PART II: REVISED FLORA OF PETRIFIED FOREST NATIONAL PARK, ARIZONA

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Introduction

The Petrified Forest National Park (Petrified Forest NP) flora checklist was updated to provide a current listing of plant species occurring within the boundaries of the park. The previous checklist (Kierstead 1981) was based on limited collecting; also taxonomic name changes have occurred since the Kierstead checklist was developed. The revised checklist provides more up-to-date information for visitor information and for Park interpreters. The list will aid in description of biological habitats within the park and in ecological analysis of vegetation dynamics. Current taxonomy and plant occurrence listings can be used for resource management planning. The revised checklist also includes revised information on threatened and endangered species and exotic species in the park, as well as inclusion of new species observed since the Kierstead list was developed.

Methodology

The checklist consists of plant species documented from existing data sources (literature, herbarium specimens, and field data) and from a field effort designed specifically for collection of species data for the checklist.

Existing literature

A preliminary list was created using existing data sources. Julie Kierstead's 1981 thesis, *Flora of Petrified Forest National Park,* provided the initial listing of species. Species on Vernon Mayes' PEFO Seed-plant Check-list (1996) were also included. Plant voucher collections from the Petrified Forest NP Museum herbarium and the Deaver Herbarium at Northern Arizona University were located. The Petrified Forest NP Museum herbarium specimens were examined, re-identified where appropriate and documented within the checklist. Each voucher collection was recorded into the checklist along with the date of the collection, collector, voucher number as assigned by the Deaver Herbarium, and the accession number assigned by Petrified Forest National Park.

New collections

Species were added from identification of new plants recorded on relevés obtained for vegetation description in a separate but parallel project conducted in 1996 and 1997 (See Part I of this report). Species not readily identified in the field were taken for positive identification to the Deaver Herbarium. Species observations made by a Petrified Forest NP botany intern during the summer of 1998 (Hansen pers. comm. 1998) were also added to the checklist.

A field collection effort was conducted in 1998 for collection of species data for the checklist. Four collection areas were chosen to encompass various habitat types within the park (Figure 1). The first collection area (Area A, Figure 1) designated was on headquarters mesa (the mesa where the North Visitor's center is located) at an elevation of 1,760 meters. This site was situated on the highest elevation of the four collection sites. The habitat is representative of the park's high desert woodland vegetation. The dominant species included *Juniperus monosperma, Purshia stansburiana, Lycium pallidum,* and *Rhus trilobata.* This site was chosen for its high

abundance of large perennial shrubs and trees and is representative of a higher elevation site on basalt substrate (Repenning et al. 1958).

The second collection area (Area B, Figure 1) was situated in the middle of the park within grasslands habitat at an approximate elevation of 1,700 meters. This site contained vegetation dominated by native perennial grasses and shrubs. Within this habitat type the dominant grass species were *Bouteloua gracilis, Muhlenbergia pungens, Pleuraphis jamesii,* and *Sporobolus airoides.* The main species of shrubs within the grassland were *Atriplex canescens, Artemesia filifolia, Krascheninnikovia lanata, Ericameria nauseosa (Chrysothamnus nauseosus),* and *Gutierrezia sarothrae.* These species are common in the grasslands within Petrified Forest NP.

The third collection area (Area C, Figure 1) was located in the Blue Mesa area at an elevation of 1,650 meters. This site is representative of badlands habitat characterized by sparse vegetation on heavy clay soils. These clay soils characteristically swell during rain and dry and crack during intervening times due to the contribution of montmorillonite in the clay (Bezy and Trevena 1975). They have low permeability and prevent leaching of salts and other minerals. The species often found in these habitats are *Atriplex saccaria, Atriplex confertifolia, Atriplex obovata, Zuckia sp., Monolepis nuttalliana, Salsola kali spp. tragus,* and *Opuntia sp.* Ephemeral annuals can also be found in the spring.

The fourth collection area (Area D, Figure 1) was located south of the Rainbow Museum along the east side of old highway 180 along Jim Camp wash. This location, at 1,650 meters, includes both grassland areas and the ephemeral Jim Camp wash. The dominant grass species are *Pleuraphis jamesii, Sporobolus airoides, Elymus elymoides, Achnatherum hymenoides,* and *Bouteloua gracilis.* Common shrub types are *Guiterrezia sarothrae, Ericameria nauseosa (Chrysothamnus nauseous), Yucca angustifolia, Parreyella filifolia,* and *Eriogonum sp.* Species that were concentrated near the riparian areas were *Tamarix chinensis, Abronia sp.,*and *Calmovilfa gigantea.*

At the four collection areas observations were made within an approximately 200 by 2 meter belt. Species observations were made at collection site from May to October of 1998 with additional species noted and recorded each time. Six collection trips were made during this interval.

In addition to the four collection sites, additional species were noted from road surveys conducted in transit to the collection sites and to locations for other vegetation studies. These collections were made in June, July and August of 1996; August and September of 1997; and April of 1998. For each observation of a new species, whether at a collection site or from road survey, its location as described by UTM coordinates and road directions to the site were recorded as well as descriptions of the plant, its habitat, and associated taxa.

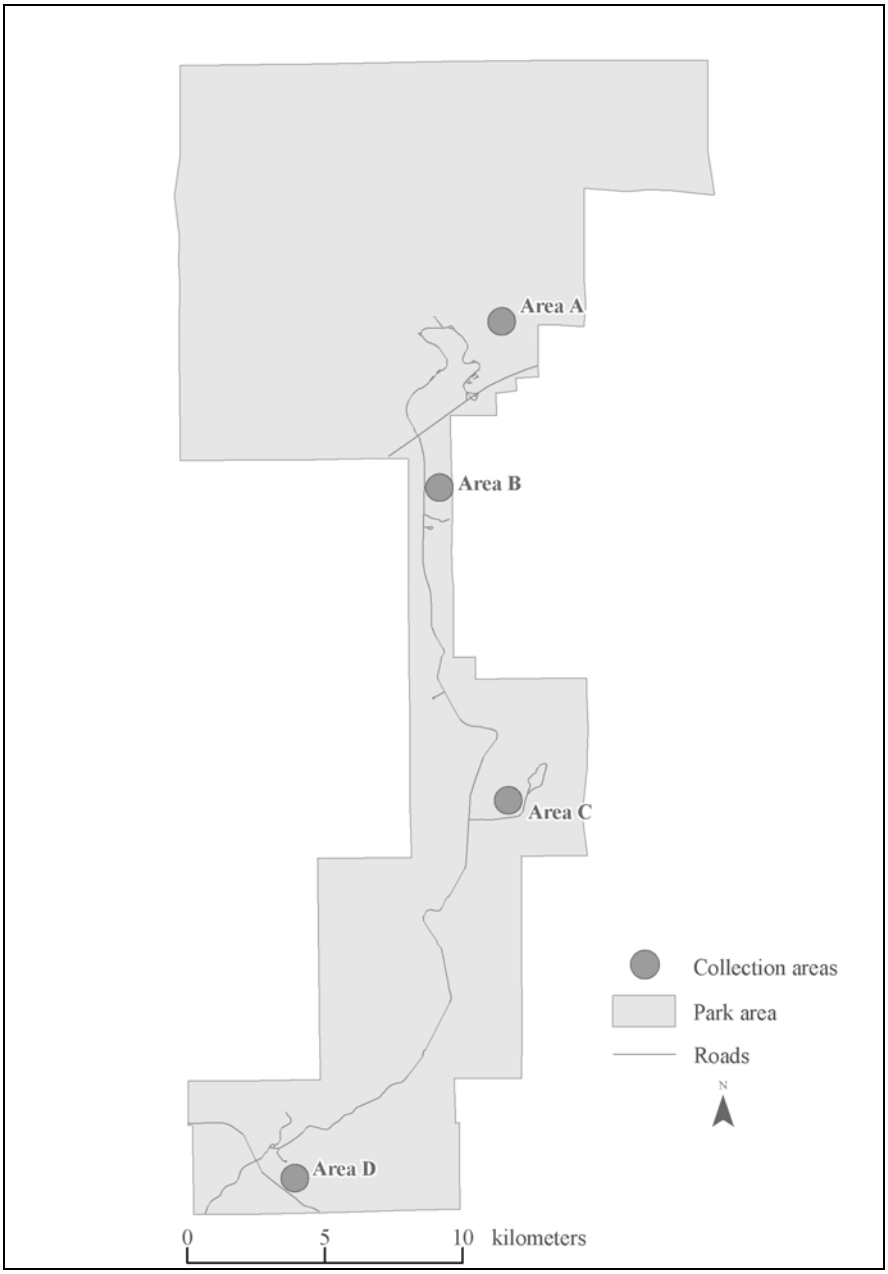

Figure 1. Field collection areas for 1998 checklist update

Specimen documentation

When an unidentified species with a minimal population of 50 individuals was located, material was obtained for two voucher specimens. The specimens were taken to the Deaver Herbarium, Northern Arizona University in Flagstaff, for identification. An identified voucher was maintained at Deaver Herbarium and a second at the Petrified Forest NP Herbarium collection. Petrified Forest NP voucher specimens were mounted on acid-free herbarium paper, labeled, and catalogued into the Petrified Forest NP herbarium collections. The Deaver Herbarium vouchers

were given both a Deaver Herbarium voucher number and a Petrified Forest NP accession number.

Compilation of revised checklist

The list of species occurrence was compiled and taxonomy was standardized to National PLANTS Database (NRCS 1999). Each species is documented with the following information:

1) Family;
2) Genus;
3) Species;
4) Naming authority;
5) Synonymy as per previous Petrified Forest NP listings;
6) Growth habits;
7) Origin (exotic or native);
8) Life history (perennial, biennial, or annual); and
9) Species abundance rating.

The supplementary information was obtained from the *National PLANTS Database* (1999) and was supplemented by the *Utah Flora* (Welsh et al. 1987), including regional common names. Information was also provided on locality and species abundance in Petrified Forest NP as found in literature sources, a selection of voucher labels at the Petrified Forest NP herbarium or from field observations and data collection. The source of information was noted for each species. Availability of herbarium collection specimens in both the Northern Arizona University Deaver Herbarium and the Petrified Forest NP herbarium is described. Notes on first recorded sighting of exotics within the park have been included.

Results

The revised checklist

The revised flora of the Petrified Forest National Park consists of 55 families, 192 genera, and 436 species. Appendix A provides a listing and annotation for all species. The families with the highest species diversity are Poaceae and Asteraceae (Table 1); together they contain almost 40% of the total species diversity. Both families have species that are abundant within all plant communities in Petrified Forest NP. The families Chenopodiaceae, Fabaceae, and Polygonaceae have the next highest number of species. This is in contrast to the top five families in the state of Arizona as recorded by the National PLANTS Database (NRCS 1999) (Table 1): Asteraceae, Poaceae, Fabaceae, Brassicaceae, and Scrophulariaceae. In Arizona, Polygonaceae is the sixth most diverse family and Chenopodiaceae is the fourteenth.

Table 1. Most abundant plant families: Arizona compared to Petrified Forest NP

PETRIFIED FOREST NATIONAL PARK			**ARIZONA FLORA**		
Family	# of species	% of flora	Family	# of species	% of flora
Asteraceae	87	~20%	Asteraceae	2383	~16%
Poaceae	84	~19%	Poaceae	1730	~%11
Chenopodiaceae	26	~6%	Fabaceae	1162	~8%
Fabaceae	26	~6%	Brassicaceae	521	~3%
Polygonaceae	24	~5%	Scrophulariaceae	505	~3%

The most recent flora prior to our revised checklist was the *Flora of the Petrified Forest* (Kierstead 1981). Kierstead used the *Catalog of the Flora of Arizona, Supplement I* (Lehr and Prinkava 1981) as a taxonomic authority. We compared this with the National PLANTS Database (NRCS 1999) taxonomy. Several species that are found on Kierstead's list have been taxonomically revised to two species. However, it is not known if both or only one species is present at the park since voucher specimens for these records are not available from her work. We have treated all species that have been taxonomically divided into two species as one species in both Table 2 and Table 3, in order to prevent overestimation of species' occurrence. Taxonomical change superficially increased the species composition numbers recorded by Kierstead, as seen in Tables 2 and 3.

Table 2. Taxonomic revisions to Kierstead checklist

	Kierstead's Checklist (# represented)	**Revisions to Kierstead's Checklist (# represented)**
Genera	192	218
Species	337	347
Exotic species	33	41

The revised checklist contains 88 new species, 8 new genera, and 6 new families (Table 3). Sixteen of the 88 new species are exotics species, approximately 18% of all new species.

Table 3. Comparison of Kierstead checklist and CPFS checklist

	Kierstead checklist (# represented)	CPFS checklist (# represented)	Increase (# represented)	Increase (% Change)
Family	49	55	6	~11%
Genus	218	226	8	~3%
Species	347	434	88	~20%
Exotics	41	57	16	~28%

Two hundred seventy-seven voucher specimens were collected by the CPFS for the project and are now archived in the Petrified Forest Herbarium and in the Deaver Herbarium (Northern Arizona University, Flagstaff, Arizona) (Table 4). We made a cumulative search throughout the Deaver Herbarium to determine the number of specimens collected by Kierstead. No other collections from Petrified Forest NP were found in the Deaver Herbarium. The Petrified Forest Herbarium has extensive undocumented collections by various collectors. The CPFS voucher specimens include dominant species, exotics, and less common species. The specimens were collected to represent previously uncollected species and to increase the herbarium information base of common species within the park's herbarium and in the Deaver Herbarium.

Table 4. Voucher specimen summary for Kierstead and CPFS checklists

	Deaver Herbarium (# collected)	Petrified Forest Herbarium (# collected)
Kierstead's Collection	164	No Current Information
CPFS's Collection	277	277
Total Collections	441	No Current Information

Exotic plant species

Fifty-seven exotic plant species have been identified within Petrified Forest NP (Appendix B). Appendix B gives listings of exotic species in Petrified Forest NP by family, genus, and species and includes a brief field identification description and Arizona noxious weed list ranking (Arizona Department of Agriculture 1998). Five of the exotic species found at Petrified Forest NP are identified on the Arizona noxious weed listing. Arizona noxious weed listings define a noxious weed as a weed specified by a specific law or regulation with destructive, undesirable, and unmanageable characteristics. This definition however, does not include invasive species of concern specific to Petrified Forest NP. Species of the greatest concern within Petrified Forest NP have been selected from the botany intern Petrified Forest NP Exotics report (Monica Hansen 1998) as seen in Table 5.

Table 5. Noxious weeds of special concern at Petrified Forest NP

Scientific Name	**Common Name**	**Areas of Habitat Invasion**
Acroptilon repens	Russia knapweed	Collection from the Puerco River, small population identified
Alhagi maurorum	camelthorn	Species collected mostly from southern section of park
Cardaria draba	whitetop	Single population by roadside at Pintado Point, potential roadside corridor expansion
Cirsium vulgare	bull thistle	Species seen behind North Visitor's Center

Life history characteristics

The life history traits of the flora (annual, biennial or perennial) were identified with the National PLANTS Database (NRCS 1999). Sixty percent of the species found within the park are perennial species (Table 6). Annual species consist of an approximate quarter of all species (Table 6). The remaining 16.5% of the species are either biennials or share traits of annuals, perennials or biennials (Table 6).

Table 6. Life history characteristics of the known flora of Petrified Forest NP

Life history	**Numbers of Species**
Annual	114
Biennial	9
Perennial	260
Annual, Biennial	17
Biennial, Perennial	9
Annual, Perennial	17
Annual, Biennial, Perennial	10

Discussion

Our investigations increased the number of species on the checklist by 93 species (29 %) from the Kierstead checklist. Almost one quarter of the new species resulted from reexamining the voucher specimens and providing a revised identification. Sixteen additional exotic species were found; an increase of 28% over the number of exotics found 18 years ago in the Kierstead checklist.

Exotic species increased distribution is a serious threat that has severe potential impacts for the park. Displacement of native species by exotics is one major threat posed. The park must put special attention into increased exotic species surveys within the park to manage non-native species. The Puerco River corridor is a major source for this exotic species increase and special attention should be included in surveying and/or mapping of the exotics within the park.

