>Oligosporus dracunculus</i> ssp. <i>glaucus</i>	tarragon	Native	Pres	Jul–Oct		X	X		Adobe hills & colluvium
Asteraceae (Compositae)	<i>Packera multiflora</i>	basin groundsel	Native	Pres	Apr–Aug	X	X	X		
Asteraceae (Compositae)	<i>Petradoria pumila</i>	rock-goldenrod	Native	Pres	Jul–Sep	X	X	X	X	

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<i>Perennial/Forbs, cont.</i>										
Asteraceae (Compositae)	<i>Picradenia richardsonii</i>	Colorado rubber-plant	Native	Rep	May–Aug	X	X			
Asteraceae (Compositae)	<i>Platyschkuhria integrifolia</i> var. <i>oblongifolia</i>	San Juan bahia	Native	Pres	May–Jun	X	X			Adobe hills & colluvium
Asteraceae (Compositae)	<i>Psilochenia occidentalis</i>	western hawkbeard	Native	Pres	May–Jul		X			
Asteraceae (Compositae)	<i>Psilstrophe bakeri</i>	Baker's paperflower	Native	Pres	Jun	X				Adobe hills & colluvium
Asteraceae (Compositae)	<i>Senecio integrerrimus</i>	western groundsel	Native	Rep	Jun–Aug	X	X			
Asteraceae (Compositae)	<i>Senecio multicapitatus</i>	many-headed groundsel	Native	Pres	Jun–Oct	X			X	
Asteraceae (Compositae)	<i>Solidago velutina</i>	three-nerve goldenrod	Native	Pres	Aug–Oct	X	X		X	
Asteraceae (Compositae)	<i>Stenotus acaulis</i>	stemless goldenweed	Native	Rep	May–Jul	X	X			Rimrock
Asteraceae (Compositae)	<i>Stenotus armeriooides</i>	thrift goldenweed	Native	Pres	May–Jun	X	X			
Asteraceae (Compositae)	<i>Stephanomeria pauciflora</i>	brown-plume wire-lettuce	Native	Rep	May–Oct	X	X			
Asteraceae (Compositae)	<i>Stephanomeria tenuifolia</i>	slender wirelettuce	Native	Pres	Jun–Sep	X	X		X	Sandstone ledges
Asteraceae (Compositae)	<i>Taraxacum officinale</i>	common dandelion	Intro	Pres	Apr–Dec	X	X		X	Disturbed areas
Asteraceae (Compositae)	<i>Tetraneurus acaulis</i>	stemless hymenoxys	Native	Rep	Apr–Jun	X	X			
Asteraceae (Compositae)	<i>Tetraneurus ivesiana</i>	Canyonlands hymenoxys	Native	Pres	Apr–Jun	X	X		X	
Asteraceae (Compositae)	<i>Townsendia incana</i>	hoary townsendia	Native	Pres	Apr–Jul	X	X			
Asteraceae (Compositae)	<i>Tragopogon dubius</i> var. <i>major</i>	yellow salsify	Intro	Pres	May–Jul	X			X	Disturbed areas
Asteraceae (Compositae)	<i>Virgulaster ascendens</i>	Pacific aster	Native	Pres	Jul–Oct	X	X	X	X	

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<i>Perennial Forbs, cont.</i>										
Boraginaceae	<i>Lithospermum incisum</i>	showy stoneseed	Native	Pres	Apr-Jul	X	X			
Boraginaceae	<i>Oreocarya flava</i>	plateau yellow cryptanth	Native	Pres	Apr-Jun	X	X			Rimrock
Boraginaceae	<i>Oreocarya flavoculata</i>	yellow-eye cryptanth	Native	Pres	Apr-Jun	X	X			
Boraginaceae	<i>Oreocarya humilis</i> ssp. <i>nana</i>	dwarf cryptanth	Native	Pres	Apr-Jun	X	X			Rocky slopes & Adobe hills
Boraginaceae	<i>Oreocarya longiflora</i>	long-flower cryptanth	Native	Pres	May-Jun	X				Rimrock
Boraginaceae	<i>Oreocarya nitida</i>	tawny cryptantha	Native	Pres	Apr-Jun	X				Clay knolls & Rimrock
Boraginaceae	<i>Oreocarya osterhoutii</i>	Osterhout's cryptanth	Native	Pres	May-Jun	X				
Brassicaceae (Cruciferae)	<i>Boechera pulchra</i> ssp. <i>pallens</i>	desert rockcress	Native	Pres	Mar-Jun	X	X			Rimrock
Brassicaceae (Cruciferae)	<i>Boechera selbyi</i>	Selby's rockcress	Native	Pres	May-Aug	X				
Brassicaceae (Cruciferae)	<i>Cardaria chalepensis</i>	orbicular whitetop	Intro	Pres	May-Aug	X			X	Disturbed areas
Brassicaceae (Cruciferae)	<i>Erysimum capitatum</i>	western wallflower	Native	Pres	Apr-Aug	X			X	
Brassicaceae (Cruciferae)	<i>Lepidium alstrooides</i> var. <i>eastwoodiae</i>	Eastwood's tall pepperwort	Native	Pres	Jul-Oct		X			
Brassicaceae (Cruciferae)	<i>Lepidium montanum</i> var. <i>montanum</i>	mountain pepperwort	Native	Pres	Apr-Sep	X				
Brassicaceae (Cruciferae)	<i>Lesquerella ludoviciana</i>	silver bladderpod	Native	Pres	May-Jun	X	X	X		
Brassicaceae (Cruciferae)	<i>Lesquerella rectipes</i>	Colorado Plateau bladderpod	Native	Rep	Apr-Aug	X	X			
Brassicaceae (Cruciferae)	<i>Physaria acutifolia</i>	sharp-leaf twinpod	Native	Pres	May-Jul	X	X			
Brassicaceae (Cruciferae)	<i>Schoenocrambe linifolia</i>	flax-leaved plainsmustard	Native	Pres	Apr-Jul	X	X			Rimrock & Adobe hills
Brassicaceae (Cruciferae)	<i>Stanleya pinnata</i> var. <i>pinnata</i>	prince's-plume	Native	Pres	Apr-Sep	X	X	X		Adobe hills & colluvium
Brassicaceae (Cruciferae)	<i>Streptanthus cordatus</i>	heart-leaf jewelflower	Native	Pres	Apr-Jul	X	X	X		

