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Emily R. Elliott, A Floristic Inventory of the Northern Absaroka, Beartooth, and Gallatin Ranges, Wyoming and Montana, U.S.A. Degree of Master of Science, Department of Botany, December 2014.

A floristic inventory of the northern Absaroka, Beartooth, and Gallatin ranges was conducted in 2007 and 2008. The area covers 14,336 km² (5,535 mi²). Twenty-five percent (3,626 km²; 1,400 mi²) is within the Absaroka-Beartooth Wilderness. Elevations range from 1090–3720 m (3600–11300 ft.). This inventory resulted in 13,877 voucher specimens from 330 sites documenting 1,289 unique taxa, 833 species, and 425 genera from 89 families. There were 133 taxa exotic to North America collected, comprising 10.3% of the total unique taxa documented. Of the 48 species recognized as noxious weeds by the Montana Noxious Weeds Program and the Wyoming Weed and Pest Council, 24 (50%) were documented. *Carex aperta* and *Galium mexicanum* var. *asperulum* were newly documented in Wyoming and *Heterotheca fulcrata* was newly documented in Montana. There were 62 taxa of conservation concern and 16 taxa of potential conservation concern documented. General descriptions of the vegetation are provided, as is an annotated checklist of all taxa documented. The original set of specimens is deposited at the Rocky Mountain Herbarium with duplicates donated to other herbaria within the region.

A FLORISTIC INVENTORY OF THE NORTHERN ABSAROKA, BEARTOOTH, AND
GALLATIN RANGES, WYOMING AND MONTANA, U.S.A.

By

Emily R. Elliott

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and the University of Wyoming

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INTRODUCTION

Floristic inventories document the diversity of plants of a region through the collection of voucher specimens, only vascular plants were included in this inventory. This thesis reports on findings from such an inventory of the northern Absaroka, Beartooth, and Gallatin Ranges conducted in 2007 and 2008.

This botanical inventory is part of the larger effort by the Rocky Mountain Herbarium (RM) to map, in relatively fine detail, the geographic distributions of vascular plant species based on vouchered specimens and to produce a flora of the greater Rocky Mountain region (Hartman 1992; Hartman & Nelson 2008; Hartman et al. 2009). To this end, over 69 projects (49 by graduate students) have been completed in Arizona, Colorado, Idaho, Kansas, Montana, New Mexico, Oregon, South Dakota, Utah, Washington, and Wyoming. These projects typically discover populations of sensitive species and noxious weeds as well as state and county records. Over 680,000 new collections have been obtained by graduate students, staff, and research associates of the RM. These specimens form the core of the RM Plant Specimen Database which is comprised of 830,000 specimen records, 130,000 specimen images, and 4,000 field images (Hartman, Nelson, & Legler 2009). Although additional plant collecting has been completed on the periphery of this area (Dorn 1984, Evert 2010; also see Lesica 2012 for a more detailed history of plant collecting in Montana) further floristic work was necessary. No florist inventory of this caliber has been conducted in the area. Several similar inventories have been conducted to the east, in Montana, south and southeast of the area, in Wyoming, but none are immediately adjacent to the area. Furthermore, little floristic work has been conducted in the Absaroka-Beartooth Wilderness.

DESCRIPTION OF STUDY AREA

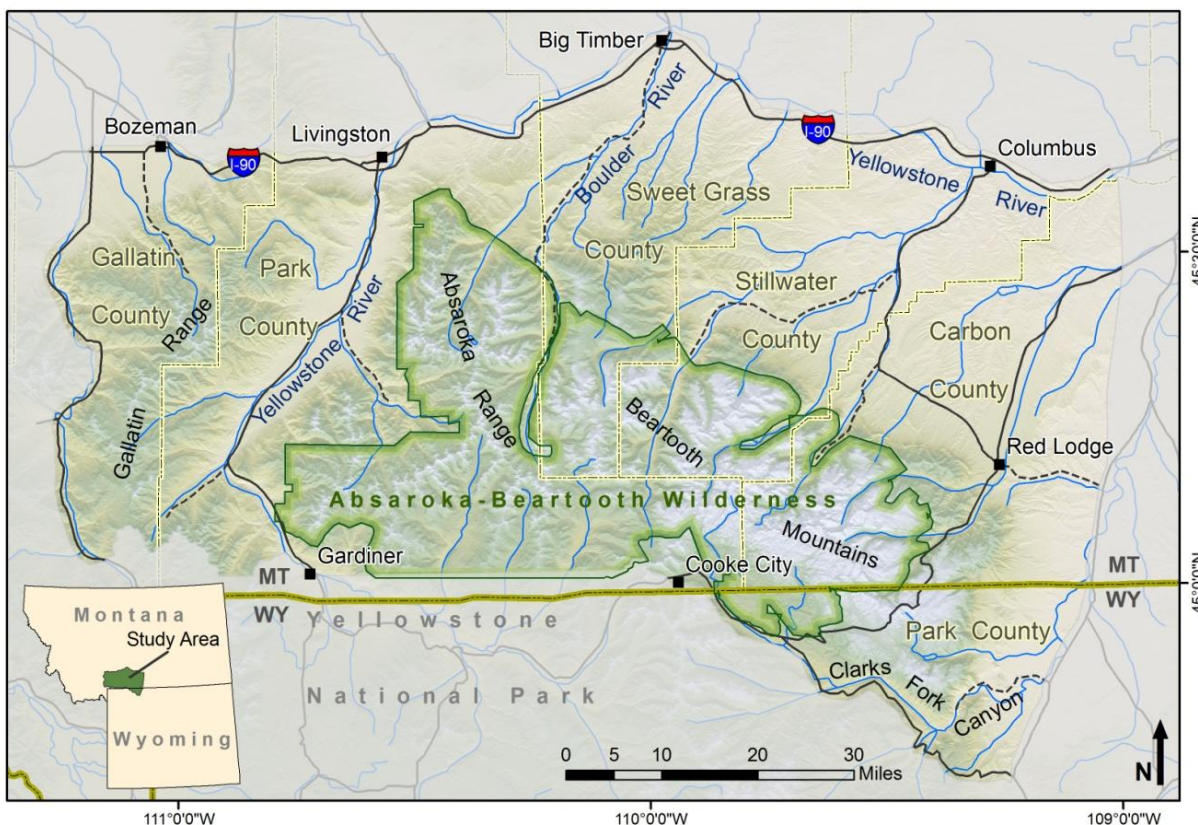


Figure 1: Map of the study area. The area is comprised of northern Absaroka, Beartooth, and Gallatin Ranges in south-central Montana and northwest Wyoming. The boundaries are I-90 on the north, U.S. 212 on the east, Clarks Fork of the Yellowstone River and the Yellowstone National Park on the south, and U.S. 191 on the west. The darker area in the middle represents the Absaroka-Beartooth Wilderness.

Boundaries – The area, northern Absaroka, Beartooth, and Gallatin Ranges in south-central Montana and northwest Wyoming (Fig. 1), covers approximately 14,336 km² (5,535 mi²). Twenty-five percent (3,626 km²; 1,400 mi²) of it is within Absaroka-Beartooth Wilderness. Elevations range from 1090–3900 m (4550-12950 ft.). The boundaries are I-90 on the north, U.S. 212 on the east, the Clarks Fork of the Yellowstone River and Yellowstone National Park on the south, and U.S. 191 on the west.

Physiographic Description – The area is comprised of mountains, plateaus, and intervening valleys of south-central Montana and northwest Wyoming. It is at the intersection of the Middle and Northern Rocky Mountains Physiographic Province (Fenneman 1931).

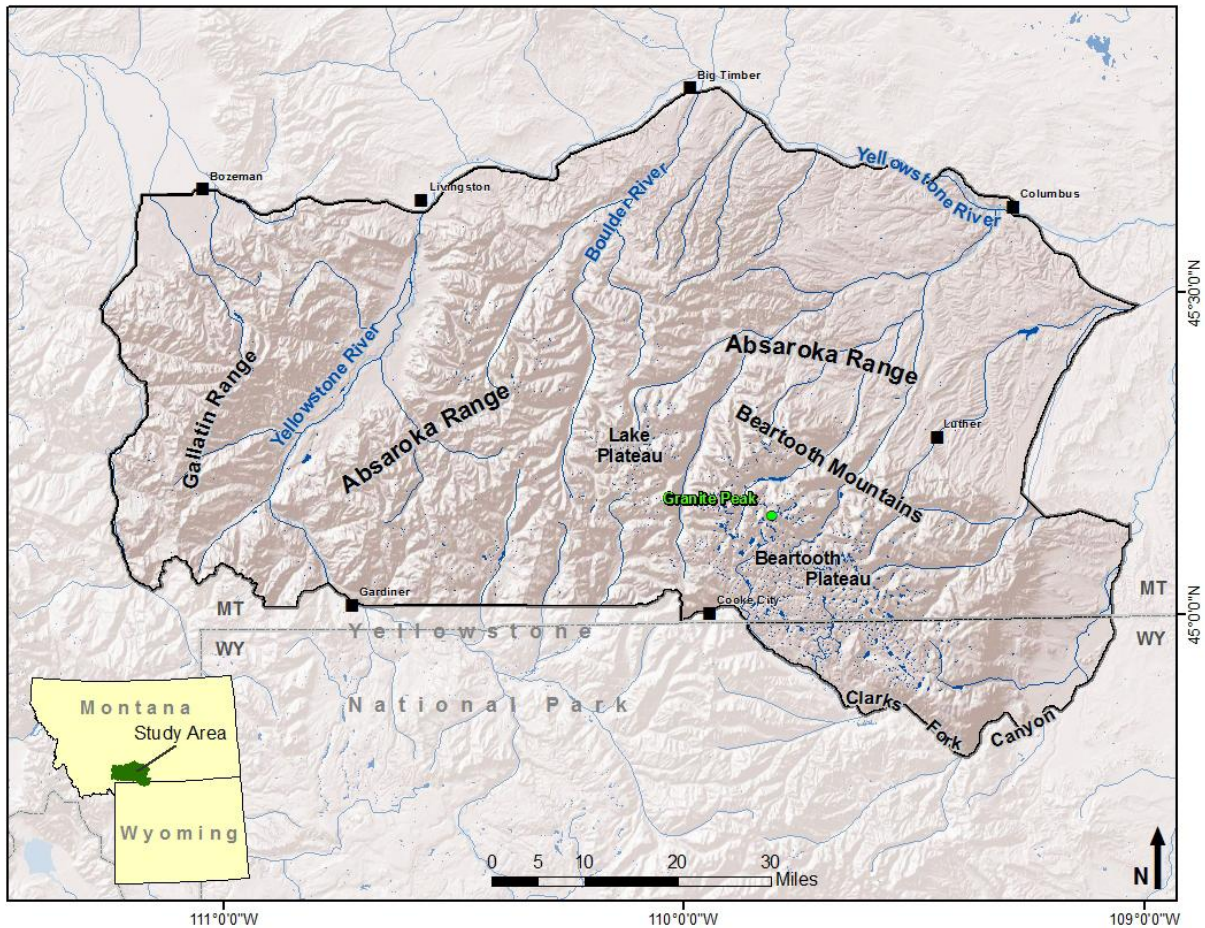


Figure 2: Physiographic map of the principle mountain ranges, plateaus, and watersheds of northern Absaroka, Beartooth, and Gallatin Ranges in south-central Montana and northwest Wyoming.

Changed Map

Mountain ranges within the area include the northern Absaroka Range in the center, the Beartooth Range in the southeast, and the Gallatin Range in the west. The mountain ranges have a north-south orientation (Fig. 2). The Absaroka Range includes Black Mountain, Mount Delano, Iron Mountain, Livingston Peak, and Mount Wallace. The Beartooth Range includes Castle Mountain, Granite Peak, Sylvan Peak, and Wapiti Mountain. Granite Peak, at 3901 m (12800

ft.), is the highest point in Montana. The Gallatin Range includes Mount Blackmore, Garnet Mountain, Palisade Mountain, Ramshorn Peak, and Wheeler Mountain. Several plateaus, including Beartooth Plateau, Hellroaring Plateau, Lake Plateau, Silver Run Plateau, and Stillwater Plateau, connect many of the mountains on the eastern portion of the area. These plateaus are at high elevations and contain u-shaped glacial valleys and cirques (Alden 1953) and are mostly covered by alpine vegetation.

The area is east of the Continental Divide, with most watersheds leading to the Yellowstone River valley. This is the main watershed for the west-central and northern portions of the area. The Yellowstone River is one of the largest rivers in the area. It flows north and then turns east at the northern border of the area and continues east and eventually flows into the Missouri River and the Gulf of Mexico. In the central portion, the Boulder River flows north into the Yellowstone River. In the eastern portion are various small creeks and streams that flow northeast into the Clarks Fork of the Yellowstone River, and then north northeast to the main Yellowstone River (Fig. 2). On the western portion is the Gallatin River. In contrast to the other rivers in the area, the Gallatin River flows north to the Missouri River and to the Gulf of Mexico.

Climate – The climate varied across the area, with the northwestern portion being hotter and drier than the southeastern portion. Livingston is at an elevation of 1370 m (4500 ft.), while Cooke City is at 2310 m (7580 ft.). In Livingston, there is an average of 38 cm (15 in) of precipitation with a peak in May and September. The average snowfall is 112 cm (44 in). Average temperatures range from a low of -9°C (15°F) to a high of 29°C (85°F), with the warmest months being June through September (Fig. 3) (National Climatic Data Center. 2014 and United States Dept. of Agriculture 2013).

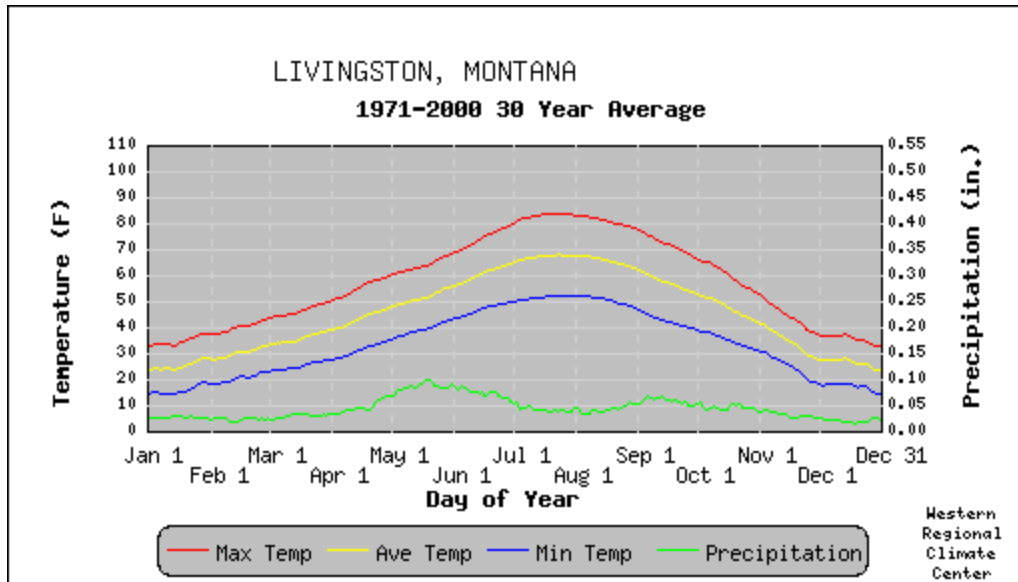


Figure 3: Average temperature and precipitation in the northwestern portion of the area between 1971 and 2000. A total of 38 cm (15 in) precipitation falls on average, with peak moisture in May and September. Average temperatures range from a low of -9°C (15°F) to a high of 29°C (85°F), with the warmest months being June through September on average.

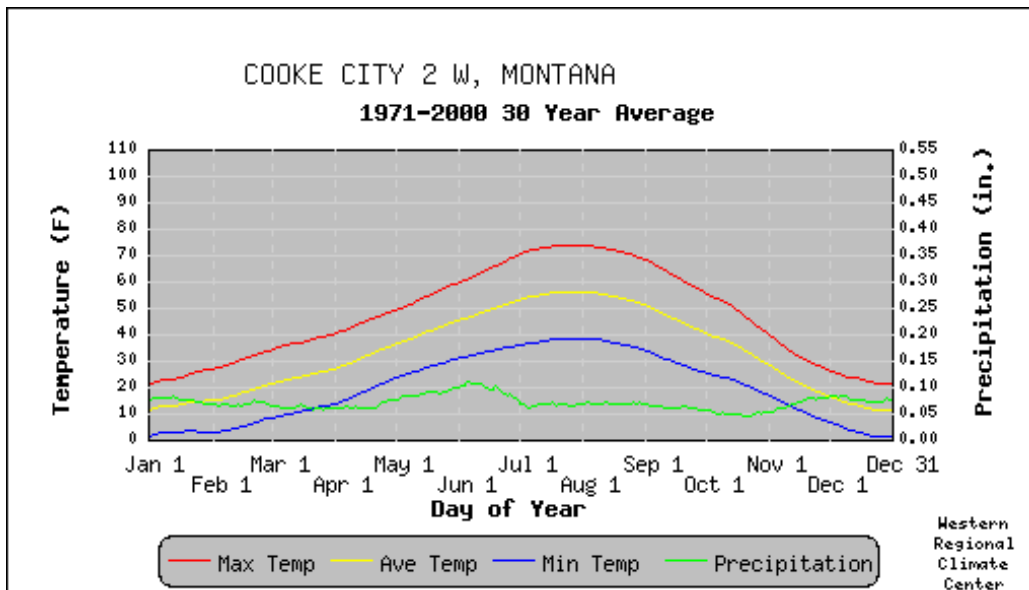


Figure 4: Average temperature and precipitation in the southeastern portion of the study area between 1971 and 2000. A total of 66 cm (26 in) of precipitation falls on average, with peak moisture in June. There is also a smaller peak of moisture in December and January on average. Average temperatures range from a low of 18°C (0°F) to a high of 23°C (73°F), with the warmest months being July and August on average.

In Cooke City, the average is 66 cm (26 in) of precipitation with a peak in June and a smaller peak in December. The average snowfall is 526 cm (207 in). The average temperatures range from a low of -18°C (0°F) to a high of 23°C (73°F), with the warmest months being July and August (Fig. 4) (National Climatic Data Center, 2014 and United States Dept. of Agriculture 2013).

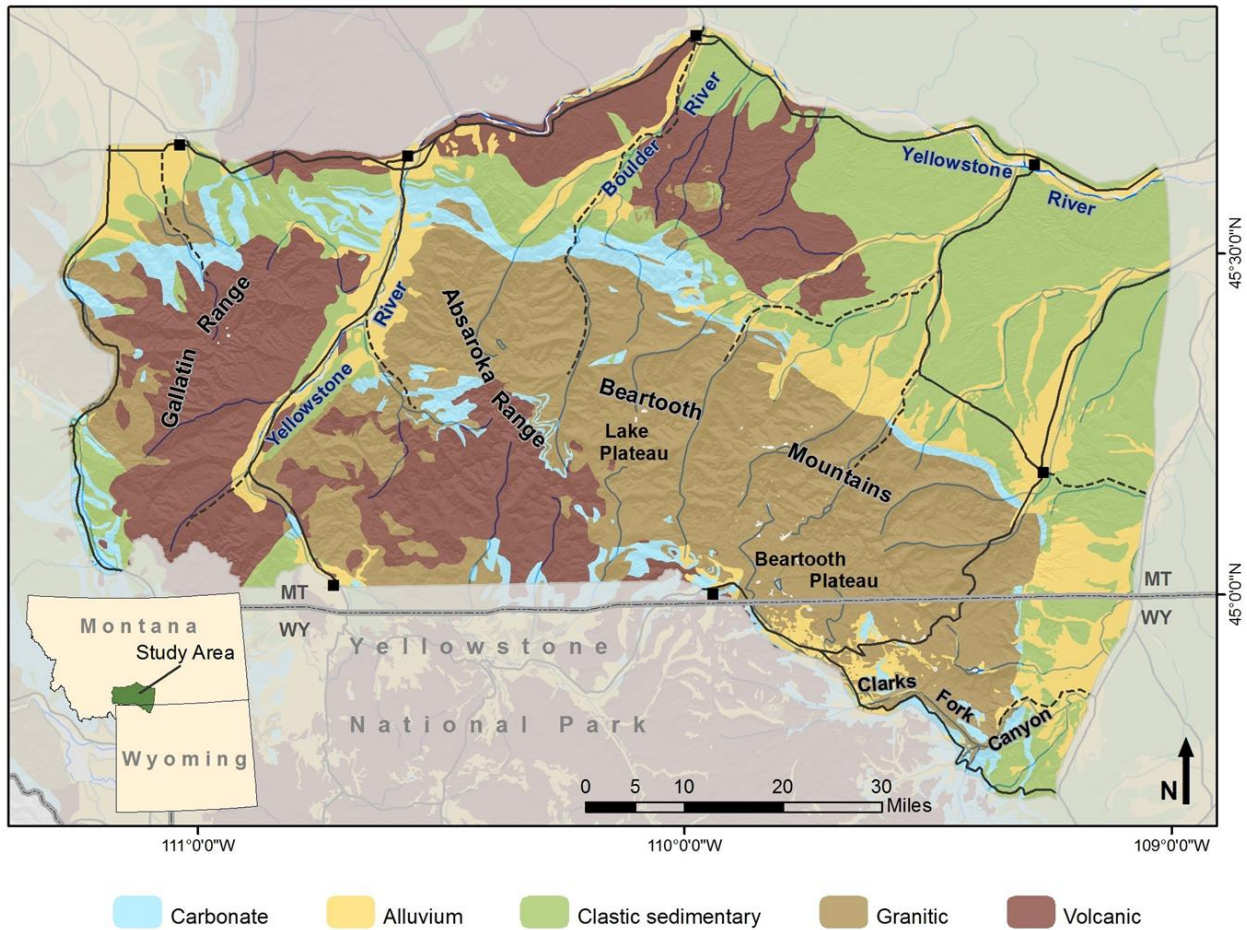


Figure 5: Map of the geology in the northern Absaroka, Beartooth, and Gallatin Ranges in south-central Montana and northwest Wyoming. The granitic core is visible in the Beartooth Mountains with sedimentary deposits skirting it. The volcanic substrates are visible in the Gallatin Range and southern part of the Absaroka Range.

Geology and Geomorphology – Much of the area is composed of sedimentary deposits, volcanic, and granite deposits (Fig. 5). Some of these granite deposits, such as those found on the Beartooth Plateau, have been dated to 3.3 billion years old. Extensive sediments, found mostly on the flanks of the ranges, were deposited between 200 and 600 million years ago (Alt & Hyndman 1986).

Between 40 and 70 million years ago the mountains were formed during the Laramide Orogeny when ancient rocks were thrust through the overlying strata. Shifting tectonic plates resulted in the formation of mountains in Montana, Wyoming, and Colorado, with a metamorphic core flanked by more recent sediments (Alt & Hyndman 1995).

Between 40 and 50 million years ago the Absaroka volcanic field formed, depositing volcanic rock, lava flows, and volcanic mud flows mostly in the vicinity of Gardner, Montana, and the Gallatin Range (Eckelmann & Polervaart 1957). In places abundant petrified wood is found in these ancient mudflows. Extensive sedimentation occurred during this period as well.

More recently, extensive ice caps formed on the plateaus during the Pinedale (10,000–70,000 years ago) and Bull Lake glaciations (130,000–175,000 years ago) (Pierce 1979). These were mountain ice cap glaciers rather than continental glaciers. These mountain ice cap glaciers flowed off the plateaus creating u-shaped glacial valleys and cirques.

Thus, ancient sedimentation followed by upthrusting granitic rock, volcanic activity, and recent glaciation have led to mountains with a core of granite flanked by sedimentary and volcanic deposits (Fig. 5).

Soils – Soil development varies widely across the landscape and is influenced by five factors: climate, organisms, topography, parent material, and time (Buol et al. 1989). At a landscape scale these factors vary in complex ways creating a mosaic of soils. Soils are classified into orders, suborders, great groups, families, and series. The broadest level, the soil order, is useful for characterizing large landscapes. Of the 12 soil orders six are found in the area: Alfisols, Aridisols, Entisols, Histosols, Inceptisols, and Mollisols (Fig. 6).

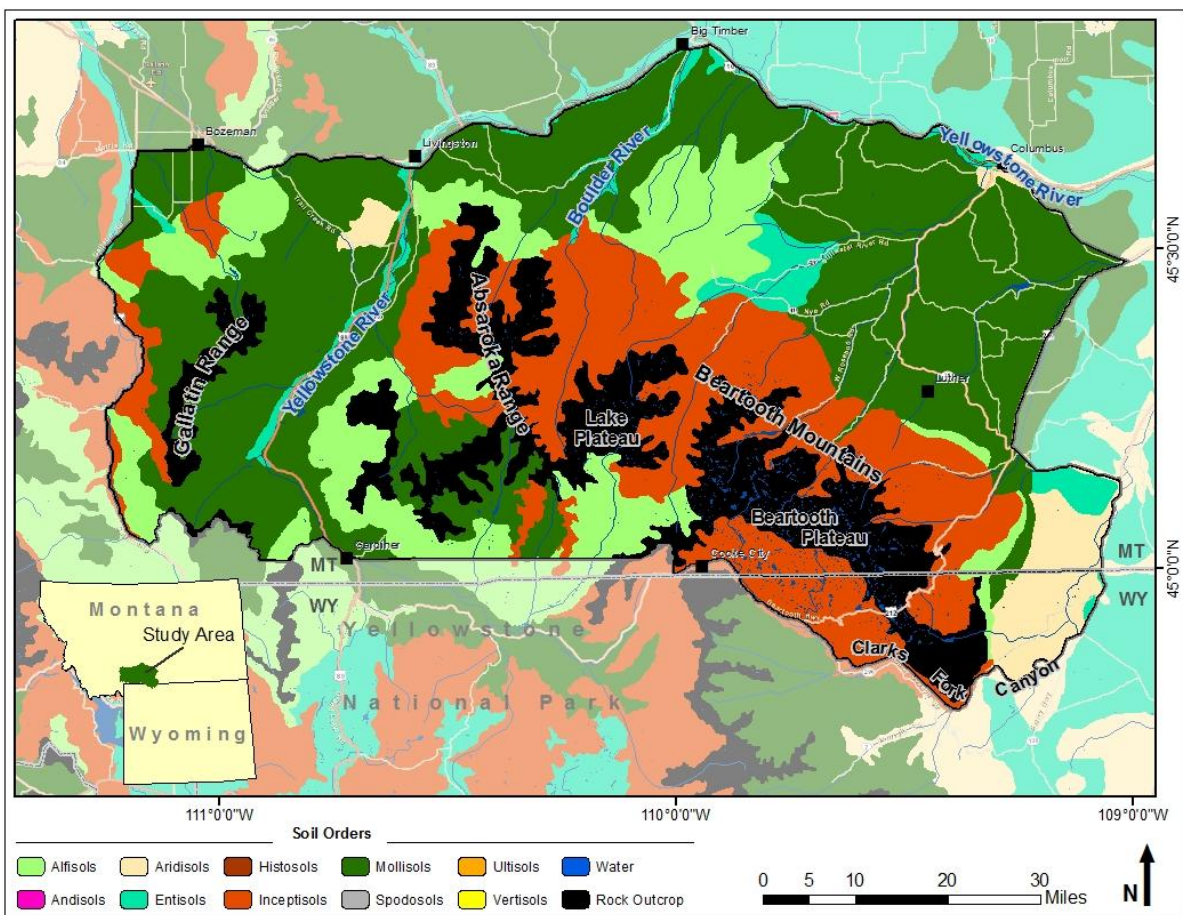


Figure 6: Map of the soil orders found in northern Absaroka, Beartooth, and Gallatin Ranges in south-central Montana and northwest Wyoming (Soil Survey Staff. 2010).

Alfisols demonstrate greater horizon development than Inceptisols and show clay accumulation in the subsoil (Soil Survey Staff 2010). They are defined by the presence of illuvial

clay layers (Bt horizon), moisture availability for over three months during the growing season, and little organic matter (Buol et al. 1989). Compared to Inceptisols, Alfisols are likely to have greater clay contents (with associated higher water storage potential), thicker horizons, and over time they may become more acidic from organic acids produced by the plant community. They are often on slopes that are less steep than those where Inceptisols occur and are often associated with forests, including mixed conifer forests and aspen stands.

Aridisols have well-developed horizons, low organic matter, and are wet for less than three consecutive months during the growing season. In aridic landscapes, Aridisols occur on low relief slopes or where a stony surface prevents erosion and there is little vegetation. Aridisols contain subsurface horizons in which clays, calcium carbonate, silica, salts, and gypsum have accumulated. These materials tend to leach from soils in moister climates. Aridisols are not common and are found at relatively low elevation and are associated with sagebrush shrubland in the area (Fig. 6).

Entisols were not common and only occur in the larger valley bottoms of the area (Fig. 6). They have had very little change from the parent material and exhibit almost no subsurface stratification (Soil Survey Staff 2010). Entisols are typically found where soil development is slowed due to climate, resistant parent material, or recurring disturbance. In the area they are associated with the floodplains and rivers.

Histosols are quite local and are not shown on the large scale soil map (Fig. 6). They are organic soils whose rate of deposition of organic material is higher than the rate of decomposition (Soil Survey Staff 2010). Soil saturation and cold temperatures prevent decomposition of organic materials. Histosols are primarily confined to small peatlands and fens

formed in glacial potholes at mid to high elevations in the mountains, cirque basins and depressions in the alpine (Chadde et al. 1998). Histosols are ecologically important, due to the unique habitat often hosting rare plant species or specialist plants that occur only in these soil types.

Inceptisols are young soils with weak profile development. They contain more diagnostic features than Entisols but lack many characters of more developed soils. They often occur on steep slopes, young glacial tills, and alpine turf (Elliott 2000). Inceptisols are common soils of high mountains or high latitudes. Many Inceptisols supporting alpine turf are acidic due to leaching from melting snowbanks and have umbric epipedons (like mollic epipedons except base saturation is less than 50%). In the area this soil is often associated with coniferous forests or alpine tundra.

Mollisols are a common soil order found in the area and surrounding bottomlands (Fig. 6). They are mineral soils with high levels of base saturation and organic matter due to decomposition of grass roots (Soil Survey Staff 2010). They are found in the foothills and bottomlands surrounding the mountain ranges and are commonly associated with grasslands. Mollisols can also develop at alpine under very cold conditions. At alpine they are typically shallow, well-drained soils covered with graminoids and diminutive forbs.

METHODS

This study examined the distribution and composition of vascular plant taxa in the area (Fig. 7) through an extensive collection of vouchers. Methods followed those employed by previous graduate students and staff (Hartman 1992). Field work was conducted during 2007 (May 21 through August 7) and 2008 (June 7 through September 1). Collections from two directed surveys on the Beartooth Plateau performed in August 2011 and September 2012 are also included (Elliott 2011 and Elliott & Elliott 2012). This study benefited from contributions of earlier collections made by various collectors during June and July 1988 (Jack C. Kademian), June through August 1990 (Marci Mangus), and June 1996 (R.L. Hartman and B.E. Nelson). A total of 13,877 collections, 89 vascular plant families, and 1,289 taxa are documented.

Several factors influenced collecting routes including, elevation, plant phenology, habitat diversity, geology, and accessibility. Due to the difficult access of the wilderness area overnight trips were taken to collect around the edges and three to four night trips were taken through the interior (consecutive collecting sites through the wilderness Fig 7.). Collecting sites focused on habitats of maximum diversity during periods of peak flowering. A meander search was performed at each site (Hartman and Nelson 2008). This allowed the investigation of small microhabitats that may harbor different plant taxa than the surrounding area. Each collecting site was documented with a Garmin etrex GPS unit and each GPS point represented specimens collected within a similar habitat. Location, elevation, habitat, and associated taxa were recorded for each of 330 collecting sites (Fig. 7).

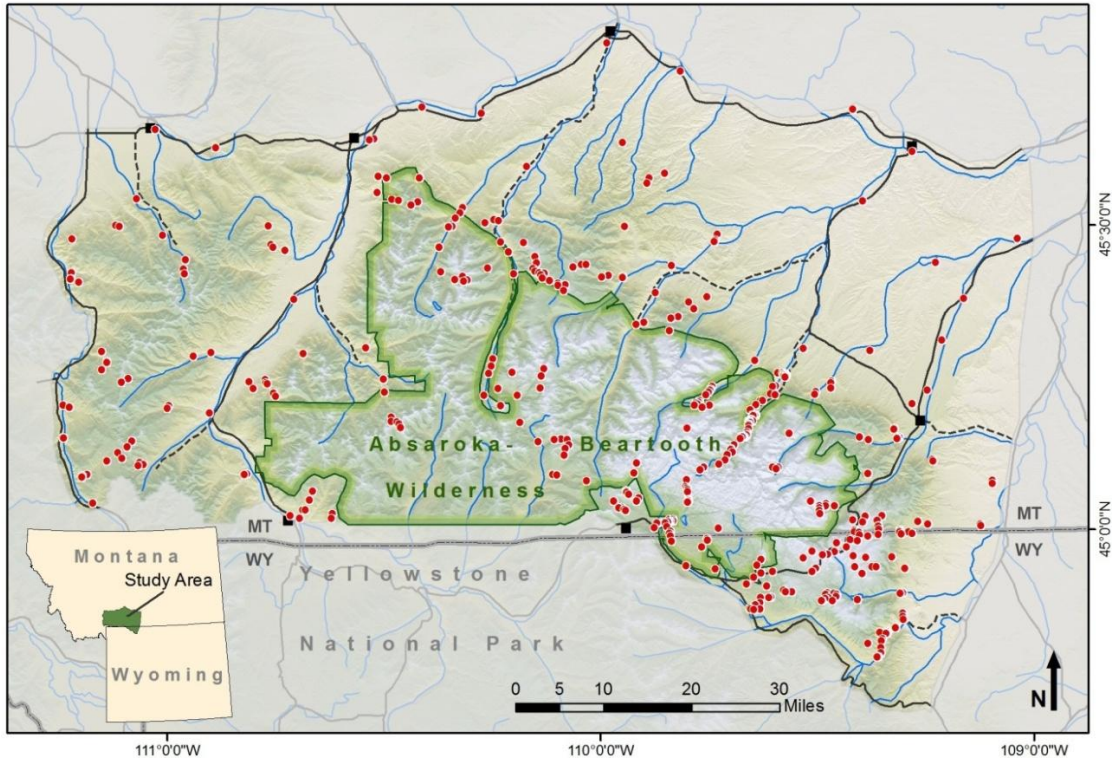


Figure 7: Map showing 330 collection sites in northern Absaroka, Beartooth, and Gallatin Ranges in south-central Montana and northwest Wyoming.

Once a collecting site was selected, all taxa in fruit or flower were collected. Vegetative collections were taken for woody taxa that could be identified without fruit or flower. All collections were placed in labeled plastic bags and then put on ice in a cooler to preserve them until they could be processed. The collections were pressed and dried at the Custer National Forest office in Red Lodge, Montana, and the Gallatin National Forest office in Livingston, Montana. The collections were later transported to the Rocky Mountain Herbarium for identification.

The collections were identified using relevant floras and monographs, then compared to authenticated material in the RM. Emily Elliott is responsible for the majority of the identifications with contributions and verifications from Dr. R.L. Hartman, Brian Elliott, B.E.

Nelson, Dr. Robert Dorn, Dr. Don Farrar, and Dr. Carolyn Ferguson. All identifications of taxa that were state records, major range extensions, or species of conservation concern (Heidel 2012, Montana Natural Heritage Program 2012a) were verified by B.E. Nelson.

All data were entered into the RM database. The database served to print labels, archive the data, and provide information to the Forest Service. It may be found at the RM's website. The original set of collections is housed at the RM and duplicate specimens have been sent to regional herbaria.

RESULTS AND DISCUSSIONS

Vegetation Types

Vegetation may be classified in many ways. The Montana Natural Heritage Program (MNHP) has broad ecological categories that are subdivided into about 100 specific types (MNHP 2012b). At the other extreme, Peter Lesica uses a five-zone classification system (Lesica 2012). In this thesis, the plant communities have been divided into seven broad categories that are subdivided into twenty-two vegetation types.

1. Alpine: Alpine occurs above 3000 m (9800 ft.) in this area. According to Lesica (2012) “Exposure and redistribution of snow by the wind are the most important determinants of vegetation above treeline”.