More surveying efforts for new species and exotics should be conducted within the northern wilderness area of the park. The wilderness area has had few surveying efforts due to very limited accessibility. A more extensive effort is necessary in order to fully survey the park. A large portion of the northern section of the park is sparse badlands that has limited species abundance, however many washes provide ideal microhabitats that could be potential sites for endemism.

The checklist is a working list that is a compilation of numerous sources and new surveying efforts. We encourage the park to continue the process of documenting new species and adding them to this checklist. Synomony for species is continually being revised; the park should periodically make note of changes and make sure that both the checklist and the voucher specimens reflect these changes.

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Appendix A: Flora of Petrified Forest National Park

Cupressaceae

Juniperus monosperma

Authority: (Engelm.) Sarg.
Common Name(s): one-seed juniper
Origin: Native
Duration: Perennial
Lifeform: Woody shrub/ Woody tree
Locality: Mesa slopes and rims throughout the park; the most abundant in the north half of the park on basalt outcrops
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52226	80-153

Ephedraceae

Ephedra nevadensis

Authority: S. Wats.
Common Name(s): Nevada joint fir
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Top of Headquarters mesa and grasslands west of Pilot Rock; less common of the two other *Ephedra* species
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52227	81-5

Ephedra torreyana

Authority: S. Wats.
Common Name(s): Torrey's jointfir
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Rims and slopes of Headquarters Mesa and other mesas
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
66737	13657
67925	13657
52228	80-125

Ephedra viridis
Authority: Coville
Common Name(s): Mormon tea
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Found on mesa slopes and rims, and sometimes in grasslands
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52229	81-6
52230	80-155

Pinaceae

Pinus edulis
Authority: Engelm.
Common Name(s): two needle pinon, pinon pine
Origin: Native
Duration: Perennial
Lifeform: Woody tree
Locality: On the upper slopes of Chinde Mesa
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64842	14012

Agavaceae

Yucca angustissima var. angustissima
Authority: Engelm. ex Trel.
Common Name(s): fineleaf yucca, narrow-leaved yucca
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Common throughout the park
Information Source: Thesis
Salvage Restricted Protected Native Plants. (1997)

Yucca baccata
Authority: Torr.
Common Name(s): banana yucca
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Not common in park, found mostly on sand and/or sandy soils
Information Source: Thesis
Salvage Restricted Protected Native Plants. (1997), Harvest Restricted Protected Native Plants. (1997)

Amaranthaceae

Amaranthus acanthochiton

Authority: Sauer
Synonymy: Acanthochiton wrightii
Common Name(s): greenstripe, Hopiweed
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Not common, voucher specimen collected ~1km north of Flattops area
Information Source: CPFS Collection
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
67918 14527

Amaranthus albus

Authority: L.
Synonymy: Amaranthus graecizans
Common Name(s): prostrate pigweed, amaranth
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Found in the Puerco River corridor
Information Source: Thesis
Amaranthus albus/biltoides are both synonymous with Amaranthus graecizans-must check individual specimens for final identification

Amaranthus blitoides

Authority: S. Wats.
Synonymy: Amaranthus graecizans
Common Name(s): mat amaranth, prostrate pigweed
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Found in the Puerco River corridor
Information Source: Thesis
Amaranthus albus/biltoides are both synonymous with Amaranthus graecizans-must check individual specimens for final identification
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
64844 14004

Amaranthus hybridus

Authority: L.
Common Name(s): slim amaranth
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Located in disturbed soil, Hwy66 (I-40)
Information Source: Thesis

Amaranthus retroflexus
Authority: L.
Common Name(s): redroot amaranth
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Located in disturbed soil, Hwy66 (I-40)
Information Source: Thesis

Guilleminea densa
Authority: (Humb. & Bonpl. ex. Wild.) Moq.
Common Name(s): small matweed
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Only found in front of concessionaire at south end of the park
Information Source: CPFS Collection

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64854	14010

Anacardiaceae

Rhus trilobata
Authority: Nutt.
Common Name(s): skunkbush sumac
Origin: Native
Duration: Perennial
Lifeform: Woody shrub
Locality: Mesa slopes and rims
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64856	13656
64838	13995

Apiaceae

Cymopterus acaulis var. fendleri
Authority: (Gray) Goodrich
Synonymy: Cymopterus fendleri
Common Name(s): Fendler's springparsley
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Sandy plateaus, alluvial plains, and hills in badlands
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64857	13635
65007	13684
52251	80-37

Cymopterus bulbosus
Authority: A. Nels.
Common Name(s): bulbous springparsley
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Abundant in spring on level soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64858	13636
52252	80-52

Asclepiadaceae

Asclepias involucrata
Authority: Engelm. ex Torr.
Common Name(s): dwarf milkweed
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Extreme south end of the park on sandy soil
Information Source: Thesis

Asclepias subverticillata
Authority: (Gray) Vail
Common Name(s): Horsetail milkweed
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Moist soil along Puerco River, also along disturbed roadways (such as old Rt. 66)
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65112	13967

Funastrum cynanchoides ssp. cynanchoides
Authority: (Dcne.) Schlechter
Synonymy: Sarcostemma cynanchoides
Common Name(s): fringed twinevine, climbing milkweed
Origin: Native
Duration: Perennial
Lifeform: Woody twining/trailing vines
Locality: South end of Park on Sandstone outcrops
Information Source: Field Plot
Reported, but unconfirmed

Asteraceae

Achillea millefolium var. occidentalis

Authority: (Nutt.) Piper
Synonymy: Achillea millefolium var.lanulosa
Common Name(s): Western yarrow, milfoil yarrow
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Puerco River area, on disturbed soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65111	13951

Acroptilon repens

Authority: (L.) DC.
Synonymy: Centaurea repens
Common Name(s): hardheads, Russian knapweed
Origin: Introduced
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Puerco River bed
Information Source: CPFS Collection

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65110	13955

Ambrosia acanthicarpa

Authority: Hook.
Common Name(s): flatspine burr ragweed
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Roadsides, especially in south end of park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64847	14008
52187	80-186

Ambrosia artemisiifolia

Authority: L.
Common Name(s): annual ragweed, common ragweed
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Identified by Vernon Mayes no locality information provided
Information Source: Mayes

Artemisia bigelovii

Authority: Gray
Common Name(s): Bigelow's sage
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub
Locality: The most common species of *Artemisia* found in the park, located on mesa caps and slopes
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64846	13976
52186	80-162
52185	80-144

Artemisia filifolia

Authority: Torr.
Common Name(s): sand sagebrush
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Found in sandy neutral soil, not widespread
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64839	13971
66849	12686
52187	80-200

Artemisia frigida

Authority: Willd.
Common Name(s): prairie sagewort
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Identified once near park housing
Information Source: Thesis

Artemisia ludoviciana

Authority: Nutt.
Common Name(s): white sagebrush
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: On rocky hillsides and mesa slopes
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
38441	80-145
In Process	13979

Artemisia tridentata
Authority: Nutt.
Common Name(s): big sagebrush, common sagebrush
Origin: Native
Duration: Perennial
Lifeform: Woody shrub
Locality: Collected only on Puerco River flood plain
Information Source: Thesis

Bidens bigelovii
Authority: Gray
Common Name(s): Bigelow's beggarticks
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Identified by Vernon Mayes no locality information provided
Information Source: Mayes

Brickellia californica
Authority: (Torr. & Gray) Gray
Common Name(s): California brickellbush
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub
Locality: On rocky mesas throughout the park
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
52188 80-158

Brickellia eupatorioides var. chlorolepis
Authority: (Woot. & Standl.) B. L. Turner
Synonymy: Brickellia chlorolepis
Common Name(s): false boneset
Origin: Native
Duration: Perennial
Lifeform: Woody shrub/ Herbaceous forb/herb
Locality: Identified once from a sandy arroyo in Rainbow Forest at the south end of the park
Information Source: Thesis

Brickellia oblongifolia var. linifolia
Authority: (D.C. Eat) Robins.
Common Name(s): narrowleaf brickllebrush, Mohave brickllebrush
Origin: Native
Duration: Perennial
Lifeform: Woody subshrubs/ subheraceous
Locality: Along rim of Headquarters mesa, associated with one seed juniper
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
52189 80-121
68462 14528

Chaenactis macrantha

Authority: D.C. Eaton
Common Name(s): bighead dustymaiden, showy dustymaiden
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Collected once from road shoulder in south end of park, and from cobbled badland area just north of the Teepees
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64822	13670

Chaenactis stevioides

Authority: Hook. & Arn.
Common Name(s): Steve's dustymaiden
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Common along roadsides and on sandy soils
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65006	13703
52190	80-44
64821	13678

Chaetopappa ericoides

Authority: (Torr.) Nelson
Synonymy: Leucelene ericoides
Common Name(s): rose heath
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Throughout the park on sandy soils, widespread
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52211	80-38
66848	12675

Chrysothamnus greenei

Authority: (Gray) Greene
Common Name(s): Greene's rabbitbrush
Origin: Native
Duration: Perennial
Lifeform: Woody shrub
Locality: On sandstone mesas and badlands
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
67917	12689
66730	14529

Chrysothamnus pulchellus
Authority: (Gray) Greene
Common Name(s): southwestern rabbitbrush
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Found on sand near Flattops
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
52193 80-198

Chrysothamnus viscidiflorus
Authority: (Hook.) Nutt.
Common Name(s): yellow rabbitbrush
Origin: Native
Duration: Perennial
Lifeform: Woody shrub
Locality: Collections were previously identified as *Isacoma drumondii*, these species are very similar taxonomically (as per Kierstead), however; this species was identified from field plots with no specific locality information.
Information Source: Field Plot

Cirsium foliosum
Authority: (Hook.) DC.
Common Name(s): elk thistle
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Found near Puerco Ruins, not common.
Information Source: CPFS Collection
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
In Process 14016

Cirsium ochrocentrum
Authority: Gray
Common Name(s): yellowspine thistle
Origin: Native
Duration: Biennial, Perennial
Lifeform: Herbaceous forb/herb
Locality: Found along park road, not common
Information Source: Mayes

Cirsium vulgare
Authority: (Savi.) Ten.
Common Name(s): bull thistle
Origin: Introduced
Duration: Biennial
Lifeform: Herbaceous forb/herb
Locality: A large patch found at west end of the maintenance area behind the North Visitor Center
Information Source: CPFS Collection
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
65150 14040

Conyza canadensis

Authority: (L.) Cronq.
Common Name(s): Canadian horseweed
Origin: Native
Duration: Annual, Biennial
Lifeform: Herbaceous forb/herb
Locality: Abundant along roadsides and around buildings
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65151	14035
52194	80-208

Ericameria nauseosa ssp. nauseosa var. nauseosa

Authority: (Pallas ex Pursh) Nesom & Baird
Synonymy: Chrysothamnus nauseosus
Common Name(s): rubber rabbitbrush
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Throughout the park on sandy or gravelly soils
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
In Process	14549
68460	14536

Ericameria parryi nevadensis

Authority: (Gray) Nesom & Baird
Common Name(s): heath goldenrod, Parry rabbitbrush
Origin: Native
Duration: Perennial
Lifeform: Woody shrub
Locality: Identified once, on sandy soil west of Pilot Rock
Information Source: Thesis

Erigeron compactus

Authority: Blake
Common Name(s): fernleaf fleabane, fern-leaf daisy
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Erigeron concinnus

Authority: (Hook. & Arn.) Torr. & Gray
Common Name(s): Navajo fleabane, mound daisy
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Herbaceous forb/herb
Locality: Sandy disturbed soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64820	13673
52196	80-65

Erigeron consimilis

Authority: Cronq.
Synonymy: Erigeron compactus var. consimilis
Common Name(s): foothill fleabane, mound daisy
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Identified once from a hilltop in badlands below Kachina Point (on Headquarter's Mesa)
Information Source: Thesis

Erigeron divergens

Authority: Torr. & Gray
Common Name(s): spreading fleabane, spreading daisy
Origin: Native
Duration: Biennial
Lifeform: Herbaceous forb/herb
Locality: Found commonly in sandy soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
67915	14517
64819	13672
67916	14543

Erigeron flagellaris

Authority: Gray
Synonymy: Erigeron nudiflorus
Common Name(s): trailing fleabane
Origin: Native
Duration: Biennial
Lifeform: Herbaceous forb/herb
Locality: Moist area near North Visitor Center parking lot
Information Source: Mayes

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
66729	14038

Gaillardia pinnatifida

Authority: Torr.
Common Name(s): red dome blanketflower, Hopi blanketflower
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Roadsides and grasslands
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65005	13697
52197	80-68

Grindelia nuda var. aphanactis

Authority: (Rydb.) Nesom
Synonymy: Grindelia aphanactis
Common Name(s): curlytop gumweed
Origin: Native
Duration: Biennial
Lifeform: Herbaceous forb/herb
Locality: Throughout the park along roads and near buildings
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52198	80-169
64816	14007

Grindelia squarrosa

Authority: (Pursh) Dunal
Common Name(s): curlycup gumweed
Origin: Native
Duration: Biennial, Perennial
Lifeform: Herbaceous forb/herb
Locality: Collected once from roadside in the north part of park
Information Source: Thesis

Gutierrezia microcephala

Authority: (DC.) Gray
Common Name(s): threadleaf snakeweed
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Found throughout the park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52199	80-167

Gutierrezia sarothrae

Authority: (Pursh) Britt. & Rusby
Common Name(s): broom snakeweed
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Found throughout the park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65152	14037

Helianthus annuus

Authority: L.
Common Name(s): common sunflower
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Abundant along roads
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52202	80-187
65153	14044

Helianthus ciliaris

Authority: DC.
Common Name(s): Texas blueweed
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Collected once from south end of park, near Rainbow Museum
Information Source: Thesis

Helianthus petiolaris

Authority: Nutt.
Common Name(s): prairie sunflower
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Along roadsides
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52203	80-217
37280	80-217

Heliomeris multiflora var. multiflora

Authority: Nutt.
Synonymy: Viguiera multiflora
Common Name(s): showy goldeneye
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Collected in both the north and south portion of the park both found in moist catch basin
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
67914	16504

Heterotheca subaxillaris

Authority: (Lam.) Britt. & Rusby
Synonymy: Heterotheca psammophila
Common Name(s): camphorweed, sand goldenaster
Origin: Native
Duration: Annual, Biennial
Lifeform: Herbaceous forb/herb
Locality: On sand in south end of park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
67913	14043
52204	80-173

Heterotheca villosa var. foliosa

Authority: (Nutt.) Harms
Common Name(s): hairy false goldenaster
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Disturbed sandy soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65004	13721

Heterotheca villosa var. villosa

Authority: (Pursh) Shinners
Common Name(s): hairy false goldenaster
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Disturbed sandy soil
Information Source: Thesis

Hymenopappus filifolius var. pauciflorus

Authority: (L.M. Johnston) B.L. Turner
Common Name(s): fineleaf hymenopappus
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Collected once near Flattops
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65001	13676

Hymenopappus flavescens var. canotomenstosus

Authority: Gray
Synonymy: Hymenopappus robustus
Common Name(s): college flower
Origin: Native
Duration: Biennial
Lifeform: Herbaceous forb/herb
Locality: Common on sandy road shoulders, mostly in south end of park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52205	80-188
65003	13660
52206	80-67
65002	13706

Hymenothrix loomisii

Authority: Blake
Common Name(s): Loomis' thimblehead
Origin: Native
Duration: Annual, Biennial, Perennial
Lifeform: Herbaceous forb/herb
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Hymenothrix wrightii

Authority: Gray
Common Name(s): Wright's thimblehead
Origin: Native
Duration: Biennial, Perennial
Lifeform: Herbaceous forb/herb
Locality: Roadsides, south end of park, not common
Information Source: Thesis

Hymenoxys richardsonii var. floribunda
Authority: (Gray) Parker
Common Name(s): Colorado rubberweed
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: North end of the park on clay badlands
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65154	14031

Isocoma drummondii
Authority: (Torr. & Gray) Greene
Synonymy: Haplopappus drummondii
Common Name(s): Drummond's goldenbush
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Throughout the park on gravelly soil or sand
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
66728	14535
64814	13981
52200	80-184
66727	14550

