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The Vascular Flora of Lee County, Texas

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Abstract: Lee County is located in the Post Oak Savannah and Blackland Prairie vegetation areas of east-central Texas and encompasses 635 square miles (ca. 405,000 acres). A floristic survey of the vascular plants of Lee County, Texas, was conducted from November 2002 through March 2006 as a requirement for the Master's Degree by the author in the Plant Biology Graduate Program at The University of Texas at Austin. The county was revisited in the summers of 2015 and 2017 to update information for publication. The physical and biotic settings, vegetational history, and previous collecting efforts are outlined. The checklist contains voucher collections from the present study as well as additional records from the TEX/LL, TAES, TAMU and BAYLU herbaria. The annotated checklist includes 732 species and infraspecific taxa, representing 427 genera and 122 families. The most species-rich families are Asteraceae, Poaceae, Fabaceae, Cyperaceae, and Euphorbiaceae. No federally or state listed rare species were documented, although at least two species of conservation concern were collected within the county. Native species comprise about 89% of the county flora, and include 20 species endemic to Texas. The phytogeographic position of Lee County is discussed, with a prominent feature being its position at the extreme western edge of the distributions of many species typical of the southeastern U. S. flora.

Lee County, one of the 254 counties of Texas, is located in the central part of the state at the intersection of oak savanna and prairie vegetation (Fig 1). When the author came to The University of Texas at Austin to pursue a Master's degree in Plant Biology in 2002, with the aim of doing a floristic study to gain experience in field biology and plant identification, she found that the flora of this county, although relatively close to, and between, two of the major botanical centers and herbaria in the state [The University of Texas at Austin and Texas A&M University in College Station] was relatively poorly known and poorly documented. At the start of this research in the fall of 2002, 322 specimens representing 246 species were recorded for Lee County from the TEX/LL herbaria of The University of Texas (Plant Resources Center, 2002). In comparison, the TEX/LL herbaria had 9586 specimens for Travis County (where The University of Texas is located), 2961 specimens for nearby Bastrop County, and 1572 specimens for Brazos County (site of Texas A&M University) (Plant Resources Center, 2006). Moreover, William R. Carr had compiled a detailed Travis County floristic list, of which his 2004 version (Carr, 2004b) was the latest iteration at the time. Until the study presented here, Lee County lacked such a list.

Thus, this research was undertaken to provide an initial floristic inventory of Lee County (Appendix 1) and to assess the major phytogeographical components of its flora, its endemic species, its rare and endangered species, and species that have been introduced from other parts of the world.

Physical Setting

Lee County, like most of east Texas, is humid and subtropical (Larkin and Bomar, 1983). Annual average rainfall of 36 inches occurs along a gradient from higher precipitation to the east and less to the west (Fig. 2, Climatic information from a Lee County (Lexington) weather station, for the years 1971-2000 (NOAA 2004), unless otherwise noted). The mean annual temperature is 67°F. Winters are generally mild and dry, with temperatures for January ranging from a mean daily low of 37.3°F to a mean daily

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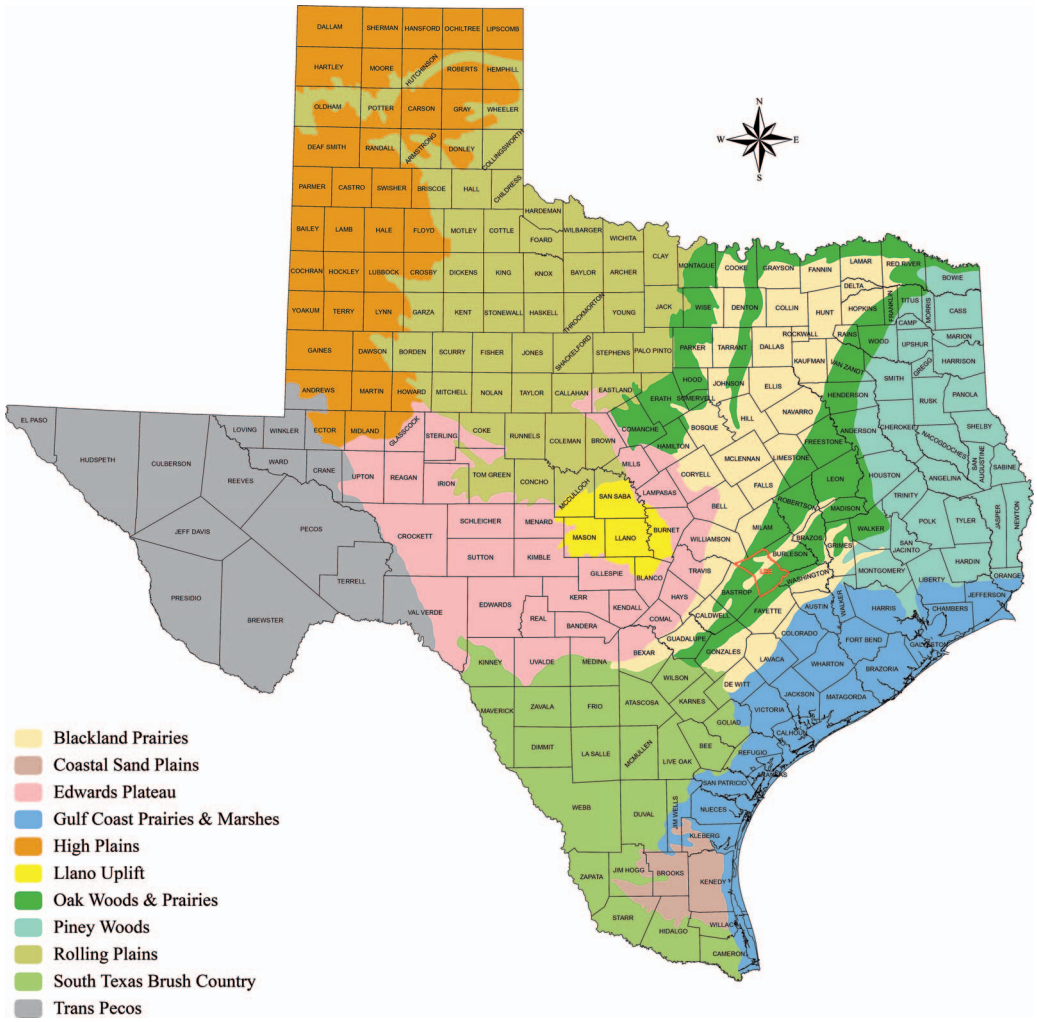


FIG. 1. Vegetational areas of Texas, adapted from Diggs et al. (1999). Lee County, outlined, is primarily composed of Post Oak Savannah and Blackland Prairie.

high of 59.4°F. Summers are hot and humid, with mean daily extremes for August of 72.1°F and 94°F. The growing season averages 275 days, and typically runs from early March to mid-November (Ramos, 1999).

Average monthly rainfall varies from 1.6 inches in July to 4.8 inches in May. The majority of precipitation occurs in the spring and fall, during the months of May and June and September through November. Like temperature, precipitation tends to vary greatly, with significant short-term precipitation events as well as prolonged droughts.

TOPOGRAPHY. The topography in Lee County is nearly level to undulating, with a slight slope towards the Gulf Coast. Elevation ranges from a low of 270 feet above sea level in the east to 762 feet in the northwest. The highest point in the county is atop one of a series of sandstone-topped mesas in the northwest. These local high points are known as the 'Yegua Knobbs' from which the nearby community of Knobbs Springs took its name. The relatively slight topographic diversity of the county means that

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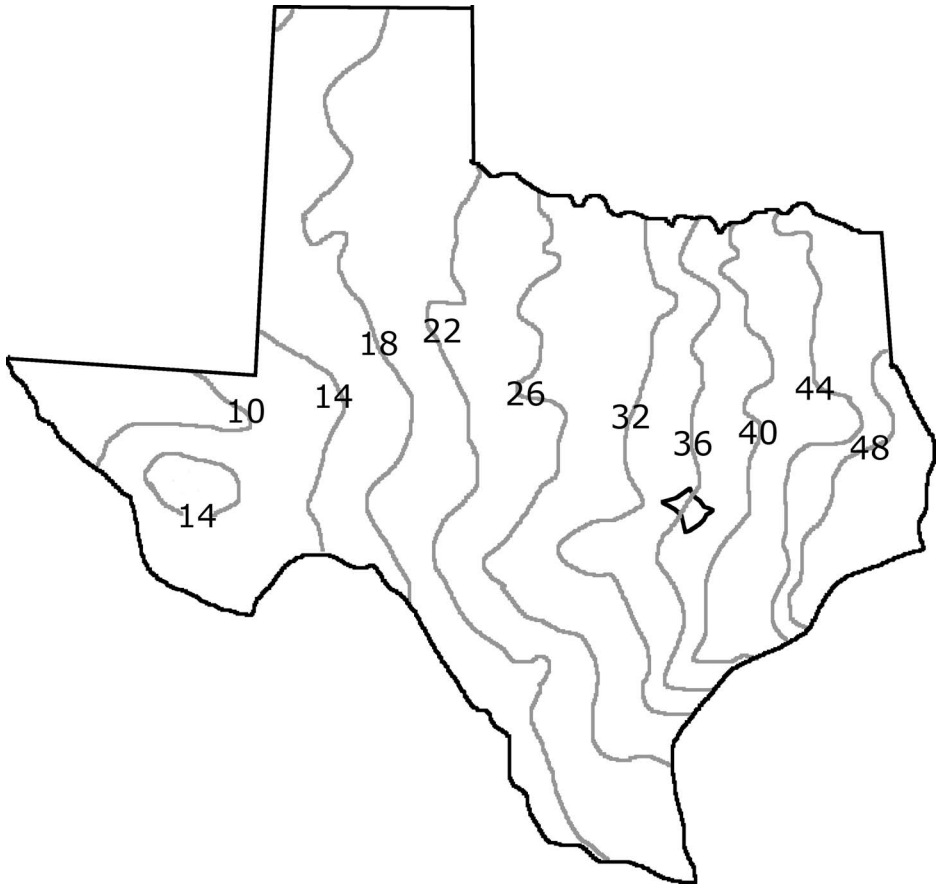


