

Floristic Assessment of the Pritzlaff Ranch San Miguel County, New Mexico

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For
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The Pritzlaff Ranch is about 3,300 acres surrounding the Town of San Ignacio in San Miguel County, New Mexico. This botanical survey was undertaken to determine if any rare or endangered plant species occur on the property. Any problematic weeds encountered during the survey were concurrently documented for the ranch. In addition, a list is presented of all plant species seen and is an initial contribution towards a comprehensive assessment of total plant diversity within the ranch boundaries.

This survey did not completely cover the entire property, but did sample in all areas of the ranch and in all types of habitats occurring there. Field visits occurred on June 4-5, 2012 and August 1-2, 2012. Lead botanist, Robert Sivinski, was assisted in the field by Sharon Franklet and Bob Lineback during first visit; and by Sharon Franklet, Tim Lowrey, Phil Tonne, Jeremy McClain, and Daniela Roth during the August survey. All identifiable plant species encountered were recorded on a list of species. Any that were not readily known in the field were collected as voucher specimens, taken to the herbarium at the University of New Mexico in Albuquerque, and identified to species and subspecies. Nomenclature for all Latin and vernacular names follows that of Allred (2008) and Allred and Ivey (2012).

Rare plant species that occur in San Miguel County at elevations and soil types similar to the ranch were determined from the New Mexico Rare Plants website at <http://nmrareplants.unm.edu/>. Introduced weed species considered noxious by the New Mexico Department of Agriculture are listed at http://www.nmda.nmsu.edu/wp-content/uploads/2012/01/weed_memo_list.pdf.

HABITAT

Pritzlaff Ranch occurs on the east slope of the Sangre de Cristo Mountains in north-central New Mexico. The Rio Sapello bisects the ranch, which includes about 2.2 miles of creek channel and parts of major tributaries – Rito Colorado, Rito Chavez and Deer Creek. Elevation ranges from about 7,170 feet to almost 7,750 feet. Topography is of broad ridges with steep slopes and relatively broad valley bottoms. Geologic substrates are mostly Pennsylvanian-age Alamosa Formation and to lesser extent Porvenir Formation (Baltz, and O'Neill 1986). These consist of shale and sandy limestone interbedded with ledge-forming outcrops of feldspar (arkose) sandstone and conglomerate. The resulting soils are mostly sandy loam and sandy clay loam. Valley bottoms and some benches have younger Quaternary deposits of unconsolidated alluvium and colluvium.

Major vegetation associations include uplands with dry ponderosa pine forest with significant oak scrub inclusions, and narrow stringers of mixed conifer forest in some narrow canyons and north-facing slopes. The broad valley bottoms include riparian woodland, wet meadows (usually near acequias and beaver ponds) and large, relatively dry meadows above the stream channels.

Dominant plants in the ponderosa forest are *Pinus scopulorum* (ponderosa pine or western yellow pine), *Juniperus scopulorum* (Rocky Mountain juniper) and an extensive scrub oak understory. The prevailing oak on north-facing slopes and higher ridges is *Quercus gambelii* (Gambel's oak), which is usually a thicket-forming shrub, but can become a tree on colluvial soils at the toes of slopes and in valley bottoms. Drier soils and south-facing slopes have thickets of *Quercus xundulata* (wavy-leaf oak), which is a hybrid swarm from ancient and persistent crossing and back-crossing of *Quercus gambelii* with *Quercus grisea* (gray oak) and possibly other species in the red oak subgenus such as *Quercus turbinella* (desert scrub oak). Mixed conifer forest is again dominated by ponderosa pine, but also includes *Abies concolor* (white fir) and *Pseudotsuga menziesii* (Douglas fir).

Figure 1. Ponderosa forest on the uplands with dry meadow on the deeper soils of the broad valley bottoms. Gambel oaks are trees at the interface and more shrubby within the forest.



Riparian woodlands have *Populus angustifolia* (narrow-leaf cottonwood) as the tallest trees and a lower, more shrubby understory of *Salix exigua* (coyote willow), *Salix irrorata* (blue-stem willow), *Salix lasiolepis* (arroyo willow), *Prunus virginiana* (choke cherry) and *Alnus incana*

subsp. *tenuifolia* (mountain alder). Adjacent wet meadows have few, or no, woody plants and are dominated by sedges, rushes, and grasses. These wet riparian habitats have great plant species diversity relative to the few acres they cover, but also have significantly more exotic plants compared to drier forest.

Figure 2. Riparian woodland along the Rio Sapello.



Wet meadows associated with beaver ponds on the Rio Sapello.



The upland dry meadows in the broad valley bottoms are the most changed native habitat on the ranch and it is difficult to assess what natural suite of native plants would have occurred there. At present, the dry valley meadows are predominantly covered with a mixture of native and non-native grasses and weedy forbs. Exotic *Bromus inermis* (smooth brome) is especially common, but native *Bouteloua gracilis* (blue grama) and *Elymus smithii* (western wheatgrass) are also usually present.

