A FLORISTIC SURVEY OF THE BOULDER MOUNTAIN PARK: WITH NOTES ON ITS CONSERVATION AND MANAGEMENT (BOULDER, COLORADO, U.S.A.)

Tim Hogan

University of Colorado Museum of Natural History
Herbarium, UCB 350
Boulder, Colorado 80309-0350, U.S.A.
tim.hogan@colorado.edu

ABSTRACT

The City of Boulder Mountain Park sits in the eastern foothills of the northern Front Range of Colorado. Approximately 7000 acres (2800 ha) in extent, the study area is characterized by a foothills and montane vegetation and flora, predominantly of western North American distribution. Situated at the interface of the Great Plains and the Rocky Mountains, the flora of the Mountain Park is distinguished by a wealth of species with eastern woodland affinities, as well as a number of southern Rocky Mountain species endemic to the Front Range. Six hundred and ninety-eight (698) species of vascular plants in 426 genera and 100 families are documented in this survey. Twenty (20) of the plants are listed as Species of Special Concern by the Colorado Natural Heritage Program, with an additional 26 listed as sensitive by the City of Boulder Open Space and Mountain Parks Department (OSMP). Introduced non-native species constitute 21% of the flora (147 species), a figure that exaggerates their ecological role in the Park; less than a dozen introduced species are of serious concern in their impact upon native diversity. The Mountain Park is viewed by many as the crown jewel of the City’s OSMP system, and serves as a model for public land management across other open spaces in urban areas nationwide. These forested foothills, with their prominent relief and associated diversity of habitats, serve as one of the last low-elevation nature refuges along the Colorado Front Range. With the increasing urbanization of the region and the loss of biological diversity worldwide, the wisdom of the Boulder community in protecting this landscape is becoming ever more apparent. This report presents a thoroughly revised checklist of the flora of the Boulder Mountain Parks since the area was last inventoried in 1993.

INTRODUCTION

The Boulder Mountain Park is viewed by many people as the crown jewel of the City of Boulder Open Space and Mountain Parks (OSMP) system, and indeed, serves as a model for public land management across other open spaces in urban areas nationwide. With the iconic Flatirons rising steeply above the city, drawing the eye of residents and visitors alike, the Park bestows a beneficent influence upon the beauty of the Boulder Valley. These forested foothills, with their precipitous crags, protected canyons, and open mesas, serve as one of the last low-elevation nature refuges along the Colorado Front Range (Peet 1978; CNHP 2009). With the increasing urbanization of the region and the loss of biological diversity worldwide, the wisdom of the Boulder community in protecting this landscape is becoming ever more apparent.
This report is a thorough revision of floristic work conducted by the author in 1993 (Hogan 1993), serving to document changes in the Mountain Park and in the nature of floristic studies over the past 25 years. The Park has experienced a dramatic increase in human visitation, as well as the impacts of recent fires and floods (OSMP 2018). In the area of floristics, the introduction of digitization and the ability to generate comprehensive species lists has made possible more detailed discovery and aggregation of specimen records from herbaria (NSF 2018; IMLS 2018). In addition, on-line accessibility to resources such as the Flora of North America, and data portals such as SEINet and the USDA’s PLANTS Database site has facilitated herbarium and field research (FNA 1993; SEINet 2018; USDA 2017).

Along with the addition of 328 botanical specimens collected over three seasons (2014–2016), the species list has been systematically rewritten and a dataset of 2589 specimens housed at University of Colorado Museum of Natural History Herbarium (COLO) has been provided to the City of Boulder Open Space and Mountain Parks Department (OSMP).

**Geographic Site**
The City of Boulder Mountain Park (40°00’N, 105°20’W) is part of the Front Range in north central Colorado, which lies within the interior of North America. The Park is mapped on the Eldorado Springs and Boulder 7.5’ U.S.G.S. Quadrangles. The study area comprises slightly more than 7000 acres (2830 ha).

The Mountain Park is broadly bounded by Boulder Creek to the north, South Boulder Creek to the south, the piedmont valley to the east, and forested foothills to the west. Bear Canyon, with its east-west trending creek, is a major topographic feature in the central section of the Park. Green Mountain (8144 ft/2482 m) rises to the north of this canyon, with Bear Peak (8461 ft/2560 m) and South Boulder Peak (8549 ft/2605 m) lying to the south. The Mesa Trail is a prominent north-south artery following the interface between forested slopes and open grasslands upon the mesa tops. The 3000 ft (915 m) relief of the study area ranges from approximately 5600 ft (1706 m) on its eastern flank to the summits of the three peaks. Much of the Park is in the montane zone (Marr 1961), characterized by a mixed forest of ponderosa pine (Pinus ponderosa) and Douglas-fir (Pseudotsuga menziesii) (Fig. 1).

**Climate**
The easternmost extension of the Continental Divide in North America occurs in the Indian Peaks just west of Boulder, producing an orographic effect providing the mountains of the northern Front Range with greater precipitation than surrounding areas (Dannen 2012). On a local level, this effect is enhanced due to the 3000 ft (915 m) of relief from the mesas to the upper ridgelines of the Mountain Park, combined with Boulder’s position in a topographic arc that opens to the east, serving to funnel upslope storm systems against the hills. Botanists have long commented on these ameliorated conditions along the mountain front (Vestal 1917, 1919), and have pointed to the cloud veil that forms on the mountains, creating locally humid conditions (Weber 1965).

The City of Boulder has an average annual precipitation of 20 inches (51 cm), with the maximum moisture occurring in April and May (Fig. 2). Upslope storms occur in spring and autumn when air masses from the Gulf of Mexico are forced up against the mountain front. Convective storms are common on late summer afternoons (Barry 1973; Callahan 1986; Marr 1961; U.S. Climate Data 2017).

The mean annual temperature in the city is 51°F (10.5°C), with July being the warmest month (73°F/23°C) and December the coldest (33°F/0.5°C). There are approximately 150 frost-free days per year (Fig. 2). Winds are predominantly from the west, with strong, warm, dry Chinooks occurring in the winter months (Callahan 1986).

**Geology**
The Mountain Park is largely underlain by granite and sandstone, with Mesozoic and late Paleozoic sediments occurring along the eastern margin. The Boulder Creek granite is a dark grey, faintly banded granodiorite of Precambrian age. The Fountain Formation is a Pennsylvanian arkose sandstone and conglomerate that forms the scenic Flatirons. A series of sandstone and shale beds found east of the Flatirons include the Lyons
Fig. 1. Boulder Mountain Park (Hogan 1993).
Fig. 2. City of Boulder climate (U.S. Climate Data 2017). This graph tracks the seasonality of precipitation and temperatures in a general sense, but because the numbers come from City of Boulder data, it is more than likely the precipitation values are higher and the temperatures are cooler than the annual average of 20” of precipitation, and a mean annual temperature of 51°F from the urban weather station.

Sandstone, the Lykins Formation, the Morrison Formation, and the Dakota Group (Bridge 2004; Chronic & Chronic 1972; Lovering & Goddard 1950). Calcareous substrates are largely absent in the Mountain Park.

Vegetation

Vegetation as the collective assemblage of plants in the landscape, is distinct from the flora of an area that in its most elemental sense is a list of the plant species occurring there (Mueller-Dombois & Ellenberg 1974). A flora does not give weight to particular species; it records their presence or absence. Vegetation, on the other hand, focuses on those species that characterize the landscape; these are often, but not necessarily, the dominant plants. The basic unit of a flora is the species; the basic unit of vegetation is the community or association (Daubenmire 1968). The plant community can be considered an integrator of soil type, moisture regime, microclimate, slope, aspect, elevation, temperature, and disturbance history (Mueller-Dombois & Ellenberg 1974).

Several investigators have reported on the vegetation of the Colorado Front Range; many of these reports carry direct relevance to the Boulder Mountain Park (Vestal 1917; Marr 1961; Cooper 1984; Peet 1981). Jones (1990) presented a vegetation map of the Park in conjunction with his work on bird and mammal populations. More recently, the City of Boulder Open Space and Mountain Parks Department’s resource division has employed the United States National Vegetation Classification (USNVC 2016) to map vegetation units across their lands (Fig. 3). This classification is accessed through NatureServe Explorer (NatureServe 2017). These studies have been quantitative to various degrees, providing a basis for more closely examining the vegetation of the study area and characteristic habitats of individual species that make up the flora. Below, I provide a brief synopsis of each vegetation class, benefitting from the work of the sources cited above and my own efforts in the Mountain Parks.
Fig. 3. Boulder Mountain Park Vegetation Map & Conservation Targets (OSMP 2016).
**Ponderosa Pine (Pinus ponderosa) Woodland and Forest (PPWF-F)** is the dominant vegetation at lower elevations and on south-facing hillsides. This vegetation type can range from open woodlands on the mesa tops to relatively dense stands in the shelter of the canyons. Generally, this vegetation is recognized by its woodland character, in which scattered trees provide less than 50% of the cover over a graminoid dominated understory (Peet 1981). Historically, these sites were affected by periodic fires, which maintained their open structure and supported the graminoid understory (White 1985; Sherriff et al. 2014). European settlement interfered with the natural disturbance regime: first by lumbering, grazing, and burning, and later, through the practice of fire suppression. These post-settlement impacts have shifted this community from woodland to forest; photographic evidence indicates that treeline has progressed onto the mesa tops during this period (Veblen & Lorenz 1990). Anthropogenic impacts have resulted in denser stands of ponderosa pine along the mountain front and an expansion of treeline at the expense of presettlement prairie vegetation. To some extent, the OSMP department has begun to address this expansion over the past decade through deliberate thinning of these forests in efforts to mitigate the impacts of wildfire. Ponderosa Pine Woodland and Forest vegetation covers about 25% of the study area (Jones 1990).

This vegetation type is typically found on dry, south facing slopes (< 7250 ft/2210 m), and mesa tops at lower elevations, displaying little in the way of closed forest canopies. *Pinus ponderosa* var. *scopulorum* is the predominant conifer; *Pseudotsuga menziesii*, *Populus tremuloides*, and *Juniperus* (Sabina) *scopulorum* may be present in the tree canopy. Understory shrubs and small trees can include *Acer glabrum*, *Arctostaphylos uva-ursi*, *Artemisia ludoviciana*, *Ceanothus fendleri*, *Juniperus communis*, *Berberis* (Mahonia) *repens*, *Physocarpus monogynus*, *Prunus* (Padus) *virginiana*, *Rhus trilobata*, *Ribes cereum*, *Symphoricarpus occidentalis*. Species such as *Achnatherum nelsonii*, *Carex rossii*, *Dianthus spicata*, *Elymus albicans*, *Festuca saximontana*, *Hesperostipa comata*, *Koeleria macrantha*, *Leucopoa kingii*, *Muhlenbergia montana*, *Populus tremuloides*, and *Sporobolus heterolepis* are some of the common grasses and sedges. Mesas at lower elevation are often dominated by non-native invasives such as *Bromus* (*Bromopsis*) *inermis*, *B. (Anisantha) tectorum*, *Dactylis glomerata*, and *Elytrigia repens* (NatureServe 2017; OSMP 2009).

**Mixed Conifer Forest (MCF)** is the dominant vegetation in the Boulder Mountain Park, representing a mixture of Douglas-fir (*Pseudotsuga menziesii*) and ponderosa pine (*Pinus ponderosa*), with occasional occurrences of limber pine (*Pinus flexilis*) and lodgepole pine (*P. contorta*) at higher elevations, and with aspen (*Populus tremuloides*) on north facing slopes and in mesic habitats proximate to drainages. Mixed conifer stands can be found on slopes steeper than 25% throughout the study area above 6500 ft (1980 m). Overall, the Mixed Conifer Forest vegetation represents a blending of the Mountain Park’s plant species; it is generally not as open as the Ponderosa Pine type and is usually more xeric than the Douglas-fir type (see below). It covers about 40% of the study area (Jones 1990).

Understory shrubs and small trees can include *Acer glabrum*, *Arctostaphylos uva-ursi*, *Cornus (Swida) sericea*, *Jamesia americana*, *Juniperus communis*, *Berberis* (Mahonia) *repens*, *Physocarpus monogynus*, *Prunus* (Padus) *virginiana*, *Symphoricarpus occidentalis*. Graminoid species such as *Achnatherum nelsonii*, *Bromus* (*Bromopsis*) *lanatipes*, *Carex geyeri*, *C. rossii*, *Festuca saximontana*, *Leymus ambiguus*, *Oryzopsis asperifolia*, and *Muhlenbergia montana*, are some of the common grasses and sedges (NatureServe 2017; OSMP 2009).

**Douglas-fir (Pseudotsuga menziesii) Forest (DFB)** is the dominant vegetation at higher elevations (>7000 ft/2135 m) and upon steep, north-facing slopes at lower elevations. In contrast to the Ponderosa Pine Forests and Woodlands, the Douglas-fir vegetation type is characterized by a closed canopy and a relatively depauperate understory. Shrubs play a more important role in the Douglas-fir Forest, whereas graminoids, with the exception of *Carex geyeri*, are less significant. Stand structure ranges from sites with high sapling densities, to sites of lesser extent, with older, more sizable trees. Some authors subsume this vegetation type into the Mixed Conifer Forest (Peet 1981; NatureServe 2017), but relatively uniform stands of *Pseudotsuga menziesii* cover about 10% of the Boulder Mountain Parks (Jones 1990).

*Pseudotsuga menziesii* is the dominant conifer; *Pinus ponderosa* and *Populus tremuloides* may be present in the tree canopy. Shrubs and graminoids mentioned under Mixed Conifer Forests can be expected. On north
facing slopes at higher elevation, a suite of boreal species such as *Calypso bulbosa*, *Chimaphila umbellata*, *Goodyera oblongifolia*, *Limnea borealis*, *Orthilia secunda*, *Pyrola chlorantha*, *P. picta*, *P. rotundifolia* ssp. *asarifolia*, and *Vaccinium myrtillus* can be found (NatureServe 2017).

**Grasslands and Forest Openings (G&FO)** is a vegetation type scattered in pockets west of the Mesa Trail, and is the dominant vegetation extending eastward onto the plains. In the uplands it is most frequent on ridge tops and gentle south-facing slopes (Marr 1961). Investigators such as Cooper (1984) and Vestal (1917) separated grasslands into a variety of categories, indicating the oversimplification such a broad term implies. It might be viewed as a group distinguished by floristic similarities and an overall absence of tree cover. In this sense, and for the purposes of this study, it encompasses completely open sites dominated by grasses, to open shrublands and savanna-like woodlands. A history of fire, grazing, and logging have played a significant role in the shifting development of grasslands and forest openings in the Mountain Park. Such sites generally support a greater species diversity than forested sites in the study area. The grassland-forest boundary is one of the most species-rich areas in western North America (Peet 1978). Grasslands and Forest Openings as here delimited cover about 15% of the study area (OSMP 2009).

Grasslands and Forest Openings include shrublands, grasslands and areas of mixed grasses, shrubs and trees. They span the elevational gradient in the Mountain Park, from 5,700 ft. (1740 m) to 8,000 ft. (2400 m). In general, these areas have a tree cover of less than 12%. Areas defined as shrublands have a cover of shrubs greater than 25% (OSMP 2009). The most common shrubs are *Ceanothus fendleri*, *Berberis* (Mahonia) repens, *Prunus* (Padus) virginiana, and *Rhus trilobata*. Grasses include *Andropogon gerardii*, *Arrhenatherum elatius*, *Bromus* (Bromopsis) inermis, *B. (Bromopsis) lanatipes*, *B. (Anisantha) tectorum*, *Bouteloua* (Chondrosium) hirsutum, *Dactylis glomerata*, *Danianthus parryi*, *D. spicata*, *Dichanthelium oligosanthes*, *Elymus albicans*, *Elytrigia repens*, *Festuca saximontana*, *Koeleria macrantha*, *Leucopoa kingii*, *Leymus ambiguus*, *Muhlenbergia montana*, *M. wrightii*, *Nassella viridula*, *Panicum virgatum*, *Pascopyrum smithii*, *Phleum pratense*, *P. fendleriana*, *P. pratensis*, *Schizachyrium scoparium*, *Sorghastrum nutans*, *Sporobolus heterolepis* (NatureServe 2017; OSMP 2009).

**Foothills and Montane Riparian Vegetation (F&MR).** While riparian corridors are of limited extent (<3%) in the study area (Jones 1990), this is the richest vegetation type, both floristically and ecologically, in the Mountain Park. Peet (1978) documents the low elevation riparian forests along the Colorado Front Range as having plant species diversity values as high as any reported from western North America. Both the Foothills Riparian and the Montane Riparian vegetation types share a strong affinity with the flora of eastern North America. The entire chain of vegetation bordering the water courses of the Mountain Park is deserving of the highest levels of protection. Although these threads of moisture represent only a small fraction of area, they are the hub around which the biological wealth of the Park revolves (Hogan 1993; Jones 1990; Peet 1978).

The Foothills Riparian Zone, generally below 7000 ft (2135 m), is characterized by a tree canopy of *Populus angustifolia*, *P. deltoides*, *P. × acuminata*, and *Acer negundo* (Negundo aceroides), with a shrub layer of *Acer glabrum*, *Corylus cornuta*, *Crataegus macracantha*, *Prunus americana*, *P. (Padus) virginiana*, and *Toxicodendron rydbergii*. As one moves up the streams into the Montane Riparian Zone, generally above 7000 ft (2135 m), *Acer negundo* and *Prunus americana* drop away, while woody dominants may include scattered *Populus tremuloides* and *P. × acuminata*, along with *Acer glabrum*, *Alnus incana*, *Betula occidentalis* (B. fontinalis), *Corylus cornuta*, *Prunus* (Padus) virginiana, *Salix bebbiana*, and *Sorbus scopulina*. It is the understory species that most clearly characterize the distinction between the Foothills and Montane riparian zones, with signature species of the Montane including *Aralia nudicaulis*, *Athyrium filix-femina*, *Botrypus virginianus*, *Carex deweyana*, *C. sprengeli*, *Circaea alpina*, *Listera convallariaeoides*, *Lonicera (Distegia) involucrata*, *Rubus* (Cylactis) pubescens, *Sanicula marilandica*, and *Streptopus amplexifolius* (S. fassettii) (NatureServe 2017; OSMP 2009).

**Cliffs and Talus (C&T).** Cliffs and talus occur throughout the Mountain Park, most prominently on the eastern aspects of Green Mountain and Bear Peak where the dramatic Flatirons rest above the City of Boulder. In addition to this formation, sedimentary layers to the east and granitic bedrock to the west make up a significant portion of the study area, comprising nearly 10% of the landscape (Jones 1990).
Scattered trees come from the surrounding landscape and can include *Pinus ponderosa*, *Pseudotsuga menziesii*, and *Juniperus* (Sabina) *scopulorum*. Occasional shrubs and small trees include *Acer glabrum*, *Holodiscus dumosus*, *Jamesia americana*, *Mahonia* (Berberis) *repens*, *Physocarpus monogynus*, *Rhus trilobata*, and *Ribes* spp. These sites also harbor a variety of lichens and mosses, as well as such ferns as *Asplenium septentrionale*, *Cheilanthes fendleri*, *Cryptogramma acrostichoides*, *Cystopteris fragilis*, *Pellaea wrightiana*, *Polypodium saximontanum*, and species of *Woodia* and *Selaginella*. Finally, *Heuchera parvifolia* and the endemic *H. bracteata* are not uncommon upon cliffs and talus in the Park (NatureServe 2017; OSMP 2009).

**METHODS**

This report is an extension of the author’s work carried out through the late 1980s and 90s in the Boulder Mountain Park and surrounding environs. Much of that work is on file with the City of Boulder OSMP Department (Hogan 1989, 1990, 1993, 1994, 1995, 1997). This revision of the floristic survey published by the author nearly 25 years ago (Hogan 1993) relies heavily upon a painstaking review of specimens at the University of Colorado Museum of Natural History Herbarium (COLO), as well as on additional field work. The species list provided in the present report was thoroughly revised.

Thirty-five field days were devoted over three seasons (2014–2016) to the present survey. Voucher specimens were collected for each record and deposited at the University of Colorado’s Herbarium (COLO). In keeping with the tradition of field botanists, survey sites were selected and searched based on the researcher’s judgment – the “meander search” strategy (Goff et al. 1982). Despite the non-random selection of sites, even because of the non-random selection of sites, this approach typically covers a much greater diversity of plant communities and topography, leading to the documentation of a substantially greater diversity of taxa (Fig. 4). Species identification, processing, and digitization of the specimens were conducted using the resources and reference collections at COLO, with herbarium work comprising at least twice the time devoted to work in the field.

Taxonomy largely follows Weber and Wittmann (Weber & Wittmann 2001 3rd ed.). This was used as the primary reference at the request of the City of Boulder’s Open Space and Mountain Parks Department (OSMP), the agency upon whose lands the study occurred and who has supported the author’s work for over 25 years. The department maintains its own herbarium based upon Weber and Wittmann 2001 3rd ed. In virtually all cases, synonymy provided in [brackets] comes from the *Flora of Colorado* (Ackerfield 2015). [For additional discussion see introductory notes to the annotated species list, Appendix].


While individual floras were not always in agreement, it was possible to arrive at a consensus by consulting multiple sources. Assigning geographic categories is problematic because no two species have identical ranges, few species have a continuous distribution, and many plants with extensive ranges are marked by large gaps in their occurrence. Nevertheless, this analysis provides insight into the history of the Mountain Park’s flora and its relation to other regions in North America.

