

**PRELIMINARY INVENTORY  
OF THE FLORA OF  
WHITE SANDS NATIONAL MONUMENT  
NEW MEXICO**

**[SECOND WORKING DOCUMENT]**

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## INTRODUCTION

I utilized as a starting document for this plant list the list in the “White Sands Natural Science Study Plan” (1969). From that point I reviewed the plant collections in Herbarium UTEP and my own notes on holdings in Herbarium NMC. The collections at UTEP are extensive and based on years of funded work by Dr. Bill Reid and a number of his graduate students. Literature records were included as well. Additional records were added from the holdings in the collection at White Sands National Monument reviewed in December, 2002.

## HERBARIUM ACRONYMS

I have attempted to indicate where records can be found that voucher the presence of species within White Sands National Monument. Stand herbarium acronyms are listed below.

<b>ARIZ</b>	University of Arizona, Tucson
<b>BRIT</b>	Botanical Research Institute of Texas, Ft. Worth
<b>CAS</b>	California Academy of Sciences, San Francisco
<b>DS</b>	Dudley Herbarium of Stanford University at California Academy of Sciences
<b>F</b>	Field Museum of Natural History, Chicago
<b>G</b>	Geneve Herbarium, Geneve Switzerland
<b>GH</b>	Gray Herbarium, Harvard
<b>MICH</b>	University of Michigan, Ann Arbor
<b>MO</b>	Missouri Botanical Garden, St. Louis
<b>NLU</b>	University of Louisiana, Monroe
<b>NMC</b>	New Mexico State University, Las Cruces
<b>NY</b>	New York Botanical Garden, Bronx
<b>RM</b>	Rocky Mountain Herbarium, Laramie
<b>RSA-POM</b>	Rancho Santa Ana Botanic Garden, Claremont (incl. Pomono College Herbarium)
<b>SRSC</b>	Sul Ross State University, Alpine
<b>TEX-LL</b>	The University of Texas at Austin (incl. Lundell Herbarium)
<b>UC</b>	University of California, Berkeley
<b>UCR</b>	University of California at Riverside
<b>US</b>	United States National Herbarium, Washington
<b>UTEP</b>	The University of Texas at El Paso

# INVENTORY OF THE FLORA OF WHITE SANDS NATIONAL MONUMENT, NEW MEXICO

## GNETOPHYTA (Gnetophytes)

### EPHEDRACEAE (Mormon-tea Family; Joint-fir Family)

- Ephedra torreyana* S. Wats. var. *torreyana* Mormon-tea; Torrey Ephedra  
[Wooton & Standley, 1915; Emerson, 1935; Anderson & Michaud, 2000]  
[Hogg s.n., Reid s.n. (UTEP); WSNM]
- Ephedra trifurca* Torr. ex S. Wats. Longleaf Ephedra; Mexican-tea  
[Reid s.n. (UTEP)]

## MAGNOLIOPHYTA (Flowering Plants)

### MAGNOLIOPSIDA (Dicots)

### AIZOACEAE (Carpeweed Family)

- Trianthema portulacastrum* L. Desert Horsepurslane  
[Hogg s.n. (UTEP)]

### AMARANTHACEAE (Amaranthus Family)

- Amaranthus blitoides* Wats. Prostrate Pigweed  
[NMC]
- Amaranthus retroflexus* L. Redroot Amaranthus  
[WSNM]
- Tidestromia lanuginosa* (Nutt.) Standl. Woolly Tidestrom  
[Shields, 1951]  
[Echlin 122; Hogg s.n.; Reid s.n.; Helfert 13 (UTEP, UCR, NLU); WSNM]

### ANACARDIACEAE (Sumac Family)

- Rhus trilobata* Nutt. var. *trilobata* Fragrant Sumac; Squawbush  
[Emerson, 1935; Barkley, 1937; Shields, 1951]  
[White Sands, 04 May 1933, *Castetter* 2122 (RM); *Echlin* 16 (UTEP, NLU); WSNM]  
Note: One collection at WSNM is identified as var. *pilosissima* Engelm.

### ASCLEPIADACEAE (Milkweed Family)

- Asclepias arenaria* Torr. Broadleaf Milkweed  
[Wooton & Standley, 1915; Emerson, 1935; Shields, 1951]  
[Helfert s.n., Reid s.n. (UTEP); WSNM]
- Asclepias latifolia* (Torr.) Raf. Broadleaf Milkweed  
[Hogg s.n. (UTEP)]
- Asclepias subverticillata* (Gray) Vail Poison Milkweed  
[WSNM, without data]