FIG. 2. Map of Texas with statewide precipitation trends, based on data from 1951-1980. Lee County receives approximately 36 inches of rain per year. (Map adapted from Larkin and Bomar, 1983).

variation in geological substrate and resultant soil types is particularly important in understanding vegetation types and species distributions.

GEOLOGY. The geologic formations of Lee County (Bureau of Economic Geology maps: Geologic Atlas of Texas, Austin sheet [1974] and Geology of Texas Map [1992], unless otherwise noted) are principally lower Tertiary in origin, dating to the Eocene. The eleven Eocene formations can be grouped into four associations of generally similar characteristics: the Wilcox Group, two sections of the Claiborne Group, and the Jackson Group. Each formation occupies an approximately northeast-to-southwest strip across the county (Fig. 3).

In a strip running along the northwest corner is the Wilcox Group, composed of the Calvert Bluff, Simsboro, and Hooper Formations. These consist mostly of mudstone, sandstone, and clay, with various amounts of lignite and iron concretions. The highest points in the county – the Yegua Knobbs – are exposed examples of the Calvert Bluff Formation, where differential erosion has weathered away the surrounding formation to leave sandstone-topped mesas.

The first section of the Claiborne Group includes the Cook Mountain Formation, Sparta Sand, Weches Formation, Queen City Sand, Reklaw Formation, and Carrizo Sand. These formations give rise to clayey sands in the center half of the county.

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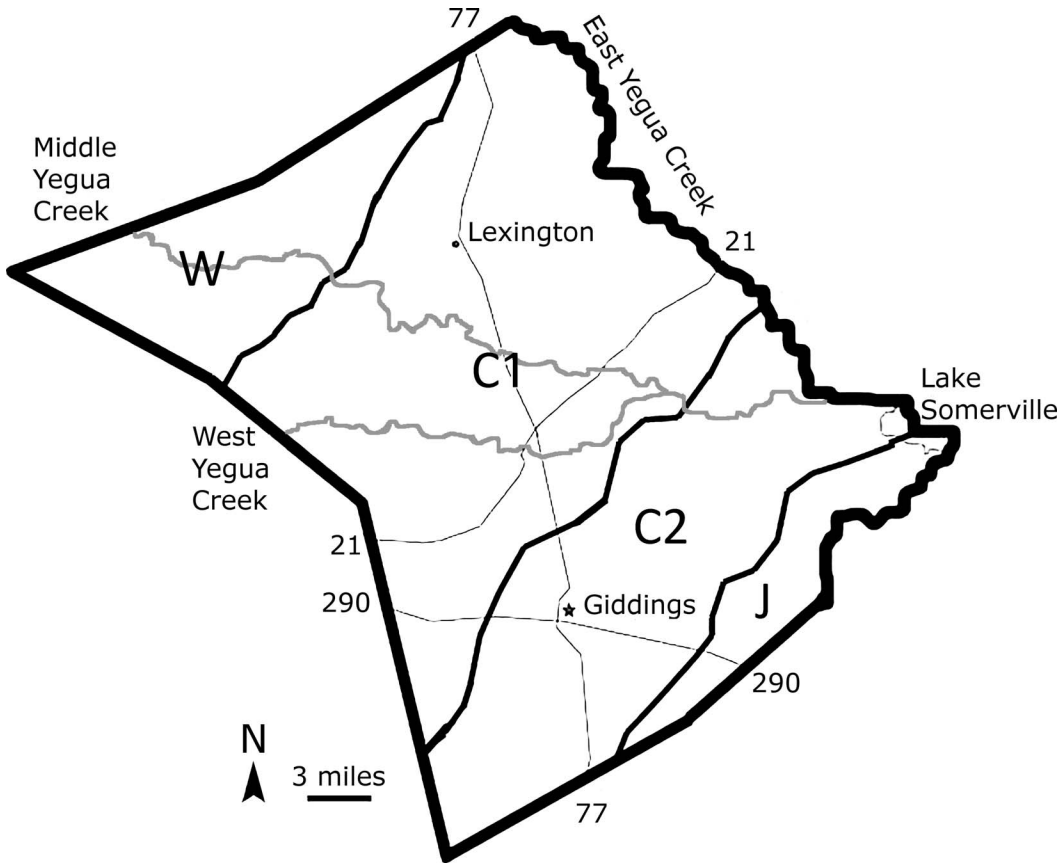


FIG. 3. Map of Lee County with its four broad geological formations. W = the Wilcox Group, C1 = the first section of the Claiborne Group (several formations); C2 = the second section of the Claiborne Group (Yegua Formation); J = the Jackson Group.

SOILS. The soils of Lee County are predominantly derived from Eocene parent rock, as described above. There are approximately seven soil types in the county (Soil Conservation Service, 1979), which can be categorized into four broad groups. These soil groups occur in long strips that run in a northeast-to-southwest direction across the county.

The dominant soil category is the Lufkin-Axtell-Tabor Soil Association, running in two 9-11 mile wide strips along the northwestern and southeastern county borders. It is characterized by strongly acidic sandy or loamy soils and clayey subsoils. This soil association aligns with the Post Oak Savannah vegetation area, and is sometimes called the Claypan area.

The Patilo-Stidham Soil Association forms a narrow strip of deep acid sands approximately 6 miles wide from the northernmost tip to the southwest. These sands are underlain by moderately permeable clayey subsoils, and thus are capable of holding water better than sands alone. These soils also support the Post Oak Savannah vegetation area, and the deep sands (including the Carrizo Sands) support many endemic plant species, including *Brazoria truncata* var. *truncata, Rhododon ciliata,* and *Tradescantia subacaulis*. This soil association is sometimes referred to as the Padina-Demona soils group.

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The third Eocene-derived soil group present in Lee County is the Wilson-Crockett-Burleson Soil Association. It forms a 3 to 8 mile wide strip running through the middle of the county, again in a northeast to southwest pattern. These are the neutral to slightly acid loamy soils associated with the Blackland Prairie. Tall grasses, mesquite, and other shrubby deciduous trees characterize the vegetation of the area. The Wilson-Crockett-Burleson Soil Association includes mostly Crockett-Wilson soils with a small amount of Falba-Burlewash soils.

In addition to these soils derived from Eocene substrates, alluvial soils of the Kaufman-Gowan Association occur in bottomlands along creeks and streams. These soils are neutral to slightly acid, clayey, and have the greatest concentration around the three branches of the Yegua Creek (West, Middle, and East).

The current study, including selection of sites, was done based on the soil information and sources given above. A more recent soil survey of Lee Co. now exists (Jurena, 2007) which adds useful detail on both soils and vegetation and should be consulted by all future workers, but it does not change the understanding of the general distribution and nature of the soils of the county.

Biological Environment

Texas spans parts of five floristic provinces, as defined by R. F. Thorne (1993), adapted from A. L. Takhtajan et al. (1986). Central Texas is at the interface of the three provinces of the North American Atlantic Region: the Appalachian Province, the Atlantic and Gulf Coastal Plain Province, and the North American Prairies Province.

The influence of the Appalachian Province represents floristic elements from the deciduous forest of the upland areas of the eastern United States. The deciduous forest covered large parts of the continent in the wetter Miocene Epoch. As the climate dried in the late Miocene-Pliocene, these forests began to be restricted, the Appalachian Province representing part of this forest remnant in the east. Numerous forest assemblages occur throughout the range of this province; in Texas along the drier, western edge hardwoods such as *Carya* and *Quercus* are common (Diggs et al., 1999). The Ozarks and Appalachian Mountains in this province served as refugia for flora during Pleistocene glaciations, and thus are rich with endemic species. In Texas this province occupies approximately the northern half of the eastern part of the state.