Finally, the review of voucher specimens from the Mountain Park, the development of an electronic dataset, a complete reworking of the 1993 species list, and the compilation of summary statistics for the flora was completed over the course of 2016 and 2017. This review of specimens was facilitated by the digitization of COLO’s collections over the past 25 years, enhanced by the acquisition of the Francis Potter Daniel’s collection.
Fig. 4. Collection sites 2014–2016.
from the University of Missouri in 2007, and expedited by the capacity to conduct rapid searches in other regional herbaria and online floras (FNA 1993; SEINet 2018; USDA 2017).

Herbarium COLO houses a significant number of specimens from the study area collected by Daniels (369 collections), F. Ramaley (241), and W.W. Robbins (305) going back as early as 1906 (Dodds et al. 1908). Other collections of note include those of W.A. Weber (473), H.W. Campbell (194), J. Shawver (79), and R. Wittmann (76). Hogan has deposited 1142 specimens; 328 were collected over the course of the most recent field work. A conservative compilation of vouchers from the Mountain Park consists of 2589 specimens. Many historical records likely to have been collected from the study area lacked sufficient locality data to be included in the final list.

**RESULTS**

**Flora.**—Six hundred and ninety-eight (698) species of vascular plants in 426 genera and 100 families are documented in this survey (Weber & Wittman 2001). The most species rich families are Asteraceae and Poaceae, with 127 and 84 species, respectively. Non-native (introduced) species comprise 21% (147 spp.) of the flora (see below). Twenty (20) species are Species of Special Concern as recognized by the Colorado Natural Heritage Program (CNHP 2017) (Table 1). Plants of special concern are not only those species that are rare or endangered, but also relicts, peripheral species that may be abundant elsewhere, and those locally common species otherwise restricted. Within this broader definition, I have chosen, in consultation with OSMP staff, to recognize more species than those listed by CNHP as species of special concern in the Boulder Mountain Park (Table 2). No vascular plants listed under the Endangered Species Act are known from the study area. A complete collection documenting this work has been deposited at the University of Colorado Herbarium (COLO).

**Phytogeography.**—The Boulder Mountain Park flora is predominantly Western North American in distribution (179 spp. [26%]). This is followed by species that are wide ranging across the continent (101 spp. [14%]). The Great Plains element plays an important role in the flora (81 spp. [12%]), contributing prairie species to the predominantly montane vegetation of the Park (Table 3).

Two of the most interesting elements in the flora are the Oroboreal and Eastern North American elements (75 spp. [11%]). As used in this paper, the former refers to those species distributed across southern Canada, the northern United States, and southward along the Appalachian system and the western Cordillera. Weber (1965, 2003) hypothesized these two elements represent an eastern North American group that contacted the Rocky Mountains along river drainages during the last glaciation. With post-Pleistocene warming, many of these species have persisted in mountain refugia or in cooler, more boreal environments. These elements are present in the Black Hills (Dorn 1977; Froiland 1978) and in the mesic, north-facing ravines along the Front Range; species such as *Agrimonia striata* (agrimony), *Aralia nudicaulis* (wild sarsaparilla), *Betula papyrifera* (paper birch), *Prunus* (*Cerasus*) *pennsylvanica* (pin cherry), *Corylus cornuta* (hazel nut), *Lilium philadelphicum* (wood lily), and *Sanicula marilandica* (black snakeroot) characterize this element. The Boulder area is among the southernmost locations in the Rocky Mountains for many of these eastern North American disjuncts and relicts.

The Southern Rocky Mountain element (41 spp. [6%]) comprises the narrowest endemics in the Mountain Park flora, with a subset of this element containing species restricted to the Front Range, viz. *Physaria vitulifera*, *Heuchera bracteata*. Many species more common to higher altitudes in Colorado are represented in the Circumboreal element (32 spp. [5%]). The Southwestern element (29 spp. [4%]) is evidence of a Madrean influence (Axelrod 1958) upon the flora. And finally, a cosmopolitan element (13 spp. [2%]) represents species so thoroughly naturalized their origins are often uncertain, viz. *Pteridium aquilinum*, *Prunella vulgaris*.

**Non-native Introductions.**—A special effort was made to collect introduced species so as to document their presence for future workers (Table 4). The high number of non-native species (147 spp. [21%]) is to some extent an exaggeration of their ecological role in the Boulder Mountain Park. This is an artifact of the observation that floristic lists note presence or absence, without giving weight to abundance or distribution.
Table 1. CNHP Tracking List (2017). Conservation status ranks are based on a one to five scale, ranging from critically imperiled (G1) to demonstrably secure (G5). Status is assessed and documented at two distinct geographic scales-global (G) and state/province (S).

<table>
<thead>
<tr>
<th>Species</th>
<th>Global Rank</th>
<th>State Rank</th>
<th>Global Rank</th>
<th>State Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amorpha nana</td>
<td>G5S2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asclepias stylophylla</td>
<td>G452</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asplenium septentrionale</td>
<td>G5S4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Betula papyrifera</td>
<td>G5S1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Botrypus virginianus</td>
<td>G5S1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carex saximontana</td>
<td>G5S1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carex sprengleri</td>
<td>G5S2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carex torreyi</td>
<td>G4S1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crocanthemum bicknelli</td>
<td>G5S2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lilium philadelphicum</td>
<td>G5S3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2. OSMP Sensitive List. Plants of special concern are not only those species that are rare or endangered, but also relicts, peripheral species that may be abundant elsewhere, and those locally common species otherwise restricted.

<table>
<thead>
<tr>
<th>Species</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Antennaria howellii</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aralia nudicaulis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asplenium trichomanes</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Astragalus canadensis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Athyrium filix-femina</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bromopsis pubescens</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calypso bulbosa</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carex dieweyana</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carex disperma</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cheilanthes fendleri</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Circaea alpina</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corallorhiza striata</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corylus cornuta</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cymopterus pubescens</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dipsacus evelynae</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elymus repens</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erosion circutarium</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erigeron canadensis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hieracium aurantiacum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypericum perforatum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linaria vulgaris</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poa bulbosa</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potentilla recta</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbascum thapsus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alliaria petiolata</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arnica montana</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arctium minus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carex pubescens</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conium maculatum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convolvulus arvensis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crepis acrostichoides</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cynoglossum officinalis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dipsacus saturensis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elaeagnus angustifolia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erodium cicutarium</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypericum perforatum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linaria vulgaris</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypericum perforatum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potentilla recta</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbascum thapsus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alliaria petiolata</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arnica montana</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arctium minus</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carex pubescens</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conium maculatum</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convolvulus arvensis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crepis acrostichoides</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cynoglossum officinalis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dipsacus saturensis</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elaeagnus angustifolia</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erodium cicutarium</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3. Geographic distribution of species.

<table>
<thead>
<tr>
<th>Region</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Western North America</td>
<td>179</td>
<td>26</td>
</tr>
<tr>
<td>North America</td>
<td>101</td>
<td>14</td>
</tr>
<tr>
<td>Great Plains</td>
<td>81</td>
<td>12</td>
</tr>
<tr>
<td>Oroboral</td>
<td>44</td>
<td>6</td>
</tr>
<tr>
<td>Southern Rockies</td>
<td>41</td>
<td>6</td>
</tr>
<tr>
<td>Circumboreal</td>
<td>32</td>
<td>5</td>
</tr>
<tr>
<td>Eastern North America</td>
<td>31</td>
<td>4</td>
</tr>
<tr>
<td>Southwestern North America</td>
<td>29</td>
<td>4</td>
</tr>
<tr>
<td>Cosmopolitan</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td><strong>Introduced</strong></td>
<td>147</td>
<td>21</td>
</tr>
</tbody>
</table>

Table 4. Introduced non-native species. Colorado Noxious Weed Act prioritizes species as A, B, or C, with A being of most concern.

<table>
<thead>
<tr>
<th>Species</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Hieracium aurantiacum</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tithymalus myrsinites</td>
<td>A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acosta diffusa</td>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acosta mausolasa</td>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breas arvensis</td>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carduus nutans</td>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cylindropappus cylindricum</td>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cynoglossum officinalis</td>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dipsacus fullonum</td>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eleagnus angustifolia</td>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linaria genistifolia</td>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linaria vulgaris</td>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypericum perforatum</td>
<td></td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Poa bulbosa</td>
<td></td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Saponaria officinalis</td>
<td>B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbascum thapsus</td>
<td></td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Alliaria petiolata</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arnica montana</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arctium minus</td>
<td></td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>Carex pubescens</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conium maculatum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convolvulus arvensis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crepis acrostichoides</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cynoglossum officinalis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dipsacus saturensis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elaeagnus angustifolia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erodium cicutarium</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypericum perforatum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linaria vulgaris</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hypericum perforatum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potentilla recta</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Verbascum thapsus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alliaria petiolata</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arnica montana</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Arctium minus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Carex pubescens</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conium maculatum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Convolvulus arvensis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crepis acrostichoides</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cynoglossum officinalis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dipsacus saturensis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elaeagnus angustifolia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Erodium cicutarium</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

This document is intended for digital-device reading only. Inquiries regarding distributable and open access versions may be directed to jbrit@brit.org.
DISCUSSION

The Boulder Mountain Park lies at the interface of two of the great ecosystems of North America, the Rocky Mountains and the Great Plains. More specifically, the study area is at the juncture of the Southern Rockies and the Western Great Plains, dominated by montane forest and mixed-grass prairie, respectively. This confluence, in combination with the abrupt relief of the study area and the locally enhanced levels of precipitation, plays a significant role in the biotic richness of the Park.

In addition, this richness has been protected by management of the Mountain Park as a natural area starting in the early part of the 20th C., with increasing acreage added to the system over the ensuing years. This management has been enhanced since its merger with the City of Boulder Open Space Department in January of 2001, when it moved from the city’s Parks and Recreation Department and came under the strictures of the Open Space Charter with language more explicitly emphasizing preservation and conservation (OSMP 2018). The designation of significant areas of the Mountain Park as Habitat Conservation Areas in the 2005 Visitor Master Plan reflects this emphasis; HCAs represent the highest level of protection in the OSMP system. This protective umbrella was further enhanced with the designation of the Boulder Mountain Park as a Colorado State Natural Area in 2009. This history of preservation signifies the regard Boulder citizens have held for the area over multiple generations.

Any account of the Mountain Park would be remiss in not mentioning the network of Boulder County protected areas in which it is embedded. The county harbors over half [1743 taxa] (Weber 1995) of the vascular plant diversity in the state [3324 taxa] (Ackerfield 2015), with the Mountain Park supporting 40% of the county’s taxa [698] (Hogan herein). As part of the City of Boulder OSMP Department’s 45,000 acres (18,210 ha), the Park is buffered by other OSMP lands, as well as by properties managed by Boulder County Parks and Open Space within their holdings of 65,000 acres (26,300 ha). A significant portion of these Open Space parcels are native grasslands extending eastward from the mountain front; important habitats harboring fragile plant communities. Three of these areas have also received Colorado State Natural Area recognition – White Rocks for its unique geology and rare plants and lichens (1979) (Clark 2014; Tripp 2015, 2016), the Colorado Tallgrass Prairie (1984) for the largest known area of xeric and mesic tallgrass prairie in the state, and South Boulder Creek Floodplain (2000) for its wetlands and rare species. To the west, the Boulder District of the Arapaho-Roosevelt USFS (~160,000 acres/65,000 ha), and Wild Basin, a roadless piece of Rocky Mountain National Park (~27,500 acres/11,125 ha), provide a diversity of montane and alpine habitats reaching to the Continental Divide in RMNP and the Indian Peaks Wilderness Area. The protected lands of Boulder County account for 0.62 of its 740 sq. mi., in a county with a population of 325,000 people (Fig. 5).

These lands harbor a wealth of biodiversity across genetic, taxonomic, and ecosystem boundaries. Networks of connectivity follow ridgelines and water courses, stitching the landscape together while providing a measure of resiliency as we move into rapidly changing environmental circumstances marked by climate disruption, expanding human numbers, and a disquieting loss of species. Surely, significant concerns arise when normally staid scientific publications start using term like “biological annihilation” (Ceballos 2017), and prominent scientists propose setting aside 50% of the planet’s surface as refuges for the protection of life on earth (Wilson 2016).

Twenty-five years after the last floristic survey, the Boulder Mountain Park maintains a high degree of ecological integrity and remains a treasured natural area of the Front Range. Yet over this period, the urban corridor has grown from 1.8 million people to over 3 million residents (Metro Denver 2017). The “front country” of the Mountain Park, those areas closest to trailheads and along lower elevation trails, has been noticeably impacted by non-native introduced species. The sheer press of human numbers has had its effects. A conservative estimate of human visitation is 2.5 million per year (OSMP 2011).

As mentioned above, an effort was made to collect introduced species to document their presence for future workers, an effort that to some degree exaggerates their ecological effect in the Mountain Park. On the other hand, some introduced species are of serious concern in their impact upon native diversity. Arrhenatherum
ela

tius (tall oatgrass), Centaurea (Acosta) diffusa (diffuse knapweed), Cirsium (Brea) arvensis (Canada thistle), Bromopsis inermis (smooth brome), Elytrigia repens (quackgrass), Euphorbia (Tithymalus) myrsinites (myrtle spurge), Potentilla recta (sulphur cinquefoil), Linaria genistifolia ssp. dalmatica (dalmatian toadflax), and Thinopyrum intermedium (intermediate wheatgrass), appear to be aggressive taxa expanding their range in the study area. The recent appearance (2017) of Tanacetum parthenium (feverfew) at Greenman Springs points to the need for constant vigilance with regards to non-native introductions.

Management of introduced species is problematic at best. The most effective practice is to minimize human disturbance to avoid creating sites where invasive species can become established; the best protection against non-native species is the preservation of resilient, native communities. It is clear to even the most casual observer that roadways, trailheads, and trails are the areas where non-native introductions are most abundant. In some cases, active intervention may be necessary in order to protect native diversity.

Nonetheless, efforts to move trails out of drainages have helped to secure these fragile habitats, and the zoning of the Park with its incorporation of HCAs has mitigated some of the impacts. Moving forward, an ethos of conservation should be more strongly emphasized and the impacts of off-trail travel on native species made more explicit to visitors.

The Boulder Mountain Park was subjected to two extreme events in the years immediately preceding the most recent survey: the June 2012 “Flagstaff Fire” and the historic flood of September 2013. The fire affected approximately 300 acres (120 ha) on the west side of South Boulder and Bear peaks, but more catastrophic impacts were averted when a fortuitous rain soaked the fire within 24 hours of its lighting sparked ignition.

Over the course of this survey there has been a gradual regeneration as early successional species have established themselves, started to stabilize soils, and begun to foster microhabitats where native species in the seedbank have begun to take root. A recent visit at the time of this writing (2017) revealed the presence of
young conifer seedlings on the north facing slopes of South Boulder Peak. The study area has received above average rainfall in recent years, which may be assisting seedling establishment and regeneration for the time being. On the other hand, increased wildfire activity and climate disruption have raised concern among scientists and land managers regarding current and future vegetation patterns in post-burn landscapes (Allen et al. 2015; Rother & Veblen 2016).

The flood of September 2013 may have had a greater impact on the biotic diversity of the Mountain Park than recent fires. Boulder officially recorded 17.24" (43.8 cm) of precipitation, nearly a year’s worth of rain, in just eight days, with 9.08" (23 cm) falling in one 24 hour period (BoulderCast 2017). Stream channels, large and small, were scourred by the flood waters, particularly at elevations below 7000 ft. (2135 m). Two striking examples include the stretch of Skunk Canyon immediately west of the Mesa Trail, and the normally intermittent channel that parallels the lower Saddle Rock Trail and drains into Gregory Canyon (6000'/1860 m) along the contact between the Fountain sandstone and pre-Cambrian granites. As mentioned in the discussion of riparian vegetation and emphasized in a review of the species list, these habitats hold the highest levels of plant diversity in the study area, and harbor a wealth of diversity across plant and animal taxa. While some recovery is evident in the form of early successional species, it will be decades before some of the hardest hit reaches of the drainages return to any semblance of their richness and beauty.

The significance of floristic studies is often under-appreciated by academic botanists, land managers, or the general public (Tripp & Hoagland 2013). With the building of the dataset documenting collections gathered from the Mountain Park over generations of collectors, combined with the methodical examination of voucher specimens to determine identifications and confirm their presence in the area, my appreciation for the value of natural history collections has been reaffirmed. The presence of 2589 voucher specimens from the Mountain Park in Herbarium COLO is a rich resource in itself, serving an important role in contributing a persuasive rationale for the conservation of these public lands. The breadth of biological research in the Mountain Park was critical to the State Natural Area designation, and an important factor in the development of recent planning documents (e.g., OSMP 2009). From a less parochial perspective, collections such as these provide objective evidence for society’s understanding of the distribution and abundance of species, contributing insights to questions examining evolution and biogeography.

Floras are not stand-alone entities, but rather part of a continuum involving checklists, databases, identification manuals, biodiversity studies, and monographs (Funk 2006). As alluded to above, floras can also play a role in the conservation of species. It is my sincere hope this work, and the documentation housed in the herbarium’s collections, will serve to further the management and protection of this important natural area for future generations.

APPENDIX

BOULDER MOUNTAIN PARKS ANNOTATED SPECIES LIST

The checklist is sorted by Ferns and Fern Allies, Gymnosperms, and Angiosperms, followed alphabetically by family, and within family, by genus and specific epithet.

Taxonomy largely follows Weber and Wittmann (Weber & Wittmann 2001 3rd ed.). This was used as the primary reference at the request of the City of Boulder’s Open Space and Mountain Parks Department (OSMP), the agency upon whose lands the study occurred and who has supported the author’s work for over 25 years. In virtually all cases, synonymy provided in [brackets] comes from the Flora of Colorado (Ackerfield 2015). In addition, to make the checklist amenable to users more familiar with APG taxonomy, both family names and genera are synonymized between alternative names. These are also placed in brackets, and in the case of genera and most families, alphabetized within the checklist.

The format of the list is the following: accepted name (sensu Weber & Wittmann 2001), common name, synonymy, notes on habitat and abundance, geographic distribution, and [collection number(s)]. The latter refers to Hogan unless otherwise noted. In selected cases, additional notes are appended to the species record.
FERNS & FERN ALLIES

ASPIDIACEAE—SHIELD FERN FAMILY [DRYOPTERIDACEAE]
Dryopteris fílix-mas (L.) Schott MALE FERN. A handsome fern, not uncommon in moist, shaded sites; circumboreal. [1104, 1421, 2522, 5283, 5427, 5498]

ASPLENIACEAE—SPLEENWORT FAMILY
Asplenium septentrionale (L.) Hoffm. GRASS FERN. Infrequent in seams of Fountain Sandstone; circumboreal. [1163, 5476, 5653]
Asplenium trichomanes L. MAIDENHAIR SPLIENWORT. One specimen from “Skunk Canyon, foothills riparian habitat in ‘the narrows’ west of Mesa Trail”; cosmopolitan. [Hogan 2523]

ATHYRIACEAE—LADY FERN FAMILY [DRYOPTERIDACEAE]
Athyrium filix-femina (L.) Roth var. Equisetum arvense
Hippochaete laevigata (A.Braun) Farwell SMOOTH HORSETAIL. [1774, 2521, 5625]
Hippochaete hyemalis L. FIELD HORSETAIL. Locally abundant in moist sites; circumboreal. [1139]

CRYPTOPHYLLACEAE—ROCK BRAKE FAMILY [PTERIDACEAE]
Cryptogramma acrostichoides R. Br. AMERICAN ROCK BRAKE. Not uncommon in rocky sites at higher elevations; western N.A. (Asia). [1402, 5285, 5661]

EQUISETACEAE—HORSETAIL FAMILY
Equisetum arvense L. FIELD HORSETAIL. Locally abundant in moist sites; cosmopolitan. [1111]
Hippochaete hyemalis (L.) Bruhn. SCOURING-RUSH HORSETAIL. [1755b, 2524]

HYPOLEPIDACEAE—BRACKEN FAMILY [DENNSTAEDTIACEAE]
Pteridium aquilinum (L.) Kuhn ssp. lanuginosum (Bongard) Hultén BRACKEN FERN. Common, rank fern of moist sites; cosmopolitan. [1665]

OPIOHYGROSIACEAE—ADDER'S TONGUE FAMILY
Botrypus virginianus (L.) Holub RATTLESNAKE FERN. Rare in Colorado; a plant of special concern (G5S1) found in this survey only in the Greenman Spring area; North America (Eurasia, S. Am.). [Weber 13247; 1989 photographic record in COLO; a 2016 sight record]

POLYPODIACEAE—POLYPODY FAMILY
Polypondium saxitansum Windham ROCKY MOUNTAIN POLYPODY. Infrequent in protected rock crevices (G3S3); Southern Rockies. [1773, 5284, 5361]

SELAGINELLACEAE—LITTLE CLUB MOSS FAMILY
Selaginella densa Rydb. ROCKY MOUNTAIN SPIKE-MOSS. Scattered on dry, gravelly soils in forests; western N.A. [1561, 5565, 5647]
Selaginella underwoodii Hieron. UNDERWOOD’S SPIKE-MOSS. Less common, more mesic sites than S. densa; southwestern N.A. [1429, 5484, 5636]
Selaginella weatherbiana Tryon WEATHERBY'S SPIKE-MOSS. Cool, north facing cliffs, uncommon (G3S3); Southern Rockies. [1795b, 5224]