Iva acerosa
Authority: (Nutt.) R.C. Jackson
Synonymy: Oxytenia acerosa
Common Name(s): copperweed
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: In Lithodendron wash and washes west of Headquarters Mesa
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
67912	14545
64813	14015
65155	14032

Lactuca serriola
Authority: L.
Common Name(s): prickly lettuce
Origin: Introduced
Duration: Annual, Biennial
Lifeform: Herbaceous forb/herb
Locality: On disturbed soils throughout the park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65109	14019

Lygodesmia arizonica
Authority: S. Tomb
Common Name(s): Arizona skeleton plant
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Sand dunes near Blue Mesa
Information Source: CPFS Collection

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65156	13715

Lygodesmia grandiflora
Authority: (Nutt.) Torr. & Gray
Common Name(s): largeflower skeletonplant, showy rush-pink
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Sandy soil in southern part of the park
Information Source: Thesis

Machaeranthera canescens ssp. canescens var. canescens
Authority: (Pursh) Gray
Synonymy: Machaeranthera linearis
Common Name(s): hoary tansyaster
Origin: Native
Duration: Annual, Biennial, Perennial
Lifeform: Herbaceous forb/herb
Locality: Abundant on very sandy soil throughout the park
Information Source: Thesis
Specimens marked as Machaeranthera linearis have been renamed as two different species, and must be re-identified using new taxonomy

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65108	13966
52213	80-195
67911	14553
52212	80-197
In Process	14522

Machaeranthera canescens ssp. glabra var. glabra
Authority: Gray
Synonymy: Machaeranthera linearis
Common Name(s): hoary tansyaster
Origin: Native
Duration: Annual, Biennial, Perennial
Lifeform: Herbaceous forb/herb
Locality: Abundant on very sandy soil throughout the park
Information Source: Thesis
Specimens marked as Machaeranthera linearis have been renamed as two different species, and must be re-identified using new taxonomy

Machaeranthera gracilis
Authority: (Nutt.) Gray
Synonymy: Haplopappus gracilis
Common Name(s): tansy aster
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Roadsides, not common
Information Source: Thesis
Voucher# in Deaver Herbarium: 52201 Voucher# in PEFO Herbarium: 90-190

Machaeranthera grindelioides var. grindelioides
Authority: (Nutt.) Shinners
Synonymy: Haplopappus nuttallii
Common Name(s): rayless tansyaster, gumweed aster
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Identified once from Agate Bridge on sandstone
Information Source: Thesis

Machaeranthera pinnatifida ssp. pinnatifida
Authority: (Hook.) Shinners
Synonymy: Haplopappus spinulosus var. turbinellus
Common Name(s): tansyleaf tansyaster
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Collected once from a sandy slope south of the park Road, near Navajo-Apache county line
Information Source: Thesis
Voucher# in Deaver Herbarium: 65107 Voucher# in PEFO Herbarium: 13984

Machaeranthera tanacetifolia
Authority: (Kunth) Nees
Common Name(s): tansyleaf tansyaster
Origin: Native
Duration: Annual, Biennial
Lifeform: Herbaceous forb/herb
Locality: Puerco River bed
Information Source: Thesis

Malacothrix fendleri

Authority: Gray
Common Name(s): sowthistle desert dandelion
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Common in south part of park on sandy soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52214	80-57
65000	13705

Malacothrix sonchoides

Authority: (Nutt.) Torr. & Gray
Common Name(s): sowthistle desert dandelion
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Pectis angustifolia

Authority: Torr.
Common Name(s): lemon scent
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Jim Camp wash and sandy areas at base of Blue Mesa
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
In Process	16510
66726	14526

Petradoria pumila

Authority: (Nutt.) Greene
Common Name(s): grassy rock goldenrod
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Mid to upper elevation sandstone mesas
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64812	13996
67910	12682

Picradeniopsis woodhousei
Authority: (Gray) Rydb.
Synonymy: Bahia woodhousei
Common Name(s): Woodhouse's bahia
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Southern most part of the park, along roadside south of the entrance station
Information Source: CPFS Collection
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
68459 14009

Psilostrophe tagetina
Authority: (Nutt.) Greene
Common Name(s): woolly paperflower
Origin: Native
Duration: Biennial, Perennial
Lifeform: Herbaceous forb/herb
Locality: On sandy soil in the southern end of park, and near Puerco Ruin parking lot
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
65120 13713

Ratibida columnifera
Authority: (Nutt.) Woot. & Standl.
Synonymy: Ratibida columnaris
Common Name(s): upright prairie coneflower
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Found only near Puerco Ruin parking lot, along park road
Information Source: CPFS Collection
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
65157 13720

Ratibida tagetes
Authority: (James) Barn.
Common Name(s): green prairie coneflower
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Locally common on disturbed soil near Puerco River and near buildings on Headquarter's mesa
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
65119 13960

Sanvitalia abertii
Authority: Gray
Common Name(s): Albert's creeping zinnia
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Collected once from vicinity of Long Logs in a moist catch basin
Information Source: Thesis

Senecio flaccidus var. douglasii
Authority: Less. (DC.) B.L. Turner & T.M. Barkl.
Synonymy: Senecio douglasii
Common Name(s): Douglas' ragwort, groundsel
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Throughout the park in sandy or gravelly soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52215	80-122
67909	16502

Senecio flaccidus var. flaccidus
Authority: Less.
Synonymy: Senecio douglasii var. longilobus
Common Name(s): threadleaf groundsel
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Herbaceous forb/herb
Locality: Throughout the park in sandy or gravelly soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64811	13991
52216	80-171

Senecio spartioides var. multicapitatus
Authority: (Greenm. ex Rydb.) Welsh
Synonymy: Senecio multicapitatus
Common Name(s): broomlike ragwort
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Sandy soil in grasslands
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
67907	16507
67908	14551

Sonchus asper
Authority: (L.) Hill
Common Name(s): spiny sowthistle
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Puerco River
Information Source: Thesis

Stephanomeria exigua
Authority: Nutt.
Common Name(s): small wirelettuce
Origin: Native
Duration: Annual, Biennial
Lifeform: Herbaceous forb/herb
Locality: Disturbed sandy soil of dunes, roadsides, and drainages
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
67905	14524
67906	14542
52217	80-189

Stephanomeria pauciflora
Authority: (Torr.) A. Nels.
Common Name(s): brownplume wirelettuce
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Collected once from Headquarters Mesa on sand
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
67904	13987
52218	80-119

Taraxacum officinale
Authority: G. H. Weber ex. Wiggers
Common Name(s): common dandelion
Origin: N/I
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Located in disturbed area in lawns of residential area
Information Source: Thesis
Adventive from Eurasia

Tetradymia canescens
Authority: DC.
Synonymy: Tetradymia canescens var inermis
Common Name(s): spineless horsebrush
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Headquarters Mesa on Zuni Well Road and on park road
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:

64810	13986
65106	14020

Tetraneuris acaulis
Authority: (Pursh) Greene
Synonymy: Hymenoxys acaulis, Tetraneusis acaulis var. acaulis
Common Name(s): stemless four-nervedaisy
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: No locality information provided
Information Source: Field Plot
Reported, but unconfirmed, probably Tetraneuris acaulis

Tetraneuris ivesiana
Authority: Greene
Synonymy: Hymenoxys ivesiana
Common Name(s): Ive's fournerved daisy
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: On sandstone outcrops especially at Agate Bridge, Blue Mesa, and Crystal Forest
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:

52208	80-73
64815	13999
52209	80-159
52210	80-136

Thelesperma megapotamicum
Authority: (Spreng.) Kuntze
Common Name(s): Hopi tea greenthread
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Roadside at south end of the park
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:

64999	13714
52219	80-191

Townsendia annua
Authority: Beaman
Common Name(s): annual townsend daisy
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Found throughout the park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52220	80-55
64823	13671

Townsendia incana
Authority: Nutt.
Common Name(s): hoary townsendia
Origin: Native
Duration: Annual, Biennial, Perennial
Lifeform: Herbaceous forb/herb
Locality: Sand hills near Flattops
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65021	13707

Townsendia strigosa
Authority: Nutt.
Common Name(s): hoary townsend daisy
Origin: Native
Duration: Annual, Biennial
Lifeform: Herbaceous forb/herb
Locality: On sandy soil in south end of park
Information Source: Thesis

Tragopogon dubius
Authority: Scop.
Common Name(s): yellow salsify
Origin: Introduced
Duration: Annual, Biennial
Lifeform: Herbaceous forb/herb
Locality: Found throughout the park in disturbed areas (i.e. roads, parking lots)
Information Source: Field Plot

Tragopogon pratensis
Authority: L.
Common Name(s): meadow salsify
Origin: Introduced
Duration: Biennial
Lifeform: Herbaceous forb/herb
Locality: Compacted soil near buildings
Information Source: Thesis

Verbesina encelioides
Authority: (Cav.) Benth. & Hook. f. ex Gray
Common Name(s): golden crownbeard
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Roadsides and washes
Information Source: Thesis

Wyethia scabra var. canescens
Authority: W.A. Weber
Common Name(s): badlands mulesears
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Herbaceous forb/herb
Locality: Sandy soil of washes and sandstone outcrops
Information Source: Thesis

Xanthium strumarium
Authority: L.
Common Name(s): rough cocklebur
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Moist sandy disturbed soil along drainages
Information Source: Thesis

Zinnia grandiflora
Authority: Nutt.
Common Name(s): Rocky Mountain zinnia
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Sandy soil on Headquarters Mesa and southwest section of the park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
66847	12685
52221	80-120
64809	13985

Berberidaceae

Mahonia haematocarpa
Authority: (Woot.) Fedde
Synonymy: Berberis haematocarpa
Common Name(s): red barberry
Origin: Native
Duration: Perennial
Lifeform: Woody shrub
Locality: Identified by Vernon Mayes no locality information provided
Information Source: Mayes

Boraginaceae

Cryptantha crassisepala

Authority: (Torr. & Gray) Greene
Common Name(s): thicksepal catseye, plains cryptanth
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Very abundant on sandy soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
In Process	13632
52270	80-35a
65158	13679

Cryptantha flava

Authority: (A. Nels.) Payson
Common Name(s): Brenda's yellow catseye, yellow cryptanth
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: On sandstone outcrops, especially at Agate Bridge
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52274	80-72

Cryptantha fulvocanescens var. fulvocanescens

Authority: (Jones) Higgins
Synonymy: Cryptantha fulvocanescens var. echinoides
Common Name(s): tawny catseye, yellow-eye cryptanth
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Rocky slopes on Headquarter's Mesa and sandstone outcrops
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52273	80-135
66846	13628

Heliotropium convolvulaceum

Authority: (Nutt.) Gray
Common Name(s): phlox heliotrope, showy heliotrope
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Puerco River bed
Information Source: Thesis

Lappula occidentalis var. cupulata
Authority: (Gray) Higgens
Synonymy: Lapulla redowskii var. cupulata
Common Name(s): flatspine stickweed, western stickweed
Origin: Native
Duration: Annual, Biennial
Lifeform: Herbaceous forb/herb
Locality: Very abundant on clay badlands, also found in sandy soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65452	13651
52269	80-26
65451	13640

Lithospermum incisum
Authority: Lehm.
Common Name(s): narrowleaf stoneseed, showy stoneseed
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65445	13998

Brassicaceae

Arabis perennans
Authority: S. Wats.
Common Name(s): perennial rockcress, nuttall rockcress
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Found on Headquarters Mesa near Tiponi Point
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52300	81-9
65453	13650
52301	80-23a

Cardaria draba
Authority: (L.) Desv.
Common Name(s): whitetop
Origin: Introduced
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Along main park road in north end of park
Information Source: CPFS Collection

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
68457	13704
68458	13648

Chorispora tenella
Authority: (Pallus) DC.
Common Name(s): crossflower
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: In the courtyard of housing on Headquarters Mesa
Information Source: CPFS Collection

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65454	13641

Descurainia incana ssp. incisa
Authority: (Engelm.) Kartesz & Gandhi
Synonymy: Descurainia richarsonii ssp. incisa
Common Name(s): mountain tansymustard
Origin: Native
Duration: Biennial
Lifeform: Herbaceous forb/herb
Locality: Collected once, West of Pilot Rock
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52303	81-8

Descurainia obtusa ssp. obtusa
Authority: (Greene) O.E. Schultz
Common Name(s): blunt tansymustard
Origin: Native
Duration: Annual, Biennial
Lifeform: Herbaceous forb/herb
Locality: Headquarters Mesa, sandy soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65121	13675
52302	80-17

Descurainia pinnata
Authority: (Walt.) Britt.
Common Name(s): western tansymustard
Origin: Native
Duration: Annual, Biennial, Perennial
Lifeform: Herbaceous forb/herb
Locality: Distributed sites, often found near residences
Information Source: Thesis

Descurainia sophia
Authority: (L.) Webb. ex Prantl
Common Name(s): herb sophia
Origin: Native
Duration: Annual, Biennial
Lifeform: Herbaceous forb/herb
Locality: Collected once from the south end of the park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65242	13642

Dimorphocarpa wislizeni

Authority: (Engelm.) Rollins
Common Name(s): touristplant spectaclepod
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Headquarter's mesa, west of Pilot Rock, Blue Mesa, and south end of park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65455	13633
64824	13677
52304	81-2
65103	13963

Draba cuneifolia

Authority: Nutt. Ex. Torr. & Gray
Common Name(s): wedgeleaf whitlowgrass
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Found in washes near sandstone outcrops on west edge of Blue Mesa
Information Source: CPFS Collection

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
66845	13624

Erysimum capitatum var. purshii

Authority: (Dur.) Rollins
Synonymy: Erysimum asperum var. purshii
Common Name(s): wallflower
Origin: Native
Duration: Biennial, Perennial
Lifeform: Herbaceous forb/herb
Locality: Mid to upper elevation grasslands
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
37279	80-69
65456	13647
52305	81-1

Lepidium lasiocarpum

Authority: Nutt.
Common Name(s): shaggyfruit pepperweed, hispidcress
Origin: Native
Duration: Annual, Biennial
Lifeform: Herbaceous forb/herb
Locality: Found in courtyards of residences
Information Source: CPFS Collection

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65020	13722

Lepidium montanum var. glabrum
Authority: C. L. Hitchc.
Common Name(s): mountain pepperweed
Origin: Native
Duration: Biennial, Perennial
Lifeform: Herbaceous forb/herb
Locality: Found along roadway in north end of park
Information Source: CPFS Collection

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65019	13689

Lesquerella fendleri
Authority: (Gray) S. Wats.
Common Name(s): Fendler's bladderpod
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Crystal Forest
Information Source: Thesis

Lesquerella gordonii
Authority: (Gray) S. Wats.
Common Name(s): Gordon's bladderpod
Origin: Native
Duration: Annual, Biennial, Perennial
Lifeform: Herbaceous forb/herb
Locality: Roadside in grassland near Crystal Forest
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65457	13645
52307	80-66

Lesquerella intermedia
Authority: (Wats.) Heller
Common Name(s): mid bladderpod, Watson bladderpod
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: On sand or sandstone outcrops near Agate Bridge and Blue Mesa
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65458	13654
52307	80-137

Physaria newberryi
Authority: Gray
Common Name(s): Newberry's twinpod
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Rocky basal slopes of Headquarter's Mesa and Pilot Rock
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65018	13692
52308	80-20

Rorippa sinuata
Authority: (Nutt.) A.S. Hitchc.
Common Name(s): spreading yellowcress
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Moist soil, Puerco River bed
Information Source: Thesis

Rorippa sphaerocarpa
Authority: (Gray) Britt.
Common Name(s): roundfruit yellowcress
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Nine Mile Wash
Information Source: Thesis

Sisymbrium altissimum
Authority: L.
Common Name(s): tall tumblemustard
Origin: Introduced
Duration: Annual, Biennial
Lifeform: Herbaceous forb/herb
Locality: Disturbed soil, Puerco River bed, roadsides throughout park, and near residences
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65017	13687

Stanleya pinnata
Authority: (Pursh) Britt.
Common Name(s): desert princeplume
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Herbaceous forb/herb
Locality: Roadsides on upper-elevation plateaus, especially on sandy soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65016	13717