The Atlantic and Gulf Coastal Plain Province, sometimes grouped with the Appalachian Province (Diggs et al., 1999), occurs in the lowlands and sandy coastal plains of the Atlantic and Gulf coasts. Various species of *Pinus* dominate the forested areas, especially in areas receiving regular fires. *Pinus taeda* occurs in east Texas and in pockets of east-central Texas (The Lost Pines), including Lee County. Acidic sandy bogs and marshes in this province harbor a unique flora, including several carnivorous groups (*Dionaea, Drosera, Sarracenia*) in nutrient-poor sites. Numerous grasses, sedges and rushes occur in the sandy grasslands. The range in Texas for this province is about the southern half of east Texas toward the coastline.

The North American Prairies Province, also called the Great Plains, occupies the central third of the United States. There is evidence that an uninterrupted forest, aligning with the above Appalachian Province, once extended across the county (see below), with recent late Miocene-Pliocene grasslands beginning to replace forested areas in the drier climate that marks the end of the Miocene Epoch (Diggs et al., 1999; Graham, 1993). The end of the Pleistocene glacial period (11,000 yrs BP) marks another major shift from forests to the grasslands and savannahs of the present, as the glaciers melted and the climate warmed (Bryant, 1977; Kaul, 1986). The current flora of the Prairies Province is thus relatively new and adventive, as the small number of endemic species suggests (Axelrod, 1985; Kaul, 1986; Diggs et al., 1999). The Edwards Plateau, which forms the southern end of this province, also displays floristic affinities to

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the Chihuahuan and Tamaulipan subprovinces of the Sonoran Province and has significant endemism. This province occupies about half of the area of Texas in the center of the state.

Lee County is influenced by about six major vegetation areas, as described by Hatch et al. (1990). The Post Oak Savannah and Blackland Prairie are the principal natural vegetational types of the county, but the vegetational mosaic is influenced by proximity of the Edwards Plateau to the west, the Pineywoods and Gulf Prairies and Marshes to the east, and the South Texas Plains to the south (Fig. 1).

Blackland Prairie. The Texas Blackland Prairie is part of the tallgrass prairie ecosystem of central North America. Once a dominant ecosystem extending from Manitoba to the Texas coast, the tallgrass prairie is now one of the most endangered US ecosystems. Its fertile soil has been overplanted, overgrazed, and eroded to the point that only very small pockets of original prairie still exist.

In east-central Texas the Blackland Prairie interdigitates with the Post Oak Savannah (Fig. 1), with intergradation common between the two vegetational areas. Blackland Prairie soils are commonly referred to as "black gumbo" or "black waxy," referring to their color and great capacity to shrink and swell. The soils are a combination of mostly Alfisols, Vertisols, Entisols, and Mollisols, primarily the former two (Texas Agricultural Experiment Station, 1973; Hatch et al., 1990).

Blackland Prairie in Texas consists of one main body of prairie to the west of Lee County, and two small eastern prairies interdigitating with Post Oak Savannah, the Fayette and San Antonio Prairies. Lee County occurs in the smaller of the two prairie fragments, the 95-mile long San Antonio Prairie (0.7 million acres) (Launchbaugh, 1955). The San Antonio Prairie is entirely composed of Alfisols.

The typical dominant grass species for North American tallgrass prairie are *Andropogon gerardii, Sorghastrum nutans, Panicum virgatum,* and *Schizachyrium scoparium*. All commonly occur in east-central Texas, but only the latter two species have been documented for Lee County. Collins et al. (1975) recognized seven major community types within the Blackland Prairie, with the *Schizachyrium*-dominated type at the far western edge of Lee County. Launchbaugh (1955) also considers *Schizachyrium scoparium* to be the dominant species in the San Antonio Prairie.

The fertility of the soils of the Blackland Prairie has been recognized for over a century, and thus they are heavily planted and grazed, altering the natural flora of the region. Non-native grasses planted for forage have become a major factor in the current grassland composition. Some of the grasses commonly planted for rangeland or in hay fields include *Sorghum halepense* (Johnson Grass), *Bothriochloa ischaemum* (King Ranch Bluestem), and *Cynodon dactyloides* (Bermuda Grass).

Post Oak Savannah. The Post Oak Savannah is the second major vegetational area present in Lee County. Most authorities treat it as a distinct vegetational area, but Barbour and Christensen (1993) consider it to represent merely an ecotone between the deciduous forests of the east and the grasslands of the west. The Blackland Prairie and Oak Savannahs intermingle to a great degree in east-central Texas, both sharing tall grasses and various species of oak and other trees (Correll & Johnston, 1970; Hatch et al., 1990).

The Savannah also shares characteristics with the Cross Timbers in the northern part of the state. While still distinguishing the two as separate vegetational areas, some sources (Gould, 1962; Correll & Johnston, 1970; Texas Agricultural Experimental Station, 1973) classify the Cross Timbers as separate fingers of the greater Oak Savannah.

The soils of the Post Oak Savannahs are all Alfisols. This vegetational area is sometimes called the Claypan Area, in reference to the clayey subsoil present under the sandy/loamy substrate. Claypans hold water near the surface, restricting moisture percolation, and can harbor a unique springtime flora, such as *Gratiola flava, Lesquerella*

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grandiflora, Valerianella florifera, Liatris cymosa and *Micranthes texana* (J. Singhurst, pers. comm.).

Oak trees of several species occur in the Oak Savannah, including the most widespread *Quercus stellata* (Post Oak) and *Q. marilandica* (Blackjack Oak). Additional canopy trees include *Juniperus virginiana, Ulmus crassifolia,* and *Carya* spp. These trees sometimes form thickets with the understory species *Ilex vomitoria*. Oaks in this vegetational area are commonly of small stature, and grow in association with tall grasses. The average height of oak trees decreases from east to west with decreasing rainfall (Texas Agricultural Experimental Station, 1973). *Prosopis glandulosa* (Mesquite), once mostly restricted to stream banks and rocky slopes, has greatly increased under anthropogenic disturbance and is now found in great abundance in the Post Oak Savannah (Diggs et al., 1999).

Post Oak Savannah land is relatively good for cropland and for improved pastures. Typical crops include peanuts, grains (especially millet), cotton, corn, vegetables, and fruit trees (Hatch et al., 1990). Introduced pastureland species include *Cynodon dactyloides* (Bermuda Grass), *Paspalum notatum* (Bahia Grass), and *Trifolium* spp. (clover) (Hatch et al., 1990).

Bottomland Vegetation. Bottomland vegetation represents a third vegetational type present in Lee County, occurring along alluvial soils in periodically inundated floodplains. Tree species of the canopy layer in the county include *Acer negundo, Carya* spp., *Celtis laevigata* var. *laevigata, Fraxinus pennsylvanica, Juglans nigra, Quercus nigra,* and *Ulmus americana*. Understory forbs commonly associated with bottomland flora include *Ambrosia* spp., *Cardiospermum halicacabum, Conoclinium coelestinum, Justicia americana, Lobelia cardinalis, Mikania scandens, Polygonum* spp., and *Sesbania drummondii*.

Where creeks flow into and merge with Lake Somerville, marsh and swamp habitats occur, with the floodplain wet for most or all of the year. Species include *Planera aquatica, Cephalanthus occidentalis, Forestieria ligustrina, Sabal minor,* and *Typha* spp.

Unique Land Features

Much of Lee County land has a uniform appearance of flat or slightly undulating topography with scattered oaks mixed with tallgrass in sand or sandy loam. However, variation in soils, moisture, and local relief provide some habitats with unique plant communities.

Upland and lowland areas in the deep sands in western Lee County are especially interesting locations to revisit throughout the year. The deep sands that typically support a very distinctive flora in this part of Texas are often referred to by botanists as the "Carrizo Sands" but, as Bill Carr points out (Carr, pers. comm.), these sands are derived from several different geological formations, including not only the Carrizo Sand but also the Queen City Sand, the Sparta Sand, and occasionally others such as the Calvert Bluff formation. Thus, following Carr in his many popular presentations on this unique habitat, I will refer to it as the "Eocene Sands." MacRoberts et al. (2002) have noted that xeric sandylands in the Western Gulf Coastal Plain and their endemic flora are much more widespread than just those derived from the Carrizo Formation.

Patschke Bog, described in greater detail below, is a mined sphagnum bog occurring in the Carrizo Sand and the Reklaw Formation, on the Owens Branch of the Middle Yegua Creek. Many species at their westernmost edge in Lee County were found at Patschke Bog, including the canopy species *Nyssa sylvatica* (Black Tupelo).

East of Patschke Bog, Eocene Sands uplands along rural roads and on private land provide additional unique, more xerically-adapted plant species. Many endemic herbaceous species occur on upland Eocene Sands, such as *Brazoria truncata* var. *truncata, Rhododon ciliata, Senecio ampullaceus, Nemophila sayersensis,* and *Palafoxia rosea* var. *rosea*.

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The Yegua Knobbs represent the highest points in the county, occurring on uneroded sandstone layers of the Wilcox Group. There are a series of about seven mesas (locally called knobbs), shared between Bastrop County and the northwest corner of Lee County. *Pinus taeda* (Loblolly Pine) mingles with *Juniperus virginiana* atop the highest knobs in Lee County, and notable species such as the endemic *Asclepias linearis* occur in the upland evergreen woodland as well.