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<i>Perennial/Forbs, cont.</i>										
Brassicaceae (Cruciferae)	<i>Thelypodopsis elegans</i>	elegant thelypody	Native	Pres	Apr-Jul	X	X			
Brassicaceae (Cruciferae)	<i>Thelypodium integrifolium</i>	entire-leaf thelypody	Native	Pres	Jun-Sep	X			X	
Brassicaceae (Cruciferae)	<i>Thelypodium laxiflorum</i>	slate thelypody	Native	Rep	May-Sep	X	X			Rimrock
Cactaceae	<i>Echinocereus triglochidiatus</i>	claretcup	Native	Pres	Apr-Jun	X	X			
Cactaceae	<i>Opuntia erinacea</i>	common prickly-pear	Native	Rep	May-Jun	X	X			
Cactaceae	<i>Opuntia fragilis</i> var. <i>brachyacantha</i>	brittle prickly-pear	Native	Pres	Jun-Jul	X	X	X	X	
Cactaceae	<i>Opuntia phaeacantha</i>	berry pricklypear	Native	Pres	Apr-Jul	X	X			Clay knolls & ledges
Cactaceae	<i>Opuntia polyacantha</i>	plains prickly-pear	Native	Pres	May-Jun	X	X			
Cactaceae	<i>Pediocactus simpsonii</i> var. <i>minor</i>	Simpson's hedgehog cactus	Native	Pres	May-Jul	X	X			
Cactaceae	<i>Sclerocactus whipplei</i> var. <i>intermedius</i>	small-flower fishhook cactus	Native	Pres	Apr-May	X	X			
Calochortaceae (Liliaceae)	<i>Calochortus gunnisonii</i>	Gunnison's mariposa	Native	Rep	Jun-Aug	X	X			
Calochortaceae (Liliaceae)	<i>Calochortus nuttallii</i>	seg o-lily	Native	Pres	Jun-Jul	X	X			
Chenopodiaceae	<i>Kochia americana</i>	greenmolly	Native	Pres	Aug-Oct	X				
Chenopodiaceae	<i>Suaeda moquinii</i>	Torrey's seepweed	Native	Pres	Jun-Sep				X	Alkaline
Convallariaceae (Liliaceae, Ruscaceae)	<i>Maianthemum stellatum</i>	starry false Solomon's-seal	Native	Pres	Apr-Jun	X	X	X		
Convolvulaceae	<i>Convolvulus arvensis</i>	field bindweed	Intro	Pres	Jun-Aug	X	X			Disturbed areas
Crassulaceae	<i>Amerospermum lanceolatum</i>	lance-leaved stonecrop	Native	Pres	Jun-Aug	X	X	X		
Euphorbiaceae	<i>Chamaesyce fendleri</i>	Fendler's spurge	Native	Pres	May-Sep	X	X			
Euphorbiaceae	<i>Tithymalus brachyceras</i>	shorthorn spurge	Native	Pres	May-Jun	X	X	X		
Fabaceae (Leguminosae)	<i>Astragalus amphioxys</i> var. <i>vespertinus</i>	Sheldon's milkvetch	Native	Pres	Mar-Jun	X	X			

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<i>Perennial Forbs, cont.</i>										
Fabaceae (Leguminosae)	<i>Astragalus chamaeleuce</i>	cicada milkvetch	Native	Pres	Apr-Jun	X	X			Adobe hills & colluvium
Fabaceae (Leguminosae)	<i>Astragalus convallarius</i>	lesser rushy milkvetch	Native	Pres	May-Aug	X	X			Adobe hills & colluvium
Fabaceae (Leguminosae)	<i>Astragalus desperatus</i>	rimrock milkvetch	Native	Pres	May-Jul	X	X			Rimrock
Fabaceae (Leguminosae)	<i>Astragalus eastwoodiae</i>	Eastwood's milkvetch	Native	Pres	Apr-Jun	X	X	X		Rimrock
Fabaceae (Leguminosae)	<i>Astragalus flavus</i>	yellow milkvetch	Native	Pres	Apr-Jul	X	X	X	X	Adobe hills & colluvium
Fabaceae (Leguminosae)	<i>Astragalus lentiginosus</i> var. <i>palans</i>	straggling milkvetch	Native	Pres	Apr-Jun	X	X	X	X	Rimrock
Fabaceae (Leguminosae)	<i>Astragalus megacarpus</i>	great bladdery milkvetch	Native	Pres	Apr-Jul	X				Rimrock
Fabaceae (Leguminosae)	<i>Astragalus mollissimus</i> var. <i>thompsoniae</i>	woolly milkvetch	Native	Pres	Feb-Jun	X	X	X	X	
Fabaceae (Leguminosae)	<i>Astragalus praelongus</i> var. <i>ellisiae</i>	Ellis' milkvetch	Native	Pres	Apr-Jul	X				
Fabaceae (Leguminosae)	<i>Astragalus tenellus</i>	pulse milkvetch	Native	Pres	May-Aug	X	X	X	X	
Fabaceae (Leguminosae)	<i>Astragalus wingatanus</i>	Fort Wingate milkvetch	Native	Pres	Apr-Jul	X	X	X	X	
Fabaceae (Leguminosae)	<i>Dalea candida</i> var. <i>oligophylla</i>	white prairie-clover	Native	Rep	May-Sep	X				
Fabaceae (Leguminosae)	<i>Glycyrrhiza lepidota</i>	licorice-root	Native	Pres	May-Jul					X
Fabaceae (Leguminosae)	<i>Hedysarum boreale</i>	northern sweetvetch	Native	Pres	May-Aug	X	X	X		
Fabaceae (Leguminosae)	<i>Lathyrus leucanthus</i>	whiteflower sweetpea	Native	Pres	May-Aug					
Fabaceae (Leguminosae)	<i>Lupinus argenteus</i>	silvery lupine	Native	Pres	May-Aug	X	X	X		
Fabaceae (Leguminosae)	<i>Medicago sativa</i>	alfalfa	Intro	Pres	May-Sep	X	X			Disturbed areas

