THE VASCULAR FLORA OF
KERR WILDLIFE MANAGEMENT AREA, KERR COUNTY, TEXAS

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ABSTRACT
An inventory of the vascular plants of Kerr Wildlife Management Area, Kerr County, Texas, was conducted from 2006 to spring 2009. The area consists of 21 natural plant community associations and three land use classes. The Sawgrass-Spikesedge-Beakrush-Black Bogrush-Aparejograss Herbaceous Vegetation Association, and Ashe Juniper-Bastard Oak-Plateau Live Oak Woodland Association is reported as new to the state. The checklist reports 719 taxa from 106 families and 410 genera, with 27 of the species being endemic to the state. The largest families were Asteraceae (113 species), Poaceae (109 species), Fabaceae (38 species), and Euphorbiaceae (34 species). Non-native species comprised 9.04% (65 species) of the flora. Among the more unusual plant records for the area, which consists of a mixture of eastern and western species, are *Rhynchospora capillacea*, *Petrophytum caespitosum*, and *Echeandia flavescens*. Statistics on the adequacy of sampling and a comparative vegetation analysis are also presented.

Kerr Wildlife Management Area (KWMA) is located in the south central portion of the Edwards Plateau vegetation area (Terletzkey & Van Auken 1996; Van Auken 1988). Geologically, KWMA is characterized by dry and seepy limestone cliffs, canyons with shaded ravines and boulders, outcrops, glades, spring-fed drainages, and the Guadalupe River. Vegetatively, the Edwards Plateau has been described as a region of significant endemism (Correll & Johnston 1970). Carr (2008) lists 88 species as endemic to the region. Additionally, Plateau vegetation is distinctive because of woody eastern species that are present as disjuncts or reach the western limits of their distribution there. These include *Lindera benzoin*, *Bignonia capreolata*, *Hamamelis virginiana*, *Aesculus pavia*, *Ulmus rubra*, *Aristolochia serpentaria*, *Berchemia scandens*, *Morus rubra*, *Tilia americana*, and *Menispermum canadense*. Herbaceous vegetation with a similar distribution pattern, which is generally not discussed in this context, includes *Scleria verticillata*, *Bromus pubescens*, *Paronychia virginica*, *Ageratina altissima*, *Silphium radula*, *Mitreola petiolaris*, *Aquilegia canadensis*, *Hypericum drummondii*, and *H. mutilum*. A brief summary of the early botanical exploration of the Plateau region is in Singhurst et al. (2007).

KWMA was purchased from the Presbyterian MO Ranch Assembly by the Texas Game and Fish Com-
mission (now Texas Parks and Wildlife Department) in June 1950 with funds made available by the Pittman-Robertson Wildlife Restoration Act. The initial purpose of KWMA was to serve as a wildlife research and demonstration area where biologists could study and evaluate wildlife and habitat management practices. During the 1960s, the objectives of the KWMA were expanded to include maintaining optimal productivity of range land, thus maximizing monetary return, while sustaining maximum wildlife resources. This objective permitted the initial habitat manipulation, particularly the clearing of large areas of mature Ashe juniper (Juniperus ashei) for both range and wildlife habitat enhancement. In 1989, more flexible multiple-use goals, which included research, demonstration, education, preservation, conservation, and recreation, were adopted and are currently used as a management guide.

MATERIALS AND METHODS

The checklist is largely based upon examination of specimens collected between 1955 and 2001 which are deposited in the Baylor University Herbarium (BAYLU). Additional specimens from the University of Texas Herbarium (TEX and LL), Kerr WMA Herbarium (acronym KWMA used within), and the S.M. Tracy Herbarium (TAES) were also examined. Field studies were conducted from 2006 through spring 2009, with emphasis on finding species expected to be present, but not yet vouchered. These specimens were also deposited at BAYLU.

Nomenclature generally follows that of Correll and Johnston (1970), with updates and corrections as needed from Hatch et al. (1990), Jones et al. (1997), and NRCS, USDA (2010).

The vegetational analysis compared species richness of floristic inventories of various areas (see Table 1) of Texas. Documented species lists were compared against Arrhenius’ (1921) model subsequently adapted by Williams and Lutterschmidt (2006) in order to determine the adequacy of the KWMA sampling effort. Species richness and geographic area of KWMA, nine selected sites, and the state of Texas, were log-transformed into a database. A statistical relation of species richness as a function of geographic area produces a theoretical slope (c) and intercept (d) based on this formula: \( S = dA^c \) (Arrhenius 1921). A linear function is created from this log-transformed data and the slope determines a theoretical value of species fidelity equated per unit area and thereby an empirical measure of sampling effort. Arrhenius (1921) first fit a model to data on increasing species number with increasing size of area sampled. Relationship between species and area partly arises because of increasing likelihood of habitat diversity with increasing area sampled (Diamond 1988). Arrhenius explicitly stated that his power formula, \( S = S(A) = dA^c \), was empirical and should be regarded as an approximation whose existence was entirely dependent on agreement with data from lists of flora that he had obtained. Because his formula calculated an average number of species occurring in an area, he also contemplated the problem of establishing a stochastic model for species richness in smaller land parcels consumed by a larger land mass. In order to relate area to species occurrence, Arrhenius assumed that any individual of any species of this smaller area must have an equal opportunity of occurrence in the larger area and thus probability could be expected. However, expectation in occurrence contrasts sharply with the difficulties of explaining variance by this equation (Ugland et al. 2003). It is suggested that a disturbance regime, or lack of one, is a significant contributor to relationship exceptions and variance. Similar approaches have been taken more or less independently by several authors who examined the distribution of individuals and presence/absence pattern of species (e.g. Gleason 1922; Hurlbert 1971; Heck et al. 1975; Brewer & Williamson 1980; Coleman 1981; Ney-Nifile & Mangel 1999; Williams & Lutterschmidt 2006). All of the proposed formulae may be regarded as variants of Arrhenius’s (1921) original model. For an historical review of species-area curves, see McGuinness (1984).

The Sørenson coefficient (1948; also known as “quotient of similarity,” was used as a community similarity index to compare KWMA to both Mason Mountain WMA and Enchanted Rock State Natural Area (ERSNA) to quantitatively assess the best floristic comparison. Numbers of species within each of the three areas were cross-checked for commonality of species occurrence and used as: \( CC = 2c / s_1 + s_2 \), where \( s_1 \) and \( s_2 \) are species number in communities 1 and 2, respectively, \( c \) is the number of species common to
**Table 1.** Known values of species richness for vascular plants and associated geographic area from published and unpublished inventories in Texas, USA.

<table>
<thead>
<tr>
<th>Region</th>
<th>Species number</th>
<th>Predicted Species</th>
<th>Area (km²)</th>
<th>Citation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amistad NRA</td>
<td>707</td>
<td>498.96</td>
<td>57.422</td>
<td>Poole (unpub.)</td>
</tr>
<tr>
<td>Big Lake Bottom WMA</td>
<td>459</td>
<td>413.09</td>
<td>17.018</td>
<td>Fleming et al. 2002</td>
</tr>
<tr>
<td>Enchanted Rock SNA</td>
<td>555</td>
<td>357.61</td>
<td>6.7234</td>
<td>O’Kennon (unpub.)</td>
</tr>
<tr>
<td>Fairfield Lake SRA</td>
<td>497</td>
<td>351.06</td>
<td>5.9697</td>
<td>Do 1996</td>
</tr>
<tr>
<td>Fort Hood Military Res.</td>
<td>988</td>
<td>764.55</td>
<td>896.3829</td>
<td>Hansen (unpub.)</td>
</tr>
<tr>
<td>Gus Engeling WMA</td>
<td>920</td>
<td>480.60</td>
<td>45.1060</td>
<td>Singhurst et al. 2003</td>
</tr>
<tr>
<td>Kerr WMA</td>
<td>719</td>
<td>442.84</td>
<td>26.6313</td>
<td>Singhurst et al. this paper</td>
</tr>
<tr>
<td>Madison County</td>
<td>985</td>
<td>803.69</td>
<td>21.6859</td>
<td>Neill and Wilson 2001</td>
</tr>
<tr>
<td>Mason Mountain WMA</td>
<td>693</td>
<td>428.93</td>
<td>1236.3422</td>
<td>Singhurst et al. 2007</td>
</tr>
<tr>
<td>McLennan County</td>
<td>1118</td>
<td>907.22</td>
<td>2697.5428</td>
<td>Hannick 2009 (unpub. thesis)</td>
</tr>
<tr>
<td>Texas</td>
<td>5524</td>
<td>2140.26</td>
<td>677940.3</td>
<td>Diggs et al. 1999</td>
</tr>
</tbody>
</table>

The Sørenson coefficient is an adaptation of Jaccard’s (1902) coefficient of community originally stated as: $CC_J = c / (s_1 + s_2) – c$ and was originally utilized to accompany data consisting of presence or absence of species. The following caution should be noted: for a given amount of similarity between communities, the similarity indices (Sørenson and Jaccard) do not necessarily express the same quantitative values. Thus, both express similarity between communities, but should not be compared against each other. Assessment of overlapping plant associations and groupings applying similarity indices are attempts to quantify niche overlap, an arena of significant disagreement among contemporary ecologists (Looman & Campbell 1960; Hurlbert 1978; Abrams 1980; Wallace 1981; Hurlbert 1982; Abrams 1982; Ungland et al. 2003).

Based on dominant species, landscape position, and soil water content, natural plant community associations (NatureServe 2008) and land use classes were circumscribed and mapped for KWMA utilizing 1996 digital orthophoto aerial photography and ERDAS Imagine 8.7 software (Leica Geosystems 2008).

**DESCRIPTION OF STUDY AREA**

KWMA consists of 2635.5 ha (6514.9 acres) located 35.5 km (22 miles) west of Kerrville, Texas. The topography, soil types, and vegetation of KWMA are representative of the surrounding Edwards Plateau Ecological Region. Soils are generally rocky and shallow, covering a substratum of limestone. Topography is gently rolling to hilly with occasional draws (a shallow, open, natural, drainage) and small canyons. Annual rainfall from 1951 to 1986 averaged 64.7 cm (25.48 inches), with the wettest months being April, May, June, August, September, and October. KWMA is drained by the North Fork of the Guadalupe River which also forms part of the southern boundary. Most drainages are intermittent. Several small springs and the Guadalupe River provide the only natural permanent water sources. Elevation varies from 588.3 m (1930 feet) to 682.8 m (2240 feet), with average elevation being 609.6 m (ca. 2000 feet). With respect to management at KWMA, practices used are designed to encourage perennial bunch grasses and maintain a high diversity of herbaceous annuals and perennials and include prescribed burning (especially winter burns), cedar control on dry uplands, and light grazing.

KWMA supports a diversity of native wildlife species. These include white-tailed deer (*Odocoileus virginianus*), Rio Grande wild turkey (*Meleagris gallopavo intermedia*), javelina (*Pecari tajacu*), eastern cottontail rabbit (*Sylvilagus floridanus*), black-tailed jackrabbit (*Lepus californicus*), northern raccoon (*Procyon lotor*), striped skunk (*Mephitis mephitis*), and Virginia opossum (*Didelphis virginiana*), all being abundant. Larger predators such as coyote (*Canis latrans*) and bobcat (*Lynx rufus*) are uncommon. Historically, mountain lion (*Felis concolor*), American black bear (*Ursus americanus*), and gray wolf (*Canis lupus*) inhabited the area, but...
all have been extirpated. Hahn (1951) reported that black bear was present in this vicinity as late as 1905
and the last recorded killing of a gray wolf was at the head of the North Fork of the Guadalupe River in 1913.
KWMA has recorded 191 species of resident and migratory birds and 29 species of herpetofauna. Exotic
wildlife species intentionally introduced to the area are axis deer (Axis axis), aoudad sheep (Ammotragus
lervia), and sika deer (Cervus nippon). Also present is the feral hog (Sus scrofa), which probably originated
from escaped stock.

Three federally listed endangered species occur on KWMA. These include two birds, the black-capped
vireo (Vireo atricapillus) and the golden-cheeked warbler (Dendroica chrysoparia) and one plant, the Tobusch
fishhook cactus (Sclerocactus brevihamatus ssp. tobuschii).

RESULTS AND DISCUSSION

Twenty-one natural plant community associations (NatureServe 2008) and three land use classes were
determined to be present in KWMA. Two natural associations, Sawgrass-Spikesedge-Beakrush-Black
Bogrush-Aparejograss Herbaceous Vegetation Association and Ashe Juniper - Bastard Oak - Plateau Live Oak
Woodland are described as new associations for Texas. The other associations are of common occurrence in
the Edwards Plateau vegetational area. Land use classes include developed, old field and reservoirs. For the
purpose of organization, the plant community association descriptions are separated into system categories
that include uplands, canyons, cliff faces, floodplain, springs, seeps, and aquatic types, and land use classes.
In general, the associations are discussed from north to south. All references to geology are based upon the
Llano [Map] Sheet, University of Texas Bureau of Economic Geology, 1981.

NATURAL TERRESTRIAL ASSOCIATIONS

Upland Types
occurs on limestone with clay soils in the Edwards Plateau. Normally it is found on flat to moderately roll-
ing terrain of 0–5% slope. It comprises 60.7 ha (150.1 ac) and is developed on the lower Cretaceous Segovia
Member of the Edwards Limestone Formation. This association is concentrated in the northwestern portion
of KWMA (Fig. 1). The vegetation is dominated by Quercus fusiformis and grasslands or grassy openings
with Bouteloua curtipendula (both varieties), Hilaria belangeri, and Schizachyrium scoparium. Other important
components in the understory include Condalia hookeri, C. spathulata, Juniperus ashei, Quercus buckleyi var.
stellata, Q. marilandica, and Schizachyrium scoparium and varies from open woodland to savanna.
Shrub species include Diospyros texana, Cylindropuntia leptocaulis, and Smilax bona-nox. Dominant grasses
and forbs include Andropogon gerardii, Berlandiera betonicifolia, Carex planostachys, Chelianthes tomentosa, Coc-
culus carolinus, Cypus rotundus, Heterotheca subaxillaris, Hypericum drummondii, Leptochloa dubia, Matelea
gonocarpos, and Sorghastrum nutans. Generally, there is low forb diversity.