RESULTS

A total 326 plant taxa were documented for the Pritzlaff Ranch during the June and August 2012 field surveys. These include all of the common species and at least 90% of the total flora of the ranch. This number represents almost 9% of the total plant species in the State of New Mexico (ca 3,750 species), which indicates a very floristically diverse property. The five most diverse plant families on the ranch are Asteraceae (Aster Family): 68 species; Poaceae (Grass Family): 35 species; Fabaceae (Pea Family): 19 species; Cyperaceae (Sedge Family): 15 species; and Rosaceae (Rose Family): 15 species. Plants that were intentionally planted and not self-perpetuating, such as apple trees and the limber pine near the ranch house, were not counted in this survey.

LITERATURE CITED

Allred, K.W. 2008. Flora neomexicana I: An annotated checklist to the names of vascular plants, with synonymy and bibliography. Available: www.lulu.com.

Allred, K.W and R.D. Ivey. 2012. Flora neomexicana III: An illustrated identification manual. Available: www.lulu.com.

Baltz, E.H. and O'Neill, J.M., 1986, Geologic map and cross sections of the Sapello River area, Sangre De Cristo Mountains, Mora and San Miguel Counties, New Mexico: U.S. Geological Survey, Miscellaneous Investigations Series Map I-1575, scale 1:24000. Available: http://ngmdb.usgs.gov/Prodesc/proddesc_9325.htm.

Plants of the Pritzlaff Ranch
San Miguel County, New Mexico
 (* = non-native species)

<u>FAMILY</u>	<u>SPECIES AND SUBSPECIES</u>	<u>COMMON NAME</u>	<u>HABITAT</u>
Agavaceae	<i>Yucca baccata</i>	banana yucca	Pine Forest
Alliaceae	<i>Allium cernuum</i>	nodding onion	Pine Forest; Mixed Conifer
Alliaceae	<i>Allium geyeri</i>	Geyer's onion	Pine Forest; Mixed Conifer
Amaranthaceae	<i>Amaranthus</i> sp.	pigweed	Dry Meadow; Riparian
Anacardiaceae	<i>Rhus trilobata</i>	three-leaf sumac	Pine Forest
Anacardiaceae	<i>Toxicodendron rydbergii</i>	poison ivy	Riparian; Mixed Conifer
Apiaceae	<i>Cicuta maculata</i>	spotted water-hemlock	Riparian
Apiaceae	<i>Conioselinum scopulorum</i>	Rocky Mountain hemlock- parsley	Riparian
Apiaceae	<i>Cymopterus lemmonii</i>	mountain-parsley	Pine Forest
Apiaceae	<i>Harbourea trachypleura</i>	wisk-broom	Pine Forest
Apiaceae	<i>Heracleum maximum</i>	cow-parsnip	Riparian
Apocynaceae	<i>Apocynum androsaemifolium</i>	spreading dogbane	Mixed Conifer
Asclepiadaceae	<i>Asclepias asperula</i>	antelope-horns	Pine Forest
Asclepiadaceae	<i>Asclepias speciosa</i>	showy milkweed	Riparian

Asclepiadaceae	<i>Asclepias subverticillata</i>	horsetail milkweed	Dry Meadow; Riparian
Asclepiadaceae	<i>Asclepias tuberosa</i> subsp. <i>interior</i>	butterfly milkweed	Pine Forest
Asparagaceae	* <i>Asparagus officinalis</i>	Asparagus	Riparian
Asteraceae	<i>Achillea millefolium</i>	western yarrow	Pine Forest; Mixed Conifer
Asteraceae	* <i>Acroptilon repens</i>	Russian knapweed	Disturbance; Dry Meadow
Asteraceae	<i>Ageratina herbacea</i>	fragrant snakeroot	Mixed Conifer
Asteraceae	<i>Amauriopsis dissecta</i>	ragged-leaf bahia	Pine Forest; Dry Meadow
Asteraceae	<i>Ambrosia confertifolia</i>	Mexican ragweed	Dry Meadow
Asteraceae	<i>Ambrosia psilostachya</i>	perennial ragweed	Dry Meadow
Asteraceae	<i>Ambrosia tomentosa</i>	skeleton-leaf bursage	Dry Meadow
Asteraceae	<i>Antennaria marginata</i>	white-margin pussytoes	Pine Forest
Asteraceae	* <i>Arctium minus</i>	burdock	Riparian
Asteraceae	<i>Artemisia carruthii</i>	Carruth's wormwood	Dry Meadow
Asteraceae	<i>Artemisia dracunculus</i>	dragon wormwood	Dry Meadow
Asteraceae	<i>Artemisia frigida</i>	fringed sage	Pine Forest; Dry Meadow