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<i>Perennial/Forbs, cont.</i>										
Fabaceae (Leguminosae)	<i>Melilotus officinale</i>	yellow sweet-clover	Intro	Pres	May-Oct	X	X			Disturbed areas
Fabaceae (Leguminosae)	<i>Pediomelum aromaticum</i>	aromatic breadroot	Native	Pres	May-Jun	X	X			Adobe hills & colluvium
Fabaceae (Leguminosae)	<i>Pediomelum megalanthum</i>	large-flowered breadroot	Native	Pres	Apr-Jun	X	X			Adobe hills & colluvium
Fabaceae (Leguminosae)	<i>Vicia americana</i>	American vetch	Native	Rep	May-Aug	X	X			
Helleboraceae (Ranunculaceae)	<i>Aquilegia micrantha</i>	alcove columbine	Native	Pres	May-Jun		X		X	Cliffs
Helleboraceae (Ranunculaceae)	<i>Delphinium andersonii</i> var. <i>scaposum</i>	pale larkspur	Native	Rep	Apr-Jun		X			
Helleboraceae (Ranunculaceae)	<i>Delphinium nuttallianum</i>	Nuttall's larkspur	Native	Pres	Apr-Jul	X	X	X		
Lamiaceae (Labiatae)	<i>Dracocephalum parviflorum</i>	smallflower dragonhead	Native	Rep	Jun-Aug	X	X	X		
Lamiaceae (Labiatae)	<i>Mentha arvensis</i>	field mint	Native	Rep	Jun-Sep				X	
Linaceae	<i>Adenolinum lewisi</i>	blue flax	Native	Pres	Apr-Aug	X	X	X		
Malvaceae	<i>Sphaeralcea coccinea</i> ssp. <i>dissecta</i>	scarlet globe-mallow	Native	Pres	Apr-Oct	X	X	X		
Malvaceae	<i>Sphaeralcea parvifolia</i>	small-leaf globemallow	Native	Pres	Mar-Oct	X	X	X		
Melanthiaceae (Liliaceae)	<i>Toxicoscordion paniculatum</i>	foothills death-camas	Native	Pres	Mar-Jun	X	X			
Melanthiaceae (Liliaceae)	<i>Toxicoscordion venenosum</i>	meadow death camas	Native	Pres	Apr-Jul	X	X	X		
Nyctaginaceae	<i>Abronia elliptica</i>	fragrant sand-verbena	Native	Pres	Apr-Sep	X	X			Adobe hills & colluvium
Nyctaginaceae	<i>Allionia incarnata</i>	trailing four-o'clock	Native	Pres	Apr-Sep	X	X			
Nyctaginaceae	<i>Mirabilis glandulosa</i>	Colorado four o'clock	Native	Pres	Apr-Jul	X	X			
Nyctaginaceae	<i>Mirabilis multiflora</i>	showy four-o'clock	Native	Pres	Apr-Jul	X	X	X		
Nyctaginaceae	<i>Mirabilis oxybaphoides</i>	spreading four-o'clock	Native	Pres	May-Sep	X	X	X		Rimrock
Nyctaginaceae	<i>Oxybaphus linearis</i>	narrow-leaf four-o'clock	Native	Pres	May-Aug	X	X	X		
Onagraceae	<i>Calylophus lavandulifolius</i>	lavender-leaf sundrops	Native	Pres	May-Aug	X	X			

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<i>Perennial Forbs, cont.</i>										
Onagraceae	<i>Epilobium ciliatum</i>	northern willow-herb	Native	Pres	Jun-Aug				X	
Onagraceae	<i>Oenothera cespitosa</i> ssp. <i>macroglossis</i>	plains evening-primrose	Native	Pres	Apr-Jun		X			
Onagraceae	<i>Oenothera cespitosa</i> var. <i>marginata</i>	long-tube evening-primrose	Native	Pres	Apr-Jun	X	X			
Onagraceae	<i>Oenothera pallida</i> ssp. <i>trichocalyx</i>	pale evening-primrose	Native	Pres	May-Jul	X	X	X		
Onagraceae	<i>Oenothera villosa</i> var. <i>strigosa</i>	biennial evening-primrose	Native	Rep	Jun-Aug				X	
Orchidaceae	<i>Corallorrhiza maculata</i>	spotted coral-root	Native	Pres	Jun-Jul		X	X		
Orchidaceae	<i>Limnorchis hyperborea</i>	northern bog orchid	Native	Rep	Jun-Aug				X	
Orchidaceae	<i>Platanthera tescamnis</i>	desert river bog-orchid	Native	Pres	Jun-Jul				X	
Orobanchaceae	<i>Aphyllon fasciculatum</i>	clustered broomrape	Native	Pres	Jun-Jul	X	X			
Orobanchaceae	<i>Orobanche ludoviciana</i>	Cooper's broomrape	Native	Pres	May-Jul	X	X			
Plantaginaceae	<i>Plantago lanceolata</i>	English plantain	Intro	Pres	May-Aug	X			X	Disturbed areas
Plantaginaceae	<i>Plantago major</i>	common plantain	Intro	Pres	May-Aug	X				Disturbed areas
Polemoniaceae	<i>Gilia ophthalmoidea</i>	eyelash gilia	Native	Pres	Apr-Jul	X	X			
Polemoniaceae	<i>Gilia stellothyrsa</i>	Uinta gilia	Native	Rep	May-Jun	X	X			Adobe hills
Polemoniaceae	<i>Ipomopsis aggregata</i> ssp. <i>aggregatea</i>	scarlet gilia	Native	Pres	May-Aug	X	X	X		
Polemoniaceae	<i>Ipomopsis roseata</i>	San Rafael gilia	Native	Pres	May-Jun	X	X			Rimrock
Polemoniaceae	<i>Leptodactylon watsonii</i>	Watson's prickly-phlox	Native	Pres	May-Aug	X	X			Cliffs
Polemoniaceae	<i>Phlox austromontana</i>	desert phlox	Native	Rep	Apr-Jun	X	X			
Polemoniaceae	<i>Phlox hoodii</i>	Hood's phlox	Native	Pres	Apr-Jun	X	X			
Polemoniaceae	<i>Phlox longifolia</i>	long-leaf phlox	Native	Pres	Apr-Jul	X	X	X		
Polygalaceae	<i>Polygala subspinosa</i>	cushion milkwort	Native	Pres	May-Jun	X				Clay knolls
Polygonaceae	<i>Eriogonum inflatum</i>	desert trumpet	Native	Pres	Mar-Oct	X	X			Adobe hills & colluvium
Polygonaceae	<i>Eriogonum ovalifolium</i> var. <i>ovalifolium</i>	cushion wild buckwheat	Native	Pres	Apr-Aug	X	X			
Polygonaceae	<i>Eriogonum umbellatum</i>	sulfur wild buckwheat	Native	Rep	Jun-Sep	X	X			
Polygonaceae	<i>Pterogonum alatum</i>	winged wild buckwheat	Native	Pres	Jun-Oct	X	X			Sandy soils
Polygonaceae	<i>Rumex crispus</i>	curly dock	Intro	Pres	May-Sep				X	Disturbed areas