The land around Lake Somerville, in far eastern Lee County, is characterized mostly by sandy, alluvial soils, and a variety of aquatic habitats (lake, ponds, creeks, marshes, floodplains). There is a relatively large unit (Nails Creek Unit) of the Lake Somerville State Park in Lee County, as well as various Wildlife Management Areas. Floating aquatic species such as *Nelumbo lutea* and *Lemna* spp. occur in open lake water, with swamp and marsh species such as *Planera aquatica, Sesbania drummondii,* and *Marsilea vestita*.

Paleoenvironment

Paleobotanical studies using data from pollen cores in central Texas bogs provide information about the paleoenvironment of the region for the past several thousand years. Eight bogs from the Eocene Carrizo Sand formation of east-central Texas have been analyzed for fossil pollen (Potzger and Tharp 1943, 1947, 1954; Graham, 1958; Graham and Heimsch, 1960; Patty, 1968; Bryant, 1969; Larson et al., 1972; Holloway and Bryant 1984; Holloway et al. 1987; Camper 1991). Of these, two are in Lee County: Patschke Bog (Site 3, Fig. 4) and Boriack Bog, both occurring in the western part of the county, along the Owens Branch tributary of Middle Yegua Creek.

Boriack Bog was cored and analyzed by Bryant (1977), providing palynological data for about 16,000 years before the present (BP). Patschke Bog, which dates to 17,280 +/- 270 years BP, is notable for dating back the longest of any Texas bog (Camper, 1991).

The first fossil pollen peat deposit study in Texas was conducted on Patschke Bog by Potzger and Tharp (1943, 1947). However, no dating information was taken during their study. Camper (1991) updated and elaborated upon those initial results, using radiocarbon dating to place results into a chronological context. She inferred a three-stage vegetation change pattern for Patschke Bog, based on Hafsten's (1961) chronological glacial periods: 1) full-glacial (22,500 to 14,000 years BP), 2) late- glacial (14,000 to 10,000 years BP), and 3) post-glacial (10,000 years BP to present). The data suggest that the vegetation of the area proceeded from evergreen/deciduous woodland in the cooler, wetter Full Glacial period, to progressively more grassland species and fewer arboreal species in the warming, drying climate (Bryant, 1977; Camper, 1991).

Pollen profiles of Patschke and Boriack Bogs demonstrate the southern extension of several northern species that occurred during the Pleistocene. Pollen traces from the Full Glacial period characterize a woodland of *Picea* (spruce), *Pinus*, and cool climate hardwoods such as *Acer, Betula, Carya, Castanea, Corylus, Elaeagnus, Populus, Quercus* and *Tilia,* as well as a diverse representation of nonarboreal species (Bryant 1977, Camper, 1991). Potzger and Tharp (1943, 1947) reported the presence of *Abies* (fir) pollen from Patschke Bog, but no other pollen profiles from central Texas bogs verify the presence of this genus (Bryant, 1977). Bryant (pers. comm.) suggested that the *Abies* pollen identified by Potzger and Tharp may have been contaminants on their drying slides as they sat on the sill of an open window.

In the warmer, drier Late Glacial period, *Picea* pollen disappeared, *Alnus* (alder) was the dominant woody species, and other arboreal species decreased significantly. As the climate warmed and dried further at the beginning of the Post Glacial period, pollen traces of many of the hardwood species, including *Alnus*, decreased significantly or disappeared (Bryant, 1977; Camper, 1991). The Post Glacial period was dominated by further reductions in pollen representing

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arboreal species (except *Quercus* spp.), and increases in grass, sedge, rush and other herbaceous species, representing species of the Post Oak Savannah vegetation area of today (Bryant, 1977; Camper, 1991).

Earlier Botanical Studies

Benjamin Carroll Tharp, The University of Texas Botany Professor from 1919 to 1964, was the earliest plant collector definitely known to have collected in Lee County and represented in the TEX/LL herbaria (Whaley, 1965; Plant Resources Center, 2006). In 1922 Tharp made the first known collections in Lee County: *Ascyrum* (*Hypericum*) *hypericoides* and *Vernonia texana*. He made 47 known collections for the county, more than any other collector before the author of this present study. He is also notable for his palynological study of Patschke Bog with J. E. Potzger, described in greater detail above, in the 1940s (Potzger and Tharp, 1943, 1947). Many of Tharp's plant collections are bog plants from Patschke Bog, some of which disappeared from the area with the bog's subsequent degradation. The vegetation information gained from the pollen profile, as well as plants collected during the palynological studies, provides a valuable baseline from which to compare the current vegetation.

Other major collectors include Brother Daniel Lynch of St. Edward's University (1983-1992), Margaret Knobloch (in 1931), William R. Carr (1984 to the present), Jason Singhurst (1998 to present), and Billie L. Turner (in April 1995). Additional noteworthy botanists who made at least one collection in Lee County include C. L. Lundell (namesake of the LL herbarium), B. H. Warnock, R. McVaugh, F. W. Gould, W. A. Silveus, G. L. Webster, and P. Fryxell (Plant Resources Center, 2006).

Several of Texas' frontier botanists were active in central Texas, though there are no known Lee County collections in the TEX/LL herbaria from these nineteenth- century botanists. Because Lee County was established in 1874, collections prior to this date would not reflect the current political boundaries. Gideon Lincecum (1793-1874) was likely to have collected in Lee County at some point during his 20-year stay in Longpoint, Washington County, just 9 miles from the present Lee County border. Between the years of 1848 and 1867, he traveled extensively from his Longpoint home, mentioning an extended stay in Bastrop, as well as travels through "Yegua Country," presumably referring to the area around the Yegua Creeks system, of which three branches (East, Middle, West) run through Lee County (Geiser, 1948; Lincecum and Phillips, 1994). Birch (2004) reports that only eleven of his 313 collections were given localities, and even these few geographical references are seldom more specific than state. His herbarium is deposited at the Barker Texas History Collection at The University of Texas at Austin.

Charles Wright (1811-1885) was a botanist who worked out of Rutersville, Fayette County, 13 miles from the present Lee County border, from 1845-1847, before his more famous trips to western Texas. After leaving Rutersville in 1847, Wright moved to Austin and took several botanizing trips in the area through 1848 (Geiser, 1948).

Ferdinand Jakob Lindheimer (1801-1879), sometimes called "the Father of Texas Botany," likely made no collections Lee County, but he botanized quite a bit in the vicinity. Before settling down in New Braunfels, he spent "a season" in Industry and Cat Spring, both in Austin County, 20 miles and 35 miles, respectively, from the present Lee County (Geiser 1948). However, Geiser (1948) reports that he probably did not leave the present Austin and Colorado Counties.

Methods

Field collections were made on 59 visits to Lee County, from November 2002 to March 2006 and one trip in July 2015. In all, 1138 collections were made as part of this study. Collecting trips were most common in the spring (26 visits) with 10-11 visits in each of the other three seasons. Due to the

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relatively large size of the study area (635 square miles) and the presence of only one publicly owned property (Lake Somerville State Park), most of my collecting was done along roadsides and on privately-owned land. A surprising amount of diversity was discovered along roadsides, especially in damp soils or the deep sands, and particularly along the smaller, less disturbed county roads. A high percentage of the non-native taxa were also encountered along roadsides. Very little collecting was done along major highways, due in part to perceived danger, in addition to the unknown factor of seed sown by the Texas Department of Transportation. The few land areas of substantial size to which I had access included privately owned land, Lake Somerville State Park, and a 31-acre tract near Tanglewood owned by the Natural Area Preservation Association. On these larger tracts of land, I usually traveled and collected plants on foot.

An attempt was made to visit as much of the land in Lee County as I had access to. Figure 4 shows a map with approximate locations of visits. The most heavily visited areas are noted and are briefly described in the Figure legend.

References used in identifying voucher specimens include: Correll and Johnston (1970), Gould (1975) for grasses, the Flora of North America ("FNA" henceforth) series (1993+), Reed (1998) and Diggs et al. (1999). Additional sources were occasionally used, usually monographs or revisions, which are indicated within each species entry as necessary. If additional sources were used extensively for an entire family (including individual FNA volumes), they are indicated under the family name. Specimens from the TEX/LL herbaria at The University of Texas at Austin were used for confirming identifications.

Over 350 herbarium specimens from the TEX and LL herbaria previously collected in Lee County were verified or re-identified by the author and are included in the Annotated Checklist (Appendix 1). Additional Lee County collections are present at other Texas herbaria, including most notably those housed at the Texas A&M University herbaria (TAES and TAMU), with about 200 specimens. Other herbaria with Lee County specimens include Baylor University (BAYLU) and the Botanical Research Institute of Texas (BRIT) in Fort Worth. For this research, specimens from the combined TAES and TAMU herbaria that would represent new species were examined in 2015. Specimens from BAYLU that appeared to represent unreported species for the county were borrowed in 2007 and are included in the list. The specimens at BRIT were not databased as of 2015 and were thus not examined. Voucher specimens collected for this research are deposited at TEX.