Alpine Tundra (alt): Turf, a subcategory of alpine tundra, is the most abundant alpine vegetation in this area. Low sedges and broad-leaved forbs, and to a lesser extent grasses, make up the dominant vegetation of turf (Lesica 2012). Common taxa include *Carex elynoides*, *C. rupestris*, and the alpine forms of *Festuca idahoensis*, *Poa alpina*, and *Trisetum spicatum*. Heath, a second subcategory of alpine tundra, is common in the southern portion of the area on the Beartooth Plateau and integrates with turf. It forms where snow lies late in the growing season, often on the lee slopes or on near-level terrain (Lesica 2012). Forbs are abundant in heath and common taxa include *Cassiope mertensiana*, *Kalmia microphylla*, *Ledum glandulosum*, *Phyllodoce empetriformis*, *P. glanduliflora*, and *Vaccinium scoparium*.

Alpine Wetland (alw): In areas of late-melting snowbanks above stream terraces and in large depressions alpine wetlands can form. Where soils are saturated for most of the growing

season wet meadows occur in depressions or on gentle terrain. Common taxa include *Caltha leptosepala*, *Carex scopulorum*, *C. paysonis*, *Deschampsia cespitosa*, *Juncus drummondii*, *Pedicularis groenlandica*, *Polygonum bistortoides*, and *Trollius albiflorus*. *Eriophorum* species, including *E. angustifolium*, *E. callitrix*, and *E. scheuchzeri*, typically inhabit these wet meadows.

2. Forest: Forests are the most common vegetation types and are found throughout the area.

Forests occur above, or are intermixed with, grasslands and shrublands. “Fire plays an important role in shaping the mosaic of grassland, shrubland, and forest” (Lesica 2012). Most of the forest vegetation types integrate and overlap and are divided into categories by dominant species.

Aspen Forest (fpt): *Populus tremuloides* groves intermingle with grasslands and conifer forests, often with *Pinus contorta* as co-dominant. Fire is essential for maintaining pure stands of *Populus tremuloides*. Aspen forests are usually associated with stream corridors or moist depressions on slopes. The understory vegetation is usually lush and consists of grasses and tall forbs. Common understory taxa include *Bromus commutatus*, *Calamagrostis canadensis*, *Elymus glaucus*, *Galium boreale*, *Geranium richardsonii*, *Maianthemum stellatum*, *Osmorhiza chilensis*, *Poa pratensis*, and *Urtica dioica* var. *procera*.

Douglas Fir Forest (fpm): *Pseudotsuga menziesii* commonly grows on warmer and drier slopes. *Pseudotsuga menziesii* forms savannas with an open understory of *Agropyron spicatum*, *Arnica latifolia*, *Bromus carinatus*, *Calamagrostis rubescens*, *Carex geyeri*, *C. rossii*, *Festuca idahoensis*, *Vaccinium membranaceum*, and *V. scoparium*.

Limber Pine Forest (fpf): *Pinus flexilis* is uncommon in the area, and usually occurs in small stands on limestone or other rock outcrops. The understory is sparse and consists of densely

caespitose forbs and scattered forbs and graminoids. Taxa found in *Pinus flexilis* understory include *Agoseris glauca* var. *dasycephala*, *Antennaria microphylla*, *Chaenactis douglasii* var. *douglasii*, *Deschampsia elongata*, *Ericameria suffruticosa*, *Erigeron caespitosus*, *Eucephalus engelmannii*, *Euphorbia brachycera*, *Hymenopappus filifolius*, *Leucopoa kingii*, *Lupinus polyphyllus* var. *humicola*, *Lygodesmia juncea*, *Musineon divaricatum*, *Phacelia heterophylla*, *Phlox hoodii*, and *Physaria didymocarpa* var. *didymocarpa*.

Lodgepole Pine Forest (fpc): *Pinus contorta* often grows in mixed stands with *Abies bifolia* and *Picea engelmannii* and intergrades to Mixed Conifer Forest. Pure stands of *Pinus contorta* are usually formed from limited yet copious seed dispersal producing “doghair” stands after fires (Porter 1962). The canopy is usually closed and the understory sparse, dominated by *Carex geyeri*, *C. rossii*, *Vaccinium scoparium*, and *Juniperus communis*. *Arceuthobium americanum* (dwarf mistletoe) is a common parasite on branches.

Mixed Conifer Forest (fmc): Mixed conifer forest is the most common forest type in this area. It is located above, or intermixed with, grasslands and shrublands and integrates with the other forest types. The dominant overstory species include *Abies bifolia*, *Picea engelmannii*, and *Pinus contorta*. The understory ranges from lush, where the soils are moist, to extremely sparse where the soils are drier. The most common understory species are *Arnica cordifolia*, *A. latifolia*, *Calamagrostis rubescens*, *Carex geyeri*, *Vaccinium membranaceum*, and *V. scoparium*.

Ponderosa Pine Forest (fpp): *Pinus ponderosa* forests are not common in this area. They are located in the lower elevations of the northeast portion. *Pinus ponderosa* forms savannas with an open understory of bunchgrasses and scattered forbs including *Agropyron spicatum*,

Anemone patens, species of *Astragalus*, *Comandra umbellata*, *Festuca idahoensis*, *Leucopoa kingii*, and *Penstemon eriantherus* var. *eriantherus*.

Spruce Fir Forest (fsf): *Picea engelmannii* and *Abies bifolia* forests are common in the area and usually grow on moist north-facing slopes and along streams. The understory in these forests consists of numerous shrubs and forbs including *Alnus viridis*, *Arnica cordifolia*, *A. latifolia*, *Chimaphila umbellata*, *Erythronium grandiflorum*, *Linnaea borealis*, *Lonicera utahensis*, *Rubus parviflorus*, *Sorbus scopulina*, *Spiraea betulifolia*, *Thalictrum occidentale*, and *Vaccinium scoparium*. In shaded areas, usually on north-facing slopes, a thick moss layer often develops.

Subalpine Fir Forest (fal): *Abies bifolia* usually grows in mixed stands with *Picea engelmannii* or *Pinus contorta* and Subalpine Fir Forests often intergrade with Mixed Conifer Forest or Spruce Fir Forest. However, krummholtz of *Abies bifolia* occasionally form at timberline. Krummholtz consist of trees that are stunted and dwarfed due to ice-scouring wind or heavy snow accumulations. They are usually sparse and discontinuous, occurring at the ecotone of forest and alpine. Common taxa in the understory are dwarf shrubs such as *Dryas hookeriana*, *Arctostaphylos uva-ursi*, and *Dasiphora fruticosa*.

White-bark Pine Forest (fpa): *Pinus albicaulis* forms pure stands at timberline, often as krummholtz. Common taxa in the understory are dwarf shrubs such as *Dryas hookeriana*, *Arctostaphylos uva-ursi*, and *Dasiphora fruticosa*.

3. Shrubland: Shrublands occur in basins and plains on the periphery of the mountains as well as throughout the mountains where forests are not established. Though easily classified in some

places, shrublands often intergrade with grasslands and little difference between the flora of each type is apparent.

Sagebrush Shrubland (sbs): Areas dominated by shrubby species of *Artemisia*, including *A. tridentata* var. *vaseyana* and *A. tridentata* var. *wyomingensis*, are included here. Sagebrush shrublands are uncommon in the area and are usually found between 1260–2800 m elevation on dry south-facing slopes. Common understory plants include *Achnatherum nelsonii*, *Balsamorhiza sagittata*, species of *Elymus* (including *E. cinereus*), *Festuca idahoensis*, *Koeleria macrantha*, *Hesperostipa comata*, *Lupinus argenteus* var. *argenteus*, *L. sericeus*, and *Oxytropis lagopus*.

4. Grasslands: Grasslands range from small forest openings to swaths of treeless vegetation and usually occur on gravelly to moderately deep soils. Cool season bunchgrasses are dominant here with a diverse forb-rich component.

Low Elevation Grassland (gle): Low elevation grasslands are not common in the area and are only found in the northern portion, near the Yellowstone River. Usually they are located between 1090–1520 m elevations on dry gentle slopes. This habitat type is highly impacted by anthropogenic disturbances and non-native taxa are common, e.g. species of *Agropyron*, *Alyssum*, *Bromus*, *Camelina microcarpa*, *Capsella bursa-pastoris*, *Descurainia sophia*, *Euphorbia esula*, *Fumaria vaillantii*, *Hyoscyamus niger*, *Lamium amplexicaule*, *Lepidium campestre*, *Linaria dalmatica*, *Malcolmia africana*, *Marrubium vulgare*, species of *Medicago* and *Melilotus*, *Saponaria officinalis*, *Schedonorus arundinaceus*, *Setaria pumila*, *Solanum dulcamara*, *Thlaspi arvense*, *Triticum aestivum*, and *Verbascum thapsus*. Several taxa were collected only in low elevation grasslands, for example *Aristida purpurea* var. *longiseta*,

Astragalus crassicaarpus, *A. flexuosus*, *Calochortus nuttallii*, *Chamaesyce glyptosperma*, *Delphinium andersonii*, *Elymus* × *saxicolus*, *Geranium carolinianum*, *Hedeoma drummondii*, *Lepidium densiflorum* var. *densiflorum*, *Leucocrinum montanum*, species of *Mentzelia*, *Oenothera albicaulis*, *Oxytropis besseyi*, *Parietaria pensylvanica*, *Parthenocissus vitacea*, *Physalis longifolia*, *Physaria parvula*, *Saponaria officinalis*, *Schedonnardus paniculatus*, and *Yucca glauca*. Common taxa include *Agoseris glauca* var. *dasycephala*, *Allium textile*, species of *Antennaria*, *Astragalus*, and *Castilleja*, *Chaenactis douglasii* var. *douglasii*, *Crepis acuminata*, *Dalea purpurea*, species of *Descurainia*, *Draba*, *Elymus*, and *Erigeron*, *Erysimum capitatum* var. *purshii*, species of *Festuca*, *Gaillardia aristata*, *Hesperostipa comata*, species of *Heterotheca*, *Lithospermum arvense*, species of *Lupinus*, *Lygodesmia juncea*, species of *Oenothera*, *Potentilla*, and *Ribes*, *Xanthisma grindelioides*.

Montane Meadow (gmm): Montane meadows include both small forest gaps as well as extensive montane grasslands found in the area. Graminoids are dominant here and include *Achnatherum nelsonii*, *Bromus carinatus*, *Carex hoodii*, *C. raynoldsii*, species of *Danthonia*, *Elymus spicatus*, *Festuca idahoensis*, *Melica spectabilis*, species of *Phleum*, and *Poa*. The forb community is diverse and includes *Achillea millefolium*, *Agoseris glauca*, species of *Antennaria* and *Boechera*, *Clematis hirsutissima*, *Collomia linearis*, *Eremogone congesta*, species of *Eriogonum*, *Geranium*, *Geum*, *Hackelia*, *Domatium*, *Myosotis*, *Penstemon*, *Phacelia*, *Phlox*, and *Potentilla*.

5. Wetlands: Wetland habitats occur at all elevations within the area from the valleys to alpine. Wetland vegetation is diverse and changes with the amount of light filtering through the overstory.

Aquatic (waq): Aquatic habitats include lakes, ponds, and reservoirs with vascular plants growing in the water. Species growing on the margins in saturated soils are documented in one of the other wetland vegetation types. Some species are found floating in water, either tethered to the soil or not, and are documented here. Taxa only found in the water include *Callitriche hermaphroditica*, *C. palustris*, *Hippuris vulgaris*, *Lemna gibba*, *L. minuta*, *L. trisulca*, *L. turionifera*, *Myosurus apetalus*, *Nuphar polysepala*, *Potamogeton amplifolius*, *Ranunculus aquatilis* var. *diffusus*, *Sparganium angustifolium*, *S. emersum*, *S. natans*, and *Utricularia minor*.

Fen (wfn): Fens are wetlands with cool, anaerobic soils that allow the accumulation of a thick horizon of partially decayed organic matter. This organic layer is called peat, which varies in depth. Many of the fens are scattered in the southern portion of the area and consist of an area of open water surrounded by a floating sedge mat and saturated soils along the edges. Fens may be found amongst meadows or spruce fir forests. Many of the plants found here are fen obligates, such as *Carex arcta*, *C. buxbaumii*, *C. lasiocarpa*, *C. limosa*, *C. paupercula*, *C. vesicaria*, *Comarum palustre*, *Glyceria borealis*, *Menyanthes trifoliata*, *Myriophyllum sibiricum*, and *Ruppia cirrhosa*. Twenty-three percent of the taxa of concern or potential concern found in this study were found in fens. For example, *Carex microglochis*, *C. vallicola*, *Drosera anglica*, *Eriophorum callitrix*, *E. chamissonis*, *E. gracile*, *E. scheuchzeri*, and *Salix candida* were found exclusively in fens. Fens are dominated by graminoids and various moss species, usually species of *Sphagnum*. Common taxa found in fens include species of *Carex*, *Eleocharis quinqueflora*, *Epilobium oregonense*, *Gentianopsis detonsa*, *Listera cordata*, *Packera indecora*, *Pedicularis groenlandica*, and species of *Platanthera*.

Riparian meadow (wrm): Wetlands that have no woody overstory are documented here. They include the margins of ponds, reservoirs, seeps, streams, gravel bars, and areas with saturated soils most of the growing season. Common taxa include *Calamagrostis canadensis*, *Carex aurea*, *C. illota*, *C. paysonis*, *C. scopulorum*, *C. utriculata*, *C. xerantica*, *Deschampsia cespitosa*, species of *Geum*, *Glyceria striata*, *Juncus balticus*, *Luzula spicata*, *Platanthera* spp., *Typha angustifolia*, and *T. latifolia*.

Riparian Shrubland (wrs): Willows are the most common dominant overstory in riparian shrublands. The canopy is variable and herbaceous species grow interspersed with the shrubs. *Salix bebbiana*, *S. glauca* var. *villosa*, and *S. planifolia* are the most common shrubs found here. Other common species growing in riparian shrublands are *Betula occidentalis*, *Caltha leptosepala*, species of *Carex*, *Deschampsia cespitosa*, *Juncus balticus*, *Mertensia ciliata*, *Pedicularis groenlandica*, species of *Platanthera*, *Swertia perennis*, and *Symphyotrichum spathulatum*.

Riparian Woodland (wrw): Numerous creeks and rivers flow through the various forest types. *Picea engelmannii* is often the dominant overstory species in conifer forests, and *Populus angustifolia* and *P. balsamifera* are the common deciduous overstory species. Common understory taxa include *Caltha leptosepala*, *Cornus sericea*, *Calamagrostis canadensis*, species of *Carex*, *Deschampsia cespitosa*, species of *Equisetum* and *Glyceria*, *Luzula parviflora*, *Mertensia ciliata*, *Mitella pentandra*, species of *Platanthera*, *Primula pauciflora*, *Mimulus lewisii*, *Saxifraga odontoloma*, *Senecio triangularis*, and *Streptopus amplexifolius*.

6. Rocky: Rocky habitats are usually small and discontinuous and found at all elevations from valleys to high alpine. Vegetation cover is usually sparse and scattered in small pockets.

Cliff and Rocks (rcr): Cliff and rock outcrops in the area consist of igneous, metamorphic, and sedimentary rocks, including limestone, and occur at all elevations from valleys to high alpine. *Aquilegia brevistyla*, *Boykinia heucheriformis*, *Carex backii*, *Chenopodium simplex*, *Delphinium andersonii*, *Descurainia nelsonii*, *Erysimum cheiranthoides*, *Festuca baffinensis*, *Kelseya uniflora*, *Linanthus pungens*, *Parietaria pensylvanica*, *Penstemon aridus*, *Phlox longifolia*, *Physaria saximontana*, *Potentilla uniflora*, and *Solidago nana* are found exclusively here. Common taxa include *Anemone patens*, species of *Antennaria*, *Besseyia wyomingensis*, species of *Boechera*, *Bupleurum americanum*, *Cerastium arvense*, species of *Cymopterus*, *Draba*, *Erigeron*, *Heuchera*, *Poa*, and *Saxifraga*. The ferns *Cheilanthes feei*, *Cryptogramma acrostichoides*, *Cystopteris fragilis*, *Pellaea glabella*, and *Woodsia scopulina* often inhabit cliffs and rocks.

Talus and Scree (rts): Talus slopes occur in the area from low elevation mountain toe slopes to high alpine ridges. Most talus slopes have a surface layer of loose rock over mineral soil. Many of the *Botrychium* spp. collected during this study were found here and *Androsace chamaejasme*, *Calamagrostis montanensis*, *Carex nova*, *Erigeron flabellifolius*, *Pedicularis parryi* var. *purpurea*, *Petrophyton caespitosum*, *Ranunculus pygmaeus*, *Selaginella watsonii* and *Tonestus lyallii* were found exclusively here. Common taxa include *Bistorta bistortoides*, *Bupleurum americanum*, *Carex elynoides*, *Elymus scribneri*, species of *Festuca* and *Penstemon*, *Phleum alpinum*, species of *Phyllodoce*, *Poa alpina* var. *alpina*, *Ranunculus eschscholtzii*, species of *Stellaria*, *Trifolium parryi*, and *Trisetum spicatum*. The ferns *Cheilanthes feei*, *Cryptogramma acrostichoides*, *Cystopteris fragilis*, and *Woodsia scopulina* often inhabit talus and scree.

7. Disturbed: Disturbed areas are common. Most of the non-native taxa and noxious weeds in the study are found in areas disturbed by humans or livestock. Disturbed sites resulting from natural events, such as seasonal flooding, microbursts of wind, or recent burns are not documented here. Burned areas with significant human impacts due to fire suppression and cleanup are included here.

Anthropogenic disturbance sites (dis): Sites with significant human disturbance are common along roads and trails, at trailheads, campgrounds, and in areas with heavy livestock use. These sites occur in a variety of habitats, from lowlands to alpine and can be very narrow, e.g. a trail corridor or road, or quite extensive. Native vegetation is often interspersed with non-native taxa and the edges are not distinct. Most of the non-native taxa and noxious weeds in the study were found in anthropogenic disturbed areas. Common taxa included *Alyssum alyssoides*, *Bromus inermis*, *B. tectorum*, *Camelina microcarpa*, *Capsella bursa-pastoris*, *Dactylis glomerata*, *Medicago lupulina*, *Phleum pratense*, *Poa bulbosa*, *Silene latifolia*, *Sisymbrium altissimum*, *Taraxacum officinale*, *Thlaspi arvense*, *Tragopogon dubius*, *Trifolium pratense*, and *Trifolium repens*.

Summary of Taxa

A total of 1,289 unique taxa from 89 vascular plant families were collected. The most diverse plant families include Asteraceae (198 taxa), Poaceae (130 taxa), Brassicaceae (97 taxa), Cyperaceae (85 taxa), and Fabaceae (71 taxa). Genera with the greatest diversity include *Carex* (74 taxa), *Ranunculus* (25 taxa), *Astragalus* (24 taxa), *Salix* (24 taxa), *Erigeron* (21 taxa), *Poa* (21 taxa), and *Potentilla* (19 taxa). Below is a summary of the plants collected during the study.

Taxa by taxonomic category:

Families	89
Genera	425
Species	833
Infraspecies	456
Putative hybrids	5
Unique taxa	1,289

Taxa by special category:

Exotic	(10.3%) 133
MT/WY noxious weeds	24
Conservation concern in MT	36
Conservation concern in WY	24
Potential conservation concern in MT	8
Potential conservation concern in WY	9
State records (MT-1, WY-2)	3

Taxa by major plant group:

Fern Allies	21	Gymnosperms	11
Ferns	10	Angiosperms	1,247

Taxa Newly Documented in Montana or Wyoming

Three taxa were collected during this study that previously had not been documented in Montana (Mincemoyer 2013, Lesica 2012) or Wyoming (USDA 2013b). In the annotated checklist these taxa are indicated by an exclamation point (!) for Montana and an inverted exclamation point (¡) for Wyoming. Taxa newly documented in Montana or Wyoming are described below.

Montana:

! *Heterotheca fulcrata* (Greene) Shinnery is documented in Arizona, Colorado, New Mexico, Utah, and Wyoming. An unpublished annotated specimen of *Heterotheca fulcrata* resides in the RM. It was collected in Meagher County, Montana. Plants in southern Idaho, northern Nevada, and northern Wyoming are atypical and easily misidentified as aberrant forms of *H. villosa*. It was collected in a roadside park, with an adjacent limestone outcrop, at an elevation between 1260–1380 m. Voucher: *R. Hartman 85506*.

Wyoming:

! *Carex aperta* Boott is documented in Alberta, British Columbia, Idaho, Montana, Oregon, and Washington. It was collected in riparian areas at elevations ranging from 1090–2930 m. Vouchers: *E. Elliott 7252, 7968, R. Hartman 85827*.

! *Galium mexicanum* Kunth var. *asperulum* (A. Gray) is documented in British Columbia, California, Idaho, Montana, Nevada, Oregon, Utah, and Washington. It was collected in riparian areas amongst meadows and woodlands at elevations ranging from 1300–1880 m. Vouchers: *B. Elliott 13654, E. Elliott 801, 870, 942, 1977, 2786, 3168, 4832, R.L. Hartman 85683*.

Taxa of Conservation Concern and Potential Conservation Concern

Based on lists maintained by the Montana Natural Heritage Program (MNHP 2012a) and Wyoming Natural Diversity Database (Heidel 2012), 62 taxa of conservation concern (TCC) and 16 taxa of potential conservation concern (TPCC) were found during this survey. These taxa are listed below. Identification of all taxa of concern (except *Botrychium* spp.) was confirmed by

B.E. Nelson, and all *Botrychium* identifications were confirmed by Dr. Don Farrar at the University of Iowa. In the annotated checklist TCC are indicated by an open diamond (◇) for TCC in Montana, an open square (□) for TPCC in Montana, a closed diamond (◆) for TCC in Wyoming, and a closed square (■) for TPCC in Wyoming. TCC and TPCC are only marked for the state where they were collected. Thus, collections made in Montana of a Wyoming TCC or TPCC are not marked and vice versa.

Montana and Wyoming:

- ◇◆ *Aquilegia formosa* var. *formosa* (**Ranunculaceae**) occurs in Alberta, British Columbia, Yukon Territory, Alaska, California, Idaho, Montana, Nevada, Oregon, Utah, Washington, and Wyoming. Plants were collected in shaded conifer forests at elevations ranging from 1710–2660 m. Vouchers: *E. Elliott* 2472, 5427, *J. Kademian* 1814, 1911.
- ◇◆ *Botrychium ascendens* (**Ophioglossaceae**) ranges from British Columbia, Ontario, and the Yukon Territory to Alaska, California, Montana, Nevada, Oregon, and Wyoming. It was collected on vegetated, alpine talus slopes and moist mossy riparian areas at elevations ranging from 2030–2980 m. Vouchers: *B. Elliott*, 14048, *E. Elliott* 6646b, 7635b.
- ◇◆ *Draba fladnizensis* var. *pattersonii* (**Brassicaceae**) is circumboreal, ranging southward to British Columbia, Utah, and Colorado. Vouchers were collected in alpine and rock outcrops at elevations ranging from 2960–3410 m. Vouchers: *B. Elliott* 14680b, *E. Elliott* 2853, 3052, 3466, 3468, 3513, 3960, 4016, 6458c, *B.E. Nelson* 73179.

- ◆◆ *Draba porsildii* var. *porsildii* (**Brassicaceae**) ranges from the Yukon Territory south to Colorado. Plants were collected in alpine meadows and limestone rock outcrops at elevations ranging from 2010–3090 m. Vouchers: *E. Elliott 6349b, B.E. Nelson 71657.*
- ◆■ *Drosera anglica* (**Droseraceae**) ranges from Alaska to California, east to Idaho, Wyoming, and the Great Lakes. It is also known from Eurasia. Plants were collected in fens with floating *Carex* mats at elevations ranging from 2130–2470 m. Vouchers: *E. Elliott 3226, 3779, 3844.*
- ◆◆ *Eriophorum callitrix* (**Cyperaceae**) is circumboreal, ranging south to Wyoming. Vouchers were collected in alpine fens with freeze-thaw soil at elevations ranging from 2940–3290 m. Vouchers: *B. Elliott, 13917, 14627, 14715, 14725, 16,255, E. Elliott 3657, 7546, R. Hartman 87897.*
- ◆◆ *Eritrichum howardii* (**Boraginaceae**) occurs in Montana and Wyoming. It was collected on limestone outcrops and debris fields at elevations ranging from 1490–2320 m. Vouchers: *R. Hartman 54661, 54678, 85482, J. Kademian 1571, B.E. Nelson 71640, 71726.*
- ◆ *Pedicularis oederi* (**Orobanchaceae**) is circumboreal, ranging south to British Columbia. It is disjunct in Montana and Wyoming. Vouchers were collected in forb and *Carex* dominated alpine habitat, often in rocky soil at elevations ranging from 2900–3570 m. Vouchers: *B. Elliott 13921, 13954, 14299, 14621, E. Elliott 2823, 3489, 5569, 5666, 6261, 6379, 6424, 7535, 7555, R. Hartman 87892, 87962.*
- ◆◆ *Pinus albicaulis* (**Pinaceae**) ranges from British Columbia and Alberta south to California, Montana, Nevada, and Wyoming. It was collected on rocky slopes in mixed conifer forests

and krumholtz at elevations ranging from 2850–3230 m. Vouchers: *B. Elliott* 14222, 14513, 14594, 14712, *E. Elliott* 1711, 2821, 3048, 3409, 3881, 6706, 7354, 7512, 7673, *R. Hartman* 87995, *B.E. Nelson* 73606, 73742.

Montana:

- ◇ *Achnatherum lettermanii* (**Poaceae**) ranges from Oregon and Montana to southern California, Arizona, and New Mexico. Plants were collected in montane grasslands at elevations ranging from 1720–2930 m. Vouchers: *E. Elliott* 362, 2289, 7331*b*.
- *Agoseris lackschewitzii* (**Asteraceae**) occurs in Idaho, Montana, and Wyoming. Plants were collected in alpine tundra and boggy areas around lakes and streams at elevations ranging from 2950–3410 m. Vouchers: *B. Elliott* 14278, *E. Elliott* 2978, 8024.
- *Aquilegia jonesii* (**Ranunculaceae**) ranges from Alberta to Montana and Wyoming. It was collected on rocky, sparsely vegetated alpine slopes at elevations ranging from 2680–2830 m. Vouchers: *E. Elliott* 5365, 6234.
- *Atriplex suckleyi* (**Amaranthaceae**) ranges from Alberta and Saskatchewan, Colorado, Montana, North and South Dakota, and Wyoming. It was collected on multicolored (gray, red, and black) clay soil between 1380–1590 m elevation. Voucher: *B. Elliott* 13632.
- ◇ *Botrychium gallicomontanum* (**Ophioglossaceae**) is thought to occur in Montana, Minnesota, and South Dakota but has only been confirmed in Minnesota. Plants were collected in a shaded, moist and mossy roadside ditch at an elevation of 2190 m. Voucher: *E. Elliott* 7635*a*.

- ◇ *Botrychium hesperium* (**Ophioglossaceae**) ranges from Alberta, British Columbia, Ontario, Saskatchewan south to Arizona, Colorado, Idaho, Michigan, Montana, Utah, and Wyoming. It was collected on vegetated talus slopes at elevations ranging from 2580–2980 m. Vouchers: *E. Elliott 6645, 6646a, 7637, 8013a.*

- ◇ *Botrychium lanceolatum* var. *lanceolatum* (**Ophioglossaceae**) ranges from Alaska across Canada to Greenland, south to Arizona and is also found in Eurasia. It was collected on alpine vegetated talus slopes at elevations ranging from 2940–3210 m. Vouchers: *E. Elliott 7142, 7638.*

- ◇ *Botrychium paradoxum* (**Ophioglossaceae**) occurs in Alberta, British Columbia, Saskatchewan, Montana, and Utah. It was collected on an alpine vegetated talus slope at an elevation of 2940 m. Voucher: *E. Elliott 7636.*

- ◇ *Botrychium pinnatum* (**Ophioglossaceae**) ranges from Alaska across Canada then south to Arizona. It was collected on a subalpine stream below talus between 2580–2820 m elevations. Voucher: *E. Elliott 8013b.*

- ◇ *Botrychium simplex* var. *simplex* (**Ophioglossaceae**) ranges from Colorado to northern Saskatchewan and westward. It was collected in a riparian meadow at an elevation of 2900 m. Voucher: *E. Elliott 8169.*

- ◇ *Botrychium spathulatum* (**Ophioglossaceae**) ranges from Alaska across Canada and south to Michigan and Montana. It was collected on a vegetated talus slope at an elevation of 2870 m. Voucher: *E. Elliott 8066b.*

- ◇ *Carex capitata* (**Cyperaceae**) ranges from Alaska across Canada to Greenland, south to California, Colorado, Montana, Nevada, New Hampshire, and Wyoming. It is also found in Mexico, South America, and Eurasia. Plants were collected in wet meadows at elevations ranging from 2900–3120 m. Vouchers: *B. Elliott 14446, E. Elliott 2876, 2913, 3031, 7783.*

- ◇ *Carex multcostata* (**Cyperaceae**) occurs in California, Idaho, Montana, Nevada, Oregon, Utah, and Washington. Plants were collected in alpine and subalpine meadows at elevations ranging from 1720–2930 m. Vouchers: *E. Elliott 3933, 7356.*

- ◇ *Carex neurophora* (**Cyperaceae**) occurs in Colorado, Idaho, Montana, Oregon, Washington, and Wyoming. It was collected in moist meadows with streams at elevations ranging from 2010–2620 m. Vouchers: *E. Elliott 3732, 4117.*

- ◇ *Carex stevenii* (**Cyperaceae**) occurs in Colorado, Idaho, Montana, New Mexico, Utah, and Wyoming. It was collected along streams at elevations ranging from 2050–3230 m. Vouchers: *E. Elliott 1773, 2970, 3452.*

- ◇ *Carex vallicola* (**Cyperaceae**) ranges from British Columbia southward through the western United States to Mexico. It was collected around fens and floating *Carex* mats at elevations ranging from 1680–2730 m. Vouchers: *E. Elliott 218, 3252, 3765, 5158, 5940.*

- *Delphinium bicolor* ssp. *calcicola* (**Ranunculaceae**) is endemic to Montana. It was collected on talus below a limestone cliff and in open lodgepole pine/Douglas fir woods with rich forb understory at elevations ranging from 1600–2570 m. Vouchers: *E. Elliott 5766, B.E. Nelson 71416.*

- ◇ *Draba crassa* (**Brassicaceae**) is a regional endemic of south-central Montana, western Wyoming, northeastern Utah, and Colorado. It was collected in alpine talus fields at elevations ranging from 3410–3720 m. Voucher: *B. Elliott 14364*.

- ◇ *Draba ventosa* (**Brassicaceae**) ranges from the Yukon Territory south to Colorado. Plants were collected in alpine meadows and rock outcrops at elevations ranging from 3000–3340 m. Vouchers: *B. Elliott 14456, R. Hartman 87847, 87972*.

- ◇ *Erigeron eatonii* var. *eatonii* (**Asteraceae**) ranges from Arizona north to Montana. It was collected in a rocky, sunny opening at an elevation between 2300–2730 m. Voucher: *E. Elliott 5980*.

- ◇ *Erigeron grandiflorus* (**Asteraceae**) ranges from Arizona north to Montana, Alberta, and British Columbia. Plants were collected in the subalpine and alpine on vegetated talus slopes and in sparsely vegetated, rocky alpine at elevations ranging from 2810–3720m. Vouchers: *B. Elliott 13961, 14294, 14301, 14367, 14391, 14537, 14597, 14637, E. Elliott 2887, 3028, 3043, 3441, 3477, 4013, 4015, 5589, 5606, 5627, 5833, 5858, 6317, 6321, 6383, 6434, 6611, 6661, 6666, 6668, 7052, 7063, 7554, 7576, 7705, R. Hartman 87815, 87818, 87723, 87746, 87926, 87964, 87993, 88073, 88057, J. Kademian, 1594, 2129, B.E. Nelson 73171*

- ◇ *Gentianopsis simplex* (**Gentianaceae**) ranges from British Columbia south to California, Idaho, Montana, Nevada, Oregon, Utah, and Washington. Plants were collected in riparian areas and wet meadows at elevations ranging from 2300–2820 m. Vouchers: *E. Elliott 7846, 8070, 8208*.

- ◇ *Mimulus floribundus* (**Phrymaceae**) ranges from Alberta and British Columbia south to California and New Mexico. It was collected in a slough area at an elevation between 1740–1740 m. Voucher: *E. Elliott 6874*.

- *Mimulus suksdorfii* (**Phrymaceae**) ranges from Washington and Idaho southward to California, Arizona, Utah, and Colorado. It was collected on steep slopes and rock outcrops or talus slopes at elevations ranging from 1760–2370 m. Vouchers: *E. Elliott 582, 1336, 1722, 4296*.

- *Musineon vaginatum* (**Apiaceae**) is a regional endemic of western and south-central Montana and north-central Wyoming. Plants were collected in recently burned areas of either limestone outcrops or volcanic tuff cliffs and surrounding slopes at elevations ranging from 1430–1710 m. Vouchers: *E. Elliott 882, 856, R. Hartman 85645*.

- ◇ *Physaria didymocarpa* var. *lanata* (**Brassicaceae**) is a regional endemic of north-central Wyoming and adjacent Montana. It was collected on slopes with scattered *Pinus flexilis* and *Pseudotsuga menziesii*, often in old burned areas at elevations ranging from 1430–2010 m. Vouchers: *B. Elliott 13789, E. Elliott 893, B.E. Nelson 71403, 71775*.

- ◇ *Physaria saximontana* (**Brassicaceae**) is endemic to Montana. It was collected on slopes below rock outcrops and dolomite cliffs at elevations ranging from 1830–2830 m. Vouchers: *E. Elliott 5032, 5374*.

- ◇ *Potentilla nivea* var. *pentaphylla* (**Rosaceae**) ranges from British Columbia to Saskatchewan, southward to Oregon, Utah, and Colorado. It was collected on rocky alpine slopes at

elevations ranging from 3170–3340 m. Vouchers: *R. Hartman 87829, 87981, B.E. Nelson 71679*.

- ◇ *Potentilla plattensis* (**Rosaceae**) ranges from Alberta to Manitoba southward to Arizona and New Mexico. It was collected in montane grassland at an elevation between 1680–1800 m. Voucher: *E. Elliott 207*.
- ◇ *Ranunculus hyperboreus* (**Ranunculaceae**) ranges from Alaska across Canada to Greenland, south to Colorado, Idaho, Montana, Nevada, Utah, and Wyoming in North America. It is also found in Eurasia. Plants were collected in alpine wetlands at elevations ranging from 3100–3570 m. Vouchers: *B. Elliott 14625, 14656, E. Elliott 3658, 7618, 7618, R. Hartman 87940*.
- ◇ *Ranunculus pedatifidus* var. *affinis* (**Ranunculaceae**) ranges from Alaska across Canada to Greenland, south to Arizona, Colorado, Montana, Utah, and Wyoming. A voucher was collected in forb dominated alpine at an elevation between 2870–3080 m. Voucher: *B. Elliott 13992a*.
- *Sanicula graveolens* (**Apiaceae**) is known from British Columbia, northwestern California, and Montana in North America. It is also found in southern South America. It was collected in a montane park at an elevation of 1980 m. Voucher: *B.E. Nelson 71521*.
- ◇ *Thelypodium paniculatum* (**Brassicaceae**) occurs in Colorado, Idaho, Montana, and Wyoming. It was collected in a wet, sedge dominated, valley floor at an elevation between 2010–2570 m. Voucher: *E. Elliott 5730*.
- ◇ *Vaccinium myrtillus* var. *oreophilum* (**Ericaceae**) ranges from Alberta and British Columbia south to Arizona and New Mexico. It also occurs in Greenland, Europe, and Japan. It was

collected on a steep, moist, mossy north-facing slope in mixed conifer forest at an elevation between 2070–2170 m. Voucher: *E. Elliott 1425*.