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<i>Perennial Forbs, cont.</i>										
Polygonaceae	<i>Rumex hymenosepalus</i>	canaigre dock	Native	Pres	Apr-Jun	X				Adobe flats
Polygonaceae	<i>Rumex triangulivalvis</i>	willow dock	Native	Pres	May-Sep	X				
Portulacaceae	<i>Talinum parviflorum</i>	small-flowered fame-flower	Native	Pres	Apr-Sep		X			
Ranunculaceae	<i>Clematis ligusticifolia</i>	white virgin's-bower	Native	Pres	Jul-Aug				X	
Ranunculaceae	<i>Halerpestes cymalaria</i> ssp. <i>saximontana</i>	marsh buttercup	Native	Pres	May-Sep			X		
Rubiaceae	<i>Galium coloradoense</i>	Colorado bedstraw	Native	Pres	May-Aug		X	X	X	
Santalaceae	<i>Comandra umbellata</i>	bastard toadflax	Native	Pres	Apr-Aug	X	X	X		
Saxifragaceae	<i>Heuchera parvifolia</i>	littleleaf alumroot	Native	Pres	May-Sep	X	X			
Scrophulariaceae	<i>Castilleja chromosa</i>	desert paintbrush	Native	Pres	Apr-Jun	X	X	X		
Scrophulariaceae	<i>Castilleja linariifolia</i>	Wyoming paintbrush	Native	Pres	Jul-Aug	X	X			
Scrophulariaceae	<i>Castilleja scabrida</i>	Eastwood's paintbrush	Native	Pres	May-Jul	X	X			Rimrock
Scrophulariaceae	<i>Linaria vulgaris</i>	butter-and-eggs	Intro	Pres	Jun-Aug	X	X			Disturbed areas
Scrophulariaceae	<i>Mimulus glabratus</i>	glabrous monkeyflower	Native	Pres	Jun-Aug				X	
Scrophulariaceae	<i>Penstemon caespitosus</i>	mat penstemon	Native	Pres	May-Jul	X				Rimrock
Scrophulariaceae	<i>Penstemon comarrhenus</i>	dusty penstemon	Native	Pres	Jun-Aug	X	X			
Scrophulariaceae	<i>Penstemon cyanocaulis</i>	bluestem penstemon	Native	Pres	May-Jun	X	X			Rimrock
Scrophulariaceae	<i>Penstemon moffatii</i>	Moffatt penstemon	Native	Pres	May-Jun	X	X			Adobe hills
Scrophulariaceae	<i>Verbascum thapsus</i>	woolly mullein	Intro	Pres	Jun-Aug	X	X	X	X	Disturbed areas
Scrophulariaceae	<i>Veronica catenata</i>	chain speedwell	Native	Pres	Jun-Aug				X	
Solanaceae	<i>Physalis virginiana</i>	Virginia ground-cherry	Native	Pres	May-Aug	X				
Valerianaceae	<i>Valeriana edulis</i>	tobacco-root	Native	Rep	Jun-Aug	X				
Verbenaceae	<i>Verbena bracteata</i>	prostrate vervain	Native	Pres	May-Sep	X			X	Disturbed areas
Viscaceae	<i>Arceuthobium divaricatum</i>	pinyon dwarf-mistletoe	Native	Pres	Aug-Sep	X				
Viscaceae	<i>Phoradendron juniperinum</i>	juniper mistletoe	Native	Pres	Jul-Sep		X			
<i>Annual Forbs</i>										
Amaranthaceae	<i>Amaranthus albus</i>	tumble pigweed	Intro	Pres	Jun-Oct	X	X			Disturbed areas
Asteraceae (Compositae)	<i>Ambrosia acanthicarpa</i>	bur ragweed	Native	Pres	Jul-Oct	X	X		X	Disturbed areas