### ASTERACEAE (Sunflower Family)

<i>Acourtia nana</i> (Gray) Reveal & King [ <i>Perezia nana</i> Gray] [Wooton & Standley, 1915; Emerson, 1935; Anderson & Michaud, 2000] [Reid s.n.(UTEP); WSNM]	Desert Holly
<i>Baccharis salicifolia</i> (R. & P.) Pers. [ <i>Baccharis glutinosa</i> Pers.] [Shields, 1951]	Seepwillow
<i>Baccharis salicina</i> Torr. & Gray [Reid s.n.(UTEP); WSNM]	Willow Baccharis
<i>Bahia absinthifolia</i> Benth. [Helfert 18 (UTEP); WSNM]	Hairyseed Bahia
<i>Baileya multiradiata</i> Harv. & Gray [Anderson & Michaud, 2000]	Desert Marigold
<i>Calycoseris wrightii</i> Gray [Reid 1623 and 1673 (UTEP)]	White Cupfruit
<i>Conyza canadensis</i> (L.) Cronq. [Anderson & Michaud, 2000]	Mare's Tail
<i>Dicranocarpus parviflorus</i> Gray [ <i>Dicranocarpus dicranocarpus</i> (Gray) Woot. & Standl.] [Wooton & Standley, 1915; Emerson, 1935]	
<i>Engelmannia peristenia</i> (Raf.) Goodm. & Laws. [NMC]	Engelmann Daisy
<i>Ericameria nauseosa</i> (Pallas ex Pursh) Nesom & Baird ssp. <i>nauseosa</i> var. <i>latesquamea</i> (Gray) Nesom & Baird [Wooton & Standley, 1915; Emerson, 1935; Shields, 1951] [Reid s.n. (UTEP)]	
<i>Ericameria pulchella</i> (Gray) L. C. Anderson ssp. <i>pulchella</i> [ <i>Chrysothamnus pulchellus</i> (Gray) Greene] [Wooton & Standley, 1915; Emerson, 1935; Shields, 1951] [Echlin 17, Worthington s.n. (UTEP); WSNM; NMC]	Southwest Rabbitbush
? <i>Erigeron bellidiastrum</i> Nutt. var. <i>arenarius</i> (Greene) Nesom Note: Nesom (1990) cited no records from WSNM.	
<i>Erigeron colo-mexicanus</i> A. Nels. [Anderson & Michaud, 2000]	Spreading Daisy
<i>Flourensia cernua</i> DC. [Anderson & Michaud, 2000]	Tarbush; Hojase
<i>Gutierrezia microcephala</i> (DC.) Gray [Echlin 114, Reid s.n. (UTEP); WSNM]	Three Leaf Snakeweed
<i>Gutierrezia sarothrae</i> (Pursh) Britt. & Rusby [Shields, 1951; Anderson & Michaud, 2000] [WSNM]	Broom Snakeweed
<i>Helianthus annuus</i> L. [Shields, 1951]	Common Sunflower
<i>Helianthus petiolaris</i> Nutt. [Reid s.n.(UTEP); WSNM]	Prairie Sunflower
<i>Hymenopappus filifolius</i> Hook. var. <i>cinereus</i> (Rydb.) I. M. Johnst. [ <i>Hymenopappus arenosus</i> Heller] [Wooton & Standley, 1915; Emerson, 1935; Shields, 1951; Turner, 1956] [Dona Ana Co., White Sands, Wooton 167 (DS; MO; NY; RSA-POM; RM; UC; US); Hogg s.n., Worthington s.n., Reid s.n. (UTEP, UCR); NMC; WSNM]	
<i>Hymenoxys odorata</i> DC. [Reid s.n. (UTEP, UCR, NLU)]	
<i>Isocoma pluriflora</i> (Torr. & Gray) Greene [ <i>Isocoma wrightii</i> (Gray) Woot. & Standl.; <i>Haplopappus heterophyllus</i> (Gray) Blake]	Jimmyweed

- [Emerson, 1935; Shields, 1951; Nesom, 1991, mapped]  
 [Echlin 110 (UTEP); NMC; WSNM]
- Iva dealbata* Gray  
 [Jackson, 1960]  
 [Otero Co., White Sands, 28 Aug 1897, Wooton (GH, US)]
- Laennecia coulteri* (Gray) Nesom Coulter Laennecia  
 [Reid s.n.: UTEP]
- Machaeranthera canescens* (Pursh) Gray ssp. *glabra* (Gray)  
 B. Turner var. *glabra*  
 [*Machaeranthera linearis* Greene; *Machaeranthera cichoriacea* Greene]  
 [Wooton & Standley, 1915; Emerson, 1935; Shields, 1951]  
 [Echlin 123 and 124, Hogg s.n. (UTEP); NMC; WSNM]
- Machaeranthera parviflora* Gray  
 [*Aster parvulus* Blake]  
 [Wooton & Standley, 1915; Emerson, 1935]  
 [Hogg s.n. (UTEP, UCR, NLU); NMC; WSNM]
- Machaeranthera pinnatifida* (Hook.) Shinnars var. Lacy Tansyaster  
*pinnatifida*  
 [*Haplopappus spinulosus* (Pursh) DC.; *Sideranthus spinulosus* (Pursh) Sweet]  
 [Emerson, 1935; Shields, 1951; Anderson & Michaud, 2000]  
 [Hogg s.n., Freeman s.n., Shipes s.n., Reid s.n. Worthington s.n. (UTEP); WSNM]
- Machaeranthera tanacetifolia* (H.B.K.) Nees Tansyleaf Machaeranthera  
 [*Aster tanacetifolia* H.B.K.]  
 [WSNM]
- Pectis angustifolia* Torr. var. *angustifolia* Crownseed Pectis  
 [WSNM]  
 Note: Keil (1977) shows only variety *angustifolia* in the area.
- Pseudoclapia arenaria* Rydb. Clappia  
 [*Clappia suaedifolia* A. Gray]  
 [Wooton & Standley, 1915; Emerson, 1935; Shields, 1951; Anderson & Michaud, 2000]  
 [Echlin 28, Hogg s.n., Helfert s.n. (UTEP, UCR, NLU); WSNM]
- Psilostrophe tagetina* (Nutt.) Greene Woolly Paperflower  
 [Wooton & Standley, 1915; Emerson, 1935; Shields, 1951]  
 [Echlin 24, Freeman s.n., Hogg s.n. (UTEP); WSNM]
- Sartwellia flaveriae* Gray  
 [Wooton & Standley, 1915; Emerson, 1935; Turner, 1971]  
 [Patrick s.n.: UTEP; Wooton 2619 (US)]
- Senecio flaccidus* Less var. *flaccidus* Threadleaf Groundsel  
 [Reid s.n. (UTEP); WSNM]
- Senecio riddellii* Torr. & Gray  
 [Shields, 1951, as *spartioides*]  
 [WSNM]
- Stephanomeria pauciflora* (Torr.) A. Nels. Desert Straw; Skeleton Plant  
 [Worthington s.n. (UTEP)]
- Thelasperma megapotamicum* (Spreng.) O. Kuntze Colorado Greenthread  
 [*Thelesperma gracile* (Torr.) Gray]  
 [Wooton & Standley, 1915; Emerson, 1935; Shields, 1951]  
 [Patrick s.n., Echlin 67, Hogg s.n. (UTEP); WSNM]
- Verbesina encelioides* (Cav.) Gray Cowpen Daisy  
 [Shields, 1951]  
 [Reid s.n. (UTEP); WSNM]
- Zinnia grandiflora* Nutt. Plains Zinnia  
 [*Crassina grandiflora* (Nutt.) Kuntze]  
 [Emerson, 1935; Shields, 1951]