Plateau Live Oak - Post Oak Savanna Vegetation Association (Diamond 1993; Hoagland 2000) occurs over
shallow soils on limestone mesa tops in the Edwards Plateau and Post Oak Savanna Ecoregions in Texas as well as Cross Timbers in Kansas and Oklahoma. Land form is flat to rolling with 0–5% slope. Approximately 70.7 ha (174.7 ac) of KWMA consists of this
formation, which is developed on the lower Cretaceous Segovia Member of Edwards Limestone Formation.
This association is found in the northern portion of KWMA (Fig. 1). The area is dominated by Quercus stel-
lata var. stellata, Q. marilandica, and Schizachyrium scoparium and varies from open woodland to savanna.
Shrub species include Diospyros texana, Cylindropuntia leptocaulis, and Smilax bona-nox. Dominant grasses
and forbs include Andropogon gerardii, Berlandiera betonicifolia, Carex planostachys, Chelianthes tomentosa, Coc-
culus carolinus, Cypus rotundus, Heterotheca subaxillaris, Hypericum drummondii, Leptochloa dubia, Matelea
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Plateau Live Oak - Post Oak Savanna Vegetation Association (Diamond 1993; Hoagland 2000) occurs over
shallow soils on limestone mesa tops in the Edwards Plateau and Post Oak Savanna Ecoregions in Texas and in the Quartz and Wichita Mountains in Oklahoma. The association is found on flat to roll-
ing terrain with 0–5% slope on the lower Cretaceous Segovia Member of Edwards Limestone Formation.
Approximately 120.3 ha (297.3 ac) of the association occur in the northern and eastern portion of KWMA
(Fig. 1). Dominant plants are Quercus fusiformis, Q. stellata var. stellata, Diospyros texana, and Schizachyrium
Scoparium. Shrub species include Mahonia trifoliolata and Opuntia engelmannii var. lindheimeri. Dominant grasses include Bothriochloa laguroides, Bouteloua curtipendula (both varieties), B. pectinata, B. rigidiseta, Hilaria belangeri, Muhlenbergia reverchonii, and Panicum virgatum. A moderate diversity of forbs is present.

Plateau Live Oak / Little Bluestem Woodland Vegetation Association (Diamond 1993) occurs on gently sloping to nearly flat slopes in the eastern Edwards Plateau and Cross Timber Ecoregions in Texas and in Quartz and Wichita Mountains in Oklahoma. This association consists of about 739.5 ha (1827.4 ac) found on flat to rolling upland landscape with 0–5% slope. It is best developed on the lower Cretaceous Segovia Member of Edwards Limestone Formation. The association is concentrated in the central and southwestern portion of KWMA (Fig. 1). The area is dominated by Quercus fusiformis and Schizachyrium...
scoparium. Important shrubs and small trees include Celtis laevigata var. reticulata, Diospyros texana, and Mahonia trifoliolata. Dominant grasses include Aristida purpurea (several varieties), Bouteloua curtipendula (both varieties), B. pectinata, B. rigidiseta, and Nassella leucotricha. An extensive diversity of forbs can occur in this association.

**Nuttall's Stonecrop - (Ozark Dropseed, Poverty Dropseed) - Wright's Spikemoss Limestone Outcrop Vegetation Association** (NatureServe 2008) consists of 246.9 ha (610.2 ac) of exposed limestone surfaces in the Edwards Plateau. It is typical of flat upland landscape with 0–1% slope and developed on the lower Cretaceous Segovia Member of Edwards Limestone Formation. The association is concentrated in the southwest and southeast portion of KWMA (Fig. 1). This association is characterized by shallow pothole depressions that accumulate soils or serve as ephemeral pools. It is dominated by Sedum nuttallianum, Sporobolus ozarkanus, S. vaginiflorus, and Selaginella wrightii. *Nostoc commune* Vaucher (Cyanophyta, Nostocaceae) is common during wet periods. Bare rock is occupied by scattered patches of crustose and foliose lichens and bryophytes (Musci). Typical ferns are Cheilanthes tomentosa and Pellaea wrightiana. Other characteristic vegetation includes annuals (ephermerals) and species adapted to bare rock xeric conditions. These include Allium drummondii, Ammannia coccinea, Arenaria benthamii, Aristida oligantha, Bouteloua hirsuta, Centaurium calycosum, Chaetopappa asteroides, Cooperia pedunculata, Crassula aquatica, Croton monanthогyynus, Draba cuneifolia, Echinochloa walteri, Erioneuron pilosum, Hedeoma drummondii, Hedyotis crassifolia, Heteranthera dubia, Juncus marginatus, Ludwigia repens, Nothoscordum bivalve, Paronychia lindheimeriana, P. virginica, Phemeranthus aurantiacus, Plantago virginica, Polygala lindheimeri, Scutellaria drummondii, Verbena canescens, and Veronica peregrina.

**Ashe Juniper - Bastard Oak - Plateau Live Oak Woodland Vegetation Association** occurs over shallow soils on limestone mesa tops in the Edwards Plateau. This association is found on flat terrain with 0–2% slope and consists of 173.8 ha (429.6 ac) developed on the lower Cretaceous Segovia Member of Edwards Limestone Formation. It is found along drainages throughout the management area (Fig. 1). The vegetation is dominated by Juniperus ashei and Quercus sinuata var. breviloba, with densities varying from open to closed canopy woodlands. When canopy cover is dense, Quercus sinuata var. breviloba is sometimes limited to the understory. Other components in the understory include Cercis canadensis var. texensis, Diospyros texana, Forestiera pubescens, Fraxinus texensis, Ilex decidua, Lonicera albiflora, Mahonia trifoliolata, Quercus buckleyi, Q. fusiformis, Rhus trifolata, R. virens, Sophora secundiflora, Toxicodendron radicans, Ulmus crassifolia, Ungnadia speciosa, and Yucca rupicola. Herbaceous cover is generally sparse, especially with dense canopies, and may include Carex planostachys, Commelina erecta, Galactia texana, Matelea edwardsensis, M. reticulata, Lespedeza texana, Rhyynosia senna, Sporobolus compositus, and Tragia ramosa.

**Little Bluestem - Sideoats Grama - Texas winter-grass herbaceous Vegetation Association** is a midgrass grassland and characteristic of uplands over relatively deep soils in the Rolling Plains of Texas, but also in the central and western Edwards Plateau (Diamond 1993). This association is found on flat to rolling terrain with 0–5% slope. It includes 306.8 ha (758.1 ac) on the lower Cretaceous Fort Terrett and Segovia Member of Edwards Limestone Formation in the western and southern portion of KWMA (Fig. 1). The area is dominated by Schizachyrium scoparium, Bouteloua curtipendula (both varieties), and Nassella leucotricha. Trees species include Juniperus ashei and Prosopis glandulosa. Shrub species include Opuntia engelmannii var. lindheimeri, and Ziziphus obtusifolia. Typical grasses include Aristida purpurea (several varieties), Bothriochloa barbinodis, Bouteloua barbata, Digitaria californica, Hilaria belangeri, Panicum obtusum, Sorghastrum nutans, and Tridens muticus. An extensive diversity of forbs can occur in this association.

**Ashe Juniper - (Buckley Oak, Plateau Live Oak, Vasey Shin Oak, Bastard Oak) Woodland Vegetation Association** (Diamond 1993) consists of woodlands over shallow soils on limestone slopes in the Edwards Plateau. This association is found on flat to rolling terrain with 0–5% slope and consists of 413.3 ha (1021.2 ac) on the lower Cretaceous Fort Terrett and Segovia Member of Edwards Limestone Formation. The association is scattered throughout the KWMA (Fig. 1). Dominants are Juniperus ashei with mixtures of Quercus buckleyi, Q. fusiformis, Q. pungens var. vaseyana, and Q. sinuata var. breviloba. Tree species
include *Celtis laevigata* var. *reticulata* and *Fraxinus texensis*. Shrub species include *Diospyros texana*, *Mahonia trifoliata*, *Nolina texana*, *Rhus virens*, *Toxicodendron radicans*, and *Yucca rupicola*. Herbaceous flora include *Bouteloua curtipendula* (both varieties), *Carex planostachys*, *Lespedeza texana*, and *Schizachyrium scoparium*.

**Plateau Live Oak - Buckley Oak / Bastard Oak - (Ashe Juniper) Woodland Vegetation Association** (NatureServe 2008) consists of woodlands occurring over shallow soils on limestone mesa tops in the Edwards Plateau. This association is found on flat to rolling terrain with 0–5% slope and consists of 713.1 ha (1762 ac) on the lower Cretaceous Fort Terrett and Segovia Member of Edwards Limestone Formation. This association is found in the southeastern portion of KWMA (Fig. 1). The vegetation is dominated by *Quercus fusciformis*, *Q. buckleyi*, and *Juniperus ashei* and characterized by a mixture of other trees and shrubs such as *Celtis laevigata* var. *reticulata*, *Cercis canadensis* var. *texensis*, *Forestiera pubescens*, *Frangula caroliniana*, *Fraxinus texensis*, *Ilex decidua*, *Lonicera albiflora*, *Opuntia engelmannii* var. *lindheimeri*, *Quercus sinuata* var. *breviloba*, *Sideroxylon lanuginosum*, *Rhus triloba*, *Toxicodendron radicans*, *Ulmus crassifolia*, and *Ungnadia speciosa*. Herbaceous species include *Carex planostachys*, *Chaerophyllum tainturieri*, *Limnodea arkansana*, and *Nassella leucotricha*.

**Canyon Types**

**Chinquapin Oak - Arizona Walnut - Slippery Elm / Frostweed Forest Vegetation Association** (Diamond 1993) occurs on mesic limestone slopes in the Edwards Plateau. This association is found on moderate to steep slopes (5–20% slope) at KWMA. It consists of 49.5 ha (122.3 ac) and is developed on the lower Cretaceous Fort Terrett Member of Edwards Limestone Formation. This association is found in the southeastern portion of KWMA (Fig. 1). The vegetation is dominated by *Quercus muehlenbergii*, *Juglans major*, *Ulmus rubra*, and *Verbesina virginica*. Other tree species include *Carya illinoinensis*, *Fraxinus texensis*, *Quercus buckleyi*, *Morus rubra*, and *Ulmus crassifolia*. Subcanopy species include *Morus microphylla* and *Juniperus ashei*. A diversity of shrubs and woody vines may include *Aesculus pavia* var. *pavia*, *Cornus drummondii*, *Garrya ovata* ssp. *lindheimeri*, *Frangula caroliniana*, *Ilex decidua*, *Parthenocissus quinquefolia*, and *Viburnum rufidulum*. Herbaceous species include *Adiantum capillus-veneris*, *Carex edwardsiana*, *C. planostachys*, *Galium texense*, *Brickellia cincinnacea*, *Chaetopappa effusa*, *Desmodium paniculatum*, *Geum canadense*, *Pachera obovata*, and *Tripsacum dactyloides*.

**Cedar Elm - Chinquapin Oak - Arizona Walnut Woodland Vegetation Association** occurs on mesic limestone slopes in the Edwards Plateau. This association is found on moderately steep slopes (5–15%) at KWMA and includes 1.1 ha (2.7 ac) on the lower Cretaceous Fort Terrett Member of Edwards Limestone Formation. This association is found in the southeastern portion of KWMA (Fig. 1). The vegetation dominated by *Ulmus crassifolia*, *Quercus muehlenbergii*, and *Juglans major*. The understory consists of *Bromus pubescens*, *Carex planostachys*, *Chasmanthium latifolium*, *Elymus virginicus*, *Desmodium paniculatum*, *Geum canadense*, *Pachera obovata*, and *Tripsacum dactyloides*.

**Lacey Oak - Ashe Juniper Woodland Vegetation Association** (Diamond 1993) occurs on rocky canyon slopes or on shallow soils that have developed over limestone in the southern and southwestern portion of the Edwards Plateau. This association is found on moderately steep slopes (5–35%) at KWMA and includes 52.8 ha (130.4 ac) on the lower Cretaceous Fort Terrett and Segovia Member of Edwards Limestone Formation. The association is concentrated in the eastern and western portion of KWMA (Fig. 1). The area is dominated by *Quercus lacyei* and *Juniperus ashei*. Other important canopy components include *Quercus buckleyi*, *Q. fusciformis*, *Q. muehlenbergii*, and *Ulmus crassifolia*. Understory shrubs include *Cornus drummondii*, *Ilex decidua*, *Ptelea trifoliata*, and *Ungnadia speciosa* (Riskind and Diamond 1988).

**Cliff Face Types**

**Wand Butterfly-bush - Mexican buckeye / American Columbine - Dutchman’s pipe Shrubland Vegetation Association** (NatureServe 2008) occurs on limestone rim rock along mesic canyons in the southern portion of the Edwards Plateau. This association is found on very steep slopes to vertical cliff faces and comprises 4.2 ha (10.3 ac) on the lower Cretaceous Fort Terrett Member of Edwards Limestone Formation. It is limited to the southeastern portion of area (Fig. 1). Typical dominants are *Buddleja racemosa* ssp. *incana*, *Ungnadia speciosa*, *Aquilegia canadensis*, and *Aristolochia serpentaria*. Other shrubs include *Ageratina havanaensis*, *Croton

**NATURAL AQUATIC ASSOCIATIONS**

**Floodplain Types**

**Plateau Live Oak - Netleaf Hackberry Woodland Vegetation Association** (Diamond 1993) occurs along dry to mesic flood plains of streams on the Edwards Plateau, South Texas Plains, and Trans Pecos Ecoregions. This association consists of 81.5 ha (201.5 ac) developed on the lower Cretaceous Segovia Member of Edwards Limestone Formation. It is limited to the southeastern portion of KWMA (Fig. 1). The association is dominated by Quercus fusiformis and Celtis laevigata var. reticulata. Other trees and shrubs include Juglans major, Diospyros texana, Fraxinus texensis, Juniperus ashei, and Ulmus crassifolia. Forb diversity is generally low.