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<i>Annual Forbs, cont.</i>										
Asteraceae (Compositae)	<i>Chaenactis stevioides</i>	stevia dusty-maiden	Native	Pres	Apr-Jul	X	X			Adobe hills & colluvium
Asteraceae (Compositae)	<i>Conyza canadensis</i>	Canadian horseweed	Native	Pres	Jul-Sep				X	Disturbed areas
Asteraceae (Compositae)	<i>Helianthus annuus</i>	common sunflower	Native	Pres	Jun-Sep	X			X	Disturbed areas
Asteraceae (Compositae)	<i>Lactuca serriola</i>	prickly lettuce	Intro	Pres	Jul-Sep	X	X			Disturbed areas
Asteraceae (Compositae)	<i>Malacothrix sonchoides</i>	sowthistle desert-dandelion	Native	Pres	Apr-Jun		X			Adobe hills & colluvium
Asteraceae (Compositae)	<i>Malacothrix torreyi</i>	Torrey's desert-dandelion	Native	Pres	Apr-Jul		X			Adobe hills & colluvium
Asteraceae (Compositae)	<i>Sonchus asper</i>	spiny-leaf sow-thistle	Intro	Pres	Jul-Oct				X	Disturbed areas
Asteraceae (Compositae)	<i>Stephanomeria exigua</i>	white-plume wire-lettuce	Native	Pres	May-Sep	X	X			
Asteraceae (Compositae)	<i>Xanthium strumarium</i>	rough cocklebur	Native	Pres	Apr-Oct				X	
Boraginaceae	<i>Cryptantha crassisepala</i> var. <i>elachantha</i>	thick-sepaled cryptanth	Native	Rep	Apr-Jun					
Boraginaceae	<i>Cryptantha fendleri</i>	sand dune cryptanth	Native	Rep	May-Jul	X	X			
Boraginaceae	<i>Cryptantha gracilis</i>	slender cryptanth	Native	Pres	Apr-Jul	X	X			
Boraginaceae	<i>Cryptantha pterocarya</i>	wing-nut cryptanth	Native	Pres	Apr-Jul	X	X			
Boraginaceae	<i>Lappula marginata</i>	cupseed stickseed	Native	Pres	Apr-Jun	X	X			Disturbed areas
Boraginaceae	<i>Lappula redowskii</i>	western stickseed	Native	Pres	Apr-Jun	X	X			Disturbed areas
Brassicaceae (Cruciferae)	<i>Alyssum parviflorum</i>	European madwort	Intro	Rep	Apr-Jul	X	X			
Brassicaceae (Cruciferae)	<i>Camelina microcarpa</i>	little-pod false flax	Intro	Rep	Apr-Jul	X				Disturbed areas
Brassicaceae (Cruciferae)	<i>Capsella bursa-pastoris</i>	shepherd's-purse	Intro	Pres	Apr-Sep		X			Disturbed areas
Brassicaceae (Cruciferae)	<i>Chorispora tenella</i>	blue mustard	Intro	Pres	Apr-Jun	X				Disturbed areas
Brassicaceae (Cruciferae)	<i>Descurainia pinnata</i> sp. <i>halictorum</i>	western tansy-mustard	Native	Pres	Mar-Aug	X	X	X		

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<i>Annual Forbs, cont.</i>										
Brassicaceae (Cruciferae)	<i>Descurainia sophia</i>	flixweed	Intro	Pres	Mar-Aug	X	X			Disturbed areas
Brassicaceae (Cruciferae)	<i>Draba cuneifolia</i>	wedgeleaf draba	Native	Pres	Feb-Jul		X			
Brassicaceae (Cruciferae)	<i>Draba reptans</i>	dwarf draba	Native	Rep	Apr-Jul	X	X			
Brassicaceae (Cruciferae)	<i>Lepidium densiflorum</i>	prairie pepperwort	Native	Pres	May-Jul	X	X			
Brassicaceae (Cruciferae)	<i>Lepidium lasiocarpum</i>	hairy-pod pepperwort	Native	Pres	Mar-Jun	X	X			Adobe hills
Brassicaceae (Cruciferae)	<i>Lepidium perfoliatum</i>	clasping pepperwort	Intro	Pres	May-Jul	X	X			Disturbed areas
Brassicaceae (Cruciferae)	<i>Malcolmia africana</i>	African mustard	Intro	Pres	Apr-Jul	X				Disturbed areas
Brassicaceae (Cruciferae)	<i>Sisymbrium altissimum</i>	tumble mustard	Intro	Pres	May-Aug	X	X			Disturbed areas
Brassicaceae (Cruciferae)	<i>Streptanthella longirostris</i>	long-beak fiddle-mustard	Native	Pres	Mar-Jun	X				Sandy or clayey soils
Capparaceae (Cleomaceae)	<i>Cleome lutea</i>	yellow beeplant	Native	Pres	Apr-Sep	X	X			Adobe hills & colluvium
Capparaceae (Cleomaceae)	<i>Cleome serrulata</i>	Rocky Mountain beeplant	Native	Pres	May-Oct	X	X			Disturbed areas
Capparaceae (Cleomaceae)	<i>Polanisia dodecadandra</i>	clammy-weed	Native	Pres	May-Oct	X				
Caryophyllaceae	<i>Silene antirrhina</i>	sleepy catchfly	Native	Pres	May-Aug	X				
Chenopodiaceae	<i>Atriplex rosea</i>	tumbling orach	Intro	Pres	Jul-Sep	X				Disturbed areas
Chenopodiaceae	<i>Atriplex saccaria</i>	stalked orach	Native	Pres	Aug-Sep	X				Adobe hills & colluvium
Chenopodiaceae	<i>Atriplex wolffii</i>	slender orach	Native	Pres	Jun-Sep	X				Adobe hills & colluvium
Chenopodiaceae	<i>Bassia hyssopifolia</i>	five-horn smotherweed	Intro	Pres	Aug-Oct				X	Saline soils, disturbed areas
Chenopodiaceae	<i>Bassia sieversiana</i>	summer-cypress	Intro	Pres	Aug-Oct	X	X		X	Disturbed areas
Chenopodiaceae	<i>Chenopodium album</i>	lambsquarter	Intro	Rep	Jun-Sep	X				Disturbed areas