Wyoming:

- ◆ *Agrostis mertensii* (**Asteraceae**) is circumboreal, ranging from Alaska across Canada to Newfoundland and Greenland, southward in the mountains to Wyoming and Colorado in the west, and West Virginia, Tennessee, and North Carolina in the east. It also grows in arctic Europe, Scandinavia, the mountainous regions of Mexico, and northwestern South America. Plants were collected in subalpine meadows and alpine tundra at elevations ranging from 2950–3570 m. Vouchers: *E. Elliott 2871, 3559, 7598, 8051*.
- ◆ *Amerorchis rotundifolia* (**Orchidaceae**) ranges from Greenland to Canada, Alaska, and the northern United States. Plants were collected in shady, wet spruce bogs at elevations ranging from 2030–2120 m. Vouchers: *B. Elliott 14082, 16142*.
- *Antennaria aromatica* (**Asteraceae**) is endemic to the northern Rocky Mountains. It was collected on steep, dolomite and limestone talus and scree below limestone cliffs at elevations ranging from 1710–2320 m. Vouchers: *R. Hartman 54682, J. Kademian 1573, B.E. Nelson 71654*.
- ◆ *Aquilegia brevistyla* (**Ranunculaceae**) ranges from Canada and Alaska to Montana, South Dakota, and Wyoming. A specimen was collected in mixed conifer forest with granitic rock outcrops at an elevation between 2960–3320 m. Voucher: *B. Elliott 13664b*.
- ◆ *Carex concinna* (**Cyperaceae**) ranges from Alaska across Canada south to Colorado, Michigan, Montana, Oregon, Wisconsin, and Wyoming. It was collected on a sandy, rocky,

river shore with standing water amongst willows at an elevation of 2120 m. Voucher: *E. Elliott 562*.

- ◆ *Carex luzulina* var. *atropurpurea* (**Cyperaceae**) occurs in Idaho, Montana, and Wyoming. Plants were collected in alpine wetlands at elevations ranging from 1720–2930 m. Vouchers: *E. Elliott 7542, 7624*.
- ◆ *Carex microglochin* (**Cyperaceae**) ranges from Alaska across Canada to Greenland, south to Colorado, Utah, and Wyoming. It is also found in Eurasia. It was collected on a floating sedge mat in a fen at an elevation between 2130–2480 m. Voucher: *E. Elliott 3251*.
- ◆ *Draba globosa* (**Brassicaceae**) is a regional endemic of southwestern Montana, central Colorado, northern Utah, and Wyoming. Vouchers were collected in alpine and rock outcrops at elevations ranging from 2940–3350 m. Vouchers: *E. Elliott 6347, 6458a*.
- ◆ *Draba paysonii* var. *paysonii* (**Brassicaceae**) ranges from southwestern Montana to northwestern Wyoming. Plants were collected in alpine and rock outcrops at elevations ranging from 2870–3350 m. Vouchers: *B. Elliott 14678, E. Elliott 5646, 5873, 6266, 6418, 6462, 6464, 6465, 7153, 7513, R. Hartman 87958a, 88067*.
- ◆ *Draba paysonii* var. *treleasii* (**Brassicaceae**) is a regional endemic known from southwestern Montana and northwestern Wyoming. A voucher was collected in an alpine rock outcrop at an elevation between 3050–3100 m. Voucher: *R. Hartman 87890*.
- ◆ *Draba porsildii* var. *brevicula* (**Brassicaceae**) ranges from the Yukon Territory south to Colorado. A voucher was collected in alpine at an elevation between 3230–3350 m. Voucher: *E. Elliott 6458a*.

- *Erigeron flabellifolius* (**Asteraceae**) occurs in Montana and Wyoming. It was collected in an alpine meadow at an elevation of 3000 m. Voucher: *B. Elliott 14450*.

- ◆ *Erigeron humilis* (**Asteraceae**) ranges from Greenland to Canada, Alaska, Colorado, Idaho, Montana, Utah, and Wyoming in North America and is also known from northern Eurasia. It was collected on a grassy northwest-facing hillside in the forest at an elevation between 2820–2950 m. Voucher: *J. Kademian 2211*.

- *Eriophorum chamissonis* (**Cyperaceae**) ranges from northern Eurasia to Greenland across Canada to Alaska. It extends southward to Colorado, Idaho, Minnesota, Montana, Nebraska, North Dakota, Oregon, Utah, Washington, Wisconsin, and Wyoming. Plants were collected in moist, boggy meadows and floating *Carex* mats at elevations ranging from 2130–2670 m. Vouchers: *E. Elliott 3254, 3830, 7970, 8088, 8090, 8164*.

- *Eriophorum gracile* (**Cyperaceae**) is circumboreal, ranging south to California, Nevada, Utah, Colorado, Illinois, and Pennsylvania. Plants were collected in fens with a floating *Carex* mat at elevations ranging from 2130–2480 m. Vouchers: *E. Elliott 3255, 3831*.

- ◆ *Eriophorum scheuchzeri* (**Cyperaceae**) ranges from Greenland to Canada, Alaska, Colorado, Montana, Utah, Washington, and Wyoming in North America and is also known from northern Eurasia. It was collected in an alpine wetland at an elevation between 3170–3290 m. Voucher: *B. Elliott 14658*.

- ◆ *Koenigia islandica* (**Polygonaceae**) ranges from Greenland to Canada, Alaska, Colorado, Montana, Utah, and Wyoming in North America. It is also known from southern South America (Argentina and Chile), northern Europe, and Asia. Plants were collected in alpine

fens with freeze-thaw soil sorting at elevations ranging from 3170–3290 m. Vouchers: *B. Elliott* 14629, 14651, 16252, 16253, 16254, 16256, 16257, 16258, 16259, 16260, 16264.

- *Pinus flexilis* (**Pinaceae**) ranges from Alberta and British Columbia south to Arizona and New Mexico. Plants were collected in mixed conifer forests, often with *Abies bifolia* and *Pseudotsuga menziesii* var. *glauca* at elevations ranging from 1370–2950 m. Vouchers: *B. Elliott* 13826, 14146, *E. Elliott* 133, 274, 922, 980, 1202, 1611, 1923, 1995, 4352, 5364, 5999, 6210, 6771, *R. Hartman* 54676, 85547, *J. Kademian* 1463, 1610, 2195, *B.E. Nelson* 71406, 71627, 71675, 73755.
- ◆ *Pyrocoma carthamoides* var. *subsquarrosa* (**Asteraceae**) occurs in Montana and Wyoming. It was collected on the slope of a pine-covered point with clay and igneous rock at an elevation between 1500–1750 m. Voucher: *B.E. Nelson* 38280.
- ◆ *Salix barrattiana* (**Salicaceae**) ranges from Alaska, western Canada, and south to Montana and Wyoming. It was collected on an alpine stream bank at an elevation between 3050–3100 m. Voucher: *R. Hartman* 87904.
- ◆ *Salix candida* (**Salicaceae**) is found in Alaska, Canada, and most of the northern United States. It reaches its southern most distribution in Colorado. Populations in the lower 48 states are usually small and disjunct. It was collected in a wet sedge meadow surrounding a floating bog at an elevation between 2340–2370 m. Voucher: *E. Elliott* 578.
- ◆ *Selaginella watsonii* (**Selaginellaceae**) occurs in Arizona, California, Idaho, Montana, Nevada, Oregon, Utah, and Wyoming. Vouchers were collected in rocky alpine areas and

talus slopes at elevations ranging from 3000–3340 m. Vouchers: *B. Elliott* 14416, 16249, 16250, 16261, 16262, 16263, *R. Hartman* 87965.

- *Utricularia minor* (**Lentibulariaceae**) is circumboreal, ranging from Alaska to Greenland, south to California, Arizona, and eastward to New Jersey. It is also known from Eurasia. Populations in the lower 48 states are usually small and disjunct. A voucher was collected in a fen surrounded by a floating *Carex* mat at an elevation between 2130–2480 m. Voucher: *E. Elliott* 3225.

Exotic Taxa and Noxious Weeds

One hundred and thirty-three taxa not native to North America (USDA 2013b) were collected, comprising 10.3% of the total taxa found during this study. Of the total 13,875 collections made during this study 1,208 (8.7%) were exotic. These taxa are indicated in the annotated checklist by an asterisk (*). Of the 48 taxa recognized as noxious weeds by the Montana Noxious Weeds Program (Montana Noxious Weed Program. 2013) and the Wyoming Weed and Pest Council (Wyoming Weed and Pest Council 2012), twenty-four taxa (50%) were documented in this study. Of the total, 13,875 collections made in this study 162 (1.2%) were noxious weeds.

Noxious weeds collected in the study include: *Arctium minus*, *Berteroa incana*, *Cardaria draba*, *Cardaria pubescens*, *Carduus nutans*, *Centaurea stoebe* ssp. *micranthos*, *Cirsium arvense*, *Convolvulus arvensis*, *Cynoglossum officinale*, *Elaeagnus angustifolia*, *Elymus repens*, *Euphorbia esula* var. *uralensis*, *Hesperis matronalis*, *Hyoscyamus niger*, *Hypericum perforatum*, *Leucanthemum vulgare*, *Linaria dalmatica* var. *dalmatica*, *L. vulgaris*, *Onopordum acanthium*, *Polygonum aviculare*, *Ranunculus acris*, *Sonchus arvensis* ssp. *uliginosus*, *Tanacetum vulgare* and *Verbascum thapsus*. In the annotated checklist these taxa are indicated by a closed circle (●).

The most widespread and common of these noxious weeds are *Cynoglossum officinale* (35 collections), *Cirsium arvense* (16 collections), *Berteroa incana* (13 collections) and *Polygonum aviculare* (12 collections). Of the twenty-four noxious weeds found, nine taxa (*Cardaria draba*, *Carduus nutans*, *Cirsium arvense*, *Cynoglossum officinale*, *Elaeagnus angustifolia*, *Elymus repens*, *Hesperis matronalis*, *Leucanthemum vulgare*, and *Ranunculus acris*) were found in meadows and riparian areas with little or no evidence of recent human activity. These taxa were also found along roadsides and in clear-cuts or burns. *Arctium minus*, *Berteroa incana*, *Cardaria pubescens*, *Centaurea stoebe* ssp. *micranthos*, *Convolvulus arvensis*, *Euphorbia esula* var. *uralensis*, *Hyoscyamus niger*, *Hypericum perforatum*, *Linaria dalmatica* var. *dalmatica*, *L. vulgaris*, *Onopordum acanthium*, *Polygonum aviculare*, *Sonchus arvensis* ssp. *uliginosus*, *Tanacetum vulgare*, and *Verbascum thapsus* were documented exclusively in disturbed sites.

CONCLUSIONS

This inventory expanded the floristic knowledge of south-central Montana and northwestern Wyoming with the addition of 13,877 voucher specimens, from 330 sites, documenting 1,289 unique taxa, 833 species, and 425 genera from 89 families. Many of these collections were made in the wilderness area, quite distant from previous floristic collecting efforts. Twenty-two vegetation types found are described in the study, covering elevations ranging from 1090–3720 m (3600–11,300 ft.). One hundred and thirty-three taxa exotic to North America (USDA 2013b) were collected, comprising 10.3% of the total taxa found during this study. In comparison, three other recent floristic studies in Montana and Wyoming (Charboneau 2013, Lukas 2012, Stewart 2014) found the percent exotic species to be 14.2%, 9%, and 6.6%, respectively. Two new taxa for Wyoming (*Carex aperta*, *Galium mexicanum* var. *asperulum*) and one for Montana (*Heterotheca fulcrata*) were documented. Sixty-two taxa of conservation concern and sixteen taxa of potential conservation concern were also documented. Increasing knowledge regarding the abundance and distribution of taxa in the area, especially for species of conservation concern as well as exotic species, is crucial to developing a floristic baseline.

ANNOTATED CHECKLIST

The following annotated checklist of 1,289 taxa is based on 13,877 collections. The checklist is divided into four main groups: FERN ALLIES, FERNS, GYMNOSPERMS, and ANGIOSPERMS. Within these groups, plant families are listed alphabetically, as are the scientific names. Nomenclature follows the RM Plant Specimen Database (Hartman et al. 2009). Number of collections, state or states, county, elevation range in meters (rounded to the nearest ten), and habitat types where each taxon was collected are provided. Collection data are available online at <http://www.rmh.uwyo.edu>.

The following guide explains format and abbreviations used in the annotated checklist.

Counties:

Montana (MT); Carbon (Car), Gallatin (Gal), Park (Mpk), Stillwater (Stw), Sweet Grass (Swg)
Wyoming (WY); Park

Habitat type:

alt	Alpine Tundra	fpm	Douglas Fir Forest
alw	Alpine Wetland	gle	Low Elevation Grassland
dis	Disturbed	gmm	Montane Meadow
fal	Subalpine Fir Forest	sbs	Sagebrush Shrubland
fmc	Mixed Conifer Forest	rcr	Cliff and Rocks
fpa	Whitbark Pine Forest	rts	Talus and Scree
fpc	Lodgepole Pine Forest	waq	Aquatic
fpf	Limber Pine Forest	wfn	Fen
fpp	Ponderosa Pine Forest	wrm	Riparian meadow
fpt	Aspen Forest	wrs	Riparian Shrubland
fsf	Spruce Fir Forest	wrw	Riparian Woodland

Symbols preceding taxon:

! Montana State record	¡ Wyoming State record
◇ Taxon of Conservation Concern in MT	◆ Taxon of Conservation Concern in WY
□ Taxon of Potential Conservation Concern in MT	■ Taxon of Potential Conservation Concern in WY
● Noxious weed in Montana or Wyoming	× Hybrid
* Introduced from outside North America	

MAJOR GROUP

Family

Symbol *Taxon* with Authority (**number collected**) State; County; Elevation range in meters;
Habitat type

FERN ALLIES

Equisetaceae

- × *Equisetum* ×*ferrissii* Clute (**2**) MT; Gal, Mpk; 1300–1840 m; dis, fmc, wrm, wrw
- × *Equisetum* ×*nelsonii* (A. A. Eaton) J. H. Schaffn. (**1**) MT; Mpk; 1780–2060 m; fmc, wrw
- Equisetum arvense* L. (**52**) MT; Car, Gal, Mpk, Stw, Swg; WY; 1350–2930 m; dis, fmc, fsf, gmm, wrm, wrw
- Equisetum hyemale* L. var. *affine* (Engelm.) A. A. Eaton (**13**) MT; Gal, Mpk, Swg; 1610–2620 m; dis, fmc, fsf, wrm, wrw
- Equisetum laevigatum* A. Braun (**18**) MT; Car, Gal, Mpk, Stw; WY; 1090–2570 m; dis, wrm
- Equisetum variegatum* Schleich. ex F. Weber & D. Mohr var. *variegatum* (**4**) MT; Gal; 1870–2570 m; wrm, wrw

Isoëtaceae

Isoëtes bolanderi Engelm. (**4**) MT; Mpk, Swg; WY; 2320–3270 m; alw, wrm

Lycopodiaceae[^]

Lycopodium annotinum L. (**3**) MT; Gal, Mpk, Swg; 1610–2880 m; dis, fal, fsf, wsb

Ophioglossaceae

- ◆◆ *Botrychium ascendens* W. H. Wagner (**3**) MT; Mpk, Swg; WY; 2030–2980 m; alt, dis, fmc, rts, wrm
- ◇ *Botrychium gallicomontanum* Farrar & Johnson-Groh (**1**) MT; Mpk; 2190 m; dis, fmc
- ◇ *Botrychium hesperium* (Maxon & R. T. Clausen) W. H. Wagner & Lellinger (**4**) MT; Mpk, Swg; 2580–2980 m; alt, rts, wrm
- ◇ *Botrychium lanceolatum* (S. G. Gmel.) Angstr. var. *Lanceolatum* (**2**) MT; Mpk, Swg; 2940–3210 m; alt, rts
- Botrychium lunaria* (L.) Sw. (**1**) MT; Car; 2580 m; gmm, wrm
- Botrychium minganense* Vict. (**4**) MT; Car, Mpk; 2580–2870 m; gmm, rts, wrm
- ◇ *Botrychium paradoxum* W. H. Wagner (**1**) MT; Swg; 2940 m; rts
- ◇ *Botrychium pinnatum* H. St. John (**1**) MT; Mpk; 2580–2820 m; rts, wrm
- ◇ *Botrychium simplex* E. Hitchc. var. *Simplex* (**1**) MT; Swg; 2900 m; gmm, wrm
- ◇ *Botrychium spathulatum* W. H. Wagner (**1**) MT; Mpk; 2870 m; rts

Selaginellaceae

- Selaginella densa* Rydb. (**33**) MT; Car, Gal, Mpk, Stw, Swg; WY; 1400–3250 m; alt, dis, gmm, sbb, rcr, rts
- ◆ *Selaginella watsonii* Underw. (**2**) WY; 3000–3340 m; alt, rts

FERNS

Dryopteridaceae

- Athyrium filix-femina* (L.) Roth ex Mert. var. *californicum* Butters (7); Gal, Mpk, Stw, Swg; 1740–2380 m; dis, fsf, gmm, wrm
- Cystopteris fragilis* (L.) Bernh. (73) MT; Car, Gal, Mpk, Stw, Swg; WY; 1610–3570 m; alt, dis, fmc, fsf, gmm, ssb, rcr, rts, wrm
- Dryopteris expansa* (C. Presl) Fraser-Jenk. & Jermy (1) MT; Swg; 2300–2730 m; fsf
- Gymnocarpium dryopteris* (L.) Newman (1) MT; Mpk; 1610–2880 m; fsf
- Polystichum lonchitis* (L.) Roth (2) MT; Mpk; 1740–2380 m; dis, fsf
- Woodsia oregano* D. C. Eaton (6) MT; Car, Mpk; WY; 1580–2380 m; dis, fsf, ssb, wrm, wrw
- Woodsia scopulina* D. C. Eaton (21) MT; Car, Gal, Mpk, Stw, Swg; WY; 1430–2990 m; dis, fmc, rcr, rts

Pteridaceae

- Cheilanthes feei* T. Moore (14) MT; Car, Gal, Mpk, Stw; WY; 1380–3110 m; rcr, rts, vsp
- Cryptogramma acrostichoides* R. Br. (16) MT; Car, Mpk, Stw, Swg; WY; 1610–3410 m; alt, fmc, fsf, gmm, rcr, rts
- Pellaea glabella* Mett. ex Kuhn var. *occidentalis* (E. E. Nelson) Butters (9) MT; Car, Gal, Stw; WY; 1380–2470 m; rcr

GYMNOSPERMS

Cupressaceae

- Juniperus communis* L. var. *depressa* Pursh (49) MT; Car, Gal, Mpk, Stw, Swg; WY; 1590–3230 m; dis, fmc, fpa, fpc, fpf, fsf, fpm, gmm, ssb, rcr, rts, wrw
- Juniperus horizontalis* Moench (20) MT; Car, Mpk, Stw, Swg; WY; 1500–2990 m; dis, fpm, gmm, sps, ssb, rcr
- Juniperus scopulorum* Sarg. (41) MT; Car, Gal, Mpk, Stw, Swg; WY; 1300–3110 m; dis, fmc, fsf, fpm, gmm, ssb, rcr, rts

Pinaceae

- Abies bifolia* A. Murray bis (37) MT; Car, Gal, Mpk, Stw, Swg; WY; 1610–3570 m; alt, dis, fmc, fpa, fsf, vsp, wrm, wrw
- Picea engelmannii* Parry ex Engelm. var. *engelmannii* (64) MT; Car, Gal, Mpk, Stw, Swg; WY; 1460–3230 m; alt, dis, fmc, fsf, rts, wsb, wrw
- Picea glauca* (Moench) Voss (7) MT; Car, Mpk, Stw, Swg; WY; 1680–3000 m; alw, fmc, fsf, wsb, wrw
- ◆ *Pinus albicaulis* Engelm. (16) MT; Car, Gal, Mpk, Stw, Swg; WY; 2850–3230 m; alt, fmc, fpa, wrw
- Pinus contorta* Douglas ex Loudon var. *latifolia* Engelm. (47) MT; Car, Gal, Mpk, Stw, Swg; WY; 1590–2990 m; dis, fmc, fpc, wrw
- *Pinus flexilis* E. James (24) MT; Car, Gal, Mpk, Stw, Swg; WY; 1370–2950 m; dis, fmc, fpc, wrw
- Pinus ponderosa* C. Lawson & P. Lawson var. *scopulorum* Engelm. (9) MT; Car, Stw,

Swg; 1430–2220 m; fmc, fpp, wrw
Pseudotsuga menziesii (Mirb.) Franco var. *glauca* (Beissn.) Franco (39) MT; Car, Gal, Mpk, Stw, Swg; WY; 1430–3110 m; dis, fmc, fpm, fsf, wrw

ANGIOSPERMS

Adoxaceae

Sambucus nigra L. ssp. *canadensis* (L.) R. Bolli (7) MT; Car, Gal, Mpk, Stw; 1780–2980 m; dis, fmc, gmm
Sambucus racemosa L. var. *melanocarpa* (A. Gray) McMinn (6) MT; Gal, Mpk, Stw, Swg; 1710–2850 m; dis, fmc, fpf, gmm, wrm

Alliaceae

Allium brandegeei S. Watson (1) WY; 2040–2320 m; fmc
Allium brevistylum S. Watson (15) MT; Gal, Mpk, Stw, Swg; WY; 1690–2800 m; fmc, fsf, gmm, rcr, wrm, wrw
Allium cernuum Roth var. *obtusum* Cockerell ex J. F. Macbr. (25) MT; Car, Gal, Mpk, Stw, Swg; WY; 1430–3050 m; alt, dis, fmc, fpt, gmm, ssb, wrw
Allium geyeri S. Watson var. *tenerum* M. E. Jones (1) MT; Mpk; 1940 m; wrm
Allium schoenoprasum L. (8) MT; Car, Mpk; WY; 2440–3100 m; alt, gmm, wrm
Allium textile A. Nelson & J. F. Macbr. (35) MT; Car, Mpk, Stw, Swg; WY; 1260–3110 m; dis, fmc, gle, ssb, wrm
Triteleia grandiflora Lindl. (4) MT; Mpk, Stw; 1780–2060 m; gmm, ssb

Amaranthaceae

- * *Amaranthus albus* L. (1) MT; Swg; 1350 m; dis
- * *Amaranthus blitoides* S. Watson (2) MT; Swg; 1350–1610 m; dis
- Atriplex confertifolia* (Torr. & Frém.) S. Watson (1) MT; Car; 1260–1310 m; ssb
- Atriplex gardneri* (Moq.) D. Dietr. var. *gardneri* (4) MT; Car; WY; 1260–1590 m; ssb, vsp
- *Atriplex suckleyi* (Torr.) Rydb. (1) WY; 1380–1590 m; vsp
- * *Chenopodium album* L. var. *album* (3) MT; Gal, Mpk; 1310–2570 m; dis, fmc
- Chenopodium atrovirens* Rydb. (1) MT; Mpk; 2010–2620 m; fsf
- Chenopodium berlandieri* Moq. var. *zschackei* (Murr) Murr ex Asch. (1) MT; Swg; 1610–1610 m; wrm
- Chenopodium fremontii* S. Watson (2) MT; Mpk; WY; 1760–2320 m; fmc, rcr
- Chenopodium rubrum* L. var. *rubrum* (2) MT; Mpk, Swg; 1680–2800 m; fmc, wrw
- Chenopodium simplex* (Torr.) Raf. (1) MT; Mpk; 1760–1830 m; rcr
- * *Halogeton glomeratus* (M. Bieb.) C. A. Mey. (3) MT; Car; WY; 1260–1590 m; ssb
- * *Kochia scoparia* (L.) Schrad. (2) MT; Mpk, Swg; 1310–1350 m; dis
- Krascheninnikovia lanata* (Pursh) A. Meeuse & A. Smit (3) MT; Car; WY; 1260–2010 m; ssb, vsp
- Monolepis nuttalliana* (Schult.) Greene (10) MT; Car, Mpk, Stw, Swg; WY; 1220–3110 m; dis, gmm, ssb, vsp
- * *Salsola tragus* L. (1) MT; Swg; 1350 m; dis

Anacardiaceae

Rhus trilobata Nutt. var. *trilobata* (17) MT; Car, Mpk, Stw; WY; 1160–2320 m; dis, fmc, ssb, rcr, wrm

Toxicodendron rydbergii (Small ex Rydb.) Greene (6) MT; Car, Mpk, Stw; WY; 1350–1840 m; dis, rcr, wrm

Apiaceae

Angelica arguta Nutt. (5) MT; Gal, Mpk, Stw; 1790–2270 m; wrm, wrs

Angelica pinnata S. Watson (8) MT; Gal, Mpk; WY; 1870–2930 m; fsf, gmm, wrm, wrw

Bupleurum americanum J. M. Coult. & Rose (33) MT; Car, Mpk, Stw, Swg; WY; 1980–3570 m; alt, alw, dis, fmc, gmm, ssb, rcr, rts, wrw

* *Carum carvi* L. (10) MT; Car, Gal, Mpk, Stw; 1520–2060 m; dis, gmm, wrm

Cymopterus acaulis (Pursh) Raf. (7) MT; Car, Mpk; 1260–3110 m; dis, gmm, ssb, wrm

Cymopterus longilobus (Rydb.) W. A. Weber (15) MT; Car, Mpk; 1400–3190 m; alt, alw, dis, rts, wrm, wrw

Cymopterus nivalis S. Watson (9) MT; Gal, Mpk; 1650–2830 m; alt, dis, fmc, ssb, rcr, wrm

Cymopterus terebinthinus (Hook.) Torr. & A. Gray var. *albiflorus* (Torr. & A. Gray) M. E. Jones (14) MT; Car, Mpk; 1370–2320 m; dis, fmc, ssb, rcr, rts, wrm

Heracleum maximum Bartr. (36) MT; Car, Gal, Mpk, Stw, Swg; WY; 1350–2850 m; dis, fmc, fsf, gmm, ssb, rcr, wrm, wrs, wrw

Lomatium ambiguum (Nutt.) J. M. Coult. & Rose (3) MT; Mpk; 2050–2530 m; gmm

Lomatium cous (S. Watson) J. M. Coult. & Rose (52) MT; Car, Gal, Mpk, Stw, Swg; WY; 1490–3410 m; alt, alw, dis, fmc, fsf, gle, gmm, ssb, rts, wrm, wrw

Lomatium dissectum (Nutt.) Mathias & Constance var. *multifidum* (Nutt.) Mathias & Constance (18) MT; Car, Gal, Mpk, Stw, Swg; 1620–2330 m; dis, fmc, fpt, gmm, ssb, rcr, wrm, wrw

Lomatium foeniculaceum (Nutt.) J. M. Coult. & Rose var. *foeniculaceum* (3) MT; Car, Mpk; 1260–2020 m; gmm, ssb, wrm

Lomatium macrocarpum (Nutt. ex Torr. & A. Gray) J. M. Coult. & Rose (4) MT; Car, Mpk; 1480–2360 m; dis, gmm, ssb, wrm

Lomatium orientale J. M. Coult. & Rose (2) MT; Car; WY; 1300–3110 m; dis, gmm, ssb, wrm

Lomatium triternatum (Pursh) J. M. Coult. & Rose var. *platycarpum* (Torr.) Boivin (33) MT; Car, Gal, Mpk, Stw, Swg; WY; 1380–3110 m; dis, fmc, gmm, ssb, rcr, wrm

Musineon divaricatum (Pursh) Nutt. ex Torr. & A. Gray (21) MT; Car, Mpk, Stw; WY; 1160–2200 m; dis, fmc, fpt, gmm, ssb, rcr, wrm

□ *Musineon vaginatum* Rydb. (3) MT; Stw; 1430–1710 m; dis

Osmorhiza chilensis Hook. & Arn. (11) MT; Car, Gal, Mpk, Stw; 1480–2820 m; dis, fmc, fpt, fsf, wrm, wrw

Osmorhiza depauperata Phil. (22) MT; Car, Gal, Mpk, Stw, Swg; 1600–2930 m; dis, fmc, fsf, gmm, wrm, wrw

Osmorhiza occidentalis (Nutt. ex Torr. & A. Gray) Torr. (4) MT; Gal, Mpk; 1710–2100 m; fmc, gmm, wrm

* *Pastinaca sativa* L. (1) MT; Gal; 1730–1740 m; dis, wrm

Perideridia montana (Blank.) Dorn (17) MT; Car, Gal, Mpk, Stw, Swg; WY; 1590–2930

m; dis, fmc, fpt, fsf, gmm, ssb, wrw

- *Sanicula graveolens* Poepp. ex DC. (1) MT; Mpk; 1980 m; gmm
- Sanicula marilandica* L. (2) MT; Mpk; WY; 1590–1770 m; mdf, wrm

Apocynaceae

- Apocynum androsaemifolium* L. (16) MT; Car, Gal, Mpk, Stw; WY; 1350–2380 m; dis, fmc, gmm, rcr, wrm, wrw
- Apocynum cannabinum* L. (5) MT; Car, Gal, Mpk; 1090–2130 m; dis, fmc, ssb, wrm
- Asclepias speciosa* Torr. (3) MT; Car, Mpk, Swg; 1090–1350 m; dis, gmm, wrm
- Asclepias viridiflora* Raf. (4) WY; 1370–1920 m; dis, gmm, wrm, wrw,

Araceae

- Lemna gibba* L. (2) MT; Mpk; 1690–1740 m; waq
- Lemna minuta* Kunth (1) WY; 2050 m; waq
- Lemna trisulca* L. (2) MT; Mpk; 1690–1740 m; waq
- Lemna turionifera* Landolt (4) MT; Car, Swg; 1330–1610 m; waq

Asparagaceae

- Leucocrinum montanum* Nutt. ex A. Gray (1) MT; Mpk; 1430 m; gle, vsp
- Maianthemum racemosum* (L.) Link var. *amplexicaule* (Nutt.) Dorn (41) MT; Car, Gal, Mpk, Stw, Swg; WY; 1590–2330 m; dis, fmc, fsf, gmm, ssb, rcr, rts, wrm, wrw
- Maianthemum stellatum* (L.) Link (40) MT; Car, Gal, Mpk, Stw, Swg; WY; 1430–2470 m; dis, fmc, fpm, fpt, fsf, gmm, ssb, rcr, rts, wrm, wrs, wrw
- Yucca glauca* Nutt. (4) MT; Car, Mpk, Swg; WY; 1160–1400 m; dis, gle, wrm

Asteraceae

- Achillea millefolium* L. (22) MT; Car, Gal, Mpk, Stw, Swg; WY; 1090–3570 m; alt, alw, dis, fpc, fpf, fpt, gmm, ssb, wrm
- Agoseris aurantiaca* (Hook.) Greene var. *aurantiaca* (3) MT; Car, Gal, Mpk, Swg; WY; 1830–3110 m; alw, dis, fmc, fpc, fsf, gmm, rts, wrm, wrw
- Agoseris glauca* (Pursh) Raf. var. *dasycephala* (Torr. & A. Gray) Jeps. (80) MT; Car, Gal, Mpk, Stw, Swg; WY; 1300–3720 m; alt, dis, fmc, fpc, gle, gmm, ssb, rcr, rts, wrm
- Agoseris glauca* (Pursh) Raf. var. *glauca* (1) WY; 1800–2010 m; vsp, wrm
- *Agoseris lackschewitzii* D. M. Hend. & R. Moseley (3) MT; Mpk, Stw; WY; 2950–3410 m; alt, rts, wrm
- Agoseris parviflora* (Nutt.) D. Dietrich (5) MT; Mpk, Stw; WY; 1400–2320 m; dis, fmc, fpt, gmm, ssb, rcr
- Anaphalis margaritacea* (L.) Benth. & Hook. (25) MT; Car, Gal, Mpk, Stw, Swg; WY; 1590–3320 m; dis, fmc, fpc, fsf, wrm, wrw
- Antennaria anaphaloides* Rydb. (15) MT; Car, Gal, Mpk, Stw, Swg; 1650–2570 m; dis, gmm, ssb, wrm
- *Antennaria aromatica* Evert (4) MT; Car; WY; 1710–2320 m; rcr, rts
 - Antennaria corymbosa* E. E. Nelson (18) MT; Car, Mpk, Swg; WY; 1780–3120 m; alt, alw, dis, fmc, fpc, fsf, gmm, wfn, wrm
 - Antennaria howellii* Greene ssp. *howellii* (2) MT; Stw, Swg; 1740–1820 m; dis, rcr

- Antennaria lanata* (Hook.) Greene (**53**) MT; Car, Mpk, Stw, Swg; WY; 1610–3410 m; alt, alw, dis, gmm, rts, wrm
- Antennaria media* Greene (**19**) MT; Car, Mpk, Stw, Swg; WY; 1940–3720 m; alt, dis, gmm, wrm, wrs
- Antennaria microphylla* Rydb. (**25**) MT; Car, Gal, Mpk, Stw, Swg; WY; 1300–3110 m; dis, fmc, fpf, fpt, gle, gmm, ssb, rcr, rts, wrm
- Antennaria parvifolia* Nutt. (**19**) MT; Car, Gal, Mpk, Stw, Swg; WY; 1370–3110 m; dis, fmc, gle, gmm, ssb, rcr, wrm, wrs
- Antennaria pulcherrima* (Hook.) Greene (**1**) MT; Car; 2440–2930 m; fmc, gmm
- Antennaria racemosa* Hook. (**21**) MT; Car, Gal, Mpk, Swg; 1610–2930 m; dis, fmc, fsf, gmm, wrm
- Antennaria rosea* Greene (**48**) MT; Car, Gal, Mpk, Stw, Swg; WY; 1160–3380 m; alt, dis, fmc, fpf, fpt, gle, gmm, ssb, rcr, rts, wrm
- Antennaria umbrinella* Rydb. (**32**) MT; Car, Mpk, Stw, Swg; WY; 1680–3570 m; alt, dis, gmm, ssb, rts, wrm
- * *Arctium minus* Bernh. (**3**) MT; Mpk, Stw; WY; 1430–2270 m; dis, fpc, rcr, wrm
- Arnica chamissonis* Less. (**17**) MT; Car, Gal, Mpk, Stw, Swg; WY; 1350–2980 m; alt, alw, dis, fmc, fpc, fsf, gmm, wrm
- Arnica cordifolia* Hook. (**43**) MT; Car, Gal, Mpk, Stw, Swg; WY; 1600–2850 m; dis, fmc, fpt, fsf, gmm, rcr, wrm, wrw
- Arnica fulgens* Pursh (**13**) MT; Car, Gal, Mpk, Stw, Swg; WY; 1620–3350 m; alt, dis, fmc, gmm, ssb, rts, wrm
- Arnica gracilis* Rydb. (**5**) MT; Car; WY; 2470–3190 m; alt, fsf, rts
- Arnica lanceolata* Nutt. ssp. *prima* (Maguire) Strother & S. J. Wolf (**4**) MT; Gal, Mpk, Stw; WY; 1610–2880 m; alw, fpc, fsf, gmm, wrm
- Arnica latifolia* Bong. (**36**) MT; Car, Gal, Mpk, Stw, Swg; WY; 2450–3320 m; alt, dis, fmc, fpa, fsf, gmm, rts, wrm
- Arnica longifolia* D. C. Eaton (**9**) MT; Car, Mpk, Swg; WY; 1800–2900 m; dis, fmc, fpc, fsf, gmm, ssb, wrm
- Arnica mollis* Hook. (**32**) MT; Car, Gal, Mpk, Swg; WY; 1430–320 m; alt, alw, dis, fsf, gle, gmm, wfn, wrm, wrs
- Arnica parryi* A. Gray (**8**) MT; Car, Mpk, Swg; 2320–2930 m; fmc, fsf, gmm, wrm
- Arnica rydbergii* Greene (**1**) WY; 3050–3230 m; alt
- Arnica sororia* Greene (**21**) MT; Car, Mpk, Stw, Swg; WY; 1300–3410 m; alt, dis, fmc, gmm, ssb, rts, wrw
- * *Artemisia absinthium* L. (**1**) MT; Swg; 1830–1910 m; dis, ssb
- Artemisia borealis* Pallas ssp. *borealis* (**7**) MT; Car, Stw; WY; 2560–3050 m; alt, alw, dis, fmc, rts
- Artemisia campestris* L. var. *pacifica* (Nutt.) M. Peck (**2**) MT; Swg; 1350–1610 m; dis, wrm
- Artemisia cana* Pursh var. *cana* (**1**) MT; Stw; 1100 m; dis, wrm
- Artemisia dracuncululus* L. (**1**) MT; Gal; 1870–1930 m; vsp
- Artemisia frigida* Willd. (**8**) MT; Car, Gal, Mpk; WY; 1310–3230 m; alt, dis, gmm, rts, wrm
- Artemisia longifolia* Nutt. (**1**) WY; 1710–2320 m; ssb
- Artemisia ludoviciana* Nutt. var. *incompta* (Nutt.) Cronquist (**6**) MT; Gal, Mpk, Stw;