SINOPTERIDACEAE—LIPFERN FAMILY [PTERIDACEAE]
Cheilanthes fendleri Hook. FENDLER’S LIP FERN. Uncommon in dry, granitic sites; southwestern N.A. [914, 5564]
Pellaea wrightiana Hook. WRIGHT’S CLIFF-BRAKE. Rare, from one site on Flagstaff, three miles up Flagstaff Rd., south-facing granitic cliff above Gregory Canyon; southwestern N.A. [Bill May 2003-1; Hogan 5646]

WOODSIACEAE—WOODSIA FAMILY [DRYOPTERIDACEAE]
Woodsia oregana Eaton ROCKY MOUNTAIN WOODSIA. Protected rock crevices, the more common Woodsia of the Mountain Park; N.A. (oroboreal). [1141, 2194, 5239, 5294, 5659]

GYMNOSPERMS

CUPRESSACEAE—CYPRESS FAMILY
[Juniperus see also Sabina]
Juniperus communis L. ssp. alpina (Sm.) Celak. COMMON JUNIPER. Common shrubby juniper of foothills; circumboreal. [1960]
Sabina scopulorum (Sarg.) Ryd. ROCKY MOUNTAIN JUNIPER. [1166]
[Juniperus scopulorum Sarg.] Scattered throughout the Mountain Park; associated with drier sites, but sometimes found along streams; western N.A. [1636]

PINE FAMILY
Picea pungens (Engelm.) COLORADO BLUE SPRUCE. Infrequent along streambeds at higher elevations in the Mountain Park, most common in Bear Canyon; Southern Rockies. [1989, 5509]
Pseudotsuga menziesii (Engelm.) LODGEPOLE PINE. West side of Bear Peak intermixed with P. flexilis, P. ponderosa, and Pseudotsuga menziesii; western N.A. [1653]
Pinus flexilis James LIMBER PINE. Scattered at higher elevations throughout the Mountain Park; western N.A. [1129, 5969]
Pinus ponderosa Douglas ex C. Lawson var. scopulorum Engelm. PONDEROSA PINE. Common pine of Mountain Park; western N.A. [1566]
Pseudotsuga menziesii (Mirb.) Franco DOUGLAS-FIR. Codominant with Pinus ponderosa; more common on north facing slopes; western N.A. [1608]

ANGIOSPERMS

ACERACEAE—MAPLE FAMILY [ SAPINDACEAE]
[Acer see also Negundo]
Acer glabrum Torr. MOUNTAIN MAPLE. Small tree, frequent along streams and in forest understory; western N.A. [1006]
Negundo aceroides (L.) Moench BOX ELDER. [Acer negundo L.]. Common streamside tree in lower canyons; North America. [989, 5509]

AGAVACEAE—AGAVE FAMILY
Yucca glauca Nutt. SPANISH BAYONET. Dry hillsides and grasslands, not uncommon; Great Plains. [1732, 5508]

ALISMATACEAE—WATER-PLANTAIN FAMILY
Alisma triviale P. flexilis, P. ponderosa, and Pseudotsuga menziesii; western N.A. [1653]
Botrypus virginianus (L.) Holub RATTLESNAKE FERN. Rare in Colorado; a plant of special concern (G5S1) found in this survey only in the Greenman Spring area; North America (Eurasia, S. Am.). [Weber 13247; 1989 photographic record in COLO; a 2016 sight record]
Pseudotsuga menziesii (Mirb.) Franco DOUGLAS-FIR. Codominant with Pinus ponderosa; more common on north facing slopes; western N.A. [1608]
Sagittaria cuneata Sheldon NORTHERN ARROWHEAD. Muddy ditches and wet areas; lower elevations. North America. [Shawver 427]

ALLIACEAE—ONION FAMILY (LILIACEAE)
Allium cernuum Roth NODDING ONION. Woodland species, common; North America. [1349, 1919, 5380]
Allium geyeri S. Watson Geyer'S ONION. Single historical collection (1906) from canyon on north slopes of Flagstaff; western N.A. [Daniels 292]
Allium textile A. Nelson & J.F. Macbr. TEXTILE ONION. Woodlands and mesas, not uncommon; Great Plains. [1065, 5471]

ALISINACEAE—CHICKWEED FAMILY (CARYOPHYLLACEAE)
Cerastium strictum L. CHICKWEED. [Stellaria media ALSINACEAE—CHICKWEED FAMILY [CARYOPHYLLACEAE]
Cerastium fontanum (L.) Cyrillo]. Single L. CHICKWEED. [Stellaria media ALSINACEAE—CHICKWEED FAMILY [CARYOPHYLLACEAE]

Allium textile A. Nelson & J.F. Macbr. TEXTILE ONION. Woodlands and mesas, not uncommon; Great Plains. [1065, 5471]

AMARANTHACEAE—PIGWEED FAMILY
Froelichia gracilis (Hook.) Moq. COTTONWOOL. A single specimen from lower Sunshine Canyon proximate to parking area; (south) Great Plains. [Wittmann 1824]

APANACARDIAE—SUMAC FAMILY
Rhus aromatica Aiton ssp. tribolata (Nutt. ex Torr. & A. Gray) W.A. Weber SKUNKBRUSH. [R. tribolata Nutt.] Dominant shrub of dry sites; western N.A. [1051]
Rhus glabra L. SMOOTH SUMAC. Shrub of disturbed site, not uncommon. North America. [1076]
Toxicodendron rydbergii (Sm. ex Rydb.) Greene POISON IVY. Moist sites at lower elevations, often abundant in the lower canyons along trails; (western) North America. [5522]

APICEAE—PARSLEY FAMILY (UMBELLIFERAE)
Aletes acalis (Torr.) Cault. & Rose MOUNTAIN CARAWAY. Common in rocky areas and dry mixed conifers; Southern Rockies. [1260, 1573, 5252, 5451]
Angelica ampla A. Nelson GIANT ANGELICA. Uncommon along streambanks, but frequent in Bear Canyon; Southern Rockies. [1243]
Carum carvi L. CARAWAY. One specimen from weedy site in lower Doudy Draw, proximate to South Mesa Trailhead; introduced. [2090]
Caucalis daucoides L. CARROT BUR PARSLEY [C. platycarpus L.] A single specimen from gravelly, partially shaded slope west of Settlers Park; introduced. [May 95-7]

Conium maculatum L. POISON HEMLOCK. Rank weed of ditches and wet ground at lower elevations; introduced. [1054] [This taxon is designated as a "List C" species in the Colorado Noxious Weed Act.]

Harbouria trachypleura (A. Gray) Coul. & Rose WHISKBROOM PARSLEY. Frequent on dry, open slopes in ponderosa pine and mixed conifer forests; Southern Rockies. [975, 1254, 5244, 5467]
Heracleum sphondylium L. ssp. montanum (Schlech. ex Gaudin) Briq. COW PARSNIP. [Heracleum maximum Bartz.] Common rank herb of streambanks; North America. [1363]
Ligusticum porteri Coul. & Rose PORTER'S LOVAGE, OSHA. Not uncommon, herb of streambanks and shaded forests, popular among herbalists; Southern Rockies. [1250]

Lomatium orientale Coul. & Rose SALT & PEPPER. Early blooming species of grasslands and forest openings, frequent at lower elevations; Great Plains. [968, 1081, 1557, 5483]
Musineon divaricatum (Pursh) Nutt. ex Torr. & A. Gray LEAFY WILD PARSLEY. Early blooming species on the mesa; Great Plains. [984]

Osorrhiza chilensis Hook. & Arn. SWEETCICELY. [O. berteroi DC.] WILD PARSLEY. Scattered in mesic sites and mixed conifers; N.A. (oroboreal) (South America). [5347, 5516, 5526]
Osorrhiza depauperata Phil. BLUNT SWEETCICELY. [O. obtusa (Coult. & Rose) Fernald] Frequent in mesic sites and mixed conifers; N.A. (oroboreal) (South America). [1083, 1113]
Osorrhiza longistylis (Torr.) DC. LONGSTYLESWEETROOT. Uncommon in mesic sites at lower elevations; N.A. (oroboreal). [1082]
Sanicula mainlandica L. BLACK SNAKERoot. Locally common in cool, mesic sites near streams; a relic eastern woodland species uncommon in Colorado; N.A. (oroboreal). [1167, 1273, 5332]

APOCYNACEAE—DOGBANE FAMILY [see also ASCLEPIADACEAE]
Apocynum androsaemifolium L. SPREADING DOGBANE. Common in meadows and forest openings; North America. [1164, 5344, 5543]
Apocynum cannabinum L. INDIAN HEMP. [A. sibiricum Jacquin] One historical collection from "Pole Canyon" (minor drainage between Bluebell and Skunk canyons); introduced. [Robbins 4206]
Apocynum × medium Greene Hybrid between A. androsaemifolium and A. cannabinum. Weedy site in ponderosa pine savanna, proximate to Shanahan Mesa trailhead; introduced. [5664]

ARALIACEAE—GINSENG FAMILY
Aralia nudicaulis L. WILD SARSAPARILLA. Cool, moist ravines and mesic sites near streams; a relictual eastern woodland species uncommon in Colorado; N.A. (oroboreal). [1167, 1273, 5332]

ASCLEPIADACEAE—MILKWEED FAMILY [APOCYNACEAE]
Asclepias pumila (A. Gray) Vail DWARF MILKWEED. Uncommon in open sites at lower elevations, but locally abundant where found; Great Plains. [1409, 1989, 2197]
Asclepias speciosa Torr. SHOWY MILKWEED. Scattered, associated with moist, disturbed sites; western N.A. [1866]
Asclepias subverticillata (A. Gray) Vail HORSETAIL MILKWEED. Single specimen from dry, rocky site near north end of Mesa trail proximate to Bluebell Canyon; Great Plains. [Shawver 595]
Asclepias viridiflora (A. Gray) Raf. GREEN MILKWEED. Scattered in drier sites; eastern N.A. [1776]

ASPARAGACEAE—ASPARAGUS FAMILY
Asparagus officinalis L. ASPARAGUS. Infrequent in open sites; introduced. [1042]
ASTERACEAE—SUNFLOWER FAMILY (COMPOSITAE)

Achillea lanulosa Nutt. YARROW. [A. millefolium L. Common, meadows and forests; western N.A. [1084]

Acoasta diffusa (Lam.) Sojak DIFFUSE Knapweed. [Centarea diffusa Lam.]. Disturbed sites; a colonizer that may be spreading in the Mountain Park, but not common; introduced. [1266]

[A. diffusa is designated as a “List B” species in the Colorado Noxious Weed Act.]

Acoasta maculosa (L.) Holub SPOTTED Knapweed. [Centarea maculosa L.; C. stoebe L. sps. micranthos (S.G. Gmelin ex Gugler) Hayek] Single historical collection from McClintock Trail; disturbed sites, not as common as A. diffusa; introduced. [Weber 17839] [A. maculosa is designated as a “List B” species in the Colorado Noxious Weed Act.]

Acoasta diffusa × maculosa [Centarea x psammogena G. Gayer] Hybrid found in disturbed sites; abundant along road parallel ing Martin Gulch on west side of Mountain Park; introduced [1491] [A. diffusa × maculosa is designated as a “List B” species in the Colorado Noxious Weed Act.]

Agoseris aurantiaca (Hook.) Greene ORANGE FALSE DANDELION. Scattered, weedy species of disturbed sites; introduced. [1846, 5438] [B. aurantiaca is designated as a “List B” species in the Colorado Noxious Weed Act.]

Agoseris glauca (Pursh) Raf. PALE FALSE DANDELION. Scattered, meadows and forest openings; western N.A. [996]


Ambrosia trifida L. GIANT RAGWEED. Weedy species of road sides and trails; not as common as A. psilostachya; introduced. [1527]

Anaphalis margaritacea (L.) Bernh. & Hook. PEARLY EVERLASTING. Scattered in mesic sites and mixed montane forests, a species more common to higher altitudes; North America (Eurasia). [1898, 5570]

Antennaria howelli Greene spp. neodioica (Greene) Bayer NORTH ERM PUSSYTOES. [A. neglecta Greene]. A species of canyons, meadows and forest openings, relatively common in the Mountain Park, but not elsewhere in Colorado; western N.A. [1116, 1574, 5248]

Antennaria parvifolia Nutt. MOUNTAIN PUSSYTOES. Scattered, widely distributed in open sites throughout the Park; western N.A. [997, 1031]

Antennaria pulcherrima (Hook.) Greene spp. anaphaloides (Rydb.) W.A. Weber PEARL PUSSYTOES. [A. anaphaloides Rydb.]. Meadows and forest openings, infrequent; western N.A. [1098, 2188]

Antennaria rosea Greene ROSY PUSSYTOES. Scattered, more common in mixed conifers; western N.A. [1663, 1672]

Arctium minus (Hill) Bernh. BURDOCK. One collection from shrubby site along McClintock Trail; introduced. [1540] [This taxon is designated as a “List C” species in the Colorado Noxious Weed Act.]

Arnica cordifolia Hook. HEARTLEAF ARNICA. Common woodland and forest species blooming in early season; western N.A. [1117, 1737, 5338]

Arnica fulgens Pursh FOOTHILLS ARNICA. Not uncommon in meadows and forest openings at lower elevations; western N.A. [1097, 1592, 5459]

[Artemisia see also Oligosporus]

Artemisia biennis Willd. BIENNIAL SAGEWORT. One historical collection from roadside on west side of Park; introduced. [Weber 7928]

Artemisia frigida Willd. SILVER SAGE. Common in shrublands and openings at lower elevations; North America (Eurasia). [1490]

Artemisia ludoviciana Nutt. PRAIRIE SAGE. Widespread and common in dry openings and forests; North America. [1399]

Aster laevis L. var. geyeri A. Gray SMOOTH ASTER. [Symphyotrichum laeve (L.) A. & D. Loe var. geyeri (A. Gray) Nesom]. Common blue aster of late summer in forest openings and meadows; North America. [1502, 5366, 5701]

Aster porteri A. Gray PORTER’S ASTER. [Symphyotrichum porteri (A. Gray) Nesom]. Common white aster of late summer in woodlands and meadows; Southern Rockies. [1497, 5441]

Bahia dissecta (A. Gray) Britton CUTLEAF BAHIA. [Amaranthus dissecta (A. Gray) Rydb.]. Handsome plant of open sites, flowering in late summer; southwestern N.A. [1372, 1968]

Bidens cernua L. NODDING BEGGAR-TICKS. One historical collection from Flagstaff; introduced. [Robbins 2574]

Bidens frondosa L. DEVIL’S Beggar-Ticks. One collection from southern Boulder foothills proximate to pond; introduced. [Smith 919]

Bidens vulgata Greene TALL Beggarticks. One historical collection from seep in Gregory Canyon; North America. [Campbell 677]

Borea arvensis (L.) Less. CANADA THISTLE. [Cirsium arvense (L.) Scop.]. Invasive in the Mountain Park, can be abundant in moist areas and disturbed sites; introduced. [1846, 5438] [B. arvensis is designated as a “List B” species in the Colorado Noxious Weed Act.]

Brickellia californica (Torr. & A. Gray) A. Gray CALIFORNIA BRICKELL-BUSH. One historical collection from Gregory Canyon; western N.A. [Daniels 822]

Brickellia eupatoroides (L.) Shinners FALSE BRICKELLIA. Scattered in late summer in shrublands and woodlands; North America. [1525, 1964]

Brickellia grandiflora (Hook.) Nutt. TASSLEFLOWER BRICKELLIA. Frequent on rocky slopes in late summer, ponderosa wood lands and forests; western N.A. [1509]

Brickellia rosarumfloria (Vent.) W.A. Weber spp. chlorolepis (Wooton & Standl.) W.A. WEBER BRICKELLIA. [subsumed into B. eupatorioides (L.) Shinners]. Common in grasslands and shrublands; southwestern N.A. [1523, 1534]

Carduus nutans L. spp. macrolepis (Peterm.) Kazmi MUSK THISTLE. Disturbed areas, all too common; introduced. [1257] [C. nutans is designated as a “List B” species in the Colorado Noxious Weed Act.]

[Centaurea see Acosta, Leucanthaca]

Chloracris albilora (Hook.) W.A. Weber WHITE HAWKWEED. [Hieracium albilora Hook.]. Common species of dry forests; western N.A. [1357, 5333]

Chloracris fendleri (Sch.-Bip.) W.A. Weber YELLOW HAWKWEED. [Hieracium fendleri Sch.-Bip.]. Uncommon, two collections from lower Panther Canyon in mixed conifer forest; southwestern N.A. [882, 1927]

Chloracris trisitis (Walt.) A. Loe & D. Loe spp. gracilis (Hook.) W.A. WEBER SLENDER HAWKWEED. [Hieracium gracile Hook.]. One specimen from north side of Bear Pk. “in deep shade of dense, mesic forest”; western N.A. [Wittmann 1083]

Cichorium intybus L. CHICORY. Disturbed areas, can be frequent along roadsides and trailheads; introduced. [1346] [This taxon is designated as a “List C” species in the Colorado Noxious Weed Act.]

[Cirsium see also Breaa]

Cirsium centaurea (Rydb.) Schum. ROCKY MOUNTAIN FRINGED THISTLE. [Cirsium clavatum (M.E. Jones) Petr. var. americannum (A. Gray) D.J. Keil]. Moist sites in riparian and mixed conifers, infrequent; Southern Rockies. [1511, 5372, 5527]

Cirsium undulatum (Pursh) Spreng. WAYLEAF THISTLE. Common native thistle of forest openings at lower elevations in the Mountain Park; western N.A. [920, 1256]

Cirsium vulgare (Savi) Tenore BULL THISTLE. [C. lanceolatum (L.) Scop.]. Scattered, weedy species of moist sites and trailsides; introduced. [1988, 5610] [C. vulgare is designated as a “List B” species in the Colorado Noxious Weed Act.]

Conyza canadensis (L.) Cronquist HORSEWEED. Weed of disturbed...
sites, introduced. [1520, 5386] C. canadensis is the dominant successional species across many acres in the 2012 Flagstaff burn site on the west side of the Mountain Park; many hundreds of thousands of individuals.]

Coreopsis tinctoria Nutt. PLAINS COREOPSIS. One historical specimen from lower Enchanted Mesa, perhaps a waif from a reseeding project; introduced. [Wittmann 2575]

[Crepis see Psilochenia]

Cyclachaena xanthifolia (Nutt.) Fres. SUMPWEED. One historical collection from dry grassland in Gregory Canyon; Great Plains. [Campbell 580]

[Dieteria see Machaeranthera]

Dyssodia papposa (Vent.) Hitch. FETID MARIGOLD. One historical collection from Flagstaff; North America. [Robbins 2569]

Echinacea purpurea (L.) Moench PURPLE CONEFLOWER. Escaped cultivar near Boulder; introduced. [1983]

[Erigeron see also Stenactis]

Erigeron canus A. Gray HOARY DAISY. One historical collection (1906) from "mesas toward Bear Canon"; Great Plains. [Daniels 435]

Erigeron coloro-mexicanus A. Nelson RUNNING DAISY. [Erigeron tracyi Greene]. Common at lower elevations, grasslands and ponderosa woodlands; southwestern N.A. (981, 1617, 5242)

Erigeron compositus Pursh CUTLEAF FLEABANE. Occasional, mixed conifers and forest openings, often found on granitic grus; western N.A. (1021, 1581, 5656)

Erigeron divergens Torr. & A. Gray SPREADING DAISY. Scattered in grasslands and forest openings; western N.A. (5617)

Erigeron eximius Greene SPLEN Did DAISY. Widely distributed in forests and woodlands; most populations with white ray flowers; Southern Rockies. (921, 1361, 1391, 5690)

Erigeron flagellaris A. Gray WHIPLASH DAISY. An Erigeron of woodlands and mixed conifer forests, sometimes forming extensive mats; (western) Great Plains. [1746]

Erigeron formossissimus Greene BEAUTIFUL DAISY. Mixed conifer forests and ponderosa woodlands, not uncommon at higher elevations; western N.A. (interior). [1922, 5369]

Erigeron speciosus (Lindl.) DC. ASPEN DAISY. Scattered in mixed conifer and Pseudotsuga forests; western N.A. (interior). [1923, 5368]

Erigeron subtrinervis Rydb. ex Porter & Britton THREENERVE DAISY. One specimen from mesic site along Harmon Gulch on west side of Mountain Park; western N.A. (interior). [1376]

Erigeron vetesinis Rydb. LA VETA DAISY. One collection from lower Enchanted Mesa, ponderosa savanna; Southern Rockies. [1985]

Eupatorium macroclatum L. JOE-YEYE WEED. [Euthrochium maculatum (L.) E.E. Lamont]. Our collections from lower Shadow Canyon proximate to stream, scattered; North America (eastern) [1478]

[Eutrochium see Eupatorium]

Gaillardia aristata Pursh BLANKET FLOWER. Not uncommon in open sites at lower elevations, woodlands and shrublands; western N.A. (interior). [1221]

Gnaphalium exilifolium A. Nelson SLENDER CUDWEED. [G. gilgiminum L.]. One specimen from one mile NE of Eldorado Springs, "abundant on pond margin"; southwestern N.A. [Lanham s.n.]