Nomenclature and taxonomy of species and infraspecific taxa follows the Biota of North America Program (BONAP) database as of 2015 (Kartesz, 2015) unless otherwise noted.

Results and Discussion

Based on fieldwork yielding 1138 specimens, as well as a review of the herbarium material at TEX, LL, TAMU, TAES and BAYLU, a total of 732 taxa (720 species and 12 infraspecific taxa, hereafter "species") are reported for the Lee County flora, representing 122 families and 427 genera. The distribution of these species in the major plant taxa is given in Table 1.

The five most species-rich families are Asteraceae (106 species), Poaceae (93 species), Fabaceae (54 species), Cyperaceae (43 species), and Euphorbiaceae (22 species); families with ten or more species are listed in Table 2. The five most species-rich genera are *Carex* (11 species), *Dichanthelium* (10 species), *Cyperus* (11 species), *Panicum* (9 species), and *Juncus* (7 species); genera with five species or more are listed in Table 3.

The graminoids (Poaceae, Cyperaceae, and Juncaceae) collectively comprise 19% of the total flora, with 143 species records. My 2006 thesis included a graminoid key to 122 of the species that were identified by the 2006 publication. Of the 732 species, 605 were collected by the author (1138 specimens).

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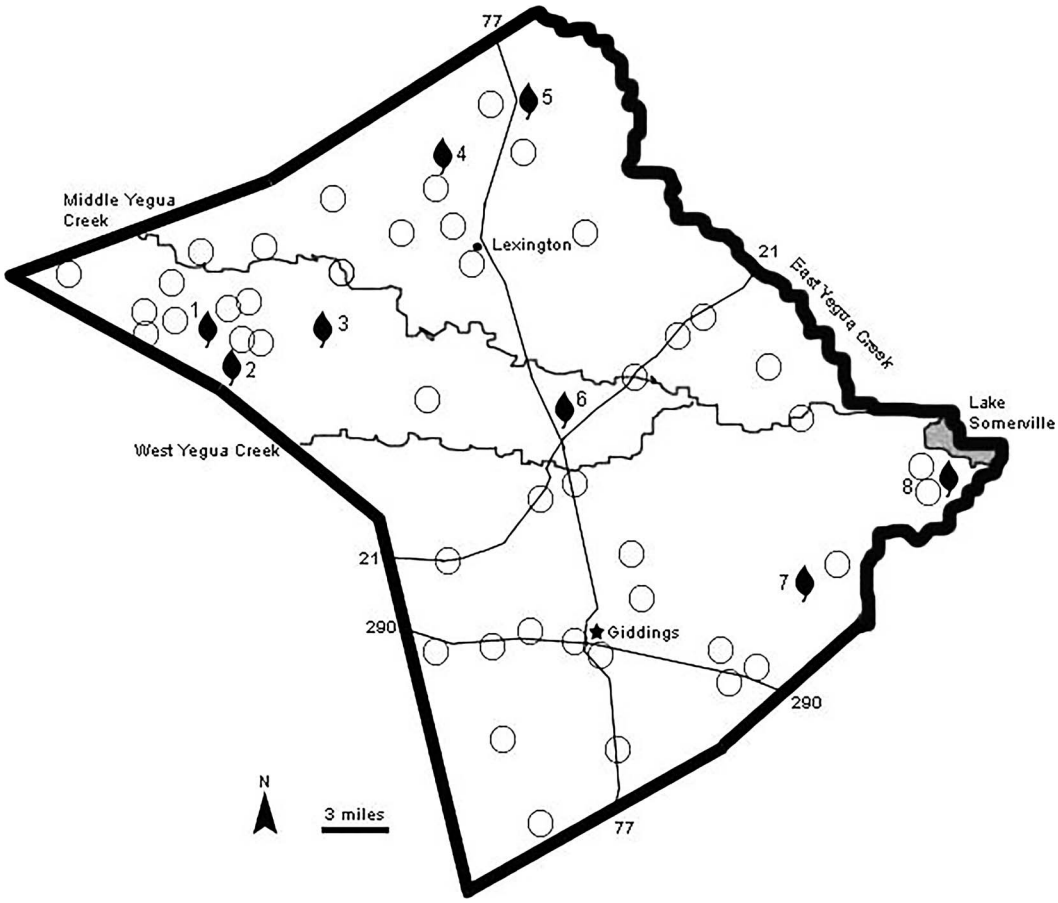


FIG. 4. Map of Lee County with visitation sites. Open circles denote sites of one to a few visits, while the numbered leaves denote sites that were heavily visited. 1 = roadside along FM 696; 2 = seepy roadside along CR 309 in Eocene Sands; 3 = Patschke Bog - situated in the Eocene Sands along the Owens Branch of the Middle Yegua Creek; 4 = Private land with upland Eocene Sand prairies; 5 = Tanglewood prairie, owned by the Natural Area Preservation Association (NAPA) – sandy prairie, forested floodplain; 6 = loamy bottomland woodland along Middle Yegua Creek; 7 = roadside along FM 180; 8 = Lake Somerville and surrounding Wildlife Management Areas –bottomland woodland, sandy prairies.

INTRODUCED SPECIES. Introduced species make up 11% of the flora of Lee County (81 species). Some introduced species, such as *Bothriochloa ischaemum* (King Ranch Bluestem) and *Taraxacum officinale* (Dandelion), are well-established, significant members of the local flora. Other species are adventive and appear to still be expanding in range and population sizes in the flora of central Texas, such as *Hypochaeris glabra, Centaurea melitensis, Ranunculus sardous, Petrorhagia dubia, Crinum bulbispermum, Trifolium vesiculosum, Bellardia trixago,* and *Orobanche ramosa*. These species pose a potential threat to the ecosystem and should be monitored in the coming years. The parasitic plant *Orobanche ramosa* presents a threat not only to the native flora, but also to agronomic crops (Musselman and Nixon, 1981). First discovered in Texas in 1981, this root parasite attacks roadside weeds as well as crops in the Solanaceae family (tomatoes, tobacco, potatoes, eggplant) and hemp

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TABLE 1. Taxonomic summary for the four major vascular plant divisions occurring in Lee County, with native and introduced species noted.

Division	Native species & infraspecific taxa	Introduced species & infraspecific taxa	Total
Lycopodiophyta	2	0	2
Polypodiophyta	10	0	10
Pinophyta	2	0	2
Magnoliopsida	637	81	
Liliosida (monocotyledons)	161	27	188
Magnoliopsida (dicotyledons)	476	54	530
TOTALS	651 (88.9%)	81 (11.1%)	732

(Musselman and Nixon, 1981;White et al., 1998).

ENDEMIC SPECIES. Table 4 shows 20 Lee County species that are reported to be endemic to Texas (Carr, 2009 and pers. comm.), comprising about 3% of the county flora. Of this list, ten species are endemic to the Eocene Sands of Texas (denoted by an asterisk in Table 4), according to Diggs et al. 1999, Simpson et al. 2001, MacRoberts et al. 2002, and Mayfield 2002. The Eocene Sands comprise a region of relatively high endemism throughout their range; the Carrizo Sand Formation itself extends from the southern end of Texas on the Rio Grande River to the northeastern part of the state (McBryde, 1933; Sorrie & Weakley, 2001), but as has been previously stated and as MacRoberts et al. (2002) have noted, deep sands are more widespread in the West Gulf Costal Plain area and not restricted to just that geological formation.

Endemism can result from populations of widespread species that adapt to local edaphic conditions, such as the deep, xeric sands of the Eocene Sands (Sorrie and Weakley, 2001). McBryde (1933) suggested that edaphic qualities of the Eocene Sands mitigate climatic extremes on the vegetation. The ability of water to percolate rapidly through the coarse sands and be held relatively close to plant roots by the underlying clayey subsoil maintains moisture in the Eocene Sands despite the

TABLE 2. Plant families in Lee County with 10 or more species, listed in decreasing order. Numbers indicate numbers of species.

Asteraceae	106
Poaceae	93
Fabaceae	54
Cyperaceae	43
Euphorbiaceae	22
Lamiaceae	22
Apiaceae	19
Scrophulariaceae	17
Polygonaceae	13
Rubiaceae	13
Caryophyllaceae	11
Liliaceae	10
Onagraceae	10

TABLE 3. Plant genera in Lee County with 5 or more species, listed in decreasing order. Numbers indicate numbers of species.

Genus	No. of species
Carex	11
Cyperus	11
Dichanthelium	10
Panicum	9
Juncus	7
Quercus	7
Asclepias	6
Eragrostis	6
Paspalum	6
Ranunculus	6
Plantago	5
Polygonum	5
Monarda	5
Rumex	5
Euphorbia	5
Croton	5
Prunus	5

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TABLE 4. Species reported for Lee County that are endemic to Texas. Asterisks denote plants that are more or less endemic to the Eocene Sands.