- 1760–2820 m; dis, fmc, fpc, rcr, rts, wrm
Artemisia ludoviciana Nutt. var. *ludoviciana* (5) MT; Mpk, Swg; WY; 1310–2590 m; dis, fpc, fpt, wrm
Artemisia michauxiana Besser (14) MT; Car, Mpk, Stw, Swg; WY; 1400–3000 m; alt, fmc, fpf, gle, gmm, ssb, rcr, rts, wrm, wrw
Artemisia pedatifida Nutt. (2) MT; Car; 1260–1380 m; ssb, vsp
Artemisia scopulorum A. Gray (33) MT; Car, Mpk, Stw, Swg; WY; 2870–3720 m; alt, alw, gmm, rts, wrm
Artemisia tridentata Nutt. var. *vaseyana* (Rydb.) B. Boivin (4) MT; Car, Gal, Mpk; WY; 1300–2590 m; dis, gmm, wrm
Artemisia tridentata Nutt. var. *wyomingensis* (Beetle & Young) S. L. Welsh (6) MT; Car, Gal, Mpk, Swg; WY; 1780–2800 m; dis, gmm, ssb, vsp
Balsamorhiza incana Nutt. (5) MT; Car; 1300–2200 m; dis, fpf, gmm, ssb, wrm
Balsamorhiza sagittata (Pursh) Nutt. (34) MT; Car, Gal, Mpk, Stw, Swg; WY; 1650–2800 m; dis, gmm, ssb, wrm
Brickellia grandiflora (Hook.) Nutt. (3) MT; Mpk, Stw; 1590–1830 m; fmc, rcr, rts, wrw
●* *Carduus nutans* L. (7) MT; Gal, Mpk, Stw; 1430–2200 m; dis, fmc, fpt, fsf, gmm, rcr, vsp
●* *Centaurea stoebe* L. ssp. *micranthos* (S. G. Gmelin ex Gugler) Hayek (8) MT; Gal, Mpk, Stw, Swg; 1310–2470 m; dis, fmc, ssb, rcr, wrm
Chaenactis douglasii (Hook.) Hook. & Arn. var. *alpina* A. Gray (4) MT; Car, Mpk, Stw; WY; 2850–3240 m; alt, fmc, rts
Chaenactis douglasii (Hook.) Hook. & Arn. var. *douglasii* (12) MT; Car, Mpk, Stw, Swg; WY; 1160–2320 m; dis, fmc, fpf, gle, gmm, ssb, rcr, rts, wrm
Chrysothamnus viscidiflorus (Hook.) Nutt. var. *lanceolatus* (Nutt.) Greene (1) MT; Gal; 1870–1930 m; vsp
●* *Cirsium arvense* (L.) Scop. (16) MT; Car, Gal, Mpk, Stw, Swg; 1590–2930 m; dis, fmc, fpc, fpt, fsf, gmm, wrm, wrw
Cirsium eatonii (A. Gray) B. L. Rob. var. *murdockii* S. L. Welsh (23) MT; Car, Gal, Mpk, Stw, Swg; WY; 1610–3320 m; alt, dis, fpc, fsf, gmm, rcr, rts, wrm
Cirsium scariosum Nutt. var. *coloradense* (Rydb.) D. J. Keil (4) MT; Gal; WY; 2010–2930 m; dis, fmc, gmm, wrm
Cirsium undulatum (Nutt.) Spreng. (4) MT; Mpk, Stw; WY; 1490–1890 m; dis, fpt, ssb
* *Cirsium vulgare* (Savi) Ten. (7) MT; Gal, Mpk, Stw, Swg; 1590–2110 m; dis, fmc, fpm, fpt, fsf, ssb, wrm, wrw
Conyza canadensis (L.) Cronquist (1) MT; Swg; 1610–1610 m; dis
Crepis acuminata Nutt. (10) MT; Car, Mpk, Swg; WY; 1160–2800 m; dis, fmc, gle, gmm, ssb, vsp
Crepis atribarba A. Heller (3) WY; 1840–2320 m; fmc, fpt, gmm, ssb, vsp
Crepis elegans Hook. (1) MT; Stw; 2350–2850 m; fmc
Crepis intermedia A. Gray (3) MT; Gal, Mpk; 1730–2100 m; dis, fmc, gmm, wrm
Crepis modocensis Greene var. *modocensis* (23) MT; Car, Gal, Mpk, Stw, Swg; WY; 1260–2410 m; dis, fmc, gmm, ssb, rcr, wrm, wrw
Crepis occidentalis Nutt. var. *costata* A. Gray (9) MT; Car, Mpk, Stw; WY; 1300–2060 m; dis, fmc, ssb, wrm
Crepis occidentalis Nutt. var. *nevadensis* Kellogg (3) MT; Car, Swg; 1830–2220 m; dis,

- fmc, vsp
- Crepis runcinata* (E. James) Torr. & A. Gray var. *hispidulosa* J. T. Howell ex Rydb. (1) MT; Stw; 1880 m; gmm
- Crepis runcinata* (E. James) Torr. & A. Gray var. *runcinata* (4) MT; Car, Stw; 1880–3190 m; alt, fsf, gmm, wrm
- Dieteria canescens* (Pursh) Nutt. var. *canescens* (1) MT; Mpk; 1310 m; dis, wrm
- Ericameria nauseosa* (Pall. ex Pursh) G. L. Nesom & G. I. Baird var. *nauseosa* (1) MT; Mpk; 1310 m; dis, wrm
- Ericameria nauseosa* (Pall. ex Pursh) G. L. Nesom & G. I. Baird var. *oreophila* (A. Nelson) G. L. Nesom & G. I. Baird (1) MT; Gal; 1870–1930 m; vsp
- Ericameria suffruticosa* (Nutt.) G. L. Nesom (1) MT; Mpk; 2620–2980 m; fpf, gmm
- Erigeron acris* L. var. *kamtschaticus* (DC.) Herder (9) MT; Car, Gal, Mpk; WY; 1310–3240 m; alt, dis, fmc, fpm, fsf, rts, wrm
- Erigeron caespitosus* Nutt. (27) MT; Car, Mpk, Stw, Swg; WY; 1370–2990 m; alt, dis, fmc, fpf, gmm, ssb, rcr, rts, wrm, wrw
- Erigeron compositus* Pursh (66) MT; Car, Gal, Mpk, Stw, Swg; WY; 1650–3410 m; alt, dis, gmm, ssb, rcr, rts, wrm
- Erigeron corymbosus* Nutt. (1) MT; Mpk; 1650–1830 m; ssb
- Erigeron divergens* Torr. & A. Gray (4) MT; Mpk, Stw; WY; 1490–2230 m; dis, fmc, gmm, ssb
- ◇ *Erigeron eatonii* A. Gray var. *eatonii* (1) MT; Swg; 2300–2730 m; gmm, vsp
- *Erigeron flabellifolius* Rydb. (1) WY; 3000 m; alt, rts
- Erigeron glabellus* Nutt. var. *glabellus* (1) MT; Car; 1480 m; dis, wrm
- Erigeron glabellus* Nutt. var. *pubescens* Hook. (1) MT; Gal; 2010–2570 m; dis, fmc, gmm
- Erigeron glacialis* (Nutt.) A. Nelson var. *glacialis* (50) MT; Car, Mpk, Stw, Swg; WY; 1610–3410 m; alt, alw, dis, fmc, fsf, gmm, rts, wrm, wrw
- ◇ *Erigeron grandiflorus* Hook. (47) MT; Car, Gal, Mpk, Stw, Swg; WY; 2810–3720 m; alt, gmm, rts, wrm
- ◆ *Erigeron humilis* Graham (1) WY; 2820–2950 m; gmm
- Erigeron ochroleucus* Nutt. (25) MT; Car, Mpk, Stw, Swg; WY; 1370–2830 m; alt, dis, gle, gmm, ssb, rcr, wrm
- Erigeron pumilus* Nutt. var. *intermedius* (Cronquist) Cronquist (7) MT; Car, Gal, Mpk; 1160–2410 m; dis, gle, ssb, rcr, vsp
- Erigeron pumilus* Nutt. var. *pumilus* (1) MT; Mpk; 1520 m; dis, gmm
- Erigeron radicans* Hook. (1) MT; Car; 3100–3570 m; alt
- Erigeron rydbergii* Cronquist (11) MT; Car, Mpk, Swg; WY; 2870–3350 m; alt, rts, wrs
- Erigeron speciosus* (Lindl.) DC. (13) MT; Car, Gal, Mpk; WY; 1730–2590 m; dis, fmc, fpc, gmm, ssb, wrm
- Erigeron strigosus* Muhl. ex Willd. var. *septentrionalis* (Fernald & Wiegand) Fernald (2) MT; Gal, Stw; 1590–1770 m; dis, fmc, wrm, wrw
- Erigeron tweedyi* Canby (2) MT; Gal, Mpk; 1770–2380 m; dis, rcr
- Erigeron ursinus* D. C. Eaton (11) MT; Car, Mpk, Swg; WY; 1980–3090 m; dis, fmc, gmm, rts, wrm
- Eriophyllum lanatum* (Pursh) Forbes var. *integrifolium* (Hook.) Smiley (11) MT; Car, Mpk; WY; 2050–2930 m; dis, fmc, fpc, fpm, fpt, gmm, ssb, wrm, wrw

- Eucephalus elegans* Nutt. (4) MT; Gal, Swg; WY; 2180–2780 m; dis, gmm, rcr
Eucephalus engelmannii (D. C. Eaton) Greene (10) MT; Mpk, Swg; 2010–2980 m; dis, fmc, fpc, fpf, fsf, gmm
Eurybia conspicua (Lindl.) G. L. Nesom (11) MT; Gal, Mpk, Stw; WY; 1590–2530 m; dis, fmc, fpc, fpt, fsf, gmm, wrm, wrw
Eurybia integrifolia (Nutt.) G. L. Nesom (15) MT; Car, Gal, Mpk, Swg; WY; 1680–2980 m; alt, dis, fmc, fpc, fpt, gmm, wrm
Eurybia merita (A. Nelson) G. L. Nesom (1) MT; Car; 2590 m; wrm
Gaillardia aristata Pursh (33) MT; Car, Gal, Mpk, Stw, Swg; WY; 1380–2800 m; dis, fmc, fpf, gle, gmm, ssb, rcr, wrm
Grindelia squarrosa (Pursh) Dunal (4) MT; Mpk, Swg; 1310–1910 m; dis, wrm
Gutierrezia sarothrae (Pursh) Britton & Rusby (1) MT; Mpk; 1310 m; dis, wrm
Helianthella quinquenervis (Hook.) A. Gray (6) MT; Mpk, Swg; 2210–2980 m; alt, dis, fmc, fpc, gmm, wrm
Helianthella uniflora (Nutt.) Torr. & A. Gray (16) MT; Car, Gal, Mpk, Swg; WY; 1740–2800 m; dis, fpm, fmc, gmm, ssb
Helianthus annuus L. (2) MT; Mpk, Swg; 1310–1350 m; dis, wrm
Heterotheca foliosa (Nutt.) Shinnery (8) MT; Car, Mpk; WY; 1160–2320 m; dis, fpf, gle, gmm, ssb, wrw
! *Heterotheca fulcrata* (Greene) Shinnery (1) MT; Stw; 1490 m; dis, gmm
Heterotheca horrida (Rydb.) V. L. Harms (5) WY; 1350–1920 m; fpf, gle, ssb, wrm, wrw
Heterotheca villosa (Pursh) Shinnery var. *villosa* (20) MT; Car, Mpk, Stw, Swg; WY; 1310–2590 m; dis, gmm, ssb, rcr, wrm
Hieracium albiflorum Hook. (18) MT; Car, Gal, Mpk, Stw, Swg; 1590–2930 m; dis, fmc, fpt, fsf, gmm, rts, wrw
Hieracium scouleri Hook. (9) MT; Gal, Mpk, Stw; 1590–2820 m; dis, fmc, fpc, fpt, gmm, rcr, wrw
Hieracium triste Willd. ex Spreng. (40) MT; Car, Gal, Mpk, Stw, Swg; WY; 2020–3570 m; alt, dis, fmc, fpa, fsf, gmm, rts, wrm
Hieracium umbellatum L. (6) MT; Mpk, Stw, Swg; WY; 1590–2380 m; fmc, fpt, gmm, wrm, wrw
Hulsea algida A. Gray (2) MT; Mpk, Stw; 2850–3240 m; fmc, gmm, rts
Hymenopappus filifolius Hook. var. *polycephalus* (Osterh.) B. L. Turner (8) MT; Car; WY; 1260–2320 m; fpf, ssb, wrm
Ionactis alpina (Nutt.) Greene (2) MT; Mpk; 1650–1830 m; dis, ssb, vsp
Iva axillaris Pursh (1) WY; 1380–1590 m; vsp
Lactuca biennis (Moench) Fernald (1) MT; Gal; 1840–1850 m; dis, fmc
* *Lactuca serriola* L. (8) MT; Gal, Mpk, Swg; 1310–1850 m; dis, fmc, fpc, fpt, rcr, wrm
●* *Leucanthemum vulgare* Lam. (8) MT; Car, Gal, Mpk, Swg; 1600–2800 m; dis, fmc, gmm, wrm
Liatris punctata Hook. var. *punctata* (3) MT; Mpk, Swg; WY; 1310–1460 m; dis, wrm
* *Logfia arvensis* (L.) Holub (4) MT; Mpk, Stw, Swg; 1100–2110 m; dis, fsf, gmm, wrm
Lygodesmia juncea (Pursh) D. Don ex Hook. (10) MT; Car, Mpk; WY; 1310–2200 m; dis, fpf, gle, ssb, rcr, rts, wrm
Machaeranthera tanacetifolia (Kunth) Nees (1) MT; Car; 1340–1380 m; ssb, vsp

- Madia glomerata* Hook. (1) MT; Gal; 1840–1850 m; dis, gmm
- * *Matricaria discoidea* DC. (21) MT; Car, Gal, Mpk, Swg; WY; 1090–3110 m; dis, fmc, fpc, fpt, fsf, gmm, rts, wrm, wrw
- Microseris nutans* (Hook.) Sch. Bip. (19) MT; Car, Gal, Mpk, Stw, Swg; 1430–2800 m; dis, fmc, fpm, fsf, gle, gmm, ssb, rcr, rts
- Mulgedium pulchellum* (Pursh) G. Don (4) MT; Gal, Mpk; 1740–2590 m; dis, fpc, gmm
- Nothocalais nigrescens* (L. F. Hend.) A. Heller (8) MT; Gal, Mpk, Stw, Swg; WY; 2130–3100 m; fmc, fpa, gmm, ssb, wrm, wrs
- Nothocalais troximoides* (A. Gray) Greene (1) MT; Mpk; 2020 m; ssb
- * *Onopordum acanthium* L. (1) MT; Gal; 1460 m; dis, wrw
- Oreostemma alpigenum* (Torr. & A. Gray) Greene var. *haydenii* (Porter) G. L. Nesom (38) MT; Car, Mpk, Stw, Swg; WY; 2720–3570 m; alt, dis, gmm, rcr, rts, wrm
- Packera cana* (Hook.) W. A. Weber & Á. Löve (83) MT; Car, Gal, Mpk, Stw, Swg; WY; 1160–3570 m; alt, dis, gle, gmm, ssb, rcr, rts, wrm
- Packera crocata* (Rydb.) W. A. Weber & Á. Löve (2) MT; Car, Mpk; 1600–1730 m; dis, fmc, wrm
- Packera indecora* (Greene) Á. Löve & D. Löve (3) MT; Car, Mpk; 2100–2400 m; wfn, wrm, wrs
- Packera paupercula* (Michx.) Á. Löve & D. Löve (2) MT; Car; WY; 2050–2410 m; gmm, wrm
- Packera pseudaura* (Rydb.) W. A. Weber & Á. Löve var. *pseudaura* (1) MT; Car; 2100 m; wrs
- Packera streptanthifolia* (Greene) W. A. Weber & Á. Löve (20) MT; Gal, Mpk, Swg; WY; 1680–3090 m; alt, dis, fmc, fpc, fpt, gmm, ssb, wrm, wrw
- Packera subnuda* (DC.) Trock & Barkley (42) MT; Car, Gal, Mpk, Swg; WY; 2100–3570 m; alw, fsf, gmm, rts, wfn, wrm, wrs, wrw
- Packera wernerifolia* (A. Gray) W. A. Weber & Á. Löve (2) MT; Mpk, Stw; 2850–3240 m; gmm, rts
- Platyschkuhria integrifolia* (A. Gray) Rydb. (3) MT; Car; WY; 1340–2320 m; ssb, vsp
- Pseudognaphalium thermale* (E. E. Nelson) G. L. Nesom (1) MT; Gal; 1840–1850 m; dis, fmc
- ◆ *Pyrocoma carthamoides* Hook. var. *subsquarrosa* (Greene) G. K. Br & D. J. Keil (1) WY; 1500–1750 m; fmc, vsp
- Pyrocoma integrifolia* (Porter ex A. Gray) Greene (1) MT; Gal; 1870–1930 m; dis
- Ratibida columnifera* (Nutt.) Wootton & Standl. (1) MT; Swg; 1830–1910 m; dis, fmc, ssb
- Rudbeckia laciniata* L. var. *ampla* (A. Nelson) Cronquist (3) MT; Mpk, Stw; 1590–2100 m; fmc, wrm, wrw
- Rudbeckia occidentalis* Nutt. (3) MT; Gal, Mpk; 1680–2090 m; fpc, fpt, gmm, wrm
- Senecio crassulus* A. Gray (17) MT; Car, Gal, Mpk, Stw, Swg; WY; 2010–3720 m; alt, awl, fmc, fsf, gmm, rts, wrm
- Senecio fremontii* Torr. & A. Gray var. *fremontii* (16) MT; Car, Mpk, Stw, Swg; WY; 2970–3720 m; alt, gmm, wrm
- Senecio hydrophilus* Nutt. (1) MT; Mpk; 2530 m; dis, fpc, wrm
- Senecio integerrimus* Nutt. var. *exaltatus* (Nutt.) Cronquist (17) MT; Car, Gal, Mpk, Stw, Swg; WY; 1300–3410 m; alt, dis, gmm, ssb, rcr, rts, wrm

- Senecio lugens* Richardson (**13**) MT; Car, Gal, Mpk, Swg; WY; 2040–3230 m; alt, fmc, gmm, wfn, wrm, wrw
- Senecio serra* Hook. var. *admirabilis* (Greene) A. Nelson (**2**) MT; Mpk; 1890–2670 m; dis, fpc
- Senecio serra* Hook. var. *serra* (**7**) MT; Gal, Mpk, Stw; WY; 1590–2660 m; dis, fmc, fpm, fpc, wrw
- Senecio sphaerocephalus* Greene (**14**) MT; Car, Gal, Mpk; WY; 1620–3410 m; alt, dis, fmc, gmm, ssb, wfn
- Senecio triangularis* Hook. (**41**) MT; Car, Gal, Mpk, Stw, Swg; WY; 1610–3720 m; alw, dis, fmc, fsf, gmm, rts, wfn, wrm, wrw
- Solidago altissima* L. var. *gilvocanescens* (Rydb.) Semple (**2**) MT; Gal; 1870–1930 m; fmc, gmm, wrm, vsp
- Solidago gigantea* Aiton (**1**) MT; Swg; 1610–1610 m; wrm
- Solidago lepida* DC. var. *salebrosa* (Piper) Semple (**5**) MT; Gal, Mpk; 1790–2590 m; dis, fpc, gmm, wfn
- Solidago missouriensis* Nutt. (**24**) MT; Car, Gal, Mpk, Stw, Swg; WY; 1400–2930 m; dis, fmc, fpm, fpt, gmm, ssb, rts, wrm, wrw
- Solidago multiradiata* Aiton (**50**) MT; Car, Mpk, Stw, Swg; WY; 1810–3720 m; alt, alw, dis, fmc, fpa, fpc, fpf, fsf, gmm, ssb, rts, wfn, wrm
- Solidago nana* Nutt. (**1**) MT; Car; 1930–2220 m; rcr
- Solidago simplex* Kunth var. *simplex* (**3**) MT; Car, Stw, Swg; 2350–3120 m; alt, fmc, rts
- * *Sonchus arvensis* L. ssp. *uliginosus* (M. Bieb.) Nyman (**1**) MT; Gal; 1840–1850 m; dis, gmm
- Stenotus acaulis* (Nutt.) Nutt. (**12**) MT; Gal, Mpk; WY; 1620–3090 m; alt, dis, fmc, fpf, gmm, ssb, rcr, vsp
- Stenotus armerioides* Nutt. var. *armerioides* (**6**) MT; Car, Mpk; WY; 1430–2320 m; fpf, gle, gmm, wrm
- Stephanomeria runcinata* Nutt. (**1**) WY; 1710–2320 m; ssb
- Symphyotrichum ascendens* (Lindl.) G. L. Nesom (**6**) MT; Gal, Mpk, Swg; 1870–2960 m; dis, fpc, fsf, gmm, rts, wrm
- Symphyotrichum campestre* (Nutt.) G. L. Nesom (**1**) WY; 2810 m; gmm, wrm
- Symphyotrichum ciliolatum* (Lindl.) Á. Löve (**1**) MT; Mpk; 1740 m; wrm
- Symphyotrichum eatonii* (A. Gray) G. L. Nesom (**1**) WY; 1400–1920 m; ssb
- Symphyotrichum falcatum* (Lindl.) G. L. Nesom var. *commutatum* (Torr. & A. Gray) G. L. Nesom (**1**) MT; Mpk; 1310 m; dis, wrm
- Symphyotrichum foliaceum* (DC.) G. L. Nesom var. *apricum* (A. Gray) G. L. Nesom (**8**) MT; Car, Mpk, Swg; 2770–3090 m; alt, alw, fpa, rts
- Symphyotrichum foliaceum* (DC.) G. L. Nesom var. *canbyi* (A. Gray) G. L. Nesom (**1**) MT; Mpk; 3050–3230 m; alt, vsp
- Symphyotrichum foliaceum* (DC.) G. L. Nesom var. *parryi* (D. C. Eaton) G. L. Nesom (**6**) MT; Car, Mpk; WY; 2130–3000 m; alt, alw, fmc, fpt, gmm, rts, wrm, wrw
- Symphyotrichum lanceolatum* (Willd.) G. L. Nesom var. *hesperium* (A. Gray) G. L. Nesom (**2**) MT; Car, Gal; 1790–2100 m; gmm, wrs
- Symphyotrichum spathulatum* (Lindl.) G. L. Nesom var. *spathulatum* (**31**) MT; Car, Gal, Mpk, Swg; WY; 1790–3250 m; alt, dis, fpc, gmm, wfn, wrm, wrw
- Symphyotrichum subspicatum* (Nees) G. L. Nesom (**4**) MT; Gal, Stw; 1590–2090 m; fmc,

gmm, wrm, wrw

- * *Tanacetum vulgare* L. (3) MT; Gal, Mpk; 2100–2210 m; dis, fsf
- Taraxacum ceratophorum* (Ledeb.) DC. (3) MT; Mpk; WY; 3050–3230 m; alt
- Taraxacum erythrospermum* Andr. ex Besser (13) MT; Car, Gal, Mpk, Stw; 1430–2410 m; dis, gmm, ssb, rcr
- * *Taraxacum officinale* Weber ex F. H. Wigg. (37) MT; Car, Gal, Mpk, Stw, Swg; WY; 1410–3070 m; alt, dis, fmc, fsf, gle, gmm, ssb, rcr, rts, wrm, wrs, wrw
- Taraxacum scopulorum* (A. Gray) Rydb. (11) MT; Car, Mpk, Stw, Swg; WY; 2880–3720 m; alt, fmc, gmm, rcr, rts, wrm
- Tephrosieris lindstroemii* (Ostenf.) Á. Löve & D. Löve (14) MT; Car, Stw; WY; 2900–3720 m; alt, gmm, rcr, rts, wrm, wrs
- Tetradymia spinosa* Hook. & Arn. (1) MT; Car; 1260–1310 m; ssb, vsp
- Tetranuris acaulis* (Pursh) Greene var. *acaulis* (14) MT; Car, Mpk; WY; 1260–2320 m; dis, gle, gmm, ssb, wrm
- Thelesperma subnudum* A. Gray (2) MT; Car; 1340–2200 m; ssb, vsp
- Tonestus lyallii* (A. Gray) A. Nelson (1) MT; Mpk; 3070–3240 m; alt, rts
- Townsendia hookeri* Beaman (3) WY; 1800–3110 m; fpm, fpf, wrm
- Townsendia montana* M. E. Jones (3) MT; Gal, Mpk; 2010–3240 m; gmm, rcr, rts
- Townsendia nuttallii* Dorn (1) MT; Car; 1340–1380 m; ssb, vsp
- Townsendia parryi* D. C. Eaton (28) MT; Car, Gal, Mpk, Stw, Swg; WY; 1490–3150 m; alt, dis, fmc, fpm, gmm, rcr, rts
- * *Tragopogon dubius* Scop. (32) MT; Car, Gal, Mpk, Stw, Swg; WY; 1090–2380 m; dis, fmc, gle, gmm, ssb, rcr, wrm
- Tragopogon pratensis* L. (6) MT; Gal, Mpk, Swg; 1840–2680 m; dis, gmm, rcr, wrm
- Wyethia amplexicaulis* (Nutt.) Nutt. (1) MT; Gal; 2130 m; gmm
- Xanthisma grindelioides* (Nutt.) D. R. Morgan & R. L. Hartm. var. *grindelioides* (3) MT; Car, Mpk; WY; 1260–2320 m; gle, ssb, vsp
- Xanthium strumarium* L. (1) MT; Swg; 1350 m; dis, vsp
- Xylorhiza glabriuscula* Nutt. (2) MT; Car; 1260–1380 m; ssb, vsp

Berberidaceae

- Berberis repens* Lindl. (29) MT; Car, Gal, Mpk, Stw, Swg; WY; 1590–2800 m; dis, fmc, fpc, fpm, fpt, fsf, gmm, ssb, rcr, wrm, wrw

Betulaceae

- Alnus incana* (L.) Moench var. *occidentalis* (Dippel) C. L. Hitchc. (28) MT; Car, Gal, Mpk, Stw, Swg; WY; 1350–2930 m; dis, fmc, fpc, fsf, gmm, wrm, wrs, wrw
- Alnus viridis* (Vill.) Lam. & DC. var. *sinuata* Regel (13) MT; Gal, Mpk, Stw, Swg; 1740–2850 m; dis, fpm, fmc, gmm, wrm, wrs
- × *Betula ×eastwoodiae* Sarg. (2) MT; Gal; WY; 1870–2930 m; fmc, gmm, wrm, wrs, wrw
- Betula glandulosa* Michx. (10) MT; Gal, Swg; WY; 2010–2970 m; alw, fsf, wrm, wrs, wrw
- Betula occidentalis* Hook. (29) MT; Car, Mpk, Stw; WY; 1350–2260 m; dis, fmc, fpt, gmm, wrm, wrw, wrs

Boraginaceae

- * *Asperugo procumbens* L. **(19)** MT; Car, Gal, Mpk, Swg; 1220–2800 m; dis, fpm, fmc, gmm, ssb, vsp, wrm
Cryptantha affinis (A. Gray) Greene **(7)** MT; Car, Gal, Swg; WY; 1590–2260 m; bns, dis, rts
Cryptantha ambigua (A. Gray) Greene **(4)** MT; Mpk, Stw; WY; 1490–2320 m; dis, fmc, gmm
Cryptantha celosioides (Eastw.) Payson **(26)** MT; Car, Mpk, Stw, Swg; WY; 1160–3110 m; alt, dis, gle, gmm, ssb, rcr, rts
Cryptantha kelseyana Greene **(1)** MT; Car; 1340–1380 m; ssb, vsp
Cryptantha spiculifera (Piper) Payson **(2)** MT; Mpk; 1770–2100 m; dis, gmm, rcr, rts
Cryptantha watsonii (A. Gray) Greene **(4)** MT; Gal, Mpk; WY; 1370–2070 m; dis, gmm, ssb, rcr, vsp
- * *Cynoglossum officinale* L. **(35)** MT; Car, Gal, Mpk, Stw, Swg; WY; 1100–2820 m; dis, fmc, gmm, ssb, wrm, wrs, wrw
Ellisia nyctelea (L.) L. **(10)** MT; Car, Gal, Mpk, Stw, Swg; 1220–1770 m; dis, gmm, vsp
- ◆ *Eritrichum howardii* (A. Gray) Rydb. **(6)** MT; Car, Stw; WY; 1490–2320 m; dis, rcr, gmm, rts
Eritrichum nanum (Vill.) Schrad. ex Gaudin var. *elongatum* (Rydb.) Cronquist **(10)** MT; Car, Stw; WY; 2720–3350 m; alt, alw, rts
Hackelia deflexa (Wahlenb.) Opiz var. *americana* (A. Gray) Fernald & I. M. Johnst. **(2)** MT; Gal, Mpk; 2020–2300 m; gmm, wrm
Hackelia floribunda (Lehm.) I. M. Johnst. **(6)** MT; Car, Gal, Mpk, Swg; 1350–2800 m; dis, fmc, gmm, ssb, vsp
Hackelia micrantha (Eastw.) J. L. Gentry **(11)** MT; Car, Gal, Mpk, Stw, Swg; 1480–2980 m; dis, gmm, wrm
Hackelia patens (Nutt.) I. M. Johnst. var. *patens* **(11)** MT; Car, Gal, Mpk, Swg; WY; 1740–2680 m; dis, fmc, gmm, ssb, wrm
Hydrophyllum capitatum Douglas ex Benth. var. *alpinum* S. Watson **(1)** MT; Mpk; 2380 m; gmm, ssb
Hydrophyllum capitatum Douglas ex Benth. var. *capitatum* **(10)** MT; Gal, Mpk, Swg; 1740–2680 m; dis, gmm, vsp
Lappula occidentalis (S. Watson) Greene var. *cupulata* (A. Gray) L. C. Higgins **(2)** MT; Car, Stw; 1340–1490 m; gmm, ssb, vsp
Lappula occidentalis (S. Watson) Greene var. *occidentalis* **(29)** MT; Car, Mpk, Stw; WY; 1090–3110 m; dis, gle, gmm, ssb, vsp
- * *Lappula squarrosa* (Retz.) Dumort. **(7)** MT; Car, Mpk; WY; 1090–1830 m; dis, gmm, ssb, wrm
Lithospermum arvense L. **(11)** MT; Car, Gal, Mpk, Stw, Swg; 1160–1980 m; dis, gle, gmm, rcr, wrm, wrw
Lithospermum incisum Lehm. **(9)** MT; Car, Mpk; WY; 1300–3110 m; dis, gmm, ssb, wrm
Lithospermum ruderales Douglas ex Lehm. **(35)** MT; Car, Gal, Mpk, Stw, Swg; WY; 1430–2800 m; dis, fmc, fpm, gmm, ssb, rcr, vsp
Mertensia alpina (Torr.) G. Don **(30)** MT; Car, Mpk, Stw, Swg; WY; 2870–3720 m; alt, gmm, rts
Mertensia arizonica Greene **(2)** MT; Car, Mpk; 1700–2010 m; fpm, fmc, gmm

- Mertensia ciliata* (E. James ex Torr.) G. Don var. *ciliata* (**45**) MT; Car, Gal, Mpk, Stw, Swg; WY; 1600–3570 m; alt, alw, fmc, fpt, fsf, gmm, ssb, rcr, rts, wrm, wrs, wrw
- Mertensia lanceolata* (Pursh) DC. (**5**) MT; Gal; WY; 2130–3110 m; gmm
- Mertensia longiflora* Greene (**5**) MT; Car, Mpk, Swg; 1650–2130 m; dis, gmm, ssb, wrm
- Mertensia oblongifolia* (Nutt.) G. Don (**13**) MT; Car, Gal, Mpk, Stw, Swg; WY; 1650–3140 m; alt, dis, fsf, gmm, rcr
- Mertensia viridis* (A. Nelson) A. Nelson (**8**) MT; Car, Gal, Stw, Swg; WY; 1490–3090 m; alt, dis, fmc, gmm, rcr, wrm
- Myosotis alpestris* F. W. Schmidt (**30**) MT; Car, Gal, Mpk, Stw, Swg; WY; 1650–3260 m; alt, dis, fpt, gmm, ssb, rts, wrm
- * *Myosotis arvensis* (L.) Hill (**2**) MT; Swg; WY; 2610–3100 m; wrm, wrs
- Myosotis micrantha* Pall. ex Lehm. (**11**) MT; Car, Mpk, Swg; 1600–3230 m; alt, dis, fmc, fsf, gmm, rts, wrm, wrw
- * *Myosotis scorpioides* L. (**1**) MT; Car; 1600 m; dis, wrm
- * *Myosotis sylvatica* Hoffm. (**3**) MT; Mpk; 1690–2010 m; fmc, gmm, wrm
- Nemophila breviflora* A. Gray (**11**) MT; Gal, Mpk, Swg; WY; 1620–2670 m; dis, gmm, ssb, wrm
- Phacelia franklinii* (R. Br.) A. Gray (**1**) MT; Gal; 2040–2130 m; fmc
- Phacelia hastata* Douglas ex Lehm. var. *hastata* (**29**) MT; Car, Mpk, Stw, Swg; WY; 1160–3230 m; alt, dis, fmc, gle, gmm, ssb, rcr, rts, wrm
- Phacelia heterophylla* Pursh var. *virgata* (Greene) Dorn (**6**) MT; Gal; WY; 1460–2570 m; dis, fpt, fsf, gmm, rcr, rts, wrm, wrw
- Phacelia linearis* (Pursh) Holz. (**46**) MT; Car, Mpk, Stw, Swg; WY; 1160–2230 m; dis, gle, gmm, ssb, rcr, wrm
- Phacelia sericea* (Graham ex Hook.) A. Gray var. *sericea* (**5**) MT; Gal, Mpk; WY; 2010–3240 m; alt, rcr, rts, wrs
- Plagiobothrys scouleri* (Hook. & Arn.) I. M. Johnst. var. *hispidulus* (Greene) Dorn (**4**) MT; Car, Mpk; 1670–2590 m; dis, fmc, fpp, wrm, wrs, wrw

Brassicaceae

- * *Alyssum alyssoides* (L.) L. (**50**) MT; Car, Gal, Mpk, Stw, Swg; 1090–2570 m; dis, fmc, fpm, gle, gmm, ssb, rcr, wrm
- * *Alyssum desertorum* Stapf (**16**) MT; Car, Mpk; WY; 1260–2100 m; dis, gmm, ssb, wrm
- * *Alyssum simplex* Rudolphi (**9**) MT; Car, Mpk, Stw, Swg; WY; 1160–2130 m; dis, fmc, gle, gmm, ssb, wrm
- Arabis nuttallii* B. L. Rob. (**14**) MT; Car, Gal, Mpk, Stw; WY; 1430–2380 m; gle, gmm, ssb, rcr, rts, wrm
- Arabis sparsiflora* Nutt. var. *columbiana* (Macoun) Rollins (**4**) MT; Car, Mpk; 1620–2220 m; dis, fmc, gmm, rcr, rts
- Barbarea orthoceras* Ledeb. (**2**) MT; Gal, Mpk; 2020–2410 m; fmc, gmm, wrm
- * *Barbarea vulgaris* R. Br. (**3**) MT; Car, Swg; 1350–2730 m; dis, fmc, wrm
- * *Berteroa incana* (L.) DC. (**13**) MT; Car, Gal, Stw; 1350–2200 m; dis, gmm, wrm, wrw
- Boechera calderi* (G.A. Mulligan) Windham & Al-Shehbaz (**2**) MT; Mpk; WY; 2960–3350 m; alt
- Boechera collinsii* (Fernald) Áskell Löve & D. Löve (**15**) MT; Gal, Mpk, Stw, Swg; WY; 1520–3110 m; dis, fmc, fsf, gmm, ssb, rts, wrm