Grindelia squarrosa (Pursh) Dunal GUMWEED. Dry sites at lower elevations in ponderosa woodlands and savannas, not uncommon; Great Plains. [1868]

Grindelia subalpina Greene MOUNTAIN GUMWEED. Dry sites, similar habitats as G. squarrosa, not uncommon; Southern Rockies. [1498]

Gutierrezia sarothrae (Pursh) Britton & Rusby SNAKEWEED. Grasslands and open sites at lower elevations, common; western N.A. [1532]

Helianthus annuus L. COMMON SUNFLOWER. Shrublands and grasslands at lower elevations, late summer, scattered; North America. [1526]

Helianthus pumilus Nutt. LITTLE SUNFLOWER. Common on dry slopes, ponderosa woodlands and savannas; Southern Rockies. [1255]

Helianthus rigidus (Cass.) Desf. ssp. subhomboides (Rydb.) Heiser STIFF SUNFLOWER. [Helianthus pauciflorus Nutt.]. Common in grasslands and woodlands on the mesa; Great Plains. [1433]

Heliomeris multiflora Nutt. SHOWY GOLDENWEAR. Open sites, shrublands and grasslands at lower elevations, not uncommon, mid to late summer; western N.A. [1411]

Heterotheca foliosa (Nutt.) Shinners FOLIOSE GOLDEN ASTER. [H. fulcra of Colo. lit.]. Common on dry sites, meadows and forest openings, larger flowered and higher elevations than H. villosa; western N.A. (interior). [1365]

Heterotheca villosa (Pursh) Shinners var. villosa HAIRY GOLDEN ASTER. More abundant and flowering earlier than H. foliosa; dry slopes across the elevational gradient in the study area; western N.A. [1270]

Hieracium aurea L. ORANGE HAWKWEED. One specimen from west side of Boulder Mountain Park on "north-facing hillside in aspen forest with Pseudotsuga menziesii" and other species associated with mesic sites at 7100 ft.; introduced. [Neupert s.n.]

[Hieracium aurantiacum is designated as a "list A" species in the Colorado Noxious Weed Act, and is being actively managed by the OSMP Department.]

Lactuca biennis (Moench) Fern. TALL BLUE LETTUCE. Uncommon along streams. Like L.canadensis, this species has affinities with woodland species to the east; North America. [1506, 5381, 5622]

Lactuca canadensis L. CANADIAN WILD LETTUCE. Uncommon, riparian sites; North America. [1513]

Lactuca serriola L. PRICKLY LETTUCE. Weedy Lactuca of Mountain Park, widely distributed in disturbed and open sites; introduced. [1495, 5687]

Lepidotricha suaveolens (Pursh) Nutt. PINEAPPLE WEED. [Matricaria discoidea DC.]. Disturbed sites, infrequent (or overlooked); introduced. [1901]

Leucanthemum cyanus (L.) Nieuwl. & Lunell BACHELOR'S BUTTON. [Centarea cyanus L.]. One historical specimen from lower Enchanted Mesa, perhaps a waif suspected to have been introduced in reseeding project; introduced. [Wittmann 2573]

Liatris ligulistylis (A. Nelson) K. Schum. ROCKY MOUNTAIN BLAZING STAR. One historical specimen (1906) from meadows in [bear Canyon] at 7000'; Great Plains. [Daniels 758]

Liatris punctata Hook. DOTTED BLAZING STAR. Open sites in woodlands and mixed conifer forests, late summer, not uncommon; Great Plains. [1481, 5439]

Machaeranthera pattersoni (A. Gray) Greene TANSY ASTER. [Dieteria bigelovii (A. Gray) D.R. Morgan & R.L. Hartman]. Infrequent, mixed conifer forests at higher elevations; Southern Rockies. [1961]

[Matricaria see Lepidotricha]

Nothocalais cuspidata (Pursh) Greene FALSE DANDELION. Not uncommon in ponderosa woodlands on the the mesas; Great Plains. [990, 5470]

Oligoneuron rigidum (L.) Small var. humile (Porter) Nesom STIFF GOLDENROD. [Solidago rigid L. var. humilis Porter]. Not uncommon in ponderosa woodlands and shrublands on the mesa; Great Plains. [1522]

Oligosporus dracunculus (L.) Poljakov WILD TARRAGON. [Artemisia dracunculus L.]. Woodlands, shrublands, and grasslands, not uncommon; western N.A. (Eurasia). [1473]

Oligosporus pacificus (Nutt.) Poljakov WESTERN SAGEWORT. [Artemisia campestris L. var. pacifica (Nutt.) M. Peck]. Open sites
Hogan, Floristic survey of Boulder Mountain Park

in mixed conifers and ponderosa pine forests, apparently more common than O. dracunculus; North America. [1395]

Oreochrysum parryi (A. Gray) Rydb. PARRY GOLDENROD. Infrequent in mixed conifer forests at higher elevations; southwestern N.A. [1407, 5700]

Packera fendleri (A. Gray) W.A. Weber & Löve FENDLER'S RAGWORT. Common in ponderosa woodlands; Southern Rockies. [878, 1064, 1154]

Packera plattensis (Nutt.) W.A. Weber & Löve PRAIRIE GROUNDSEL. Scattered in grasslands on the mesas, early season; Great Plains. [5632]

Packera pseudaera (Ryd.) W.A. Weber & Löve var. flavula (Greene) W.A. Weber & Löve FALSEGOLD GROUNDSEL. Infrequent along streams; western N.A. [881, 1200]

Pericome caudata A. Gray MOUNTAIN TAIL-LEAF. Scree, our collection from quarry site above Enchanted Mesa; close to the northernmost extent of its range in North America; southwestern N.A. [1986, 5624]

Picradeniopsis oppositifolia (Nutt.) Rydb. OPPOSITELEAF BAHIA. One specimen from lower Bear Canyon (ca. 5800'); Great Plains. (Lanham s.n.)

Podoaspermis laciniatum (L.) DC. FALSE SALSIFY. [Schorzona laciniatia L.] Scattered in disturbed sites at lower elevations; introduced. [1781, 5457]

Pseuodonanthium canescens (DC.) Anderb. CUDWEED. Dry sites, one specimen from trailside in mixed conifer forest in lower Gregory Canyon; western N.A. [1965]

Pseuodonanthium macounii (Greene) Kartesz MACOUN'S CUDWEED. [P. viscousum of Colo. It.] Open sites in woodlands and forests, not uncommon; North America. [1517, 5388]

Pseuodonanthium stramineum (Kunth) Anderb. CUDWEED. One specimen from burn site, lower Shanahan Mesa; western N.A. (S. Am.). [Shawver 449]

Piloschienia atrribarba (Heller) W.A. Weber SLENDER HAWKSBERRY. [Crepis atrribarba Heller]. Infrequent, openings in ponderosa and mixed conifer forests along Saddle Rock Trail below Saddle Rock proper; western N.A. [888, 5278, 5279]

Piloschienia occidentals (Nutt.) W.A. WIESEHAWKBSER. [Crepis occidentals Nutt.] Grasslands on mesas, historical collections; western N.A. [Ewan 11960; Robbins 4284]

Piloschienia runciata (James ex Torr.) A. Löve & D. Löve FIDDLELEAF HAWKSBERRY. [Crepis runcinata (James) Torr. & A. Gray] Open, often moist sites, in woodlands and forests, historical collections; western N.A. [Daniels 351; Ewan 11957]

Ratibida columnifera (Nutt.) Woot & Standl. PRAIRE CONEFLOWER. Common in grasslands and ponderosa woodlands on the mesa; Great Plains. [1220, 1410]

Rudbeckia ampla A. Nelson TALL CONEFLOWER. [R. laciniatia L. var. ampla (A. Nelson) Cronq.] Common along streams; western Great Plains. [1378] [Our species a western variety of a broader taxon of eastern N.A.]

Rudbeckia hirta L. BLACKEYED SUSAN. Scattered in drier sites from mesas to mixed conifers; North America [1252] [Again, our species a western variety of a broader taxon of eastern N.A.]


Senecio strictus (Muhl.) DC. PRAIRIE DAISY. [Erigeron strictus Muhl.exWlild.]. Moist sites in late summer, one collection from ponderosa woodland along road below Green Mt. Shelter; North America. [1382]

Stephanomeria pauciflora (Torr.) A. Nelson BROWNPLUME WIRE LETTUCE. One specimen from dry, weedy site along Bear Canyon road; southwestern N.A. [964, 5425]

Sonchus asper (L.) J. Hill SPINY SOW-THISTLE. One historical collection (1906) from Gregory Canyon road; introduced. [Daniels 458]

Stenactis strigosa (Muhl.) DC. PRAIRIE DAISY. [Erigeron strigosus Muhl.exWlild.]. Moist sites in late summer, one collection from ponderosa woodland along road below Green Mt. Shelter; North America. [1382]

Tanacetum parthenium (L.) Sch. Bip. FEVERFEW. [Chrysanthemum parthenium Bernh.]. Recently (2017) discovered at lower Greenman Springs on trail crossing; an aggressive invasive in the Boulder area in a very sensitive site that should be actively eradicated; introduced. [5706]

Taraxacum officinale F.H. Wigg. COMMON DANDELION. Widely scattered; introduced. [1544b]

Thelesperma megapotamicum (Spreng.) Kunze HOPI TEA GREEN-TERRY. One specimen from SE margin of study area, “west of North Boulder Creek Trail;” in rocky grassland; Great Plains (S. Am.). [Shawver 436].

Townsendia grandiflora Nutt. SHOWY EASTER DAISY. Not uncommon in ponderosa woodlands and dry mixed conifers; (western) Great Plains. [1182, 5340, 5426]

Townsendia hookeri Bartram HOOKER'S EASTER DAISY. Grasslands on the mesas; often blooming on south facing slopes during warm spells in the early spring, scattered; (northern) Great Plains. [1528]

Tragopogon dubius Scop. spp. major (Jacq.) Vollm. WESTERN SALISFY. Common in grasslands and woodlands on the mesas; introduced. [1045]

Tragopogon porrifolius L. SALISFY. Mesic sites at lower elevations, uncommon; introduced. [1640]
Virgulus falcatus (Lind.) Reveal & Keener WHITE PRAIRIE ASTER. Symphyotrichum falcatum (Lind.) Nesom. Common Aster on mesas in late summer; western N.A. [1530].

Xanthium strumarium L. COMMON COCKLEBUR. Disturbed sites, not particularly common; introduced. [1533]

BALSAMINACEAE—JEWEL-WEEED FAMILY

Impatiens capensis Meerb. JEWEL-WEEED. Uncommon along streams and ditches at lower elevations, an eastern species probably not native in Colorado; introduced [1979].

BERBERIDACEAE—BARBERRY FAMILY

Berberis vulgaris L. BARBERRY. Enchanted Mesa area, ponderosa woodlands and forests, probably persisting from old settlements; introduced. [1541, 1858].

Mahonia repens (Lindl.) G. Don OREGON GRAPE. [Berberis repens Lindl.] Common in understory of ponderosa and mixed conifer forests; western N.A. [987, 1546].

BETULACEAE—BIRCH FAMILY

Alnus incana (L.) Moench ssp. tenuifolia (Nutt.) Breit. ALDER. [A. tenuifolia Nutt.] Streamsides at higher elevations; common in Bear Canyon but curiously absent from Long Canyon; western N.A. [1033, 1600, 1756].

Betula fontinalis Sarg. RIVER BIRCH. [B. occidentalis Hook.]. Common along streambanks and other moist sites; western N.A. [1034].

Betula papyrifera Marshall PAPER BIRCH. [B. andrewsii Nelson]. One population in Long Canyon, one of the southernmost colony of this species in N.A; a true rarity of the Mountain Park (see Froiland 1952); N.A. (oroboreal). [Photographic record in COLO, Weber 14102].

Corylus comnuta Marshall HAZELNUT. Common along streambanks; communities dominated by this widely disjunct species provide important wildlife habitat and are largely absent in western North America beyond the northern Front Range; eastern N.A. [1367, 1572, 1894, 5233, 5614].

BORAGINACEAE—BORAGE FAMILY

Anchusa azurea Mill. ALKANET. An escaped cultivar found around the lower margins of the Mountain Park near Chautauqua, uncommon; introduced. [1911].

Asperugo procumbens L. MADWORT. One specimen from vicinity of S. Mesa Trailhead in weedey site; introduced. [Hogan 2011a].

Buglossoides arvensis (L.) I.M. Johnst. GROMWELL. Collected near end west of Enchanted and Kohler mesa; introduced. [Dahnke 2].

[Cryptantha see also Oreocarya]

Cryptantha affinis (A. Gray) Greene SANDDUNE CRYPTANTHA. One specimen from upper Bluebell Canyon, “in dry forest with grus soils”; western N.A. [Hogan s.n. (COLO 457666)].

Cynoglossum officinale L. HOUND’S TONGUE. Common in disturbed areas; introduced. [1275] [C. officinalis is designated as a “list B” species in the Colorado Noxious Weed Act].

Hakelia floribunda (Lehm.) I.M. Johnst. MANYFLOWERED STICKSEED. Scattered in open areas, our collections from mixed conifer forests; western N.A. [1239, 5360, 5609].

Lappula redowskii (Hornem.) Greene WESTERN STICKSEED. [L. occidentalis (S. Wats.) Greene]; A native weed scattered in dry open sites, grasslands, savannas, and woodlands; cosmopolitan. [2012, 5237, 5245].

Lithospermum incisum Lehmann. NARROW-LEAVED PUCOON. An early season species of shrublands and woodlands on the mesas; North America. [1596, 1622, 5468].

Lithospermum multiflorum Torr. ex A. Gray MANY-FLOWERED PUCOON. Later flowering, and somewhat more common and widespread than L. incisum, from mesas to higher elevation mixed conifer forests; Southern Rockies. [1044, 1625, 2085, 5295].

Lithospermum ruderale Doug. ex Lehmann. WESTERN STONESEED. One specimen from Lost Gulch in a small swale within an opening of a mixed conifer forest with Andropogon gerardii & Monarda fistulosa; western N.A. [Hogan 5434].

Mertensia ciliata (James ex Torr.) G. Don STREAMSIDE BLUEBELLS. A subalpine species known from streamside in upper Bear Canyon; western N.A. [1177, 5486].

Mertensia lanceolata (Pursh) DC. var. lanceolata PRAIRIE BLUEBELLS. Common species of early season at lower elevation in shrublands and woodlands; western N.A. (interior). [988, 1079].

Onosmodium molle Michx. ssp. occidentale (Mack.) Cochrane [Onosmodium beariense DC. ex A. DC. var. occidentale (Mack.) B.L. Turner] WESTERN MARBLESEED. Occasional in dry ponderosa savanna/woodlands; Great Plains. [1053, 5465].

Oreocarya virgata (Porter) Greene MINER’S CANDLE. [Cryptantha virgata (Porter) Payson]. Occasional in dry areas, woodlands and mixed forest; Southern Rockies. [1143, 5463].

BRASSICACEAE—MUSTARD FAMILY (CRUCIFERAE)

Alliaria petiolata (M. Bib.) Cavara & Grande GARLIC MUSTARD. A relatively recent introduction to the Boulder area from the ‘noxious weed watch list’. One specimen from vicinity of the Sanitas trailhead in Sunshine Canyon, and credible sight records from lower Chautauqua meadow with a voucher from the neighborhood. 1.5 blocks north; introduced. [Wanner sn; Smith sn].

Alyssum saxatile L. PALE ALYSSUM. Weed of disturbed, open sites, common; introduced. [1066].

Alyssum parviflorum M. Bib. ALYSSUM. [A. minus (L.) Rothm.; A. simplex Rudolph]. Weed of disturbed, open sites, common; introduced. [1979].

Arabis hirsuta (L.) Scop. var. pycnocoma HAIRY ROCKCRESS. [A. pycnocoma M. Hopkins] Scattered, our collections from mixed conifer forests; North America. [1038, 1121, 1136, 5488].

Barbarea vulgaris Alston YELLOW ROCKET. Not uncommon along streamside and drainages; cosmopolitan. [1176, 5466, 5489].

Boechera drummondii (A. Gray) A. Löve & D. Löve DRUMMOND’S ROCK CRESS. [B. stricta (Graham) Al-Shehbaz]. Scattered in mixed conifer forests and meadows; N.A. (oroboreal). [1126].

Boechera fendleri (Wats.) W.A. Weber FENDLER’S ROCKCRESS. Occasional, dry, open sites in woodlands and shrublands; southwestern N.A. [974, 1162].

Camelina microcarpa Andr. ex DC. FALSE FLAX. Early season mustard of meadows, shrublands, and woodlands; not uncommon; introduced. [1072, 5250, 5472].

Capsella bursa-pastoris (L.) Medik. SHEPHERD’S PURSE. Disturbed sites, scattered; introduced. [1106].

Cordaria pubescens (C.A. Mey.) Jarmol. HAIRY WHITETOP. [Lepidium appelianum Al-Shehbaz] One specimen from lower Enchanted Mesa along road; introduced. [Weber 18671].

Chorispora tenella (M. Bieb.) Cavara & Grande GARLIC MUSTARD. A subalpine species known from streamside in upper Bear Canyon but curiously absent from Long Canyon; western N.A. [1177, 5486].

Draba nemorosa L. WOOLLEY DRABA. Early season annual from dry sites throughout the Mountain Park, not uncommon; introduced. [919, 976].

Draba reptans (Lam.) Fernand CAROLINA DRABA. Early season annual from dry sites on the mesas, one specimen; North America. [Wittmann 389].
Erysimum asperum (Nutt.) DC. WESTERN WALLFLOWER. Historical records from vicinity of Flagstaff; Great Plains. (Danielis, 57, 215)
Erysimum capitatum (Dougl.) Greene SANDDUNE WALLFLOWER. Common and widespread throughout the study area; western N.A. (1108)

[Lepidium see also Cardaria, Neolepia]

Lepidium perfoliatum L. CLASPING PEPPERWEED. Disturbed, sometimes moist, sites at lower elevations, occasional; introduced. [1004]

Lepidium virginicum L. PEPPERGRASS. Infrequent, or seldom collected, in disturbed sites; introduced. [1062]

Lesquerella montana (A. Gray) Wats. MOUNTAIN BLADDERPOD. [Physaria montana (A. Gray) Greene] An early season species of drier sites, shrublands, woodlands, and forests, not uncommon; Southern Rockies. [967, 5265]

Neolepis campestre (L.) W.A. Weber FIELD PEPPERWEED. [Lepidium campestre (L.) Aiton] Scattered in the Mountain Park in disturbed sites; introduced. [1619]

Noccaea montana (L.) Meyer ALPINE PENNYCRESS. [N. fendleri (A. Gray) Holub spp. glauca] Common white mustard of mixed conifer forests; western N.A. [1563, 5450]

[Physaria see also Lesquerella]

Physaria vitulifera Rydb. DOUBLE BLADDER-POD. Dry, often gravelly slopes, common; a Front Range endemic; Southern Rockies. [1014, 1186, 2397, 5240, 5485]

Sisymbrium altissimum L. JIM HILL MUSTARD. Disturbed sites near roads, scattered; introduced. [1197]

Thlaspi arvense L. PENNYCRESS. Scattered, lower elevations; introduced. [1673]

Turritis glabra L. TOWER MUSTARD. Not uncommon in ponderosa woodlands and mixed conifer forests; North America. [1227, 5482]

Cactaceae—Cactus Family

Corystaphis missouriensis (Sweet) Britton & Rose MISSOURI FOXTAIL CACTUS. Infrequent, one specimen from open area in ponderosa woodland on Flagstaff at 6,000'; Great Plains. [1063]

Echinocereus viridiflorus Engelm. GREEN FLOWEROED HEDGEHOG CACTUS. Grasslands on the mesas, infrequent; Great Plains. [5644]

Opuntia fragilis (Nutt.) Haw. BRITTLE PRICKLYPEAR. Two historical collections from dry sites at lower elevations; western N.A. [1524; Weber 3867]

Opuntia macrorhiza Engelm. WESTERN PRICKLYPEAR. Dry sites, often in ponderosa woodlands, most common cactus of the Mountain Park; Great Plains. [1223, 1485]

Opuntia polyacantha Haworth STARVATION PRICKLYPEAR. Dry sites, often in ponderosa woodlands, scattered; Great Plains. [1187]

Calochortaceae—MARIPOSA FAMILY [Liliaceae]

Calochortus gunnisonii Wats. GUNNISON’S MARIPOSA LILY. Not uncommon on grassy hillside sections, shrublands, and forest openings; western N.A. (interior). [1228]

CAMPANULACEAE—BELL FLOWER FAMILY

Campanula rapunculoides L. ROVER BELLFLOWER. One collection from lower McClintock Trail in Bluebell Canyon, shrubby site in Pinus ponderosa woodland; introduced. [2272] (“This plant has very deep-seated rhizomes and spreads rapidly, making it almost impossible to eradicate.”) [Ackerfield 2015]

Campanula rotundifolia L. HAREBELL. Scattered in dry sites from mesas to openings in mixed conifer forests; circumboreal. [1226]

Lobelia siphilitica L. var. ludoviciana DC. GREAT BLUE LOBELIA. Two collections from South Boulder Creek floodplain, southern margin of study area; Great Plains. [Hogan 117; Wingate 4155].