Asteraceae	<i>Artemisia ludoviciana</i>	Louisiana wormwood	Pine Forest; Dry Meadow
Asteraceae	<i>Brickellia brachyphylla</i>	plumed brickellbush	Pine Forest
Asteraceae	<i>Brickellia eupatorioides</i> var. <i>chlorolepis</i>	false boneset	Pine Forest
Asteraceae	<i>Brickellia rusbyi</i>	Rusby's brickellbush	Pine Forest
Asteraceae	* <i>Carduus nutans</i>	musk thistle	Disturbance; Riparian
Asteraceae	<i>Chaetopappa ericoides</i>	heath aster	Dry Meadow
Asteraceae	* <i>Cichorium intybus</i>	chicory	Disturbance; Dry Meadow
Asteraceae	<i>Cirsium undulatum</i>	wavy-leaf thistle	Pine Forest; Dry Meadow
Asteraceae	* <i>Cirsium vulgare</i>	bull thistle	Pine Forest; Dry Meadow; Riparian
Asteraceae	<i>Cirsium wheeleri</i>	Wheeler's thistle	Pine Forest
Asteraceae	<i>Conyza canadensis</i>	westernn horseweed	Dry Meadow
Asteraceae	<i>Coreopsis lanceolata</i>	lanceleaf tickseed	Riparian
Asteraceae	<i>Cosmos parviflorus</i>	southwestern cosmos	Pine Forest
Asteraceae	<i>Cyclachaena xanthifolia</i>	careless-weed	Dry Meadow
Asteraceae	<i>Dieteria canescens</i> var. <i>glabra</i>	sand-daisy	Dry Meadow; Pine Forest

Asteraceae	<i>Erigeron divergens</i>	spreading fleabane	Dry Meadow; Pine Forest
Asteraceae	<i>Erigeron flagellaris</i>	whiplash fleabane	Pine Forest
Asteraceae	<i>Erigeron formosissimus</i>	beautiful fleabane	Pine Forest; Mixed Conifer
Asteraceae	<i>Eroigeron vetensis</i>	blue-top fleabane	Pine Forest
Asteraceae	<i>Erigeron vreelandii</i>	broad-leaf fleabane	Mixed Conifer
Asteraceae	<i>Grindelia squarrosa</i>	curly-cup gumweed	Disturbance; Dry Meadow
Asteraceae	<i>Gutierrezia sarothrae</i>	broom snakeweed	Dry Meadow
Asteraceae	<i>Heiracium fendleri</i>	Fendler's hawkweed	Pine Forest
Asteraceae	<i>Helianthus annuus</i>	annual sunflower	Disturbance; Dry Meadow
Asteraceae	<i>Helianthus pauciflorus</i> subsp. <i>subrrhomboideus</i>	stiff sunflower	Pine Forest; Mixed Conifer
Asteraceae	<i>Helianthus nuttallii</i>	Nuttall's sunflower	Wet Meadow
Asteraceae	<i>Heliomeris multiflorous</i>	showy goldeneye	Pine Forest
Asteraceae	<i>Heliopsis parvifolia</i>	mountain oxeye	Pine Forest
Asteraceae	<i>Heterotheca villosa</i>	hairy golden-aster	Pine Forest; Dry Meadow
Asteraceae	<i>Lactuca pulchella</i>	blue-lettuce	Pine Forest
Asteraceae	* <i>Lactuca serriola</i>	prickly lettuce	Disturbance

Asteraceae	<i>Laennecia coulteri</i>	Coulter's woolwort	Pine Forest
Asteraceae	<i>Liatris punctata</i>	dotted gayfeather	Pine Forest
Asteraceae	<i>Oreochrysum parryi</i>	Parry's goldenrod	Mixed Conifer
Asteraceae	<i>Packera fendleri</i>	Fendler's groundsel	Pine Forest
Asteraceae	<i>Packera neomexicana</i>	New Mexico groundsel	Pine Forest
Asteraceae	<i>Pseudognaphalium macounii</i>	Macoun's rabbit-tobacco	Pine Forest
Asteraceae	<i>Ratibida columnifera</i>	Mexican hat	Dry Meadow
Asteraceae	<i>Rudbeckia hirta</i> var. <i>pulcherrima</i>	black-eyed Susan	Pine Forest
Asteraceae	<i>Rudbeckia laciniata</i>	cutleaf coneflower	Riparian
Asteraceae	* <i>Scorzonera laciniata</i>	false salsify	Disturbance
Asteraceae	<i>Senecio actinella</i>	Flagstaff groundsel	Pine Forest
Asteraceae	<i>Senecio eremophilus</i> var. <i>macdougalii</i>	mountain groundsel	Mixed Conifer
Asteraceae	<i>Senecio wootonii</i>	Wooton's groundsel	Mixed Conifer
Asteraceae	<i>Solidago gigantea</i>	late goldenrod	Riparian
Asteraceae	<i>Solidago mollis</i>	velvet goldenrod	Pine Forest
Asteraceae	<i>Solidago simplex</i>	New Mexico goldenrod	Pine Forest
Asteraceae	<i>Solidago velutina</i>	three-nerve goldenrod	Pine Forest
Asteraceae	<i>Solidago wrightii</i>	Wright's goldenrod	Pine Forest
Asteraceae	* <i>Sonchus oleraceus</i>	common sow-thistle	Disturbance
Asteraceae	<i>Stephanomeria tenuifolia</i>	thin-leaf wire-lettuce	Pine Forest
Asteraceae	<i>Symphotrichum laeve</i> var. <i>geyeri</i>	Geyer's blue aster	Mixed Conifer