- Boechera divaricarpa* (A. Nelson) Á. Löve & D. Löve **(21)** MT; Car, Gal, Mpk, Swg; WY; 1680–3090 m; dis, fmc, fpm, fsf, gmm, ssb, rcr, wrm
- Boechera grahamii* (Lehmann) Windham & Al-Shehbaz **(1)** WY; 3180 m; alw
- Boechera holboellii* (Hornem.) Á. Löve & D. Löve var. *secunda* (Howell) Dorn **(9)** MT; Gal, Mpk, Stw, Swg; WY; 1430–3180 m; alw, dis, fmc, gle, ssb, rcr, wfn, wrm
- Boechera lemmonii* (S. Watson) W. A. Weber var. *lemmonii* **(7)** MT; Gal, Mpk; 2560–3250 m; alt, alw, gmm, rts
- Boechera lignifera* (A. Nelson) W. A. Weber **(9)** MT; Car, Mpk, Swg; 1740–2800 m; ssb rcr, rts
- Boechera lyallii* (S. Watson) Dorn **(8)** MT; Car, Mpk; WY; 2880–3570 m; alt, gmm, vsp
- Boechera microphylla* (Nutt.) Dorn **(4)** MT; Mpk; 1710–3050 m; alt, ssb, rts
- Boechera pauciflora* (Nutt.) Windham & Al-Shahbaz **(12)** MT; Car, Mpk; WY; 1380–2010 m; dis, gmm, ssb, rcr, wrm
- Boechera paupercula* (Greene) Windham & Al-Shehbaz **(3)** MT; Car; WY; 3100–3570 m; alt
- Boechera pendulocarpa* (A. Nelson) Windham & Al-Shehbaz **(11)** MT; Car, Gal, Mpk; WY; 1680–2320 m; dis, fpm, fmc, gmm, ssb, rcr, rts
- Boechera saximontana* (Rollins) Windham & Al-Shehbaz **(3)** MT; Gal, Mpk; 2040–3070 m; fmc, rts
- Boechera stricta* (Graham) Al-Shehbaz **(30)** MT; Car, Gal, Mpk, Stw, Swg; WY; 1650–3570 m; alt, dis, fmc, fpc, fsf, gmm, rcr, wrm
- * *Camelina microcarpa* Andr. ex DC. **(46)** MT; Car, Mpk, Stw, Swg; WY; 1090–3110 m; dis, fpm, gle, gmm, ssb, rcr, wrm
- * *Capsella bursa-pastoris* (L.) Medik. **(31)** MT; Car, Gal, Mpk, Stw, Swg; 1220–2800 m; dis, fpm, fmc, gle, gmm, rcr, wrm, wrw
- Cardamine breweri* S. Watson **(7)** MT; Gal, Mpk; WY; 1680–2590 m; fsf, gmm, wrm
- Cardamine oligosperma* Nutt. var. *oligosperma* **(2)** MT; Car, Swg; 1740–2930 m; dis, fmc, gmm
- Cardamine pensylvanica* Muhl. ex Willd. **(2)** MT; Car, Mpk; 1710–1800 m; wrm, wrw
- * *Cardaria draba* (L.) Desv. **(1)** MT; Mpk; 1740–2010 m; gmm
- * *Cardaria pubescens* (C. A. Mey.) Jarm. **(1)** MT; Mpk; 1650–1830 m; dis, wrm
- * *Chorispora tenella* (Pall.) DC. **(3)** MT; Car, Gal, Mpk; 1340–2570 m; dis, gmm, ssb, vsp
- Descurainia incana* (Bernh. ex Fisch. & C. A. Mey.) Dorn **(10)** MT; Car, Gal, Mpk, Stw, Swg; WY; 1220–3090 m; alt, dis, fsf, gle, gmm, ssb, rcr
- Descurainia incisa* (Engelm.) Britton var. *incisa* **(7)** MT; Car, Mpk, Swg; WY; 1090–2220 m; dis, fmc, gmm, ssb, wrm
- Descurainia longepedicellata* (E. Fourn.) O. E. Schulz **(3)** MT; Mpk; WY; 1370–1760 m; ssb, wrm
- Descurainia nelsonii* (Rydb.) Al-Shehbaz & Goodson **(1)** MT; Gal; 2070–2410 m; rcr
- Descurainia pinnata* (Walter) Britton var. *brachycarpa* (Richardson) Fernald **(25)** MT; Car, Mpk, Stw; WY; 1160–2530 m; dis, fmc, fsf, gle, ssb, rcr, wrm
- Descurainia pinnata* (Walter) Britton var. *intermedia* (Rydb.) C. L. Hitchc. **(1)** MT; Mpk; 1620–1680 m; gmm
- * *Descurainia sophia* (L.) Webb ex Prantl **(21)** MT; Car, Gal, Mpk, Stw, Swg; 1260–2570 m; dis, fmc, gle, gmm, ssb, rcr, wrm, wrw
- Draba albertina* Greene **(7)** MT; Car; WY; 2740–3190 m; alt, gmm, rts

- Draba aurea* Vahl ex Hornem. (4) MT; Stw, Swg; WY; 1610–3090 m; gmm, rcr
Draba borealis DC. (2) MT; Mpk; WY; 1740–3180 m; alw, wrm
Draba cana Rydb. (23) MT; Car, Gal, Mpk, Stw, Swg; WY; 1780–3570 m; alt, fmc, gmm, rcr, rts, wrm, wrs
- ◇ *Draba crassa* Rydb. (2) MT; Stw; 3410–3720 m; alt, rts
Draba crassifolia Graham (36) MT; Car, Gal, Mpk, Stw, Swg; WY; 1680–3720 m; alt, alw, dis, gmm, ssb, rts, wrm
Draba densifolia Nutt. (1) WY; 3090–3110 m; alw, vsp
- ◆◆ *Draba fladnizensis* Wulf var. *pattersonii* (O. E. Schulz) Rollins (10) MT; Car, Mpk; WY; 2900–3410 m; alt, alw, gmm, vsp
- *Draba globosa* Payson (2) WY; 2940–3350 m; alt, rcr
Draba incerta Payson (26) MT; Car, Gal, Mpk, Stw, Swg; WY; 2280–3720 m; alt, alw, rcr, rts
Draba lonchocarpa Rydb. var. *lonchocarpa* (6) MT; Car, Mpk, Swg; WY; 2870–3320 m; alt, fsf, rcr, rts
Draba nemorosa L. var. *nemorosa* (49) MT; Car, Gal, Mpk, Stw, Swg; WY; 1220–3110 m; dis, gle, gmm, ssb, rcr, rts, wrm
Draba novolympica Payson & H. St. John (1) WY; 3320–3350 m; alt, rts
Draba oligosperma Hook. var. *oligosperma* (42) MT; Car, Gal, Mpk, Stw, Swg; WY; 1430–3720 m; alt, dis, fmc, gle, gmm, rcr, rts, wrm
- ◆ *Draba paysonii* J. F. Macbr. var. *paysonii* (13) MT; Car, Gal, Mpk; WY; 2870–3350 m; alt, rcr, rts
- ◆ *Draba paysonii* J. F. Macbr. var. *treleasii* (O. E. Schulz) C. L. Hitchc. (1) WY; 3050–3100 m; alt, wrs
- ◆ *Draba porsildii* G. A. Mulligan var. *brevicula* (Rollins) Rollins (2) WY; 3230–3350 m; alt
- ◆◆ *Draba porsildii* G. A. Mulligan var. *porsildii* (2) MT; Car; WY; 2010–3090 m; alt, rcr, rts
- Draba praealta* Greene (2) MT; Car, Swg; 1730–2800 m; fmc, gmm, rcr
Draba reptans (Lam.) Fernald (1) WY; 1380–1590 m; gle, vsp
- ◇ *Draba ventosa* A. Gray (2) MT; Mpk; WY; 3000–3340 m; alt, vsp
Erysimum asperum (Nutt.) DC. (15) MT; Car, Gal, Mpk, Stw, Swg; WY; 1430–3090 m; dis, fmc, fsf, gle, gmm, rcr, wrm
Erysimum capitatum (Douglas ex Hook.) Greene var. *capitatum* (1) WY; 1800–2100 m; ssb
Erysimum capitatum (Douglas ex Hook.) Greene var. *purshii* (T. Durand) Rollins (8) MT; Car, Mpk, Swg; WY; 1440–3020 m; fpf, gle, gmm, ssb, wrw
- * *Erysimum cheiranthoides* L. (2) MT; Gal; 2070–2410 m; rcr
Erysimum inconspicuum (S. Watson) MacMill. (12) MT; Car, Gal, Mpk, Stw, Swg; WY; 1500–3190 m; alt, gmm, ssb, rcr, wrm
- * *Erysimum repandum* L. (4) MT; Car, Gal, Stw; WY; 1430–3120 m; dis, gmm, ssb, rcr, wrm
- * *Hesperis matronalis* L. (5) MT; Car, Gal, Mpk, Stw; 1350–1680 m; dis, wrm
- * *Lepidium campestre* (L.) R. Br. (13) MT; Car, Gal, Mpk, Stw, Swg; 1350–2210 m; dis, fpm, gle, gmm, wrm
Lepidium chalepense L. (1) MT; Swg; 1490 m; dis

- Lepidium densiflorum* Schrad. var. *densiflorum* (3) MT; Car, Mpk, Stw; 1090–1520 m; dis, gle, wrm
- Lepidium densiflorum* Schrad. var. *macrocarpum* G. A. Mulligan (5) MT; Car, Stw, Swg; WY; 1220–1630 m; dis, gle, ssb, rcr, wrm
- Lepidium densiflorum* Schrad. var. *ramosum* (A. Nelson) Thell. (1) MT; Mpk; 1650–1830 m; dis, wrm
- * *Lepidium perfoliatum* L. (8) MT; Car, Mpk; 1090–2020 m; dis, gmm, ssb, wrm
- Lepidium ramosissimum* A. Nelson var. *ramosissimum* (1) MT; Mpk; 2400–2530 m; fsf
- * *Malcolmia africana* (L.) R. Br. (4) MT; Car, Mpk; WY; 1340–1590 m; dis, gle, ssb, vsp
- Nasturtium microphyllum* Boenn. ex Rchb. (1) MT; Car; 1350 m; dis, wrm
- * *Nasturtium officinale* R. Br. (4) MT; Car, Mpk, Stw; 1330–2000 m; dis, wrm
- Noccaea fendleri* (A. Gray) Holub ssp. *glauca* (A. Nelson) Al-Shehbaz & M. Koch (9) MT; Gal, Mpk; 1680–2570 m; dis, fpm, fmc, gmm, rcr, rts, wrm
- Noccaea parviflora* (A. Nelson) Holub (2) WY; 2940–3090 m; alt, gmm
- Physaria acutifolia* Rydb. var. *acutifolia* (2) MT; Car; 1260–1380 m; ssb, vsp
- Physaria arenosa* (Richardson) O’Kane & Al-Shehbaz subsp. *arenosa* (1) MT; Car; 1260–1310 m; ssb, vsp
- Physaria didymocarpa* (Hook.) A. Gray var. *didymocarpa* (4) MT; Mpk; WY; 1590–2100 m; fmc, fpf, gmm, ssb, vsp
- ◇ *Physaria didymocarpa* (Hook.) A. Gray var. *lanata* A. Nelson (4) MT; Car, Mpk, Stw; 1430–2010 m; dis, gmm, vsp
- Physaria pycnantha* Grady & O’Kane (2) MT; Mpk; 1430–1450 m; dis, gle, vsp
- Physaria reediana* O’Kane & Al-Shehbaz (7) MT; Car, Mpk, Swg; WY; 1160–2320 m; dis, gle, ssb, rcr, vsp
- ◇ *Physaria saximontana* Rollins var. *dentata* Rollins (2) MT; Mpk, Swg; 1830–2830 m; alt, rcr, vsp
- Physaria spatulata* (Rydb.) Grady & O’Kane (5) MT; Car; WY; 1430–3110 m; dis, gmm, ssb, wrm
- Rorippa alpina* (S. Watson) Rydb. (1) MT; Car; 2990–3410 m; alt
- Rorippa curvisiliqua* (Hook.) Bessey ex Britton (2) MT; Mpk, Swg; 2530–2660 m; dis, fpc, wrm
- Rorippa palustris* (L.) Besser var. *elongata* Stuckey (1) WY; 2130–2480 m; fsf, wfn, wrw
- Rorippa palustris* (L.) Besser var. *fernaldiana* (Butters & Abbe) Stuckey (2) MT; Mpk; WY; 890–2270 m; dis, fpc, wrm
- Rorippa palustris* (L.) Besser var. *hispida* (Desv.) Rydb. (3) MT; Mpk, Swg; WY; 1610–2500 m; gmm, wrm
- * *Sinapis arvensis* L. (1) MT; Stw; 1220 m; dis, wrm
- * *Sisymbrium altissimum* L. (33) MT; Car, Gal, Mpk, Stw, Swg; WY; 1090–2070 m; dis, fpt, gmm, ssb, rcr, wrm
- Sisymbrium linifolium* Nutt. (2) MT; Car, Mpk; 1340–1830 m; ssb, vsp
- * *Sisymbrium loeselii* L. (2) MT; Gal, Mpk; 1310–1460 m; dis, wrm
- Smelowskia calycina* (Steph. ex Willd.) C. A. Mey. var. *americana* (Regel & Herd.) Drury & Rollins (27) MT; Car, Gal, Mpk, Stw; WY; 2870–3720 m; alt, alw, rts
- ◇ *Thelypodium paniculatum* A. Nelson (1) MT; Gal; 2010–2570 m; gmm, wrm
- * *Thlaspi arvense* L. (52) MT; Car, Gal, Mpk, Stw, Swg; WY; 1100–2570 m; dis, gle,

gmm, ssb, wrm, wrw

Turritis glabra L. (20) MT; Car, Gal, Mpk, Swg; WY; 1500–2930 m; dis, fmc, fpc, fpt, fsf, gle, gmm, wrm

Cactaceae

Coryphantha missouriensis (Sweet) Britton & Rose var. *missouriensis* (4) MT; Mpk, Stw; WY; 1370–2010 m; dis, fpc, fpm, gle, wrm

Opuntia polyacantha Haw. var. *polyacantha* (7) MT; Mpk, Stw; WY; 1350–2230 m; dis, gle, ssb, rcr, vsp

Campanulaceae

Campanula rotundifolia L. (66) MT; Car, Gal, Mpk, Stw, Swg; WY; 1400–3570 m; alt, dis, fmc, fpa, fpc, fpm, fpt, fsf, gle, gmm, ssb, rcr, rts, wrm, wrw

Campanula uniflora L. (7) MT; Car, Mpk, Stw, Swg; WY; 2870–3720 m; alt, rts

Cannabaceae

Humulus lupulus L. var. *neomexicanus* A. Nelson & Cockerell (2) MT; Mpk, Stw; 1220–1310 m; dis, wrm

Caprifoliaceae

Linnaea borealis L. var. *longiflora* Torr. (15) MT; Car, Gal, Mpk, Swg; WY; 1610–2930 m; fmc, fpc, fsf, rcr, wrw

Lonicera involucrata (Richardson) Banks ex Spreng. var. *involucrata* (7) MT; Gal, Mpk; WY; 2010–2930 m; dis, fpc, fsf, gmm, wrm, wrs, wrw

* *Lonicera morrowii* A. Gray (1) MT; Car; 1350 m; dis, wrm

* *Lonicera tatarica* L. (3) MT; Gal, Mpk; 1460 m; dis, wrm, wrw

Lonicera utahensis S. Watson (17) MT; Gal, Mpk; WY; 1710–2620 m; dis, fmc, fpc, fpm, fsf, wrw

Symphoricarpos albus (L.) S. F. Blake var. *albus* (1) MT; Gal; 1730–1740 m; dis, wrm

Symphoricarpos albus (L.) S. F. Blake var. *laevigatus* (Fernald) S. F. Blake (10) MT; Car, Gal, Mpk, Swg; WY; 1680–2590 m; dis, fmc, fpc, fpt, fsf, gmm, ssb, wrm

Symphoricarpos occidentalis Hook. (5) MT; Car, Stw; 1090–1770 m; dis, fmc, gmm, ssb, wrm, wrw

Symphoricarpos oreophilus A. Gray var. *utahensis* (Rydb.) A. Nelson (5) MT; Gal, Mpk, Stw; WY; 1650–2230 m; gmm, rcr, vsp

Valeriana dioica L. var. *sylvatica* (Sol. ex Richardson) S. Watson (26) MT; Car, Gal, Mpk, Swg; WY; 1690–3030 m; dis, fmc, fpa, gmm, rcr, rts, wrm

Valeriana edulis Nutt. ex Torr. & A. Gray var. *edulis* (11) MT; Gal, Mpk, Swg; WY; 1890–3240 m; alt, dis, gmm, wrm

Valeriana occidentalis A. Heller (10) MT; Gal, Mpk, Swg; WY; 1860–2980 m; gmm, ssb, wrm

Caryophyllaceae

* *Arenaria serpyllifolia* L. var. *serpyllifolia* (7) MT; Car, Gal, Mpk, Stw; 1160–2130 m; dis, gle, gmm, rcr

Cerastium arvense L. var. *strictum* (Gaudin) W. D. J. Koch (69) MT; Car, Gal, Mpk, Stw, Swg; WY; 1300–3250 m; alt, dis, fpm, gmm, ssb, rcr, rts, wrm, wrw

Cerastium beeringianum Cham. & Schltld. (12) MT; Car, Gal, Stw; WY; 2100–3720 m; alt, alw, rts

Cerastium brachypodum (Engelm. ex A. Gray) B. L. Rob. (1) MT; Car; 1340 m; wrm

* *Cerastium fontanum* Baumg. ssp. *vulgare* (Hartm.) Greuter & Burdet (15) MT; Car, Gal,

- Mpk, Stw, Swg; 1520–2930 m; dis, fmc, fpc, wrm, wrw
- Cerastium nutans* Raf. var. *nutans* (1) MT; Mpk; 2530 m; dis
- * *Dianthus barbatus* L. ssp. *barbatus* (1) MT; Gal; 2490–2530 m; dis
- Eremogone congesta* (Nutt.) Ikonn. var. *congesta* (46) MT; Car, Gal, Mpk, Stw, Swg; WY; 1490–3570 m; alt, dis, gmm, ssb, rcr, rts, wrm
- Eremogone congesta* (Nutt.) Ikonn. var. *lithophila* (Rydb.) Dorn (25) MT; Car, Gal, Mpk, Stw, Swg; 1430–3230 m; dis, fmc, gle, gmm, ssb, rcr, wrm
- Eremogone hookeri* (Nutt.) W. A. Weber var. *hookeri* (11) MT; Car, Mpk; WY; 1160–2320 m; dis, gle, ssb, wrm
- Eremogone hookeri* (Nutt.) W. A. Weber var. *pinetorum* (A. Nelson) Dorn (2) WY; 1380–1590 m; ssb
- Minuartia nuttallii* (Pax) Briq. var. *nuttallii* (27) MT; Car, Gal, Mpk, Stw, Swg; WY; 1490–3240 m; alt, alw, dis, gmm, rcr, rts, wrm
- Minuartia obtusiloba* (Rydb.) House (50) MT; Car, Mpk, Stw, Swg; WY; 2560–3720 m; alt, alw, fpa, gmm, rts, wrm
- Minuartia rubella* (Wahlenb.) Hiern (5) MT; Car, Mpk; 3080–3570 m; alt, vsp
- Moehringia lateriflora* (L.) Fenzl (26) MT; Car, Gal, Mpk, Stw, Swg; 1600–2800 m; dis, fmc, fpt, fsf, rcr, wrm, wrs, wrw
- Paronychia sessiliflora* Nutt. (10) MT; Car, Mpk, Stw; WY; 1370–2320 m; dis, gle, ssb, rcr, wrm
- Sagina saginoides* (L.) H. Karst. (2) MT; Car, Mpk; 2020–3230 m; gmm, wrm
- * *Saponaria officinalis* L. (1) MT; Mpk; 1300 m; dis, gle, wrm
- Silene acaulis* (L.) Jacq. (22) MT; Car, Mpk, Stw, Swg; WY; 2560–3720 m; alt, gmm, rts
- Silene antirrhina* L. (3) MT; Car, Mpk, Stw; 1160–1770 m; dis, gle, wrm
- * *Silene conoidea* L. (1) MT; Mpk; 1860–2100 m; fmc
- * *Silene csereii* Baumg. (10) MT; Car, Gal, Stw; 1350–2220 m; dis, rcr, wrm
- * *Silene dioica* (L.) Clairv. (1) MT; Swg; 1940–1960 m; dis, fsf, wrw
- Silene drummondii* Hook. var. *drummondii* (3) MT; Car, Stw; WY; 1490–2590 m; dis, gmm, ssb, vsp
- Silene drummondii* Hook. var. *striata* (Rydb.) Bocquet (2) MT; Mpk; WY; 2210–2590 m; dis, fpc, ssb
- * *Silene latifolia* Poir. (35) MT; Car, Gal, Mpk, Stw, Swg; 1220–2800 m; dis, fmc, fpm, fpt, gmm, ssb, rcr, wrm, wrw
- Silene menziesii* Hook. (6) MT; Car, Mpk; WY; 1430–2220 m; vsp, wrm
- Silene parryi* (S. Watson) C. L. Hitchc. & Maguire (14) MT; Car, Mpk, Stw, Swg; 2350–3090 m; alt, fmc, gmm, rts
- Silene repens* Patrin ex Pers. (1) MT; Gal; 2040–2130 m; fmc
- * *Spergularia rubra* (L.) J. Presl & C. Presl (3) MT; Mpk; 2020–2530 m; dis, fmc, fpc, fsf
- Stellaria borealis* Bigelow var. *sitchana* (Steud.) Fernald (7) MT; Mpk, Swg; WY; 1740–2950 m; dis, gmm, wfn, wrm, wrw
- Stellaria calycantha* (Ledeb.) Bong. (12) MT; Car, Mpk, Swg; WY; 1780–3190 m; alw, gmm, wrm, wrw
- * *Stellaria graminea* L. (1) MT; Car; 1600 m; dis, wrm
- Stellaria longifolia* Muhl. ex Willd. (9) MT; Car, Mpk; WY; 1350–2930 m; dis, wrm, wrw
- Stellaria longipes* Goldie var. *longipes* (30) MT; Car, Gal, Mpk, Stw, Swg; WY; 1650–

3720 m; alt, dis, gmm, rts, wrm

- * *Stellaria media* (L.) Vill. (1) MT; Swg; 2530–2800 m; fmc
- Stellaria obtusa* Engelm. (2) MT; Mpk; 1610–2880 m; fmc, fsf
- Stellaria umbellata* Turcz. (16) MT; Car, Mpk, Swg; WY; 2480–3570 m; alt, alw, gmm, rts, wrm

Cleomaceae

Polanisia dodecandra (L.) DC. var. *trachysperma* (Torr. & A. Gray) H. H. Iltis (2) MT; Mpk; WY; 1310–1400 m; dis, wrm

Clusiaceae

- * *Hypericum perforatum* L. (2) MT; Swg; 2060 m; dis, gmm
- Hypericum scouleri* Hook. (8) MT; Mpk, Swg; 1610–2990 m; alt, dis, fpc, fsf, gmm, wrm

Colchicaceae

Streptopus amplexifolius (L.) DC. (23) MT; Car, Gal, Mpk, Stw, Swg; WY; 1610–2930 m; dis, fmc, fpm, fsf, gmm, wrm, wrw

Convolvulaceae

- * *Convolvulus arvensis* L. (6) MT; Car, Mpk, Stw, Swg; 1090–1910 m; dis, gmm, ssb, wrm

Cornaceae

Cornus canadensis L. (1) WY; 2290–2380 m; fsf, wrw

Cornus sericea L. var. *occidentalis* Torr. & A. Gray (1) MT; Mpk; 1690–1730 m; fmc, wrm

Cornus sericea L. var. *sericea* (24) MT; Car, Gal, Mpk, Stw, Swg; WY; 1090–3110 m; dis, fsf, wrm, wrw

Crassulaceae

Sedum integrifolium (Raf.) A. Nelson ssp. *integrifolium* (8) MT; Car, Stw; WY; 2720–3720 m; alt, alw, gmm, rts

Sedum lanceolatum Torr. (52) MT; Car, Gal, Mpk, Stw, Swg; WY; 1160–3570 m; alt, dis, gle, gmm, ssb, rcr, rts

Sedum rhodanthum A. Gray (25) MT; Car, Mpk, Swg; WY; 2490–3570 m; alw, wfn, wrm, wrw

Sedum stenopetalum Pursh (2) MT; Gal, Swg; 1830–2130 m; gmm, vsp

Cyperaceae

- Carex albonigra* Mack. (4) MT; Car, Gal, Mpk; 2870–3150 m; alt, gmm
- j *Carex aperta* Boott (3) MT; Car, Mpk; WY; 1090–2930 m; gmm, wrm
- Carex aquatilis* Wahlenb. var. *aquatilis* (9) MT; Gal, Mpk, Swg; WY; 1650–2990 m; gmm, wfn, wrm
- Carex arcta* Boott (1) WY; 2290–2380 m; wfn
- Carex athrostachya* Olney (1) MT; Swg; 1610–1610 m; wrm
- Carex aurea* Nutt. (17) MT; Car, Gal, Mpk, Swg; WY; 1340–2800 m; dis, gmm, wrm
- Carex backii* Boott (2) MT; Gal; WY; 1890–2380 m; gmm, rcr
- Carex bebbii* (L. H. Bailey) Olney ex Fernald (1) MT; Swg; 1610–1610 m; wrm
- Carex brevior* (Dewey) Mack. ex Lunell (3) MT; Stw; 1430–1630 m; wrm, wrw
- Carex breweri* Boott (1) MT; Car; 3100–3190 m; alt
- Carex brunnescens* (Pers.) Poir. var. *brunnescens* (2) MT; Mpk, Swg; 1740–2660 m; gmm, wrm
- Carex buxbaumii* Wahlenb. (3) MT; Mpk; WY; 2130–2470 m; wfn
- Carex canescens* L. var. *canescens* (11) MT; Car, Gal, Mpk, Swg; WY; 1590–2970 m;

- alw, dis, gmm, wfn, wrm, wrs
- Carex capillaris* L. (3) MT; Car; 2990–3410 m; alw, wrm, wrw
- ◇ *Carex capitata* L. (6) MT; Car, Swg; WY; 2900–3120 m; alt, gmm, wrm
- Carex chalciolepis* T. Holm (2) WY; 2870–3090 m; dis, gmm, wrm
- ◆ *Carex concinna* R. Br. (1) WY; 2120 m; wrs
- Carex deweyana* Schwein. var. *deweyana* (3) MT; Car, Mpk; 1480–2400 m; dis, wfn, wrm
- Carex disperma* Dewey (13) MT; Car, Gal, Mpk, Swg; WY; 1610–2930 m; dis, fmc, fsf, gmm., wfn wrm, wrw
- Carex douglasii* Boott (1) MT; Car; 1480 m; dis, wrm
- Carex duriuscula* C. A. Mey. (2) MT; Car, Mpk; 1720–1780 m; dis, gmm, ssb
- Carex elynoides* Holm (13) MT; Car, Gal, Mpk; WY; 2590–3290 m; alt, gmm, rts
- Carex epapillosa* Mack. (3) MT; Mpk, Swg; 2530–3230 m; alt, gmm, rts
- Carex filifolia* Nutt. (12) MT; Car, Mpk; WY; 1340–3110 m; dis, gle, gmm, ssb, wrm
- Carex foenea* Willd. (4) MT; Car, Gal, Mpk; 1620–3050 m; alt, fpt, gmm, rts, wrm
- Carex geayeri* Boott (11) MT; Gal, Mpk, Swg; 1620–2800 m; dis, fmc, fpm, fsf, gmm, wrm
- Carex gynocrates* Wormsk. ex Drejer (1) WY; 2050 m; wrm, wrw
- Carex haydeniana* Olney (11) MT; Car, Mpk, Stw; WY; 2790–3570 m; alt, gmm, rts, wrm
- Carex hoodii* Boott (31) MT; Car, Gal, Mpk, Stw, Swg; 1650–2980 m; alw, dis, fmc, fpc, fpm, gmm, wrm
- Carex illota* L. H. Bailey (17) MT; Car, Mpk, Swg; WY; 2810–3570 m; alw, gmm, wfn, wrm
- Carex inops* L. H. Bailey ssp. *heliophila* (Mack.) Crins (1) MT; Car; 1680 m; dis, vsp
- Carex interior* L. H. Bailey (7) MT; Car, Mpk; WY; 1350–2480 m; dis, wfn, wrm, wrw
- Carex lachenalii* Schkuhr (4) MT; Mpk; WY; 2880–3290 m; alw, gmm, rts, wrm
- Carex lanuginosa* Michx. (8) MT; Car, Gal, Mpk, Swg; WY; 1500–2410 m; dis, wrm
- Carex lasiocarpa* Ehrh. (4) MT; Mpk; WY; 2130–2480 m; wfn
- Carex lenticularis* Michx. var. *pallida* (Boott) Dorn (11) MT; Car, Mpk, Swg; 1480–2820 m; dis, fpc, wrm, wrw
- ◆ *Carex leptalea* Wahlenb. (3) MT; Mpk; WY; 2130–2500 m; gmm, wfn, wrm
- ◆ *Carex limosa* L. (2) MT; Mpk; WY; 2290–2400 m; wfn
- Carex luzulina* Olney var. *atropurpurea* Dorn (2) MT; Car; 3100–3570 m; alw
- Carex macloviana* d'Urv. (5) MT; Gal, Mpk, Stw; WY; 1730–3720 m; alt, dis, rts, wrm
- ◆ *Carex microglochis* Wahlenb. (1) WY; 2130–2480 m; wfn
- Carex microptera* Mack. var. *limnophila* (F. J. Herm.) Dorn (8) MT; Gal, Mpk, Swg; WY; 1650–2480 m; dis, gmm, wfn, wrm
- Carex microptera* Mack. var. *microptera* (21) MT; Car, Gal, Mpk, Swg; WY; 1340–3190 m; alw, dis, fmc, gmm, wrm, wrw
- ◇ *Carex multicostata* Mack. (2) MT; Car, Mpk; 2880–3090 m; alt, gmm
- Carex nardina* Fr. var. *hepburnii* (W. Boott) Kük. (11) MT; Car, Mpk, Swg; WY; 2870–3570 m; alt, gmm, rts
- Carex nebrascensis* Dewey (7) MT; Car, Gal, Mpk, Stw, Swg; WY; 1330–2010 m; dis, gmm, wrm, wrw
- ◇ *Carex neurophora* Mack. (2) MT; Mpk; 2010–2620 m; gmm, wrm

- Carex nigricans* C. A. Mey. (15) MT; Car, Mpk, Stw; WY; 2820–3720 m; alt, gmm, rts, wfn, wrm
- Carex nova* L. H. Bailey var. *nova* (4) MT; Car, Stw, Swg; WY; 2880–3720 m; alt, rts
- Carex obtusata* Lilj. (1) MT; Mpk; 3170–3220 m; alt
- Carex pachystachya* Cham. ex Steud. (3) MT; Mpk, Stw; 1590–2980 m; alt, wfn, wrw
- Carex paupercula* Michx. (1) WY; 2130–2480 m; wfn
- Carex paysonis* Clokey (37) MT; Car, Mpk, Stw, Swg; WY; 2790–3570 m; alt, gmm, fpa, rts, wrm
- Carex phaeocephala* Piper (25) MT; Car, Mpk, Stw, Swg; WY; 2560–3570 m; alt, dis, fpa, gmm, rts
- Carex podocarpa* R. Br. ex Richardson (11) MT; Car, Mpk, Swg; WY; 1610–3320 m; fmc, fsf, gmm, rts, wrm
- Carex praeceptorum* Mack. (3) WY; 2910–2990 m; gmm, wfn, wrm
- Carex praegracilis* W. Boott (1) WY; 1380–1590 m; vsp
- Carex praticola* Rydb. (2) MT; Mpk; WY; 2440–3230 m; alt, gmm, wrm
- Carex pyrenaica* Wahlenb. (15) MT; Car, Mpk, Stw; WY; 2910–3720 m; alt, gmm, rts, wfn, wrm
- Carex raynoldsii* Dewey (12) MT; Car, Gal, Mpk, Swg; WY; 1830–3230 m; alt, dis, fmc, gmm, wrm
- Carex rossii* Boott (26) MT; Car, Gal, Mpk, Stw, Swg; WY; 1490–3110 m; dis, fmc, fpm, fpt, fsf, gmm, ssb, rcr, rts
- Carex rupestris* All. (8) MT; Car; WY; 2900–3570 m; alt, alw, gmm, rcr, rts, wrm
- Carex saxatilis* L. (3) MT; Swg; WY; 2650–3000 m; alt, rts
- Carex scirpoidea* Michx. var. *pseudoscirpoidea* (Rydb.) Cronquist (8) MT; Car, Swg; WY; 2900–3570 m; alt, wfn, wrm
- Carex scopulorum* T. Holm var. *bracteosa* (3) MT; Swg; WY; 2180–2870 m; gmm, wrm
- Carex scopulorum* T. Holm var. *scopulorum* (21) MT; Car, Mpk, Stw, Swg; WY; 2400–3570 m; alw, fsf, gmm, wfn, wrm, wrs
- Carex sprengelii* Dewey ex Spreng. (12) MT; Car, Mpk, Stw, Swg; 1650–2010 m; dis, fpm, gmm, ssb, wrm
- ◇ *Carex stevenii* (T. Holm) Kalela (5) MT; Car; 2050–3230 m; gmm, wrm
- Carex stipata* Muhl. ex Willd. var. *stipata* (2) MT; Car, Swg; 1350–1610 m; dis, wrm
- Carex tenera* Dewey var. *tenera* (1) MT; Mpk; 1740–1740 m; wrm
- Carex utriculata* Boott (35) MT; Car, Gal, Mpk, Swg; WY; 1340–2930 m; dis, gmm, wfn, wrm, wrw
- ◇ *Carex vallicola* Dewey (5) MT; Car, Mpk, Swg; WY; 1680–2730 m; wfn, wrm, wrw
- Carex vesicaria* L. (2) MT; Mpk; WY; 2290–2400 m; wfn
- Carex xerantica* L. H. Bailey (23) MT; Car, Gal, Mpk, Stw, Swg; WY; 1430–3190 m; alt, dis, fmc, fpm, gle, gmm, ssb, wrm
- Eleocharis palustris* (L.) Roem. & Schult. (5) MT; Gal, Mpk; WY; 1380–1740 m; wrm
- Eleocharis quinqueflora* (Hartm.) O. Schwarz (1) MT; Mpk; 2320–2670 m; gmm, wrm
- Eriophorum angustifolium* Honck. (4) MT; Car; WY; 2290–3190 m; alw, wfn
- ◆ *Eriophorum callitrix* Cham. ex C. A. Mey. (7) MT; Car; WY; 2940–3290 m; alw, wfn, wrm, wrs
- *Eriophorum chamissonis* C. A. Mey. (6) MT; Mpk; WY; 2130–2670 m; gmm, wfn, wrm
- *Eriophorum gracile* W. D. J. Koch (2) WY; 2130–2480 m; wfn

- ◆ *Eriophorum scheuchzeri* Hoppe (1) WY; 3170–3290 m; alt
- ◇ *Eriophorum viridicarinatum* (Engelm.) Fern. (1) MT; Mpk; 2210–2590 m; wrm
- Kobresia myosuroides* (Vill.) Fiori & Paoli (1) MT; Car; 3100–3190 m; alw
- Schoenoplectus tabernaemontani* (K. C. Gmel.) Palla (2) MT; Car, Mpk; 1330–1620 m; wrm
- Scirpus microcarpus* J. Presl & C. Presl (3) MT; Car, Mpk, Swg; 1350–1740 m; dis, wrm

Droseraceae

- ◇■ *Drosera anglica* Huds. (3) MT; Mpk; WY; 2130–2470 m; wfn

Elaeagnaceae

- * *Elaeagnus angustifolia* L. (3) MT; Car; 1090–1300 m; gmm, wrm
- Elaeagnus commutata* Bernh. ex Rydb. (2) MT; Gal; WY; 1430–1930 m; gmm, wrm
- Shepherdia argentea* (Pursh) Nutt. (1) MT; Mpk; 1460 m; gmm, wrm
- Shepherdia canadensis* (L.) Nutt. (43) MT; Car, Gal, Mpk, Stw, Swg; WY; 1480–2850 m; dis, fmc, fpc, fsf, gmm, rts, wrm, wrw