## BIGNONIACEAE (Catalpa Family; Bignonia Family)

*Chilopsis linearis* (Cav.) Sweet ssp. *linearis* Desert Willow  
[*Reid s.n.* (UTEP); WSNM]

## BORAGINACEAE (Borage Family)

*Cryptantha fulvocanescens* (Wats.) Payson var. *fulvocanescens* Tawny Cryptantha  
[*Cryptantha fulvocanescens* var. *echinoidea* (M. E. Jones) Higgins]  
[Shields, 1951; Sivinski, 1994; Sivinski, 1998]  
[Otero Co., WSNM, 4 May 1933, *Castetter 2127* (RM; UNM); Walter's Ranch,  
*Reid* (UTEP); brachen dune field, *Reid* (UTEP); WSNM, *Reid* (UTEP)]

*Heliotropium curassavicum* L. Alkali Heliotrope  
[NMC]

*Lappula redowskii* (Hornem.) Greene var. *redowskii* Stickseed  
[Anderson & Mchaud, 2000]

*Tiquilia canescens* (DC.) A. Richards. Shrubby Coldenia  
[*Reid s.n.* (UTEP)]

*Tiquilia hispidissima* (Torr.) A. Richards. Rough Coldenia  
[*Eddyia hispidissima* Torr.]  
[Wooton & Standley, 1915; Emerson, 1935; Shields, 1951; Richardson, 1977; Lozano  
& Reid, 1982; Anderson & Michaud, 2000]  
[Otero Co., White Sands, *Richardson 1613A, 1613B* (TEX-LL); *Echlin 20, Shipes s.n.,*  
*Hogg s.n.* (UTEP, UCR, NLU); NMC; WSNM]

## BRASSICACEAE (Mustard Family)

*Diploaxis tenuifolia* (L.) DC.  
[*Boll s.n.*: UTEP]

*Dimorphocarpa wislizenii* (Engelm.) Rollins Desert Spectaclepod  
[Shields, 1951; Rollins, 1979]  
[Records: 22 mi. SW of Alamogordo, *Rowell 8878* (GH); White Sands, *Reid* (UTEP);  
WSNM]

*Lepidium alyssoides* Gray var. *angustifolium* (C. L. Hitchc.) Mountain Pepperweed  
Rollins  
[Shields, 1951; Anderson & Michaud, 2000]  
[*Worthington s.n.* (UTEP, UCR); WSNM]

*Lesquerella gordonii* (Gray) Wats. Gordon's Bladderpod  
[Anderson & Michaud, 2000]

*Nerisyrenia camporum* (Gray) Greene Mesa Greggia  
[Wooton & Standley, 1915; Bacon, 1978]  
[Otero Co., 2 mi. NE entrance to White Sands Natl. Park, *Waterfall 10580* (TEX-LL;  
BRIT); *Echlin s.n., Reid s.n.* (UTEP, UCR, NLU); WSNM]

*Nerisyrenia linearifolia* (S. Wats.) Greene Narrowleaf Greggia  
[Wooton & Standley, 1915; Emerson, 1935; Rollins, 1939; Shields, 1951; Bacon, 1978;  
Anderson & Michaud, 2000]  
[Dona Ana Co., White Sands, Jul 1897, *Wooton 158* (US); Otero Co., White Sands,  
*Berkman, Lee & Tharp 46060* (TEX-LL; BRIT); Otero Co., 32.1 mi. NE of Las Cruces,  
*Bacon 1046* (TEX-LL); *Reid s.n., Worthington s.n., Freeman s.n., Hogg s.n.* (UTEP, UCR,  
NLU); WSNM]

*Sisymbrium irio* L. London Rocket  
[*Echlin s.n.* (UTEP); WSNM]

*Streptanthus carinatus* Wright ssp. *arizonicus* (S. Wats.)  
 Kurckeberg *et al.*  
 [WSNM]  
 Note: The flowers on the above specimen are faded. They were judged to  
 have been yellow in life hence assignment to the ssp. *arizonicus*.