Asteraceae	<i>Symphyotrichum novae-angliae</i>	New England aster	Wet Meadow
Asteraceae	* <i>Taraxicum officinale</i>	dandelion	All Types
Asteraceae	<i>Tetraneris acaulis</i>	stemless rubberweed	Dry Meadow
Asteraceae	<i>Thelesperma megapotamicum</i>	Navajo-tea	Dry Meadow; Pine Forest
Asteraceae	<i>Townsendia eximia</i>	Rocky Mountain Townsend daisy	Pine Forest
Asteraceae	<i>Tragopogon dubius</i>	yellow salsify	All Types
Betulaceae	<i>Alnus incana</i> subsp. <i>tenuifolia</i>	mountain alder	Riparian
Boraginaceae	* <i>Cynoglossum officinale</i>	hound's-tongue	Pine Forest
Boraginaceae	<i>Heckelia besseyi</i>	Bessey's stickseed	Pine Forest
Boraginaceae	<i>Lithospermum multiflorum</i>	purple gromwell	Pine Forest
Boraginaceae	<i>Macromeria viridiflora</i>	giant trumpets	Pine Forest
Boraginaceae	<i>Mertensia franciscana</i>	San Francisco bluebells	Riparian
Boraginaceae	<i>Mertensia lanceolata</i>	prairie bluebells	Pine Forest
Boraginaceae	* <i>Myosotis scorpioides</i>	forget-me-not	Riparian
Brassicaceae	* <i>Barbarea vulgaris</i>	garden yellow-rocket	Riparian
Brassicaceae	* <i>Capsella bursa-pastoris</i>	shepard's purse	Riparian
Brassicaceae	<i>Erysimum asperum</i>	plains wallflower	Pine Forest
Brassicaceae	* <i>Hesperis matronalis</i>	dames rocket	Riparian
Brassicaceae	* <i>Lepidium draba</i>	hoary-cress	Dry Meadow
Brassicaceae	* <i>Nasturtium officinale</i>	water-cress	Riparian
Brassicaceae	<i>Pennellia longifolia</i>	long-leaf thelypody	Pine Forest

Brassicaceae	<i>Rorripa curvipes</i>	curved yellow-cress	Riparian
Brassicaceae	<i>Schoenocrambe linifolia</i>	schoenocrambe	Pine Forest
Brassicaceae	<i>Turritis glabra</i>	tower mustard	Riparian
Cactaceae	<i>Echinocereus triglochidiatus</i>	claret-cup cactus	Pine Forest
Cactaceae	<i>Escobaria vivipera</i>	spiny star	Dry Meadow; Pine Forest
Cactaceae	<i>Opuntia macrorhiza</i>	western prickly-pear	Dry Meadow; Pine Forest
Cactaceae	<i>Opuntia polyacantha</i>	poverty prickly-pear	Dry Meadow; Pine Forest
Campanulaceae	<i>Campanula rotundifolia</i>	bluebells-of-Scotland	Mixed Conifer
Cannabaceae	<i>Humulus lupulus</i> var. <i>neomexicanus</i>	New Mexico hops	Riparian
Caprifoliaceae	* <i>Lonicera</i> sp.	honeysuckle (Asian)	Mixed Conifer
Caprifoliaceae	<i>Symphoricarpos</i> <i>rotundifolius</i>	round-leaf snowberry	Mixed Conifer
Caprifoliaceae	<i>Valeriana edulis</i>	tobacco root	Riparian
Caprifoliaceae	<i>Valeriana acutiloba</i>	Rocky Mountain valerian	Mixed Conifer
Caryophyllaceae	<i>Cerastium brachypodum</i>	short-stalk chickweed	Pine Forest
Caryophyllaceae	<i>Silene antirrhina</i>	sleepy catchfly	Pine Forest
Caryophyllaceae	* <i>Silene latifolia</i>	bladder campion	Riparian
Caryophyllaceae	<i>Pseudostellaria jamesiana</i>	sticky starwort	Pine Forest
Caryophyllaceae	<i>Spergulastrum lanuginosum</i> subsp. <i>saxosum</i>	spreading sandwort	Pine Forest