**Netleaf Hackberry - Little Walnut / Green Sprangletop Shrubland Vegetation Association** (Diamond 1993) occurs along dry to intermittent streams on the Edwards Plateau and Chihuahuan Desert. This association comprises 81.2 ha (200.7 ac) in the northwestern part of KWMA (Fig. 1) developed on the lower Cretaceous Segovia Member of Edwards Limestone Formation. Vegetation is dominated by Celtis laevigata var. reticulata and Juglans microcarpa. Other woody plants include Diospyros texana, Fraxinus texensis, Sideroxylon lanuginosum ssp. albicans, and Smilax bona-nox. Characteristic herbs can include Bothriochloa barbinodis var. barbinodis, Bouteloua curtipendula (both varieties), and Leptochloa dubia.

**Sycamore - Black Willow Woodland Vegetation Association** (NatureServe 2008) occurs along periodically scoured flat-bedded limestone on relatively flat terrain along creekbeds and riverbeds in the Edwards Plateau and adjacent areas. It consists of small narrow strips typically not more than 10 m wide in moist to wet gravelly soils. This association consists of 2.5 ha (1.0 ac) along the shores of the North Fork of the Guadalupe River developed on the lower Cretaceous Fort Terrett Member of Edwards Limestone Formation and is limited to the southeastern portion of KWMA (Fig. 1). This association is dominated by Platanus occidentalis and Salix nigra, often as scattered small trees since this association receives frequent catastrophic floods. Another tree species that infrequently occupies this community is Populus deltoides. A poorly developed shrub layer included Amorpha fruticosa, Baccharis neglecta, Cephalanthus occidentalis, and Juglans microcarpa. Herbaceous species varies with moisture, disturbance, and other factors.

**Spring, Seep, and Aquatic Types**

**Switchgrass - Bushy Bluestem - Jamaica Sawgrass Herbaceous Vegetation Association** (NatureServe 2008) occurs along periodically scoured flat-bedded limestone shores of perennial streams on the Edwards and Stockton Plateaus. Terrain is relatively flat. The association is comprised of herbaceous flora that is rooted in cracks and in soil mats along the edges and minor shelves along the river’s edge of the North Fork of the Guadalupe River. This association consists of 1.3 ha (3.2 ac) developed on the lower Cretaceous Segovia Member of Edwards Limestone Formation and is limited to the southeastern portion of KWMA (Fig. 1). The dominants include Panicum virgatum, Andropogon glomeratus, and Cladium mariscus ssp. jamaicense. This stream-scoured grassland varies in density from very open to dense. Woody shrubs and trees may occur as scattered individuals, and may include Platanus occidentalis, Salix nigra, Juglans microcarpa, Baccharis neglecta, and B. salicifolia. Herbaceous flora includes Eleocharis caribaea, E. montevidensis, Eupatorium serotinum, Fuirena simplex, Indigofera lindheimeriana, Ratibida columnifera, Rhynchospora corollata, R. nivea, Schizachyrium scoparium, and Solidago altissima.

**Sawgrass - Spikesedge - Beakrush/Whitetop - Black bogrush - Aparejograss Herbaceous Vegetation Association** occurs along spring and seep influenced herbaceous wetlands along creeks and rivers of the Edward Plateau. Sites are dominated by sedges, grasses, and other herbaceous flora. This association
includes 4.1 ha (10.0 ac) along the shores of the North Fork of the Guadalupe River in the southwestern portion of KWMA (Fig. 1) developed on the lower Cretaceous Segovia Member of Edwards Limestone Formation. Dominants include Cladium mariscus ssp. jamaicensis, Eleocharis rostellata, E. montevidensis, E. caribea, Rhynchospora capillacea, R. nivea, and R. colorata, Schoenus nigricans, and Muhlenbergia utilis. The substrate includes well developed marl clays and gravels over limestone bed rock. Sites occur as braided matts of vegetation in mucky soils originating at spring sources (spring heads on slopes or bases of limestone bluffs). The sites can extend into the floodplain of the river as a matrix of patchy islands of well developed muck with small streamlet channels braiding through the vegetation patches. Seepage slopes are spongy. High concentrations of calcium carbonate cake layers can be present. Significant herbaceous plants often associated with this wetland community include Adiantum capillus-veneris, Andropogon glomeratus, Carex edwardsiana, C. microdonata, C. muhlenbergii, Bidens laevis, Boehmeria cylindrica, Centella asiatica, Epipactus gigantea, Fimbristylis puberula, Fuirena simplex, Helium microcephalum var. microcephalum, Juncus texanus, Ludwigia repens, Lythrum ovalifolium, Mitreola petiolata, Nasturtium officinale, Lobelia cardinalis, Muhlenbergia lindheimeri, M. reverchonii, Dichanthelium acuminatum var. lindheimeri, D. oligosanthes var. scribnerianum, Panicum virgatum, Pluchea odorata, Sorghastrum nutans, Symphyotrichum praealtum, Paspalum pubiflorum, Thelypteris ovata var. lindheimeri, Utricularia gibba, Verbena scabra, and Verbesina lindheimeri. The few woody species that occur in these wetlands include Cephalanthus occidentalis, Lindera benzoin, Platanus occidentalis, and Salix nigra. Unusual species include Rhynchospora capillacea, Rudbeckia fulgida, and Scleria verticillata.

**Seep Muhly - Tall Grama - Little-tooth Sedge Herbaceous Vegetation Association** (NatureServe 2008) occurs on ephemeral moist, open, rocky slopes on the Edwards Plateau. This association includes 0.2 ha (0.4 ac) developed on the lower Cretaceous Segovia Member of Edwards Limestone Formation and is limited to the southeastern portion of KWMA (Fig. 1). The dominants include Muhlenbergia reverchonii, Bouteloua pectinata, and Carex perdentata. Other herbaceous species Agalinis edwardsiana, Aristida purpurea (several varieties), Calylophus berlandieri, Carex planostachys, Centaurea berychii, Desmanthus velutinus, Galphimia angustifolia, Hedcomia drummondi, Heliotropium tenellum, Liatris mucronata, Marshallia caespitosa, Melampodium leucanthum, Oenothera triloba, Paronychia virginica, Pediomelum hypogaeum, Polygala alba, P. lindheimeri, Salvia texana, Spiranthus magnicamporum, Stenaria nigricans var. nigricans, Stillingia texana, Tetraneuris scaposa, Thamnosma texana, Thelesperma simplicifolium, Vernonina lindheimeri, and Wedelia texana.

**Southern Maidenhair - (Lindheimer’s Maidenfem, Kunth’s Maidenfem) Herbaceous Vegetation Association** (NatureServe 2008) occurs on cliff faces and lower slopes of forested box canyons on the Edwards Plateau, usually in narrow horizontal bands where seepage from exposed limestone or water from perennial or nearly perennial creeks consistently provides greater moisture than is available on adjacent slopes. This association consists of 4.2 ha (10.3 ac) developed on the lower Cretaceous Fort Terrett Member of Edwards Limestone Formation in the southeastern portion of KWMA (Fig. 1). The area is dominated by Adiantum capillus-veneris and Thelypteris ovata var. lindheimeri. Other prominent herbaceous species are Epipactus gigantea, Hydrocotyle verticillata, Dichanthelium acuminatum var. lindheimeri, Samolus valerandi ssp. parviflorus, and Silphium radula.

**American Water-willow - Coastal Water-hyssop Edwards Plateau Herbaceous Vegetation Association** (NatureServe 2008) occurs on relatively permanently watered streams which flow over flat-beded limestone strata on the Edwards Plateau. This association consists of 0.3 ha (0.6 ac) developed on the lower Cretaceous Segovia Member of Edwards Limestone Formation. It is present in the southern portion of KWMA (Fig. 1). The dominants include Justicia americana and Bacopa monnieri. Other herbaceous flora includes Cyperus spp., Fuirena simplex, Eleocharis caribaea, E. montevidensis, Lobelia cardinalis, Ludwigia palustris, Rhynchospora colorata, and R. nivea.

**LAND USE ASSOCIATIONS**

**Developed land** (Fig. 1) consists of about 61.5 ha (152 ac) that are heavily impacted by human use, such as lawns and parking areas near buildings, roads, etc. Typically, these areas are occupied by early successional flora that vary from season to season and frequency of disturbance. Herbaceous flora include Capsella bursa-
**Old field** vegetation (Fig. 1) consists of 64.7 ha (159.9 ac) of mostly non-native grasses and dominated by Bothriochloa ischaemum. Herbaceous vegetation is quite variable and includes plants such as Asclepias viridiflora, Bromus unioloides, Conyza canadensis, Cucurbita foetidissima, Glandularia bipinnatifida var. bipinnatifida, Gutierrezia texana, Hordeum pusillum, Lygodesmia texana, Melilotis officinalis, Ratibida columnifera, Ruella nudiflora, Salvia farinacea, Sida abutifolia, Solanum spp., Verbascum thapsus, Verbena officinalis, and Vulpia octoflora.

**Ponds and wells** (Fig. 1) consists of 0.1 ha (0.3 ac) of mostly marginal and shallow ponds and wells dominated by emergent rushes, sedges, and grasses. Herbaceous vegetation includes Agalinis edwardsiana, Ammannia coccinea, Cyperus erythrorhizos, C. strigosus, Echinocloa walteri, Eleocharis montevidensis, Juncus interior, and J. marginatus. Other associated flora includes Eclipta prostrata, Helianthus elegans, Lindernia dubia, Marsilea vestita, Mecardonia procumbens, Pluchea odorata, and Xanthium strumarium.

**VEGETATIONAL ANALYSIS**

Figure 2 demonstrates an adequate sampling indicated by the Kerr WMA datum point above the slope of the determined function, moreover data for both MMWMA and ERSNA place those sampling efforts above this slope-line suggesting these proximal locales can be compared legitimately. The Soenrenson coefficient designates MMWMA as more analogous in floristic composition than ERSNA and the statistic for Jaccard’s coefficient of community is in agreement with that floristic similarity (Table 2).

**Summary Data of the Flora**

The vascular flora of KWMA consists of 719 taxa (species and below). Families represented by the largest number of species are Asteraceae (with 113 species), Poaceae (109), Fabaceae (38) and Euphorbiaceae (34). Apparently, the drier nature of KWMA is more agreeable to the Euphorbiaceae and less so for the Cyperaceae, which is the fourth largest family within Texas. The Cyperaceae is represented by 27 species in KWMA, which includes four species of Carex and nine species of Cyperus, while in Texas as a whole these two genera have 96 and 56 species respectively. Other large families include Lamiaceae (22), Apioideae (17), and Scrophulariaceae (15).

Of the 719 species reported for KWMA, 65 (9.04%) are considered to be non-native. This compares favorably with other wildlife management areas in Texas. For example, Mason Mountain WMA has 8.5% of its flora introduced (Singhurst et al. 2007), while Gus Engelng WMA, of the Post Oak Savannah of the eastern part of the state, has 6.34% introduced species (Singhurst et al. 2003). Diggs et al. (1999), reports 17.7% of the flora treated in their work (north central Texas) as non-native. The easily noticed trend is that the areas with a larger human population and more accessibility have a higher percentage of non-natives species present. Several of the non-natives present at KWMA may have been intentionally introduced as part of land management plans.

The following species, subspecies, and varieties documented to occur in KWMA, are considered endemic to the state of Texas (Correll & Johnston 1970; Carr 2008): Agalinis edwardsiana, Argythamnia simulans, Astragalus wrightii, Brickellia eupatorioides var. gracillima, Buddleja racemosa spp. incana, Carex edwardsiana, Chaetopappa bellidifolia, C. effusa, Clematis texensis, Euphorbia roemeriana, Galactia texana, Matelea edwardsi, Monarda punctata spp. punctata var. intermedia, Nolina lindeheimeriana, Parthenocissus heptaphylla, Pediomelum hypogaeum var. scaposum, Penstemon triflorus spp. triflorus, Phlox roemeriana, Physaria densiflora, P. recurvata, Scelocactus brevihamatus spp. tobuschii, Tradescantia edwardsiana, Tragia nigricans, Verbesina lindeheimeri, Valerianella stenocarpa, Vitis monticola, and Yucca rupicola.

Following are comments on unusual or interesting plant distributions.

**Rhynchospora capillacea**—In Texas, this species is recorded only from Kerr Co. The nearest known occurrence is 355 miles to the north in the Soper Bog (Railroad Bog) in Choctaw County, Oklahoma. The
Table 2. Comparison of Kerr WMA species richness for vascular plants and associated Sørenson coefficient calculated against published accounts and unpublished inventory in Texas, USA.

<table>
<thead>
<tr>
<th>Region</th>
<th>Species number</th>
<th>Sørenson Similarity</th>
<th>Jaccard’s Community Coefficient</th>
<th>Coefficient</th>
<th>Area (km²)</th>
<th>Citation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enchanted Rock SNA</td>
<td>555</td>
<td>0.4694</td>
<td>0.3067</td>
<td>6.7234</td>
<td>6.7234</td>
<td>O’Kennon (unpub.)</td>
</tr>
<tr>
<td>Kerr WMA</td>
<td>719</td>
<td>–</td>
<td>–</td>
<td>26.6313</td>
<td>26.6313</td>
<td>Singhurst et al. 2010</td>
</tr>
<tr>
<td>Mason Mountain WMA</td>
<td>693</td>
<td>0.6388</td>
<td>0.4693</td>
<td>21.6859</td>
<td>21.6859</td>
<td>Singhurst et al. 2007</td>
</tr>
</tbody>
</table>

next location is in the northern Ozarks near the Missouri border. *Rhynchospora capillacea* is a fen specialist in the east and northeast United States. Apparently, the species requires cool running waters, here found on the Guadalupe River.