Asclepias linearis
Astragalus pleianthus
Brazoria truncata var. *truncata* *
Helianthus debilis ssp. *silvestris**
Houstonia subviscosa
Lechea san-sabeana
Liatris cymosa
Liatris elegans var. *bridgesii* *
Monarda punctata var. *intermedia*
Monarda viridissima *
Nemophila sayersensis *
Palafoxia hookeriana var. *hookeriana* *
Palafoxia hookeriana var. *minor* *
Paysonia grandiflora
Rhododon ciliatuaris *
Spigelia texana
Tradescantia subacaulis
Trifolium bejariense *
Triodanis texana
*Valerianella florifera**

apparently xeric environment, supporting a uniquely mesic flora (McBryde, 1933).

Twenty-one additional species and infraspecific taxa are reported as endemic to the West Gulf Coastal Plain (Table 5), which encompasses eastern Texas, western Louisiana, and parts of Oklahoma and Arkansas (MacRoberts et al., 2002). Of these, 15 typically inhabit "xeric sandylands" (typically Eocene sands), according to MacRoberts et al. 2002. Thus, a total of 25 Lee Co. species are reported as endemic to the Eocene Sands of Texas and the xeric sandylands of the West Gulf Coastal Plain (Sorrie and Weakley, 2001; MacRoberts et al., 2002 for a detailed explanation and map of the West Gulf Coastal Plain).

PHYTOGEOGRAPHICAL AFFINITIES. In contrast with the many eastern species occurring in or near Lee County at their western limits, as described in detail below, only five species can confidently be considered western species at the eastern edge of their ranges in Lee County. The almost complete lack of calcareous soil in Lee County precludes the presence of many limestone-loving Edwards Plateau species. However, *Berberis trifoliolata* and *Hedeoma acinioides*, which commonly occur in the rocky limestone soils of the Edwards Plateau and points further west, were found at their easternmost point in western Lee County (Diggs et al., 1999; Turner et al., 2003). *Asclepias arenaria*, a species native to the Great Plains of North America, is at the southeastern edge of its range in Lee County. It grows in the deep

TABLE 5. Plants reported for Lee County that MacRoberts et al. (2002b) list as endemic or near- endemic to the West Gulf Coast Plain. Notes: 1 = *Baptisia nuttalliana* has not been reported for Lee County, but a hybrid of it and B. leucophaea (*B. bracteata* var. *leucophaea*) occurs in the county. 2 = Varieties not recognized in the Lee County specimen; MacRoberts et al. (2002) lists *Lobelia puberula* var. *pauciflora*. 3 = Subspecies not recognized in the Lee County specimen; MacRoberts lists *Oenotherea heterophylla* subsp. *heterophylla*. 4 = Varieties not recognized in the Lee County specimens; MacRoberts lists *Phlox drummondii* var. *drummondii*. 5 = Lee County specimen is recognized as *Polanisia erosa* subsp. *erosa*; MacRoberts only lists *P. erosa*.

Polanisia erosa subsp. *erosa*; MacRoberts only lists P. erosa.
Astragalus distortus var. *engelmannii*
Astragalus leptocarpus
Baptisia nuttalliana (1)
Delphinium carolinianum subsp. *vimineum*
Eriogonum multiflorum
Eryngium hookeri
Gratiola flava
Helianthus debilis subsp. *silvestris*
Helianthus occidentalis subsp. *plantagineus*
Hymenopappus artemisiifolius var. *artemisiifolius*
Krigia wrightii
Lobelia puberula (2)
Maclura pomifera
Nemophila phacelioides
Oenothera heterophylla (3)
Paronychia drummondii
Pediomelum hypogaeum var. *subulatum*
Phacelia glabra
Phlox cuspidata
Phlox drummondii (4)
Polanisa erosa subsp. erosa (5)
Valerianella florifera
Vernonia texana

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sandy soils of upland prairies (Hartman, 1986), and its Texas distribution appears to be limited to parts of the Eocene Sands and the Panhandle area. One additional western species was recorded from Lee County in the time between his thesis work (2006) and this present paper, the state native but often cultivated *Nyctaginia capitata*.

While, as noted above, very few native species are at their eastern geographical extreme in Lee County, a large number occur there on the western edge of their ranges. A rough indication of this fact can be seen by comparing the Lee County flora with that of Travis County, just to the west. The flora of Travis County is very well known, since The University of Texas at Austin is located there and the county has had a series of botanists, professional and amateur, collecting its flora over the years, yielding over 10,000 specimens in the TEX/LL herbaria (Plant Resources Center, 2006). In addition, William R. Carr (2004b) compiled a detailed floristic list of the county. Travis County lies just west of Lee and their closest points are within three miles of each other; post oak woodland and blackland prairie are widespread vegetation types in both. Carr's list (2004b) contains a large number of species not included in the present Lee County list, largely for two reasons: 1) the flora of Travis County is far better documented; and 2) western Travis County lies on the Edwards Plateau, which has a distinctly different flora from areas to the east. However, as of 2006 the Lee County list also included at least 157 native species (approximately 25% of the documented Lee County native flora) not known from Travis County (accounting for differences in nomenclature and taxonomy between the lists). Given the well-studied character of the Travis County flora, it seems likely that few of these species will be found to occur in Travis County.

Further analysis of these 157 species reveals that the majority are indeed on the western edges of their ranges in Lee County. Comparing the list to maps of Turner et al. (2003) and the TEX/LL databases (Plant Resources Center, 2006), 29 species that occur further west but which have no current Travis County records were eliminated. Species endemic to the Eocene Sands and lacking in Travis County (8 species) are listed elsewhere (Table 4). The remaining species are at the western edges of their ranges in Lee County (though not always at their westernmost localities, due to irregular range boundaries) and represent more broadly distributed East Texas species, often widespread throughout the southeastern United States (120 species, Table 6). The lack of these species in Travis County seems due largely to the rapid vegetation transition from the more mesic East Texas flora to the drier central Texas environment that occurs in the post oak belt in areas like Lee County. It is well known to local botanists that the floristic relationship of Bastrop County (bordering Lee County to the southwest and better collected) with Travis County is similar to that documented here for Lee County, but this has not been quantified.

The Loblolly Pines (*Pinus taeda*) common in the east Texas Pineywoods also occur in Bastrop, Fayette, and Lee Counties as the famous "Lost Pines." Correll and Johnston (1970) argue that this is a misnomer because the pines are continuous with the eastern population. Nevertheless, their presence in Lee County is noteworthy for, along with Bastrop County, their representation of the western edge of their distribution in the state.

Rare Plants. Two Lee County species are listed as rare or "quasi-rare" in Texas (Carr, 2004a), *Liatris cymosa* and *Cucurbita texana*. Both were also listed by the Texas Organization for Endangered Species (TOES) (1993) on the Watch List (Category V). TOES Category V listing is given to plant species "that lack legal protection and at present have either low population numbers or restricted distribution in Texas and that are not declining or being restricted in its range but require attention to ensure that the species does not become endangered or threatened" (Texas Organization for Endangered Species, 1993).

Liatris cymosa has the G2/S2 rare status, signifying that there are only 6-20 occur-

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TABLE 6. Species that appear to occur in Lee County at the western edge of their ranges. This list represents the native Lee County species that are not known to occur in Travis County, are not considered Carrizo Sands endemics (Table 4), and whose distribution does not generally occur west of Travis County.

Amsonia repens
Andropogon ternarius var. *ternarius*
Argythamnia mercurialina var. *pilosissima*
Asclepias linearis
Asplenium platyneuron
Axonopus fissifolius
Axonopus furcatus
Bigelowia nuttallii
Boltonia diffusa var. *diffusa*
Burmannia capitata
Carex brevior
Carex bushii
Carex festucacea
Carex longii
Carex lurida
Carex microrhyncha
Carya aquatica
Chasmanthium laxum var. *sessilifolium*
Chrysopsis pilosa
Cirsium engelmannii
Cornus florida
Crataegus spathulata
Croptilon rigidifolium
Crotalaria sagittalis
Croton argyranthemus
Cyperus polystachyos
Cyperus virens var. *virens*
Desmodium ciliare
Dichanthelium ravenelii
Dichanthelium scoparium
Drosera brevifolia
Eleocharis tortilis
Elephantopus carolinanus
Eryngium prostratum
Erythrina herbacea
Eupatorium compositifolium
Eupatorium glaucescens
Euphorbia tetrapora
Eurybia hemispherica
Euthamia gymnospermoides
Forestiera acuminata
Forestiera ligustrina
Glandularia canadensis
Gratiola flava
Gymnopogon ambiguus
Helianthus debilis subsp. *silvestris*
Helianthus occidentalis subsp. *plantagineus*

TABLE 6. Continued.