Ericaceae

- Arctostaphylos uva-ursi* (L.) Spreng. (31) MT; Car, Gal, Mpk, Stw, Swg; WY; 1600–3570 m; alt, dis, fmc, fpc, gmm, rts
- Cassiope mertensiana* (Bong.) G. Don var. *gracilis* (Piper) C. L. Hitchc. (4) MT; Mpk, Swg; 2880–3240 m; alt, gmm, rts, wrm
- Chimaphila umbellata* (L.) W. P. C. Barton var. *occidentalis* (Rydb.) S. F. Blake (11) MT; Car, Mpk, Stw; WY; 1580–2680 m; dis, fmc, fpc, fpt, fsf, wrw
- Gaultheria humifusa* (Graham) Rydb. (3) MT; Mpk; 2320–2820 m; gmm, rts, wrm
- Kalmia microphylla* (Hook.) A. Heller (32) MT; Car, Mpk, Stw, Swg; WY; 2290–3220 m; alt, awl, gmm, wfn, wrm
- Ledum glandulosum* Nutt. (24) MT; Car, Gal, Mpk, Stw, Swg; WY; 2100–3100 m; alt, dis, fal, fmc, fpc, fsf, gmm, rts, wrm, wrw
- Moneses uniflora* (L.) A. Gray (9) MT; Car, Gal, Mpk; WY; 1610–2930 m; fmc, fsf, wrw
- Monotropa hypopithys* L. (3) MT; Car, Gal, Stw; 2180–2930 m; dis, fmc, fpc
- Orthilia secunda* (L.) House (18) MT; Car, Gal, Mpk, Stw, Swg; WY; 1580–3190 m; alt, fal, fmc, fpc, fsf, wrw
- × *Phyllodoce ×intermedia* (Hook.) Rydb. (2) MT; Car; WY; 2900–3120 m; gmm, wrm
- Phyllodoce empetriformis* (Sm.) D. Don (29) MT; Car, Mpk, Swg; WY; 1610–3230 m; alt, alw, dis, fpa, gmm, rts, wrm
- Phyllodoce glanduliflora* (Hook.) Coville (25) MT; Car, Mpk, Stw, Swg; WY; 2720–3720 m; alt, alw, gmm, rts, wrm
- Pterospora andromedea* Nutt. (5) MT; Car, Mpk, Stw; 1580–2040 m; fmc, fpc, fpt, fsf, wrw
- Pyrola asarifolia* Michx. var. *asarifolia* (14) MT; Car, Gal, Mpk, Stw; WY; 1600–2880 m; dis, fmc, fsf, wrm, wrw, wrs, wrw
- Pyrola chlorantha* Sw. (11) MT; Car, Gal, Mpk, Stw, Swg; 1680–2990 m; fmc, fsf, wrw
- Pyrola elliptica* Nutt. (1) MT; Stw; 1580–1770 m; fmc, wrw
- Pyrola minor* L. (4) MT; Car, Mpk, Swg; WY; 1610–3100 m; fsf, rts, wrw
- Pyrola picta* Sm. var. *picta* (1) MT; Mpk; 2010–2620 m; fsf
- Vaccinium membranaceum* Douglas ex Torr. (19) MT; Car, Gal, Mpk, Stw, Swg; 1610–2930 m; dis, fal, fmc, fpm, fsf, wrm
- ◇ *Vaccinium myrtilus* L. var. *oreophilum* (Rydb.) Dorn (1) MT; Mpk; 2070–2170 m; fsf

Vaccinium scoparium Leiberg ex Coville (**43**) MT; Car, Gal, Mpk, Stw, Swg; WY; 2010–3230 m; alt, alw, dis, fmc, fpa, fsf, gmm, wrm, wrw

Euphorbiaceae

Chamaesyce glyptosperma (Engelm.) Small (**4**) MT; Mpk, Stw, Swg; 1300–1710 m; dis, gle, rcr

Chamaesyce serpyllifolia (Pers.) Small (**1**) MT; Swg; 1610–1610 m; dis

Euphorbia brachycera Engelm. (**9**) MT; Car, Mpk; WY; 1350–2010 m; fpm, fpf, gle, ssb, wrm

- * *Euphorbia esula* L. var. *uralensis* (Fisch. ex Link) Dorn (**9**) MT; Car, Stw, Swg; WY; 1090–1770 m; dis, gle, gmm, ssb, wrm

Fabaceae

Astragalus adsurgens Pall. var. *robustior* Hook. (**28**) MT; Car, Mpk, Stw; WY; 1160–2320 m; dis, fmc, gle, gmm, ssb, rcr, wrm

Astragalus agrestis Douglas ex G. Don (**11**) MT; Gal, Mpk; WY; 1430–2570 m; fmc, fpm, fpm, gle, ssb, rcr, wrm

Astragalus alpinus L. var. *alpinus* (**32**) MT; Car, Gal, Mpk, Stw, Swg; WY; 1710–3220 m; alt, alw, dis, fmc, fpc, fsf, gmm, ssb, rts, wrm, wrs, wrw

Astragalus americanus (Hook.) M. E. Jones (**8**) MT; Car, Gal, Mpk; WY; 1800–2930 m; fsf, gmm, wrm, wrw

Astragalus australis (L.) Lam. var. *glabriusculus* (Hook.) Isely (**5**) MT; Car, Stw; 1700–2990 m; fmc, fpm, fpm, fpp, rts

Astragalus bisulcatus (Hook.) A. Gray var. *bisulcatus* (**3**) WY; 1380–2320 m; ssb, vsp

Astragalus cibarius E. Sheld. (**5**) MT; Mpk; 1430–2020 m; dis, gle, ssb

- * *Astragalus cicer* L. (**1**) MT; Gal; 1790–1840 m; dis

Astragalus crassicaarpus Nutt. var. *paysonii* (E. H. Kelso) Barneby (**1**) MT; Stw; 1490 m; dis, gle

Astragalus drummondii Douglas ex Hook. (**16**) MT; Car, Gal, Mpk, Stw, Swg; WY; 1300–2230 m; dis, fmc, gle, gmm, ssb, rcr

Astragalus eucosmus B. L. Rob. (**6**) MT; Car, Gal; 1800–2380 m; dis, wrm

Astragalus flexuosus (Hook.) Douglas ex G. Don var. *flexuosus* (**2**) MT; Stw; 1490–1520 m; dis, gle, wrm

Astragalus gilviflorus E. Sheld. var. *gilviflorus* (**9**) MT; Mpk, Stw; WY; 1370–3110 m; dis, fpm, fpm, gmm, ssb, wrm

Astragalus gracilis Nutt. (**5**) MT; Car, Mpk, Swg; WY; 1160–2780 m; dis, gle, ssb, rcr, vsp

Astragalus kentrophyta A. Gray var. *tegetarius* (S. Watson) Dorn (**5**) MT; Gal, Mpk; WY; 2070–3250 m; alt, rcr, vsp

Astragalus lotiflorus Hook. (**2**) MT; Mpk; WY; 1370–1830 m; dis, gle, ssb, wrm

Astragalus miser Douglas var. *decumbens* (Nutt. ex Torr. & A. Gray) Cronquist (**12**) MT; Car, Stw; WY; 1300–2220 m; dis, fmc, fpm, fpm, fpp, gmm, ssb, wrm

Astragalus miser Douglas var. *hylophilus* (Rydb.) Barneby (**35**) MT; Gal, Mpk, Stw, Swg; WY; 1590–2800 m; dis, fmc, fpm, fpm, fsf, gmm, ssb, rcr, wrm, wrw

Astragalus miser Douglas var. *praeteritus* Barneby (**1**) WY; 1500–1750 m; ssb, vsp

Astragalus miser Douglas var. *tenuifolius* (Nutt.) Barneby (**3**) MT; Mpk; 1650–1940 m; dis, ssb

Astragalus missouriensis Nutt. var. *missouriensis* (**1**) MT; Mpk; 1760 m; ssb

- Astragalus purshii* Douglas ex Hook. var. *purshii* (4) MT; Car, Mpk; 1260–2020 m; dis, ssb
- Astragalus spatulatus* E. Sheld. (7) MT; Car; WY; 1340–2100 m; fpf, fpm, gmm, ssb, rcr, vsp
- Astragalus vexilliflexus* E. Sheld. var. *vexilliflexus* (17) MT; Car, Mpk, Stw, Swg; WY; 1340–3110 m; fpf, fpm, fpp, gmm, ssb, rcr, vsp
- * *Caragana arborescens* Lam. (2) MT; Car, Gal; 1300–1460 m; dis, ssb, wrm, wrw
- Dalea candida* Michx. var. *oligophylla* (Torr.) Shinnars (6) WY; 1370–2320 m; ssb, wrm
- Dalea purpurea* Vent. var. *purpurea* (7) MT; Swg; WY; 1350–1920 m; dis, gle, ssb
- Glycyrrhiza lepidota* Pursh (6) MT; Mpk, Stw; WY; 1310–2320 m; dis, fmc, fpt, gle, ssb, wrw
- Hedysarum boreale* Nutt. var. *boreale* (4) WY; 1390–2320 m; ssb, wrm
- Hedysarum boreale* Nutt. var. *pabulare* (A. Nelson) Dorn (2) MT; Mpk; WY; 1380–2060 m; gmm, vsp
- Hedysarum occidentale* Greene (1) MT; Mpk; 2100–2110 m; dis, fsf
- Hedysarum sulphurescens* Rydb. (23) MT; Car, Gal, Mpk, Stw, Swg; WY; 1590–3080 m; alt, fmc, fpc, fpf, fpm, fpp, fsf, gmm, rcr, rts, wrm
- * *Lotus corniculatus* L. (11) MT; Car, Gal, Mpk, Stw, Swg; 1350–2680 m; dis, fpc, fsf, gmm, wrm
- Lupinus argenteus* Pursh var. *argenteus* (58) MT; Car, Mpk, Stw, Swg; WY; 1300–3350 m; alt, alw, dis, fpa, fpm, gmm, ssb, rts, wrm, wrw
- Lupinus argenteus* Pursh var. *depressus* (Rydb.) C. L. Hitchc. (1) MT; Mpk; 2070–2170 m; fsf
- Lupinus argenteus* Pursh var. *parviflorus* (Nutt. ex Hook. & Arn.) C. L. Hitchc. (2) MT; Stw; 1800–1820 m; fmc, gmm
- Lupinus argenteus* Pursh var. *rubricaulis* (Greene) S. L. Welsh (25) MT; Car, Gal, Mpk, Stw, Swg; WY; 1350–3320 m; alt, dis, fmc, fpm, fpt, fsf, gle, gmm, wrm, wrw
- Lupinus leucophyllus* Douglas ex Lindl. (5) MT; Gal; WY; 1370–2220 m; dis, fmc, gmm, ssb, wrm
- Lupinus polyphyllus* Lindl. var. *humicola* (A. Nelson) Barneby (7) MT; Car; 1650–2930 m; dis, fpf, fpp, fpm, gle, gmm, wrm
- Lupinus polyphyllus* Lindl. var. *prunophilus* (M. E. Jones) L. Ll. Phillips (1) MT; Gal; 2010–2070 m; fmc, wrm
- Lupinus sericeus* Pursh (22) MT; Gal, Mpk, Stw, Swg; WY; 1430–2800 m; dis, fpc, fpm, gle, gmm, ssb, rcr, wrm
- * *Medicago lupulina* L. (34) MT; Car, Gal, Mpk, Stw, Swg; WY; 1300–2580 m; dis, fmc, fpc, fpt, fsf, fpm, gle, gmm, ssb, rcr, wrm, wrs, wrw
- * *Medicago sativa* L. (8) MT; Car, Gal, Mpk, Stw, Swg; 1090–2010 m; dis, fmc, fpf, fpm, gle, ssb, wrw
- * *Melilotus albus* Medik. (1) MT; Mpk; 1310 m; dis, gle
- * *Melilotus officinalis* (L.) Pall. (22) MT; Car, Gal, Mpk, Stw, Swg; 1090–2190 m; dis, fmc, gle, ssb, wrm
- * *Onobrychis viciifolia* Scop. (1) MT; Mpk; 1650 m; dis
- Oxytropis besseyi* (Rydb.) Blank. var. *argophylla* (Rydb.) Barneby (1) MT; Stw; 1490–1710 m; gle, rcr
- Oxytropis besseyi* (Rydb.) Blank. var. *besseyi* (5) MT; Car, Mpk; WY; 1160–2010 m; dis,

- gle, ssb, vsp
Oxytropis besseyi (Rydb.) Blank. var. *ventosa* (Greene) Barneby (19) MT; Car, Gal, Mpk, Stw; WY; 1300–2590 m; dis, fpf, fpp, fpm, gle, gmm, ssb, wrm
Oxytropis borealis DC. var. *viscida* (Nutt.) S. L. Welsh (3) WY; 1370–3080 m; alt, dis, wrm
Oxytropis campestris (L.) DC. var. *cusickii* (Greenm.) Barneby (8) MT; Car, Mpk, Stw, Swg; 2720–3240 m; alt, rts
Oxytropis campestris (L.) DC. var. *spicata* Hook. (4) MT; Gal; WY; 2070–3100 m; alt, gmm, wrs
Oxytropis deflexa (Pall.) DC. var. *sericea* Torr. & A. Gray (3) MT; Car, Gal; 1800–1930 m; dis, gmm, wrm
Oxytropis lagopus Nutt. var. *atropurpurea* (Rydb.) Barneby (12) MT; Car, Mpk, Stw; WY; 1760–3110 m; alt, alw, dis, fpf, fpm, ssb, rts, wrs
Oxytropis lagopus Nutt. var. *lagopus* (3) MT; Car; WY; 1830–3110 m; alt, ssb, rts
Oxytropis sericea Nutt. var. *sericea* (28) MT; Car, Gal, Mpk, Stw, Swg; WY; 1340–2680 m; dis, fmc, fpf, fpp, fpm, gle, gmm, ssb, wrm
Pedimelum esculentum (Pursh) Rydb. (1) MT; Car; 1300 m; dis, ssb, wrm
Psoralidium lanceolatum (Pursh) Rydb. (2) WY; 1370–1460 m; ssb, vsp
Psoralidium tenuiflorum (Pursh) Rydb. (3) MT; Car, Stw, Swg; 1160–1490 m; dis, gmm
Trifolium dasyphyllum Torr. & A. Gray (12) MT; Car, Mpk, Stw; WY; 2720–3260 m; alt, alw, gmm, rts
Trifolium haydenii Porter (18) MT; Car, Gal, Mpk, Stw, Swg; WY; 2130–3250 m; alt, fmc, gmm, rts
* *Trifolium hybridum* L. (17) MT; Car, Gal, Mpk, Swg; 1090–2620 m; dis, fmc, fpc, fsf, wrm
Trifolium longipes Nutt. var. *longipes* (3) MT; Car, Gal; 1520–2570 m; dis, wrm
Trifolium longipes Nutt. var. *reflexum* A. Nelson (8) MT; Car, Gal, Stw; 1650–2570 m; dis, gmm, wrm
Trifolium nanum Torr. (13) MT; Car, Gal; WY; 2870–3350 m; alt, alw, rts
Trifolium parryi A. Gray var. *montanense* (Rydb.) S. L. Welsh (31) MT; Car, Gal, Mpk, Stw; WY; 2380–3720 m; alt, alw, fmc, gmm, rts, wrm
* *Trifolium pratense* L. (29) MT; Car, Gal, Mpk, Stw, Swg; WY; 1090–2930 m; dis, fmc, fpc, fsf, fpm, gmm, sbs, wrm
* *Trifolium repens* L. (25) MT; Car, Gal, Mpk, Stw, Swg; WY; 1590–2930 m; dis, fmc, fpc, fpt, fsf, fpm, gmm, wrm
Vicia americana Muhl. ex Willd. var. *americana* (4) MT; Car; 1820–2220 m; gmm, wrm
Vicia americana Muhl. ex Willd. var. *minor* Hook. (25) MT; Car, Mpk, Stw, Swg; WY; 1260–3110 m; dis, gle, gmm, sbs, wrm

Gentianaceae

- Frasera speciosa* Douglas ex Griseb. (18) MT; Car, Gal, Mpk, Stw, Swg; WY; 1680–3240 m; alt, dis, fpm, gmm, ssb, rts
Gentiana affinis Griseb. (3) MT; Gal, Swg; WY; 1870–2930 m; dis, gmm, wrm
Gentiana algida Pall. (24) MT; Car, Mpk, Stw, Swg; WY; 2820–3720 m; alt, alw, gmm, rts, wfn, wrm
Gentiana prostrata Haenke (2) MT; Car; 3100–3570 m; alw
Gentianella amarella (L.) Börner var. *acuta* (Michx.) Herder (10) MT; Car, Mpk, Swg;

- WY; 2290–2960 m; alt, fsf, gmm, wrm
Gentianella tenella (Rottb.) Börner (3) MT; Car; 3100–3570 m; alw
Gentianopsis detonsa (Rottb.) Ma var. *elegans* (A. Nelson) N. H. Holmgren (16) MT;
 Car, Gal, Mpk, Swg; WY; 1870–2930 m; fsf, gmm, wfn, wrm
 ◇ *Gentianopsis simplex* (A. Gray) H. H. Iltis (3) MT; Mpk; 2300–2820 m; gmm, wrm
Swertia perennis L. (8) MT; Mpk, Swg; 2650–3240 m; alt, alw, gmm, rts, wrm

Geraniaceae

- * *Erodium cicutarium* (L.) L'Hér. ex Aiton (2) MT; Stw; 1430–1710 m; gle, rcr
Geranium caespitosum E. James (1) WY; 2470–2660 m; fpm
Geranium carolinianum L. (2) MT; Stw; 1430–1630 m; gle, rcr, wrm
Geranium richardsonii Fisch. & Trautv. (41) MT; Car, Gal, Mpk, Stw, Swg; WY; 1590–
 2930 m; dis, fmc, fpt, fsf, gmm, wrm, wrw
Geranium viscosissimum Fisch. & C. A. Mey. ex C. A. Mey. var. *incisum* (Torr. & A.
 Gray) N. H. Holmgren (20) MT; Car, Gal, Mpk, Stw, Swg; WY; 1680–2800 m;
 dis, fmc, fpm, fpt, fsf, gmm, wrm, wrw
Geranium viscosissimum Fisch. & C. A. Mey. ex C. A. Mey. var. *viscosissimum* (29)
 MT; Car, Gal, Mpk, Stw, Swg; WY; 1480–2970 m; alw, dis, fpm, fsf, gmm, ssb,
 rcr, wrm

Grossulariaceae

- Ribes americanum* Mill. (1) MT; Car; 1350 m; dis, wrm
Ribes aureum Pursh var. *aureum* (5) MT; Car, Mpk, Stw; 1160–1620 m; dis, gle, wrm
Ribes aureum Pursh var. *villosum* DC. (1) MT; Car; 1090 m; gmm, wrm
Ribes cereum Douglas (43) MT; Car, Gal, Mpk, Stw, Swg; WY; 1300–3110 m; dis, fmc,
 gle, gmm, ssb, rcr, rts, wrm
Ribes hudsonianum Richards. var. *petiolare* (Douglas) Jancz. (8) MT; Gal, Mpk; WY;
 1680–2480 m; dis, fmc, fsf, gmm, wrw
Ribes lacustre (Pers.) Poir. (27) MT; Car, Gal, Mpk, Stw, Swg; WY; 1610–2990 m; dis,
 fmc, fpm, fsf, gmm, rts, wrm, wrw
Ribes montigenum McClatchie (2) MT; Car; WY; 2590–3220 m; alt, gmm
Ribes oxyacanthoides L. var. *irriguum* (Douglas) Jancz. (12) MT; Car, Mpk, Stw, Swg;
 1480–2330 m; dis, fmc, fpm, gmm, rcr, wrm, wrw
Ribes oxyacanthoides L. var. *oxyacanthoides* (9) MT; Car, Gal, Mpk; 1650–2290 m;
 gmm, rcr, rts, wrm
Ribes oxyacanthoides L. var. *setosum* (Lindl.) Dorn (5) MT; Mpk; 1340–2230 m; dis, gle,
 gmm, wrm
Ribes viscosissimum Pursh (9) MT; Car, Gal, Mpk, Stw, Swg; 1740–2820 m; dis, fmc,
 fpc, fpm, fsf

Haloragaceae

- Myriophyllum sibiricum* Kom. (1) WY; 2340–2370 m; wfn

Iridaceae

- Iris missouriensis* Nutt. (9) MT; Gal, Mpk; 1430–2410 m; fpm, gle, gmm, wrm
Sisyrinchium idahoense E. P. Bicknell var. *occidentale* (E. P. Bicknell) D. M. Hend. (3)
 MT; Gal; WY; 1840–2570 m; gmm, wrm
Sisyrinchium montanum Greene var. *montanum* (7) MT; Car, Mpk; 1430–1920 m; dis,
 gle, gmm, wrm

Juncaceae

Juncus arcticus Willd. var. *balticus* (Willd.) Trautv. (10) MT; Car, Gal, Mpk, Swg; WY; 1380–2570 m; dis, gmm, wrm, wrw
Juncus articulatus L. (1) MT; Swg; 1610–1610 m; dis, wrm
Juncus bufonius L. (3) MT; Mpk; WY; 2040–2590 m; fpc, wrm, wrw
Juncus confusus Coville (10) MT; Car, Mpk, Stw, Swg; WY; 1590–2930 m; fmc, fpc, fsf, gmm, wrm, wrw
Juncus drummondii E. Mey. (33) MT; Car, Gal, Mpk, Stw, Swg; WY; 2300–3720 m; alt, alw, dis, gmm, wfn, wrm
Juncus dudleyi Wiegand (3) MT; Gal, Stw; 1590–1850 m; fmc, wrm, wrs, wrw
Juncus ensifolius Wikstr. var. *ensifolius* (12) MT; Gal, Mpk, Stw; 1590–2820 m; dis, fmc, gmm, wrm
Juncus ensifolius Wikstr. var. *montanus* (Engelm.) C. L. Hitchc. (6) MT; Gal, Mpk; WY; 1620–2930 m; gmm, wrm
Juncus filiformis L. (1) WY; 2440–2930 m; gmm, wrm
Juncus hallii Engelm. (1) MT; Mpk; 1610–2880 m; fsf
Juncus mertensianus Bong. (27) MT; Car, Mpk, Stw, Swg; WY; 1610–3720 m; alw, fmc, fsf, gmm, wrm, wrw
Juncus parryi Engelm. (21) MT; Car, Mpk, Swg; WY; 2020–3320 m; alt, alw, fmc, fsf, gmm, rts, wrm
Juncus regelii Buchenau (6) MT; Gal, Mpk, Swg; 2160–2820 m; dis, gmm, wrm
Juncus tenuis Willd. (1) MT; Gal; 1840–1850 m; dis, gmm
Juncus triglumis L. var. *triglumis* (5) MT; Car; 3100–3270 m; alw
Luzula comosa E. Mey. (4) MT; Mpk; WY; 1680–2810 m; fmc, fpt, wrm, wrw
Luzula hitchcockii Hämet-Ahti (3) MT; Car, Mpk; 2880–3090 m; alt, gmm, wrm
Luzula multiflora (Ehrh.) Lej. ssp. *multiflora* (2) MT; Swg; WY; 2440–2930 m; gmm, wrm
Luzula parviflora (Ehrh.) Desv. (29) MT; Car, Gal, Mpk, Swg; WY; 1600–3410 m; alt, alw, fmc, fpc, gmm, wrm, wrs, wrw
Luzula piperi (Coville) M. E. Jones (5) MT; Mpk, Swg; WY; 2790–3050 m; alw, gmm, wfn, wrm
Luzula spicata (L.) DC. (44) MT; Car, Gal, Mpk, Stw, Swg; WY; 2560–3720 m; alt, alw, dis, fpa, gmm, rts, wfn, wrm

Lamiaceae

Agastache urticifolia (Benth.) Kuntze var. *urticifolia* (1) MT; Mpk; 1860–2100 m; gmm
Dracocephalum parviflorum Nutt. (7) MT; Gal, Mpk, Swg; 1460–2620 m; dis, fpc, fsf, wrw
 * *Galeopsis ladanum* L. (1) MT; Gal; 1790–1840 m; dis
Hedeoma drummondii Benth. (1) MT; Mpk; 1310 m; dis, gle
 * *Lamium amplexicaule* L. (1) MT; Mpk; 1450 m; dis, gle
 * *Marrubium vulgare* L. (3) MT; Mpk; WY; 1310–1590 m; dis, gle, ssb, vsp
Mentha arvensis L. (5) MT; Mpk, Swg; 1610–2400 m; wrm
Monarda fistulosa L. var. *menthifolia* (Graham) Fernald (17) MT; Car, Gal, Mpk, Stw, Swg; WY; 1590–2470 m; dis, fmc, fpt, gmm, ssb, rcr, wrm, wrw
Prunella vulgaris L. var. *lanceolata* (W. P. C. Barton) Fernald (5) MT; Car, Gal, Mpk, Stw; 1590–2270 m; dis, fmc, fpc, fpt, wrm, wrw

Lentibulariaceae

- *Utricularia minor* L. (1) WY; 2130–2480 m; waq

Liliaceae

- Calochortus eurycarpus* S. Watson (1) WY; 1380–1590 m; vsp
Calochortus gunnisonii S. Watson (9) MT; Car, Mpk, Stw, Swg; 1590–2620 m; gmm, ssb, vsp
Calochortus nuttallii Torr. & A. Gray (5) MT; Car, Stw; WY; 1350–2220 m; dis, gle, vsp
Erythronium grandiflorum Pursh var. *grandiflorum* (21) MT; Gal, Mpk, Swg; 1610–2940 m; alt, dis, fmc, fpm, fsf, gmm, ssb, wrm
Fritillaria atropurpurea Nutt. (22) MT; Car, Gal, Mpk, Swg; 1600–2520 m; dis, fmc, fpm, gmm, ssb, rts
Fritillaria pudica (Pursh) Spreng. (19) MT; Car, Gal, Mpk, Stw, Swg; WY; 1430–2870 m; dis, fpf, fpm, fsf, gle, gmm, ssb, wrm
Lilium philadelphicum L. (4) MT; Car; 1740–2070 m; fsf, gmm, rcr, wrm
Lloydia serotina (L.) Rchb. var. *serotina* (16) MT; Car, Mpk, Stw, Swg; WY; 2680–3350 m; alt, alw, gmm, wrm, wrs
Prosartes trachycarpa S. Watson (30) MT; Car, Gal, Mpk, Stw, Swg; WY; 1590–2800 m; dis, fmc, fpc, fpm, fpp, fpt, fsf, gmm, wrm, wrw

Linaceae

- Linum lewisii* Pursh var. *lewisii* (26) MT; Car, Gal, Mpk, Stw, Swg; WY; 1160–3090 m; alt, dis, fmc, fpf, fpm, fpp, gle, gmm, ssb, rcr, vsp

Loasaceae

- Mentzelia albicaulis* (Douglas ex Hook.) Douglas ex Torr. & A. Gray (1) WY; 1590 m; ssb
Mentzelia decapetala (Pursh ex Sims) Urb. & Gilg ex Gilg (2) MT; Mpk; 1310–1770 m; dis, gle, vsp
Mentzelia dispersa S. Watson (2) MT; Mpk; WY; 1590–1770 m; dis, vsp
Mentzelia laevicaulis (Douglas ex Hook.) Torr. & A. Gray var. *laevicaulis* (1) MT; Mpk; 1710–1770 m; dis, vsp

Malvaceae

- Iliamna rivularis* (Douglas ex Hook.) Greene var. *diversa* (A. Nelson) Wiggins (1) MT; Gal; 1790–1840 m; dis
Iliamna rivularis (Douglas ex Hook.) Greene var. *rivularis* (1) MT; Mpk; 1740–2010 m; fmc, gmm
Sidalcea oregana (Nutt. ex Torr. & A. Gray) A. Gray var. *procera* C. L. Hitchc. (1) MT; Gal; 2050–2080 m; dis, gmm
Sphaeralcea coccinea (Nutt.) Rydb. (8) MT; Car, Mpk, Stw; WY; 1300–2190 m; dis, gle, ssb, vsp

Melanthiaceae

- Trillium ovatum* Pursh var. *ovatum* (1) MT; Mpk; 2270–2380 m; fsf
Xerophyllum tenax (Pursh) Nutt. (1) MT; Mpk; 1740–2260 m; fpm,
Zigadenus elegans Pursh (24) MT; Car, Gal, Mpk, Stw, Swg; WY; 1160–3120 m; alt, dis, fpt, fsf, gle, gmm, rcr, wrm
Zigadenus paniculatus (Nutt.) S. Watson (7) MT; Car, Mpk, Stw, Swg; WY; 1520–2230 m; dis, fpf, fpm, fpp, gmm, ssb, vsp
Zigadenus venenosus S. Watson var. *gramineus* (Rydb.) O. S. Walsh ex M. Peck (41) MT; Car, Gal, Mpk, Stw, Swg; WY; 1300–3110 m; dis, fmc, fpf, fpm, fpp, gle,

gmm, ssb, vsp

Menyanthaceae

Menyanthes trifoliata L. (4) MT; Mpk; WY; 2130–2470 m; wfn

Myrsinaceae

Lysimachia ciliata L. (2) MT; Stw; 1610–1800 m; fmc, wrm

Nyctaginaceae

Mirabilis linearis (Pursh) Heimerl var. *linearis* (1) MT; Mpk; 1710–1770 m; dis, vsp

Nymphaeaceae

Nuphar polysepala Engelm. (7) MT; Car, Mpk; WY; 1820–2930 m; waq, wfn, wrm

Oleaceae

Fraxinus pennsylvanica Marshall (2) MT; Car, Gal; 1160–1460 m; dis, gle, wrm

* *Syringa vulgaris* L. (1) MT; Gal; 1460 m; dis, wrm

Onagraceae

Chamerion angustifolium (L.) Holub var. *angustifolium* (36) MT; Car, Gal, Mpk, Stw, Swg; WY; 1580–3570 m; alt, dis, fpa, fpc, fpt, fsf, gmm, rts, wrm, wrs

Chamerion angustifolium (L.) Holub var. *canescens* (A. W. Wood) N. H. Holmgren & P. K. Holmgren (3) MT; Gal, Mpk, Stw; 1610–2530 m; dis, fmc, fpc, wrm

Chylismia scapoidea (Torr. & A. Gray) Small ssp. *scapoidea* (2) MT; Car; 1260–1380 m; ssb, vsp

Circaea alpina L. var. *alpina* (1) MT; Gal; 1840–1850 m; gmm, wrm

Epilobium anagallidifolium Lam. (2) MT; Mpk; WY; 2960–3290 m; alt

Epilobium brachycarpum C. Presl (10) MT; Gal, Mpk, Swg; 1610–2800 m; dis, fmc, fpc, gmm, rts

Epilobium ciliatum Raf. var. *ciliatum* (8) MT; Gal, Mpk, Swg; WY; 1610–2910 m; dis, fpc, wrm

Epilobium ciliatum Raf. var. *glandulosum* (Lehm.) Dorn (5) MT; Mpk, Swg; WY; 1740–2930 m; fsf, gmm, wrm

Epilobium clavatum Trel. (21) MT; Car, Gal, Mpk, Swg; WY; 2010–3410 m; alt, gmm, wrm

Epilobium halleanum Hausskn. (12) MT; Gal, Mpk, Swg; WY; 1400–3080 m; fsf, gmm, rts, wfn, wrm, wrw

Epilobium hornemannii Rchb. var. *hornemannii* (9) MT; Car, Gal, Mpk, Stw, Swg; WY; 1580–3120 m; alt, fmc, fsf, gmm, wrm, wrw

Epilobium lactiflorum Hausskn. (5) MT; Gal, Mpk, Swg; 2010–2930 m; dis, fmc, wrm

Epilobium oregonense Hausskn. (2) MT; Gal; WY; 2320–2380 m; wrm

Epilobium saximontanum Hausskn. (3) MT; Gal; WY; 1840–2930 m; gmm, wrm

Gayophytum decipiens F. H. Lewis & Szweyk. (1) MT; Mpk; 2530 m; gmm, wrm

Gayophytum diffusum Torr. & A. Gray var. *strictipes* (Hook.) Dorn (1) MT; Gal; 2170–2510 m; gmm, vsp

Oenothera albicaulis Pursh (1) MT; Car; 1090 m; gle

Oenothera cespitosa Nutt. var. *cespitosa* (9) MT; Car, Mpk; WY; 1260–3110 m; dis, gle, gmm, ssb, vsp

Oenothera nuttallii Sweet (1) WY; 1350–1400 m; vsp

Oenothera suffrutescens (Ser.) W. L. Wagner & Hoch (14) MT; Car, Mpk, Stw; WY; 1160–1770 m; dis, gle, gmm, ssb, rcr, vsp

Oenothera villosa Thunb. var. *strigosa* (Rydb.) Dorn (6) MT; Car, Gal; WY; 1090–2380

m; dis, fpm, gmm, wrm

Oenothera villosa Thunb. var. *villosa* (3) MT; Gal, Stw; WY; 1400–1770 m; dis, fmc, wrm, wrw

Orchidaceae

- ◆ *Amerorchis rotundifolia* (Banks ex Pursh) Hultén (1) WY; 2050 m; fsf, wrm, wsb
Calypso bulbosa (L.) Oakes var. *americana* (R. Br.) Luer (10) MT; Gal, Mpk, Stw, Swg; 1680–2730 m; fmc, fsf, wrw
Coeloglossum viride (L.) Hartm. (3) MT; Car, Mpk; 1680–2480 m; fmc, fsf, wrw
Corallorhiza maculata (Raf.) Raf. var. *occidentalis* (Lindl.) Ames (11) MT; Car, Gal, Mpk, Swg; WY; 1480–2800 m; dis, fmc, fsf, wrw
Corallorhiza striata Lindl. var. *striata* (6) MT; Car, Mpk; 1680–2190 m; fmc, fpp, fpm, fpp, fsf, wrw
Corallorhiza trifida Châtel. (7) MT; Gal, Mpk, Swg; WY; 1710–2730 m; fmc, fsf, wrw, wsb
Corallorhiza wisteriana Conrad (6) MT; Car, Gal, Mpk, Swg; WY; 1600–2300 m; fmc, fsf, wrw
Goodyera oblongifolia Raf. (16) MT; Gal, Mpk, Stw, Swg; WY; 1600–2880 m; dis, fmc, fpc, fpm, fsf, wfn, wrw
Listera caurina Piper (1) MT; Mpk; 1690–1730 m; fmc, wrw
Listera convallarioides (Sw.) Elliott (5) MT; Car, Stw; 1480–1770 m; dis, fmc, wrw
Listera cordata (L.) R. Br. var. *nephrophylla* (Rydb.) Hultén (6) MT; Car, Gal, Mpk, Swg; 2300–2880 m; fmc, fsf, gmm, wrm, wrw, wsb
Piperia unalascensis (Spreng.) Rydb. (7) MT; Car, Gal, Mpk, Stw, Swg; 1680–2470 m; dis, fmc, fpt, gmm, ssb, veg, wrm
Platanthera aquilonis Sheviak (9) MT; Car, Gal, Stw; WY; 1350–2470 m; dis, fmc, fsf, wfn, wrw, wsb
Platanthera dilatata (Pursh) Lindl. ex L. C. Beck var. *albiflora* (Cham.) Ledeb. (19) MT; Gal, Mpk, Stw, Swg; WY; 1680–2970 m; alt, dis, fmc, fpc, fsf, gmm, wfn, wrm, wrw, wsb
Platanthera dilatata (Pursh) Lindl. ex L. C. Beck var. *dilatata* (6) MT; Car, Gal, Swg; WY; 1840–2930 m; dis, fmc, gmm, wrm, wrw
Platanthera huronensis (Nutt.) Lindl. (3) MT; Car; WY; 1600–2650 m; dis, fmc, fsf, wrm, wrw
Platanthera obtusata (Banks ex Pursh) Lindl. (3) WY; 2050–2470 m; fsf, wrm, wrw, wsb
Platanthera stricta Lindl. (18) MT; Car, Gal, Mpk, Swg; 1610–3050 m; alt, dis, fmc, fsf, gmm, wrm, wfn, wrw
Spiranthes romanzoffiana Cham. (14) MT; Car, Gal, Mpk, Swg; WY; 1840–2930 m; gmm, wfn, wrm