## CACTACEAE (Cactus Family)

- Coryphantha macromeris* Britt. & Rose var. *macromeris* Nipple Beehive Cactus  
 [Reid Patrick & Lozano, 1981; Heil & Brack, 1986; Anderson & Michaud, 2000]
- Coryphantha scheeri* (Kunz.) Benson var. *vallida* (Engelm.) Benson Mulee  
 [Reid, Partick and Lozano, 1981, as var. *uncinata*; Heil & Brack, 1986; Anderson  
 & Michaud, 2000]
- Coryphantha vivipara* (Nutt.) Britt. & Rose var. *radiosa* (Engelm.)  
 Backeb. Spiny-star Cactus  
 [*Coryphantha fragrans* Hester]  
 [Reid, Patrick & Lozano, 1981, also var. *vivipara*;; Lozano & Reid, 1982; Heil & Brack, 1986,  
 as var. *neomexicana*; Anderson & Michaud, 2000]
- Echinocactus horizonthalonius* Lemaire var. *horizonthalonius* Devil's Head; Eagles Claw  
 [Reid, Patrick & Lozano, 1981; Heil & Brack, 1986]
- Echinocereus coccineus* Engelm. var. *gurneyi* (Benson) Heil & Brack Claret-cup  
 [Wooton & Standley, 1915, as *E. gonacanthus*; Emerson, 1935; Reid, Patrick & Lozano, 1981,  
 as var. *gonacanthus* (Engelm.) Britt. & Rose; Lozano & Reid, 1982; Heil & Brack, 1986;  
 Anderson & Michaud, 2000, as var. *arizonica*]  
 [Worthington *s.n.*: UTEP); WSNM]
- Echinocereus fendleri* (Engelm.) Engelm. var. *rectispinus* Fendler's Hedgehog Cactus  
 (Peebles) Benson  
 [Reid, Patrick and Lozano, 1981; Heil & Brack, 1986]
- Opuntia engelmannii* Engelm. var. *engelmannii* Engelmann's Prickly Pear  
 [*Opuntia phaeacantha* Engelm. var. *discata* (Griffiths) L. Benson  
 & Walkington]  
 [Reid, Patrick & Lozano, 1981; Heil & Brack, 1986]
- Opuntia imbricata* (Haw.) DC. var. *imbricata* Tree Cholla  
 [*Opuntia arborescens* Engelm.]  
 [Reid, Patrick and Lozano, 1981; Lozano & Reid, 1982; Heil & Brack, 1986]
- Opuntia kleiniae* DC. var. *kleiniae* Klein Cholla  
 [Reid, Patrick and Lozano, 1981; Heil & Brack, 1986]
- Opuntia leptocaulis* DC. Christmas Cactus  
 [Reid, Patrick and Lozano, 1981; Lozano & Reid, 1982; Heil & Brack, 1986;  
 Anderson & Michaud, 2000]
- Opuntia macrocentra* Engelm. var. *macrocentra* Purple Prickly Pear  
 [Reid, Patrick & Lozano, 1981; Heil & Brack, 1986; Anderson & Michaud,  
 2000]
- Opuntia macrorhiza* Engelm. var. *pottsii* (Salm-Dyck) Benson Plains Prickly Pear  
 [Reid, Patrick & Lozano, 1981; Lozano & Reid, 1982; Heil & Brack, 1986]
- Opuntia phaeacantha* Engelm. var. *phaeacantha* New Mexico Prickly Pear  
 [Heil & Brack, 1986]
- Opuntia phaeacantha* Engelm. var. *brunnea* Engelm. Prickly Pear  
 [Heil & Brack, 1986]
- Opuntia polyacantha* Haw. var. *rufispina* (Engelm. & Bigelow) Plains Prickly Pear  
 Benson  
 [Reid, Patrick & Lozano, 1981; Heil & Brack, 1986]  
 [WSNM]
- Peniocereus greggii* (Engelm.) Britt. & Rose Night Blooming Cereus  
 [Heil & Brack, 1986]
- Sclerocactus papyracanthus* (Engelm.) N. P. Taylor Grama Grass Cactus

[*Pediocactus papyracanthus* (Engelm.) L. Benson]  
[Reid, Patrick & Lozano, 1981; Lozano & Reid, 1982; Heil & Brack, 1986]

## CAPPARIDACEAE (Caper Family)

*Koeberlinia spinosa* Zucc. Allthorn  
[Anderson & Michaud, 2000]  
[WSNM]

## CHENOPODIACEAE (Goosefoot Family)

*Allenrolfia occidentalis* (Wats.) Kuntze Pickleweed  
[Wooton & Standley, 1915; Emerson, 1935; Shields, 1951; Anderson & Michaud, 2000]  
[Echlin 47, Reid s.n. (UTEP); WSNM]

*Atriplex canescens* (Pursh) Nutt. Fourwing Saltbush.  
[Emerson, 1935; Shields, 1951; Lozano & Reid, 1982; Anderson & Michaud, 2000]  
[Echlin 126, Worthington s.n., Reid s.n. (UTEP); WSNM]

*Bassya hyssopifolia* (Pall.) Kuntze Five Hook Bassia  
[WSNM]

*Salsola tragus* L. Tumbleweed; Russian Thistle  
[*Salsola kali* L.; *S. iberica* Senn. & Pau.; *S. pestifer* A. Nels.; *S. australis* R. Br.]  
[Shields, 1951]  
[Hogg s.n. (UTEP)]

*Suaeda calceoliformia* (Hook.) Moq. Pursh Seepweed  
[*Suaeda depressa* auct. non (Pursh) Wats.]  
[Echlin 118 (UTEP, UCR, NLU)]