Chenopodiaceae	<i>Chenopodium desiccatum</i> <i>var. leptophylloides</i>	plains goosefoot	Dry Meadow
Chenopodiaceae	<i>Chenopodium</i> sp.	goosefoot	Dry Meadow
Chenopodiaceae	<i>Dysphania graveolens</i>	fetid goosefoot	Pine Forest
Chenopodiaceae	* <i>Kochia scoparia</i>	kochia	Disturbance
Chenopodiaceae	* <i>Salsola tragus</i>	Russian-thistle	Disturbance
Convallariaceae	<i>Convallaria majalis</i>	lily of the valley	Riparian; Mixed Conifer
Convallariaceae	<i>Maianthemum stellatum</i>	starry false Solomon's-seal	Mixed Conifer
Convolvulaceae	* <i>Convolvulus arvensis</i>	field bindweed	Dry Meadow
Cornaceae	<i>Cornus sericea</i> subsp. <i>stolonifera</i>	red-osier dogwood	Riparian
Cucurbitaceae	<i>Cucurbita foetidissima</i>	buffalo gourd	Dry Meadow
Cupressaceae	<i>Juniperus monosperma</i>	one-seed juniper	Pine Forest
Cupressaceae	<i>Juniperus scopulorum</i>	Rocky Mountain juniper	Pine Forest
Cyperaceae	<i>Carex aquatilis</i>	leafy tussock sedge	Riparian
Cyperaceae	<i>Carex hystericina</i>	porcupine sedge	Riparian
Cyperaceae	<i>Carex inops</i> subsp. <i>heliophila</i>	stolon sedge	Pine Forest
Cyperaceae	<i>Carex microptera</i>	small-wing sedge	Riparian
Cyperaceae	<i>Carex nebrascensis</i>	Nebraska sedge	Wet Meadow
Cyperaceae	<i>Carex occidentalis</i>	New Mexico sedge	Pine Forest
Cyperaceae	<i>Carex pellita</i>	wooly sedge	Wet Meadow

Cyperaceae	<i>Carex praegracilis</i>	field sedge	Wet Meadow
Cyperaceae	<i>Carex stipata</i>	stalked sedge	Riparian
Cyperaceae	<i>Carex vulpinoidea</i>	fox sedge	Riparian
Cyperaceae	<i>Cyperus fendleri</i>	Fendler's flatsedge	Pine Forest
Cyperaceae	<i>Eleocharis erythropoda</i>	bald spikerush	Riparian
Cyperaceae	<i>Schoenoplectus tabernaemontani</i>	soft-stem bulrush	Riparian
Cyperaceae	<i>Scirpus microcarpus</i>	red-tinged bulrush	Riparian
Cyperaceae	<i>Scirpus pendulus</i>	rufous bulrush	Riparian
Equisetaceae	<i>Equisetum arvense</i>	field horsetail	Riparian
Equisetaceae	<i>Equisetum laevigatum</i>	smooth horsetail	Riparian
Ericaceae	<i>Arctostaphylos uva-ursi</i>	bearberry	Pine Forest
Euphorbiaceae	<i>Tragia ramosa</i>	branched noseburn	Pine Forest
Fabaceae	<i>Amorpha canescens</i>	leadplant	Pine Forest
Fabaceae	<i>Astragalus canadensis</i>	Canadian milkvetch	Riparian
Fabaceae	<i>Astragalus humistratus</i>	ground-cover milkvetch	Pine Forest
Fabaceae	<i>Astragalus laxmannii</i> var. <i>robustior</i>	Laxmann's milkvetch	Pine Forest
Fabaceae	<i>Calliandra humilis</i>	dwarf stick-pea	Pine Forest
Fabaceae	<i>Dalea purpurea</i>	purple prairie-cloverr	Dry Meadow
Fabaceae	<i>Glycerrhiza lepidota</i>	American licorice	Riparian
Fabaceae	<i>Lathyrus lanszwertii</i> var. <i>leucanthus</i>	Rocky Mountain sweet-pea	Mixed Conifer
Fabaceae	<i>Lathyrus eucosmus</i>	bush sweatpea	Pine Forest
Fabaceae	<i>Medicago lupulina</i>	black medic	Disturbance

Fabaceae	<i>*Medicago sativa</i>	alfalfa	Disturbance
Fabaceae	<i>*Melilotus officinalis</i>	yellow sweet-clover	Disturbance
Fabaceae	<i>Oxytropis lambertii</i>	Lambert's crazyweed	Pine Forest
Fabaceae	<i>Psoralidium tenuiflorum</i>	slender scurfpea	Pine Forest
Fabaceae	<i>Thermopsis montana</i>	golden-pea	Riparian; Mixed Conifer
Fabaceae	<i>*Trifolium pratense</i>	red clover	Riparian
Fabaceae	<i>*Trifolium repens</i>	white clover	Riparian
Fabaceae	<i>Vicia americana</i>	American vetch	Pine Forest
Fabaceae	<i>Vicia pulchella</i>	sweet vetch	Pine Forest
Fagaceae	<i>Quercus gambelii</i>	Gambel's oak	Pine Forest
Fagaceae	<i>Quercus xundulata</i>	wavy-leaf oak	Pine Forest
Gentianaceae	<i>Frasera speciosa</i>	showy elkweed	Mixed Conifer
Geraniaceae	<i>*Erodium cicutarium</i>	filaree	Dry Meadow
Geraniaceae	<i>Geranium caespitosum</i>	tufted geranium	Pine Forest
Geraniaceae	<i>Geranium richardsonii</i>	Richardson's geranium	Mixed Conifer
Grossulariaceae	<i>Ribes cereum</i>	wax current	Riparian
Grossulariaceae	<i>Ribes wolfii</i>	Wolf's current	Mixed Conifer
Hydrangeaceae	<i>Jamesia americana</i>	cliffbush	Mixed Conifer
Hydrocharitaceae	<i>Elodea sp.</i>	waterweed	Riparian
Hydrophyllaceae	<i>Nama dichotoma</i>	wishbone fiddleleaf	Pine Forest
Hydrophyllaceae	<i>Phacelia alba</i>	white scorpionweed	Pine Forest