Triodanis leptocarpa (Nutt.) Nieuw. SLIMPOD VENUS’ LOOKING GLASS. Lower elevation grasslands, uncommon, Great Plains. [2196]

Triodanis perfoliata (L.) Nieuw. CLASPING VENUS’ LOOKING GLASS. Our collections from ponderosa woodlands and forest openings, not uncommon; North America (S. Am.). [1232, 5367, 5387]

Cannabinaceae—Hops Family

Humulus lupulus L. ssp. americanus (Nutt.) Å. Löve & D. Löve WILD HOPS. [H. lupulus L. var. neomexicanus A. Nelson & Cockrell] Our one collection from lower Shadow Canyon in forest of mixed conifers, but common on roadcut along lower Flagstaff Road and in Eldorado Canyon just to the south; western N.A. (interior). [1957]

Caprifoliaceae—Honeysuckle Family [Adoxaceae]

Distegia involucrata (Banks ex Sprengel) Cockerell BUSH HONEY-SUCKLE. [Lonicera involucrata (Richardson) Banks ex Spreng.] Common along montane riparian zones in Mountain Park; N.A. (oroboreal). [1274, 5258]

Linnaea borealis L. ssp. longiflora (Torr.) Hultén TWINFLOWER. Uncommon on west side of Bear and South Boulder peaks and on north facing slopes at higher elevations; circumboreal. [912, 1030, 1209, 5536, 5684]

[Lonicera see also Distegia]

Lonicera morrowii A. Gray MORROW’S HONEYSUCKLE. Collections from lower Bluebell Canyon along the McClintock Trail and lower Skunk Canyon, non-native shrub semi-naturalized in the Mountain Park; introduced. [1586]

Lonicera tatarica L. TATARIAN HONEYSUCKLE. Collections from Bluebell Canyon along the McClintock Trail, non-native shrub semi-naturalized in the Mountain Park; introduced. [1217, 1584]

Lonicera x bella Zabel SHOWY HONEY-SUCKLE. A hybrid between L. morrowii and L. tatarica, collections from Bluebell, Gregory, and Skunk canyons. Lower montane canyons with mosaic of open sites, moist draws, shrublands, and ponderosa woodlands; introduced. [Whitehead 1, 2, 3]

Sambucus microbotrys Rydb. RED ELDERBERRY. [S. racemosa L. var. microbotrys]. Uncommon; usually in mixed forests at higher elevations; circumboreal. [1897]

Symporcarpos albus (L.) Blake WHITE SNOWBERRY. Not uncommon, streamside and woodlands; N.A. (oroboreal). [1487, 1503]

Symporcarpos occidentalis Hook. WESTERN SNOWBERRY. Scattered, woodlands and meadows on the mesas; North America. [1437, 1904]

Viburnum edule (Michx.) Raf. SQUASHBERRY. Infrequent along streamside in the study area; N.A. (oroboreal). [1955]

Viburnum lantana L. WAYFARING TREE. Scattered along streams in the lower canyons; introduced. [1002, 5257]

Viburnum lantana L. NANNYBERRY. Uncommon in gulches at lower elevations; introduced. [Lanham s.n.]

Viburnum opulus L. CRANBERRYBUSH. One collection from just north of Green Mt. Shelter at entrance to Long Canyon, mixed forest of Pseudotsuga menziesii/Pinus ponderosa w/ Populus deltoides, Betula occidentalis, Acer glabrum; introduced. [5519]

Caryophyllaceae—Pink Family

[see also Alsinaeae]

Coronaria coriacea Schischk. ex Gorschk. CATCHFLY. Escaped cultivar of montane riparian zones in Mountain Park; introduced. [1957]

Distegia involucrata (Banks ex Sprengel) Cockerell BUSH HONEY-SUCKLE. [Lonicera involucrata (Richardson) Banks ex Spreng.] Common along montane riparian zones in Mountain Park; N.A. (oroboreal). [1274, 5258]

Linnaea borealis L. ssp. longiflora (Torre.) Hultén TWINFLOWER. Uncommon on west side of Bear and South Boulder peaks and on north facing slopes at higher elevations; circumboreal. [912, 1030, 1209, 5536, 5684]

[Lonicera see also Distegia]

Lonicera morrowii A. Gray MORROW’S HONEYSUCKLE. Collections from lower Bluebell Canyon along the McClintock Trail and lower Skunk Canyon, non-native shrub semi-naturalized in the Mountain Park; introduced. [1586]

Lonicera tatarica L. TATARIAN HONEYSUCKLE. Collections from Bluebell Canyon along the McClintock Trail, non-native shrub semi-naturalized in the Mountain Park; introduced. [1217, 1584]

Lonicera x bella Zabel SHOWY HONEY-SUCKLE. A hybrid between L. morrowii and L. tatarica, collections from Bluebell, Gregory, and Skunk canyons. Lower montane canyons with mosaic of open sites, moist draws, shrublands, and ponderosa woodlands; introduced. [Whitehead 1, 2, 3]

Sambucus microbotrys Rydb. RED ELDERBERRY. [S. racemosa L. var. microbotrys]. Uncommon; usually in mixed forests at higher elevations; circumboreal. [1897]

Symporcarpos albus (L.) Blake WHITE SNOWBERRY. Not uncommon, streamside and woodlands; N.A. (oroboreal). [1487, 1503]

Symporcarpos occidentalis Hook. WESTERN SNOWBERRY. Scattered, woodlands and meadows on the mesas; North America. [1437, 1904]

Viburnum edule (Michx.) Raf. SQUASHBERRY. Infrequent along streamside in the study area; N.A. (oroboreal). [1955]

Viburnum lantana L. WAYFARING TREE. Scattered along streams in the lower canyons; introduced. [1002, 5257]

Viburnum lantana L. NANNYBERRY. Uncommon in gulches at lower elevations; introduced. [Lanham s.n.]

Viburnum opulus L. CRANBERRYBUSH. One collection from just north of Green Mt. Shelter at entrance to Long Canyon, mixed forest of Pseudotsuga menziesii/Pinus ponderosa w/ Populus deltoides, Betula occidentalis, Acer glabrum; introduced. [5519]
Gypsophila elegans M. Bieb. BABY’S BREATH. One historical specimen from lower Enchanted Mesa, perhaps a waif from a reseeding project; introduced. [Wittmann 2574]

Melandrium dioicum (L.) Coss. & Germ. WHITE CAMPION. [Silene vulgaris hallii] Silene scouleri Hook. ssp. hallii (Watson) Hitchc. & Maguire HALL’S CAMPION. Uncommon in mixed forests in the Mountain Park; western N.A. [963]

Silene vulgaris (Moench) Garcke MAIDEN’S TEARS. One specimen from upper Lost Gulch in disturbed mixed conifer forest just below residential inholding; introduced. [5293]

CHENOPODIACEAE—GOOSEFOOT FAMILY [AMARANTHACEAE]

Chenopodium atrorubens Rydb. PINYON GOOSEFOOT. Disturbed sites in woodlands and forests, scattered; western N.A. [1396, 1507]

Chenopodium berlandieri Moq. ZSCHACK’S GOOSEFOOT. [C. berlandieri Moq. var. zschackei (J. Murr.) J. Murr ex Aschers.] Common goosefoot of Mountain Park, disturbed sites; North America. [1508]

Chenopodium leptophyllum (Moq.) Nutt. ex Wats. NARROWLEAF GOOSEFOOT. Disturbed sites, scattered; western N.A. [1531]

Chenopodium pratericola Rydb. DESERT GOOSEFOOT. One historical collection (1906) from “north slope of Green Mountain”, North America. [Daniels 604]

Chenopodium simplex (Torr.) Raf. MAPLELEAF GOOSEFOOT. Uncommon in shaded forests; North America. [1417]

[Dysphania see Telosyos]

Salvia australis R. Br. TUMBLEWEED. [S. tragus L.] One specimen from weedy site along the South Boulder Creek Trail, proximate to the study area; introduced. [Shawver 453]

Telosyos botrys (L.) W.A. Weber WORMSEED; JERUSALEM OAK. [Dysphania botrys (L.) Mosyakin & Clemants] Weed of disturbed sites along roads and trails, scattered; introduced. [965]

CISTACEAE—ROCKROSE FAMILY

Crocanthemum bicknelli Janch. FROSTWEED. [Helianthemum bicknellii Fern.] Two collection from burned Pinus ponderosa forests, uncommon; eastern N.A. [Bunin 319; Shawver 476]

[Helianthemum see Crocanthemum]

[CLUSIACEAE see HYPERICACEAE]

COMMELINACEAE—SPIDERWORT FAMILY

Tradescantia occidentalis (Britton) Smyth SPIDERWORT. Dry, gravelly sites at lower elevations, common; Great Plains. [1147, 5512]

CONVALLARIACEAE—MAYFLOWER FAMILY [LILIACEAE; RUSCACEAE]

Maianthemum amplexicaule (Nutt.) W.A. Weber FALSE SOLOMON’S SEAL. [M. racemosum (L.) Link ssp. amplexicaule (Nutt.) LaFrankie.] Common in cool, shaded forests; western N.A. [1137]

Maianthemum stellatum (L.) Link FALSE SOLOMON’S SEAL. [Smilacina stellata (L.) Desf.] Scattered, similar sites as M. amplexicaule; North America. [1272, 5487]

CONVOLVULACEAE—MORNINGGLORY FAMILY

Convolvulus arvensis L. BINDWEED. Disturbed sites, scattered; introduced. [1268] This taxon is designated as a “List C” species in the Colorado Noxious Weed Act.

[Cuscuta see Grammica]

Grammica indecora (Choisy) W.A. Weber var neuropetala (Engelm.) W.A. Weber WALAFA DODDER. [Cuscuta indecora Choisy.] One specimen from “just above jct of Towhee Trail and Mesa Trail … on Monarda”; North America. [Jennings 89-20]

Evolvulus nuttallianus Schult. DWARF MORNING-GLORY. Uncommon (or overlooked) in grasslands on mesa tops and slopes at lower elevations; Great Plains. [1876, 2274]

CORNACEAE—DOGWOOD FAMILY

Cornus sericea (L.) Holub RED OSIER DOGWOOD. [Cornus sericea L.; C. stolonifera Michx.] Common in cool ravines and along streambanks in mixed conifer forests; North America. [1159]

CRASSULACEAE—STONECROP FAMILY

Amerosedum lanceolatum (Torr.) A. Löve & D. Löve STONECROP. [Sedum lanceolatum Torr.;] Common on dry sites in forests and woodlands; western N.A. [1253]

[Sedum see Amerosedum]

CYPERACEAE—SEDGE FAMILY

Carex aurea Nutt. GOLDEN SEDGE. One historical specimen (1906) from “deep canons on the north slope of Green Mountain”; North America. [Daniels 354] [C. aurea is sometimes conflated with C. hasselii.]

Carex brevior (Deewey) Mack. SHORT-BEAKED SEDGE. Common in moist sites in ponderosa woodlands and forests; North America. [1055, 1380, 1881, 2203]

Carex deweyana Schwein. DEWEY’S SEDGE. Common in shaded sites near streams; N.A. (oroborea). [903, 1115, 5268, 5292, 5650]

Carex disperma Dewey SOFT-LEAVED SEDGE. One specimen from wet seep in mixed forest of Populus tremuloides, Pinus ponderosa, & Pseudotsuga menziesii; circumboreal. [1655]

Carex douglasii Boott DOUGLAS’S SEDGE. One historical collection from Gregory Canyon, “streamside”; western N.A. [Ramaley 10609]

Carex emoryi Dewey in Torr. EMORY’S SEDGE. Seeps and stream margins at lower elevations, two collections; eastern N.A. [1782]

Carex geophila Mack. GROUND-LOVING SEDGE. [Includes C. ptychophila Mack.] Scattered in dry woodlands and forest openings; southwestern N.A. [1016, 5247, 5260]

Carex geyeri Boott ELK SEDGE. Understory of mixed conifer forests, not uncommon; western N.A. [904, 1007, 5234]

Carex hassei Bailey HASSEI’S SEDGE. Uncommon in rich streamside with Aralia nudicaulis, Sanicula marilandica, Circaea alpina; western N.A. [1370]

Carex microptera Mack. SMALL-WINGED SEDGE. [C. festiva Dewey; C. limnophila Herms.] Frequent along streams; western N.A. [907, 1202, 1386]

Carex nebrascensis Dewey NEBRASKA SEDGE. Tall sedge of streamside and seeps from mesas to mixed conifer zone, scattered; western N.A. [1181, 1245, 1278, 2199]

Carex occidualis Bailey WESTERN SEDGE. Grasslands, woodlands, forests, & streams, common; western N.A. [950, 2182, 5272, 5365]

Carex pelleta Muhl. ex Willd. WOOLLY SEDGE. [C. lanuginosa Michx.] Tall sedge of wet sites, two collections from upper Bear Canyon; North America. [1244, 5375]

Carex pensylvanica Lam. ssp. heliocephala (Mack.) W.A. Weber SUN SEDGE. [C. inops Bailey ssp. heliocephala (Mack.) Crins.] Early flowering sedge of open sites in grasslands, woodlands, and forests; common; Great Plains [946, 1001, 1022, 1271, 5277]

Carex petasata Dewey LIDOON SEDGE. Open sites in forests, woodlands, and shrublands, not uncommon; western N.A. [960, 5274]

Carex praegracilis Boott CLUSTERED FIELD SEDGE. Collections from moist sites in woodlands and forests, not uncommon; North America. [1047, 1056, 1153, 1423]
Carex rossii Boot in Hook. ROSS SEDGE. Scattered throughout dry woodlands and forests; western N.A. [1040, 1128, 1131]

Carex saximontana Mack. ROCKY MOUNTAIN SEDGE. Forests of ponderosa pine and mixed conifers, a rare (S1) plant in Colorado; Great Plains (northern). [3675, 5238]

Carex siccata Dewey DRY SEDGE. [C. foeniae of Colo. lit.] Dry sites in woodlands and forest openings, not uncommon; N.A. (oro-boreal). [1125, 1191]

Carex scoparia Schkuhr ex Willd. var. scoparia BROOM SEDGE. One specimen from moist, open site near Flagstaff turnoff (Realization Point), other nearby collections from Doudy Draw and Spring Brook; North America (eastern). [3105]

Carex sprengelii Dewey ex Spreng. SPRENGEL'S SEDGE. One specimen from a south facing tributary drainage in upper Bear Canyon with Carex microptera, C. occidentalis, C. deweyana, & C. torreyi, in an open mixed conifer forest (an S2 species); North America (NE and upper Great Plains). [3109]

Carex stenophylla Wahlenb.ssp. eleocharis (Bailey) Hultén NEEDLE-LEAF SEDGE. [C. duruscula C.A. Mey.]. Dry, open sites, grasslands to mixed forests, scattered; circumboreal. [951]

Carex stipata Muhl. ex Willd. AWLFRUIT SEDGE. Two collections from wet sites at lower elevations, specimens from lower Shadow Canyon (and Doudy Draw); North America. [1778]

Carex torreyi Tuck. TORREY'S RUSH. Rare (S1); historical specimen (1973) from lower Gregory Canyon, and a more recent one (1997) from upper Bear Canyon with Carex microptera, C. occidentalis, C. deweyana, & C. sprengelii, in an open mixed conifer forest; (northern) Great Plains. [Weber 15001; Hogan 3110] [Several searches of the Bear Canyon site in recent years have failed to relocate the species.]

Carex vulpinoidae Michx. FOX SEDGE. Wet sites at lower elevations, uncommon; North America. [1848]

Cyperus aristatus Rottb. BEARDED FLAT SEDGE. [C. squarrosus L.]. Ditches and wet sites at lower elevations; cosmopolitan. [1992]

Eleocharis palustris (L.) Roem. & Schult. COMMON SPIKERUSH. Common Eleocharis of wet sites, lower elevations on the mesas; cosmopolitan. [1853]

Schoenoplectus lacustris (L.) Palla spp. acutus (Muhl.) Á. Löve & D. Löve SOFTSTEM BULRUSH. [S. tabernaemontani (K.C. Gmel.) Palla; Scirpus validus of Colo. lit.]. Wet sites at lower elevations; North America. [1853]

Scirpus microcarpus Presl PANICLED BULRUSH. Specimens from upper Bear Canyon, scattered; N.A. (oroboreal). [1246, 5376]

Scirpus pallidus (Britton) Fernald CLOAKED BULRUSH. Wet sites at lower elevations, not uncommon; western N.A. (Interior). [1480]

DIPSACACEAE—TEASEL FAMILY

Dipsacus fullonum L. COMMON TEASEL. Ditches and moist, disturbed sites at lower elevations, can become abundant in these sites; introduced. [1906] [D. fullonum is designated as a "List B" species in the Colorado Noxious Weed Act.]

ELAEAGNACEAE—OLEASTER FAMILY

Elaeagnus angustifolia L. RUSSIAN OLIVE. An escaped cultivar around the lower margins of the Mountain Park; introduced. [Weber 15004] [E. angustifolia is designated as a "List B" species in the Colorado Noxious Weed Act.]

Shepherdia canadensis (L.) Nutt. CANADIAN BUFFALOBERY. Occasional in dry, mixed forests at higher elevations; N.A. (oroboreal). [1142, 1161]

ERICACEAE—HEATH FAMILY

[see also MONOTROPACEAE, PYROLACEAE]

Arctostaphylos uva-ursi (L.) Spreng. KINVIIKINNIK, BEARBERRY. Common understory species in ponderosa woodlands and mixed forest openings; circumboreal. [1011]

Vaccinium myrtillus L. ssp. orepilium (Ryd.) Löve BLUEBERRY. Mixed forest understory at higher elevations, uncommon in the Mountain Park, north facing canyons and the west side of South Boulder Peak and Bear Peak; western N.A. [1362, 1658, 5363]

EUPHORBIACEAE—SPURGE FAMILY

Agaloma marginata (Pursh) Á. Löve & D. Löve SNOW-ON-THE-MOUNTAIN. [Euphorbia marginata Pursh]. Two historical collections from Gregory Canyon and lower Shanahan Mesa; Great Plains. [Campbell 444; Shawver 394]

Chamaesyce fendleri (Torr. & A. Gray) Small FENDLER'S SANDMAT. Dry, open sites at lower elevations, one specimen from rocky site on south side of NCAR mesa; southwestern N.A. [1125]

Chamaesyce glyptosperma (Engelm.) Small RIBSEED SANDMAT. Disturbed sites, one historical collection from Gregory Canyon; Great Plains. [Campbell 563] [Euphorbia see Agaloma, Tithymalus]

Tithymalus brachyceras (Engelm.) Small HORNED SPURGE. [Euphorbia brachycera Engel.]. Scattered on dry sites in grasslands and woodlands; western N.A. (interior). [1046, 5267]

Tithymalus myrsinites (L.) Hill MYRTLE SPURGE. [Euphorbia myrsinites L.]. Collections of this invasive garden plant from plant and shrublands, populations apparently not recurring in same site on north side of Mesa Trail, Enchanted Mesa, and lower Lost Gulch; introduced. [986, 5236] [This taxon is designated as a "List A" species in the Colorado Noxious Weed Act, and appears to be spreading in the Mountain Park in recent years.]

Tithymalus spathulatus (Lam.) W.A. Weber WARTY SPURGE. [E. spathulata Lam.]. Scattered at lower elevations in woodlands and grasslands; western N.A. [1621, 5642]

Tithymalus uralensis (Fisch. ex Link) Prokh. LEAFY SPURGE. [Euphorbia esula L.; E. virgata Waldst. & Kit.]. Our collection from Shanahan Mesa area; introduced. [1766] [This taxon is designated as a "List B" species in the Colorado Noxious Weed Act, but does not appear to be an active invasive in the Mountain Park at this time.]