Streptanthella longirostris
Authority: (S. Wats.) Rydb.
Common Name(s): longbeak streptanthella
Origin: Native
Duration: Annual, Biennial
Lifeform: Herbaceous forb/herb
Locality: Sandy soil of slopes and mesas
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
66844 13623

Cactaceae

Echinocereus coccineus var. coccineus
Authority: (Engelm.) F. Seitz
Common Name(s): scarlet hedgehog cactus
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes
Salvage Restricted Protected Native Plants. (1997)

Echinocereus fendleri var. fendleri
Authority: Engelm.
Common Name(s): Fendler's hedgehog cactus
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Upper elevation grasslands and pinon/juniper woodlands
Information Source: Thesis
Salvage Restricted Protected Native Plants. (1997)

Echinocereus triglochidiatus
Authority: Engelm.
Common Name(s): kingcup cactus, claretcup
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: On rocky slopes of Pilot Rock and Headquarters Mesa
Information Source: Mayes
Salvage Restricted Protected Native Plants. (1997)

Escobaria vivipara var. arizonica
Authority: (Engelm.) D.R. Hunt
Synonymy: Coryphantha vivipara var. arizonica
Common Name(s): Arizona spinystar
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Found on south flank of Pilot Rock
Information Source: Thesis
Salvage Restricted Protected Native Plants. (1997)

Escobaria vivipara var. vivipara
Authority: (Nutt.) Buxbaum
Synonymy: Coryphantha vivipara
Common Name(s): spinystar
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes
Salvage Restricted Protected Native Plants. (1997)

Opuntia erinacea var. erinacea
Authority: Engelm. & Bigel ex Engelm.
Common Name(s): grizzly bear prickly pear
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Limited collections, no current information
Information Source: Thesis
Salvage Restricted Protected Native Plants. (1997)

Opuntia erinacea var. hystricina
Authority: (Engelm. & Bigel.) L. Benson
Common Name(s): grizzly bear prickly pear
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Limited collections, no current information
Information Source: Thesis
Salvage Restricted Protected Native Plants. (1997)

Opuntia erinacea var. utahensis
Authority: (Engelm.) L. Benson
Common Name(s): Utah grizzly bear prickly pear
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Limited collections, no current information
Information Source: Thesis
Salvage Restricted Protected Native Plants. (1997)

Opuntia fragilis var. brachyarthra
Authority: (Engelm. & Bigel.) Coult.
Common Name(s): brittle prickly pear
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Limited collections, no current information
Information Source: Thesis
Salvage Restricted Protected Native Plants. (1997)

Opuntia fragilis var. fragilis
Authority: (Nutt.) Haw.
Common Name(s): pygmy prickly pear, brittle prickly pear
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Limited collections, no current information
Information Source: Thesis
Salvage Restricted Protected Native Plants. (1997)

Opuntia macrorhiza var. macrorhiza
Authority: Engelm.
Common Name(s): twistspine pricklypear, plains pricklypear
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Limited collections, no current information
Information Source: Thesis
Salvage Restricted Protected Native Plants. (1997)

Opuntia polyacantha var. rufispina
Authority: (Engelm. & Bigelow ex Englem.) L. Benson
Common Name(s): hairspine pricklypear, central pricklypear
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Limited collections, no current information
Information Source: Thesis
Salvage Restricted Protected Native Plants. (1997)

Opuntia polyacantha var. trichophora
Authority: (Engelm. & Bigel.) Coult.
Common Name(s): hairspine pricklypear, central pricklypear
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Limited collections, no current information
Information Source: Thesis
Salvage Restricted Protected Native Plants. (1997)

Opuntia whipplei
Authority: Engelm. & Bigel
Synonymy: Cylindropuntia whipplei
Opuntia whipplei var. whipplei
Common Name(s): Whipple cholla
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Common in grasslands and alluvial soil
Information Source: Thesis
Salvage Restricted Protected Native Plants. (1997)

Pediocactus peeblesianus var. peeblesianus
Authority: (Croizat) L. Denson
Common Name(s): Navajo pincushion cactus
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Limited collections, no current information
Information Source: Thesis
Highly Safeguarded Protected Native Plants. (1997)

Sclerocactus papyracanthus
Authority: (Engelm.) N. P. Taylor
Synonymy: Pediocactus papyracanthus
Common Name(s): paperspine fishhook cactus
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: One collection from a Salleta grassland
Information Source: Thesis
Salvage Restricted Protected Native Plants. (1997)

Sclerocactus whipplei
Authority: (Engelm. & Bigel.) Britt. & Rose
Synonymy: Sclerocactus whipplei var. whipplei
Common Name(s): Whipple's fishhook cactus
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Lithodendron wash and south end of park on sand
Information Source: Thesis
Salvage Restricted Protected Native Plants. (1997)

Capparidaceae

Cleome serrulata
Authority: Pursh
Common Name(s): Rocky Mountain beeplant
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Puerco River area
Information Source: Thesis

Wislizenia refracta ssp. refracta

Authority: Engelm.
Common Name(s): spectacle fruit
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Lithodendron wash and other low elevation drainages, in washes between cobbled areas near Blue Mesa
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
In Process	14520

Caryophyllaceae

Arenaria eastwoodiae var. adenophora

Authority: Kearney & Peebles
Common Name(s): Eastwood's sandwort
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Collected only on Rainbow & Sonsela sandstone outcrops in southern part of The park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65105	13711
52298	80-76
52297	80-160

Chenopodiaceae

Allenrolfea occidentalis

Authority: (S. Wats.) Kuntze
Common Name(s): iodinebush
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Along drainages in alkaline soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65243	14030

Atriplex argentea

Authority: Nutt.
Common Name(s): silverscale saltbush, silver orach
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: South end of park around Rainbow Museum
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
66725	14003

Atriplex canescens

Authority: (Pursh) Nutt.
Common Name(s): fourwing saltbush
Origin: Native
Duration: Perennial
Lifeform: Woody shrub
Locality: Probably the most common and widespread shrub in the park
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:

52239	80-201
In Process	13973
66843	12672
52240	80-146

Atriplex confertifolia

Authority: (Torr. & Frem.) S. Wats.
Synonymy: Atriplex jonesii
Common Name(s): shadescale saltbush
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Fairly common on badlands, drainages, and alluvial plains
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:

52238	80-147
In Process	13696
67903	13702

Atriplex obovata

Authority: Moq.
Common Name(s): mound saltbush
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Common in inhospitable places
Information Source: Field Plot
Atriplex obovata, Atriplex jonesii, Atriplex confertifolia species complex not definite, no available key for taxonomical changes in USDA database
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:

67902	17364
In Process	13975
66724	14548
66843	12673
52236	80-215

Atriplex powellii

Authority: S. Wats.
Common Name(s): Powell's saltweed, Powell orach
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Along Puerco River and at garbage dump
Information Source: Thesis

Atriplex rosea
Authority: L.
Common Name(s): tumbling saltweed, tumbling orach
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Moist ground near Puerco River and sparsely vegetated moist clay areas
Information Source: Thesis

Atriplex saccaria
Authority: S. Wats.
Common Name(s): sack saltbush, stalked orach
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Locally abundant on low elevation, alkaline soils
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:

67900	12687

Chenopodium album
Authority: L.
Common Name(s): lambsquarters
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Chenopodium berlandieri var. zschackii
Authority: (J. Murr) J. Murr ex Aschers
Common Name(s): Zschack's goosefoot
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Puerco River
Information Source: Thesis

Chenopodium fremontii var. fremontii
Authority: S. Wats.
Common Name(s): Fremont's goosefoot
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Collected near Flattops and south of the railroad bridge
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:

52233	80-211
68456	13988
66723	14000

Chenopodium glaucum
Authority: L.
Common Name(s): oakleaf goosefoot
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Puerco River
Information Source: Mayes/CPFS Collection

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
67901	13953

Chenopodium leptophyllum
Authority: (Moq.) Nutt. ex S. Wats.
Synonymy: Chenopodium leptophyllum var. leptophyllum
Common Name(s): narrowleaf goosefoot
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Widespread in disturbed areas of south end of the park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52232	80-210
66722	13989

Chenopodium pratericola
Authority: Rydb.
Synonymy: Chenopodium desiccatum var. leptophylloides
Common Name(s): desert goosefoot
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Roadsides near Flattops
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52235	80-202

Chenopodium salinum
Authority: Standl.
Synonymy: Chenopodium glaucum ssp. salinum
Common Name(s): Rocky Mountain goosefoot
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Puerco River
Information Source: Thesis

Corispermum nitidum

Authority: Kit. ex J.A. Schultes
Synonymy: Corispermum nitidum
Common Name(s): common bugseed
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Identified once from Chromodendron wash
Information Source: Thesis

Cycloloma atriplicifolium

Authority: (Spreng.) Coult.
Common Name(s): winged pigweed
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Puerco River bed
Information Source: Thesis

Kochia americana

Authority: S. Wats.
Common Name(s): greenmolly
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Common in moist disturbed areas
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64828	13668

Kochia scoparia

Authority: (L.) Schrad.
Common Name(s): common kochia, summer-cypress
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Alkaline clay badlands
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
67897	14268
52503	80-21
67878	14036

Krascheninnikovia lanata

Authority: (Pursh) Guldenstaedt
Synonymy: Ceratoides lanata
Common Name(s): winterfat
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Common in grasslands, especially in the middle of the park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52505	80-216
65446	13970
52234	81-4

Monolepis nuttalliana

Authority: (J.A. Schultes.) Greene
Common Name(s): Nutall's povertyweed
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Abundant in badlands
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52231	80-27
65459	13637

Salsola tragus

Authority: (L.) Celak.
Synonymy: Salsola iberica, Salsola australis, Salsola kali ssp. Tragus
Common Name(s): prickly Russian thistle, tumble-weed
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Common and abundant in disturbed soils of roadsides and washes
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65447	13993

Sarcobatus vermiculatus

Authority: (Hook.) Torr.
Common Name(s): greasewood
Origin: Native
Duration: Perennial
Lifeform: Woody shrub
Locality: Saline or alkaline soils at low elevations
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
In Process	14530
65244	14033

Suaeda moquinii
Authority: (Torr.) Greene
Synonymy: Suaeda torreyana
Common Name(s): Mojave seablite
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Herbaceous forb/herb
Locality: Saline areas of Puerco River and Lithodendron Wash
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
In Process	13974

Zuckia brandegeei var. arizonica
Authority: (Standl.) Welsh
Synonymy: Zuckia arizonica
Common Name(s): Arizona siltbush
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Badlands in north part of the park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
67896	17362
In Process	17363

Zuckia brandegeei var. brandegeei
Authority: (Gray) Welsh & Stutz ex Welsh
Synonymy: Grayia brandegei
Common Name(s): brandegeei siltbush
Origin: Native
Duration: Perennial
Lifeform: Woody shubshrub/ Woody shrub
Locality: Badlands, low sandstone mesas
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52237	80-132

Convolvulaceae

Convolvulus arvensis
Authority: L.
Common Name(s): field bindweed
Origin: Introduced
Duration: Perennial
Lifeform: Herbaceous vine/ Herbaceous forb/herb
Locality: Roadsides and other disturbed soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65104	13968

Evolvulus nuttallianus
Authority: J. A. Schultes
Common Name(s): shaggy dwarf morning glory
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Herbaceous forb/herb
Locality: South end of the park on sandy or gravelly soil near roads and buildings
Information Source: Thesis
Voucher# in Deaver Herbarium: 67822 Voucher# in PEFO Herbarium: 14519

Cyperaceae

Cyperus esculentus
Authority: L.
Common Name(s): chufa flatsedge
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: One collection on roadside near South Entrance
Information Source: Thesis
Voucher# in Deaver Herbarium: 65118 Voucher# in PEFO Herbarium: 13946

Cyperus niger
Authority: Ruiz & Pavon
Common Name(s): black flatsedge
Origin: Native
Duration: Annual, Perennial
Lifeform: Herbaceous graminoid
Locality: Identified by Vernon Mayes no locality information provided
Information Source: Mayes

Cyperus squarrosus
Authority: L.
Synonymy: Cyperus aristatus
Common Name(s): bearded flatsedge
Origin: Native
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Identified from south end of the park, not common
Information Source: Thesis

Eleocharis palustris
Authority: (L.) Roemer & J.A. Schutles
Common Name(s): common spiderush, creeping spikerush
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Highway roadsides near South Entrance
Information Source: Thesis

Eleocharis parishii
Authority: Britt.
Common Name(s): Parish's spikerush
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Identified by Vernon Mayes no locality information provided
Information Source: Mayes

Schoenoplectus acutus var. acutus
Authority: (Muhl. ex Bigelow) A.D.Love
Synonymy: Scirpus acutus
Common Name(s): Hardstem bulrush
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Only found at wildlife water tank
Information Source: Thesis

Schoenoplectus maritimus
Authority: (L.) Palla
Synonymy: Sciprus maritimus var. paludosus, Bolboschoenus maritimus
Common Name(s): cosmopolitan bulrush
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Identified once from the windmill two miles north of Agate Bridge
Information Source: Thesis

Elaeagnaceae

Elaeagnus angustifolia
Authority: L.
Common Name(s): Russian olive
Origin: Introduced
Duration: Perennial
Lifeform: Woody shrub/ Woody tree
Locality: Planted near buildings and grows along roadway
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
65102 13952

Euphorbiaceae

Chamaesyce albomarginata
Authority: (Torr. & Gray) Small
Common Name(s): whitemargin sandmat, rattlesnake-weed
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Puerco River bed
Information Source: Thesis

Chamaesyce fendleri
Authority: (Torr. & Gray) Small
Synonymy: Euphorbia fendleri
Common Name(s): Fendler's sandmat, Fendler euphorb
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Throughout the park on sandy and gravelly soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52247	80-126
65014	13693
52248	80-166

Chamaesyce parryi
Authority: (Engelm.) Rydb.
Synonymy: Euphorbia parryi
Common Name(s): Parry's sandmat, Parry spurge
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Disturbed soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65015	13716
37277	80-172

Chamaesyce revoluta
Authority: (Engelm.) Small
Synonymy: Euphorbia revoluta
Common Name(s): threadstem sandmat, revolute spurge
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Collected once from Pintado Point
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52245	80-222

Croton texensis
Authority: (Klotszch) Muell.-Arg.
Common Name(s): Texas croton, doveweed
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Moist, disturbed soil of the Puerco River, and roadsides
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
37278	80-214
52249	80-214
65101	13964

Tragia ramosa
Authority: Torr.
Common Name(s): branched noseburn
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Observed on Sandstone Mesa near South Entrance Station.
Information Source: Thesis

Fabaceae

Alhagi maurorum
Authority: Medik.
Common Name(s): Camelthorn
Origin: Introduced
Duration: Perennial
Lifeform: Woody shrub
Locality: In cracks of old pavement on old 180, west of Park Road
Information Source: Mayes

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65449	13978

Astragalus albulus
Authority: Woot. & Standl.
Common Name(s): cibola milkvetch
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Herbaceous forb/herb
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Astragalus amphioxys var. amphioxys
Authority: Gray
Common Name(s): Crescent milkvetch
Origin: Native
Duration: Annual, Perennial
Lifeform: Herbaceous forb/herb
Locality: Sandy plateaus in many grass and shrub communities
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65460	13646
52326	81-7
64827	13667
52325	80-14

Astragalus brandegeei
Authority: Porter
Common Name(s): Brandegee's milkvetch
Origin: Native
Duration: Annual, Perennial
Lifeform: Woody subshrub
Locality: Puerco River and Painted Desert roadside
Information Source: Thesis

Astragalus ceramicus var. ceramicus

Authority: Sheldon
Common Name(s): painted milkvetch
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: On sand throughout the park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52327	80-47
64826	13663
37269	80-47

Astragalus flavus

Authority: Nutt.
Synonymy: Astragalus flavus var. canadicans
Common Name(s): yellow milkvetch
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Silty soil in south half of park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
67821	16503
66841	13627
52329	80-28
52328	80-62

Astragalus kentrophyta var. elatus

Authority: Gray
Common Name(s): spiny milkvetch
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub
Locality: Painted Desert, Chinde Mesa, and near Digger Wash
Information Source: Thesis