Iridaceae	<i>Iris missouriensis</i>	Rocky Mountain iris	Dry Meadow; Mixed Conifer
Iridaceae	* <i>Iris pseudacorus</i>	false sweet-flag	Riparian
Juncaceae	<i>Juncus arcticus</i> var. <i>balticus</i>	Baltic rush	Riparian
Juncaceae	<i>Juncus bufonius</i>	toad rush	Riparian
Juncaceae	<i>Juncus dudleyi</i>	Dudley's rush	Riparian
Juncaceae	<i>Juncus ensifolius</i> var. <i>montanus</i>	Rocky Mountain rush	Riparian
Lamiaceae	<i>Dracocephalum parviflorum</i>	dragonhead	Pine Forest
Lamiaceae	<i>Mentha arvensis</i>	field mint	Riparian
Lamiaceae	<i>Monarda fistulosa</i> var. <i>mentifolia</i>	Oswego tea	Mixed Conifer
Lamiaceae	<i>Monarda pectinata</i>	plains beebalm	Pine Forest
Lamiaceae	<i>Prunella vulgare</i>	selfheal	Riparian
Lamiaceae	<i>Salvia reflexa</i>	lanceleaf sage	Pine Forest
Lamiaceae	<i>Stachys pilosa</i>	hairy hedge-nettle	Riparian
Lemnaceae	<i>Lemna</i> sp.	duckweed	Riparian
Linaceae	<i>Linum aristatum</i>	bristle flax	Dry Meadow
Linaceae	<i>Linum australe</i>	southern flax	Pine Forest
Linaceae	<i>Linum lewisii</i>	prairie flax	Dry Meadow; Pine Forest
Loasaceae	<i>Mentzelia rusbyi</i>	Rusby's blazingstar	Pine Forest
Malvaceae	* <i>Malva neglecta</i>	dwarf cheeseweed	Disturbance
Malvaceae	<i>Sidalcea candida</i>	white checker-mallow	Riparian

Malvaceae	<i>Sphaeralcea angustifolia</i>	narrowleaf globemallow	Dry Meadow; Pine Forest
Onagraceae	<i>Epilobium ciliatum</i>	fringed willow-herb	Riparian
Onagraceae	<i>Oenothera coronopifolia</i>	hairy-throat evening- primrose	Dry Meadow
Onagraceae	<i>Oenothera curtiflora</i>	velvet-weed	Dry Meadow; Pine Forest
Onagraceae	<i>Oenothera flava</i>	long-tube evening-primrose	Dry Meadow
Onagraceae	<i>Oenothera suffrutescens</i>	scarlet bee-blossum	Dry Meadow; Pine Forest
Onagraceae	<i>Oenothera villosa</i> subsp. <i>strigosa</i>	hairy evening primrose	Pine Forest
Orobanchaceae	<i>Catilleja integra</i>	southwestern paintbrush	Dry Meadow; Pine Forest
Orobanchaceae	<i>Conopholis alpina</i> var. <i>mexicana</i>	Mexican Indian-root	Pine Forest
Orobanchaceae	<i>Pedicularis canadensis</i> subsp. <i>fluviatilis</i>	Canadian lousewort	Riparian
Orobanchaceae	<i>Pedicularis procera</i>	giant lousewort	Riparian
Oxalidaceae	<i>Oxalis violacea</i>	violet wood-sorrel	Mixed Conifer
Nyctaginaceae	<i>Mirabilis linearis</i>	ribbon four-o'clock	Dry Meadow; Pine Forest
Nyctaginaceae	<i>Mirabilis melanotricha</i>	Standley's four-o'clock	Pine Forest
Pinaceae	<i>Abies concolor</i>	white fir	Mixed Conifer