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<i>Annual Forbs, cont.</i>										
Chenopodiaceae	<i>Chenopodium foliosum</i>	smallhead goosefoot	Native	Pres	Jun-Sep		X			
Chenopodiaceae	<i>Chenopodium fremontii</i>	Fremont's goosefoot	Native	Pres	Aug-Oct	X	X			
Chenopodiaceae	<i>Chenopodium glaucum</i>	oakleaf goosefoot	Native	Pres	Aug-Sep			X		
Chenopodiaceae	<i>Chenopodium leptophyllum</i>	narrow-leaf goosefoot	Native	Pres	Jul-Sep	X				
Chenopodiaceae	<i>Halogeton glomeratus</i>	halogeton	Intro	Pres	Jul-Aug		X		X	Disturbed areas
Chenopodiaceae	<i>Salsola australis</i>	Russian-thistle	Intro	Pres	Jun-Sep	X	X		X	Disturbed areas
Chenopodiaceae	<i>Suaeda calceoliformis</i>	broom seepweed	Native	Rep	Jul-Sep			X		
Cuscutaceae	<i>Grammica indecora</i>	large-seed dodder	Native	Pres	Jul-Oct	X	X			Disturbed areas
(Convolvulaceae)										
Euphorbiaceae	<i>Chamaesyce glyptosperma</i>	ridge-seeded spurge	Native	Pres	Jun-Aug	X	X			Disturbed areas
Fabaceae	<i>Astragalus nuttallianus</i>	small-flowered milkvetch	Native	Pres	Apr-Jun	X	X			
(Leguminosae)	var. <i>miranthiformis</i>									
Fabaceae	<i>Medicago lupulina</i>	black medick	Intro	Pres	May-Oct	X			X	
(Leguminosae)										
Fabaceae	<i>Melilotus albus</i>	white sweet-clover	Intro	Pres	May-Oct	X	X		X	
(Leguminosae)										
Gentianaceae	<i>Centaurium exaltatum</i>	Great Basin centaury	Native	Pres	Jun-Sep				X	
Geraniaceae	<i>Erodium cicutarium</i>	stork's-bill	Intro	Rep	Feb-Oct	X	X			Disturbed areas
Hydrophyllaceae	<i>Nama dichotomum</i>	wishbone fiddleleaf	Native	Pres	Aug-Sep	X				Rimrock depressions
Hydrophyllaceae	<i>Phacelia crenulata</i>	crenulate phacelia	Native	Pres	May-Jun	X	X			
Hydrophyllaceae	<i>Phaceliaivesiana</i>	Ives' phacelia	Native	Pres	Apr-Jun	X	X	X		
Linaceae	<i>Mesynium puberulum</i>	downy flax	Native	Pres	May-Jun		X			
Loasaceae	<i>Acrolasia albicalvis</i>	white-stem blazingstar	Native	Pres	Apr-Aug	X	X			
Onagraceae	<i>Oenothera albicaulis</i>	white-stem evening-prairie	Native	Pres	Mar-Jun	X		X		
Plantaginaceae	<i>Plantago patagonica</i>	woolly plantain	Native	Pres	Mar-Aug	X	X			
Polemoniaceae	<i>Gilia sinuata</i>	shy gilia	Native	Pres	Apr-Jul	X	X	X		
Polygonaceae	<i>Eriogonum cernuum</i>	nodding wild buckwheat	Native	Pres	Apr-Oct	X	X			
Polygonaceae	<i>Eriogonum hookeri</i>	Hooker's wild buckwheat	Native	Pres	Jun-Oct	X	X			

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<i>Annual Forbs, cont.</i>										
Polygonaceae	<i>Eriogonum palmerianum</i>	Palmer's wild buckwheat	Native	Pres	Mar-Oct		X			Sandy soils
Polygonaceae	<i>Polygonum ramosissimum</i>	busky knotweed	Native	Rep	Jul-Oct			X		
Polygonaceae	<i>Stenogonium salsuginosum</i>	smooth wild buckwheat	Native	Pres	Apr-Sep		X			Adobe hills & colluvium
Portulacaceae	<i>Portulaca halimoides</i>	dwarf purslane	Native	Pres	May-Sep		X			
Portulacaceae	<i>Portulaca oleracea</i>	common purslane	Intro	Pres	Jun-Sep	X		X	X	Disturbed areas
Primulaceae	<i>Androsace occidentalis</i>	western rock-jasmine	Native	Pres	Apr-Jun	X	X	X	X	
Primulaceae	<i>Androsace septentrionalis</i>	pygmy-flower rock-jasmine	Native	Pres	May-Aug	X	X	X		
Ranunculaceae	<i>Ceratocephala orthoceras</i>	bur buttercup	Intro	Pres	Apr-Jun	X	X			Disturbed areas
Ranunculaceae	<i>Hecatomia scelerata</i>	blister buttercup	Native	Pres	May-Sep				X	
Scrophulariaceae	<i>Castilleja minor</i>	annual paintbrush	Native	Pres	Jun-Aug				X	
Scrophulariaceae	<i>Mimulus rubellus</i>	reddish monkeyflower	Native	Pres	Apr-Jun	X	X			Clay flats
Solanaceae	<i>Solanum rostratum</i>	buffalobur	Native	Pres	Jun-Sep	X				Disturbed areas
Zygophyllaceae	<i>Tribulus terrestris</i>	puncture vine	Intro	Pres	May-Sep	X				Disturbed areas
<b>Perennial Graminoids</b>										
Cyperaceae	<i>Bolboschoenus maritimus</i> ssp. <i>paludosus</i>	alkali bulrush	Native	Pres	Jun-Sep				X	
Cyperaceae	<i>Carex microptera</i>	small-wing sedge	Native	Pres	Jun-Aug				X	
Cyperaceae	<i>Carex nebrascensis</i>	Nebraska sedge	Native	Pres	May-Jul				X	
Cyperaceae	<i>Carex rossii</i>	Ross' sedge	Native	Pres	May-Aug	X	X			
Cyperaceae	<i>Eleocharis macrostachya</i>	common spikerush	Native	Pres	May-Aug				X	
Cyperaceae	<i>Schoenoplectus lacustris</i> ssp. <i>acutus</i>	hardstem bulrush	Native	Pres	Jun-Aug				X	
Cyperaceae	<i>Schoenoplectus lacustris</i> ssp. <i>validus</i>	softstem bulrush	Native	Pres	Jun-Aug				X	
Cyperaceae	<i>Schoenoplectus pungens</i>	three-square bulrush	Native	Pres	May-Aug				X	
Juncaceae	<i>Juncus arcticus</i> ssp. <i>ater</i>	Baltic rush	Native	Pres	May-Jul				X	
Juncaceae	<i>Juncus longistylis</i>	longstyle rush	Native	Pres	Jun-Aug				X	
Juncaceae	<i>Juncus saximontanus</i>	mountain rush	Native	Pres	Jun-Aug				X	
Juncaceae	<i>Juncus torreyi</i>	Torrey's rush	Native	Pres	Jun-Aug				X	