Tragia ramosa Torr. STINGING SPURGE. Collections from dry sites at lower elevations in woodlands and shrublands; southwestern N.A. [1524]

FABACEAE—PEA FAMILY (LEGUMINOSEAE)

Amorpha fruticosa L. FALSE INDIGO. Occasional in swales and draws in grasslands at lower elevations, collections from east of the Mesa Trail; North America. [1887, 5643]

Amorpha nana Nutt. DWARF INDIGO. SCATTERED on the mesas in grasslands and ponderosa savannas; Great Plains. [1518, 1765, 5641]

Apios americana Medik. GROUNDNUT. GROUNDNUT. One historical specimen (1906) collected from "gulch [at] base of Flagstaff Hill"; eastern N.A. [Daniels 799]

Astragalus agrestis Dougl. ex G. Don PURPLE MILKVETCH. Scattered on the mesas in grasslands, savannas, and woodlands; western N.A. (Eurasia). [995, 2093]

Astragalus canadensis L. CANADIAN MILKVETCH. Uncommon in Mountain Park, mesic sites present in mixed conifers, populations apparently not recurring in same site on an annual basis; North America. [1390, 1970, 5627]

Astragalus crassicarpus Nutt. GROUNDNUT. Early season in grasslands on the mesas, infrequent; Great Plains. [2167]

Astragalus drummondii Doug. ex. Hook. DRUMMOND'S MILKVETCH. Grasslands and shrublands at lower elevations, common; western N.A. [1086, 1747]

Astragalus flexuosus (Hook.) G. Don FLEXIBLE MILKVETCH. Common in open sites from mesas to ridgetops, early season; Great Plains. [1075, 1156, 5273, 5296]

Astragalus laxmannii Jacq. var. robustior (Hook.) Barneby & S.L. Welsh
PRAIRIE MILKVETCH. [A. adsurgens of Colo. (it.) Common on dry sites in grasslands, ponderosa woodlands, and openings in mixed conifer; western N.A. [1183, 1400]

Astragalus miser Doug. in Hook. var. oblongifolius (Rydb.) Cronquist TIMBER MILKVETCH. One specimen from west side of Mountain Park in Pseudotsuga menziesii forest with Arctostaphylos uva-ursi & Arnica cordifolia; western N.A. (interior). [1262]

Astragalus parryi A. Gray PARRY'S MILKVETCH. Not uncommon, collections from dry sites in woodlands and forest openings; Southern Rockies. [1130, 1179]

Astragalus shortianus Nutt. in Torr. & A. Gray SHORT'S MILKVETCH. Common in early season, dry sites from mesa top grasslands to ponderosa woodlands and forests; Southern Rockies. [1091, 1210, 5266]

Astragalus tenelus Pursh LOOSEFLOWER MILKVETCH. Dry areas from lower elevation grasslands to montane woodlands; western N.A. [1151, 2097]

Colutea arborescens L. BLADDER SENNA. One specimen from lower section of Enchanted Mesa Trail above Chautauqua, a common invasive to the north in Sunshine Canyon; introduced. [1213]

Dalea candida Willd. var. oligophylla (Torr.) Shinners WHITE PRAIRIE CLOVER. Dry grasslands at lower elevations, scattered; Great Plains. [1751]

Dalea purpurea Vent. PURPLE PRAIRIE CLOVER. Dry grasslands at lower elevations, not uncommon; Great Plains. [1436, 5666]

Gleditsia triacanthos L. HONEY LOCUST. Escaped cultivar along margins of Mountain Park; introduced. [1902]

Glycyrrhiza lepidota Pursh WILD LICORICE. Scattered along streams; western N.A. [1151, 2097]

Lotus tenuis (Pursh) Rydb. var. leucanthus White FLOWERED PEA. [Lathyrus leucanthus L. EVERLASTING PEA. Escaped cultivar along margins of Mountain Park; introduced. [1902]

Lathyrus latifolius A. Gray BLACK MEDIK. Occasional weed of disturbed sites, Medicago lupulina Black Medik. Occasional weed of disturbed sites, Medicago lupulina [Pursh] WILD ALFALFA. Common on Psoralidium tenuiflorum A. Gray PARRY'S MILKVETCH. Not uncommon, collections from dry sites in woodlands and forest openings; Southern Rockies. [1091, 1210, 5266]

Lathyrus tenuifolius L. LIGHTFLORET PEA. Escaped cultivar along margins of Mountain Park, prominent in Chautauqua area; introduced. [1760]

Lathyrus leucanthus Rydb. WHITE FLOWERED PEA, [Lathyrus lanszw- 
ertii Kellogg var. leucanthus (Rydb.) Dom] Scattered in canyons and woodlands; Southern Rockies. [1067, 1101]

Lotus tenuis Waldst. & Kit. NARROWLEAF BIRD'S FOOT TREFEOIL. Moist openings in savannas and woodlands at lower elevations, scattered; introduced. [1235]

Lupinus argenteus Pursh SILVERY LUPINE. Not uncommon from lower woodlands to open sites in mixed conifers on the ridge-lines; western N.A. [1074, 5510]

Medicago lupulina L. BLACK MEDIK. Occasional weed of disturbed sites; introduced. [1149, 5507]

Medicago sativa L. ALFALFA. Trailheads and other disturbed sites at lower elevations, infrequent; introduced. [1267]

Mellilotus albus Medik. WHITE SWEET CLOVER. Disturbed sites, infrequent; introduced. [1859]

Mellilotus officinalis (L.) Pall. YELLOW SWEET CLOVER. Disturbed sites, scattered; introduced. [1748]

Oxytropis lamberti Pursh PURPLE LOCOWEED. Occasional on dry hillsides and woodlands; Great Plains. [1155]

Oxytropis multicpes Nutt. NUTTALL'S OXYTROPE. Dry, rocky sites in mixed conifer forests, recent collections from Shadow Canyon saddle, between Bear and S. Boulder peaks, where it appears to be thriving since the Flagstaff Fire of 2012; Southern Rockies. [5474]

Securigera varia (L.) Lassen CROWN VETCH. Scattered at lower elevations, our collection from mesa top grassland with scattered Pinus ponderosa in Shanahan Ridge area; introduced. [1762]

Thermopsis divaricarpa Nelson GOLDEN BANNER. [Thermopsis rhombifolia (Nutt.) Richardson var. divaricarpa (A. Nelson) Isely]. Common from grasslands to open sites in mixed conifer forests; Southern Rockies. [1000]

Trifolium fragiferum L. STRAWBERRY CLOVER. Scattered along margins of Mountain Park; introduced. [1979]

Trifolium pratense L. RED CLOVER. Scattered in moist sites and along trails at lower elevations, introduced. [1148]

Trifolium repens L. WHITE CLOVER. Disturbed sites; introduced. [1280]

Vicia americana Muhl. AMERICAN VETCH. Common in moist sites at lower elevation; North America. [1168]

FAGACEAE—OAK FAMILY

Quercus borealis Michx. RED OAK. An escaped cultivar near town; introduced. [1639, 1890] [Quercus gambelii, scrub oak, is reputed to have been planted by Ernest Greenman in the 1940s in the vicinity of Green Mt. It is not clear they still survive.]

FUMARIACEAE—FUMITORY FAMILY [PAPAVERACEAE]

Corydalis aurea Willd. ssp. aurea GOLDEN CORYDALIS. Colonizer of tree fall mounds, animal disturbed soils, and in burned sites where it can be abundant; western N.A. [1010, 5251, 5443]

GENTIANACEAE—GENTIAN FAMILY

Fraseria speciosa Doug. ex Griseb. ELKWEED. Scattered throughout area, collections from ponderosa woodlands and savannas; western N.A. [1099, 5478]

[ Gentiana see Pneumonanthe]

Gentianella acuta (Michx.) Hiitonen AUTUMN DWARF GENTIAN. [Gentianella amarella (L.) Böomer ssp. acuta (Michx.)] Collections from mixed conifer forests of Pseudotsuga menziesii & Pinus ponderosa, late season, not uncommon; N.A. (oroboreal). [1920, 5612]

Pneumonanthe bigelovii (A. Gray) Greene BIGELOW'S GENTIAN. [Gentiana bigelovii A. Gray], Open sites on mesas in ponderosa woodlands and savannas, late season, scattered; western N.A. [1539]

GERANIACEAE—GERANIUM FAMILY

Erodium cicutarium (L.) L’Her. FILARIA. Early season weed of disturbed sites, scattered; introduced. [1570] [This taxon is designated as a “List C” species in the Colorado Noxious Weed Act.]

Geranium bidens Britton BICKNELL’S CRANESBILL. Uncommon in the study area, one specimen from N of Green Mt. Shelter near base of Long Canyon, in mixed forest along road washed out by 2013 flood; North America. [Hogan & Bill May 5518]

Geranium caespitosum James ex Torr. ROCKY MOUNTAIN GERANIUM. Frequent, from ponderosa woodlands and mixed conifer forests to montane streamside; southwestern N.A. [1145, 1178b]

Geranium richardsonii Fisch. & Trautv. RICHARDSON’S GERANIUM. Cool, moist streamside collections from upper Bear Canyon and Greenman Springs, infrequent; western N.A. [1178, 5529]

GROSSULARIACEAE—CURRANT or GOOSEBERRY FAMILY

Ribes aureum Pursh GOLDEN CURRANT. Scattered in mesic shrublands of lower canyons; western N.A. [970]

Ribes cereum Doug. WAX CURRANT. Common Ribes of Mountain Park, from low elevation shrublands and woodlands to mixed conifer forests on ridgetops; western N.A. [969, 1080, 5235]

Ribes inermé Rydb. WHITEMEstem GOOSEBERRY. Infrequent, moist sites along drainages; western N.A. [1662]
HOGAN, Floristic survey of Boulder Mountain Park

HELLEBORACEAE—HELLEBORE FAMILY [RANUNCULACEAE]
Aconitum columbianum Nutt. ex Torr. & A. Gray COLUMBIAN MONKSHOOD. One collection from Long Canyon streamside in mixed conifer forest, a species more common at higher altitudes; western N.A. [1516]

Actaea rubra (Aiton) Willd. RED BANEBERRY. Infrequent in mesic sites, streamsides and seeps; N.A. (oroboreal). [1133]

Aquilegia coerulea James ex Torr. COLORADO BLUE COLUMBINE. Uncommon in moist, shaded sites, one collection from vicinity of Green Mt. Shelter on north facing slope with Pseudotsuga menziesii, Ligusticum porteri, Arnica cordifolia; Southern Rockies [1195]

Delphinium carolinianum Walter ssp. virescens (Nutt.) R.E. Brooks PLAINS LARKSPUR. On mesotop grasslands in early season, in lower elevation and less common than D. nuttallianum; Great Plains. [1749]

Delphinium nuttallianum Pritz. NUTTALL’S LARKSPUR. Common and widespread in early season, from low elevation shrublands to mixed conifer forests and woodlands; western N.A. [973, 1579, 5232, 5492]

HYDANGEACEAE—HYDRANGEA FAMILY
Jasminopsis stokesiana Torr. & A. Gray WAXFLOWER, FIVEPETAL CLIFF-BUSH. Common shrub of forest understory, craggy sites, and streambanks; southwestern N.A. [1138, 1742]

HYDROPHYLLACEAE—WATERLEAF FAMILY
Ellisia nyctelea (L.) L. AUNT LUCY. An overlooked(!) annual of the early season, shaded places, meadows, open slopes, collections from lower slopes of Flagstaff and Anemone Hill; North America. [Olmstead 95-16, May 95-6]

Hydrophyllum fendleri (A. Gray) Heller FENDLER’S WATERLEAF. Common in moist sites proximate to streams; western N.A. [1078, 1582, 5259, 5335]

Phacelia heterophylla Pursh SCORPION WEED. Common in dry sites, collection from ponderosa woodlands; western N.A. [1052, 5460]

HYPERICACEAE—ST. JOHNSWORT FAMILY [CLUSIACEAE]
Hypericum majus (A. Gray) Britton GREATER ST. JOHNS-WORT. One specimen from “200 feet south of South Shanahan Trail … damp margins of a small pond with Typha”; North America. [E. Smith 918]

Hypericum perforatum L. COMMON ST. JOHNS-WORT. Usually scatted in disturbed sites, contemporary collections from sites recently flooded or burnt; North America. [1874, 2357]

Hedeoma hispida Pursh ROUGH FALSE PENNYROYAL. Uncommon or overlooked, historical records from Enchanted and Shanahan mesas; eastern N.A. [Ramaley 9605, Weber 12714]

Leonurus cardiaca L. MOTHERWORT. Infrequent, moist, disturbed site; introduced. [1947]

Lycopus americanus Muhl. ex Bart. AMERICAN WATER HORE-HOUND. Wet sites at lower elevations, historical collection from Gregory Canyon, more recently from Spring Creek (just south of study area); North America. [Campbell 575, Hogan 2347]

Mentha arvensis L. FIELD MINT. Streambanks, records from lower elevations in the Mountain Park, not uncommon; cosmopolitan. [1379]

Monarda fistulosa L. var. menthifolia (Graham) Fern. WILD BERGAMOT. Not uncommon, meadows and open sites in woodlands and forests, more mesic sites; western N.A. [1348]

Monarda punctata Nutt. PLAINS BEEBALM. Historical records from “dry grassland, on the mesas”; western N.A. [Ramaley 9723]

Neptea cataria L. CATNIP. Scattered, trailheads and roadsides; introduced. [1416]

Prunella vulgaris L. HEAL-ALL. Not uncommon, streambanks; cosmopolitan. [1384]

Salvia azurea Michx. & Lam. var. grandiflora Benth. BLUE SAGE. An established population at the south end of the Sanitas Valley, perhaps introduced here, but native on the plains; Great Plains. [Weber 15218]

Scutellaria brittonii Porter BRITTON SKULLCAP. Common on dry slopes in forest and woodland openings; Southern Rockies. [1020, 1240a, 5246]


LILIACEAE—LILY FAMILY
[see also: ALLIACEAE, CONVALLARIACEAE, CALOCHORTACEAE, MELIANTHICACEAE, and UVULARIACEAE]
Leucocrinum montanum Nutt. ex Torr. & A. Gray COMMON SAND LILY. Common in early season on dry sites, foothills and montane forest openings; western N.A. [980]

Lilium philadelphicum L. WOOD LILY. Rare in Boulder Mountain Park,
in moist, shaded forests and meadows. Collections from Long Canyon and another in the canyon to the west of the S. Boulder Pk.-Bear Pk. saddle. About a dozen plants have been counted in Long Canyon; more than 50 plants were seen in the canyon on the west side in 1991 and 1992; N.A. (oroboreal). [1288]

LINACEAE—FLAX FAMILY
Adenolinum lewisi (Pursh) Á. Löve & D. Löve LEWIS FLAX. [Linum lewisi Pursh]. Frequent in open sites; western N.A. [1597]

[Linum see Adenolinum]

LOASACEAE—LOSA FAMILY
Acrolasia albicaulis (Dougl. ex Hook.) Rydb. WHITE-STEM BLAZING-STAR. [Mentzelia albicalvis (Dougl. ex Hook.) Doug. ex Torr. & A. Gray]. Apparently uncommon in the Mountain Park, open sites on slopes and woodlands; western N.A. [5649]

[Mentzelia see Acrolasia, Nuttallia]

Nuttallia nudicaulis (Pursh) Greene WHITE-FLOWERED BLAZINGSTAR. [Mentzelia nudicaulis (Pursh) Torr. & A. Gray]. One historical collection from Flagstaff; Great Plains. [Robbins 2572]

Nuttallia sinuata (Rydb.) Daniels JEWELED BLAZINGSTAR. [Mentzelia sinuata (Rydb.) Ackerfield]. Rocky slopes and roadcuts; Southern Rockies. [2206] This taxon has been merged into N. multiflora (Nutt.) Greene in Weber & Wittmann 4th ed.

LYTHRACEAE—LOSESTRIFE FAMILY
Lythrum alatum Pursh PURPLE LOSESTRIFE. Moist sites, an historical collection from Flagstaff Mountain; eastern N.A. [Robbins 2570]

MALVACEAE—MALLOW FAMILY
Malva neglecta Wallr. COMMON MALLOWS. Uncommon at waste sites and trailheads, seldom collected; introduced. [Robbins 4341]

Sphaeralcea coccinea (Nutt.) Rydb. SCARLET GLOBEMALLOW. One specimen from Chautauqua meadow; Great Plains. [1674]

MELANTHIEAE—FALSE HELLEBORE FAMILY [LILIACEAE]
Toxicoscordion venenosum (Wats.) Rydb. FOOTHILLS DEATH CAMAS. [Zigadenus paniculatus (Nutt.) Wats. var. gramineus (Rydb.) Ackerfield]. Uncommon, from mesa top grasslands to mixed forest openings; western N.A. [998, 5477]

[Zigadenus see Toxicoscordion]

MONOTROPACEAE—PINESAP FAMILY [ERICACEAE]
Pterospora andromedea Nutt. PINEDROPS. Scattered in duff of ponderosa and mixed conifer forests; N.A. (oroboreal). [1401, 5379]

[MONTIACEAE see PORTULACEAE]

NYCTAGINACEAE—FOUR O’CLOCK FAMILY
Mirabilis see Oxybaphus
Oxybaphus hirsutus (Pursh) Sweet HAIRY FOUR-O’CLOCK. [Mirabilis hirsuta (Pursh) MacM.]. Scattered in shrublands and woodlands on the mesas; Great Plains. [1414, 1475] [FNA vol.4 places this taxon into M. rotundifolia (Greene) Standley as a narrow en- variant of M. albida (Walter) Heimerl]

Oxybaphus linearis (Pursh) B.L. Rob. NARROWLEAF FOUR O’CLOCK. [Mirabilis linearis (Pursh) Heimerl]. Scattered in shrublands and woodlands on the mesas; Great Plains. [1474]

Oxybaphus nystagineus (Michx.) Sweet HEARTLEAF FOUR O’CLOCK. [Mirabilis nystagineae (Michx.) MacM.]. Uncommon, lower elevations; Great Plains. [1847]

OLEACEAE—OLIVE FAMILY
Fraxinus pennsylvanica Marsh GREEN ASH. Naturalized tree of foothills, perhaps native in eastern Colorado; introduced. [1212] Ligustrum vulgare L. COMMON PRIVET. Escaped cultivar collected in the Enchanted Mesa area; introduced. [1542, 5501]

Syringa vulgaris L. COMMON LILAC. Escaped cultivar near town and historic homesteads; introduced. [1769]

ONAGRACEAE—EVENING-PRI MORE FAMILY
Calycophus serialus (Nutt.) Raven YELLOW SUNDROPS. [Oenothera serialus Nutt. var. serialus]. Dry sites at lower elevations, scattered; Great Plains. [1767, 1944]

Chamerion angustifolium (L.) Holub. Common in burns and other disturbed areas in forested sites; circumboreal. [1364]

Circaea alpina L. SMALL ENCHANTER’S NIGHTSHADE. Locally abundant along streambanks, restricted to this habitat in the Mountain Park, an uncommon species in Colorado; circumboreal. [1242]

Epilobium brachycarpum Presl PANICLED WILLOW-HERB. [Epaniculatum Nutt.]. Somewhat weedy, along trails and seeps and in woodlands and forest openings; N.A. (oroboreal) [962, 1926]

Epilobium ciliatum Raf. var. glandulosum (Lehm.) Dorn AMERICAN WILLOW HERB. Common Epilobium of the Park, along streams and other moist sites in woodlands and forests; N.A. (oroboreal) [1371, 1955, 5618]

Gaura coccinea Nutt. ex Pursh SCARLET BEEBLOSSOM. [Oenothera suffrutescens] (Ser.) Wagner & Hoch] One collection from the study area, south facing shrubland north of Eldorado Springs, w/ Rhus aromatic a, R. glabra, Padus virginiana, Prunus americana; North America [1073]

Gaura mollis James VELVETWEED [Oenothera curvifolia] Wagner & Hoch) Dry sites in savannas and woodlands, scattered; North America. [1869]

Gayophytum diffusum Terr. & A. Gray ssp. parviflorum Lewis & Szweykowski DIFFUSE GROUNDMAK. Drier sites, recent collection from upper Shadow Canyon within 2012 burn; western N.A. [5698]

Gayophytum racemosum Terr. & A. Gray KITCHENWEED. One collection from dry site in ponderosa woodland; western N.A. [1192]

Oenothera albicaulis Pursh WHITEST EVENING PRIMROSE. One historical record proximate to terminus of South Mesa Trail in open field; Great Plains. [Wittmann 1004]

Oenothera caespitosa Nutt. var. macroglottis (Rydb.) Cronquist TUFTED EVENING PRIMROSE. Collections from open sites in mixed forest of Pinus ponderosa and Pseudotsuga menziesii, not uncommon; western N.A. [1025, 1146]

Oenothera villosa Thumb. var. strigosa (Rydb.) Dunn HAIRY EVENING PRIMROSE. Weedy sites near trailheads and roads; western N.A. [1494]

ORCHIDACEAE—ORCHID FAMILY
Calypso bulbosa (L) Oakes FAIRY SLIPPER. North facing slopes in cool, Pseudotsuga forests, at higher elevations, uncommon; circumboreal. [1029, 5638]

Corallorhiza maculata Raf. SPOTTED CORALROOT. Frequent species of dry woodlands; N.A. (oroboreal). [1124]

Corallorhiza striata Lindley STRIPED CORALROOT. Rare in Mountain Park; small populations scattered in forests; western N.A. [1211, 5291]

Corallorhiza wisteriana Conrad SPRING CORALROOT. Not uncommon in Mountain Park; scattered plants in forests; eastern N.A. [1172, 1650, 5261, 5275, 5493]

Goodyera oblongifolia Raf. WESTERN RATTLESNAKE PLANTAIN. Infrequent in cool forests; N.A. (oroboreal). [1360, 5613]

[Limnorchis see Platanthera]
Listera convallarioides (Swartz) Nutt. BROAD-LAIGHTED TWAYBLADE.
A rarity of the Mountain Park (G5S2) although often locally abundant on
northern facing slopes above 7000', always found along wooded streambanks,
usually on small benches; N.A. (oroboreal). [913, 1368, 5349, 5569]

Malaxis monophyllus (L.) Sw. var. brachyypoda (A. Gray) Morris &
Eames WHITE ADDER'S MOUTH ORCHID. The rarest orchid in
Colorado (G451), widely disjunct from boreal North America;
[Plants were seen at Greenman Springs in the late 1980s and
as late as 1997; historical collections are known from lower
Panther Canyon. Despite intensive searching in these and
other likely sites over the past two decades, the species has not
been seen and the prospects that it has been lost is becoming
a real possibility.]

Piperia unalascensis (Spreng.) Rydb. SLENDER SPIRE ORCHID. Rarely
found in the Mountain Park; a forest species observed near
Green Mt. shelter, on the west side of S. Boulder Pk.-Bear Mt.,
and in an anomalous (dry) site along the Mesa Trail near Skunk
Canyon; western N.A. [1225, 1366]

Platanthera huronensis (Nutt.) Lindley HURON GREEN ORCHID. Most
common bog orchid of the Mountain Park, wet sites
along streams; N.A. (oroboreal). [1204, 1383] The bog orchids
have been thoroughly revised in recent years by Sheviak (2002)
[Plants were seen at Greenman Springs in the late 1980s and
as late as 1997; historical collections are known from lower
Panther Canyon. Despite intensive searching in these and
other likely sites over the past two decades, the species has not
been seen and the prospects that it has been lost is becoming
a real possibility.]