*Suaeda moquinii* (Torr.) Greene  
[*Suaeda torreyana* S. Wats.; *Dondia moquini* (Torr.) A. Nels.]  
[Wooton & Standley, 1915; Emerson, 1935]  
[Mills 55, Patrick s.n., Reid s.n., Hogg s.n. (UTEP)]

*Suaeda suffrutescens* S. Wats. var. *detonsa* I. M. Johnst. Shrubby Seepweed  
[*Suaeda nigrescens* I. M. Johnst. var. *glabra* I. M. Johnst.; *Dondia suffrutescens* (S. Wats.) Heller]  
[Wooton & Standley, 1915; Emerson, 1935; Johnston, 1943; Shields, 1951; Hopkins & Blackwell, 1977]  
[Echlin 105 (UTEP); NMC; Fisher 54 (F); Otero Co., White Sands, Archer 7334 (GH), as var. *detonsa* Johnston; WSNM]

## CONVOLVULACEAE (Morning Glory Family)

*Cressa truxillensis* H.B.K. Alkali Weed  
[Helfert 20 (UTEP, NLU); WSNM]

*Ipomoea purpurea* (L.) Roth. Common Morning Glory  
[*Ipomoea hirsutula* Jacq. f.]  
[Wooton & Standley, 1915; Emerson, 1935]

## CUCURBITACEAE (Gourd Family)

*Cucurbita foetidissima* H.B.K. Buffalo Gourd  
[Emerson, 1935; Shields, 1951]  
[Reid s.n.: UTEP]; WSNM]

## EUPHORBIACEAE (Spurge Family)



<i>Chamaesyce lata</i> (Engelm.) Small [Wooton & Standley, 1915]	Hoary Euphorbia
<i>Chamaesyce serrula</i> (Engelm.) Woot. & Standl. [Wooton & Standley, 1915; Emerson, 1935; Wheeler, 1941] [Record: beside the White Sands, 24 Aug 1899, <i>Wooton</i> (US)]	Sawtooth Spurge
<i>Croton dioicus</i> Cav. [ <i>Reid s.n.</i> (UTEP); WSNM]	Grassland Croton

### FABACEAE (Legume Family)

<i>Astragalus allochrous</i> Gray var. <i>playanus</i> (M. E. Jones) Isely [ <i>Astragalus wootonii</i> Sheld.] [Wooton & Standley, 1915] [WSNM]	Halfmoon Loco
<i>Dalea formosa</i> Torr. [ <i>Reid s.n.</i> (UTEP, UCR)]	Feather Plume
<i>Hoffmannseggia glauca</i> (Ort.) Eifert [ <i>Mills s.n.</i> , <i>Reid s.n.</i> (UTEP)]	Indian Rushpea
<i>Psoralea scoparius</i> (Gray) Rydb. [Barneby, 1977; Anderson & Michaud, 2000] [ <i>Helfert</i> 19 (UTEP); WSNM]	Broom Psoralea
<i>Prosopis glandulosa</i> Torr. var. <i>torreyana</i> (L. Benson) M. C. Johnst. [Shields, 1951; Anderson & Michaud, 2000] [ <i>Helfert</i> 6, <i>Reid s.n.</i> (UTEP, UCR); WSNM]	Mesquite

### FOUQUIERIACEAE (Ocotillo Family)

<i>Fouquieria splendens</i> Engelm. ssp. <i>splendens</i> [ <i>Reid s.n.</i> (UTEP)]	Ocotillo
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### FRANKENIACEAE (Frankenia Family)

<i>Frankenia jamesii</i> Torr. [Wooton & Standley, 1915; Emerson, 1935; Shields, 1951; Whalen, 1987] [ <i>Hogg s.n.</i> , <i>Echlin</i> 27 (UTEP, UCR, NLU); White Sands, <i>Wooton</i> 171 (CAS, G, GH, MO, NMC, NY, UC); 10 mi. W Alamogordo, 15 Jul 1905, <i>Wooton</i> (NMC); 15 mi. SW of Alamogordo, <i>Parker</i> 2258 (UC, US); WSNM, <i>Anderson</i> 6198 (WSMR); WSNM]	
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### GENTIANACEAE (Gentian Family)

<i>Centaurium marryanum</i> Turner [Emerson, 1935, as <i>C. texense</i> ; Shields, 1951, as <i>C. texense</i> ; Turner, 1993] [ <i>Helfert</i> 22, <i>Echlin</i> 48, <i>Patrick s.n.</i> (UTEP, UCR, NLU); White Sands, 25 Oct 1935, <i>Hershey s.n.</i> (NMC); 13 mi. SW of Alamogordo, interdunal flats, 01 May 1983, <i>Soreng &amp; Spellenberg</i> 2107 (NMC); gypsum sand hills at WSNM, 27 Aug 1951, <i>Warnock</i> 10055 (SRSC); WSNM] Note: Turner (1993) treats <i>C. calycosum</i> as <i>C. arizonicum</i> and maps no records from Otero Co., NM.	
<i>Eustoma grandiflorum</i> (Raf.) Shinnery [ <i>Eustoma russellianum</i> (Hook.) Griseb.] [Wooton & Standley, 1915; Emerson, 1935]	