Hieracium gronovii
Houstonia rosea
Hydrocotyle ranunculoides
Hydrolea ovata
Hypoxis hirsuta
Isolepis molesta
Juncus capitatus
Lespedeza hirta
Lespedeza procumbens
Liatris cymosa
*Liatris squarrosa v*ar. *alabamensis*
Liquidambar styraciflua
Lithospermum caroliniense var. *caroliniense*
Ludwigia alternifolia
Lycopus rubellus
Matelea cynanchoides
Monarda punctata var. *lasiodonta*
Myrica cerifera
Neptunia pubescens
Nyssa sylvatica
Oldenlandia uniflora
Osmunda cinnamomea
Packera glabella
Palafoxia rosea var. *rosea*
Panicum brachyanthum
Panicum verrucosum
Paronychia drummondii
Paspalum floridanum
Pediomelum hypogaeum var. *subulatum*
Phacelia glabra
Pinus taeda
Planera aquatica
Pogonia ophioglossoides
Polygala incarnate
Polygala polygama
Polygonella americana
Proserpinaca palustris var. *amblyogona*
Pseudolycopodiella caroliniana var. caroliniana
Pteridium aquilinum var. *pseudocaudatum*
Pycnanthemum tenuifolium
Quercus margarettiae
Quercus nigra
Quercus phellos
Ranunculus laxicaulis
Rhexia mariana
Rhus aromatica var. *serotina*
Rhus copallinum var. *latifolia*
Rhynchospora corniculata
Rhynchospora glomerata
Rhynchospora gracilenta
Rhynchospora recognita
Rubus argutus
Sacciolepis striata

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TABLE 6. Continued.

Sagittaria lancifolia subsp. *lancifolia*
Saxifraga texana
Schoenolirion wrightii
Scleria ciliata
Scutellaria parvula var. *australis*
Silphium gracile
Smilax glauca
Smilax smallii
Solidago ulmifolia var. *microphylla*
Spigelia texana
Stylosanthes biflora
Symphyotrichum pretense
Tephrosia onobrychoides
Tragia urticifolia var. *texana*
Trepocarpus aethusae
Triadenum walteri
Trichostema dichotomum
Vaccinium arboretum
Valerianella florifera
Vitis aestivalis var. *lincecumii*
Vitis rotundifolia var. rotundifolia
Woodwardia areolata
Woodwardia virginiana
Xyris jupicai
Yucca louisianensis

rences known globally (G2) and at the state level (S2) in Texas (Carr 2004a). Because the species is endemic to Texas, the state and global rankings are essentially equivalent. The G2/S2 rank also indicates that the species is "imperiled in the state because of rarity (and is) very vulnerable to extirpation from the state" (Carr, 2004a). In my fieldwork I only located the species in one location, in the claypan area of Lake Somerville State Park, representing either one large population or a few smaller ones.

Cucurbita texana has the 'quasi-rare' G3/S3 status, signifying that there are 21-100 occurrences known globally (G3) and at the state level (S3) in Texas (Carr, 2004a). Once considered endemic to Texas (Correll & Johnston, 1970), this species has recently been found outside of the state (Diggs et al., 1999; Carr, 2004a). It is considered rare throughout its range, but is locally common in the eastern half of Texas in alluvial bottomland soils (Carr, 2004a).

Spiranthes parksii (Navasota Ladies'-Tresses) is a federally listed endangered orchid (listed in 1982) that is likely to occur in Lee County, though its presence there has not yet been verified as of 2006. The species is a member of the *Spiranthes cernua* complex, and the two species are difficult to distinguish from one another in the field, and even more so with herbarium specimens. Several large populations of (presumably) *S. cernua* have been located, with one specimen sent to *Spiranthes* specialist C. Sheviak (New York State Museum), who identified it as *S. cernua*. *Spiranthes parksii* is endemic to Texas, occurring in about 100 populations in at least 11 counties in the Post Oak Savannah, with one apparently disjunct population in Jasper County (Bridges and Orzell, 1989; TPWD, 2006). In 2004, the species was reported for Bastrop County less than 10 miles from Lee County (P. Schappert, pers. comm.), making it the fifth of six counties adjacent to Lee County to report the species (not reported in Williamson County as of 2006). Emergence of the species from year to year is dependent on appropriate weather conditions, and during the study period between 2002 and 2006, fall 2004 was the only suitable season. It appears highly likely that *Spiranthes parksii* occurs in Lee County, requiring only the right weather conditions and a trained pair of eyes.

FUTURE WORK. Further study is certain to yield an even more diverse flora of Lee County. The present study was largely a learning experience for the author (which as an academic degree requirement it was intended to be), and the limitations of time, weather conditions during the study period, lack of access to many areas in a largely private property county, and the author's initial state of knowledge of the flora mean that more remains to be done. Common widespread species not documented in the present work but which are likely to occur in Lee County include: *Quercus fusiformis, Physalis cinerascens, Amorpha fruticosa, Glandularia bipinnatifida, Aristida purpurea, Cyperus acuminatus, Sorghastrum nutans, Digitaria cognata, Eleocharis montevidensis,*

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Juncus acuminatus, Junus brachycarpus, various cacti, one or more species of *Muhlenbergia* and *Senna*, and others, as well as many less common species as well. More fieldwork will certainly yield a fuller picture of the flora of Lee County, but the present study gives a much firmer documented base from which future studies can depart.

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Literature Cited

Note: Literature Cited in the Lee County Checklist (Appendix 1) is at the End of the Checklist.

Axelrod, D. I. 1985. Rise of the grassland biome, central North America. Bot. Rev. 51: 163–201.

Barbour, M. G. and N. L. Christensen. 1993. Vegetation. Pp. 97–131 in *Flora of North America North of Mexico*, Vol. 1, eds. Flora of North America Editorial Committee. New York and Oxford: Oxford University Press.

Birch, J. L. 2004. *The Gideon Lincecum Herbarium: A Floristic and EthnobotanicAnalysis*. M. A. Thesis, University of Texas at Austin.

BONAP, see Kartesz.

Bridges, E. L. and S. L. Orzell. 1989. Additions and noteworthy vascular plant collections from Texas and Louisiana, with historical, ecological, and geographical notes. Phytologia 66: 12–69.

Bryant, V. M., Jr. 1969. *Late full-glacial and post-glacial pollen analysis of Texas sediments*. Ph.D dissertation, The University of Texas at Austin.

———. 1977. A 16,000 year pollen record of vegetational change in central Texas. Palynology 1: 143–157.

Bureau of Economic Geology. 1974. Geologic Atlas of Texas, Austin Sheet, reprinted 1981. The University of Texas at Austin.

———. 1992. Geology of Texas map. The University of Texas at Austin.

Camper, H. A. 1991. *Pollen Analysis of Patschke Bog*. M. S. Thesis, Texas A &M University, College Station.

Carr, W. R. 2004a. An Annotated list of the G3/T3 and rarer plant taxa of Texas. Unpublished February 2004 draft. Accessed 3 May 2006. <http://www.

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nature.org/wherewework/northamerica/states/texas/files/rareplan tlist404.pdf>.

———. 2004b. Travis County Flora Project. Unpublished draft updated in March 2004. Accessed 1 May 2006. <http://www.npsot.org/Austin/TravisCountyFlora/default.html>.

Carr, W. R. 2009. No Place but Texas: An Annotated List of Plant Taxa Endemic to the Lone Star State (incomplete working draft). Nature Conservancy, San Antonio, Texas. Accessed Sept. 2017 at: http://www.guynesom.com/Texendemicsweb.htm

Collins, O. B., F. E. Smeins, and D. H. Riskind. 1975. Plant communities of the Blackland Prairie of Texas. Pp. 75–88 in *Prairie: A Multiple View*, M. K. Wali, ed. Grand Forks: The University of North Dakota Press.

Correll, D. S. and M. C. Johnston. 1970. *Manual of the Vascular Plants of Texas*. Renner: Texas Research Foundation.

Diggs, G. M., Jr., B. L. Lipscomb and R. J. O'Kennon. 1999. *Shinners & Mahler's Illustrated Flora of North Central Texas*. Sida, Botanical Miscellany, No. 16. Fort Worth: Botanical Research Institute of Texas.

Flora of North America Editorial Committee (FNA), eds. 1993+. *Flora of North America North of Mexico*. 20+ vols. New York and Oxford. Vol. 3, 1997; Vol. 22, 2000; Vol. 23, 2002; Vol. 25, 2003; Vol. 26, 2002.

Geiser, S. W. 1948. *Naturalists of the Frontier*, 2nd ed. Dallas: Southern Methodist University.

Gould, F. W. 1962. *Texas plants – A checklist and ecological summary*. Texas Agricultural Experimental Station, Misc. Pub., College Station: Texas A&M University.

———. 1975. *The Grasses of Texas*. College Station: Texas A&M University Press.

Graham, A. 1958. *Pollen Studies of Some Texas Peat Deposits*. M. A. thesis, The University of Texas at Austin.

———. 1993. History of the Vegetation: Cretaceous (Maastrichtian) – Tertiary. Pp. 57–70, in *Flora of North America North of Mexico*, eds. Flora of North America Editorial Committee. New York and Oxford: Oxford University Press.

——— **and C. Heimsch.** 1960. Pollen studies of some Texas peat deposits. Ecology 41: 785–790.