Astragalus lentiginosus var. diphysus

Authority: (Gray) M.E. Jones
Common Name(s): specklepod milkvetch, freckled milkvetch
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Headquarters' Mesa rim on hard, dry soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
66721	14532
52330	80-78
65461	13644
64859	13658

Astragalus lonchocarpus

Authority: Torr.
Common Name(s): rushy milkvetch
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Chinde clay badlands
Information Source: Ferrel Knight

Astragalus mollissimus var. thompsoniae

Authority: (S. Wats.) Barneby
Common Name(s): woolly locoweed
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Throughout the park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64825	13664
52332	80-13
52331	80-49
In Process	13655

Astragalus praelongus var. praelongus

Authority: Sheldon
Common Name(s): stinking milkvetch
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Found in the south end of the park on selenium-rich soils
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
66840	13631
52333	80-63
67820	13631

Astragalus wingatanus

Authority: S. Wats.
Common Name(s): Fort Wingate milkvetch
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Only collected once near the South Entrance, needs to be collected again to reconfirm
Information Source: Mayes

Astragalus xiphoides

Authority: (Barneby) Barneby
Common Name(s): gladiator milkvetch
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Near Agate Bridge, Crystal Forest, and in sand near Lithodendron wash
Information Source: Thesis
Salvage Restricted Protected Native Plants. (1997)

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
66720	14544
52335	80-77
52334	80-139
65450	14002

Caesalpinia jamesii

Authority: (Torr. & Gray) Fisher
Common Name(s): James' holdback
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Found along roadsides throughout the park, not very abundant
Information Source: CPFS Collection

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65100	13965

Dalea candida var. oligophylla

Authority: (Torr.) Shinners
Synonymy: Dalea oligophylla
Common Name(s): white prairieclover
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Found in sandy soils along roadsides in the south end of the park and Lithodendron Wash
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65099	13961
67819	17361
52609	80-183

Dalea flavescens

Authority: (S. Wats.) Welsh
Common Name(s): Canyonlands prarieclover, Kanab prairie-clover
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Dalea lanata var. terminalis

Authority: (M. E. Jones) Barneby
Common Name(s): woolly prairieclover
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Along roadsides throughout the park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65098	13959
52336	80-176

Glycyrrhiza lepidota

Authority: Pursh
Common Name(s): American licorice
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Puerco River
Information Source: Thesis

Lupinus pusillus var. intermontanus

Authority: (Heller) D. Dunn
Common Name(s): Intermountain lupine, dwarf lupine
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Throughout park, not very abundant
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52238	80-130
52237	80-50
65463	13638

Medicago sativa

Authority: L.
Common Name(s): alfalfa, lucern
Origin: Introduced
Duration: Annual, Perennial
Lifeform: Herbaceous forb/herb
Locality: Common on moist disturbed ground of roadsides and drainages
Information Source: Thesis

Melilotus officinalis

Authority: (L.) Lam.
Common Name(s): yellow sweetclover
Origin: Introduced
Duration: Annual, Biennial, Perennial
Lifeform: Herbaceous forb/herb
Locality: Common on moist disturbed ground of roadsides and drainages
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65097	13956
In Process	14006

Parryella filifolia

Authority: Tott. & Gray ex Gray
Common Name(s): common dunebroom
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Throughout the park, on sand and sandstone
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65444	13982
52610	80-165
52339	80-133
37567	80-165

Peteria scoparia

Authority: Gray
Common Name(s): rush peteria
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Identified from 1/2 mile south of Hwy 66 (I-40)
Information Source: Thesis

Prosopis glandulosa

Authority: Torr.
Common Name(s): honey mesquite
Origin: Native
Duration: Perennial
Lifeform: Woody tree/ Woody shrub
Locality: One location along Old Route 66 on east side of road near the weather station
Information Source: CPFS Collection
Salvage Restricted Protected Native Plants. (1997), Harvest Restricted Protected native Plants. (1997)

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
67818	16505

Psoralidium lanceolatum
Authority: (Pursh) Rydb.
Synonymy: Psoralea lancelata
Common Name(s): lemon scurfpea
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Puerco River area on sand
Information Source: Thesis

Sophora stenophylla
Authority: Gray
Common Name(s): fingerleaf necklace pod, silvery sophora
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Collected from Agate Bridge on stabilized dunes
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52340	80-74
37268	80-74

Gentianaceae

Frasera albomarginata
Authority: S. Wats.
Common Name(s): desert frasera, white-margined swertia
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Frasera paniculata
Authority: Torr.
Synonymy: Swertia utahensis
Common Name(s): tufted Fraeria, Utah swertia
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Bleu Mesa, Agate Bridge, and on other sandstone caps and outcrops
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52250	80-134
65013	13708

Frasera speciosa
Authority: Dougl. ex Grisseb.
Common Name(s): showy frasera
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Geraniaceae

Erodium cicutarium

Authority: (L.) L'her. ex Ait.
Common Name(s): redstem stork's bill
Origin: Introduced
Duration: Annual, Biennial
Lifeform: Herbaceous forb/herb
Locality: Roadsides and other disturbed areas
Information Source: Thesis
Voucher# in Deaver Herbarium: 65443 Voucher# in PEFO Herbarium: 13639

Hydrophyllaceae

Nama hispidum

Authority: Gray
Synonymy: Nama hispidum var. spathulatum
Common Name(s): bristly nama
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Puerco River bed
Information Source: Thesis
Voucher# in Deaver Herbarium: In Process Voucher# in PEFO Herbarium: 14516

Phacelia cephalotes

Authority: Gray
Common Name(s): virgin phacelia
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: South end of park on bentonite soil
Information Source: Thesis

Phacelia crenulata var. corrugata

Authority: (A. Nels) Brand
Synonymy: Phacelia corrugata
Common Name(s): cleftleaf wildheiotrope
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Common on Headquarters Mesa in spring
Information Source: Thesis
Voucher# in Deaver Herbarium: 52276 Voucher# in PEFO Herbarium: 80-34

Phacelia integrifolia var. integrifolia
Authority: Torr.
Common Name(s): gypsum scorpionweed
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Headquarters' Mesa along roadsides and ravines, on sandy soils
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
In Process 14533
65442 14018

Phacelia ivesiana
Authority: Torr.
Common Name(s): Ives' phacelia
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Headquarter's Mesa along roadsides
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
52277 80-18

Juncaceae

Juncus bufonius
Authority: L.
Common Name(s): toadrush
Origin: Native
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Identified once from Puerco River
Information Source: Thesis

Lamiaceae

Marrubium vulgare
Authority: L.
Common Name(s): horehound
Origin: Introduced
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Found on roadsides and near housing on Headquarter's Mesa
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
65012 13723

Poliomintha incana
Authority: (Torr.) Gray
Common Name(s): hoary rosemary mint
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Lithodendron Wash at far north end of park
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
65096 14021

Salvia pachyphylla
Authority: Epling ex Munz
Common Name(s): blue sage
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub
Locality: On slopes of Chinde Mesa, also found in wet north facing areas in northern Lithodendron Wash
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
65685 14013

Salvia reflexa
Authority: Hornem.
Common Name(s): lanceleaf sage
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Identified once near the south end of the park
Information Source: Thesis

Stachys rothrockii
Authority: Gray
Common Name(s): Rothrock's hedgenettle
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Moist sand of Puerco River
Information Source: Thesis

Liliaceae

Allium macropetalum
Authority: Rydb.
Common Name(s): largeflower wild onion
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: South end of park and near Blue Mesa in the sparsely vegetated cobble washes
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
64854 13634

Androstephium breviflorum
Authority: S. Wats.
Common Name(s): pink funnellily
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Upper elevation plateaus
Information Source: Thesis
Salvage Restricted Protected Native Plants. (1997)

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52224	81-3

Calochortus aureus
Authority: S. Wats.
Common Name(s): golden Mariposa lily
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Throughout park, especially abundant in south end of the park
Information Source: Thesis
Salvage Restricted Protected Native Plants. (1997)

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64817	13669
52225	80-46

Linaceae

Linum aristatum
Authority: Engelm.
Common Name(s): bristle flax, broom-flax
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Collected near flattops on sandy soil
Information Source: Thesis

Linum lewisii
Authority: Pursh
Common Name(s): prairie flax
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: On disturbed roadsides
Information Source: CPFS Collection

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65011	13695
64849	13643

Linum puberulum
Authority: (Engelm.) Heller
Common Name(s): plains flax
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Sandy soil of grasslands and washes
Information Source: Thesis

Loasaceae

Mentzelia albicaulis
Authority: (Dougl. ex Hook) Dougl. ex Torr. & Gray
Common Name(s): whitestem blazingstar
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Headquarters mesa, sandy soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64850	13652
64848	13666

Mentzelia multiflora
Authority: (Nutt.) Gray
Common Name(s): mayflowered mentzelia, Adonis blazingstar
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
55256	80-131
37315	80-182
52257	80-80

Mentzelia pumila
Authority: Nutt. ex Torr. & Gray
Common Name(s): dwarf mentzelia
Origin: Native
Duration: Biennial, Perennial
Lifeform: Herbaceous forb/herb
Locality: Throughout park, coarse soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64998	13719

Malvaceae

Malvella leprosa

Authority: (Ortega) Krapov.
Synonymy: Sida hederacea
Common Name(s): alkali mallow
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Puerco River floodplain
Information Source: Thesis

Sphaeralcea ambigua

Authority: Gray
Common Name(s): desert globemallow
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Herbaceous forb/herb
Locality: Roadsides
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52244	80-218

Sphaeralcea hastulata

Authority: Gray
Synonymy: Sphaeralcea subhastata
Common Name(s): spear globemallow
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Herbaceous forb/herb
Locality: Near side of the road in south end of park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52242	80-154
37347	80-175
37271	80-175

Sphaeralcea incana ssp. incana

Authority: Torr. ex Gray
Synonymy: Sphaeralcea incana var. incana
Common Name(s): soft globemallow
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Herbaceous forb/herb
Locality: Roadsides and Puerco River
Information Source: Thesis

Sphaeralcea incana ssp. cuneata

Authority: Kearney
Common Name(s): gray globemallow
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Herbaceous forb/herb
Locality: Roadsides and Puerco River
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
68455	14045
52243	80-174
65095	13969

Sphaeralcea parvifolia

Authority: A. Nels.
Common Name(s): small globemallow, Nelson globemallow
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Herbaceous forb/herb
Locality: Collected once from parking area near south end of the park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
67817	14269

Nyctaginaceae

Abronia elliptica

Authority: A. Nels.
Common Name(s): fragrant white sand verbena
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: In sandy areas throughout park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64820	13674

Abronia fragrans

Authority: Nutt. ex Hook.
Common Name(s): snowball sand verbena, fragrant sand verbena
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Road shoulder, Headquarters Mesa
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52294	80-118
37281	80-118

Allionia incarnata

Authority: L.
Common Name(s): trailing windmills, trailing four-o'clock
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Not common, found on sandy areas
Information Source: CPFS Collection

Boerhavia spicata

Authority: Choisy
Synonymy: Boerhavia torreyana
Common Name(s): creeping spiderling
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Drainage ditch near Jasper Forest junction of park road
Information Source: Thesis

Mirabilis multiflora

Authority: (Torr.) Gray
Common Name(s): Colorado four o' clock, large four o' clock
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Found in *Purshia/Juniper* woodlands on mesa rims
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52295	80-79
64997	13691
66839	12680

Tripterocalyx carnea var. wootonii

Authority: (Standl.) L.A.
Common Name(s): Wooton's sandpuffs
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Roadsides and sandy places
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52296	80-207

Oleaceae

Forestiera pubescens var. pubescens

Authority: Nutt.
Synonymy: Forestiera neomexicana
Common Name(s): strechberry, desert olive
Origin: Native
Duration: Perennial
Lifeform: Woody shrub
Locality: On cliffs, not common. Found near Newspaper Rock and near the Painted Desert Inn
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
67816	12678
64830	13994

Menodora scabra

Authority: Engelm. ex Gray
Synonymy: Menodora scabra var. scabra
Common Name(s): rough menodora
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub
Locality: Identified once from Crystal Forest on a gravelly hillside
Information Source: Thesis

Onagraceae

Calylophus lavandulifolius

Authority: (Torr. &Gray) Raven
Common Name(s): lavenderleaf sundrops
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Identified just outside the park at the South Entrance station
Information Source: Thesis

Camissonia scapoidea

Authority: (Nutt. ex Torr. & Gray) Raven
Common Name(s): barestem eveningprimrose
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: South end of park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64996	13710
52255	80-60

Gaura coccinea
Authority: Nutt. ex Pursh
Common Name(s): scarlet beeblossom, scarlet guara
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Along roadsides in southern end of park
Information Source: Thesis
Voucher# in Deaver Herbarium: 64995 Voucher# in PEFO Herbarium: 13718

Gaura mollis
Authority: James
Synonymy: Gaura parviflora
Common Name(s): velvetweed, willow gaura
Origin: Native
Duration: Annual, Biennial
Lifeform: Herbaceous forb/herb
Locality: Disturbed soil of roadsides and the Puerco River corridor
Information Source: Thesis
Voucher# in Deaver Herbarium: 65094 Voucher# in PEFO Herbarium: 13958

Oenothera albicaulis
Authority: Pursh
Common Name(s): whitest eveningprimrose, whitestem eveningprimrose
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Upper elevations, north end of park
Information Source: Thesis
Voucher# in Deaver Herbarium: 64994 Voucher# in PEFO Herbarium: 13686

Oenothera caespitosa ssp. caespitosa
Authority: Nutt.
Synonymy: Oenothera cespitosa var. montana
Common Name(s): tufted eveningprimrose
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Not abundant, found throughout the park
Information Source: Thesis
Voucher# in Deaver Herbarium: 66838 Voucher# in PEFO Herbarium: 13626

Oenothera caespitosa ssp. crinita
Authority: (Rydb.) Munz
Synonymy: Oenothera cespitosa var. jonesii
Common Name(s): tufted eveningprimrose, morning-lily
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Not abundant, found throughout the park
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
67815 14028

Oenothera deltoides
Authority: Torr. & Frem.
Common Name(s): birdcage eveningprimrose, annual eveningprimrose
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Only identified once near South Entrance. Needs to be collected and confirmed
Information Source: Mayes

Oenothera flava
Authority: (A. Nels.) Garrett
Common Name(s): yellow eveningprimrose
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Collected once from Puerco River
Information Source: Thesis

Oenothera pallida
Authority: Lindl.
Synonymy: Oenothera pallida var. pallida
Common Name(s): pale evening primrose
Origin: Native
Duration: Annual, Biennial, Perennial
Lifeform: Herbaceous forb/herb
Locality: Not common, found on sandy areas
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
52253 80-48

Oenothera pallida ssp. runcinata
Authority: (Engelm.) Munz & W. Klein
Common Name(s): pale evening primrose
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Not common, found on sandy areas
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
52254 80-168

Orobanchaceae

Orobanche cooperi

Authority: (Gray) Heller
Common Name(s): desert bloomrape
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Throughout the park on sandy soil
Information Source: Thesis
Voucher# in Deaver Herbarium: 52282
Voucher# in PEFO Herbarium: 80-75

Orobanche fasciculata

Authority: Nutt.
Synonymy: Orobanche fasciculata var. lutea
Common Name(s): clustered broomrape, cluster cancerroot
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: On sandy soil
Information Source: Thesis

Orobanche ludoviciana ssp. multiflora

Authority: (Nutt.) Collins comb. nov. ined.
Synonymy: Orobanche multiflora
Common Name(s): manyflowered broomrape
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: On sandy soil
Information Source: Mayes

Papaveraceae

Argemone pleiacantha

Authority: Greene
Common Name(s): southwestern prickly poppy
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Rare, but found along roadways in the northern end of the park
Information Source: Thesis

Plantaginaceae

Plantago lanceolata

Authority: L.
Common Name(s): narrowleaf plaintain
Origin: Introduced
Duration: Annual, Biennial, Perennial
Lifeform: Herbaceous forb/herb
Locality: Disturbed soils around buildings and roadsides
Information Source: Thesis