Pinaceae	<i>Pinus edulis</i>	piñon pine	Pine Forest
Pinaceae	<i>Pinus flexilis</i>	limber pine	Mixed Conifer
Pinaceae	<i>Pinus scopulorum</i>	ponderosa pine	Pine Forest; Mixed Conifer
Pinaceae	<i>Pseudotsuga menzeisii</i> var. <i>glauca</i>	Douglas fir	Mixed Conifer
Plantaginaceae	* <i>Linaria dalmatica</i>	Dalmatian toadflax	Dry Meadow; Pine Forest
Plantaginaceae	<i>Penstemon barbatus</i> subsp. <i>torreyi</i>	southwestern beardtongue	Pine Forest
Plantaginaceae	<i>Penstemon gracilis</i>	lilac beardtongue	Dry Meadow; Pine Forest
Plantaginaceae	* <i>Plantago lanceolata</i>	English plantain	Disturbance
Plantaginaceae	<i>Synthyris plantaginea</i>	Rocky Mountains kitten's- tail	Mixed Conifer
Plantaginaceae	<i>Veronica americana</i>	American speedwell	Riparian
Plantaginaceae	* <i>Veronica anagallis-aquatica</i>	blue speedwell	Riparian
Plantaginaceae	<i>Veronica perengrina</i> var. <i>xalapensis</i>	neckweed	Riparian
Poaceae	<i>Achnatherum robustum</i>	sleepygrass	Pine Forest
Poaceae	* <i>Agropyron cristatum</i>	crested wheatgrass	Dry Meadow
Poaceae	<i>Agrostis scabra</i>	rough bentgrass	Pine Forest
Poaceae	* <i>Agrostis stolonifera</i>	creeping bentgrass	Riparian
Poaceae	<i>Alopecurus aequalis</i>	shortawn foxtail	Riparian
Poaceae	<i>Aristida arizonica</i>	Arizona threeawn	Pine Forest

Poaceae	<i>Bouteloua curtipendula</i>	sideoats grama	Dry Meadow; Pine Forest
Poaceae	<i>Bouteloua gracilis</i>	blue grama	Dry Meadow; Pine Forest
Poaceae	<i>Bromus anomalus</i>	nodding brome	Pine Forest; Mixed Conifer
Poaceae	* <i>Bromus inermis</i>	smooth brome	Dry Meadow; Pine Forest
Poaceae	* <i>Bromus tectorum</i>	cheatgrass	Dry Meadow; Pine Forest
Poaceae	* <i>Dactylis glomeratus</i>	orchardgrass	Riparian
Poaceae	<i>Dichanthelium oligosanthes</i> var. <i>scribnerianum</i>	Scribner's rosettegrass	Pine Forest; Mixed Conifer
Poaceae	<i>Elymus canadensis</i>	Canadian wildrye	Riparian
Poaceae	<i>Elymus longifolius</i>	squirreltail	Dry Meadow; Pine Forest
Poaceae	<i>Elymus xpseudorepens</i>	false quackgrass	Pine Forest
Poaceae	<i>Elymus smithii</i>	western wheatgrass	Dry Meadow; Pine Forest
Poaceae	<i>Festuca arizonica</i>	Arizona fescue	Pine Forest
Poaceae	* <i>Festuca pratensis</i>	meadow fescue	Riparian
Poaceae	<i>Glyceria grandis</i>	American mannagrass	Riparian
Poaceae	<i>Hordeum jubatum</i>	foxtail barley	Riparian

Poaceae	<i>*Hordeum murinum</i>	hare barley	Dry Meadow
Poaceae	<i>Koeleria macrantha</i>	Junegrass	Pine Forest
Poaceae	<i>Lycurus setosus</i>	bristly wolftail	Dry Meadow
Poaceae	<i>Muhlenbergia pauciflora</i>	New Mexico muhly	Pine Forest
Poaceae	<i>Muhlenbergia repens</i>	creeping muhly	Dry Meadow
Poaceae	<i>Muhlenbergia rigens</i>	deergrass	Riparian
Poaceae	<i>Panicum bulbosum</i>	bulb panicum	Pine Forest
Poaceae	<i>Panicum capillare</i> var. <i>brevifolium</i>	common witchgrass	Dry Meadow
Poaceae	<i>Phalaris arundinacea</i>	reed canarygrass	Riparian
Poaceae	<i>*Phleum pratense</i>	timothy	Riparian
Poaceae	<i>Piptochaetium fimbriatum</i>	piñon ricegrass	Pine Forest
Poaceae	<i>Poa compressa</i>	Canada bluegrass	Mixed Conifer
Poaceae	<i>Poa fendleriana</i>	muttongrass	Pine Forest
Poaceae	<i>*Poa pratensis</i>	Kentucky bluegrass	Mixed Conifer; Riparian
Poaceae	<i>Schizachyrium scoparium</i>	little bluestem	Dry Meadow; Pine Forest
Polemoniaceae	<i>Ipomopsis aggregata</i> subsp. <i>formosissima</i>	skyrocket	Pine Forest
Polemoniaceae	<i>Phlox nana</i>	Santa Fe phlox	Dry Meadow; Pine Forest
Polygonaceae	<i>Eriogonum alatum</i>	winged wild buckwheat	Pine Forest