*Asclepias verticillata.*—Southwest limit of distribution, common in eastern half of Texas.

*Fuirena squarrosa.*—Approaching the western limit of distribution, but also few scattered records further west in the state (see Turner et al. 2003).

*Hypoxis wrightii.*—In Texas, known from few counties in the post oak savannahs and pinelands of the eastern quarter of the state.

*Rudbeckia fulgida.*—Presently limited to the pineywoods of east Texas, disjunct here (and in Gillespie Co.).

*Agalinas homolantha.*—Generally distributed in the eastern half of state, this being the western limit.

*Vicia caroliniana.*—An eastern species (previously known as far west as Travis and Comal cos.) that may possibly have been introduced as a wildlife food.

*Physaria gracilis.*—Generally distributed in north-central and east-central Texas, this being the western limit of the species.

*Leptopus phyllanthoides.*—In Texas, distributed along the eastern edge of the Balcones Escarpment from Johnson to Bexar cos., and also Val Verde Co. Elsewhere in southwest Missouri, northwest Arkansas, southeast Oklahoma, and central Alabama. In Texas, generally found on honeycombed limestone. Not often collected.
Boltonia diffusa.—In Texas, distributed in the Pineywoods, Post Oak Savanna, and Gulf Coast Prairies and Marsh Ecoregions. In central Texas, this species has been documented in Hays County, with this being the western limit of the species.

Following is a list of western species that reach their eastern limits in Kerr County. In general, these species occur in the Trans-Pecos vegetational region, the area of the state west of the Pecos River, occasionally referred to as “far west Texas.” These records may only indicate a need for more intensive field studies in the western part of the Edwards Plateau.

Petrophytum caespitosum.—Also recorded for Real Co., on the west border of Kerr Co. and Frio Co., about 125 km to the south.

Echeandia flavescens.—This is the first record east of the Trans-Pecos. Turner et al. (2003) mapped the species as occurring in Brewster, Jeff Davis, and Presidio cos.

Dyssodia papposa.—A Trans-Pecos and Panhandle (Rolling Plains and High Plains) species with one record in Live Oak Co. of the Rio Grande Plains.

Pseudognaphalium canescens.—Also present as a disjunct in Llano Co., about 75 km to the northeast of Kerr Co.

Viguiera stenoloba.—Also known from the Rio Grande Plains, especially those counties adjoining the Rio Grande [River].

ANNOTATED CHECKLIST OF THE FLORA

The annotated checklist is divided into pteridophytes, gymnosperms, and angiosperms, which are subdivided into monocots and dicots. Family, genus, and species are arranged alphabetically beneath each major heading. Collectors and collection numbers are referenced as following: CAM = C.A. McMaham, DH = Donnie Harmel, FG = Frank Gould, KW = Kerr Wildlife Management Area staff, MM = Morton May, JS = Jason Singhurst, LH = Laura Hansen, LS = Laura Sanchez (earlier name for LH), S&R = D. Seigler & W. Renold, TD = Timery Deboe, TT = Thomas Trinzie, and AC = Amy Choy. An asterisk (*) denotes an introduced species. Common names are included to facilitate ease of use by persons unfamiliar with botanical names.

PTERIDOPHYTES

Asplenium resiliens Kunze; black stem spleenwort fern; JS 8473; 10592; 10627

Marsilea vestita Hook. & Grev. ssp. vestita; water clover fern; JS 10228

Pteridaceae

Adiantum capillus-veneris L.; southern maidenhair fern; JS 8500; 9970; LS 3843

Astrolepis integerima (Hook.) Benham & Windham; hybrid cloakfern; LH 5860

Astrolepis sinuata (Lag. ex Sw.) Bentham & Windham ssp. sinuata; bulb lip fern; JS 18130

Cheilanthes alabamensis (Buckley) Kunze; Alabama lip fern; LS 3948

Cheilanthes hortidula Maxon; rough lip fern; LH 5863

Cheilanthes tomentosa Link; woolly lip fern; JS 18003

Pellaea atropurpurea (L.) Link; purple cliff brake fern; JS 10054; LS 3947

Pellaea ovata (Desv.) Weatherby; ovate leaf cliff brake; JS 8771; 10055

Pellaea wrightiana Hook.; Hook’s cliff brake fern; JS 8490; 10058

Selaginellaceae

Selaginella wrightii Hieron.; Wright’s spikemoss; JS 10044; LS 4106

Thelypteridaceae

Thelypteris ovata R.P. St. John var. lindheimeri (C. Chr.) A.R. Sm.; Lindheimer’s maidenhair fern; JS 9971; LS 3836

GYMNOSPERMS

Cupressaceae

Juniperus ashei Buchh.; Ashe juniper; JS 18004; DH s.n.; FG 8288; LS 3812

Juniperus pinchotii Sudw.; Pinchot’s juniper; JS 17205

Taxodium distichum (L.) Rich.; bald cypress; JS 17207

ANGIOSPERMS - Monocots

Agavaceae

Agave americana L.; American century plant; JS 18005

Dasyfiorion texanum Scheele; Texas sotol; JS 10563

Nolina lindheimeriana (Scheele) S. Wats.; devil’s shoestring; JS 10574

Nolina texana S. Wats.; sacahuista; LH 4773

Yucca reverchonii Trel.; Plateau yucca; JS 10649

Yucca rupicola Scheele; Texas yucca; JS 10372
Bromeliaceae
Tillandsia recurvata (L.) L.; small ballmoss; JS 8770; LS 4086
Tillandsia usneoides (L.) L.; Spanish moss; JS 18006

Commelinaceae
Commelina erecta L.; white mouth dayflower; JS 18007; KW s.n.; LS 3785
Tinantia anomala (Torr.) C.B. Clarke; widow’s tears; JS 10588; JS & TD 10701
Tradescantia edwardsiana Tharp; Plateau spiderwort; JS 10655; KW s.n.
Tradescantia gigantea Rose; giant spiderwort; JS 10655; JS & TD 10730

Cyperaceae
Carex edwardsiana Bridges & Orzell; Edwards Plateau sedge; JS 10582
Carex emoryi Dewey; Emory sedge; JS 17206
Carex per dentata S.D. Jones; little-tooth sedge; LS 3722; 4214
Carex planastachys Kunze; cedar sedge; JS & TD 10698; KW s.n.; LS 3753
Cladium mariscus (L.) Pohl ssp. jamaicense (Crantz) Kükenth.; Jamaica sawgrass; JS 9995; 9996; LS 3838
Cyperus acuminatus Torr. & Hook. ex Torr.; taperleaf flatsedge; JS 9997; LS 3923; 5311
Cyperus erythrorhizos Muhl.; red root; JS 10464
Cyperus flavescens L.; yellow flatsedge; JS 15970
Cyperus odoratus L.; fragrant flatsedge; JS 10760
Cyperus pseudothrysiflorus (Kükenth.) J. Rich. Carter & S.D. Jones; flatsedge; LH 4979; 5318
*Cyperus rotundus L.; nutgrass; JS 10223
Cyperus pphaeolepis Boeckeler; Rusby’s flatsedge; LH 5320
Cyperus squarrosus L.; bearded flatsedge; JS 18011
Cyperus strigatus L.; false nutgrass; FG 8141; LS 4565
Eleocharis geniculata (L.) Roem. & Schult.; Canada spikesedge; LS 4565
Eleocharis montevidensis Kunth; sand spikesedge; JS 9974
Eleocharis palustris (L.) Roem. & Schult.; large spikesedge; JS 9974
Eleocharis parvula (Roem. & Schult.) Link ex Bluff, Nees & Schauer; dwarf spikesedge; JS 18008
Eleocharis rostellata (Torr.) Torr.; beaked spikerush; JS 15960
Fimbristylis puberula (Michx.) Vahl; hairy fimbry; JS 10640; LH 4986
Fuirena simplex Vahl; western umbrella sedge; JS 9975; LS 3929; LH 4987
Fuirena squarrosa Michx.; hairy umbrella sedge; JS 8498
Rhynchospora capillacea Torr.; horned beakrush; JS 15964
Rhynchospora colorata (L.) H. Pfeiffer; star rush whitetop; JS 9965; LS 3864
Rhynchospora nivea Boeck.; snowy white top sedge; JS 8499; 9964; 15965; LS 3845
Schoenus nigricans L.; black bogrush; JS 18009
Scleria verticillata Muhl. ex Wild.; low nutrush; JS 15973; LS 4100

Iridaceae
Sisyrinchium chilense Hook.; sword leaf blue-eyed grass; JS & TD 10739; KW s.n.; LH 4785
*Sisyrinchium langlosii Greene; pale blue-eyed grass; JS & TD 10740

Juncaceae
Juncus dichotomus Ell.; forked rush; LH 5312
Juncus interior Wieg.; inland rush; LS 4212
Juncus marginatus Rosk.; grassleaf rush; JS 10031
Juncus scorpioides Lam.; needlepod rush; JS 10460
Juncus texanus (Engelm.) Coville; Texas rush; JS 15975
Juncus torreyi Coville; Torrey’s rush; LH 4988
Juncus validus Coville var. fascinatus M.C. Johnston; roundhead rush; JS 10638

Liliaceae
Allium canadense L.; Canada garlic; JS 10449; JS & TD 10707
Allium drummondi Regel; Drummond onion; JS 10387; JS & TD 10708; KW s.n.; LH 4762
Cooperia drummondi Herb.; cebolleta; LS 3945
Cooperia pedunculata Herb.; giant rain lily; JS 10064; 10433; JS & TD 10700; LS 3793
Echeandia flavescens (J.A. & J.H. Schultes) Cruden; Torrey’s craglyl; JS 18010
Hypois wrightii (Baker) Brackett; Wright’s star-grass; LH 4982
Nothoscordum bivalve (L.) Britt.; crow poison; JS 10045; KW s.n.; LS 4541
Schoenocaulon drummondi A. Gray; green lily; JS 10392; 10576
Schoenocaulon texanum Scheele; Texas sabadilla; LH 4771

Najadaceae
Najas guadalupensis (Spreng.) Magnus; southern naiad; JS 15966

Orchidaceae
Epipactis gigantea Doug. ex Hook; giant helleborine orchid; JS 9969; 10566; LH 4985
Spiranthes magnicamporum Shevki; ladies’ tresses orchid; JS 18012

Poaceae
*Aegilops cylindrica Host; jointed goat grass; LS 3763
Andropogon gerardii Vitman; big bluestem; JS 18013; KW s.n.; LS 4117
Andropogon glomeratus (Walt.) B.S.P.; bushy bluestem; JS 10004; 10033; FG 8159; LS 4116
Aristida oligantha Michx.; oldfield threeawn; JS 10626; FG 8258; LS 3910
Aristida purpurea Nutt. var. longiseta (Steud.) Vasey; red threeawn; LS 3757; 4409
Aristida purpurea Nutt. var. nealleyi (Vasey) Allred; blue threeawn; LS 4053; 4560
Aristida purpurea Nutt. var. purpurea; purple threeawn; JS 10422; FG 8259; LS 4411
Aristida purpurea Nutt. var. wrightii (Nash) Allred; Wright’s threeawn; JS 10579b; FG 8266; LS 4410; LH 5030
Bothriochloa barbinodis (Lag.) H. Schumm.; Barberry bluestem; JS 10674; 10458; KW s.n.
Bothriochloa barbinodis (Lag.) H. Schumm.; Barberry bluestem; JS 10674; 10458; KW s.n.