Plantago major
Authority: L.
Common Name(s): common plaintain, broadleaf plaintain
Origin: Introduced
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Puerco River area on disturbed soil
Information Source: Thesis

Plantago patagonica
Authority: (Nutt.) Gray Jacq.
Synonymy: Plantago patagonica var. gnaphalioides
Common Name(s): woolly plaintain
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Locally abundant on sandy floodplains
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:

52283	80-41
64993	13680

Poaceae

Achnatherum speciosum
Authority: (Trin. & Rupr.) Barkworth
Synonymy: Stipa speciosa
Common Name(s): desert needlegrass
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Rims of Headquarter's Mesa
Information Source: Thesis

Achnatherum aridum
Authority: (M.E. Jones) Barkworth
Synonymy: Stipa arida
Common Name(s): Mormon needlegrass
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Headquarters Mesa, along rim
Information Source: Thesis

Achnatherum hymenoides
Authority: (Roemer & J.A. Schultes) Barkworth
Synonymy: Oryzopsis hymenoides
Common Name(s): Indian ricegrass
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Widespread and abundant on sandy soils
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
52608 80-58

Agropyron desertorum
Authority: (Fischer ex. Link) J.A. Schultes
Synonymy: Agropyron cristatum
Common Name(s): desert wheatgrass, fairway
Origin: Introduced
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Along Old Highway 66, and on Hwy I-40
Information Source: Thesis

Agrostis stolonifera
Authority: L.
Common Name(s): creeping bentgrass, redtop
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Puerco River bed
Information Source: Thesis

Andropogon gerardii
Authority: Vitman
Common Name(s): big bluestem
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Found in washes at south end of park
Information Source: Mayes

Andropogon hallii
Authority: Hack
Synonymy: Andropogon gerardii var. paucipilus
Common Name(s): sand bluestem
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: On sand banks along washes
Information Source: Thesis

Aristida adscensionis

Authority: L.
Synonymy: Aristida longeseta
Common Name(s): sixweeks threeawn
Origin: Native
Duration: Annual, Perennial
Lifeform: Herbaceous graminoid
Locality: Roadsides near south end of the park
Information Source: Thesis
Voucher# in Deaver Herbarium: 67924 Voucher# in PEFO Herbarium: 14518

Aristida purpurea var. longiseta

Authority: (Steud.) Vasey
Common Name(s): Fendler threeawn, purple threeawn
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Throughout the park on clay soils, in grasslands and steppe communities
Information Source: Thesis
Voucher# in Deaver Herbarium: 52815 Voucher# in PEFO Herbarium: 80-170

Bothriochloa ischaemum

Authority: (L.) Keng
Common Name(s): yellow bluestem
Origin: Introduced
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Collected once from the middle of the park, in disrubed roadside near shrublands
Information Source: CPFS Collection
Voucher# in Deaver Herbarium: 67923 Voucher# in PEFO Herbarium: 14041

Bothriochloa saccharoides

Authority: (Sw.) Rydb.
Common Name(s): silver bluestem needle grama
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Collected once from the south end of the park, on sandy road shoulders
Information Source: Thesis
Voucher# in Deaver Herbarium: 66736 Voucher# in PEFO Herbarium: 14546

Bouteloua aristidoides

Authority: (Kunth) Griseb.
Common Name(s): needle grama
Origin: Native
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: One collection, on the road shoulder at Jasper Forest turnoff
Information Source: Thesis

Bouteloua barbata

Authority: Lag.
Common Name(s): sixweeks grama
Origin: Native
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Roadsides and washes throughout the park, but not common
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
66735	14539

Bouteloua curtipendula var. curtipendula

Authority: (Michx.) Torr.
Common Name(s): sideoats grama
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: South half of the park on dry, sandy, or gravelly soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65145	14023

Bouteloua eriopoda

Authority: (Torr.) Torr
Common Name(s): black grama
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Throughout the park on deep, level, sandy to sandy loam soils; often associated with blue grama grasslands
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52818	80-193
66852	12674
52814	80-193
52813	80-194
65146	14025

Bouteloua gracilis

Authority: (Willd. ex Kunth)Lag ex. Griffiths
Common Name(s): blue grama
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Throughout the park on sandy loam to clay soils
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:

66851	12688
52812	80-151

Bouteloua hirsuta

Authority: Lag.
Common Name(s): hairy grama
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Identified from the southwest end of the park on dry, gravelly slopes
Information Source: Thesis

Bouteloua rothrockii

Authority: Vasey
Common Name(s): Rothrock's grama
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Identified twice on sandy soil, in the Puerco River bed
Information Source: Mayes

Bouteloua simplex

Authority: Lag.
Common Name(s): matted grama
Origin: Native
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Identified from the southwest end of the Park on dry, gravelly slopes
Information Source: Thesis

Bromus diandrus

Authority: Roth
Synonymy: Bromus rigidus
Common Name(s): ripgut brome
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Collected once at the Painted Desert Inn
Information Source: Thesis

Bromus hordeaceus ssp. hordeaceus
Authority: L.
Synonymy: Bromus mollis
Common Name(s): soft brome, soft chess
Origin: Introduced
Duration: Annual, Biennial
Lifeform: Herbaceous graminoid
Locality: Sporadic occurrence on disturbed soil
Information Source: Thesis

Bromus inermis
Authority: Leyss.
Common Name(s): smoothe brome, Hungarian brome
Origin: Introduced
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Found in moist area at west end of Northern Visitor Center parking lot
Information Source: CPFS Collection
USDA database says native, A Utah Flora says native to Eurasia and introduced
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
65117 13957

Bromus japonicus
Authority: Thunb. Ex. Murr.
Common Name(s): Japanese brome
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: South end of park, on disturbed areas
Information Source: Mayes/CPFS Collection
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
66734 13685

Bromus rubens
Authority: L.
Common Name(s): foxtail brome, red brome
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Not common, identified from Blue Mesa
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
64853 13630

Bromus tectorum

Authority: L.
Common Name(s): cheat/grass
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Common throughout park, especially on disturbed sites
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64852	13629
52825	80-127

Calamovilfa gigantea

Authority: (Nutt.) Scribn. & Merr.
Common Name(s): giant sandreed
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Common on sand dunes and in washes
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
In Process	14540

Cenchrus spinifex

Authority: Cav.
Synonymy: Cenchrus incertus
Common Name(s): coastal sandbur
Origin: Native
Duration: Annual, Perennial
Lifeform: Herbaceous graminoid
Locality: Not common in the park
Information Source: Thesis

Chloris virgata

Authority: Sw.
Common Name(s): feather fingergrass
Origin: Native
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Identified once from the road shoulder between Jasper and Crystal Forests
Information Source: Thesis

Cynodon dactylon

Authority: (L.) Pers.
Common Name(s): Bermuda grass
Origin: Introduced
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Lawns around park residences
Information Source: Thesis

Dasyochloa pulchella
Authority: (Kunth) Willd.
Synonymy: Erioneuron pulchellum
Common Name(s): low woollygrass, fluffgrass
Origin: Native
Duration: Biennial, Perennial
Lifeform: Herbaceous graminoid
Locality: Found in badlands areas throughout the park
Information Source: Field Plot

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64836	13992
66733	14537

Distichlis spicata
Authority: (L.) Greene
Synonymy: Distichlis spicata ssp. stricta
Common Name(s): inland saltgrass, desert saltgrass
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: On moist saline clay soils along Puerco River and in Lithodendron wash
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65116	13954

Echinochloa crus-galli
Authority: (L.) Beauv.
Common Name(s): barnyardgrass
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Moist, disturbed soil of the Puerco River bed
Information Source: Thesis

Elymus elymoides ssp. elymoides
Authority: (Raf.) Swenzy
Synonymy: Sitanion hysterix var. brevifolium
Common Name(s): wildrye, squirreltail
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Throughout park on disturbed soils
Information Source: Thesis

Elymus x pseudorepens
Authority: (Scribn. & J. G. Sm.) Barkworth & Dewey
Synonymy: Elytrigia pseudorepens
Common Name(s): false quackgrass
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Enneapogon desvauxii
Authority: Beauv.
Common Name(s): nineawn pappusgrass, spike pappusgrass
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: South end of the park on dry rocky slopes
Information Source: Thesis

Eragrostis barrelieri
Authority: Daveau
Common Name(s): Mediterranean lovegrass
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Identified from Painted Desert Inn
Information Source: Thesis

Eragrostis intermedia
Authority: A. S. Hitchc.
Common Name(s): plains lovegrass
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Collected near Blue Mesa in disturbed area
Information Source: CPFS Collection
Voucher# in Deaver Herbarium: 67922 Voucher# in PEFO Herbarium: 14541

Eragrostis mexicana
Authority: (Hornem.) Link
Synonymy: Eragrostis orcuttiana
Common Name(s): Mexican lovegrass
Origin: Native
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Along Hwy 66 (I-40)
Information Source: Thesis

Eragrostis pectinacea
Authority: (Michx.) Nees ex Steud
Synonymy: Eragrostis arida
Common Name(s): tufted lovegrass
Origin: Native
Duration: Annual, Perennial
Lifeform: Herbaceous graminoid
Locality: Moist, disturbed usually sandy soil of roadsides and the Puerco River bed
Information Source: Thesis

Eragrostis spectabilis
Authority: (Pursh) Steud.
Common Name(s): purple lovegrass
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Hesperostipa comata var. comata
Authority: (Trin. & Rupr.) Barkworth
Synonymy: Stipa comata var. comata
Common Name(s): needle and thread grass
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Found throughout grasslands in sand, not incredibly abundant
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
In Process	13661
52826	80-51
66731	14534

Hesperostipa neomexicana
Authority: (Thurb.ex Coult) Barkworth
Synonymy: Stipa neomexicana
Common Name(s): New Mexico feathergrass
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Not common in park, found on dry soils
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65010	13690
52816	80-128

Hordeum jubatum
Authority: L.
Common Name(s): foxtail barley
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Moist, disturbed soil at south end of the park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65009	13699

Hordeum murinum ssp. leporinum
Authority: (Link) Arcang.
Synonymy: Hordeum leporinum
Common Name(s): leporinum barley, rabbit barley
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Road shoulder of Hwy 66 (I-40)
Information Source: Thesis

Hordeum pusillum
Authority: Nutt.
Common Name(s): little barley
Origin: Native
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Leptochloa fusca ssp. fascicularis
Authority: (Lam.) N. Snow
Synonymy: Diplachne fascicularis, Leptochloa fascicularis var. fascicularis
Common Name(s): bearded sprangletop
Origin: Native
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Moist disturbed soil such as the Puerco River bed
Information Source: Thesis

Lolium perenne
Authority: L.
Common Name(s): perennial ryegrass
Origin: Introduced
Duration: Annual, Biennial, Perennial
Lifeform: Herbaceous graminoid
Locality: Moist disturbed soil around buildings
Information Source: Thesis

Lolium pratense
Authority: (Huds.) S.J. Darbyshire
Synonymy: Festuca pratensis
Common Name(s): meadow ryegrass
Origin: Introduced
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Only found on road shoulder at the south end of the park
Information Source: Thesis

Muhlenbergia depauperata
Authority: Scribn.
Common Name(s): sixweeks muhly
Origin: Native
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Identified by Vernon Mayes no locality information provided
Information Source: Mayes

Muhlenbergia longiligula
Authority: A. S. Hitchc.
Common Name(s): longtongue muhly
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Identified by Vernon Mayes. No locality information provided
Information Source: Mayes

Muhlenbergia porteri
Authority: Scribn. ex Beal
Common Name(s): bush muhly
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: On rim of Headquarter's mesa, and on edges of mesas at south end of park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
66850	12681

Muhlenbergia pungens
Authority: Thurb.
Common Name(s): sandhill muhly
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Found in sandy soil throughout the park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52811	80-178

Muhlenbergia torreyi
Authority: (Kunth.) Hitchc. ex Bush
Common Name(s): ring muhly
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Found in dry gravelly soil, primarily in the north end of park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65115	13712
65147	14024

Munroa squarrosa
Authority: (Nutt.) Torr.
Common Name(s): false buffalograss
Origin: Native
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Sandy soil of the Puerco River
Information Source: Thesis

Panicum capillare
Authority: L.
Common Name(s): witchgrass
Origin: Native
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Roadside, south end of park
Information Source: Thesis

Panicum hirticaule
Authority: J. Presl
Common Name(s): Mexican panicgrass
Origin: Native
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: One collection from Jim Camp Wash, south end of the park
Information Source: Thesis

Panicum obtusum
Authority: Kunth
Common Name(s): obtuse panicgrass, vine mesquite
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Collected once from Old Hwy 180, west of Rainbow Forest
Information Source: Thesis

Pascopyrum smithii
Authority: (Rydb.) A. Love
Synonymy: Agryopyron smithii, Elymus smithii
Common Name(s): western wheatgrass
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Throughout the park on sandy to clay soils
Information Source: Thesis
Voucher# in Deaver Herbarium: 65114 Voucher# in PEFO Herbarium: 13945

Pennisetum glaucum
Authority: (L.) R. Br.
Synonymy: Setaria lutescens
Common Name(s): pearl millet
Origin: Introduced
Duration: Annual, Perennial
Lifeform: Herbaceous graminoid
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Phragmites australis
Authority: (Cav.) Trin. Ex. Steud.
Common Name(s): common reed
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Sandy soil in upper Lithodendron Wash
Information Source: Mayes
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:

65148	14027

Piptatherum micranthum
Authority: (Trin & Rupr.) Backworth
Synonymy: Oryzopsis micrantha, Stipa micrantha
Common Name(s): smilograss
Origin: Native
Duration: Annual, Perennial
Lifeform: Herbaceous graminoid
Locality: Near Newspaper Rock, on moist ledges
Information Source: Thesis

Pleuraphis jamesii
Authority: Torr.
Synonymy: Hilaria jamesii
Common Name(s): James' galleta
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Throughout park on gravelly sand or clay soils
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:

64837	13977
52817	80-59
67921	12683

Poa arida
Authority: Vasey
Common Name(s): plains bluegrass
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Poa fendleriana
Authority: (Steud.) Vasey
Common Name(s): muttongrass
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Dry rocky hillsides throughout park, especially Headquarter's mesa
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
66732	13980
64855	13649

Poa pratensis
Authority: L.
Common Name(s): Kentucky bluegrass
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Collected once from Hwy 66, road shoulder
Information Source: Thesis

Polypogon monspeliensis
Authority: (L.) Desf.
Common Name(s): annual rabbitsfoot grass
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Puerco River
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65008	13700

Polypogon viridis
Authority: (Gouan) Breistr.
Synonymy: Agrostis semiverticillata
Common Name(s): beardless rabbitsfoot grass
Origin: Introduced
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Moist sand of the Puerco River bed
Information Source: Thesis

Puccinellia distans
Authority: (L.) Parl.
Common Name(s): weeping alkaligrass
Origin: Introduced
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Puerco River bed
Information Source: Thesis

Puccinellia fasciculata
Authority: (Torr.) Bickn.
Common Name(s): saltmarsh alkaligrass, Torrey alkaligrass
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Puccinellia nuttalliana
Authority: (J.A. Schultes) A.S. Hitchc.
Common Name(s): Nuttall's alkaligrass
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Puerco River bed
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
65149 13701

Schedonnardus paniculatus
Authority: (Nutt.) Trel.
Common Name(s): tumblegrass
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Identified once from south end of park in a moist catch basin
Information Source: Thesis

Schizachyrium scoparium var. neomexicaum
Authority: (Nash) Gandhi & Smeins
Common Name(s): New Mexico little bluestem
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Agate bridge on sandstone outcrops and along roadside of Blue Mesa road
Information Source: Thesis

Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
67920 16509

Scleropogon brevifolius
Authority: Phil.
Common Name(s): burrograss
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Setaria viridis
Authority: (L.) Beauv.
Common Name(s): green bristlegrass
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Moist roadsides
Information Source: Thesis

Sorghum halepense
Authority: (L.) Pers.
Common Name(s): Johnsongrass, millet
Origin: Introduced
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Moist roadsides
Information Source: Thesis