Polygonaceae	<i>Eriogonum jamesii</i>	James' wild buckwheat	Pine Forest
Polygonaceae	<i>Eriogonum racemosum</i>	red-root wild-buckwheat	Dry Meadow; Pine Forest
Polygonaceae	* <i>Fallopia convolvulus</i>	black bindweed	Riparian
Polygonaceae	<i>Pesicaria amphibia</i>	water smartweed	Riparian
Polygonaceae	* <i>Rumex crispus</i>	curly dock	Riparian
Portulacaceae	<i>Pthemranthus brevifolius</i>	pygmy fameflower	Dry Meadow
Portulacaceae	* <i>Portulaca oleracea</i>	garden purslane	Disturbance
Primulaceae	<i>Androsace septentrionalis</i>	rock jasmine	Pine Forest
Primulaceae	<i>Lysimachia ciliata</i>	fringed yellow-loosestrife	Wet Meadow
Primulaceae	<i>Primula pauciflora</i>	Shooting star	Mixed Conifer
Ranunculaceae	<i>Anemone canadensis</i>	Canadian thimbleweed	Riparian
Ranunculaceae	<i>Aquilegia elegantula</i>	red columbine	Mixed Conifer
Ranunculaceae	<i>Clematis columbiana</i>	Columbian virgin's-bower	Mixed Conifer
Ranunculaceae	<i>Clematis hirsutissima</i> var. <i>scottii</i>	Scott's sugarbowls	Pine Forest
Ranunculaceae	<i>Ranunculus aquatilis</i> var. <i>diffusus</i>	water-crowfoot	Riparian
Ranunculaceae	<i>Ranunculus macounii</i>	Macoun's buttercup	Riparian
Ranunculaceae	* <i>Ranunculus repens</i>	creeping buttercup	Riparian
Ranunculaceae	<i>Thalictrum fendleri</i>	Fendler's meadowrue	Mixed Conifer
Ranunculaceae	<i>Thalictrum revolutum</i>	waxy meadowrue	Riparian

Rhamnaceae	<i>Ceanothus fendleri</i>	Fendler's buckbrush	Pine Forest
Rosaceae	<i>Agrimonia striata</i>	woodland burhead	Riparian
Rosaceae	<i>Cercocarpus montanus</i>	mountain mahogany	Pine Forest
Rosaceae	<i>Fallugia paradoxa</i>	Apache plume	Pine Forest
Rosaceae	<i>Fragaria virginiana</i> subsp. <i>glauca</i>	pale strawberry	Mixed Conifer
Rosaceae	<i>Geum aleppicum</i>	yellow avens	Riparian
Rosaceae	<i>Holodiscus dumosus</i>	mountain spray	Mixed Conifer
Rosaceae	<i>Physocarpus monogynus</i>	mountain ninebark	Mixed Conifer
Rosaceae	<i>Potentilla anserina</i>	silverweed	Riparian
Rosaceae	<i>Potentilla hippiana</i>	wooly cinquefoil	Pine Forest
Rosaceae	<i>Potentilla pulcherrima</i>	beautiful cinquefoil	Mixed Conifer
Rosaceae	<i>Potentilla subviscosa</i>	Navajo cinquefoil	Mixed Conifer
Rosaceae	* <i>Prunus americana</i>	American plum	Riparian
Rosaceae	<i>Prunus virginiana</i>	choke cherry	Riparian
Rosaceae	<i>Rosa woodsii</i>	Wood's rose	Riparian
Rosaceae	<i>Rubus idaeus</i> var. <i>strigosus</i>	red raspberry	Mixed Conifer
Rubiaceae	* <i>Galium aparine</i>	sticky-Willy	Riparian
Rubiaceae	<i>Galium boreale</i>	northern bedstraw	Mixed Conifer
Salicaceae	<i>Populus angustifolia</i>	narrow-leaf cottonwood	Riparian
Salicaceae	<i>Populus tremuloides</i>	quaking aspen	Mixed Conifer

Salicaceae	<i>Salix exigua</i>	coyote willow	Riparian
Salicaceae	<i>Salix irrorata</i>	blue-stem willow	Riparian
Salicaceae	<i>Salix lasiolepis</i>	arroyo willow	Riparian
Santalaceae	<i>Comandra umbellata</i> subsp. <i>pallida</i>	bastard-toadflax	Dry Meadow; Pine Forest
Sapindaceae	<i>Acer glabrum</i>	Rocky Mountain maple	Mixed Conifer
Saxifragaceae	<i>Heuchera parvifolia</i>	little-leaf alumroot	Mixed Conifer
Scrophulariaceae	* <i>Verbascum thapsus</i>	wooly mullein	Dry Meadow; Pine Forest
Solanaceae	* <i>Lycium barbarum</i>	matrimony-vine	Dry Meadow
Solanaceae	<i>Physalis hispida</i>	prairie ground-cherry	Dry Meadow; Pine Forest
Solanaceae	<i>Physalis virginiana</i> var. <i>campaniforma</i>	Virginia ground-cherry	Pine Forest
Typhaceae	<i>Typha latifolia</i>	broadleaf cattail	Riparian
Urticaceae	<i>Urtica dioica</i>	stinging nettle	Mixed Conifer; Riparian
Verbenaceae	<i>Verbena bracteata</i>	carpet vervain	Dry Meadow
Verbenaceae	<i>Verbena macdougalii</i>	MacDougal's vervain	Pine Forest; Mixed Conifer
Violaceae	<i>Viola palmata</i>	whorled violet	Pine Forest
Viscaceae	<i>Arceuthobium vaginatum</i>	pineland dwarf-mistletoe	Pine Forest

subsp. *cryptopodum*
Vitaceae *Parthenocissus vitacea* thicket creeper Riparian