### HYDROPHYLLACEAE (Waterleaf Family)

- Nama carnosum* C. L. Hitchc. Sand Nama  
 [*Nama stenophyllum* Gray ex Hemsl. var. *egenum* J. F. Macbr.; *Andropus carnosus* (Wooton) Brand]  
 [Wooton, 1898; Wooton & Standley, 1915; Hitchcock, 1933; Emerson, 1935; Shields, 1951; Bacon, 1974,]  
 [Dona Ana Co., White Sands, Wooton 164 (UC; RSA-POM; MO; US-Type); Otero Co., 3.5 mi. into White Sands Natl. Monument, Bacon 1048 (TEX-LL); Helfert 23, Echlin 65, Reid s.n. (UTEP, UCR, NLU); WSNM]
- Nama hispidum* Gray Rough Nama  
 [Reid s.n. (UTEP); WSNM]
- Phacelia integrifolia* Torr. Crenate Leaf Phacelia  
 [Emerson, 1935, as *P. corrugata*; Shields, 1951, as *P. corrugata*; Anderson & Michaud, 2000, as *P. coerulea*]  
 [WSNM]  
 Note: The name *Phacelia corrugata* is on one list (Woot. & Standl. 1915), however Atwood (1975) shows that form as not occurring in the area. Collections need to be reviewed to determine if they are var. *texana* or *integrifolia*.

## LAMIACEAE (Mint Family)

- Poliomintha incana* (Torr.) Gray Hoary Rosemarymint  
 [Wooton & Standley, 1915; Emerson, 1935; Shields, 1951; Irving, 1972; Anderson & Michaud, 2000]  
 [Helfert 3, Worthington s.n., Freeman s.n., Reid s.n., Hogg s.n. (UTEP, UCR, NLU); White Sands, 19 Jun 1899, Wooton s.n. (DS, MICH, NMC, POM, TEX-LL, UC, US); WSNM; Anderson 6199 (WNMR)]

## LOASACEAE (Stick Leaf Family)

- Cevallia sinuata* Lag. Stinging Cevallia  
 [Reid s.n. (UTEP, UCR, NLU)]
- Mentzelia multiflora* (Nutt.) Gray var. *integra* M. E. Jones Desert Mentzelia  
 [*Mentzelia integra* (M. E. Jones) Tidestrom]  
 [Emerson, 1935; Shields, 1951]  
 [Hogg s.n., Worthington s.n. (UTEP); NMC; WSNM]
- Mentzelia pumila* (Nutt.) Torr. var. *pumila* Blazing Star  
 [*Mentzelia pumila* (Nutt.) Torr. var. *procera* (Woot. & Standl.) J. Darl.  
 [Wooton & Standl., 1915; Darlington, 1934; Emerson, 1935; Anderson & Michaud, 2000]  
 [White Sands, 31 Aug 1904, 20 Jul 1901, Wooton (US)]

## MALVACEAE (Mallow Family)

- Malvella lepidota* (Gray) Fryxell  
 [*Disella lepidota* (Gray) Greene]  
 [Emerson, 1935]
- Sphaeralcea angustifolia* (Cav.) D. Don Narrowleaf Globemallow  
 ssp. *cuspidata* (Gray) Kearney  
 [*Sphaeralcea cuspidata* (Gray) Britt.]  
 [Wooton & Standley, 1915; Emerson, 1935; Anderson & Michaud, 2000]  
 [Reid s.n. (UTEP); WSNM]
- Sphaeralcea hastulata* Gray  
 [*Sphaeralcea subhastata* Coult.; *Sphaeralcea arenaria* Woot. & Standl.]

[Wooton & Standley, 1915; Emerson, 1935; Kearney, 1935]  
[Records: White Sands, *Wooton* 165 (Type of *S. arenaria*: US, Isotypes GH, MO, RM, NY);  
White Sands, *Freeman* (UTEP), *Reid* (UTEP), *Helfert* 16 (UTEP)]

*Sphaeralcea incana* Torr. ex Gray

[Emerson, 1935; Kearney, 1935; Shields, 1951]

[Records: White Sands, *Wooton* 556 (NY); White Sands, 1904, *Wooton* (US)]

## NYCTAGINACEAE (Four O'Clock Family)

*Abronia angustifolia* Greene

Narrowleaf Sandverbena

[Standley, 1909; Emerson, 1935; Shields, 1951; Galloway, 1975; Lozano & Reid, 1982]

[*Echlin* 8, *Freeman s.n.*, *Worthington s.n.*, *Reid s.n.* (UTEP); NMC; White Sands,  
16 Jul 1897, *Wooton* 157 (Type of *A. angustifolia*: US); WSNM]

Note: Some of the collections at UTEP are perennial plants which  
suggests they may be *Abronia carletonii* Coult. & Fish.

*Allionia choisyi* Standl.

Smooth Umbrellawort

[*Echlin* 115 and 121 (UTEP); WSNM]

*Ammocodon chenopodioides* (Gray) Standl.

Goosefoot Moonpod

[*Selinocarpus chenopodioides* Gray]

[Wooton & Standley, 1915; Shields, 1951]

*Cyphomeris gypsophiloides* (Mart. & Gal.) Standl.

Red Cyphomeris

[*Reid s.n.* (UTEP); WSNM]

*Selinocarpus lanceolatus* Woot.