PAPAVERACEAE—POPPY FAMILY

Oxalis dillenii Jacq. SLENDER YELLOW WOOD-SORREL. Weedy spe-
cies of moist sites, scattered, native; North America. [1048, 5464]

OROBANCHACEAE—BROOMRAPE FAMILY
[see also SCROPHULARIACEAE]

Aphyllon fasciculatum (Nutt.) Torr. & A. Gray CLUSTERED BROOM-
RAPE. [Orobanche fasciculata Nutt.:] Infrequent, dry sites,
ponderosa forests; western N.A. [1189, 1373b]

Aphyllon uniflorum (L.) A. Gray NAKED BROOMRAPE. [Orobanche uni-
flora L.] One collection from north facing slopes of Anemone
Hill, grassy opening at margin of Pinus ponderosa woodland;
North America. [5639]

[Orobanche see Aphyllon]

OXALIDACEAE—WOOD SORREL FAMILY

Oxalis dillenii Jacq. SLENDER YELLOW WOOD-SORREL. Weedy spe-
cies of moist sites, scattered, native; North America. [1048, 5464]

PAPAVERACEAE—POPPY FAMILY

Argemone polyanthemos (Fedde) G.B. Ownbey CRESTED PRICKLY-
POPPY. Not uncommon in dry grasslands; Great Plains. [1472]

Papaver orientale L. ORIENTAL POPPY. Escaped cultivar established
near Chautauqua; introduced. [5903]

Walk a week in the Rocky Mountains and you will have a growing
understanding of the diversity of plants in the area. Many species
have been identified and are well documented, providing a wealth of
information for researchers and nature enthusiasts alike.

Bromopsis canadensis (Michx.) Holub FRINGED BROME. [Bromus
critatus L.:] Uncomon within forest openings; N.A. (oroboreal).
[944, 5619]

Bromopsis inermis (Leyss.) Holub SMOOTH BROME. [Bromus inermis
Leyss.:] An aggressive invasive, often a serious threat to native
communities, near trails and roads; introduced. [1215]

Bromopsis lanatipes (Shear) Holub WOOLLY BROME. [Bromus
lanatipes (Shear) Rydb.:] Common native brome throughout
forests of the Mountain Park; southwestern N.A. [1282, 1355,
5686, 5699]

Bromopsis porteri (Coul.) Holub NODDING BROME. [Bromus porteri
(Coul.) Nash.] One specimen from Panther Canyon in mixed
forest of Pseudotsuga menziesii & Pinus ponderosa; western
N.A. (interior). [1922]

Bromopsis pubescens (Muhr. ex Willd.) Holub HAIRY WOODLAND

This document is intended for digital-device reading only.
Inquiries regarding distributable and open access versions may be directed to jbrit@brit.org.
Inquiries regarding distributable and open access versions may be directed to jbrit@brit.org.

**Bromus japonicus** Thunb. JAPANESE BROME. Disturbed sites;

**Bromus briziformis** Fisch. & Mey. RATTLESNAKE BROME. Dry, often disturbed sites; introduced. [1224, 5506]

**Bromus japonicus** Thunb. JAPANESE BROME. Disturbed sites; introduced. [1222]

**Buchloë dactyloides** (Nutt.) Engelm. BUFFALOGRASS. Dry sites on the mesa top grasslands, not uncommon; Great Plains. [1879, 2181]

**Calamagrostis canadensis** (Michx.) P. Beauv. BLUEJOINT. Moist sites at higher elevations, one specimen from upper Panther Canyon in mixed conifers with *Populus tremuloides, Chimaiphila umbellata, & Pteridium aquilinum; N.A. (oroboreal).** [1921] CERATOCLOA CARINATA (Hook. & Arn.) Tutin CALIFORNIA BROME. [Bromus carinatus Hook. & Arn.] Scattered in the Mountain Park, specimens from opening in woodlands and forests; western N.A. [3107]

**Chondrurus gracile** Kunth BLUE GRAMA. [Bouteloua gracilis (H.B.& K.) Lagasca ex Griffiths] A grassland species, scattered on dry, open slopes throughout the Mountain Park; North America (interior). [1351]

**Chondrurus hisutum** (Lag.) Sw. HAIRY GRAMA. [B. hisutus Lag.] Uncommon, but with historical collections from the mesas; North America (interior) (Hunting 134, Ramaley 10315, Daniels 956) [1351]

**Cinnà latifolia** (Trev. ex Gópp.) Griseb. DROOPING WOODREED. Historical collections from Greenman Springs and the west side of Bear Peak; circumcereal. [Weber 5041, 7909] CreTesiorn jubatum (L.) Nevski FOXTAIL BARLEY. [Hordeum jubatum L.] Moist sites, not common, an historical collection from south slopes of Skunk Canyon; western N.A. (Siberia). [Robbins 4208]

**Cynodoppyrum cylindricum** (Host) A. Löve JOINTED GOATGRASS. [Aegoplos cylindrica Host] Disturbed sites, one specimen from lower Enchanted Mesa roadside; introduced. [1234] This taxon is designated as a “List B” species in the Colorado Noxious Weed Act, but does not appear to be an active invasive in the Mountain Park at this time.

**Dactylis glomerata** L. ORCHARD GRASS. Common at lower elevations, often associated with smooth brome (*Bromopsis inermis*); introduced. [1214]

**Danthonia parryi** Scrib. PARRY’S OATGRASS. Large population in lush meadow due west of Bear Pk. on ridgeline running NW off of S. Boulder Peak at 7400 ft., apparently untouched by 2012 Flagstaff burn, a unique site in the study area; western N.A. (cordilleran). [1924, 5341]

**Danthonia spicata** (L.) P. Beauv. POVERTY OAT GRASS. Not uncommon, meadows and forest openings; North America. [1218, 5382]

**Dichanthelium acuminatum** (Sw.) Gould & Clark HAIRY PANICGRASS. Collections from swales and tall grass habitats east of the Mesa Trail, S. Boulder Creek floodplain; North America. [1886]

**Dichanthelium linearifolium** (Scrib.) Gould SLIMLEAF PANICGRASS. Uncommon in rocky sites on the mesas and ponderosa woodlands; eastern N.A. [1871]

**Dichanthelium oligosanthes** (Schult.) Gould ssp. scriberianum (Nash) Gould FEW-FLOWERED PANICGRASS. Most common Dichanthelium of the Mountain Park, dry, rocky sites; North America. [1229, 5567] Echinochloa crus-galli (L.) P. Beauv. BARNYARD GRASS. Margins of study area; introduced. [1975] [Elymus see also Elytrigia]

**Elymus albicans** (Scribn. & J.G. Sm.) A. Löve. MONTANA WHEATGRASS. [E. lanceolatus of Colo. lit.] Scattered in rocky sites in forest openings; western N.A. (interior). [1240b, 1347, 5286, 5428]

**Elymus canadensis** L. CANADA WILD RYE. Late season grass, scattered along trails and roads; North America. [1381] **Elymus elymoides** (Raf.) Sweeney SQUIRRELTAIL. Not uncommon, dry sites in grasslands, shrublands, and forest openings; western N.A. [1350, 1438]

**Elymus glaucus** Buckley BLUE WILDFRYE. Scattered along riparian drainages and moist sites in mixed conifer forests; western N.A. [892, 1251, 5695]

**Elymus trachycaulus** (Link) Gould SLENDER WHEATGRASS. A few collections from forest openings, apparently not common in the study area; N.A (oroboreal). [1954] 

**Elytrigia repens** (L.) Nevski QUACKGRASS. [Elymus repens (L.) Gould]. Disturbed areas, increasingly common along trails in the Mountain Park; introduced. [897, 1397, 5505, 5511, 5668a, 5690] [This taxon is often difficult to distinguish from the native western wheatgrass (Pascopyrum smithii) and these determinations may be suspect. E. repens is designated as a “List C” species in the Colorado Noxious Weed Act.]

**Eragrostis sp.** LOVEGRASS. Various members of this taxon (E. cilianensis, E. pilosa, E. trichodes) have been documented with single specimens on the margins of the study area, and do not seem to have become naturalized.

**Festuca pratensis** Huds. MEADOW FESCUE. Moist sites on mesa top grasslands; introduced. [1763, 1852]

**Festuca saximontana** Rydb. ROCKY MOUNTAIN FESCUE. Not uncommon in Pseudotsuga and mixed conifer forests; N.A. (oroboreal). [935, 1764, 1895, 5364, 5660, 5691]

**Glyceria elata** (Nash ex Rydb.) M.E. Jones TALL MANNAGRASS. Montane riparian sites; western N.A. [933, 1385]

**Glyceria striata** (Lam.) Hitchc. FOWLWAN MANNAGRASS. Not uncommon in moist areas, from lower woodlands to upper montane; North America. [1849, 1956, 5531, 5374] [Barkworth notes G. striata, G. elata, and G. grandis can be easily confused with each other (FNA vol. 24); the latter has been collected from the lower margins of the study area.]

**Hesperostipa comata** (Trin. & Rupr.) Barkworth NEEDLE-AND-THREAD. [=Stipa comata] Scattered in grasslands and woodlands at lower elevations; western N.A. [1231] **Hesperostipa spartea** (Trin.) Barkworth PORCUPINE GRASS. [=Stipa spartea] Uncommon on the mesa tops in ponderosa woodlands; eastern N.A. [1870] Hierochloë hirta (Schrank) Borbas HAIRY SWEETGRASS. [Anthoxanthonum hirtum (Schrank)]. Y. Schouten & Veldkamp One specimen from upper Bear Canyon, above junction with trail to west ridge of Bear Peak, in open forest of *Pseudotsuga menziesii* and *Pinus ponderosa*; w/ *Alnus incana, Solidago canadensis;* N.A. (oroboreal). [3108] [Hordeum see CreTesiorn] **Koeleria macrantha** (Lede.) Schult. JUNGRASS. Common in open sites, savannas and ponderosa woodlands; North America. [901, 1090]

**Leucopoa kingii** (Wats.) W.A. Weber SPIKE FESCUE. Not uncommon in ponderosa forests and woodlands, particularly on north side of Green Mt; western N.A. [1122, 1632, 5243]

**Leymus ambiguous** (Vasey & Scrib.) Dewey COLORADO WILD RYE. Infrequent in dry mixed conifer openings; Southern Rockies [931, 1393, 5287, 5358]

**Lycurus setosus** (Nutt.) Reeder BRISTLY WOLFTAIL. Infrequent (or overlooked) on dry, rocky sites; southwestern N.A. [Campbell 610, Smith 904]

**Muhlenbergia montana** (Nutt) Hitchc. MOUNTAIN MUHLY. Common, dry sites in woodlands and forest openings; western N.A. [1269, 1873, 5431, 5566] **Muhlenbergia racemosa** (Michx.) Britton, Sterns, & Poggenb. MARSH
MuhlbergiawrightiiVaseySPIKE MULH. Not uncommon, dry, rocky sites in grasslands and woodlands; southwestern N.A.
[1486, 1880, 2240]

Nassella viridula (Trin.) Barkworth GREEN NEEDLEGRASS. [=Stipa viridula] Not uncommon in grasslands, shrublands, and woodlands; Great Plains. (1087, 1219, 1750, 5348)

OryzopsisasperifoliaMichx. ROUGH-LEAVED RICEGRASS. Infrequent in the shade of Pseudotsuga and mixed conifer forests; N.A. (oroboreal). [1017, 1656, 5537, 5651, 5692]

PanicumcapillareL.WITCHGRASS. Disturbed sites, a specimen from lower Enchanted Mesa; introduced. [1981]

Panicumvirgatum L. SWITCHGRASS. Tall grass prairie species of meadows and mesas, somewhat mesic sites; eastern N.A. [1489, 1946]

Paspalumsmithii (Rydby.) Barkworth & Dewey WESTERN WHEATGRASS. Drier sites on grasslands and mesas; North America. [Shawver 440] (Definitive studies from the area are frustratingly rare. This taxon is an important native species of western grasslands, while the similarly rhizomatous Elytrigia repens is an aggressive, introduced wheatgrass in similar habitats.)

Phleum pratense L. TIMOTHY. Common near trails and roads, somewhat mesic sites; introduced. [1216]

Piptatherummicranthum (Trin. & Rupr.) Barkworth LITTLESEED. A common grass of the Great Plains; Argentina. [1037, 1198, 2013]

Poa bulbosa L. BULBOUS BLUEGRASS. Dry, disturbed sites, collections from western N.A. [1068, 1263]

Poaannua L. CANADA BLUEGRASS. A common Poa of the Mountain Park, lower elevations and drier woodlands; introduced. [1107, 5430]

Poa fendleri (Steud.) Vasey MUTTONGRASS. Frequent in dry sites, woodlands, and forest openings; western N.A. [926, 1026, 1037, 1198, 2013]

Poa nemoralis L. ssp. interior (Rydby.) W.A. Weber INLAND BLUEGRASS. [P. interior Rydby.] Not uncommon in shaded conifer forests or proximate to springs and drainages; N.A. (oroboreal). [1283, 1369, 1427]

Poa nervosa (Hook.) VaseyVEINY BLUEGRASS. [P. wheeleri Vasey] Collections from mixed forests of Pinus ponderosa & Pseudotsuga menziesii, scattered; western N.A. [898, 1647]

Poa palustris L. FOWL BLUEGRASS. Moist sites near streams and seeps, not uncommon; circumboreal. [940]

Poa pratensis L. KENTUCKY BLUEGRASS. Widespread, usually in more mesic habitats than its native counterpart, P. aggrissens; introduced. [5271]

Schizachyrium scoparium (Michx.) Nash LITTLE BLUESTEM. Dry, open sites, a prairie species found in ponderosa woodlands and mesa tops, scattered; eastern N.A. [1959]

Secale cereale L. RYE. Roadside; introduced. [1877]

Setaria ssp. BRISTLE GRASS. Various members of this taxon (S. glauca, S. viridis) have been documented with single specimens on the margins of the study area, and do not seem to have become naturalized.

Sorghastrumavenaceum (Michx.) Nash INDIANGRASS. [S. nutans (L.) Nash]. Uncommon species of tall grass prairies, mesa tops; eastern N.A. [1484]

Sphenopholisobtusata (Michx.) Scribn. PRAIRIE WEDGEGRASS. Uncommon, moist sites in forests and woodlands, one specimen from beneath Greenman pour-off above Gregory Canyon; North America. [886]

Sporobolusasper (Michx.)KunthSCRATCHGRASS. [S. neglectus Nash] Mesa tops; western N.A. [1535, 1984]

Sporoboluscryptandrus (Torr) A. Gray SAND DROPSEED. Dry sites, two historical collections from Gregory Canyon; North America. [Campbell s.n.]

Sporobolus heterolepis (A. Gray) A. Gray PRAIRIE DROPSEED. Mesa tops, most common dropseed of the Mountain Park; eastern N.A. [1435, 2241]

Tinoppyrumintermedium (Host) Barkworth & Dewey INTERMEDIATE WHEATGRASS. Disturbed sites, increasingly common; introduced. [1439, 5668b]

Torreyochloa pauciflora (J. Presl) Church FALSE MANNAGRASS. [T. pallido (Torr.) Church var. pauciflora (J. Presl) Davis] An historical collection from "deep canons, north slopes of Green Mt., 7,000 ft.;" N.A. (oroboreal). [Daniels 464]

Tritesepticatum (L.) K. Richt. SPIKE TRISETUM [=T. montanum]. A species of mesic forest sites; N.A. (oroboreal). [938, 1285]

POLEMONIACEAE—PHLOX FAMILY

Aliciellapinnatifida (Nutt. ex A. Gray) J.M. Porter STICKY GILIA. Scattered in forests and woodlands, dry gravelly sites; southwestern N.A. [1132]

Collomia linearis Nutt. TINY TRUMPET. Common in dry woodlands; North America. [1120]

GiliaophthalmoidesBrand EYED GILIA. Early season annual of open sites; western N.A. [5241]

Ipomopsisaggregata (Pursh) Grant ssp. candida (Rydby.) Grant & Grant SCARLET GILIA. Dry, gravelly sites, canyons and ridges, scattered; Southern Rockies. [1174, 5542]

Masticariacrucis (Hook.) Greene ssp. humilis (Greene) Grant SLEN-DER PHLOX. Scattered annual of early season, often associated with Collinsia parviflora; western N.A. [1015, 5630]

Navarretia saximontana Spencer PINCUSHION PLANT. One record from along the Mesa Trail, ponderosa woodland; western N.A. (oroboreal). [Weber 11552]

Phlox multiflora Nelson MOUNTAIN PHLOX. Locally abundant on open slopes in early season; western N.A. [1036]

POLYGONACEAE—BUCKWHEAT FAMILY

Aacetosella vulgaris (Koch) Fourr. SWEET SORREL. [Rumex acetosella L.]. Weedy, disturbed sites; introduced. [1471]

[Erigonum see also Pterogonum]

Eriogonumeffusum Nutt. SPREADING BUCKWHEAT. One collection from "outwash fans NE of Eldorado Springs, along Toweel Trail"; Great Plains (western). [Weber 18107]

Eriogonum flavum Nutt. ssp. flavum GOLDEN BUCKWHEAT. Dry, open sites in the canyons, scattered; Great Plains (northern) [1374]

Eriogonum umbellatum Torr. SULPHUR FLOWER. Common in dry, open sites; western N.A. [1184, 1375, 5453]
Inquiries regarding distributable and open access versions may be directed to jbrit@brit.org.

308

Sm. WHITE VEINED Rumex
Sw. Pyrola chlorantha (L.) House SIDEBELLS. Uncommon in cool, forested sites; circumboreal. [1180, 5334]

PYROLACEAE—WINTERGREEN FAMILY [ERICACEAE]

Claytonia rosea Rydb. ROCKY MOUNTAIN SPRING BEAUTY. Common in early season in savannas, woodlands, and ponderosa forests; southwestern N.A. [1547, 5254, 5448, 5635]

PRIMULACEAE—PRIMROSE FAMILY

Anagallis minima (L.) Krause CHAFFWEEED. One specimen collected in 1983 from west of the National Bureau of Standards, in a swale along the Enchanted Mesa Trail; cosmopolitan. [Beagle 813]

Androsace septentrionalis L. PYMGFLOWER ROCKJASMINE. Scattered throughout mixed forests of Pinus ponderosa and Pseudotsuga menziesii; circumboreal. [1134, 5473, 5481]

Dodecatheon pulchellum (L.) Hook. var. ellipticus Greene SAGEBRUSH. One collection from montane streamsides; western N.A. (cordilleran). [1205, 5523]

Lysimachia ciliata L. FRINGED LOOSESTRIFE. Infrequent along dry conifer forests at higher elevations in the Mountain Park; western N.A. [5350, 5538, 5685]

Pyrola rotundifolia L. ssp. asarifolia (Michx.) Löve PINK WINTERGREEN. [P. asarifolia Michx.]. Uncommon in cool, forested sites; N.A. (oroboreal). [1287, 5353, 5532]

RANUNCULACEAE—BUTTERCUP FAMILY

[see also HELLEBORACEAE and THALICTRACEAE]

Anemone cylindrica A. Gray CANDLE ANEMONE. Frequent in the Mountain Park on drier sites; North America. [1180, 5334]

Anemone multifida Poiret var. globosa (Nutt.) Torr. & A. Gray. CUT-LEAVED ANEMONE. One specimen from the Mountain Park on north facing slope in Pseudotsuga menziesii forest with Ligusticum porteri; North America (NW). [1284]

Anemonium canadense (L.) Á. Löve & D. Löve CANADIAN ANEMONE. [Anemone canadensis L.]. Moist site on west side of study area, infrequent; North America. [1150, 5330]

Atragene occidentalis Hornemann WESTERN BLUE VIRGIN’S BOW. [Clematis grosseserrata (Ryd.) Ackerfield, comb. nov.; C. occidentalis (Horn.) DC. var. grosseserrata (Ryd.) J. Pringle]. Scattered, a viney species of Pseudotsuga forests; western N.A. (northern cordillera). [1009, 1609, 5255, 5446, 5681]

Cytorhynchya ranunculina Nutt. ex Torr. & A. Gray TADPOLE BUTTERCUP. [Ranunculus ranunculoides (Nutt.) Rydb.]. Drier sites in woodlands and forests, infrequent; Southern Rockies. [1018, 5264]

Pulsatilla patens (L.) Mill. ssp. multifida (Pritz.) Zamels PASQUE FLOWER. [Anemone patens L. var. multifida Pritz.]. Not uncommon in ponderosa woodlands and forests, a harbinger of the flowering season; circumboreal. [985, 1024]

Cyrtorhynchya ranunculina Nutt. ex Torr. & A. Gray TADPOLE BUTTERCUP. [Ranunculus ranunculoides (Nutt.) Rydb.]. Drier sites in woodlands and forests, infrequent; Southern Rockies. [1018, 5264]

Ranunculus abortivus L. LITTLELEAF BUTTERCUP. Infrequent in moist sites in woodlands and forest openings in early season; eastern & boreal N.A. [1114, 5497]

Ranunculus acriformis A. Gray SHARP BUTTERCUP. Uncommon, collections from montane streambeds; western N.A. (cordillera). [1205, 5523]

Ranunculus glaberrimus Hook. var. ellipticus Greene SAGEBRUSH BUTTERCUP. Moist sites in early season, north facing slopes in woodlands and forest openings, scattered; western N.A. [994, 1558, 5447]

Ranunculus macounii Britton MACOUN’S BUTTERCUP. Occasional along montane streambeds; N.A. (oroboreal). [1248]

RHAMNACEAE—BUCKTHORN FAMILY

Ceanothus fendleri A. Gray BUCKTHORN. Common on rocky sites in ponderosa forests and woodlands; southwestern N.A. [1188]

Ceanothus herbaceus Raf. REDROOT. Uncommon, a species of ponderosa savannas and woodlands in the Mountain Park; eastern N.A. [916, 1620, 5480]

Ceanothus velutinus Douglas ex Hook. STICKY LAUREL. Scattered, less common than C. fendleri, forming patches in mixed conifer openings; western N.A. [1738]

This document is intended for digital-device reading only. Inquiries regarding distributable and open access versions may be directed to jbrit@brit.org.
Inquiries regarding distributable and open access versions may be directed to jbrit@brit.org.