Orobanchaceae

- Castilleja angustifolia* (Nutt.) G. Don var. *angustifolia* (10) MT; Car, Gal, Mpk, Swg; WY; 1260–3110 m; fpm, gle, gmm, ssb, rcr, vsp
Castilleja angustifolia (Nutt.) G. Don var. *dubia* A. Nelson (3) WY; 1380–1750 m; ssb, rcr, vsp
Castilleja crista-galli Rydb. (2) MT; Mpk, Swg; 1830–2100 m; alt, gmm, vsp
Castilleja cusickii Greenm. (13) MT; Car, Stw; WY; 2720–3720 m; alt, gmm, wrm

- Castilleja flava* S. Watson var. *flava* (1) MT; Mpk; 1680–2190 m; fsf
Castilleja linariifolia Benth. (3) MT; Car; 1830–2220 m; gmm, vsp
Castilleja lutescens (Greenm.) Rydb. (2) MT; Gal, Mpk; 2040–2230 m; gmm
Castilleja miniata Douglas ex Hook. var. *miniata* (34) MT; Car, Gal, Mpk, Stw, Swg;
 WY; 1580–2880 m; dis, fmc, fpc, fpt, fsf, gmm, wrm
Castilleja pallescens (A. Gray) Greenm. var. *pallescens* (14) MT; Car, Gal, Mpk, Stw,
 Swg; 1430–2990 m; gle, gmm, ssb, wrs
Castilleja pilosa (S. Watson) Rydb. var. *longispica* (A. Nelson) N. H. Holmgren (4) MT;
 Car, Mpk; WY; 1770–2320 m; dis, gmm, ssb, vsp
Castilleja pulchella Rydb. (24) MT; Car, Mpk, Stw, Swg; WY; 2830–3720 m; alt, gmm,
 rts, wrm
Castilleja rhexifolia Rydb. (33) MT; Car, Gal, Mpk, Stw, Swg; WY; 1610–3410 m; alt,
 dis, fsf, gmm, wrm
Orobanche fasciculata Nutt. (13) MT; Car, Mpk; WY; 1260–2010 m; dis, gle, gmm, ssb,
 vcp
Orobanche ludoviciana Nutt. var. *ludoviciana* (1) WY; 1390–1920 m; ssb
Orobanche uniflora L. (4) MT; Gal, Mpk; 1620–2820 m; fmc, fpf, fpm, fpt, gmm, wrm
Pedicularis bracteosa Benth. var. *paysoniana* (Pennell) Cronquist (16) MT; Car, Gal,
 Mpk, Swg; WY; 1610–3100 m; fmc, fpa, fsf, gmm, wrm
Pedicularis cystopteridifolia Rydb. (11) MT; Car, Gal, Mpk, Stw; WY; 1830–3340 m;
 alt, fmc, fpm, gmm, rcr, wrs
Pedicularis groenlandica Retz. (43) MT; Car, Gal, Mpk, Stw, Swg; WY; 1610–3570 m;
 alw, dis, fsf, gmm, wfn, wrm
 ◻♦ *Pedicularis oederi* Vahl ex Hornem. (15) MT; Car, Mpk, Stw; WY; 2900–3570 m; alt,
 alw, wrs
Pedicularis parryi A. Gray var. *purpurea* Parry (2) MT; Mpk; 2870–3240 m; alt, rts
Pedicularis racemosa Douglas ex Benth. var. *alba* (Pennell) Cronquist (1) MT; Mpk;
 2580–2820 m; fmc, wrm

Oxalidaceae

Oxalis dillenii Jacq. (1) MT; Car; 1350 m; dis, wrm

Papaveraceae

Corydalis aurea Willd. var. *aurea* (4) MT; Mpk, Swg; WY; 1740–2370 m; gmm, ssb,
 vsp

* *Fumaria vaillantii* Loisel. (1) MT; Swg; 1220 m; dis, gle

Papaver nudicaule L. (2) MT; Stw; 2560–2800 m; dis, gmm

Parnassiaceae

Parnassia fimbriata König var. *fimbriata* (37) MT; Car, Gal, Mpk, Stw, Swg; WY;
 1610–3410 m; alw, dis, fmc, fsf, gmm, wrm, wrw

Parnassia palustris L. var. *montanensis* (Fernald & Rydb. ex Rydb.) C. L. Hitchc. (1)
 WY; 1400–1920 m; gmm

Parnassia palustris L. var. *tenuis* Wahlenb. (2) MT; Stw; 1610–1800 m; fmc, wrw

Phrymaceae

◊ *Mimulus floribundus* Lindl. (1) MT; Mpk; 1740–1740 m; wrm

Mimulus guttatus DC. (14) MT; Car, Gal, Mpk, Swg; WY; 1400–2930 m; fsf, gle, gmm,
 ssb, wrm, wrw

Mimulus lewisii Pursh (21) MT; Car, Gal, Mpk, Swg; WY; 1610–3230 m; alw, dis, fmc,

fsf, gmm, wrm, wrw

- *Mimulus suksdorfii* A. Gray (4) MT; Car, Mpk; WY; 1760–2370 m; gmm, ssb, rts, vsp
- Mimulus tilingii* Regel var. *tilingii* (2) MT; Stw; WY; 1430–1710 m; fpf, rcr, wrm, wrw

Plantaginaceae

- Besseya wyomingensis* (A. Nelson) Rydb. (41) MT; Car, Gal, Mpk, Stw, Swg; WY; 1680–3230 m; alt, dis, fmc, fpf, fpm, fsf, gmm, ssb, rcr, rts, wrm
- Callitriche hermaphroditica* L. (2) MT; Swg; WY; 1610–2990 m; waq
- Callitriche palustris* L. (1) MT; Mpk; 2870 m; waq
- Collinsia parviflora* Lindl. (42) MT; Car, Gal, Mpk, Stw, Swg; WY; 1600–3110 m; dis, fmc, fsf, gmm, ssb, rcr, rts, wrm, wrw
- Hippuris vulgaris* L. (4) MT; Mpk, Swg; WY; 1610–2380 m; waq
- Limosella aquatica* L. (1) WY; 2040 m; wrm
- * *Linaria dalmatica* (L.) Mill. var. *dalmatica* (3) MT; Mpk; 1310–1830 m; dis, gle
 - * *Linaria vulgaris* Mill. (4) MT; Car, Gal, Mpk; 1790–2510 m; dis, gmm, wrm
- Penstemon albidus* Nutt. (2) MT; Car; 1160–1300 m; leg, ssb
- Penstemon aridus* Rydb. (4) MT; Gal; 1890–2570 m; rcr, rts
- Penstemon attenuatus* Douglas ex Lindl. var. *pseudoprocerus* (Rydb.) Cronquist (10) MT; Gal, Mpk, Swg; 1600–2680 m; fmc, fsf, gmm,
- Penstemon cyaneus* Pennell (2) WY; 1410–2320 m; fpm, vsp
- Penstemon deustus* Douglas ex Lindl. var. *deustus* (5) MT; Car, Mpk, Swg; WY; 1590–2800 m; vsp, rts, wrm
- Penstemon eriantherus* Pursh var. *cleburnei* (M. E. Jones) Dorn (1) MT; Car; 1260–1310 m; ssb, vsp
- Penstemon eriantherus* Pursh var. *eriantherus* (34) MT; Car, Mpk, Stw, Swg; WY; 1260–2330 m; dis, fpf, fpm, fpp, gle, gmm, ssb,
- Penstemon fruticosus* (Pursh) Greene var. *fruticosus* (4) MT; Car, Swg; 2130–2800 m; gmm, rts
- Penstemon nitidus* Douglas ex Benth. var. *nitidus* (4) MT; Car, Mpk; WY; 1410–2010 m; gle, gmm, vspssb,
- Penstemon procerus* Douglas ex Graham var. *procerus* (53) MT; Car, Gal, Mpk, Stw, Swg; WY; 1680–3570 m; alt, dbn, dis, fmc, fpa, gmm, rts
- Penstemon radicosus* A. Nelson (2) MT; Mpk; WY; 1780–2100 m; dis, ssb
- * *Plantago lanceolata* L. (5) MT; Gal, Mpk, Stw, Swg; 1430–1770 m; dis, fmc, wrm
 - * *Plantago major* L. (12) MT; Gal, Mpk, Stw, Swg; 1590–2530 m; dis, fmc, fsf, fpt, gmm, ssb
- Plantago patagonica* Jacq. (6) MT; Car, Stw; 1300–1670 m; dis, ssb, wrm
- Plantago tweedyi* A. Gray (7) MT; Mpk, Swg; 2320–2820 m; fsf, gmm, wrm
- Veronica americana* Schwein. ex Benth. (20) MT; Car, Gal, Mpk, Swg; WY; 1350–2930 m; fmc, fsf, gmm, wrm, wrw, wsb
- Veronica anagallis-aquatica* L. (1) MT; Car; 1330 m; wrm
- Veronica arvensis* L. (2) MT; Car; 1650–1670 m; dis, wrm
- * *Veronica biloba* L. (14) MT; Car, Gal, Mpk, Stw; 1340–2380 m; dis, fmc, gmm, wrm, wrw
- Veronica peregrina* L. var. *xalapensis* (Kunth) H. St. John & F. W. Warren (4) MT; Car, Mpk; WY; 1300–1750 m; dis, gmm, ssb, wrm
- Veronica serpyllifolia* L. var. *humifusa* (Dicks.) Vahl (7) MT; Gal, Mpk, Swg; 1790–

2730 m; dis, fsf, gmm, wrm

- * *Veronica serpyllifolia* L. var. *serpyllifolia* (1) MT; Car; 1650–1670 m; dis, wrm
- * *Veronica verna* L. (4) MT; Car, Mpk, Swg; 1480–1710 m; dis, wrm
- Veronica wormskjoldii* Roem. & Schult. (47) MT; Car, Gal, Mpk, Stw, Swg; WY; 1710–3720 m; alt, alw, dis, gmm, rts, wrm

Poaceae

- Achnatherum hymenoides* (Roem. & Schult.) Barkworth (16) MT; Car, Mpk, Stw; WY; 1260–3110 m; dis, fpt, gle, ssb, vsp
- ◇ *Achnatherum lettermanii* (Vasey) Barkworth (3) MT; Car, Mpk; 1720–2930 m; gmm
- Achnatherum nelsonii* (Scribn.) Barkworth ssp. *nelsonii* (12) MT; Gal, Mpk, Stw, Swg; WY; 1490–2800 m; dis, fmc, gmm, ssb
- Achnatherum richardsonii* (Link) Barkworth (2) MT; Gal; 1870–2570 m; dis, fmc, fpc
- Achnatherum robustum* (Vasey) Barkworth (1) MT; Gal; 2170–2510 m; gmm
- * *Agropyron cristatum* (L.) Gaertn. var. *cristatum* (3) MT; Mpk, Stw; 1100–1830 m; dis, gle
- * *Agropyron cristatum* (L.) Gaertn. var. *desertorum* (Fisch. ex Link) Dorn (4) MT; Car, Mpk, Swg; 1090–1520 m; dis, gle, wrm
- * *Agropyron cristatum* (L.) Gaertn. var. *fragile* (Roth) Dorn (1) MT; Car; 1300 m; dis, gle, ssb
- * *Agropyron triticeum* Gaertn. (1) MT; Mpk; 1780 m; dis, ssb
- * *Agrostis capillaris* L. (6) MT; Mpk, Swg; WY; 2320–2980 m; alt, gmm, wrm
- Agrostis exarata* Trin. (6) MT; Gal, Mpk, Swg; WY; 1790–2930 m; dis, gmm, wrm
- Agrostis idahoensis* Nash (7) MT; Car, Mpk; WY; 1790–3230 m; dis, fsf, gmm, wrm
- ◆ *Agrostis mertensii* Trin. (4) MT; Car, Mpk; WY; 2950–3570 m; alt, gmm
- Agrostis scabra* Willd. (25) MT; Car, Gal, Mpk, Stw, Swg; WY; 1590–2930 m; dis, gmm, wrm, wrs
- * *Agrostis stolonifera* L. (13) MT; Car, Gal, Mpk, Stw, Swg; 1580–2340 m; dis, fmc, fpc, fsf, gmm, wrm, wrw
- Agrostis variabilis* Rydb. (8) MT; Car, Mpk, Swg; 2320–3100 m; dis, gmm, rts, wrm
- Alopecurus aequalis* Sobol. var. *aequalis* (1) MT; Swg; 1610–1610 m; wrm
- * *Alopecurus arundinaceus* Poir. (7) MT; Car, Mpk, Stw; 1220–1830 m; dis, gle, ssb, wrm
- * *Alopecurus pratensis* L. (16) MT; Car, Gal, Mpk, Swg; 1520–2680 m; dis, gmm, wrm
- Anthoxanthum hirtum* (Schrank) Y. Schouten & Veldkamp (1) MT; Gal; 2070–2410 m; wrm
- * *Apera interrupta* (L.) P. Beauv. (2) MT; Car, Gal; 1460–1600 m; dis, wrm
- Aristida purpurea* Nutt. var. *longiseta* (Steud.) Vasey (2) MT; Car, Mpk; 1160–1310 m; dis, gle
- Avenula hookeri* (Scribn.) Holub (1) WY; 3050–3170 m; alt
- Beckmannia syzigachne* (Steud.) Fernald (2) MT; Mpk, Swg; 1610–1740 m; wrm
- Bouteloua gracilis* (Kunth) Lag. ex Griffiths (1) MT; Mpk; 1310 m; dis, gle
- Bouteloua hirsuta* Lag. var. *hirsuta* (1) MT; Stw; 1490–1710 m; gmm
- * *Bromus briziformis* Fisch. & C. A. Mey. (1) MT; Mpk; 1310 m; dis, gle
- Bromus carinatus* Hook. & Arn. (25) MT; Car, Gal, Mpk, Swg; WY; 1680–2980 m; alw, dis, fmc, fpm, fsf, gmm, ssb, wrm
- Bromus ciliatus* L. (14) MT; Car, Gal, Mpk; 1730–2820 m; dis, fal, fpc, fsf, gmm, wrm
- Bromus commutatus* Schrad. (12) MT; Gal, Mpk, Stw; 1100–2470 m; dis, fpt, gle, rcr

- * *Bromus inermis* Leyss. (31) MT; Car, Gal, Mpk, Stw, Swg; 1100–2980 m; dis, fal, fmc, fpf, fsf, gle, gmm, ssb, wrm
- * *Bromus japonicus* Thunb. ex Murray (1) MT; Mpk; 1740–1890 m; gmm
- Bromus porteri* (J. M. Coult.) Nash (2) MT; Car, Mpk; 2100–2930 m; dis, fmc, fsf
- Bromus pubescens* Muhl. ex Willd. (1) MT; Gal; 2170–2510 m; gmm
- Bromus pumpellianus* Scribn. (2) MT; Swg; WY; 2440–2930 m; gmm, wrm
- * *Bromus tectorum* L. (54) MT; Car, Gal, Mpk, Stw, Swg; WY; 1090–2800 m; dis, fmc, fpc, fpf, fpm, gle, gmm, ssb, rcr, rts, wrm
- Bromus vulgaris* (Hook.) Shear (5) MT; Car, Stw; 1490–1770 m; fmc, gmm, wrm, wrw
- Calamagrostis canadensis* (Michx.) P. Beauv. var. *canadensis* (4) MT; Gal, Swg; WY; 2160–2870 m; gmm, wrm, wrw
- Calamagrostis canadensis* (Michx.) P. Beauv. var. *langsдорffii* (Link) Inman (26) MT; Car, Gal, Mpk, Stw, Swg; WY; 1480–2900 m; dis, fmc, fsf, gmm, wfn, wrm, wrs, wrw
- Calamagrostis inexpansa* A. Gray (3) MT; Car; WY; 2100–2470 m; gmm, wfn, wrm
- Calamagrostis koelerioides* Vasey (1) WY; 2960–3320 m; fmc
- Calamagrostis montanensis* (Scribn.) Scribn. (5) MT; Car, Mpk; 2870–3410 m; alt, rts
- Calamagrostis purpurascens* R. Br. (15) MT; Car, Stw, Swg; WY; 2610–3720 m; alt, alw, dis, gmm, rts, vsp
- Calamagrostis rubescens* Buckley (1) MT; Gal; 1790–1840 m; dis
- Cinna latifolia* (Trevir. ex Göpp.) Griseb. (3) MT; Gal, Mpk; 1790–2160 m; wrm
- * *Dactylis glomerata* L. (48) MT; Car, Gal, Mpk, Stw, Swg; 1090–2980 m; dis, fmc, fpc, fpf, fpm, gle, gmm, ssb, rts, wrm, wrw
- Danthonia intermedia* Vasey (12) MT; Car, Mpk, Swg; WY; 2130–3570 m; alt, fmc, fpc, fsf, rts, wrm
- Danthonia spicata* (L.) P. Beauv. ex Roem. & Schult. (2) MT; Stw; 1590–1770 m; dis, fmc, wrw
- Danthonia unispicata* (Thurb.) Munro ex Macoun (11) MT; Car, Mpk, Stw; WY; 1490–2320 m; gle, gmm, ssb, wrm
- Deschampsia cespitosa* (L.) P. Beauv. (59) MT; Car, Mpk, Stw, Swg; WY; 2300–3720 m; alt, alw, dis, gmm, rts, wrm
- Deschampsia elongata* (Hook.) Munro (3) MT; Mpk, Swg; 2320–2930 m; fpc, fpf, fsf, wrm
- × *Elymus saxicolus* Scribn. & J. G. Sm. ex Scribn. (1) MT; Stw; 1220 m; dis, gle
- Elymus albicans* (Scribn. & J. G. Sm.) Á. Löve (1) MT; Mpk; 1710–1770 m; dis
- Elymus canadensis* L. var. *canadensis* (3) MT; Mpk, Swg; 1310–2100 m; dis, gle, gmm
- Elymus cinereus* Scribn. & Merr. (13) MT; Gal, Mpk, Stw, Swg; WY; 1370–2200 m; dis, gle, gmm, ssb, vsp
- Elymus elymoides* (Raf.) Swezey var. *brevifolius* (J. G. Sm.) Dorn (3) MT; Car, Stw, Swg; 2440–2990 m; gmm, rts, wrm
- Elymus elymoides* (Raf.) Swezey var. *elymoides* (6) MT; Car, Mpk, Swg; 1260–3090 m; alt, dis, ssb, wrm
- Elymus glaucus* Buckley var. *glaucus* (20) MT; Gal, Mpk, Stw, Swg; WY; 1590–2930 m; dis, fmc, fpc, fsf, gmm, wrm
- Elymus hispidus* (Opiz) Melderis var. *hispidus* (7) MT; Car, Gal, Stw; 1100–2200 m; dis, gmm, wrm

- Elymus lanceolatus* (Scribn. & J. G. Sm.) Gould var. *lanceolatus* (7) MT; Car, Gal, Mpk, Stw; 1220–2070 m; dis, gle, ssf, rcr, wrm
- Elymus lanceolatus* (Scribn. & J. G. Sm.) Gould var. *riparius* (Scribn. & J. G. Sm.) Dorn (5) MT; Mpk, Stw; WY; 1220–1520 m; dis, gle, wrm
- * *Elymus repens* (L.) Gould (7) MT; Car, Gal, Mpk, Swg; 1350–2980 m; alt, dis, gmm, wrm
- Elymus scribneri* (Vasey) M. E. Jones (25) MT; Car, Gal, Mpk, Stw, Swg; WY; 2720–3720 m; alt, gmm, rcr, rts
- Elymus smithii* (Rydb.) Gould (3) MT; Car, Mpk, Stw; 1160–1830 m; dis, gle, gmm
- Elymus spicatus* (Pursh) Gould (42) MT; Car, Gal, Mpk, Stw, Swg; WY; 1260–3110 m; dis, gle, gmm, ssb, rcr, wrm
- Elymus trachycaulus* (Link) Gould ex Shinners var. *trachycaulus* (21) MT; Car, Gal, Mpk, Swg; 1860–3230 m; alt, dis, fmc, fsf, gmm, rcr, rts
- * *Eragrostis cilianensis* (All.) Vignolo ex Janch. (1) MT; Swg; 1350 m; dis, vsp
- Festuca baffinensis* Polunin (2) MT; Gal; WY; 2080–3090 m; alt, rcr
- Festuca brachyphylla* Schult. ex Schult. & Schult. f. var. *brachyphylla* (6) MT; Car, Stw; WY; 2610–3570 m; alw, dis, rts
- Festuca brachyphylla* Schult. ex Schult. & Schult. f. var. *coloradensis* (Fred.) Dorn (15) MT; Car, Mpk, Swg; WY; 2840–3410 m; alt, gmm, rts, wrm
- Festuca idahoensis* Elmer (25) MT; Car, Gal, Mpk, Stw, Swg; WY; 1430–3170 m; alt, dis, fmc, fpc, fpm, gle, gmm, ssb, rcr, rts, wrm
- Festuca minutiflora* Rydb. (20) MT; Car, Gal, Mpk, Stw; WY 2870–3720 m; alt, gmm, rcr, rts
- Festuca occidentalis* Hook. (11) MT; Car, Gal, Mpk, Swg; 1620–2660 m; fmc, fpm, gmm, ssb
- Festuca rubra* L. ssp. *arenaria* (Osbeck) F. Aesch. (3) MT; Swg; WY; 2870–3320 m; alt, rts
- Festuca rubra* L. ssp. *rubra* (17) MT; Car, Gal, Mpk, Stw; WY; 1220–2270 m; dis, fmc, gle, wrm
- Festuca saximontana* Rydb. var. *saximontana* (9) MT; Car, Gal, Mpk; WY; 1780–3170 m; alt, gmm, rcr, rts
- Glyceria borealis* (Nash) Batch. (3) MT; Mpk; WY; 1740–2400 m; wfn
- Glyceria elata* (Nash ex Rydb.) M. E. Jones (7) MT; Gal, Mpk, Swg; WY; 1730–2820 m; wrm
- Glyceria grandis* Wats. var. *grandis* (5) MT; Gal, Mpk, Swg; WY; 1610–2580 m; wfn, wrm
- Glyceria striata* (Lam.) Hitchc. (13) MT; Car, Gal, Mpk, Stw; WY; 1350–2500 m; dis, fmc, fpc, gmm, wrm, wrs, wrw
- Hesperostipa comata* (Trin. & Rupr.) Barkworth var. *comata* (11) MT; Car, Mpk, Stw; WY; 1160–1750 m; ssb, dis, gle, rcr, wrm
- Hesperostipa comata* (Trin. & Rupr.) Barkworth var. *intermedia* (Scribn. & Tweedy) Dorn (11) MT; Car, Gal, Mpk, Stw; WY; 1300–2380 m; dis, gle, ssb, rcr
- Hordeum brachyantherum* Nevski (4) MT; Gal, Mpk; WY; 2010–2930 m; gmm, wrm
- Hordeum jubatum* L. ssp. *intermedium* Bowden (1) MT; Gal; 1870–1930 m; dis
- Hordeum jubatum* L. ssp. *jubatum* (1) MT; Gal; 2160 m; dis
- Koeleria macrantha* (Ledeb.) Schult. (34) MT; Car, Gal, Mpk, Stw; WY; 1300–3110 m;

- alt, dis, fpc, fpf, fpm, fpt, gle, gmm, ssb, rcr, wrm
- Leucopoa kingii* (S. Watson) W. A. Weber **(24)** MT; Car, Stw, Swg; WY; 1430–3110 m; dis, fmc, fpf, fpm, fpp, gmm, ssb, rcr, rts
- Melica bulbosa* Geyer ex Porter & J. M. Coult. **(1)** WY; 1500–1750 m; ssb, vsp
- Melica spectabilis* Scribn. **(17)** MT; Car, Gal, Mpk, Swg; WY; 1650–2930 m; fmc, fsf, gmm, wrm
- Melica subulata* (Griseb.) Scribn. **(1)** MT; Mpk; 1860–2100 m; fmc
- Nassella viridula* (Trin.) Barkworth **(13)** MT; Car, Mpk, Stw, Swg; 1220–2010 m; dis, gmm, ssb, wrm
- Oryzopsis asperifolia* Michx. **(6)** MT; Car, Stw, Swg; 1580–2800 m; fmc, fsf, wrw
- Panicum capillare* L. ssp. *capillare* **(1)** MT; Mpk; 1300 m; dis, gmm
- Phalaris arundinacea* L. **(2)** MT; Car, Swg; 1090–1610 m; wrm
- Phleum alpinum* L. var. *alpinum* **(48)** MT; Car, Gal, Mpk, Stw, Swg; WY; 1860–3570 m; alt, alw, dis, gmm, rts, wfn, wrm
- * *Phleum pratense* L. var. *pratense* **(35)** MT; Car, Gal, Mpk, Stw, Swg; WY; 1350–2810 m; dis, fmc, fsf, gmm, ssb, wfn, wrm, wrw
- Piptatherum exiguum* (Thurb.) Dorn **(3)** MT; Car, Swg; 2050–2800 m; fmc, rts, wrm
- Piptatherum micranthum* (Trin. & Rupr.) Barkworth **(1)** MT; Stw; 1520–1520 m; dis, wrm
- Poa abbreviata* R. Br. ssp. *pattersonii* (Vasey) Á. Löve, D. Löve, & B. M. Kapoor **(26)** MT; Car, Gal, Mpk, Stw, Swg; WY; 1650–3410 m; alt, alw, fmc, gmm, ssb, rcr, rts
- Poa alpina* L. var. *alpina* **(36)** MT; Car, Gal, Mpk, Stw, Swg; WY; 2490–3720 m; alt, alw, gmm, rts, wrm
- * *Poa annua* L. **(5)** MT; Mpk, Swg; 1460–3250 m; dis, wrm
- Poa arctica* R. Br. ssp. *arctica* **(4)** MT; Car, Gal, Swg; WY; 2860–3120 m; gmm, wrm
- Poa arctica* R. Br. ssp. *grayana* (Vasey) Á. Löve, D. Löve, & B. M. Kapoor **(9)** MT; Car, Mpk, Swg; 2010–3220 m; alt, fmc, gmm, rts
- Poa arida* Vasey **(31)** MT; Car, Gal, Mpk, Stw, Swg; WY; 1090–3230 m; alt, dis, gmm, ssb, rcr, rts, wrm
- * *Poa bulbosa* L. ssp. *vivipara* (Koeler) Arcang. **(23)** MT; Car, Gal, Mpk, Stw, Swg; 1300–2180 m; dis, fmc, gle, gmm, ssb, rcr, rts, wrm
- * *Poa compressa* L. **(5)** MT; Car, Mpk, Stw; 1220–2300 m; dis, gmm, ssb, wrm
- Poa cusickii* Vasey var. *epilis* (Scribn.) C. L. Hitchc. **(25)** MT; Car, Mpk, Swg; WY; 2480–3410 m; alt, alw, gmm, rts, wrm
- Poa cusickii* Vasey var. *pallida* (Soreng) Dorn **(15)** MT; Car, Gal, Mpk, Swg; WY; 1780–3110 m; alt, dis, gle, gmm, ssb, rcr, wrm
- Poa fendleriana* (Steud.) Vasey ssp. *fendleriana* **(6)** MT; Car, Gal, Mpk; 2870–3220 m; alt, rts
- Poa glauca* Vahl. var. *rupicola* (Nash ex Rydb.) B. Boivin **(10)** MT; Car, Mpk; WY; 2940–3410 m; alt, alw, rcr, rts, vsp
- Poa interior* Rydb. **(17)** MT; Car, Gal, Mpk, Stw, Swg; WY; 1590–3320 m; alt, dis, fmc, gmm, rcr, rts, wrm, wrw
- Poa leptocoma* Trin. **(5)** MT; Car, Mpk, Swg; 2480–3100 m; fsf, wrw
- Poa palustris* L. **(9)** MT; Car, Gal, Stw, Swg; 1590–2530 m; dis, fmc, wrm, wrw
- Poa pratensis* L. **(56)** MT; Car, Gal, Mpk, Stw, Swg; WY; 1220–3230 m; dis, fmc, fsf,

- gle, gmm, ssb, wrm, wrw
- Poa reflexa* Vasey & Scribn. (12) MT; Car, Mpk; 2300–3190 m; alt, alw, fsf, gmm, wrm
- Poa secunda* J. Presl ssp. *juncifolia* (Scribn.) Soreng (24) MT; Car, Mpk, Stw, Swg; WY; 1340–3720 m; alt, gle, gmm, ssb, rts, wrm
- Poa secunda* J. Presl ssp. *secunda* (39) MT; Car, Gal, Mpk, Swg; WY; 1260–3570 m; alt, dis, gmm, ssb, rcr, rts, wrm
- Poa stenantha* Trin. var. *stentantha* (2) MT; Mpk; 2010–2820 m; gmm, wrm
- Poa wheeleri* Vasey (20) MT; Car, Gal, Mpk, Swg; WY; 1680–3070 m; alt, dis, fmc, fpm, ssb, rts, wrm, wrs
- Podagrostis humilis* (Vasey) Björkman (9) MT; Mpk, Swg; WY; 2670–3050 m; alw, gmm, wrm
- Schedonnardus paniculatus* (Nutt.) Trel. (1) MT; Stw; 1490–1710 m; gle, rcr
- * *Schedonorus arundinaceus* (Schreb.) Dumort. (1) MT; Gal; 1730–1740 m; dis
- * *Setaria pumila* (Poir.) Roem. & Schult. ssp. *pumila* (1) MT; Mpk; 1310 m; dis, gle
- Trisetum spicatum* (L.) K. Richt. (50) MT; Car, Gal, Mpk, Stw, Swg; WY; 1710–3720 m; alt, alw, fsf, gmm, rcr, rts, wrm
- * *Triticum aestivum* L. (1) MT; Stw; 1220 m; dis, gle, wrm
- Vahlodea atropurpurea* (Wahlenb.) Fr. ex Hartman (5) MT; Mpk, Swg; WY; 2670–2980 m; alt, alw, fmc, gmm, wrm
- Vulpia octoflora* (Walter) Rydb. var. *glauca* (Nutt.) Fernald (3) MT; Car, Stw; 1480–1490 m; dis, wrm
- Vulpia octoflora* (Walter) Rydb. var. *hirtella* (Piper) Henrard (8) MT; Car, Mpk, Stw; WY; 1340–1770 m; dis, gle, ssb, wrm
- Vulpia octoflora* (Walter) Rydb. var. *octoflora* (4) MT; Car; WY; 1500–1750 m; gle, ssb, vsp

Polemoniaceae

- Collomia linearis* Nutt. (35) MT; Car, Gal, Mpk, Stw, Swg; WY; 1300–2800 m; dis, gle, gmm, ssb, vsp
- Ipomopsis pumila* (Nutt.) V. E. Grant (1) MT; Car; 1340–1380 m; ssb, vsp
- Ipomopsis spicata* (Nutt.) V. E. Grant var. *orchidacea* (Brand) Dorn (1) MT; Car; 1680–1800 m; gmm
- Lathrocasis tenerrima* (A. Gray) L. A. Johnson (1) WY; 1830–3110 m; gmm, vsp
- Leptosiphon septentrionalis* (H. Mason) J. M. Porter & L. A. Johnson (8) MT; Car, Gal, Mpk, Swg; WY; 1780–2930 m; dis, gmm, ssb, vsp
- Linanthus pungens* (Torr.) J. M. Porter & L. A. Johnson (1) MT; Gal; 2230–2380 m; rcr
- Microsteris gracilis* (Hook.) Greene var. *gracilis* (7) MT; Mpk; 1620–2230 m; fmc, fsf
- Microsteris gracilis* (Hook.) Greene var. *humilior* (Hook.) Cronquist (10) MT; Car, Gal, Stw, Swg; 1490–2130 m; gmm, wrm
- Phlox hoodii* Richardson (13) MT; Car, Mpk, Stw, Swg; WY; 1680–3110 m; dis, fpf, fpm, gmm, ssb, vsp
- Phlox longifolia* Nutt. ssp. *longifolia* (8) MT; Gal, Mpk; 1710–2380 m; gmm, rcr, vsp
- Phlox multiflora* A. Nelson ssp. *depressa* (E. E. Nelson) Wherry (5) MT; Gal, Mpk; 1890–3140 m; alt, gmm, ssb, rcr, vsp
- Phlox multiflora* A. Nelson ssp. *multiflora* (2) MT; Gal; 2010–2570 m; dis, gmm
- Phlox multiflora* A. Nelson ssp. *patula* (A. Nelson) Wherry (2) MT; Gal, Mpk; 1800–2130 m; gmm

Phlox muscoides Nutt. (1) MT; Car; 1340–1380 m; ssb, vsp
Phlox pulvinata (Wherry) Cronquist (15) MT; Car, Mpk; WY; 2870–3570 m; alt, vsp
Polemonium occidentale Greene var. *occidentale* (4) MT; Gal, Mpk; 1740–2570 m; dis, gmm, wrm
Polemonium pulcherrimum Hook. var. *calycinum* (Eastw.) Brand (1) MT; Mpk; 1790–1800 m; dis, gmm, wrm
Polemonium pulcherrimum Hook. var. *pulcherrimum* (8) MT; Gal, Mpk; WY; 2870–3220 m; alt,
Polemonium viscosum Nutt. (19) MT; Car, Gal, Mpk, Stw; WY; 2870–3720 m; alt, alw, rts

Polygonaceae

- Bistorta bistortoides* (Pursh) Small (73) MT; Car, Gal, Mpk, Stw, Swg; WY; 1650–3570 m; alt, alw, dis, fmc, fpm, fsf, gmm, ssb, rts, wrm, wrw
Bistorta vivipara (L.) Delarbre (28) MT; Car, Gal, Mpk, Stw, Swg; WY; 2040–3570 m; alt, alw, dis, gmm, rts, wrm, wrs
Eriogonum flavum Nutt. var. *flavum* (19) MT; Car, Mpk, Stw, Swg; WY; 1160–3000 m; alt, dis, fpa, gle, gmm, rts
Eriogonum flavum Nutt. var. *piperi* (Greene) M. E. Jones (4) MT; Car, Mpk; 2440–3090 m; alt, gmm
Eriogonum ovalifolium Nutt. var. *depressum* Blank. (2) MT; Mpk; WY; 1650–3090 m; alt, vsp
Eriogonum ovalifolium Nutt. var. *ochroleucum* (Small ex Rydb.) M. Peck (24) MT; Car, Mpk, Stw, Swg; WY; 1160–2990 m; dis, gle, gmm, ssb, rts
Eriogonum ovalifolium Nutt. var. *purpureum* (Nutt.) T. Durand (7) MT; Car, Mpk; WY; 1650–3050 m; alt, ssb, rcr, rts
Eriogonum pauciflorum Pursh (5) MT; Car; WY; 1260–2320 m; ssb, vsp
Eriogonum umbellatum Torr. var. *majus* Hook. (48) MT; Car, Gal, Mpk, Stw, Swg; WY; 1590–3050 m; alt, dis, fpm, gmm, ssb, rts
♦ *Koenigia islandica* L. (4) WY; 3170–3290 m; alw
Oxyria digyna (L.) Hill (28) MT; Car, Gal, Mpk, Stw, Swg; WY; 2610–3720 m; alt, dis, gmm, rcr, rts, wrm
Polygonum achoreum S. F. Blake (3) MT; Car, Gal, Stw; 1090–1930 m; dis, gmm, wrm
●* *Polygonum aviculare* L. (12) MT; Car, Mpk, Stw, Swg; WY; 1220–2820 m; dis, fsf, gle, gmm, vsp
Polygonum douglasii Greene (31) MT; Car, Gal, Mpk, Stw, Swg; WY; 1430–3050 m; fpf, gle, gmm, wrm
Polygonum engelmannii Greene (3) MT; Car, Stw, Swg; 1490–2260 m; rcr, rts
Polygonum polygaloides Meisn. var. *confertiflorum* (Nutt. ex Piper) J. C. Hickman (2) MT; Mpk; 2530–2590 m; wrm
* *Rumex acetosa* L. (1) WY; 3000 m; alt, rts
* *Rumex acetosella* L. (14) MT; Car, Gal, Mpk, Stw; WY; 1480–2270 m; dis, fmc, fpm, gle, gmm, ssb, wrm
* *Rumex crispus* L. (5) MT; Gal, Mpk, Swg; 1840–2530 m; dis, wrm
* *Rumex patientia* L. (1) MT; Gal; 2180–2200 m; dis
Rumex paucifolius Nutt. (16) MT; Gal, Mpk, Stw, Swg; WY; 2010–3320 m; alt, gmm, rts, wrm