Gyp Moonpod

[Wooton, 1898; Standley, 1909; Wooton & Standley, 1915; Emerson, 1935; Shields,  
1951; Fowler & Turner, 1977, mapped; Anderson & Michaud, 2000]

[*Echlin* 106, *Worthington s.n.* (UTEP); NMC; White Sands, 1897, 1899, *Wooton*;  
WSNM; *Wooton* 389 (at US?) collected just S of White Sands on white soil, 4000  
ft., 26 Aug (1897?) is the type]

## ONAGRACEAE (Evening Primrose Family)

*Calylophus hartwegii* (Benth.) Raven

[Wooton & Standley, 1915; Munz, 1929; Emerson, 1935; Shields, 1951; Towner, 1977]

ssp. *filifolius* (Eastw.) Towner & Raven

[Gregory & Klein, 1960]

[White Sands, Aug 1896, *Cockerell* (Type: CAS); Dona Ana Co., White Sands, 1899,  
*Wooton* 660 (US); Otero Co., White Sands, 1899, *Wooton* (US); White Sands Natl. Monument,  
*Munz & Gregory* 23335 (RSA-POM); *Echlin* 52, *Reid s.n.*, *Hogg s.n.*, *Freeman s.n.* (UTEP)]

*Gaura coccinea* Nutt. ex Pursh

Scarlet Gaura

[*Helfert* 17, *Freeman s.n.* (UTEP); WSNM]

*Oenothera albicaulis* Pursh

Prairie Evening Primrose

[Shields, 1951]

[*Worthington s.n.* (UTEP)]

*Oenothera pallida* Lindl. ssp. *gypsophila* (Eastw.) Munz & Klein

Pale Evening Primrose

[*Anogra gypsophila* (Eastw.) Heller]

[Wooton & Standley, 1915; Munz, 1931; Emerson, 1935; Gregory & Klein, 1960]

[Otero Co., White Sands, *Wooton* 162 (GH; RSA-POM; DS; US), 19 Jul 1897, *Wooton* (US);  
White Sands National Monument, *Gregory* 309-313 (RSA-POM); Dona Ana Co., White Sands,  
*Wooton & Standley* 3542 (US); *Echlin* 31, *Reid s.n.* (UTEP); NMC; WSNM]

## PLUMBAGINACEAE (Leadwort Family)

*Limonium limbatum* Small

Sea-lavender

[Wooton & Standley, 1915]

[*Echlin* 103, *Helfert* 13 (UTEP, UCR); NMC]

## POLEMONIACEAE (Phlox Family)

*Ipomopsis pumila* (Nutt.) V. Grant Low Ipomopsis  
[Wooton & Standley, 1915; Emerson, 1935; Anderson & Michaud, 2000]  
[Reid s.n. (UTEP); NMC; NMC]

## RUBIACEAE (Madder Family)

*Galium proliferum* Gray Great Basin Beadstraw  
[NMC]

## SALICACEAE (Willow Family)

*Populus deltoides* Bartr. ex Marsh. ssp. *wislizenii* (Wats.) Eckenwalder Rio Grande Cottonwood  
[*Populus wislizeni* (S. Wats.) Sarg.  
[Emerson, 1935; Shields, 1951; Lozano & Reid, 1982]  
[Echlin 14, *Worthington s.n.* (UTEP, NLU); WSNM]  
*Salix gooddingii* Ball Goodding Willow  
[Wooton & Standley, 1915; Emerson, 1935, as *S. nigra* Marsh]

## SANTALACEAE (Sandalwood Family)

*Comandra umbellata* (L.) Nutt. ssp. *pallida* (A. DC.) Piehl Bastard Toadflax  
[Shields, 1951; Piehl, 1965]  
[Reid s.n., *Helfert 1*, *Worthington s.n.* (UTEP, UCR, NLU); Otero Co., White  
Sands Natl. Monument, *Piehl 59348* (GF, MICH, UC, US); WSNM]

## SCROPHULARIACEAE (Figwort Family)

*Linaria dalmatICA* (L.) Mill.  
[WSNM]

## SOLANACEAE (Potato Family)

*Datura wrightii* Regal Jimsonweed; Indian Apple  
[WSNM]  
*Lycium berlandieri* Dunal var. *parviflorum* (Gray) Terrac. Berlandier Wolfberry  
[*Lycium parviflorum* Gray]  
[Wooton & Standley, 1915; Hitchcock, 1932; Emerson, 1935; Shields, 1951;  
Anderson & Michaud, 2000]  
[*Helfert 20*, *Reid s.n.* (UTEP); NMC; 08 Aug 1905, *Wooton* (US); 24 Aug 1899,  
*Wooton* (US)]  
*Lycium pallidum* Miers Pale Wolfberry  
[Shields, 1951]  
[*Helfert 9*, *Echlin 19* and *45* (UTEP); WSNM]  
*Lycium torreyi* Gray Torrey Wolfberry  
[Shields, 1951]  
*Solanum elaeagnifolium* Cav. Purple Nightshade  
[Anderson & Michaud, 2000]  
[*Reid s.n.* (UTEP); NMC; WSNM]

## TAMARICACEAE (Tamarix Family)

*Tamarix ramosissima* Ledebour  
[*Tamarix gallica* L.]  
[Anderson & Michaud, 2000]  
[*Reid s.n.* (UTEP); WSNM} Salt Cedar

### **VERBENACEAE (Vervain Family)**

*Phyla nodiflora* (L.) Greene var. *incisa* (Small) Moldenke  
[*Phyla incisa* Small]  
[Wooton & Standley, 1915; Emerson, 1935]  
[NMC] Sawtooth Fogfruit

### **ZYGOPHYLLACEAE (Caltrop Family)**

*Kallstroemia hisrutissima* Vail  
[Wooton & Standley, 1915]  
*Larrea tridentata* (DC.) Coville  
[Anderson & Michaud, 2000]  
[*Reid s.n.* (UTEP); WSNM] Creosotebush; Gobernadora

## **LILIOPSIDA (Monocots)**

### **AGAVACEAE (Agave Family)**

*Yucca elata* (Engelm.) Engelm. var. *elata*  
[Wooton & Standley, 1915; Emerson, 1935; Lozano & Reid, 1982;  
Anderson & Michaud, 2000]  
[*Worthington s.n.* (UTEP); WSNM] Soaptree Yucca