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<i>Perennial Graminoids, cont.</i>										
Juncaceae	<i>Juncus tracyi</i>	Tracy's rush	Native	Pres	Jun-Aug				X	
Poaceae (Gramineae)	<i>Achnatherum aridum</i>	Mormon needlegrass	Native	Pres	May-Jul	X	X			
Poaceae (Gramineae)	<i>Achnatherum hymenoides</i>	Indian ricegrass	Native	Pres	May-Jul	X	X			
Poaceae (Gramineae)	<i>Achnatherum speciosum</i>	desert needlegrass	Native	Pres	Apr-Jun	X				Rimrock
Poaceae (Gramineae)	<i>Agropyron desertorum</i>	clustered wheatgrass	Intro	Pres	Jun-Aug	X	X			
Poaceae (Gramineae)	<i>Agrostis gigantea</i>	redtop	Intro	Pres	Jun-Sep				X	
Poaceae (Gramineae)	<i>Agrostis stolonifera</i>	redtop	Intro	Pres	Jun-Sep				X	
Poaceae (Gramineae)	<i>Aristida purpurea</i>	purple three-awn	Native	Pres	Mar-Sep	X	X	X		
Poaceae (Gramineae)	<i>Bouteloua curtipendula</i>	sideoats grama	Native	Pres	Jul-Sep	X	X	X		
Poaceae (Gramineae)	<i>Bromopsis inermis</i>	smooth brome	Intro	Pres	Jun-Aug	X			X	
Poaceae (Gramineae)	<i>Chondrosum gracile</i>	blue grama	Native	Rep	Jul-Sep	X				
Poaceae (Gramineae)	<i>Critesion brachyantherum</i>	meadow barley	Native	Rep	Jun-Aug				X	
Poaceae (Gramineae)	<i>Critesion jubatum</i>	foxtail barley	Native	Pres	Jun-Aug	X			X	
Poaceae (Gramineae)	<i>Dactylis glomerata</i>	orchard grass	Intro	Pres	Jun-Aug	X	X			
Poaceae (Gramineae)	<i>Dasyochloa pulchella</i>	fluffgrass	Native	Pres	Apr-Aug	X				
Poaceae (Gramineae)	<i>Distichlis stricta</i>	desert saltgrass	Native	Pres	Jun-Sep				X	Alkaline
Poaceae (Gramineae)	<i>Elymus canadensis</i>	Canada wildrye	Native	Pres	Jul-Aug				X	
Poaceae (Gramineae)	<i>Elymus elymoides</i>	squirreltail	Native	Rep	May-Aug	X	X			

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<i>Perennial Graminoids, cont.</i>										
Poaceae (Gramineae)	<i>Elymus longifolius</i>	bottlebrush squirreltail	Native	Pres	Jun-Aug	X	X	X		
Poaceae (Gramineae)	<i>Elymus trachycaulus</i>	slender wheatgrass	Native	Pres	Jun-Aug	X	X	X		
Poaceae (Gramineae)	<i>Elytrigia repens</i>	quackgrass	Intro	Pres	Jun-Aug	X				Disturbed areas
Poaceae (Gramineae)	<i>Erioneuron pilosum</i>	hairy tridens	Native	Pres	May-Jul	X			X	
Poaceae (Gramineae)	<i>Glyceria striata</i>	fowl managrass	Native	Pres	Jul-Aug				X	
Poaceae (Gramineae)	<i>Hesperostipa comata</i>	needle-and-thread	Native	Pres	May-Jul	X	X	X	X	
Poaceae (Gramineae)	<i>Hesperostipa neomexicana</i>	New Mexico feathergrass	Native	Pres	Jun-Jul	X				Sandstone
Poaceae (Gramineae)	<i>Hilaria jamesii</i>	galleta	Native	Pres	May-Aug	X	X			
Poaceae (Gramineae)	<i>Koeleria macrantha</i>	Junegrass	Native	Pres	Jun-Aug	X	X	X	X	
Poaceae (Gramineae)	<i>Leymus salina</i>	Salina wildrye	Native	Pres	Jun-Jul	X	X	X	X	
Poaceae (Gramineae)	<i>Muhlenbergia asperifolia</i>	scratchgrass	Native	Pres	Jul-Aug				X	
Poaceae (Gramineae)	<i>Muhlenbergia richardsonis</i>	mat muhly	Native	Rep	Jul-Sep	X	X	X		Rimrock
Poaceae (Gramineae)	<i>Muhlenbergia thurberi</i>	Thurber's muhly	Native	Pres	Jul-Sep	X	X	X		
Poaceae (Gramineae)	<i>Panicum virgatum</i>	switchgrass	Native	Pres	Jun-Sep	X	X	X	X	
Poaceae (Gramineae)	<i>Pascopyrum smithii</i>	western wheatgrass	Native	Pres	Jun-Aug	X	X	X	X	
Poaceae (Gramineae)	<i>Phragmites australis</i>	common reed	Native	Pres	Jul-Sep				X	
Poaceae (Gramineae)	<i>Piptatherum micranthum</i>	littleseed ricegrass	Native	Pres	Jun-Aug			X		