*Sedum jamaicense Crantz) Kükenth.; Jamaica sawgrass; JS & TD 10738; KW s.n.; 4762
Tenuifolia elongata (Lam.) Keng var. langlosii (Trin. ex Fourn.) Gould; pinhole bluestem; LS 3912

Bothriochloa ischaemum (L.) Keng var. sonoranica (Rupr. ex
Cenchrus spinifex
Buchloe
*Bromus
Bromus
Echinochloa colona
Digitaria pubiflora (Vasey) Wipff; Carolina crabgrass; LS 4113; (Schult.) Pilger; fall witchgrass; FG cognata
Digitaria ciliaris (Retz.) Koeler; southern crabgrass; LS 4090
*Echinochloa walteri
Dichanthelium
Dichanthelium oligosanthes (Schult.) Gould var. scriberianum (Nash) Gould; Scriber’s rosette grass; LS 3797
Dichanthelium acuminatum (Sw.) Gould & C.A. Clark var. acuminatum; woolly rosette grass; LS 3844
Dichanthelium acuminatum (Sw.) Gould & C.A. Clark var. lindeiheri (Nash) Gould & C.A. Clark; Lindheimer panicgrass; LS 15971
Dichanthelium oligosanthes (Schult.) Gould var. scriberianum (Nash) Gould; Scriber’s rosette grass; LS 3797
Dichanthelium pedicellatum (Vasey) Gould; cedar rosette grass; FG 8262; 8454
Digitaria californica (Benth.) Henr.; Arizona cottontop; KW s.n.
Digitaria ciliaris (Retz.) Koeler; southern crabgrass; LS 4090
Digitaria cognata (Schult.) Pilger; fall witchgrass; FG 8252
Digitaria pubiflora (Vasey) Wipff; Carolina crabgrass; LS 4113; LH 5018
*Echinochloa colona (L.) Link; Jungle rice; JS 10456; FG 8298; LS 3924; 4091; 4566
*Echinochloa walteri ( Pursh) A. Heller; Coast cockspur; JS 10675

Elymus canadensis L. canadensis; Canada wildrye; KW s.n.; LS 3783
Elymus virginicus L.; Virginia wildrye; JS 10437; LS 3855
*Eragrostis barleri St. Daveau; Mediterranean love grass; LS 4085
*Eragrostis cilianensis (All.) Vign. ex Janchen.; stinkgrass; JS 10461; FG 8467; 8309; LS 4051; 4068
Eragrostis curtipedellata Buckley; gummy lovegrass; LS 3934; 3957
Eragrostis intermedia Hitchc.; plains lovegrass; FG 8287; KW s.n.; LS 3909; 4108
Eragrostis lugens Nees; mourning lovegrass; FG 8287
Eragrostis pectinacea Michx.) Nees ex Steud.; tufted lovegrass; JS 10226b
*Eragrostis superba Peyr.; Wilmann’s lovegrass; LH 5319
Eriochloa contracta Hitchc.; prairie cupgrass; FG 8300
Eriochloa searcia (Scheele) Munro ex Vasey; Texas cupgrass; KW s.n.; LS 3798
Eriochloa pilosum (Buckley) Nash; hairy erieoneuron; JS 10403; JS & TD 10725; LS 3756
Hilaria belangeri (Steud.) Nash.; common curly mesquite; JS 10043; FG 8243; LS 3914
Hordeum jubatum L.; foxtail barley; FG 8274
Hordeum pusillum Nutt.; little barley; JS 10471; LS 3727
*Hordeum vulgare L.; barley; JS 10443
Leersia oryzaoides (L.) Sw.; rice cutgrass; JS 18014
Leptochloa dubia (Kunth.) Nees; green springletop; JS 10445; 10610; KW s.n.; LS 4077
Leptochloa panicea (Retz.) Ohwi ssp. mucronata (Michx.) Nowack; red springletop; JS 10468; KW s.n.
Limmodea arkansana (Nutt.) L.H. Dewey; Ozark grass; JS & TD 10755; KW s.n.; LS 3729
*Lolium perenne L.; perennial ryegrass; JS 10459; 10797; LH 5028
Melica nitens ( Scribn.) Nees ex Piper; three flower melic; JS 10450; 10590; KW s.n.; LS 3870
Muhlenbergia lindeiheri Hitchc.; Lindheimer muhly; JS 10005; 10062; LS 4118
Muhlenbergia reverchonii Vasey & Scribn.; seep muhly; JS & TD 10733; KW s.n.; MM 5515; LS 4079
Muhlenbergia schreberi J.F. Gmel.; nimblewill muhly; JS 10577
Muhlenbergia utilis (Torr.) Hitchc.; aparajoggrass; JS 15961
Nassella leucotricha (Trin. & Rupr.) Pohl; Texas winter-grass; JS 10421; 10578; FG 8270; LS 3728
Panicum capillare L.; common witchgrass; JS 10408
*Panicum coloratum L.; Klein grass; LS 3846; 3942; 4568
Panicum dichotomiflorum Michx.; fall panicum; JS 10224
Panicum dichotomum Sw.; spreading panicum; JS 10579a
Panicum hallii Vasey var. hallii; Halls panicum; JS 10677; FG 8249; LS 4050; 4416; 4532
Panicum hians Ell.; gaping panicum; JS 18015
Panicum obtusum Kunth.; vine mesquite; JS 10600; FG 8272; LS 3908; 3956
Panicum virgatum L.; switchgrass; JS 9985; FG 8470; LS 3927
*Paspalum dilatatum Poir.; dallisgrass; JS 10446; KW s.n.; LS 3833
Paspalum distichum L.; knot grass; LH 5313
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**Paspalum pubiflorum** Rupe. ex Fourn. var. pubiflorum; hairyseed paspalum; JS 10668; LS 4546

**Paspalum setaceum** Michx.; thin paspalum; JS 10595

*Paspalum urvillei* Steud.; vesseysgrass; JS 10606; LS 3832

**Phalaris caroliniana** Walt.; Carolina canarygrass; JS 10466

*Po a. annua L.*; annual bluegrass; JS 18016; LS 3717

*Polygono monspeliensis* (L.) Desf.; rabbitfoot panicum; JS 10598; LS 3871

*Polygono viridis* (Gouan) Breistr.; water bent grass; LS 3839

**Schedonorus phoenix** (Scop.) Holub; tall fescue; LS 3847

*Sphenopholis* (L.) Nash; composite dropseed; JS 10032; wedge scale; JS 18018; LS 3764

*Sphenopholis pyramidatus* (Lam.) Hitchc.; whorled dropseed; JS 10651

*Sphenopholis vaginiflora** (Torr. ex A. Gray) Alph. Wood; poverty dropseed; JS 9951; FG 8450

*Stenotaphrum secundatum* (Walt.) Kuntze; St. Augustine grass; JS 10596; LH 5316

**Tridens** albescens (Vasey) Woot. & Standl.; white tridens; JS 10189; FG 8277; LS 3767

**Tridens eragrostoides** (Vasey & Scribn.) Nash ex Small; lovegrass tridens; LS 4122

**Tridens muticus** (Torr.) Nash; slim tridens; JS 10753; FG 8482; LS 4049

**Tripsacum dactyloides** (L.) L.; eastern gamagrass; JS 9958; 10553; LS 3831

**Tripletum interruptum** Buckley; prairie trisetum; KW s.n.; MM 5541

**Urochloa fusca** (Sw.) B.F. Hansen & Wunderlin; brown-top signal grass; FG 8297; LS 4084; LH 5024

**Vulpia octoflora** (Walt.) Rydb.; sixweeksgrass; JS & TD 10405; 10724; KW s.n.; LS 4206

**Pontederiaceae**

**Heteranthera dubia** (Jacq.) MacM.; grassleaf mudplantain; JS 9963a

**Heteranthera limosa** (Sw.) Willd.; blue mud plantain; LS 3959

**Potamogetonaceae**

**Potamogeton diversifolius** Raf.; waterthread pondweed; JS 18020

**Potamogeton nodosus** Poir.; long leaf pondweed; JS 9981; LH 5952

**Smilacaceae**

**Smilax bona-nox** L.; saw greenbrier; JS 9960; 10585; KW s.n.; LS 3806

**Typhaceae**

**Typha latifolia** L.; common cattail; JS 18021

**ANGIOSPERMS** - **Dicots**

**Acanthaceae**

**Carlowrightia texana** Hendrick. & Daniel; carlowrightia; JS 18022

**Diclireta brachiata** (Pursh) Spreng.; diclireta; JS 18023

**Dyschoriste linearis** (Torr. & A. Gray) Kuntze; narrow leaf dyschiste; JS 18024

**Justicia americana** (L.) Vahl; American water willow; JS 10549; LS 3842

**Ruellia meteae** Tharp; Metz’s wild petunia; LS 4041

**Ruellia nudiflora** (Engelm. & A. Gray) Urban var. nudiflora; violet ruellia; JS 18025

**Aizoaceae**

**Trianthema portulacastrum** L.; horse purslane; KW s.n.

**Amaranthaceae**

*Alternanthera caracasana* Kunth; chaff flower; FG 8292; LS 4418

*Amaranthus albus* L.; tumbleweed amaranth; JS 10624; KW s.n.; LS 4072

*Amaranthus blitoides* S. Wats.; carelessweed; JS 10598; LS 4074

*Amaranthus hybridus* L.; amaranth; JS 10612; LS 4076

*Gossypianthus texana* Hendrick. & Daniel; carlowrightia; JS 18018; FG 8277; LS 3767

**Amaranthus blitoides** S. Wats.; carelessweed; JS 10598; LS 4074

**Amaranthus hybridus** L.; amaranth; JS 10612; LS 4076

**Anacardiaceae**

**Toxicodendron radicans** (L.) Kuntze; poison oak; JS 18030; LS 4218

**Apiaceae**

**Berula erecta** (Huds.) Coville; cutleaf waterparsnip; JS 17208

**Bifora americana** Benth. & Hook. f. ex S. Wats.; prairie bishop; JS 18031

**Bowlesia incana** Ruiz & Pav; hoary bowlesia; JS & TD 10703
Centella asiatica (L.) Urban; spadeleaf; JS 10013; 10616; LS 4414; LH 4984
Chaerophyllum tainturieri Hook. var. tainturieri; chervil; JS & TD 10706; KW s.n.; LS 3780
Cicuta maculata L.; spotted water hemlock; JS & TD 10712; LS 3928
*Conium maculatum L.; poison hemlock; JS 10639
*Cyclosperum leptophyllum (Pers.) Sprague ex Britt. & P. Wilson; slim-lobe celery; LS 3858
Daucus pusillus Michx.; southwestern carrot; JS 10407; LS 3746
Hydrocotyle proliera Kellogg; whorled water pennywort; LS 3863
Hydrocotyle punctata Thunb.; water pennywort; JS 10014; 10602
Polystenia texana (J.M. Coult. & Rose) Mathias & Constance; prairie parsnip; JS 10642
Ptilium capituleum (Michx.) Raf; herbwilliam; JS 10418
Sanicula canadensis L.; Canada sanicle; JS 10444
Spermolepis divaricata (Walter) Raf. ex Ser.; forked scaleseed; LH 5019
Spermolepis inermis (Nutt. ex DC.) Mathias & Constance; spreading scaleseed; JS & TD 10711; LS 3779; 3790; 3859
*Torilis arvensis (Huds.) Link; hedge parsley; JS & TD 10712; LS 3780; LH 4776; 4991

Apocynaceae
Apocynum cannabinum L.; dogbane; JS 10669
Asclepias asperula (Decne.) Woodson; trailing milkweed; JS 10371; TT & AC 147; LS 4056
Asclepias oenotheroides Cham. & Schltdl.; hierba de zizotes; JS 10678; LS 4549
Asclepias texana A. Heller; Texas milkweed; JS 10057; 10561; LS 4104
Asclepias verticillata L.; whorled milkweed; JS 10652
Asclepias viridiflora Raf.; green antelope horn; JS 10677; KW s.n.
Cynanchum racemosum (Jacq.) Jacq. var. uniflorum (Scheele) Sundell; talyat; LH 5023
Funaria crispus (Benth.) Schlr.; wavyleaf twinevine; JS 18032; KW s.n.
Maclea biflora (Raf.) Woods.; two-flower milkvine; JS 18033; LS 4058
Maclea edwardsensis Correll; plateau milkvine; JS 18034
Maclea gonocarpos (Walt.) Shinners; angular-fruit milkvine; JS 18035
Maclea reticulata (Engelm. ex A. Gray) Woods.; net-vein milkvine; LS 3755

Aquilifoliaceae
Ilex decidua Walt.; deciduous holly; LS 4220

Aristolochiaceae
Aristolochia coryi J.M. Johnst.; Cory dutchman’s pipe; JS 10053; FG 8761; LS 3854; 3935
Aristolochia serpentaria L.; dutchman’s pipe; JS 10586; LS 3841; 4221