Hogan, Floristic survey of Boulder Mountain Park

ROSACEAE—ROSE FAMILY

Agrimonia striata Michx. AGRIMONY. Infrequent along lower elven- 
tion streamside, a collection from Shadow Canyon just above 
Mesa Trail, in mixed forest of Pseudotsuga menziesii & Pinus 
ponderosa; North America. [1420]

A.mancherian alfalfa (Nut.) Nutt. ex Roemer WESTERN SERVICE-
BERRY. Occasional shrub or small tree; western N.A. [1607]

Cerasus pumila (L.) Michx. var. besseyi (Bailey) W.A. Weber SAND 
CHERRY. [Prunus pumila L. var. besseyi Gleason]. Infrequent on 
dry sites; Great Plains. [1775]

Cercocarpus montanus Raf. MOUNTAIN-MAHOGONY. Dry sites in 
forest openings, infrequent; not as common in the Mountain 
Park as elsewhere along the Front Range; western N.A. (interior) 
[1144, 1135]

Cotoneaster lucida Schlecht. SHINY COTONEASTER. Cultivar scattered 
by birds along streams, infrequent; introduced. [1514, 5504]

Crataegus chrysocarpa Ashe HAWTHORN. Rare, collections from 
lower gulches; eastern N.A. [Weber 17748]

Crataegus erythropoda Ashe HAWTHORN. Lower elevation drainag-
es, less common than C. macracantha; Southern Rockies. [1614]

Crataegus macracantha Loddd. var. occidentalis (Britton) Eggleston 
HAWTHORN. [C. succulenta of Colorado literature]. Lower elver-
eation drainages, often forming large stands, most common 
hamtown of the Mountain Park; Great Plains. [1109]

(Crataegus is a notoriously difficult taxon to circumscribe and 
Ackerfield (2015) has recently subsumed the three taxa listed 
above into C. succulenta Schrad.)

Clytaxis pubescens (Raf.) W.A. Weber DWARF RED BLACKBERRY. 
[Rubus pubescens Raf]. Uncommon in cool drainages, some-
times associated with Listera convallarioides, restricted to the 
northern Front Range in Colorado; N.A. (oroeboreal). [1208, 
1289, 5352, 5491]

Drymocallis fissa (Nutt.) Rydb. [Potentilla fissa Nutt.]. Common 
chiffle of the Mountain Park, dry sites from mesa tops to 
rocky slopes and ridges, Southern Rockies. [1077, 1123]

Fragaria vesca L. ssp. bracteata (Heller) Staedt WOODLAND 
STRAWBERRY. Infrequent, cooler sites, mixed forest of 
Pinus ponderosa and Pseudotsuga menziesii; western North America. 
[1127, 5475]

Fragaria virginiana Mill. ssp. glauca (Wats.). Staedt MOUNTAIN 
STRAWBERRY. Not uncommon throughout forests of the 
Mountain Park, often in more mesic sites; N.A. (oroeboreal) [1110]

Geum aleppicum Jacq. ssp. strictum (Aiton) R.T. Clausen YELLOW 
CINQUEFOIL. [G. strictum Aiton], Uncommon along montane 
streamside; North America. [1406, 1914, 5333]

Geum macrophyllum Willd. var. pericinum Raup LARGE-LEAVED 
AVENS. Frequent along montane streamside; N.A. (oroeboreal). 
[1238, 5331, 5520]

Holodiscus dumosus (Hook.) Heller ROCKSPIREA. Abundant on 
the west side of the Bear Pk. summit among rocks and talus with 
Jamesia, Oreoebus, and Pseudotsuga; southwestern N.A. [1425]

Malus domestica Borkh. APPLE. [M. pumila Mill.]. Scattered through-
out the Mountain Park, one tree just below (east of) the summit 
of Bear Pk. (l); introduced. [1571]

Oreobatus delicious James BOULDER RASPBERRY. [Rubus delicious 
James ex Torr.]. Occasional, drier sites in ponderosa woodlands; 
Southern Rockies [1061, 5454]

Padus virginiana (L.) Mill. ssp. melanocarpa (A. Nelson) W.A. Weber 
CHOKEBERRY. [Prunus virginiana L.]. Common shrub through-
out the Mountain Park; North America. [1094, 5231]

Pentaphylloides floribunda (Pursh) Löve SHRUBBY CINQUEFOIL. 
[Potentilla fruticosa L.]. One historical collection from a dry, rocky 
site in Gregory Canyon; circumboreal. [Campbell 78]

Physocarpus monogynus (Torr.) Coul. MOUNTAIN NINEBARK. 
Common shrub of forested slopes and streamside; western N.A. 
(interior). [1103, 5500]

Physocarpus opulifolius (L.) Maxim. COMMON NINEBARK. [P. mo-
genous s.s.]. Uncommon in the foothills; not always distinct 
from P. monogynus with which it sometimes occurs; eastern 
N.A. [2099A]

[Potentilla see also Drymocallis, Pentaphylloides]

Potentilla ephusa Dougl. ex Lehm. WOOLY CINQUEFOIL. [P. hippiana 
var. ephusa (Dougl. ex Lehm.) Dorn]. Dry slopes, ponderosa 
woodlands, infrequent; western N.A. (interior). [1736]

Potentilla hippiana Lehm. var. hippiana WOOLY CINQUEFOIL. 
Occasional in drier sites, woodlands and mixed conifer forests; 
western N.A. (interior). [1236, 5545]

Potentilla pulcherrima Lehm. x hippiana Lehm. WOOLY CINQUEFOIL. 
A single specimen from western end of west ridge of Bear Pk., 
mixed forest of Pseudotsuga menziesii/Pinus ponderosa; western 
N.A. (interior). [5544]

Potentilla recta L. SULPHUR CINQUEFOIL. Abundant at South Mesa 
trailhead, spreading elsewhere with specimens from upper 
Bear Canyon and Harmon Gulch on west side of study area; 
introduced. [1377, 1477, 5373, 5383] [P. recta is designated as a 
list B species in the Colorado Noxious Weed Act.]

[Prunus see also Cerasus, Padus]

Prunus americana Marshall AMERICAN PLUM. Abundant in gulches 
and streamside at lower elevations; eastern N.A. [972]

Prunus persica (L.) Batsch PEACH. [PERSICA vulgaris Mill.]. One tree 
growing along north end of Mesa Trail; introduced. [1635]

Rosa arvensis Porter PRAIRIE ROSE. Scattered at lower elevations 
on mesas in shrubland and meadows; Great Plains [1088, 1878]

Rosa Sayi Schwein. PRICKLY ROSE. [R. acicularis Lindl. ssp. sayi 
(Schwein.) Lewis]. Scattered in the foothills; circumboreal. 
[Weber 3982]

Rosa woodsii Lindl. WILD ROSE. [R. blanda Alton]. The common wild 
rose of the Mountain Park, from dry hillsides to streamside, 
forests, and meadows; western N.A. [1476]

Rubus parviflorum (Nutt.) Rydb. THIMBLEBERRY. [Rubus parviflorus 
Nutt. var. parviflorus]. Infrequent, cool ravines; N.A. (oroeboreal). 
[1196, 5524]

[Rubus see also Clytales, Oreoebus, Rubacer]

Rubus idaeus L. ssp. stigmatus (Michx.) Focke RED RASPBERRY. Com-
mmon and abundant, mesas to ridge tops; circumboreal. [1158]

Rubus laciniatus Willd. EVERGREEN BLACKBERRY. One specimen 
from Shanahan trail area, NW of water tank in ponderosa 
woodland with mixed grasses, RHUS Armoratica, Artemisia; 
introduced. [Showver 438]

Sorbus scopulina Greene MOUNTAIN-ASH. Infrequent along streams 
and mesic sites; western N.A. [1515, 1670, 5495]

RUBIACEAE—MADDER FAMILY

introduced. [1057, 5522, 5462]

Galium septentrionale Roem. & Schult. NORTHERN BEDSTRAW. 
[G.boreale L.]. Common Galium of the Mountain Park, an herb 
of the forest understory; circumboreal. [1169]
Gallium triflorum Michx. FRAGRANT BEDSTRAW. Not uncommon along streams and moist areas; circumboreal. [1279]

[RUSCACEAE see CONVALLARIACEAE]

SALICACEAE—WILLOW FAMILY

Populus × acuminata Rydb. LANCELEAF COTTONWOOD. Hybrid between *P. angustifolia* and *P. deltoides* (Pallas & Poiret) var. *monilifera* (Aiton) Eckenwalder PLAINS COTTONWOOD. Eocene origin, with a cluster of lower elevation, more frequent at lower elevations than *P. deltoides*; western N.A. [1003] (PTG)

Populus alba L. WHITE POPLAR. Established around old homesteads; circumboreal. [1279] (ORO)

Populus deltoides Bartram ex James NARROWLEAF COTTONWOOD. Stream-sides, upper canyons, not uncommon; western N.A. [interior]. [1199, 1863]

Populus deltoides Bartram ex Marshall ssp. monilifera (Aiton) Eckenwalder PLAINS COTTONWOOD. Stream-sides, marginal entering the Mountain Park from the eastern plains where it is the common streamside cottonwood; eastern N.A. [1003] (PTG)

Populus tremuloides Nutt. COYOTE WILLOW. Scattered along streams, infrequent; western N.A. [1193, 1388, 1496, 5345] (PTG)

Salix amygdaloides Anderss. PEACH LEAVED WILLOW. Infrequent along streams at lower elevations in Mountain Park; North America. [1593]

Salix bebbiana Sarg. BEBB WILLOW. Common willow of streambanks, but nowhere abundant; circumboreal. [1032, 1105, 5346, 5515] (PTG)

Salix exigua Nutt. COYOTE WILLOW. Scattered along streams, infrequent; western N.A. [1193, 1388, 1496, 5345] (PTG)

Salix fragilis L. CRACK WILLOW. Streamsides at lower elevations, more frequent at lower elevations closer to town; introduced. [1564]

Salix irrorata Andersson BLUESTEM WILLOW. Streamside clumps in the canyons, scattered; southwestern N.A. [918, 1005, 1565] (PTG)

Salix monticola Bebb MOUNTAIN WILLOW. Uncommon along stream, collections from Bear Canyon and Harmon Gulch; Southern Rockies. [1206, 3130]

Salix scouleriana Barrat An infrequent willow of drier sites in mixed conifers; western N.A. [1741, 5253] (PTG)

SANTALACEAE—SANDALWOOD FAMILY

Comandra umbellata (L.) Pursh LANCELEAF FIGWORT. Frequent along streams, collections from Flagstaff and Gregory Canyon; western N.A. [Wittmann 1013] (PHR)

Penstemon viridus Pers. PENSTEMON. A historical collection from “open field near the south terminus of the Mesa Trail”; (western) Great Plains. [Wittmann 1002] (PTG)

Penstemon glaber Pursh ALPINE PENSTEMON. Infrequent in drier hillsides; western N.A. [1512] (ORO)

Penstemon angustifolius Nutt. var. angustifolius. NARROWLEAVED PENSTEMON. A historical collection from “open field near the south terminus of the Mesa Trail”; (western) Great Plains. [Wittmann 1002] (PTG)

Penstemon gracilis Nutt. LILAC PENSTEMON. Uncommon and widespread of the Mountain Park, woodlands and mixed forests; Southern Rockies. [1247, 1892, 5336] (PTG)

Penstemon strictus Bent. ROCKY MOUNTAIN PENSTEMON. Lower elevations in Mountain Park, probably introduced through revegetation projects, scattered; Southern Rockies. [1855, 5667] (PTG)

Penstemon virens Pennell ex Rydb. FRONT RANGE BEARDTONGUE. Most common and widespread Penstemon of the Mountain Park; Southern Rockies. [1059, 1589, 5230] (PTG)

Penstemon virgatus A. Gray ssp. asa-grayi Crosswhite ONE-SIDED PENSTEMON. [= *P. unilateralis* Rydb.] Infrequent in mesotop grasslands and woodlands; Southern Rockies. [1166, 1856, 1891] (PTG)

Polemonium pulchrum L. W.A. Weber BILODED SPEEDWELL. [Veronica biloba (L.) Moisit, disturbed sites; introduced. [979] (PTG)

Scrophularia lanceolata Pursh LANCELEAF FIGWORT. Frequent
species of shaded forests and drainages; N.A. (oroboreal).

Verbasum blattaria L. MOTH MULLEIN. Weedy sites in foothill grasslands, perhaps expanding its range in the Mountain Park; introduced. [5663, 5665] (SCR) [V. blattaria is designated as a “list B” species in the Colorado Noxious Weed Act.]

Verbasum thapsus L. WOOLY MULLEIN. Common in disturbed sites, particularly recent burns; introduced. [1424] (SCR) [This taxon is designated as a “list C” species in the Colorado Noxious Weed Act.]

[Veronica see also Poecilia, Veronicastrum]

Veronica americana Schwein. ex Bentham. AMERICAN SPEEDWELL. Frequent in and along streams; North America. [1281a] (PTG)

Veronica anagallis-aquatica L. WATER SPEEDWELL. One specimen from lower Bear Creek w/ Populus deltoides, P. acuminata, Salix bebbiana, Agrostis gigantea; cosmopolitan. [2350] (PTG)

Veronicastrum serpyllifolium (L.) Fourn. ssp. humifusum (Dicks.) W.A. Weber THYME LEAVED SPEEDWELL. [Veronica serpyllifolia L. var. humifusa (Dicks.) Syme]. Frequent in and along streams; North America. [1771, 1281b, 5494] (PTG)

SILICALACÆAE—SMILAX FAMILY

Smilax lasioneuron Hook. BLUE RIDGE CARRIONFLOWER. Rare or infrequent along the outer foothills of the Front Range, scattered plants known from Gregory, Long, and Shadow canyons; Great Plains (eastern) [1482]

SOLANACÆAE—NIGHTSHADE FAMILY

Datura stramonium L. JIMSONWEED. Uncommon in the study area, one specimen from south end of Mesa trail in disturbed site near trailhead; introduced. [Shawver 370]

Nicotiana attenuata Torr. ex Wats. COYOTE TOBACCO. One specimen from barren site in burned area of mixed conifer zone on crest of interfluve due west of Bear Pk. summit; western N.A. [5342]

Physalis heterophylla Nees CLAMMY GROUND CHERRY. Scattered in ponderosa woodlands and forest openings; eastern N.A. [5440]

Physalis virginiana Mill. VIRGINIA GROUND CHERRY. [Physalis longifolia Nutt.] Open sites in ponderosa woodlands and grasslands, scattered; eastern N.A. [1230]

Solanum rostratum Dunal BUFFALO BUR. One specimen from south end of Mesa trail; introduced. [1470]

THALICTRICÆAE—MEADOW RUE FAMILY [RANUNCULACEÆ]

Thalictrum fendleri Engelm. ex A. Gray FENDLER’S MEADOW RUE. Forests and shaded ravines, infrequent; western N.A. [1175, 5525]

ULMACEÆ—ELM FAMILY

Celtis occidentalis L. COMMON HACKBERRY. One specimen from Mesa Trail, just south of North Shannahan Trail, weedy site; eastern N.A. [5662].

Celtis reticulata Torr. NETLEAF HACKBERRY. Scattered in shrublands and drainages in lower canyons; southwestern N.A. [1521]

Ulmus pumila L. SIBERIAN ELM. Scattered in gulches at lower elevations; introduced. [971]

URTICÀCEAE—NETTLE FAMILY

Parietaria pensylvanica Muhl. ex Willd. PENNSYLVANIA PELLITORY. Shaded, moist sites in canyons, historic record from Blue Bell Canyon, more common in Eldorado Canyon; North America. [Robbins 1738]

Urtica gracilis Aiton STINGING NETTLE. [U. dioica L. var. gracilis Aiton]. Scattered along streams in lower canyons; North America. [1291, 5611]

UVULARCÆAE—BELLWORT FAMILY

[LILIACEÆ]

Prosartes trachycarpa Watson ROUGH-FRUITED FAIRY BELLS. Moist, shaded forests, early season, not uncommon; western N.A. (interior) [1019, 1577, 5262, 5452, 5634]

Streptopus fassettii A. Löve & D. Löve CLASPLEAF TWISTED STALK. [S. simplexfolius (L.) D.C.]. Shaded streambanks and forests, scattered; circumboreal. [1135, 5281, 5499]

VERBENACÆAE—VERVAIN FAMILY

Phyla cuneifolia (Torr.) Greene WEDGELEAF FOGRUIT. Moist, often disturbed sites, one specimen from vicinity of Enchanted Mesa & lower Skunk Creek, infrequent; Great Plains [1862]

Verbena bracteata Lag. & Rodr. PROSTRATE VERVAIN. Weed of disturbed sites, trailsides, not uncommon; introduced. [1092, 1265]

Verbena hastata L. SWAMP VERBENA. Wet sites at lower elevations, one historical collection from Gregory Canyon; North America. [Campbell 121]

VIOLACÆAE—VIOLET FAMILY

Hybanthus verticillatus (Ortega) Bail. NODDING GREEN VIOLET. Dry, rocky sites on mesas, infrequent (overlooked?); Great Plains (southern) [1752, 2102]

Viola adunca Smith HOOK-SPURRED VIOLET. Scattered, aspen and mesic mixed conifer stands; N.A. (oroboreal). [1013, 5263]

Viola kitaibeliana Roem. & Schult. var. rafinesquei (Greene) Fernald FIELD PANSY. [=V. bicolor Pursh] Dry mesa tops, uncommon; introduced. [982, 1997]

Viola nuttallii Pursh NUTTALL’S VIOLET. Common yellow violet of early season, widespread in Mountain Park; Great Plains [983]

Viola odorata L. ENGLISH VIOLET. Uncommon, moist, shaded sites in woodlands and forests; introduced. [1555]

Viola pedatifida G. Don CROWFOOT VIOLET. Infrequent; collected in lower Skunk Canyon; Great Plains. [966]

Viola rydbergii Greene CANADIAN VIOLET. [V. rugulosa and V. canadensis L. var. rugulosa (Greene) C.L. Hitchc. the Colorado literature]. This and the next species often grow together, V scopulorum being more common on slightly drier ground; they are frequent in the early season in the understory of cooler forests; western N.A. [991, 1070, 5256]

Viola scopulorum (A. Gray) Greene CANADIAN VIOLET. [V. canadensis L. var. scopulorum A. Gray] This species has smaller leaves and flowers, and lacks hairs on the petiole and leaf midvein as in V rydbergii; southwestern N.A. [993, 1069]

VITACÆAE—GRAPE FAMILY

Parthenocissus vitacea (Knerr) Hitchc. WOODBINE; THICKET CREEPER. Riparian areas in lower canyons, infrequent in cool ravines; North America. [1536, 5626]

Vitis riparia Michx. RIVER BANK GRAPE. Streamsides at lower elevations, more common than Parthenocissus vitacea; eastern N.A. [1943]
ACKNOWLEDGMENTS

It is a pleasure to recognize the many people who have helped me throughout this work. I have worked under three curators while rostered at the University of Colorado Herbarium: William Weber, Tom Ranker, and Erin Tripp. Each of them has been nothing but encouraging with my work in the Boulder Mountain Park. My fellow collection managers, past and present—J. Ryan Allen, Dina Clark, and Nan Lederer—have been similarly supportive and helpful in ways too many to enumerate. The University of Colorado Museum of Natural History has been a home for over 30 years, providing refuge from an often chaotic world.

My late friend, Harold Dahinke started a novice botanist out in the Mountain Park thirty years ago. I never forget Harold and his love for “the territory” when I am out in that place he so dearly loved. In the course of finishing this paper, the original director of the City of Boulder Open Space Department, Jim Crain, passed away. His legacy will carry on for years to come, and along with the founders, the Boulder community owes Jim our enduring gratitude.

I am grateful for the financial and logistical support of the City of Boulder Open Space and Mountain Park Department and, in particular, to the Resource and Stewardship staff. Megan Bowes greatly facilitated the work presented herein, and has been a pleasure to work with; I appreciate her patience with the time it took me to bring this survey to a closure. Chris Wanner, Lynn Riedel, Laurie Deiter, Dave Sutherland and other fine members of the resource division also provided gracious assistance. I also wish to acknowledge Bill May, with his sharp eyes and indefatigable legs who alerted me and the staff to his finds across the study area. The careful review and comments of C.K. Keller and an anonymous reviewer are greatly appreciated.

Many friends accompanied me in the field, always contributing to my awareness of the natural world. I thank Tom Andrews, an excellent field biologist; Bill Jennings, dean of Colorado orchidologists; Steve Jones, an extraordinary naturalist and superb birder; Dave Kuntz, dedicated conservationist; and Andrew Schelling, hiking partner and poet, always inquisitive about those pesky plant names.

Finally, I am one of untold others who have benefited from the preservation of these public lands in the Boulder Valley. The founders who had the vision and fortitude to set aside these lands and waters, to institute the first sales tax in the country to fund open space fifty years ago (1967), and to craft a charter unambiguously emphasizing the natural values of these areas deserves our utmost gratitude.

REFERENCES


COLO (University of Colorado Herbarium). 2017. https://botanydb.colorado.edu/

Hogan, Floristic survey of Boulder Mountain Park

Inquiries regarding distributable and open access versions may be directed to jbrit@brit.org.


METRO DENVER ECONOMIC DEVELOPMENT INC. 2017. [http://www.metrodenver.org/do-business/demographics/population/]


document plant niches in the high peaks and high plains of the Southern Rockies - Past, present, and future (NSF #1702516).


**OSMP.** 2106. Boulder Mountain Park vegetation map: Conservation targets. OSMP working files.