- * *Rumex stenophyllus* Ledeb. (1) MT; Mpk; 1680–1740 m; fpt
- Rumex triangulivalvis* (Danser) Rech. f. (12) MT; Car, Gal, Mpk, Stw; 1090–2530 m; dis, fsf, gle, gmm, wrm
- Rumex venosus* Pursh (1) MT; Car; 1340–1380 m; ssb, vsp

Portulacaceae

- Cistanthe umbellata* (Torr.) Hershkovitz (14) MT; Car, Mpk, Stw, Swg; WY; 2560–3410 m; alt, dis, gmm, rts, wrm
- Claytonia lanceolata* Pursh (25) MT; Car, Gal, Mpk, Swg; WY; 1980–3220 m; alt, dis, gmm, ssb, rts
- Claytonia megarhiza* (A. Gray) Parry ex S. Watson (5) MT; Car, Stw; WY; 2940–3720 m; alt, rts
- Claytonia multiscapa* Rydb. (20) MT; Car, Gal, Mpk, Stw, Swg; WY; 1650–3110 m; alt, alw, gmm, ssb, wrm, wrs
- Claytonia perfoliata* Donn ex Willd. ssp. *intermontana* J. M. Mill. & K. L. Chambers (3) MT; Mpk, Swg; 1650–1770 m; fmc, fpm, gmm, wrm
- Claytonia rubra* (Howell) Tidestr. ssp. *rubra* (7) MT; Mpk, Stw, Swg; 1430–2130 m; gle, gmm, rcr, vsp
- Lewisia pygmaea* (A. Gray) B. L. Rob. (16) MT; Car, Mpk, Stw, Swg; WY; 2800–3360 m; alt, alw, dis, gmm, rts
- Lewisia rediviva* Pursh var. *rediviva* (10) MT; Car, Mpk, Stw; WY; 1500–3050 m; dis, gle, ssb, rts

Potamogetonaceae

- Potamogeton amplifolius* Tuck. (3) MT; Mpk; 2400–2480 m; waq

Primulaceae

- Androsace chamaejasme* Wulfen ssp. *lehmanniana* (Spreng.) Hultén (2) MT; Swg; 2880–3060 m; rts
- Androsace filiformis* Retz. (6) MT; Gal, Mpk; 1780–2820 m; gmm, wrm
- Androsace occidentalis* Pursh (10) MT; Car, Mpk, Stw, Swg; WY; 1220–3050 m; alw, dis, gle, ssb, rcr, wrm
- Androsace septentrionalis* L. (32) MT; Car, Gal, Mpk, Stw, Swg; WY; 1680–3720 m; alt, alw, fmc, fpm, fsf, gmm, ssb, rcr, rts, wrm, wrw
- Douglasia montana* A. Gray (12) MT; Car, Mpk; WY; 2870–3260 m; alt, alw, rts
- Primula conjugens* (Greene) A. R. Mast & Reveal var. *conjugens* (30) MT; Car, Gal, Mpk, Stw, Swg; WY; 1600–3110 m; alt, fpm, fpp, gmm, ssb, rcr, rts, wrm
- Primula pauciflora* (Greene) A. R. Mast & Reveal var. *pauciflora* (22) MT; Car, Gal, Mpk, Stw, Swg; WY; 1650–3570 m; alt, alw, gmm, rts, wrm, wrs

Ranunculaceae

- Actaea rubra* (Aiton) Willd. (22) MT; Car, Gal, Mpk, Stw, Swg; WY; 1350–2800 m; dis, fmc, fpc, fsf, wrm, wrs, wrw
- Anemone cylindrica* A. Gray (1) MT; Stw; 1520–1520 m; dis, wrm
- Anemone drummondii* S. Watson var. *lithophila* (Rydb.) C. L. Hitchc. (6) MT; Car, Mpk, Swg; 2680–3410 m; alt, gmm, rts
- Anemone multifida* Poir. var. *multifida* (5) MT; Car, Mpk; WY; 1680–2320 m; fpc, fpm, gmm
- Anemone multifida* Poir. var. *saxicola* B. Boivin (24) MT; Car, Gal, Mpk, Stw; WY; 1450–2570 m; dis, fpm, fpt, fsf, gle, gmm, rcr, wrm

- Anemone multifida* Poir. var. *tetonensis* (Porter ex Britton) C. L. Hitchc. (15) MT; Car, Gal, Mpk, Swg; WY; 1620–3240 m; alt, dis, fpa, gmm, rcr, wrm
- Anemone patens* L. var. *multifida* Pritz. (31) MT; Car, Gal, Mpk, Stw, Swg; WY; 1520–3220 m; alt, dis, fmc, fpa, fpf, fpm, fpp, fsf, gmm, rcr, wrm
- ◆ *Aquilegia brevistyla* Hook. (1) WY; 2960–3320 m; fmc, rcr
- Aquilegia flavescens* S. Watson (29) MT; Car, Gal, Mpk, Stw, Swg; WY; 1670–3320 m; dis, fmc, fpm, fsf, gmm, rcr, rts, wrm, wrw
- ◆◆ *Aquilegia formosa* Fisch. ex DC. var. *formosa* (4) MT; Gal; WY; 1710–2660 m; fmc, fpm, fsf
- *Aquilegia jonesii* Parry (2) MT; Mpk, Stw; 2680–2830 m; alt, vsp
- Caltha leptosepala* DC. (31) MT; Car, Gal, Mpk, Stw, Swg; WY; 2380–3720 m; alt, alw, gmm, wrm, wrs
- Clematis columbiana* (Nutt.) Torr. & A. Gray var. *tenuiloba* (A. Gray) J. S. Pringle (9) MT; Car, Swg; WY; 1710–2680 m; fmc, gmm, rcr
- Clematis hirsutissima* Pursh var. *hirsutissima* (14) MT; Car, Gal, Mpk, Swg; WY; 1650–2930 m; fpm, fpp, gmm, ssb
- Clematis ligusticifolia* Nutt. (11) MT; Car, Mpk, Stw; WY; 1090–1920 m; dis, fmc, gle, ssb, rcr, rts, wrm, wrw
- Clematis occidentalis* (Hornem.) DC. var. *grosseserrata* (Rydb.) J. S. Pringle (30) MT; Car, Gal, Mpk, Stw, Swg; WY; 1590–2330 m; dis, fmc, fpm, fsf, rcr, rts, wrm, wrw
- Delphinium andersonii* A. Gray (1) MT; Stw; 1430–1630 m; gle, rcr
- Delphinium bicolor* Nutt. ssp. *bicolor* (63) MT; Car, Gal, Mpk, Stw, Swg; WY; 1490–3260 m; alt, dis, fmc, fpf, fpm, fpp, gle, gmm, ssb, rcr, rts, wrm
- *Delphinium bicolor* Nutt. ssp. *calcicola* M. J. Warnock & Vanderh. (2) MT; Gal, Swg; 1600–2570 m; fpm, rcr, rts
- Delphinium glaucum* S. Watson (12) MT; Gal, Mpk, Swg; WY; 1680–2820 m; dis, fmc, fpm, fsf, gmm
- Delphinium nuttallianum* Pritz. (1) MT; Mpk; 1980 m; gmm
- Myosurus apetalus* Gay var. *montanus* (G. R. Campb.) Whittm. (1) WY; 2040 m; waq
- Ranunculus abortivus* L. (3) MT; Mpk, Swg; 1600–2210 m; gmm, wrm
- Ranunculus acriformis* A. Gray var. *montanensis* (Rydb.) L. D. Benson (1) MT; Gal; 2880 m; alt
- * *Ranunculus acris* L. (8) MT; Car, Mpk, Swg; 1350–2880 m; dis, fpt, fsf, gmm, wrm, wrw
- Ranunculus adoneus* A. Gray (1) MT; Gal; 2880 m; alt
- Ranunculus alismifolius* Geyer ex Benth. var. *davisii* L. D. Benson (1) MT; Mpk; 2210 m; ssb, wrm
- Ranunculus aquatilis* L. var. *diffusus* With. (5) MT; Car, Mpk, Swg; WY; 1610–2400 m; waq, wrm
- Ranunculus cymbalaria* Pursh (1) MT; Car; 1330 m; gmm, wrm
- Ranunculus eschscholtzii* Schltld. var. *eschscholtzii* (20) MT; Car, Mpk, Stw, Swg; WY; 2200–3720 m; alt, alw, dis, fmc, gmm, rts, wrm
- Ranunculus eschscholtzii* Schltld. var. *eximius* (Greene) L. D. Benson (13) MT; Gal, Mpk, Stw, Swg; WY; 2440–3410 m; alt, alw, gmm, rts, wrm
- Ranunculus eschscholtzii* Schltld. var. *suksdorfii* (A. Gray) L. D. Benson (7) MT; Mpk; WY; 2870–3250 m; alt, alw, rts

- Ranunculus eschscholtzii* Schltldl. var. *trisectus* (Eastw. ex B. L. Rob.) L. D. Benson (8) MT; Gal, Mpk, Stw; 2200–3720 m; alt, dis, gmm, rcr, rts
- Ranunculus flammula* L. var. *ovalis* (J. M. Bigelow) L. D. Benson (3) MT; Car, Swg; 2100–2660 m; gmm, wrm
- Ranunculus flammula* L. var. *reptans* (L.) E. Mey. (1) WY; 2440–2930 m; gmm, wrm
- Ranunculus gelidus* Kar. & Kir. (3) MT; Car; 3050–3230 m; alt, rcr
- Ranunculus glaberrimus* Hook. var. *ellipticus* (Greene) Greene (19) MT; Car, Gal, Mpk; WY; 1710–3100 m; alt, alw, dis, gmm, ssb, wrs, wrm
- Ranunculus gmelinii* DC. (5) MT; Gal, Mpk, Stw; WY; 1590–2260 m; fmc, wrm, wrw
- ◇ *Ranunculus hyperboreus* Rottb. (6) MT; Car; WY; 3100–3570 m; alt, alw
- Ranunculus inamoenus* Greene var. *inamoenus* (7) MT; Car, Gal, Mpk, Swg; 1780–3240 m; alt, fmc, fsf, gmm, rcr, rts, wrm
- Ranunculus macounii* Britton (5) MT; Mpk; WY; 1400–2380 m; dis, fsf, wrm, wrw
- ◇ *Ranunculus pedatifidus* Sm. var. *affinis* (R. Br.) L. D. Benson (1) MT; Car; 2870–3080 m; alt
- Ranunculus pygmaeus* Wahlenb. (4) MT; Mpk, Stw; WY; 3070–3720 m; alt, rts
- * *Ranunculus repens* L. (2) MT; Car; 1480–1600 m; dis, wrm
- Ranunculus sceleratus* L. var. *multifidus* Nutt. (6) MT; Car, Mpk; WY; 1330–2030 m; wrm
- Ranunculus testiculatus* Crantz (6) MT; Car, Mpk; WY; 1300–2320 m; dis, gle, gmm, ssb
- Ranunculus uncinatus* D. Don (28) MT; Car, Gal, Mpk, Stw, Swg; WY; 1590–2620 m; fmc, fsf, gmm, ssb, wrm, wrw
- Thalictrum fendleri* Engelm. ex A. Gray (8) MT; Car, Gal, Mpk, Stw, Swg; 1680–2220 m; dis, fmc, wrm, wrw
- Thalictrum occidentale* A. Gray (24) MT; Car, Gal, Mpk, Stw, Swg; WY; 1590–2980 m; dis, fmc, fpc, fsf, gmm, wrm, wrw
- Thalictrum sparsiflorum* Turcz. ex Fisch. & C. A. Mey. (3) MT; Car; WY; 2100–2650 m; fmc, fsf, wrs, wrw
- Trollius albiflorus* (A. Gray) Rydb. (31) MT; Car, Gal, Mpk, Stw, Swg; WY; 1610–3120 m; alw, dis, fmc, fsf, gmm, wfn, wrm, wrs, wrw

Rhamnaceae

- Ceanothus velutinus* Douglas ex Hook. var. *velutinus* (12) MT; Car, Mpk, Swg; WY; 1720–2800 m; dis, fsf, gmm, rts

Rosaceae

- Agrimonia striata* Michx. (1) MT; Stw; 1590–1770 m; fmc, wrw
- Amelanchier alnifolia* (Nutt.) Nutt. ex M. Roem. var. *alnifolia* (23) MT; Car, Gal, Mpk, Stw; 1460–2470 m; dis, fmc, fpm, fsf, gmm, rcr, rts, wrm, wrw
- Amelanchier alnifolia* (Nutt.) Nutt. ex M. Roem. var. *pumila* (Torr. & A. Gray) A. Nelson (8) MT; Car, Gal, Mpk, Stw; WY; 1730–2380 m; gle, gmm, rts
- Amelanchier utahensis* Koehne var. *utahensis* (7) MT; Car, Gal, Mpk, Stw; 1680–2410 m; dis, gmm, rcr, rts
- Chamaerhodos erecta* (L.) Bunge var. *parviflora* (Nutt.) C. L. Hitchc. (5) MT; Car, Stw; 1430–2200 m; dis, gle, ssb, rcr, rts
- Comarum palustre* L. (3) MT; Mpk; WY; 2130–2480 m; wfn
- Crataegus chrysoarpa* Ashe var. *chrysoarpa* (4) MT; Car, Mpk; 1710–2060 m; fmc, wrm, wrw

- Crataegus douglasii* Lindl. var. *douglasii* (7) MT; Car, Mpk; 1480–2200 m; dis, fmc, fpt, wrm
- Dasiphora fruticosa* (L.) Rydb. (32) MT; Car, Gal, Stw, Swg; WY; 1490–3190 m; alt, dis, fmc, gmm, ssb, rcr, wrm, wrs
- Dryas hookeriana* Juz. (16) MT; Car, Mpk, Stw, Swg; WY; 2830–3570 m; alt, rts
- Drymocallis arguta* (Pursh) Rydb. (20) MT; Car, Gal, Mpk, Swg; WY; 1710–2670 m; dis, fmc, fpm, fsf, gmm, ssb, rcr, wrm, wrw
- Drymocallis fissa* (Nutt.) Rydb. (6) MT; Car, Gal, Mpk, Stw; WY; 1520–2650 m; dis, fmc, rcr, rts, wrs
- Drymocallis glabrata* Rydb. (3) MT; Mpk; WY; 1680–2230 m; dis, fmc, fpm, ssb
- Drymocallis pseudorupestris* (Rydb.) Rydb. var. *pseudorupestris* (20) MT; Car, Gal, Mpk, Stw, Swg; WY; 1380–3240 m; alt, dis, fmc, fsf, gle, rcr, rts
- Fragaria vesca* L. (24) MT; Gal, Mpk, Swg; WY; 1600–2930 m; dis, fmc, fpc, fpm, fsf, gmm, ssb, wrm, wrw
- Fragaria virginiana* Mill. (39) MT; Car, Gal, Mpk, Stw, Swg; WY; 1600–2620 m; dis, fmc, fpf, fpm, fpp, fsf, gmm, wrm, wrs, wrw
- Geum aleppicum* Jacq. (5) MT; Car, Gal; 1790–2100 m; dis, wrm, wrs
- Geum macrophyllum* Willd. var. *perincisum* (Rydb.) Raup (36) MT; Car, Gal, Mpk, Stw, Swg; WY; 1350–2930 m; dis, fmc, fsf, gmm, wrm, wrw
- Geum rivale* L. (1) MT; Gal; 2050–2090 m; gmm, wrm
- Geum rossii* (R. Br.) Ser. var. *turbinatum* (Rydb.) C. L. Hitchc. (28) MT; Car, Gal, Mpk, Stw, Swg; WY; 2720–3720 m; alt, gmm, rts
- Geum triflorum* Pursh var. *ciliatum* (Pursh) Fassett (45) MT; Car, Gal, Mpk, Stw, Swg; WY; 1300–3230 m; alt, dis, gmm, ssb, rcr, rts, wrm
- Geum triflorum* Pursh var. *triflorum* (7) MT; Car, Gal, Mpk; 1620–3090 m; alt, dis, fpm, gmm, ssb
- Kelseya uniflora* (S. Watson) Rydb. (6) MT; Car; WY; 1380–2320 m; rcr
- * *Malus pumila* Mill. (1) MT; Swg; 1350 m; dis, vsp
- Malus sylvestris* Mill. (2) MT; Car, Mpk; 1520–1620 m; dis, gle
- Petrophyton caespitosum* (Nutt.) Rydb. (2) MT; Car, Gal; 1890–2570 m; rts
- Physocarpus malvaceus* (Greene) Kuntze (5) MT; Gal, Mpk, Stw; 1710–2620 m; fmc, fsf, wrm
- Physocarpus monogynus* (Torr.) J. M. Coult. (27) MT; Car, Gal, Mpk, Stw, Swg; WY; 1590–2800 m; dis, fmc, fsf, gmm, ssb, rcr, rts, wrm
- Potentilla anserina* L. (1) MT; Gal; 1870–1930 m; gmm
- * *Potentilla argentea* L. var. *argentea* (6) MT; Car, Stw, Swg; 1220–2020 m; dis, gle, ssb, wrm
- Potentilla biennis* Greene (1) MT; Mpk; 1650–1830 m; ssb
- Potentilla concinna* Richardson var. *concinna* (3) MT; Car, Gal, Stw; 1780–2180 m; fmc, vcl
- Potentilla diversifolia* Lehm. var. *diversifolia* (68) MT; Car, Gal, Mpk, Stw, Swg; WY; 1830–3720 m; alt, alw, dis, fmc, fpa, fpm, fsf, gmm, ssb, rcr, rts, wrm
- Potentilla diversifolia* Lehm. var. *perdissecta* (Rydb.) C. L. Hitchc. (2) MT; Car, Gal; 2230–3120 m; rcr, wrm
- Potentilla gracilis* Douglas ex Hook. var. *brunnescens* (Rydb.) C. L. Hitchc. (20) MT; Gal, Mpk, Stw, Swg; WY; 1690–2930 m; dis, fmc, fpc, fsf, gmm, wrm

- Potentilla gracilis* Douglas ex Hook. var. *elmeri* (Rydb.) Jeps. (3) MT; Gal; WY; 2130–2410 m; fpt, ssb, wrm
- Potentilla gracilis* Douglas ex Hook. var. *fastigiata* (Nutt.) S. Watson (8) MT; Car, Mpk; WY; 1890–3090 m; fpc, fsf, gmm, wrm, wrs
- Potentilla gracilis* Douglas ex Hook. var. *flabelliformis* (Lehm.) Nutt. ex Torr. & A. Gray (3) MT; Gal, Swg; 1730–2200 m; dis, gmm, wrm
- Potentilla gracilis* Douglas ex Hook. var. *pulcherrima* (Lehm.) Fernald (2) MT; Car, Mpk; 1780–2930 m; fmc, gmm
- Potentilla hippiana* Lehm. var. *effusa* (Douglas ex Lehm.) Dorn (10) MT; Car, Mpk, Stw; WY; 1430–2320 m; dis, fpf, fpm, gle, ssb, rcr, vsp
- Potentilla hippiana* Lehm. var. *hippiana* (4) MT; Car; WY; 1410–2100 m; dis, rts, wrm
- ◇ *Potentilla nivea* L. var. *pentaphylla* Lehm. (3) MT; Mpk; WY; 3170–3340 m; alt, vsp
- Potentilla norvegica* L. ssp. *monspeliensis* (L.) Asch. & Graebn. (4) MT; Car, Stw; 2020–2100 m; dis, gmm, wrm
- Potentilla ovina* Macoun var. *ovina* (5) MT; Mpk, Swg; WY; 2990–3340 m; alt, vsp
- Potentilla pensylvanica* L. var. *pensylvanica* (15) MT; Car, Mpk, Stw; WY; 1430–1630 m; dis, gle, ssb, rcr, vsp
- ◇ *Potentilla plattensis* Nutt. (1) MT; Car; 1680–1800 m; gmm, wrm
- Potentilla uniflora* Ledeb. (1) MT; Gal; 2070–2410 m; rcr
- Prunus pensylvanica* L. f. (1) MT; Mpk; 1710 m; dis, wrm
- Prunus virginiana* L. var. *melanocarpa* (A. Nelson) Sarg. (69) MT; Car, Gal, Mpk, Stw, Swg; WY; 1090–3110 m; dis, fmc, fpc, fpm, fpp, gle, gmm, ssb, rcr, rts, wrm, wrw
- Rosa arkansana* Porter var. *suffulta* (Greene) Cockerell (2) MT; Stw, Swg; 1490–2130 m; dis, rcr, wrm
- Rosa nutkana* C. Presl var. *hispida* Fernald (12) MT; Car, Gal, Mpk; WY; 1460–2590 m; dis, fmc, fpc, fsf, rcr, rts, wrm
- Rosa sayi* Schwein. (23) MT; Car, Gal, Mpk, Stw, Swg; WY; 1220–2680 m; dis, fmc, fsf, gle, gmm, rcr, wrm, wrw
- Rosa woodsii* Lindl. var. *ultramontana* (S. Watson) Jeps. (11) MT; Car, Mpk, Stw; WY; 1100–2330 m; dis, gle, ssb, rcr, rts, wrm
- Rubus idaeus* L. var. *aculeatissimus* Regel & Tiling (37) MT; Car, Gal, Mpk, Stw, Swg; WY; 1400–3320 m; dis, fmc, fpc, fsf, rcr, rts, wrm, wrw
- * *Rubus idaeus* L. var. *peramoenus* (Greene) Fernald (5) MT; Car, Mpk, Swg; WY; 1480–2800 m; dis, fmc, fpc, fsf, wrw
- Rubus parviflorus* Nutt. var. *parviflorus* (19) MT; Gal, Mpk, Stw, Swg; WY; 1610–2880 m; dis, fmc, fpc, fpm, fsf, rts, wrm
- Sibbaldia procumbens* L. (30) MT; Car, Mpk, Stw, Swg; WY; 2800–3570 m; alt, fpa, gmm, rts
- Sorbus scopulina* Greene (8) MT; Car, Gal, Mpk, Swg; 1460–2730 m; dis, fmc, fpc, fsf, wrm
- Spiraea betulifolia* Pall. var. *lucida* (Douglas ex Hook.) C. L. Hitchc. (20) MT; Car, Gal, Mpk, Stw, Swg; 1590–2930 m; dis, fmc, fpc, fsf, wrm

Rubiaceae

- Galium aparine* L. (8) MT; Car, Gal, Mpk, Swg; 1740–2230 m; fmc, gmm, rts
- Galium bifolium* S. Watson (4) MT; Gal, Swg; 2130–2800 m; fsf, gmm, wrm

Galium boreale L. (28) MT; Car, Gal, Mpk, Stw, Swg; WY; 1400–2660 m; dis, fmc, fpc, fpf, fpm, fpt, fsf, gle, gmm, wrm, wrw

j *Galium mexicanum* Kunth var. *asperulum* (A. Gray) Dempster (9) MT; Car, Mpk, Stw; WY; 1300–1880 m; dis, fmc, gle, sbb, rcr, wrm, wrw

Galium trifidum L. var. *subbiflorum* Wiegand (2) MT; Mpk; WY; 1740–2030 m; wrm

Galium trifidum L. var. *trifidum* (2) MT; Gal; WY; 2010–2570 m; fsf, wrw

Galium triflorum Michx. (8) MT; Car, Gal, Mpk, Stw; 1610–2620 m; fmc, fsf, wrs, wrw

Ruppiaceae

Ruppia cirrhosa (Petagna) Grande (1) WY; 2130–2470 m; wfn

Salicaceae

Populus angustifolia E. James (17) MT; Car, Gal, Mpk, Swg; WY; 1090–2130 m; dis, gle, gmm, ssb, wrw

Populus balsamifera L. var. *balsamifera* (11) MT; Car, Gal, Mpk, Stw; WY; 1350–3110 m; dis, fmc, gle, wrw

Populus balsamifera L. var. *californica* S. Watson (28) MT; Car, Gal, Mpk, Stw, Swg; WY; 1480–2370 m; dis, fmc, gle, gmm, wrw

Populus deltoides W. Bartram ex Marshall var. *occidentalis* Rydb. (4) MT; Car, Stw; 1090–1300 m; dis, gle, ssb, wrw

Populus tremuloides Michx. (32) MT; Car, Gal, Mpk, Stw, Swg; WY; 1480–2800 m; dis, fmc, fpc, fpm, fpt, gmm, ssb, wrm

Salix amygdaloides Andersson (1) MT; Swg; 1350 m; dis

Salix arctica Pall. var. *petraea* (Andersson) Bebb (27) MT; Car, Mpk, Stw, Swg; WY; 2870–3720 m; alw, alt, wrm, wrs

Salix barclayi Andersson (6) MT; Gal, Mpk, Swg; WY; 2160–2730 m; gmm, wfn, wrm, wrs

◆ *Salix barrattiana* Hook. (1) WY; 3050–3100 m; alw, wrs

Salix bebbiana Sarg. (47) MT; Car, Gal, Mpk, Stw, Swg; WY; 1350–2800 m; dis, fmc, fpt, fsf, gle, ssb, wfn, wrm, wrs, wrw

Salix boothii Dorn (18) MT; Car, Gal, Mpk, Stw, Swg; WY; 1810–3050 m; alw, dis, fmc, fsf, gmm, wrm, wrs, wrw

◆ *Salix candida* Flüeggé ex Willd. (1) WY; 2340–2370 m; wfn

Salix drummondiana Barratt ex Hook. (7) MT; Car, Gal, Mpk, Swg; WY; 1740–2940 m; fmc, gmm, wrm, wrs, wrw

Salix eriocephala Michx. var. *mackenziana* (Hook.) Dorn (9) MT; Car, Mpk, Swg; 1350–2260 m; dis, wrm

Salix eriocephala Michx. var. *watsonii* (Bebb) Dorn (8) MT; Car, Mpk, Swg; WY; 1220–3110 m; gle, gmm, ssb, wrm

Salix exigua Nutt. ssp. *exigua* (13) MT; Car, Gal, Mpk, Stw, Swg; WY; 1090–2340 m; dis, gle, ssb, wrm

Salix exigua Nutt. ssp. *interior* (Rowlee) Cronquist (1) MT; Car; 1350 m; dis, wrm

Salix farriarum C. R. Ball (1) MT; Gal; 2010–2570 m; wrm

* *Salix fragilis* L. (1) MT; Car; 1340 m; dis, wrm

Salix geyeriana Anderss. var. *geyeriana* (7) MT; Car, Gal, Mpk; WY; 1870–2620 m; fsf, gmm, wfn, wrm, wrs

Salix glauca L. var. *villosa* Andersson (38) MT; Car, Mpk, Stw, Swg; WY; 1980–3570 m; alt, alw, dis, fmc, fpm, gmm, rts, wrm, wrs

Salix lasiandra Benth. var. *caudata* (Nutt.) Sudw. (4) MT; Mpk; 1340–1830 m; dis, gle, wrm
Salix melanopsis Nutt. (3) MT; Gal, Mpk; 1680–2090 m; gmm, wrm
Salix planifolia Pursh (35) MT; Car, Mpk, Stw, Swg; WY; 1800–3230 m; alw, dis, gmm, wfn, wrm, wrw
Salix reticulata L. var. *nana* Andersson (23) MT; Car, Mpk, Stw, Swg; WY; 2870–3720 m; alt, alw, gmm, wrm
Salix scouleriana Barratt ex Hook. (6) MT; Car, Gal, Mpk; 1860–2530 m; dis, fmc, fsf, gmm, wrm
Salix tweedyi (Bebb ex Rose) C. R. Ball (1) MT; Stw; 1590–1770 m; fmc, wrw
Salix wolfii Bebb var. *idahoensis* C. R. Ball (4) MT; Mpk; WY; 2840–2980 m; alw, gmm, wrm
Salix wolfii Bebb var. *wolfii* (2) MT; Gal; 2010–2570 m; wrm

Santalaceae

Arceuthobium americanum Nutt. ex Engelm. (3) MT; Car, Gal, Swg; 2010–2730 m; fpc, fsf
Comandra umbellata (L.) Nutt. var. *pallida* (A. DC.) M. E. Jones (41) MT; Car, Gal, Mpk, Stw; WY; 1260–2470 m; dis, fpf, fpm, fpp, gle, gmm, ssb, rcr, vsp

Sapindaceae

Acer glabrum Torr. var. *douglasii* (Hook.) Dippel (21) MT; Car, Gal, Mpk, Stw, Swg; 1590–2800 m; dis, fmc, fpm, rcr, rts, wrm, wrw
Acer glabrum Torr. var. *glabrum* (21) MT; Car, Mpk, Stw, Swg; WY; 1380–3110 m; gmm, rcr, rts
Acer negundo L. var. *interius* (Britton) Sarg. (1) MT; Car; 1090 m; gmm, wrm

Sarcobataceae

Sarcobatus vermiculatus (Hook.) Torr. (3) MT; Car, Mpk; 1260–1780 m; gle, sbb, vsp

Saxifragaceae

Boykinia heucheriformis (Rydb.) Rosend. (18) MT; Car, Gal, Mpk, Stw, Swg; 1740–3070 m; rcr, rts
Conimitella williamsii (D. C. Eaton) Rydb. (10) MT; Car, Gal, Mpk, Swg; 1650–2570 m; dis, fmc, fpm, gmm, ssb, rcr, vsp
Heuchera cylindrica Douglas ex Hook. var. *alpina* Sw. (1) WY; 2740–2990 m; vsp
Heuchera cylindrica Douglas ex Hook. var. *cylindrica* (22) MT; Car, Gal, Mpk, Stw, Swg; WY; 1590–2990 m; dis, fmc, fpm, fsf, gmm, rcr, rts, wrm
Heuchera parvifolia Nutt. ex Torr. & A. Gray (30) MT; Car, Gal, Mpk, Stw, Swg; WY; 1370–2990 m; alt, dis, fmc, fpf, fpm, ssb, rcr, rts
Lithophragma glabrum Nutt. var. *ramulosum* (Suksd.) B. Boivin (8) MT; Gal, Mpk; WY; 1800–3100 m; alt, dis, gmm, ssb, vsp
Lithophragma parviflorum (Hook.) Nutt. ex Torr. & A. Gray (28) MT; Car, Gal, Mpk, Stw, Swg; WY; 1430–3110 m; dis, fpm, gmm, rcr, vsp
Lithophragma tenellum Nutt. (2) MT; Mpk; 1760–2360 m; ssb
Mitella pentandra Hook. (15) MT; Car, Gal, Mpk, Swg; WY; 1610–2990 m; fmc, fpm, fsf, gmm, wrm, wrw
Mitella stauropetala Piper var. *stauropetala* (1) MT; Gal; 2100–2220 m; fmc
Mitella trifida Graham (10) MT; Mpk, Swg; 1680–2800 m; dis, fmc, fpm, sfs, wrm, wrw
Saxifraga adscendens L. var. *oregonensis* (Raf.) Breit. (2) WY; 3000–3050 m; alt, rts

Saxifraga bronchialis L. var. *austromontana* (Wiegand) Piper ex G. N. Jones (31) MT; Car, Gal, Mpk, Stw, Swg; WY; 1410–3320 m; alt, dis, fmc, fsf, gmm, rcr, rts, wrm

Saxifraga cernua L. (2) MT; Stw; 3410–3720 m; alt, rts

Saxifraga cespitosa L. var. *minima* Blank. (5) MT; Car, Gal, Stw; WY; 2870–3720 m; alt, rts

Saxifraga chrysantha A. Gray (1) MT; Stw; 3410–3720 m; alt, rts

Saxifraga flagellaris Willd. ex Sternb. var. *crandallii* (Gand.) Dorn (8) MT; Car, Stw; WY; 2870–3720 m; alt, alw, rts

Saxifraga occidentalis S. Watson (16) MT; Car, Gal, Mpk, Stw, Swg; WY; 1730–3720 m; alw, fmc, fpm, gmm, rcr, wrm, wrw

Saxifraga odontoloma Piper (30) MT; Car, Gal, Mpk, Swg; WY; 1610–3120 m; alw, fsf, gmm, wfn, wrm, wrw

Saxifraga oppositifolia L. (3) MT; Mpk, Stw; 2830–3720 m; alt, rcr, rts

Saxifraga rhomboidea Greene (16) MT; Gal, Mpk, Stw, Swg; WY; 2870–3720 m; alt, alw, fpa, rcr, rts

Saxifraga rivularis L. var. *flexuosa* (Sternb.) Engl. & Irmsch. (16) MT; Car, Mpk, Stw, Swg; WY; 2880–3720 m; alt, alw, rcr, rts

Saxifraga subapetala E. E. Nelson (24) MT; Car, Mpk, Stw, Swg; WY; 2800–3410 m; alt, alw, gmm, wfn, wrm

Scrophulariaceae

●* *Verbascum thapsus* L. (1) MT; Mpk; 1310 m; dis, gle

Solanaceae

●* *Hyoscyamus niger* L. (5) MT; Car, Stw, Swg; 1090–1490 m; dis, gle, wrm

Physalis longifolia Nutt. (1) MT; Mpk; 1310 m; dis, gle

* *Solanum dulcamara* L. (1) MT; Car; 1090 m; gle, wrm

Typhaceae

Sparganium angustifolium Michx. (1) MT; Mpk; 2400 m; waq

* *Sparganium emersum* Rehm (3) WY; 1740–2480 m; waq, wfn, wrm

Sparganium natans L. (1) WY; 2290–2380 m; waq

* *Typha angustifolia* L. (1) MT; Gal; 2160 m; wrm

Typha latifolia L. (1) MT; Swg; 1610–1610 m; wrm

Ulmaceae

* *Ulmus pumila* L. (1) MT; Car; 1300 m; gle, sbb, wrm

Urticaceae

Parietaria pensylvanica Muhl. ex Willd. (1) MT; Stw; 1490–1710 m; gle, rcr

Urtica dioica L. var. *procera* (Muhl. ex Willd.) Wedd. (25) MT; Car, Gal, Mpk, Stw, Swg; WY; 1400–2800 m; dis, fmc, fpt, fsf, gle, gmm, rts, wrm, wrw

Verbenaceae

Verbena bracteata Lag. & Rodr. (12) MT; Car, Mpk, Stw, Swg; WY; 1090–2190 m; dis, gmm, ssb, rts, wrm

Violaceae

Viola adunca Sm. var. *adunca* (56) MT; Car, Gal, Mpk, Stw, Swg; WY; 1610–3410 m; alt, dis, fmc, fpa, fpm, fsf, gmm, rcr, rts, wrm, wrs, wrw

Viola canadensis L. (24) MT; Car, Gal, Mpk, Stw, Swg; 1670–2800 m; dis, fmc, fpm, fpt, fsf, gmm, wrm, wrw

Viola macloskeyi Lloyd var. *pallens* (Banks ex DC.) C. L. Hitchc. (5) MT; Gal, Mpk, Swg; WY; 1740–2840 m; fmc, fsf, wrw
Viola nephrophylla Greene (4) MT; Car, Mpk; WY; 1330–2230 m; gmm, wrm, wrw
Viola nuttallii Pursh (11) MT; Car, Gal, Mpk, Swg; WY; 1410–3150 m; dis, gmm, ssb, wrm
Viola orbiculata Geyer ex Holz. (2) MT; Mpk; 1740–2260 m; fmc, fpm
Viola palustris L. (2) MT; Mpk, Swg; 1610–2880 m; fsf, wrw
Viola praemorsa Douglas ex Lindl. (11) MT; Gal, Mpk; WY; 1830–3220 m; alt, dis, gmm, ssb
Viola vallicola A. Nelson (15) MT; Car, Gal, Mpk, Stw, Swg; WY; 1490–2510 m; dis, gle, gmm, ssb, wrm

Vitaceae

Parthenocissus vitacea (Knerr) Hitchc. (1) MT; Car; 1090 m; gle, wrm

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