Asteraceae
Achillea millefolium L.; western yarrow; JS 18036
Ageratina altissima (L.) King & H. Rob.; white snakeroot; JS 8494
Ageratina havanensis (Kunth) King & H.E. Robins.; Havana snakeroot; JS 8475; 10594; LS 3869; 4561
Ambrosia artemisiifolia L.; common ragweed; JS 10050
Ambrosia confertiflora DC.; field ragweed; FG 8201; LS 4531; S&R 928
Ambrosia psilostachya DC.; western ragweed; JS 18037; LS 4562
Amphiaclys dracunculoides (DC.) Nutt.; broomweed; JS 18038
Aphanostephus ramosissimus DC. var. ramosissimus; plains lazy daisy; FG 8271; 8304; LS 3801; LH 4779; 5020
Aphanostephus skirrhobasis (DC.) Trel. var. skirrhobasis; Arkansas lazy daisy; JS 10420
Artemisia ludoviciana Nutt.; Louisiana sagewort; JS 18039; LS 4548
Baccharis neglecta Britton; Roosevelt-weed; LS 4119; 4540
Baccharis salicina Torr & A. Gray; seepwillow; KW s.n.
Baccharis texana (Torr. & A. Gray.) A. Gray; prairie weed; JS 8487; 9950
Berlandiera betonicifolia (Hook.) Small; Texas greeneyes; JS 10380; 10644
Bidens bipinnata L.; Spanish needles; JS 10819
Bidens laevis (L.) Britton, Sterns & Poggenb.; smooth beggartick; JS 15971; LS 4557
Boltonia diffusa Elliot; smallhead doll’s daisy; JS 15969
Brickellia cylindracea A. Gray & Engelm.; brickell bush; LS 4095
Brickellia elupatorioidei (L.) Shinners var. gracillima (A. Gray) B.L. Turner; false boneset; JS 9983
Calyptracarpus vialis Less.; prostrate lawnflower; JS 10641; LS 3952
*Carduus nutans L. var. macrocephalus (Desf.) Boivin; musk-thistle; JS 10556; LS 3742; LH 5323
*Carduus tenuiflorus W. Curtis; slender bristlethistle; JS & TD 10732
Centaura americana Nutt.; American basket flower; JS 10643
Centaura melitensis L.; Malta centaurea; JS & TD 10720; KW s.n.; LS 3741
Chaetopappa asteroides Nutt. ex DC.; common least daisy; JS 9952; KW s.n.
Chaetopappa bellidifolia (A. Gray & Engelm.) Shinners; hairy least daisy; JS 10423; KW s.n.; LS 3787; LH 4776; 4991
Chaetopappa effusa (A. Gray) Shinners; spreading least daisy; JS 8495
Chaptalia texana Greene; nodding lettuce; JS 10646
Chrysactinia mexicana A. Gray; damiana; LS 3802
Cirsium ochrocentrum A. Gray; yellow spine thistle; JS 10455
Cirsium texanum Buckley; southern thistle; JS 10556; KW s.n.; LS 3760
Cirsium undulatum (Nutt.) Spreng.; wavyleaf thistle; JS 10386
*Cirsium vulgare (Savi) Ten.; bull thistle; LH 5027
Conyza canadensis (L.) Cronq. var. glabrata (A. Gray) Cronq.; Canada fleabane; JS 18040; KW s.n.; LS 4073
Conyza ramosissima Cronq.; low conyza; FG 8304
Coreopsis basilis (Diert.) Blake; goldenmane coreopsis; JS 10428; 10573; KW s.n.
Coreopsis tinctoria Nutt. var. tinctoria; plains coreopsis; JS & TD 10695
Dracopis amplexicaulis (Vahl) Cass.; clasping coneflower; JS 10617
Dysdodia papposa (Vent.) Hitchc.; mayweed dogweed; JS 18041
Eclipta prostrata (L.) L.; Yerba de Tago; JS 18131
Engelmannia peristenia (Raf.) Goodman & C.A. Lawson; Engelmann's daisy; LH 4977
Erigeron modestus A. Gray; plains fleabane; JS 18042; 10546; KW s.n.; LS 3800
Eupatorium serotinum Michx.; late eupatorium; JS 8483; 9968; LS 4096
Evax prolifer Nutt. ex DC.; bighead evax; JS 10398; KW s.n.; LS 3769; LH 4576
Evax verne Raf.; many-stem evax; JS 10406; LH 4777
Gaillardia pulchella Foug. var. pulchella; firewheel; JS 10414; KW s.n.; LS 3748
Gaillardia suevis (A. Gray & Engelm.) Britt. & Rusby; small ray firewheel; JS 10394; LH 4770
Gamochaeta purpurea (L.) Cabrera; cudweed; JS 10048
Grindelia squarrosa (Pursh) Dunal; curly-cup gumweed; JS 18043
Guiterreza texana (DC.) Torr. & A. Gray var. texana; Texas broomweed; JS 18044; FG 8243; LS 4537
Helenium amarum (Raf) H. Rock var. badium (A. Gray ex S. Watson) Waterf.; basin sneezeweed; JS 18045
Helenium elegans DC.; common sneezeweed; JS 10603
Helenium microcephalum DC. var. microcephalum; smallhead sneezeweed; JS 10454; LH 5033
Helianthus annuus L.; common sunflower; FG s.n.; KW s.n.; LH 5317
Helianthus maximiliani Schrad.; Maximilian sunflower; JS 10672; LS 3932
Heterotheca subaxillaris (Lam.) Britt. & Rusby; camphorweed; JS 18046; KW s.n.
Hymenopappus scabiosaeus L’Her.; flat-top woolly white; JS 10042; 10448; LH 4974
Krivia caespitosa (Raf) Chamb.; weedy dwarf dandelion; JS 18047
Lactuca canadensis L. var. canadensis; Canada lettuce; JS 10558
Lactuca ludoviciana (Nutt.) Riddell; western wild lettuce; LH 5026
*Lactuca serriola L.; prickly lactuca; KW s.n.
Laennecia coulteri (A. Gray) G.L. Nesom; Coulter conyza; FG 8217
Liatris mucronata DC.; blazing star; JS 10066
Lindheimera texana A. Gray; Texas star; JS 10447
Lygodesium texana (Torr. & A. Gray) Greene; Texas skeleton plant; JS 10656; LH 4992
Marshallia caespitosa Nutt. ex DC. var. signata Beadle & F.E. Boynt.; Barbara's button; JS 10436
Melampodium leucanthum Torr. & A. Gray; plains blackfoot; JS 18048; KW s.n.; LS 3943
Packera ovata (Muhl. ex Willd.) W.A. Weber & A. Löve; round-leaf ragwort; JS & TD 10718
Packera platensis (Nutt.) W.A. Weber & A. Löve; prairie groundsel; JS & TD 10719; KW s.n.
Palafoxia callosa (Nutt.) Torr. & A. Gray; palafoxia; JS 10065
Parthenium hysterophorus L.; false ragweed; LS 4076; LH 5031
Perityle lindheimeri (A. Gray) Shinners; Lindheimer rock daisy; JS 8479; 10635; LS 3851
Pinarappus roseus (Less.) Less.; white rock lettuce; JS & TD 10743; KW s.n.; LH 4769
Pluchea odorata (L.) Cass.; purple stinkweed; JS 18049
Pseudognaphalium conescens (DC.) W.A. Weber; Wright cudweed; JS 8476
Pseudognaphalium obtusifolium (L.) Hilliard & B.L. Burtt; fragrant cudweed; JS 10227
Psiostrophe tagetina (Nutt.) Greene; paper flower; JS 8496
Pyrrhopappus carolinianus DC.; false dandelion; JS 10425
Pyrrhopappus pascualis (D. Don) DC.; many-stem false dandelion; KW s.n.
Ratibida columnifera (Nutt) Woot & Standl.; Mexican hat; JS 10389; JS & TD 10696; LS 3773
Ratibida tagetes (James) Barnh.; short-ray prairie coneflower; JS 10601
Rudbeckia fulgida Aiton; orange coneflower; JS 17577
Rudbeckia hirta L. var. purpurina Farw.; black-eyed Susan; LH 5315
Silphium radula Nutt.; roughstem rosinweed; JS 10604
Simisia calva (Engelm. & A. Gray) A. Gray; aawnless bush sunflower; KW s.n.; LS 4055
Solidago altissima L.; common goldenrod; JS 9972
Solidago julliae G.L. Nesom; Julia's goldenrod; LS 4115
Solidago nemoralis Aiton; oldfield goldenrod; JS 9998; LS 4550
Solidago petiolaris Aiton; goldenrod; JS 9973
Solidago radula Nutt.; rough goldenrod; JS 10568
*Sonchus asper (L) Hill; prickly sowthistle; JS 8501; 10431
Symphyotrichum divaricatum (Nutt.) G.L. Nesom; hierba del marrano; JS 10000
Symphyotrichum drummondi (Lindl.) G.L. Nesom var. texanum (Burrage) G.L. Nesom; Texas aster; JS 10225
Symphyotrichum ericoides (L.) G.L. Nesom; heath aster; JS 18050
Symphyotrichum patens (Aiton) G.L. Nesom var. patens; skydrop aster; JS 18051
Symphyotrichum praetatum (Poir.) G.L. Nesom var. praetatum; willow-leaf aster; JS 15962; LS 4120; 4558
Symphyotrichum sericeum (Vent.) G.L. Nesom; silky aster; JS 18052
*Taraxacum officinale F.H. Wiggers; common dandelion; JS 10388; LH 5580
Tetragonothea texana Engelm & A. Gray ex A. Gray; Plateau dandelion; FG 8245; LS 3936
Tetraneuris acalus (Pursh) Greene; stemless four-nerve daisy; KW s.n.
Tetraneuris linearifolia (Hook.) Greene; fineleaf fournerved daisy; JS 10379; FG 8216; LS 3737
Thelesperma filifolium (Hook.) A. Gray; greenthread; LS 3749

Thelesperma simplicifolium A. Gray; slender greenthread; LS 3803

Verbena encelioides (Cav.) Benth. & Hook. f. ex A. Gray; cowpen daisy; JS 8482; LS 3931

Verbena lindeihei B.L. Rob. & Greenm.; Lindheimer’s crown-beard; JS 15974

Verbena virginica L.; frostweed; JS 9991; LS 4101

Vernonia lindeihei A. Gray & Engelm. ex A. Gray; ironweed; JS 18053

Viguiera stenoloba Blake; resin bush; LS 3940; 4569

Wedelia texana (A. Gray) B.L. Turner; orange zemenia; JS 18054; FG 8231; 8263; LS 4062

*Xanthium spinosum L.; spiny cocklebur; FG 8348

Xanthium strumarium L.; abrojo; JS 18055

Berberidaceae

Mahonia trifoliolata (Moric.) Fedde; algerita; JS 18056; KW s.n.; LS 4193

Boraginaceae

*Buglossoides arvensis (L.) I.M. Johnst.; heliotrope; KW s.n.

Heliotropium tenellum (Nutt.) Torr.; pasture heliotrope; JS 10029; FG B147; LS 3902

Lithospermum incisum L.; Virginia pepperweed; JS & KW s.n.; 10417; JS 18071

Brassicaceae

*Capsella bursa-pastoris (L.) Medik.; shepherd’s purse; JS 18058; LS 3720

Draba cuneifolia Nutt. ex Torr. & A. Gray; wedgeleaf whitlowgrass; JS 18059; KW s.n.; LH 4763

Draba platycarpa Torr. & A. Gray; broadpod whitlowgrass; JS 18060; KW s.n.; LH 4758

Draba reptans (Lam.) Fernald; Carolina draba; JS & TD 10684; KW s.n.

Lepidium austrinum Small; southern pepperweed; LS 3721; 4042

Lepidium virginicum L.; Virginia pepperweed; JS & TD 10744; KW s.n.; LH 4772

*Nasturtium officinale W.T. Aiton; watercress; LH 4981

Physaria argyrea (A. Gray) O’Kane & Al-Shehbaz; silvery bladderpod; KW s.n.

Physaria densiflora (A. Gray) O’Kane & Al-Shehbaz; denseflower bladderpod; JS & TD 10745

Physaria gracilis (Hook.) O’Kane & Al-Shehbaz ssp. gracilis; white bladderpod; LS 4207

Physaria recurvata (A. Gray) O’Kane & Al-Shehbaz; gazelle bladderpod; slender bladderpod; LS 3738; LH 4759

Rorippa sessiliflora (Nutt.) Hitchc.; stalkless yellowcress; JS 10664

Cactaceae

Coryphantha sulcata (Engelm.) Britt. & Rose; pineapple cactus; LH 5956

Cylindropuntia imbricata (Haw.) F.M. Knuth; tree cholla; JS 18061

Cylindropuntia leptoaulis (DC.) F.M. Knuth; pencil cactus; JS 10441

Echinocactus texensis Hopffer; devil’s pincushion cactus; JS 18062; LS 4208

Echinocereus enneacanthus Engelm.; pitaya; JS 18063

Echinocereus reichenbachii (Terscheck ex Walp.) Haage ssp. reichenbachii; lace cactus; JS 18064

Echinocereus triglochidiatus Engelm.; claret cup cactus; LS 4216

Epithelantha micromeris (Engelm.) A. Weber; button cactus; LS 3946

Mammillaria heyderi Muehlenpfordt; little nipple cactus; LH 5626

Opuntia edwardsii V.E. Grant & K.A. Grant; Edwards prickly pear; JS 18065

Opuntia engelmannii Salm-Dyck ex Engelm. var. Lindheimeri (Engelm.) Parfitt & Pinkava; Texas prickly pear; JS 18066; LH 5868

Opuntia macroarhiza Engelm.; plains prickly pear; LH 5870

Opuntia phaeacantha (Engelm.) var. major Engelm.; brown-spine prickly pear; LH 5869

Sclerocactus brevifolius (Engelm.) Parfitt & Pinkava; Texas prickly pear; JS 18066; LH 5868

Viburnum rufidulum Raf.; downy viburnum; JS 10021; 10547; JS & TD 10726; KW s.n.

Capparidaceae

Polanisia dodecandra (L.) DC.; clammyweed; JS 10615; 10654; LS 4071

Caryophyllaceae

Arenaria bernhardii Fenzl. ex Torr. & A. Gray; hilly sandwort; JS 18069; LS 3730

*Cerastium glomeratum Thuillier; chickweed; JS 18070

Paronychia lindeihei Engelm. ex A. Gray; Lindheimer’s nailwort; LS 4567

Paronychia virginica Spreng.; bristle nailwort; JS 18071

*Polycarpum tetraphyllum (L.) L.; fourleaf manyseed; JS 18072

Silene antirhina L.; sleepy catchfly; JS 10417; LS 3732

*Stellaria media (L.) Vill.; chickweed; JS & TD 10702

Chenopodiaceae

Chenopodium album L. var. album; pigweed; JS 18073; LH 4976

Chenopodium berlandieri Moq.; pitseed goosefoot; KW s.n.
Chenopodium simplex (Torr.) Raf.; maple-leaf goosefoot; LS 4088

Clusiaceae
Hypericum drummondii (Grev. & Hook.) Torr. & A. Gray; Drummond St. John’s wort; JS 18074
Hypericum mutilum L.; dwarf St. John’s wort; JS 18075

Convolvulaceae
*Convolvulus arvensis* L.; field bindweed; JS 10384
Convolvulus equitans Benth.; gray bindweed; JS 10673; LS 3778

Dichondra carolinensis Michx.; grass pony weed; JS 10390; LS 4210
Evolvulus sericeus Sw.; silver dwarf morning glory; JS 18076; LS 3916
Ipomoea cordatotriloba Dennst. var. cordatotriloba; sharp-pod morning glory; LS 3958
Ipomoea hederacea Jacq.; ivy-leaf morning glory; JS 8489
Ipomoea lindheimeri A. Gray; Lindheimer’s morning glory; LS 4060
Ipomoea purpurea (L.) Roth; Mexican morning glory; JS 10411

Cornaceae
Cornus drummondii C.A. Mey.; roughleaf dogwood; JS 10589; KW s.n.; LH 5867

Crassulaceae
Crassula aquatica (L.) Schoenl.; crassula; JS 18077
Sedum nuttallianum Raf.; Nuttall’s stonecrop; JS 10463; LS 3794

Cucurbitaceae
Cucurbita foetidissima Kunth. in H.B.K.; buffalo gourd; JS 10462; LS 3752
Ibervillea lindheimeri (A. Gray) Greene; Lindheimer globeberry; JS 18078

Cuscutaceae
Cuscuta sp.; dodder; JS 18079; LH 6256

Ebenaceae
Diospyros texana Scheele; Texas persimmon; JS 10808; KW s.n.; LS 4201

Ericaceae
Arbutus xalapensis Kunth; madrone; KW s.n.