### **CYPERACEAE (Sedge Family)**

*Bulboschoenus maritimus* (L.) Pallas ssp. *paludosus* (Nelson)  
A. & D. Love  
[*Echlin* 119 (UCR, NLU); WSNM]  
*Schoenoplectus americanus* (Pers.) A. von Volkart  
[*Scirpus olneyi* Gray]  
[*Echlin* 119 (UTEP)] Bullrush

### **JUNCACEAE (Rush Family)**

*Juncus mexicanus* Willd.  
[Emerson, 1935]  
[NMC; WSNM; UTEP] Rush  
*Juncus torreyi* Coville  
[NMC] Torrey Rush

### **POACEAE (Grass Family)**

*Achnatherum hymenoides* (Roem. & Schult.) Barkworth  
[*Oryzopsis hymenoides* (Roem. & Schult.) Ricker]  
[Emerson, 1935; Anderson & Michaud, 2000]  
[*Echlin* 73 (UTEP); WSNM] Indian Ricegrass  
*Aristida adscensionis* L. Sixweeks Threawn

[ <i>Aristida bromoides</i> Kunth] [Hitchcock, 1924; Emerson, 1935; Anderson & Michaud, 2000] [White Sands, Wooton 396; Reid s.n.: UTEP]; WSNM]	
<i>Aristida purpurea</i> Nutt. var. <i>longiseta</i> (Steud.) Vasey [Hitchcock, 1924] [White Sands, Wooton 404 (Hitchcock, 1924)]	
<i>Bouteloua barbata</i> Lag. var. <i>barbata</i> [Wooton & Standley, 1915; Emerson, 1935] [NMC]	Sixweeks Grama
<i>Bouteloua breviseta</i> Vasey [Emerson, 1935; Reeder & Reeder, 1980] [Echlin 111 (UTEP); NMC; White Sands, 31 Aug 1904, Wooton 2964 (US), 31 Aug 1978, Reeder & Reeder 6964 (ARIZ, US); WSNM]	Gyp Grama
<i>Chloris crinita</i> Lag. [WSNM]	False Rhodesgrass
<i>Distichlis spicata</i> (L.) Greene var. <i>stricta</i> (Torr.) Beetle [Wooton & Standley, 1915; Emerson, 1935] [Echlin 120 (UTEP, UCR, NLU); WSNM]	Inland Saltgrass
<i>Muhlenbergia arenacea</i> (Buckl.) A. S. Hitchc. [ <i>Sporobolus auriculatus</i> Vasey] [Emerson, 1935; Anderson & Michaud, 2000]	Ear Muhly
<i>Muhlenbergia asperifolia</i> (Nees & Mey) Parodi [ <i>Sporobolus asperifolius</i> (Nees & Mey.) Nees] [Wooton & Standley, 1915; Emerson, 1935]	Scratchgrass
<i>Muhlenbergia porteri</i> Scribn. ex Beal [Anderson & Michaud, 2000]	Bush Muhly
<i>Muhlenbergia pungens</i> Thurb. [Wooton & Standley, 1915; Emerson, 1935; Lozano & Reid, 1982] [Reid s.n. (UTEP, UCR, NLU); NMC; WSNM]	Sandhill Muhly
<i>Phragmites australis</i> (Cav.) Trin. ex Steud. [WSNM]	Common Reed
<i>Pleuraphis mutica</i> Buckl. [ <i>Hilaria mutica</i> (Buckl.) Benth.] [Anderson & Michaud, 2000] [Reid s.n. (UTEP, UCR)]	Tobosa; Tobosagrass
<i>Schizachyrium neomexicanum</i> (Nash) Nash [Emerson, 1935] [WSNM; Reid s.n. (UTEP, UCR, NLU)]	New Mexico Bluestem
<i>Scleropogon brevifolius</i> Phil. [Anderson & Michaud, 2000] [Reid s.n. (UTEP); WSNM]	Burrograss
<i>Setaria leucopila</i> (Scribn. & Merr.) K. Schum. [Reid s.n. (UTEP)]	Plains Bristlegrass
<i>Sporobolus airoides</i> (Torr.) Torr. [Wooton & Standley, 1915; Emerson, 1935; Lozano & Reid, 1982; Anderson & Michaud, 2000] [Echlin 104, Helfert s.n. (UTEP); WSNM]	Alkalisacaton
<i>Sporobolus contractus</i> A. S. Hitchc. [Anderson & Michaud, 2000] [NMC]	Spike Dropseed
<i>Sporobolus cryptandrus</i> (Torr.) Gray [WSNM]	Sand Dropseed
<i>Sporobolus flexuosus</i> (Thurb. ex Vasey) Rydb. [Wooton & Standley, 1915; Emerson, 1935; Anderson & Michaud, 2000] [Worthington s.n. (UTEP)]	Mesa Dropseed
<i>Sporobolus giganteus</i> Nash	Giant Dropseed

[Wooton & Standley, 1915; Emerson, 1935]  
[*Reid s.n.* (UTEP, UCR); WSNM]  
*Sporobolus nealleyi* Vasey Gypgrass  
[Wooton & Standley, 1915; Emerson, 1935; Anderson & Michaud, 2000]  
[WSNM]

## **TYPHACEAE (Cat-tail Family)**

*Typha angustifolia* L. Cat-tail  
[WSNM; *Echlin* 116 (UTEP), vegetative collection]

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