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<i>Perennial Graminoids, cont.</i>										
Poaceae (Gramineae)	<i>Poa agassizensis</i>	Agassiz's bluegrass	Native	Pres	May–Aug	X	X		X	
Poaceae (Gramineae)	<i>Poa bulbosa</i>	bulbous bluegrass	Intro	Pres	Apr–Jul	X	X			Disturbed areas
Poaceae (Gramineae)	<i>Poa fendleriana</i>	muttongrass	Native	Pres	May–Aug	X	X			
Poaceae (Gramineae)	<i>Poa juncifolia</i>	alkali bluegrass	Native	Pres	May–Sep				X	
Poaceae (Gramineae)	<i>Poa pratensis</i>	Kentucky bluegrass	Intro	Pres	May–Aug	X	X		X	
Poaceae (Gramineae)	<i>Poa secunda</i>	Sandberg's bluegrass	Native	Pres	Apr–Sep	X	X		X	
Poaceae (Gramineae)	<i>Pseudoroegneria spicata</i>	bluebunch wheatgrass	Native	Rep	Jun–Aug	X	X		X	
Poaceae (Gramineae)	<i>Puccinellia airoides</i>	Nuttall's alkaligrass	Native	Pres	May–Aug	X			X	
Poaceae (Gramineae)	<i>Spartina pectinata</i>	prairie cordgrass	Native	Pres	Jun–Sep				X	
Poaceae (Gramineae)	<i>Sporobolus airoides</i>	alkali sacaton	Native	Pres	Jun–Aug	X			X	
Poaceae (Gramineae)	<i>Sporobolus contractus</i>	spike dropseed	Native	Pres	Jun–Sep	X	X		X	
Poaceae (Gramineae)	<i>Sporobolus cryptandrus</i>	sand dropseed	Native	Pres	Jun–Aug	X	X		X	
Poaceae (Gramineae)	<i>Sporobolus flexuosus</i>	mesa dropseed	Native	Pres	Jun–Sep	X	X			
Poaceae (Gramineae)	<i>Thinopyrum intermedium</i> ssp. <i>intermedium</i>	intermediate wheatgrass	Intro	Pres	Jun–Aug	X				Disturbed areas
Typhaceae	<i>Typha domingensis</i>	southern cattail	Native	Rep	Jul–Aug				X	
Typhaceae	<i>Typha latifolia</i>	broad-leaved cattail	Native	Pres	Jun–Aug				X	
<i>Annual Graminoids</i>										
Poaceae (Gramineae)	<i>Anisantha diandra</i>	ripgut brome	Intro	Pres	Apr–Jun	X				Disturbed areas

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<i>Annual Graminoids, cont.</i>										
Poaceae (Gramineae)	<i>Anisantha tectorum</i>	cheatgrass	Intro	Pres	May–Jul	X	X			Disturbed areas
Poaceae (Gramineae)	<i>Bromus japonicus</i>	Japanese brome	Intro	Rep	Jun–Aug	X	X	X	X	Disturbed areas
Poaceae (Gramineae)	<i>Cenchrus longispinus</i>	field sandbur	Native	Pres	Jul–Sep	X				Disturbed areas
Poaceae (Gramineae)	<i>Critision pusillum</i>	little barley	Native	Pres	May–Aug	X	X		X	
Poaceae (Gramineae)	<i>Diplachne fascicularis</i>	bearded sprangletop	Native	Pres	Jul–Sep			X		
Poaceae (Gramineae)	<i>Echinochloa crus-galli</i>	barnyard-grass	Intro	Pres	Aug–Sep	X	X		X	Disturbed areas
Poaceae (Gramineae)	<i>Eragrostis barrelieri</i>	Mediterranean lovegrass	Intro	Pres	Jul–Nov	X	X		X	Disturbed areas
Poaceae (Gramineae)	<i>Monroa squarrosa</i>	false buffalograss	Native	Pres	Jun–Sep	X				Adobe hills
Poaceae (Gramineae)	<i>Muhlenbergia depauperata</i>	sixweeks muhly	Native	Pres	Jul–Sep	X	X			
Poaceae (Gramineae)	<i>Muhlenbergia minutissima</i>	annual muhly	Native	Pres	Jul–Sep	X	X			
Poaceae (Gramineae)	<i>Panicum capillare</i> var. <i>occidentale</i>	witchgrass	Native	Pres	Jun–Sep	X	X	X	X	
Poaceae (Gramineae)	<i>Polypogon monspeliensis</i>	rabbitfoot-grass	Intro	Pres	Jun–Aug			X		
Poaceae (Gramineae)	<i>Setaria viridis</i>	green bristlegrass	Intro	Pres	Jun–Sep	X				Disturbed areas
Poaceae (Gramineae)	<i>Triticum aestivum</i>	wheat	Intro	Rep	Apr–Jul	X				Disturbed areas
Poaceae (Gramineae)	<i>Vulpia octoflora</i>	six-weeks fescue	Native	Pres	Apr–Jun	X	X	X		
<b>Ferns and Allies</b>										
Aspleniaceae (Polypodiaceae or Athyriaceae)	<i>Cystopteris fragilis</i>	brittle bladder fern	Native	Pres	NA			X	X	Rock crevices
Equisetaceae	<i>Equisetum arvense</i>	field horsetail	Native	Pres	NA			X		

**Appendix D. Confirmed, historical, and reported taxa of Colorado National Monument, organized by life form with ecological notes, cont.**

Family	Species name	Common name	Nativity	Park status	Flower time	Sage-Shrub	Pin-Jun	Oak Shrub	Wet	Comments
<i>Ferns and Allies, cont.</i>										
Equisetaceae	<i>Hippochaete hyemalis</i> var. <i>affinis</i>	tall scouring-rush	Native	Pres	NA				X	
Equisetaceae	<i>Hippochaete laevigata</i>	smooth scouring-rush	Native	Pres	NA				X	
Selaginellaceae	<i>Selaginella densa</i>	dense spike-moss	Native	Pres	NA		X			Stony areas
Selaginellaceae	<i>Selaginella mutica</i>	blunt-leaf spike-moss	Native	Pres	NA		X			Rock crevices
Sinopteridaceae (Polypodiaceae, Adiantaceae)	<i>Cheilanthes feei</i>	slender lip-fern	Native	Pres	NA	X	X	X		Rock crevices
Sinopteridaceae (Polypodiaceae, Adiantaceae)	<i>Pellaea atropurpurea</i>	purple cliff-brake	Native	Pres	NA		X	X		
Sinopteridaceae (Polypodiaceae, Adiantaceae, Pteridaceae)	<i>Argyrochosma fendleri</i>	Fendler's cloak-fern	Native	Pres	NA		X	X		Granite rock crevices
Woodsiaceae (Polypodiaceae, Aspleniaceae)	<i>Woodisia oregana</i> ssp. <i>cathartiana</i>	Oregon woodsia	Native	Pres	NA		X			Cliffs



The Department of the Interior protects and manages the nation's natural resources and cultural heritage; provides scientific and other information about those resources; and honors its special responsibilities to American Indians, Alaska Natives, and affiliated Island Communities.

NPS 119/100179, July 2009

National Park Service  
U.S. Department of the Interior



---

**Natural Resource Program Center**

1201 Oak Ridge Drive, Suite 150  
Fort Collins, Colorado 80525

[www.nature.nps.gov](http://www.nature.nps.gov)