Euphorbiaceae
Acalypha ostryifolia Torr.; round pod milk vetch; LS 3770
Acalypha phleoides Cav.; Lindheimer copperleaf; JS 10625; FG 8214; LS 3788
Acalypha radians Torr.; round copperleaf; JS 10060
Argyranthemum humilis (Engelm. & A. Gray) Muell. Arg. var. humilis; low wild mercury; KW s.n.; LS 3750
Argyranthemum simulans J.W. Ingram; Plateau wild mercury; JS 10614; LH 4973
Bernardia myricifolia (Scheele) S. Wats.; brush myrtle croton; JS 18081
Chamaesyce angusta (Engelm.) Small; blackfoot euphorbia; JS 10662; KW s.n.; LS 3809; 4093
Chamaesyce fendleri (Torr. & A. Gray) Small; spurge; JS 10395
Chamaesyce glyptosperma (Engelm.) Small; ridged seed euphorbia; JS 10619
Chamaesyce maculata (L.) Small; spotted spurge; JS 10037; 10653
Chamaesyce missurica (Raf.) Shinn.; spurge; JS 9963b
Chamaesyce nutans (Lag.) Small; eyebane; JS 9976; LS 3772; 4089
Chamaesyce prostrata (Aiton) Small; prostrate euphorbia; JS 9978; LS 4070; 4535; 4563; LH 5309
Chamaesyce serpens (Kunth) Small; mat spurge; JS 10761; KW s.n.; LS 3771; 4045
Chamaesyce serpyllifolia (Pers.) Small; thymeleaf euphorbia; JS 10653
Chamaesyce villifera (Scheele) Small; hairy euphorbia; JS 10661; LS 3949; 4064
Croton capitatus Michx.; woolly croton; JS 10016
Croton fruticulosus Engelm. ex Torr.; bush croton; JS 10660; LS 3840
Croton lindheimerianus Scheele; three-seed croton; JS 10017
Croton monanthogynus Michx.; one-seed croton; JS 10052; FG 8293; LS 3937
Croton texensis (Klotzsch) Muell. Arg.; Texas croton; JS 10047; 10660; LS 4067
Euphorbia cyathophora Murray; wild poinsettia; KW s.n.; LS 4063
Euphorbia dentata Michx.; toothed spurge; JS 10609; LH 4978
Euphorbia marginata Pursh; snow-on-the-mountain; JS 10025; LS 4102
Euphorbia roemeriana Scheele; Roemer euphorbia; JS 8477; LS 3791
Euphorbia spathulata Lam.; warty euphorbia; KW s.n.; LH 4775
Leptopus phyllanthoides (Nutt.) G.L. Webster; maidenbush; JS 10570
Phyllanthus abnormis Baill. var. abnormis; Drummond’s leafflower; JS 10419
Phyllanthus polygonoides Nutt. ex Spreng.; knotweed leafflower; JS & TD 10746; FG 8250; LS 3758
Stillingia texana I.M. Johnst.; Texas stillingia; JS 10036; 10467; 10564; LS 3805
Tragia amblyodonta (Muell. Arg.) Pax. & K. Hoffm.; dogtooth noseburn; JS 10659
Tragia bentonicifolia Nutt.; betony noseburn; JS 10376
Tragia nigricans Bush; dark noseburn; JS 10382
Tragia ramosa Torr.; catnip noseburn; JS 10634; FG 8254; LS 3795

Fabaceae
Acacia greggii A. Gray; catclaw acacia; KW s.n.
Acacia roemeriana Scheele; roundflower catclaw; JS 10802; LH 4784
Amorpha fruticosa L.; indigo bush amorphia; JS 18083
Astragalus distortus Torr. & A. Gray var. engelmannii (Sheldon) M.E. Jones; bent pod milk vetch; JS & TD 10742
Astragalus nuttallianus DC.; small-flowered milk vetch; JS & TD 10748; KW s.n.; LH 4761
Astragalus platensis Nutt.; Platte River milk vetch; JS 10432
Astragaluswrightii A. Gray; Wright's milk vetch; LH 4764
Cercis canadensis L. var. texensis (S. Wats.) M. Hopk.; Texas redbud; JS 8763; JS & TD 10734; KW s.n.; LS 3804; 4195
Dalea aurea Nutt. ex Pursh; golden dalea; JS 10571; LS 3922
Dalea frutescens A. Gray; black dalea; KW s.n.
Dalea lasiathera A. Gray; purple prairie clover; JS 18084; LS 4078
Dalea nana Torr. & A. Gray; dwarf dalea; JS 10645; LS 4542
Desmanthus acuminatus Benth.; sharp-pod bundleflower; LS 3903
Desmanthus velutinus Scheele; velvet bundleflower; JS 10650; KW s.n.; FG 8251; LS 3904
Desmodiumpaniculatum (L.) DC; panicked tickclover; JS 10557; LH 5314
Desmodium sessilifolium (Torr.) Torr. & A. Gray; sessileleaf tickclover; JS 10628; KW s.n.
Eysenhardtia texana (Scheele) A. Gray; Texas kidneywood; JS 10027; 10620; KW s.n.; LS 3852
Galactia texana (Scheele) A. Gray; Texas milkpea; JS 10040; 10657
Indigoferaminiatana Ortega; scarlet pea; JS 18085
Lathyrus pusillus Ell.; low peavine; LH 4780
Lespedeza texana Britt.; Texas bush clover; LS 3926
Lespedeza virginica (L.) Britt.; slender lespedeza; JS 10429
Leucaena retusa Benth. in A. Gray; little-leaf leadtree; JS 10049; DH s.n.; LS 3925
Lotus unifoliolatus (Hook.) Benth. var. helleri (Britton) Kartesz & Gandhi; Heller's birds-foot trefoil; JS 10410
Lupinus texensis Hook.; Texas bluebonnet; JS & TD 10737; LS 3792
*Medicago lupulina L.; black medic; LS 3734
*Medicago minima (L.) Bartalina; small medicago; JS & TD 10747; LS 3725
*Melilotus officinalis (L.) Lam.; yellow sweetclover; JS 10605; 10623
Mimosa aculeaticarpa Ortega var. biuncifera (Benth.) Barneby; wait a bit; JS 10046
Mimosa borealis A. Gray; fragrant mimosa; JS 10222; LH 4782
Mimosa nuttallii (DC. ex Britton & Rose) B.L. Turner; catclaw sensitive brier; JS 18086
Pedioleum hypogaeum (Nutt. ex Torr. & A. Gray) Rydb. var. scaposum (A. Gray) Mahler; subterranean Indian breadroot; LH 4783
Prosopsis glandulosa Torr.; mesquite; JS 10472; KW s.n.; LS 3919
Rhychnosissenna Gillies ex Hook. var. texana (Torr. & A. Gray) M.C. Johnst.; Texas snoutbean; JS 18087; KW s.n.; LS 3781
Senna roemeriana (Scheele) Irvin & Barneby; two-leaf senna; JS 10028; 10381; FG 8291; LS 3754
Styphnolobium affine (Torr. & A. Gray) Walp.; Eve's necklacepod; JS 18088; KW s.n.; LS 4043
Vicia carolinianum Walt.; Carolina vetch; JS 10430
Vicia ludoviciana Nutt.; deer pea vetch; JS & TD 10749; KW s.n.; LS 4211

Fagaceae
Quercus buckleyi Nixon & Dorr; Buckley oak; JS 9956; KW s.n.; LS 4194
Quercus fusiformes Small; Plateau live oak; JS & TD 10714; KW s.n.; LS 4202
Quercuslaceyi Small; Lacey oak; JS 10631; DH s.n.; KW s.n.; LS 4111
Quercus manilandiaca Muenchh.; blackjack oak; JS 10671; KW s.n.; LS 4044; 4197
Quercus muehlenbergii Engelm.; chinquapin oak; JS 10039; KW s.n.; LS 4222
Quercus pungens Liebm. var. vaseyana (Buckley) C.H. Mull.; Vasey thin oak; JS 9992
Quercus sinuataWalter var. breviloaba (Torr.) C.H. Mull.; bastard oak; JS 9957; 10618; JS & TD 10713; KW s.n.; LS 4199
QuercusstellataWang. var. stellata.; post oak; JS 10670; KW s.n.; LS 4196

Fumariaceae
Corydaliscurvisiliquag Engelm. ssp. curvisiliqua; scrambled eggs; LH 4765
Corydalis micrantha (Engelm.) A. Gray; scrambled eggs; JS & TD 10687; KW s.n.

Garryaceae
Garrya ovata Benth. ssp. lindheimeri (Torr.) Dahling; silttassel; JS 8765; KW s.n.

Gentianaceae
Centaurium beyrichi (Torr. & A. Gray) B.L. Rob.; mountain pink; JS 10393; 10026a; 10632; FG 8259; LS 4415
Centaurium calycosum (Buckley) Fernald; Buckley century; JS 10581; LH 5022
Eustomaexaltatum (L.) Salisb. ex G. Don ssp. russellianum (Hook.) Kartesz; showy prairie gentian; JS 18132; LS 4413

Geraniaceae
*Erodium cicutarium (L.) L’Her. ex Aiton; alfilaria; JS & TD 10705; KW s.n.; LS 3733
Erodium texanum A. Gray; Texas filaree; JS & TD 10704; JS 10453; LH 5861
Geranium carolinianum L.; Carolina geranium; JS 10457
Geranium texanum (Trel.) A. Heller; Texas geranium; LS 4209

Hippocastanaceae
Aesculus pavia (Sarg.) Correll var. pavia; red buckeye; JS & TD 10717

Hydrophyllaceae
Nama jamaicense L.; Jamaican weed; JS 10659; LH 4757
Nemophila phaceloioides Nutt.; large-flower nemophila; JS & TD 10694
Phacelia congesta Hook.; spike phacelia; JS 10552; KW s.n.; LH 4975

Juglandaceae
Carya illinoinsensis (Wang.) Koch; pecan; JS 9988; KW s.n.; LS 4224
Juglans major (Torr.) A. Heller; Arizona walnut; LS 4087
Juglans microcarpa Berland.; little walnut; JS 9962; 10612; DH s.n.; LS 3830
Juglans nigra L.; black walnut; JS 10562; KW s.n.
Krameriaceae
Krameria lanceolata Torr.; trailing krameria; JS 18089

Lamiaceae
Hedeoma acinoides Scheele; slender hedeoma; JS 10399; LH 4766
Hedeoma drummondii Benth.; Drummond hedeoma; JS 10396; FG 8254; LS 4046
Hedeoma nana (Torr.) Briq.; low hedeoma; JS 9977
Hedeoma reverchonii (A. Gray) A. Gray var. reverchonii; rock hedeoma; JS 10565; 10755
Hedeoma reverchonii (A. Gray) A. Gray var. serpyllifolia (Small) Irving; thymeleaf hedeoma; LS 3808, 3917
*Lamium amplexicaule* L.; henbit; JS & TD 10685; LH 5579
*Marrubium vulgare* L.; common horehound; JS 10560; FG 8271; LS 3740
*Mentha spicata* L.; spearmint; JS 10018

Lentibulariaceae
*Linum rupestre* (A. Gray) Engelm. ex A. Gray; rock flax; JS 10377; LS 4059

Loasaceae
Eucnide bartonioides Zucc.; yellow rocknettle; JS 8768; 10554; LH 5555
*Mentzelia oligosperma* Nutt. ex Sims.; chicken-thief; JS 10452; LS 4408
*Mentzelia reverchonii* (Urb. & Gilg) H.J. Thomp. & Zavort.; mentzelia; JS 10572

Loganiaceae
Buddleja racemosa Torr. ssp. *incana* (Torr.) Norman; wand butterfly-bush; JS 8474

Mitrholaeo petiolata* (J.F. Gmel.) Torr. & A. Gray; lax hornpod; JS 18091; LS 4099

Lythraceae
*Ammannia coccinea* Rottb.; Valley redstem; JS 18092
Lythrum ovalifolium Koechn.; low loosestrife; JS 10063

Malpighiaceae
Galphimia angustifolia Benth.; narrowleaf thryallis; JS 18093; FG 8211; LS 3860

Malvaceae
Abutilon fruticosum Guill. & Perrottet; Texas Indian mallow; JS 10658; FG 8256a; LS 3799; 4538
Callirhoe pedata (Nutt. ex Hook.) A. Gray; finger poppy mallow; JS 10438
Rhyynchosida physocalyx (A. Gray) Fryxell; buff petal; LS 3776
Sida abutilifolia Mill.; spreading sida; JS 10038; 10647; 10800; FG 8247; LS 3789
Sida lindeiwerkia Engel. & A. Gray; showy sida; JS 10061; 10658
*Sphaeralcea angustifolia* (Cav.) G. Don. var. angustifolia; leaf globe mallow; KW s.n.