Sporobolus airoides
Authority: (Torr.) Torr.
Synonymy: Sporobolus airoides var. airoides
Common Name(s): alkali sacaton
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Widespread throughout park on all soil types
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
67919	12684
52827	80-129

Sporobolus contractus
Authority: Hitchc.
Common Name(s): spike dropseed
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: On sandy soil throughout the park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52912	80-204

Sporobolus coromandelianus
Authority: (Retz.) Kunth.
Synonymy: Sporobolus pyramidatus, Sporobolus pulvinatus
Common Name(s): Madagascar dropseed
Origin: Native
Duration: Annual, Perennial
Lifeform: Herbaceous graminoid
Locality: Throughout the park on moist soils
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
In Process	14523

Sporobolus cryptandrus
Authority: (Torr.) Gray
Common Name(s): sand dropseed
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Sandy soil often along drainages
Information Source: Thesis

Sporobolus flexuosus
Authority: (Thurb.ex Vasey) Rydb.
Common Name(s): mesa dropseed
Origin: Native
Duration: Annual, Perennial
Lifeform: Herbaceous graminoid
Locality: Throughout the park
Information Source: Thesis

Sporobolus giganteus
Authority: Nash
Common Name(s): giant dropseed
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Sandy soil, not common
Information Source: Thesis

Sporobolus interruptus
Authority: Vasey
Common Name(s): black dropseed
Origin: Native
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Thinopyrum ponticum
Authority: (Host.) Nevski.
Synonymy: Agropyron elongatum, Elytrigia elongata
Common Name(s): tall wheatgrass
Origin: Introduced
Duration: Perennial
Lifeform: Herbaceous graminoid
Locality: Near Puerco Pumphouse on sandy soil
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
64843 14005

Vulpia octoflora var. hirtella
Authority: (Piper) Henr.
Common Name(s): sixweeks fescue
Origin: Native
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Abundant spring annual throughout park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52607	80-61

Polemoniaceae

Gilia ophthalmoides
Authority: Brand.
Common Name(s): eyed gilia
Origin: Native
Duration: Annual
Lifeform: Herbaceous graminoid
Locality: Abundant on Headquarters Mesa
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52267	80-32
52268	80-19

Gilia rigidula ssp. acerosa
Authority: (Gray) Wherry
Synonymy: Gilia rigidula var. acerosa
Common Name(s): bluebowls
Origin: Native
Duration: Annual, Perennial
Lifeform: Herbaceous forb/herb
Locality: Blue Mesa and Agate Bridge
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52266	80-71
66837	13625
67814	14525

Gilia scopulorum
Authority: M. E. Jones
Common Name(s): rock gilia
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Identified by Vernon Mayes no locality information provided
Information Source: Mayes

Gilia sinuata

Authority: Dougl. ex Benth.
Common Name(s): rosy gilia
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Headquarters mesa near rim
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64992	13683
52265	80-15

Gilia subnuda ssp. superba

Authority: (Eastw.) Brand
Synonymy: Gilia sinuata ssp.superba
Common Name(s): coral gilia
Origin: Native
Duration: Biennial, Perennial
Lifeform: Herbaceous forb/herb
Locality: Collected once from Pilot Rock
Information Source: Thesis

Gilia triodon

Authority: Eastw.
Common Name(s): coyote gilia
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Headquarter's Mesa near rim
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52263	80-30
52264	80-123
64991	13694

Ipomopsis longiflora

Authority: (Torr.) V. Grant
Common Name(s): flaxflowered ipomopsis
Origin: Native
Duration: Annual, Biennial
Lifeform: Herbaceous forb/herb
Locality: South half of the park along roadsides and sandy alluvial soil, and also around residences on Headquarters Mesa
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52262	80-64
67813	12679
64990	13698

Ipomopsis multiflora
Authority: (Nutt.) V. Grant
Common Name(s): manyflowered ipomopsis
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Throughout the park on sandy soils
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65093	13948
52261	80-143

Ipomopsis polycladon
Authority: (Torr.) V. Grant
Common Name(s): manybranched gilia
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Headquarter's Mesa near rim
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52260	80-36

Ipomopsis pumila
Authority: (Nutt.) V. Grant
Common Name(s): dwarf gilia
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: South end of park on sandy soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64989	13709
52259	80-56

Polygonaceae

Eriogonum alatum var. alatum
Authority: Torr.
Common Name(s): winged buckwheat
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub
Locality: Sandy soils
Information Source: Thesis

Eriogonum cernuum var. cernuum

Authority: Nutt.
Common Name(s): nodding buckwheat
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: On higher elevation mesas, especially the edges of Headquarters Mesa
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52293	81-12

Eriogonum corymbosum var. aureum

Authority: (M. E. Jones) Reveal
Common Name(s): crispleaf buckwheat, corymb buckwheat
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub
Locality: Found on sparsely vegetated cobble areas
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52292	80-213
66836	12676
64831	13990
66719	14538

Eriogonum deflexum

Authority: Torr.
Common Name(s): flatcrown buckwheat, skeletonweed buckwheat
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Found in heavy clay soils
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65092	13947

Eriogonum divaricatum

Authority: Hook
Common Name(s): divergent buckwheat, spreading buckwheat
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: South of Newspaper Rock and along the park road
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52291	80-43
68454	16508
In Process	14521

Eriogonum ericifolium var. pulchrum

Authority: (Eastw.) Reveal
Common Name(s): Yavapi county buckwheat
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Herbaceous forb/herb
Locality: Sandstone mesa caps and slopes, locally abundant
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52290	80-220
67811	16506
67812	12677

Eriogonum hookeri

Authority: S. Wats.
Common Name(s): Hooker's buckwheat, Watson buckwheat
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Found only at Agate Bridge
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52288	80-219

Eriogonum inflatum

Authority: Torr.& Frem.
Common Name(s): Native American pipeweed, desert trumpet
Origin: Native
Duration: Annual, Perennial
Lifeform: Herbaceous forb/herb
Locality: Identified from Newspaper Rock overlook
Information Source: CPFS Collection

Eriogonum jamesii var. jamesii

Authority: Benth.
Common Name(s): Jame's buckwheat
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub
Locality: Sandstone mesas and slopes
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52289	80-152

Eriogonum lachnogynum

Authority: Torr. ex Benth.
Common Name(s): wollycup buckwheat
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub
Locality: Agate Bridge area
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64832	14001
52287	80-70
37273	80-70

Eriogonum leptocladon var. ramosissimum

Authority: T. & G.
Common Name(s): sand buckwheat
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub
Locality: Badlands
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
67810	14552
37274	80-199
52285	80-199

Eriogonum leptophyllum

Authority: (Torr. & Gray) Woot. & Standl.
Common Name(s): slenderleaf buckwheat
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub
Locality: Roadside near flattops
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64840	14014
52284	80-164
67809	12692

Eriogonum microthecum

Authority: Nutt.
Common Name(s): slender buckwheat
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub
Locality: Found on sandstone outcrops and mesas
Information Source: Mayes

Eriogonum subreniforme
Authority: S. Wats.
Common Name(s): kidneyshape buckwheat, Stokes buckwheat
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Shallow gravelly soils on edge of Headquarter's Mesa
Information Source: Thesis

Eriogonum wrightii var. wrightii
Authority: Torr. ex Benth.
Common Name(s): Wright's buckwheat
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub
Locality: Found only at south end of parking lot at Pintado Point
Information Source: Thesis
Voucher# in Deaver Herbarium: 37275
Voucher# in PEFO Herbarium: 80-205

Polygonum aviculare
Authority: L.
Synonymy: Polygonum aviculare var. salicifolium
Common Name(s): prostrate knotweed
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Found in disturbed sites
Information Source: Thesis
Voucher# in Deaver Herbarium: 65091
Voucher# in PEFO Herbarium: 13962

Polygonum lapathifolium
Authority: Sibthrop
Synonymy: Polygonum incanum
Common Name(s): curlytop knotweed, willow-weed
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Puerco River
Information Source: Thesis

Polygonum pensylvanicum
Authority: L.
Common Name(s): Pennsylvanian smartweed
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Puerco River and Nine Mile Wash
Information Source: Thesis

Polygonum ramosissimum
Authority: Michx.
Common Name(s): bushy knotweed
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Common on disturbed roadsides, parking lots, and near buildings
Information Source: Thesis

Rumex crispus
Authority: L.
Common Name(s): curly dock
Origin: Introduced
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Found in disturbed location behind the west end of maintenance yard behind North Visitor Center
Information Source: CPFS Collection
Voucher# in Deaver Herbarium: 67808
Voucher# in PEFO Herbarium: 14039

Rumex hymenosepalus
Authority: Torr.
Common Name(s): canaigre dock
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Rumex obtusifolius
Authority: L.
Common Name(s): bitterdock
Origin: Introduced
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes
Voucher# in Deaver Herbarium: 65090
Voucher# in PEFO Herbarium: 13949

Rumex salicifolius var. neomexicanum
Authority: (Meisn.) C. L. Hitchc.
Synonymy: Rumex mexicanus
Common Name(s): willow dock, Beach dock
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Grasslands, roadsides, and moist places
Information Source: Thesis

Stenogonum salsuginosum
Authority: Nutt.
Common Name(s): salty eriogonum
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Portulacaceae

Portulaca oleracea
Authority: L.
Common Name(s): Purslane
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Found in disturbed areas, especially common near parking areas
Information Source: Field Plot
Regulated Noxious Weed, Native Status, however AZ Noxious Weed List defines Weeds as plant that is undesirable to human activities
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
In Process 14267

Primulaceae

Anagallis arvensis
Authority: L.
Common Name(s): scarlet pimpernel
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Identified by Vernon Mayes no locality information provided
Information Source: Mayes

Ranunculaceae

Ceratocephala testiculata
Authority: Cranz
Synonymy: Raununculus testiculatus
Common Name(s): curveseed buttercup, bur buttercup
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Found in disturbed areas around Headquarter's Mesa often found near park residences
Information Source: Thesis

Clematis ligusticifolia
Authority: Nutt.
Common Name(s): western white clematis, white-virgins-bower
Origin: Native
Duration: Perennial
Lifeform: Herbaceous vine/Woody subshrub
Locality: Found at Newspaper Rock beneath the rim
Information Source: Thesis

Delphinium scaposum
Authority: Greene
Common Name(s): tall mountain larkspur
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Located throughout park, commonly seen during spring in grasslands
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
37272	80-45
64988	13681

Ranunculus cymbalaria var. saximontanus
Authority: Pursh.
Common Name(s): buttercup alkali
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Moist soil in Puerco River
Information Source: Thesis

Rosaceae

Purshia stansburiana
Authority: (Torr.) Henrickson
Synonymy: Cowania mexicana var. stransburiana
Common Name(s): Stansbury cliffrose
Origin: Native
Duration: Perennial
Lifeform: Woody tree/ Woody shrub
Locality: Slopes and rims of high elevation mesas
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52309	80-221
64833	13997

Rubiaceae

Houstonia rubra
Authority: Cav.
Synonymy: Heyotis rubra
Common Name(s): red bluet
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: On gravelly or sandy mesas and hilltops
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
In Process	13665

Salicaceae

Populus angustifoia

Authority: James
Common Name(s): narrowleaf cottonwood
Origin: Native
Duration: Perennial
Lifeform: Woody tree
Locality: Identified by Vernon Mayes no locality information provided
Information Source: Mayes

Populus deltoides ssp. wislizeni

Authority: (S. Wats.) Ecken Walder Bartr. Ex.Marsh
Common Name(s): Fremont cottonwood
Origin: Native
Duration: Perennial
Lifeform: Woody tree
Locality: Puerco River
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
52222	80-42
67806	14531

Populus fremontii

Authority: S. Wats.
Common Name(s): Fremont cottonwood
Origin: Native
Duration: Perennial
Lifeform: Woody tree
Locality: Found in the Puerco River, planted by park staff
Information Source: Field Plot

Populus X acuminata

Authority: (Pro sp.)
Common Name(s): lanceleaf cottonwood
Origin: Native
Duration: Perennial
Lifeform: Woody tree
Locality: Found below Agate Bridge in moist catch basin, probably introduced by humans
Information Source: CPFS Collection

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
67807	14042

Salix exigua
Authority: Nutt.
Common Name(s): narrow leaf willow, coyote willow
Origin: Native
Duration: Perennial
Lifeform: Woody tree/ Woody shrub
Locality: Along banks of Puerco River
Information Source: Thesis

Salix gooddingii
Authority: Ball
Common Name(s): Goodding's willow
Origin: Native
Duration: Perennial
Lifeform: Woody tree
Locality: Along banks of Puerco River
Information Source: CPFS Collection

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65089	13950

Santalaceae

Comandra umbellata ssp. pallida
Authority: (A. DC.) Piehl
Synonymy: Comandra pallida
Common Name(s): pale bastard toadflax
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Common on sandy soil
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64987	13682
52223	80-31

Scrophulariaceae

Castilleja applegatei ssp. martinii
Authority: (Abrams) Chuang & Heckard
Synonymy: Castilleja chromosa
Common Name(s): Wavyleaf Indian paintbrush, common paintbrush
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Rocky basaltic slopes of Headquarter's Mesa and Pilot Rock
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64851	13653
52280	81-10
52279	81-21

Castilleja integra
Authority: Gray
Common Name(s): wholeleaf Indian paintbrush
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Basaltic slopes of Headquarter's Mesa and Pilot Rock
Information Source: Mayes

Castilleja linariifolia
Authority: Benth.
Common Name(s): Wyoming Indian paintbrush, narrowleaf paintbrush
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Herbaceous forb/herb
Locality: Along washes in sand
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64841	14011
52281	80-177
67805	14029

Cordylanthus wrightii ssp. wrightii
Authority: Gray
Synonymy: Castilleja wrightii var. pauciflorus
Common Name(s): Wright's birdsbeak
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Along washes in sand
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
67804	16501

Verbascum blattaria
Authority: L.
Common Name(s): moth mullein
Origin: Introduced
Duration: Biennial
Lifeform: Herbaceous forb/herb
Locality: Found only in moist area near North Visitor Center
Information Source: CPFS Collection

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65245	14270

Verbascum thapsus
Authority: L.
Common Name(s): common mullein, woolly mullein
Origin: Introduced
Duration: Biennial
Lifeform: Herbaceous forb/herb
Locality: Occasional along roads and in other disturbed soils
Information Source: Thesis

Simaroubaceae

Ailanthus altissima

Authority: (Miller) Swingle
Common Name(s): Tree-of-heaven
Origin: Introduced
Duration: Perennial
Lifeform: Woody tree
Locality: Along park road just north of the railroad overpass
Information Source: Field Plot

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
65301	13662

Solanaceae

Chamaesaracha coronopus

Authority: (Dunal) Gray
Common Name(s): greenleaf fire eyes
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Herbaceous forb/herb
Locality: Common on road shoulders, and in moist grasslands in north end of park
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
In Process	14026
52278	80-206

Datura wrightii

Authority: Regel
Synonymy: Datura meteloides
Common Name(s): sacred thornapple, Indian-apple
Origin: Native
Duration: Annual, Perennial
Lifeform: Woody subshrub/ Herbaceous forb/herb
Locality: Identified near south end of park on clay soil
Information Source: Thesis

Lycium pallidum

Authority: Miers
Common Name(s): pale wolfberry, tomatilla, desert thorn
Origin: Native
Duration: Perennial
Lifeform: Woody shrub
Locality: Sandy soil near Agate Bridge, and near Old Rt. 66 just east of the park road
Information Source: Thesis

Voucher# in Deaver Herbarium:	Voucher# in PEFO Herbarium:
64834	13972

Nicotiana attenuata
Authority: Torr. ex S. Wats
Common Name(s): coyote tobacco
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Near the Puerco River on disturbed soil
Information Source: Thesis

Physalis hederifolia var. fendleri
Authority: (Gray) Cronq.
Synonymy: Physalis fendleri
Common Name(s): Fendler's groundcherry, ivy-leaved ground-cherry
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Herbaceous forb/herb
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Quincula lobata
Authority: (Torr.) Raf.
Synonymy: Physalis lobata
Common Name(s): Chinese lantern
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: South end of the park, in wet catch basins
Information Source: Thesis