Meliaceae
*Melia azedarach* L.; chinaberry; KW s.n.; LH 4786

Menispermaceae
Cocculus carolinus (L.) DC.; Carolina snailseed vine; JS 8491; 10012; KW s.n.; LS 3953

Molluginaceae
Ginus radiatus (Ruiz & Pavon) Rohrb.; spreading sweetjuice; JS 18094
Mollugo verticillata L.; green carpetweed; JS 18095

Moraceae
Morus microphylla Buckley; Texas mulberry; JS 9990; 10551; KW s.n.; LS 4219
Morus rubra L.; red mulberry; JS 10593

Nyctaginaceae
Boerhavia diffusa L.; scarlet spiderling; JS 18096
Mirabilis alba (Walt.) Heimerl; four-o’clock; KW s.n.; LS 3796; 4066; 4545; 4559
Mirabilis nyctaginea (Michx.) MacMill; heartleaf four-o’clock; JS 10557
*Mirabilis jalapa* L.; marvel of Peru; LS 4530
*Mirabilis linearis* (Pursh.) Heimerl; linearleaf four-o’clock; JS 10373; JS & TD 10731; LH 6258

Oleaceae
Forestiera pubescens Nutt.; elbowbush; JS 8766; 10636; KW s.n.; LS 4200
*Forestiera reticulata* Torr.; netleaf foresteria; JS 18097
*Fraxinus texensis* (A. Gray) Sarg.; Texas ash; JS 18098
*Menodora longiflora* A. Gray; showy menodora; LS 4054

Onagraceae
*Calycophorus berlandieri* Spach ssp. berlandieri; halfshrub sundrops; JS 18099
*Ludwigia peploides* (Kunth. in H.B. K.) P.H. Raven; floating primrose-willow; JS 18100
*Ludwigia repens* J.R. Forst.; roundleaf seedbox; JS 18101

Onagraceae
*Calycophorus berlandieri* Spach ssp. berlandieri; halfshrub sundrops; JS 18099
*Ludwigia peploides* (Kunth. in H.B. K.) P.H. Raven; floating primrose-willow; JS 18100
*Ludwigia repens* J.R. Forst.; roundleaf seedbox; JS 18101
Oenothera grandis (Britt.) Smyth; grand evening primrose; JS 10435
Oenothera speciosa Nutt.; showy primrose; KW s.n.
Oenothera triandra Nutt.; stemless evening primrose; KW s.n.; LH 4787
Stenosiphon linifolius (Nutt. ex James) Heynh.; false gaura; JS 18102

Oxalidaceae
Oxalis dillenii Jacq.; Dillen’s oxalis; JS 18133; FG 8314
Oxalis drummondii A. Gray; purple wood sorrel; LS 4083
Oxalis stricta L.; yellow wood sorrel; KW s.n.; Oxalis LS 3775
Oxalis drummondii A. Gray; purple wood sorrel; LS 4083
dillenii FG Jacq.; Dillen’s oxalis; JS 18133; Oxalis
Oxalidaceae
Oxalidaceae

Passifloraceae
Passiflora lutea L.; yellow passionflower; KW s.n.;
Passiflora drummondii Torr. & A. Gray; Texas virgin’sbower; JS & TD 10697; KW s.n.; LS 4069
Passiflora drummondii Torr. & A. Gray; purple leather flower; JS 10599;
Passiflora texensis (Torr. & A. Gray); Texas colubrina; JS 18116;

Pedaliaceae
Proboscidea louisianica (Mill.) Thell. ssp. louisianica; common devil’s claw; JS 10018

Phytolaccaceae
Phytolacca americana L.; pokeweed; JS 8502; LH 5322
Rivina humilis L.; rougeplant; JS 11804

Plantaginaceae
Plantago helleri Small; cedar plantain; LS 3761
Plantago patagonica Jacq.; bristle bract plantain; JS & TD 10750; KW s.n.
Plantago rhadosperma Decne.; redseed plantain; JS 10413; JS & TD 10751; LH 4980
Plantago virginica L.; paleseed plantain; JS 10402

Platanaceae
Platanus occidentalis L.; sycamore; JS 18105; KW s.n.; LS 3829

Polemoniaceae
Giliastrum rigidulum (Benth.) Rydb.; prickleaf gilia; JS & TD 10738; LS 3939
Philox drummondii Hook.; Drummond phlox; JS 10439
Philox roemeriana Scheele; Roemer phlox; JS & TD 10736; LH 4768

Polygonaceae
Polygonum hydropiperoides Michx.; swamp smartweed; JS 18109
Polygonum lapathifolium L.; curbtop smartweed; JS 18110
*Rumex crispus L.; curly dock; JS 18111
*Rumex pulcher L.; fiddle dock; LS 3743

Portulacaceae
*Portulaca oleracea L.; common purslane; KW s.n.; JS 18112
Portulaca pilosa L.; shaggy purslane; JS 18113; KW s.n.; LS 3954
Phermeranthus antirrhinum (Engelm.) Kiger; orange fame -flower; KW s.n.; FG 8258

Primulaceae
Samolus ebracteatus Kunth.; limerock brookweed; JS 8478;
10024; LS 3853
Samolus valerandi L. ssp. parviflorus (Raf.) Hulten; thin-leaf brookweed; LS 3837; 3866

Ranunculaceae
Anemone berlandieri Pritz.; tenpetal anemone; JS & TD 10686
Anemone caroliniana Walt.; Carolina anemone; JS & TD 10689;
KW s.n.
Aquilegia canadensis L.; American columbine; JS 10587

Clematis drummondii Torr. & A. Gray; Texas virgin’sbower; JS & TD 10697; KW s.n.; LS 4069
Clematis drummondii Torr. & A. Gray; purple leather flower; JS 10599;
Clematis texensis Buckley; scarlet clematis; JS 18114
Delphinium carolinianum Walter ssp. virescens (Nutt.) R.E. Brooks; Carolina larkspur; JS 10440; KW s.n.

Rhamnaceae
Berchemia scandens (Hill) K. Koch; Alabama supplejack; JS 18115
Ceanothus herbaceus Raf.; redroot; JS 10567

Colubrina texensis (Torr. & A. Gray) A. Gray; Texas colubrina;
JS 10622
Condalia ericoides (A. Gray) M.C. Johnst.; javelina bush; JS 8769
Condalia hookeri M.C. Johnst.; brasii; JS 10470; KW s.n.
Condalia spathulata A. Gray; knifeflower condalia; LS 4205
Frangula caroliniana (Walter) A. Gray; Carolina buckthorn; JS 18116; DH s.n.
Ziziphus obtusifolia (Hook. ex Torr. & A. Gray) A. Gray var. obtusifolia; lotebush; JS 10621

Rosaceae
Cercocarpus montanus Raf.; true mountain mohagany; JS 8497
Craspedus sp.; hawthorn; KW s.n.
Geum canadense Jacq.; white avens; JS 18117; LS 3850
Petrophytum caespitosum (Nutt.) Rydb.; rock spirea; JS 8767;
LS 4121
Prunus angustifolia Marsh.; chickasaw plum; JS 10648
Prunus serotina Ehrh. var. eximia (Small) Little; Escarpment black cherry; JS 10020; JS & TD 10715; KW s.n.; LS 4203
Prunus texana D. Dietr.; Texas peach; JS 8481
Rubus trivialis Michx.; southern dewberry; JS 18118

Rubiaceae
Cephalanthus occidentalis L.; common button bush; JS 10637;
KW s.n.; LS 3933
Galium aparine L.; catchweed bedstraw; JS & TD 10752; KW s.n.; LS 3759
Galium texense A. Gray; Texas bedstraw; JS 10409; KW s.n.; LS 3745
Galium virgatum Nutt.; southwest bedstraw; LS 4213
Houstania pusilla Schoepf; tiny bluet; JS 18119
*Sherardia arvensis L.; spurwort; JS & TD 1069
Stenaria nigricans (Lam.) Terrell var. nigricans; fineleaf bluet; JS 8488; 10374; FG 8263; KW s.n.; LS 3807

Rutaceae
Ptelea trifoliata L.; hoptree; JS 10820
Thamnosma texana (A. Gray) Torr.; dutchman’s breeches; JS 18120; LS 3810
Zanthoxylum hirsutum KW s.n.

Salicaceae
Populus deltoides Bartram ex Marsh. ssp. deltoides; cottonwood; JS 18122
Salix nigra Marsh.; black willow; JS 18123; LS 4223

Sapindaceae
Sapindus saponaria L. var. drummondii (Hook. & Arn.) L.D. Benson; western soapberry; JS & TD 10011; 10591
Ungnadia speciosa Endl.; Mexican buckeye; JS & TD 10167; KW s.n.; LS 4215

Sapotaceae
Sideroxylon lanuginosum Michx. ssp. albicans (Sarg.) Kartesz & Gandhi; gum bully; JS 9993; 10633; LS 3827

Scrophulariaceae
Agalinis edwardsiana Pennell; Plateau gerardia; JS 18124
Agalinis homalantha Pennell; San Antonio false foxglove; JS 18125
Bacopa monnieri (L) Pennell; coastal water hyssop; JS 18126
Buchnera americana L.; American bluehearts; JS 9966; 10616; LS 3862
Leucospora multifida (Michx.) Nutt.; narrow leaf conoea; JS 10061; 10221; 10599; 15967; LS 3857
Lindernia dubia (L) Pennell var. anagallisace (Michx.) Cooper; clasping false pipemage; JS 10465
Maurandella antirrhiniflora (Humb. & Bonpl. ex Willd.) Rothm.; snapdragon vine; JS 8492; LS 3827
Mecardonia procumbens (Mill.) Small; prostrate water hyssop; JS 10666; LS 3855
Nuttallanthus canadensis (L.) D.A. Sutton; Texas toadflax; JS & TD 10709; KW s.n.
Penstemon cobaea Nutt.; foxglove; JS 10550
Penstemon triflorus A. Heller ssp. triflorus; Heller penstemon; JS 18127
*Verbascum thapsus L.; flannel mullein; JS 10608; FG 8256; LH 5025
*Veronica agrestis L.; wayside purslane; JS 10607
*Veronica arvensis L.; common speedwell; LS 3718
Veronica peregrina L.; purslane speedwell; JS & TD 10692; LS 3744

Solanaeae
Chamaesaracha coronopus (Dunal) A. Gray; green false nightshade; KW s.n.

*Chamaesaracha edwardsiana Averett; Plateau flase nightshade; LS 4547

Chamaesaracha sordida (Dunal) A. Gray; hairy false nightshade; JS 10474

Nicotiana repanda Wild.; fiddle leaf tobacco; JS 8764
Nicotiana trigonophylla Dunal; desert tobacco; LS 3868
Physalis cinerascens (Dunal) Hitchc. var. cinerascens; small-flower groundcherry; JS 8503; LS 3777; 3950; 4065
Physalis mollis Nutt. var. mollis; field groundcherry; KW s.n.
Solanum crassiflorum A. Braun var. crassiflorum; melon nightshade; JS 10412
Solanum dasyphyllum Raf.; western horse nettle; JS 9955
Solanum elaeagnifolium Cav.; silver leaf nightshade; JS 10051; FG 8293; LS 3736
Solanum ptycanthus Dunal; American nightshade; KW s.n.; LS 4553
Solanum rostratum Dunal; buffalo bur; JS 9954; LS 4075

Sterculiaceae
Hermannia texana A. Gray; Mexican mallow; LS 3939

Ulmaceae
 Celtis laevigata Wild.; sugar hackberry; JS 18128; KW s.n.

Ulmus americana L.; American elm; JS 10041

Urticaceae
Boehmeria cylindrica (L.) Swc; false nettle; JS 10019; LS 4103

Valerianaceae

Valeriana amarella (Lindh. ex Engelm.) Krok; hairy corn salad; JS 10427; KW s.n.; LH 4781

Valerianella stenocarpa (Engelm. ex A. Gray) Krok; bigflower comsalad; JS & TD 10721; KW s.n.

Verbenaceae

Aloysia gratissima (Gillies & Hook.) Troncoso; whitebrush; JS 10002; LS 3913

Glandularia bipinnatifida (Nutt.) Nutt. var. bipinnatifida; Dakota vervain; FG 8255; KW s.n.; LS 3747; 4061
Glandularia pumila (Rydb.) Umber; pink vervain; JS & TD 10754; KW s.n.; LH 4756

Physalia nodiflora (L.) Greene; frogfruit; JS 18129; LS 3849

*Verbena brasiilensis Vell.; Brazilian vervain; LS 3865; 4098

Verbena canescens Kunth; gray vervain; JS & TD 10753; FG 8260; KW s.n.; LS 3726; 3905; 3951; 3955

Verbena halei Small; slender vervain; JS 10451; LS 3915
Verbena scabra Vahl; harsh vervain; JS 9999; 15968; JS & TD 10688; LS 4097
Verbena xutha Lehms.; coarse verbena; JS 10415

Violaceae
Hybanthus verticillatus (Ortega) Baill. var. verticillatus; whorled nod violet; JS 10378; KW s.n.; LS 3811; LH 4767; 6054; 6055; 6056; 6057
Viola bicolor Pursh; field pansy; JS 10015

Viscaceae
Phoradendron tomentosum (DC.) Engelm. ex A. Gray; Christmas mistletoe; LS 3920

Vitaceae
Ampelopsis cordata Michx.; heartleaf ampelopsis; LS 3834; LH 5864
Cissus trifoliata (L.) L.; treebine; JS 10059
Parthenocissus heptaphylla (Buckley) Britton ex Small; seven-leaf creeper; KW s.n.; LS 3828
Parthenocissus quinquefolia (L.) Planch.; Virginia creeper; JS 9967
Vitis cinerea (Engelm.) Engel. ex Millardet var. helleri (L.H. Bailey) M.O. Moore; Spanish grape; LH 4774
Vitis monticola Buckley; sweet mountain grape; JS 10548; KW s.n.; LS 3835
Vitis mustangensis Buckley; mustang grape; JS 9959
Vitis riparia Michx.; riverbank grape; JS 10056
Vitis rupestris Scheele; sand grape; KW s.n.

Zygophyllaceae
Kallstroemia parviflora J.B.S. Norton; warty caltrop; LS 4533
*Tribulus terrestris L.; puncturevine; JS 9980; FG 8301

ACKNOWLEDGMENTS

We wish to thank the curator of TAES and TEX/LL for access to their herbaria. Several persons provided checklists of geographical areas of Texas that were used in the statistical applications. These included Loan Do Gibson (Fairfield State Recreational Area, Freestone Co.), Vanessa Hannick (McLennan Co.), Bob O’Kennon (Enchanted Rock State Natural Area), and Jackie Poole (Amistad National Recreation Area). Gina Gollub of Baylor University provided the Spanish translation for the abstract. The authors wish to thank Steve Nelle, Jackie Poole, and an anonymous reviewer for helpful comments on an earlier draft of the manuscript.

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