Solanum americanum
Authority: P. Mill.
Common Name(s): American black nightshade
Origin: Native
Duration: Annual, Perennial
Lifeform: Woody subshrub/ Woody shrub
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Solanum elaeagnifolium
Authority: Cav.
Common Name(s): silverleaf nightshade
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Herbaceous forb/herb
Locality: Roadsides and other disturbed gravelly soils
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:
64986 13688

Solanum jamesii
Authority: Torr.
Common Name(s): wild potato
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: Collected once on sandy soil in the Long Logs area
Information Source: Thesis

Solanum rostratum
Authority: Dunal
Common Name(s): buffaloburr nightshade
Origin: Native
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Puerco River bed
Information Source: Thesis

Tamaricaceae

Tamarix chinensis
Authority: Lour.
Synonymy: Tamarisk pentandra
Common Name(s): fivestamen tamarix, saltcedar
Origin: Introduced
Duration: Perennial
Lifeform: Woody tree/ Woody shrub
Locality: Along Puerco River and other large drainages
Information Source: Thesis
Voucher# in Deaver Herbarium: 66718
Voucher# in PEFO Herbarium: 14034

Typhaceae

Typha domingensis
Authority: Pers.
Common Name(s): southern cattail, common cattail
Origin: Native
Duration: Perennial
Lifeform: Herbaceous forb/herb
Locality: In south end of the park, found near an old faucet with a small perennial water leak
Information Source: CPFS Collection
Voucher# in Deaver Herbarium: 65113
Voucher# in PEFO Herbarium: 14017

Ulmaceae

Ulmus pumila

Authority: L.
Common Name(s): Siberian elm
Origin: Introduced
Duration: Perennial
Lifeform: Woody tree/ Woody shrub
Locality: In south end of park just east of old Park Entrance Station on Old Highway 180
Information Source: CPFS Collection
Probably was planted by Park Service
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:

64835	13983

Verbenaceae

Glandularia bipinnatifida var. bipinnatifida

Authority: (Nutt.) Nutt.
Synonymy: Verbena ciliata
Common Name(s): Dakota mock vervain
Origin: Native
Duration: Annual, Perennial
Lifeform: Herbaceous forb/herb
Locality: Identified by Vernon Mayes, no locality information provided
Information Source: Mayes

Phyla cuneifolia

Authority: (Torr.) Greene
Common Name(s): wedge-leaf, frogfruit
Origin: Native
Duration: Perennial
Lifeform: Woody subshrub/ Herbaceous forb/herb
Locality: Collected once near Rainbow Museum, in the south end of the park
Information Source: Thesis

Verbena bracteata

Authority: Lag. & Rodr.
Common Name(s): bigbract verbena, prostrate vervain
Origin: Native
Duration: Annual, Perennial
Lifeform: Herbaceous forb/herb
Locality: In disturbed areas around buildings on hard soil, also found on Old Highway 180 in cracks of old pavement
Information Source: Thesis
Voucher# in Deaver Herbarium: Voucher# in PEFO Herbarium:

67803	13659
66716	13659

Viscaceae

Phoradendron juniperinum

Authority: Engelm.
Common Name(s): juniper mistletoe
Origin: Native
Duration: Perennial
Lifeform: Parasitic woody plant
Locality: On Headquarters Mesa and Pilot Rock
Information Source: Thesis

Zygophyllaceae

Tribulus terrestris

Authority: L.
Common Name(s): puncturevine, goat head
Origin: Introduced
Duration: Annual
Lifeform: Herbaceous forb/herb
Locality: Disturbed soil, especially around buildings
Information Source: Thesis

Appendix B: Exotic Species of Petrified Forest National Park

Amaranthaceae

Amaranthus blitoides

Field Identification: Annuals with prostrate stem radiating in all directions from a taproot; stems are fleshy and pliable with a red to purple hue; flowers are inconspicuous; seeds are shiny black and lens-shaped

Amaranthus retroflexus

Field Identification: Annual monoecious herbs; stems erect 2 to 3 feet tall, red-striped or with red tinge; leaves 1-2 inches long, petiolate with prominent veins; flowers are small, green, and spike-like; seeds lens-shaped, black and shiny

Asteraceae

Acroptilon repens

Field Identification: Perennial rhizomatous herbs spreading by black roots; stems erect 18-36 inches tall; flowers cone-shaped, pink to lavender, 1/4 to 1/2 inch diameter, enclosed by bracts with papery margins

Arizona Noxious Weed List Status: Restricted Noxious Weed

Cirsium vulgare

Field Identification: Biennial herbs with short fleshy taproot; stems 2 to 5 feet tall; leaves green with numerous spiny wing-like leaf extensions; flowers 1 1/2 to 2 inches wide, petals dark purple, bracts enclosing flower extremely spine-tipped

Lactuca serriola

Field Identification: Biennial or winter annual; plant contains milky juice when punctured; stem 1 to 5 feet tall; leaves alternate, prickly below, clasping stem; flowers yellow, 1/8 to 1/3 inch, composed of only ray flowers

Sonchus asper

Field Identification: Hardy annual; stems 1 to 5 feet tall; plant contains milky juice when punctured; lower leaves lobed, toothed, and clasping stem; flowers yellow, strap-shaped, consisting of only ray flowers, 3/4 to 1 inch diameter

Tragopogon dubius

Field Identification: Biennial; stem 1 to 3 feet tall; plant contains milky juice when punctured; leaves narrow, grass-like, up to 12 inches long; flowers solitary, yellow ray flowers, bracts surpass flower; peduncles inflated; seeds are plumose achenes

Tragopogon pratensis

Field Identification: Biennial; stem 1 to 3 feet tall; plant contains milky juice when punctured; leaves narrow, up to 12 inches long; flowers solitary, yellow ray flowers; bracts equal to flower; peduncles not inflated; seeds are plumose achenes

Brassicaceae

Cardaria draba

Field Identification: Deep rooted perennial herbs; leaves blue-green lance-shaped; numerous white flowers with four petals and flattop apperance

Arizona Noxious Weed List Status: Restricted Noxious Weed

Chorispora tenella

Field Identification: Annuals; 6 to 18 inches tall; leaves are large, wavy, oblanceolate; flowers small, pale purple, 4 petaled; fruit long green seed pod

Sisymbrium altissimum

Field Identification: Winter annuals; 2 to 5 feet tall; stems many, branching below; leaves alternate, lower leaves higly divided, upper leaves small reduced; flowers pale yellow in racemes; fruit slender long seed pods

Chenopodiaceae

Atriplex rosea

Field Identification: Monoecious annual herbs; stems branching throughout; ovate leaves; flowers inconspicous

Chenopodium glaucum

Field Identification: Annual herbs; stems prostrate to erect; foliage gray-green, farinose; leaves short lobed; flowers inconspicuous

Corispermum nitidum

Field Identification: Annual herbs; 5 to 15 inches tall; pubescent to glaucous herbage; leaves alternate and entire; bracts contain scarious margins; flowers small, 5-petaled, pink to lavender

Kochia scoparia

Field Identification: Annual herbs; 1 to 6 feet tall; stems many-branched and soft-hairy; leaves alternate, lance-shaped with margins containing fringed hairs; flowers inconspicuous

Salsola tragus

Field Identification: Many branched annual; 1/2 to 3 feet tall; round, bushy plant; stems usually red or purple striped; leaves scale-like with spine tips; inconspicuous green flowers

Convolvulaceae

Convolvulus arvensis

Field Identification: Perennial herbs consisting of climbing mat-like stems, prostrate, 1-4 feet long; leaves alternate, arrowhead-shaped; flowers bell-shaped with white to pink petals

Arizona Noxious Weed List Status: Regulated Noxious Weed

Elaeagnaceae

Elaeagnus angustifolia

Field Identification: Large growing tree; 10 to 25 feet tall; trunks and branches have 1-2 inch woody thorns; leaves are narrow, gray-green or silvery appearance; flowers small and yellow; fruit shaped like small olives

Fabaceae

Alhagi maurorum

Field Identification: Perennial rhizomatous shrubs; 1 1/2 to 4 feet tall; gray-green stems with numerous slender spines; leaves are small and alternate; flowers pinkish purple to maroon, small pea-like; seedpods small and curved upward

Arizona Noxious Weed List Status: Restricted Noxious Weed

Medicago sativa

Field Identification: Perennial herbs; stems prostrate to erect,1 to 2 feet; leaves consist of 3 round elliptic leaflets; flowers pea-like in blue, pink, to white clusters

Melilotus officinalis

Field Identification: Annual herbs; 2 to 6 feet tall; leaves consist of 3 leaflets with toothed margins; flowers are small, yellow, and numerous; fruit consists of 1-seeded legumes

Geraniaceae

Erodium cicutarium

Field Identification: Annual herbs; spreading to erect stems; leaves are narrow, compound, and feather-like with numerous lobes; flowers are in purplish-pink clusters, fruits are long beaks with 5 distinct margins

Lamiaceae

Marrubium vulgare

Field Identification: Perennial herbs; 1 to 2 1/2 feet tall; stems 4-sided, very woolly; leaves white-woolly and toothed; flowers are small, white, in dense clusters on the stem; plant has strong mint odor

Plantaginaceae

Plantago lanceolata

Field Identification: Perennial herbs; leaves basal, entire, lance-elliptic, 4 to 12 inches long; flowering stem up to 18 inches tall, a dense spike of small, inconspicous flowers

Plantago major

Field Identification: Perennial herbs; numerous basal leaves entire to toothed 3 to 7 inches long, flowering stem 5 to 15 inches long inconspicuous flowers

Poaceae

Agropyron desertorum

Field Identification: Perennial grass with tufted culms; inflorescence is a spikelet in two long rows appressed flat along stem; leaves glaberous

Bothriochloa ischaemum

Field Identification: Perennial grass; herbage yellow-green; leaves basal, glaberous; spikelet short, hairy with twisted awns

Bromus diandrus

Field Identification: Annual grass; leaf blades are flat with hairy sheaths; inflorescence is open with spreading or drooping branches

Bromus hordeaceus ssp. hordeaceus

Field Identification: Annual grass up to 3 feet tall, pubescent throughout; numerous crowded spikelets with distinctly broad glumes

Bromus inermis

Field Identification: Perennial grass, rhizomatous, 1 to 4 feet tall; leaf blades hairy, 2-15 mm long; large spikelet, 1-5 per primary branch with orangish tinge

Bromus japonicus

Field Identification: Annual grass, 14 to 30 inches tall; leaf blades and sheaths soft, hairy; spikelets 1/4 inch wide and 1/2 inch long, twisted and spreading at maturity

Bromus rubens

Field Identification: Annual grass, 4 to 30 inches tall; leaf sheaths and blades covered with hair; spikelet erect, usually purplish at maturity

Bromus tectorum

Field Identification: Annual grass, 4 to 30 inches tall; leaf sheaths and blades covered with hair; spikelet nodding, usually purplish at maturity

Cynodon dactylon

Field Identification: Perennial grass; long slender rhizomes; leaves smooth with white hair between blade and sheath; flowering stems are upright with spike-like branches in groups of 3 to 7

Echinochloa crus-galli

Field Identification: Annual grass, 1 to 5 feet tall; base of stem reddish to purple; large flat leaf blades; spikelet are crowded with a purplish hew

Eragrostis barrelieri

Field Identification: Annual grass, 1 to 2 feet tall; branching from lower nodes in a tufted culm; dark green lance-linear spikelet

Hordeum murinum ssp. leporinum

Field Identification: Perennial grass, 1 to 2 feet tall; pale, green bushy spikelet; at maturity heads break into 7-awned clusters of 3 spikelets

Lolium perenne

Field Identification: Annual grass, often with purplish base, 1 to 2 1/2 feet tall; leaves shiny with flat blades, dark green with prominent veins; terminal spikes alternate along stem

Lolium pratense

Field Identification: Tufted perennial grass, less than 4 feet tall, erect to slumped; spikelets spreading; leaves often dark and shredding

Pennisetum glaucum

Field Identification: Tufted annual grass, 1 to 3 feet tall; erect stems that branch at the base; smooth leaf blade with distinct hairs on leaf margins, leaf sheath smooth; panicles cylindrical with crowded spikelet subtended by 6 to 10 long yellow bristles

Polypogon monspeliensis

Field Identification: Annual grass, erect or prostrate, shallow rooted, 1/2 to 2 feet tall; leaves narrow and bent, large, soft, pale green, furry; spike-like panicles resembling a rabbits foot

Polypogon viridis

Field Identification: Perennial grass, tufted or stoloniferous; perennial culm erect; spikelets purplish tinged, 1-flowered bearing near the base of the grass

Puccinellia distans

Field Identification: Perennial grass, typically blue-green herbage; culms tufted forming mats; spikelets ovate with a purple tinge

Setaria viridis

Field Identification: Tufted annual grass; panicles cylindrical with crowded spikelets, subtended by 6 to 10 long yellowish bristles; roughed leaf sheath

Sorghum halepense

Field Identification: Perennial grass, resembling forage sorghum; rhizomatous; erect stems with prominent nodes; leaf blades contain conspicuous midveins; mature inflorescence large open panicle, with reddish to purple spikelets

Thinopyrum ponticum

Field Identification: Perennial grass, 1 to 5 feet tall; leaves cauline glabrous; glumes narrowly elliptical exceeding the spikelet

Polygonaceae

Polygonum aviculare

Field Identification: Prostrate annuals, 1 to 3 feet tall; wiry stems with enlarged joints; leaves hairless, alternate and lance-shaped; flowers small, pink, in clusters on leaf

Polygonum lapathifolium

Field Identification: Annual herbs, erect with spreading stems; 1 to 3 feet tall; leaves alternate, narrow, lance-shaped, often with pink-purple mark in the center; leaf nodes sheathed; flowers small pink or rose in dense cluster ~1 inch long

Rumex crispus

Field Identification: Perennial herb, robust, 2 to 5 feet tall; stems erect often unbranched on lower half; leaves with curly wavy margins; flowers in small dense, spike-like clusters; seeds enclosed in red, papery, bract-winged structure

Rumex obtusifolius

Field Identification: Perennial herbs, erect, from taproot, 2 to 5 feet tall; stem unbranched below inflorescence; basal leaves long petioled; flowers numerous, in dense clusters; fruit in dark red, 4-6 toothed papery bracts

Primulaceae

Anagallis arvensis

Field Identification: Annual herbs; stems prostrate or ascending; leaves 1 inch long clasping basally; flowers salmon color occurring on axillary pedicels

Ranunculaceae

Ceratocephala testiculata

Field Identification: Annual herbs, low growing, 2 to 5 inches tall; divided leaves, gray-green, basally attached; 5-petalled yellow flowers that develop into stiff brown burs

Scrophulariaceae

Verbascum blattaria

Field Identification: Biennial herb, produces basal rosette first year, second year produces single stout erect stem, 1 1/2 to 5 feet tall; leaves dark green with reddish hue, shallowly lobed; flowers bright yellow, slightly irregular, 5-lobed

Verbascum thapsus

Field Identification: Biennial herb, produces basal rosette first year, second year produces single stout erect stem, 2 to 6 feet tall; leaves woolly and light green; flowers in terminal spikes, 5-lobed yellow petals

Simaroubaceae

Ailanthus altissima

Field Identification: Trees or large shrubs, up to 50 feet tall; smooth gray bark; stem with large pith; leaves dark green, compound elliptic leaflets; flowers small, greenish in terminal panicles

Tamaricaceae

Tamarix chinensis

Field Identification: Evergreen trees or shrubs, 5 to 20 feet tall; stems smooth, willow-like; bark on sapplings and stems is reddish brown; leaves are small and scale-like; flowers are pink to white, 5-petaled

Ulmaceae

Ulmus pumila

Field Identification: Trees up to 50 feet; bark fissured; branches slender, hairless; leaves in 2 rows, narrow elliptic with one serration; flowers in small green clusters

Zygophyllaceae

Tribulus terrestris

Field Identification: Annual herbs; prostrate, mat forming with trailing stems; leaves opposite and hairy with 4 to 8 leaflets; flowers yellow, with 5 petals in leaf axial; fruit has 5 sections with curving spines

Arizona Noxious Weed List Status:Regulated Noxious Weed

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