Hafsten, U. 1961. Pleistocene development of vegetation and climate in the southern high plains as evidenced by pollen analysis. Pp. 59–91, in *Paleoecology of the Llano Estacado*, ed F. Wendorf, ed. Santa Fe: Museum of New Mexico Press.

Hartman, R. L. 1986. Asclepiadaceae. Pp. 614–637, in *Flora of the Great Plains,* ed. T. M. Barkley. Lawrence: University Press of Kansas.

Hatch, S. L., K. N. Gandhi and L. E. Brown. 1990. *Checklist of the Vascular Plants of Texas.* Texas Agric. Exp. Sta. Misc. Publ. 1655:1–158.

Holloway, R. G. and V. M. Bryant, Jr. 1984. *Picea glauca* pollen from late glacial deposits in central Texas. Palynology 8: 21–32.

———**, L. M. Raab, and R. Stuckenrath.** 1987. Pollen analysis of late- Holocene sediments from a central Texas bog. Texas J. Sci. 39: 71–79.

Jurena, M. R. 2007. *Soil Survey of Lee County, Texas*. United States Department of Agriculture, Natural Resource Conservation Service. 263 pp. + maps.

Kartesz, J. T., The Biota of North America Program (BONAP). 2015. Taxonomic Data Center. (http://www.bonap.net/tdc). Chapel Hill, N.C. [maps generated from Kartesz, J. T. 2015. Floristic Synthesis of North America, Version 1.0. Biota of North America Program (BONAP). (in press)].

Kaul, R. B. 1986. Physical and floristic characteristics of the Great Plains. Pp. 7–10, in *Flora of the Great Plains,* ed. T. M. Barkley. Lawrence: University of Kansas Press.

Larkin, T. J. and G. W. Bomar. 1983. *Climatic Atlas of Texas*. Austin: Texas Department of Water Resources.

Larson, D. A., Bryant, V. M., Jr., and T. S. Patty. 1972. Pollen analysis of a central Texas bog. Amer. Midl. Nat. 88: 358–367.

Launchbaugh, J. L. 1955. Vegetational Changes in the San Antonio Prairieassociated with grazing, retirement from grazing, and abandonment from cultivation. Ecol. Monogr. 25: 39–57.

Lincecum, J. B. and E. H. Phillips, eds. 1994. *Adventures of a Frontier Naturalist*. College Station: Texas A&M Press.

MacRoberts, M. H., B. R. MacRoberts, B. A. Sorrie, and R. E. Evans. 2002. Endemism in the West Gulf Coastal Plain: Importance of xeric habitats. Sida 20: 767–780.

Mayfield, M. H. 2002. The Varieties of *Liatris elegans* (Asteraceae). Sida 20: 597–603.

McBryde, J. B. 1933. The Vegetation and Habitat Factors of the Carrizo sands. Ecol. Monogr. 3: 249–297.

Musselman, L. J. and K. C. Nixon. 1981. Branched broomrape (*Orobanche ramosa*) in Texas. Plant Disease 65: 752–753.

Patty, T. S. 1968. *Pollen Analysis and Chronology of a Central Texas Peat Bog*. M. A. Thesis, The University of Texas at Austin.

Plant Resources Center (University of Texas at Austin). 2002. Flora of TexasDatabase (TEX-LL). Assessed 11 November 2002. <http://www.biosci.utexas.edu/prc>.

Plant Resources Center (University of Texas at Austin). 2006. Flora of TexasDatabase (TEX-LL). Assessed 1 May 2006. < http://www.biosci.utexas.edu/prc>.

Potzger, J. E. and B. C. Tharp. 1943. Pollen record of Canadian spruce and fir from a Texas bog. Science 98: 584–585.

———. 1947. Pollen profile from a Texas bog. Ecology 28: 274–280.

———. 1954. Pollen study of two bogs in Texas. Ecology 35: 462–466.

Ramos, M. G., ed. 1999. *Texas Almanac 2000-2001, Millenium Edition*. CollegeStation: Texas A&M University Press Consortium.

Reed, M. D. 1998. *Key to the Angiosperm Flora of Brazos and surrounding counties*. M. S. Thesis, in part, Texas A&M University, College Station.

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Simpson, B. B., D. M. Helfgott, and J. L. Neff. 2001. A new cryptic species of *Nemophila* (Hydrophyllaceae) from Texas and the Leptotypification of *N. phacelioides* Nuttall. Lundellia 4: 30–36.

Soil Conservation Service. 1979. *General Soil Map – Lee County, Texas*. Fort Worth, Texas: United States Department of Agriculture.

Sorrie, B. A. and A. S. Weakley. 2001. Coastal Plain vascular plant endemics: phytogeographic patterns. Castanea 66: 50–82.

Takhtajan, A. L., T. J. Crovello, and A. Cronquist. 1986. *Floristic Regions of the World*. Berkeley: University of California Press.

Texas Agricultural Experiment Station. 1973. *General Soil Map of Texas*. College Station: Texas A&M University.

Texas Organization for Endangered Species (TOES). 1993. *Endangered, threatened, and watch list of Texas Plants*. Austin: TOES Publication 9.

Texas Parks and Wildlife Department (TPWD). 2006. Navasota Ladies'-tresses (*Spiranthes parksii*). Accessed 22 April 2006. <http://www.tpwd.state.tx.us/huntwild/wild/species/navasolt>.

Thorne, R. F. 1993. Phytogeography. Pp. 132–153 in *Flora of North America North of Mexico*, eds. Flora of North America Editorial Committee. New York and Oxford: Oxford University Press.

Turner, B. L., H. Nichols, G. Denny, and O. Doron. 2003. *Atlas of the Vascular Plants of Texas*, 2 Volumes. (Vol. 1, Introduction and Dicots; Vol. 2, Ferns, Gymnosperms and Monocots). Sida, Botanical Miscellany, No. 24. Fort Worth: Botanical Research Institute of Texas.

Whaley, W. G. 1965. Benjamin Carroll Tharp. Torreya 92: 489–492.

White, H. L., J. G. Sammon, and W. C. Holmes. 1998. Notes on the Distribution of *Orobanche ramosa* L. and *Orobanche uniflora* L. (Orobanchaceae) in Texas. Phytologia 85: 121–124.

Appendix 1

Annotated Checklist

References cited in the checklist are listed at the end of the Apendix.

The annotated checklist is organized in the following manner:

DIVISION, Family (Common name), References (Ref:) if cited used family, genus, or species.

For each species entry:

* if non-native, ∈ if endemic to Texas

Genus species Authority *variety or subspecies* (if used) [Common name]

(Commonly used synonyms in some cases)

Frequency; habitat. Additional notes, including native land if exotic, range of endemism if applicable.

Collection number(s) by Bergman (if any), then other collections (if any) listed by collector name, their collector number (s.n. if none) and herbarium abbreviation [TEX, LL, TAMU, TAES, or BAYLU], then (year of collection). References, if used. For Bergman collections, dates are not given (all are in the period 2002-2015) and all are deposited at TEX.

The species name is followed by the authority in unabbreviated form, though it is worth noting that authorities are more commonly given in a standardized abbreviated form in other works. The term endemic can refer either to Texas, or a region of Texas (often the Eocene sands). A common name for the species is provided. The frequency of occurrence is given based primarily on the observed frequency of the collections, occasionally supplemented by known frequency elsewhere. If a plant was collected only once, this fact is noted, but this does not necessarily indicate a rare plant. Frequency is followed by habitat; this is based on the habitats associated with voucher collections, and sometimes supplemented with the known habitat for a species elsewhere. If the presence of a species in Lee County is notable for being at or near the edge of its overall range, this is stated. References used for non-native and endemic geographical information, species' ranges, and common names were Correll & Johnston (1970), Reed (1998), Diggs et al. (1999), the Flora of North America volumes (1993+), Turner et al. (2003), the USDA Plants Database (2006), Kartesz (2015), and Carr (2009). Taxonomy and nomenclature follow BONAP (Kartesz, 2015) unless otherwise noted.

LYCOPODIOPHYTA

Lycopodiaceae (Clubmoss family)

Pseudolycopodiella caroliniana (C. Linnaeus) J. Holub var. *caroliniana* [Southern Clubmoss] (syn. *Lycopodiella caroliniana, Lycopodium carolinianum*) This voucher was collected in a once-intact peat bog. The bog has since been drained and the habitat for this species is likely degraded to the point where it does not persist. B. C. Tharp s.n. TEX (1940).

Selaginellaceae (Spike-moss family)

Selaginella arenicola L. Underwood subsp. *riddellii* (G. Van Eseltine) R. Tryon [Riddell's Selaginella]

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Uncommon; rocky, sandy areas. B. Ertter, E. Kutac, J. Larke, S. Ginzbarg & D. Lynch 5257 TEX (1984), S. L. Orzell & E. L. Bridges 10550 TEX (1989).

POLYPODIOPHYTA

Aspleniaceae (Spleenwort family)

Asplenium platyneuron (C. Linnaeus) N. Britton, E. Sterns, & J. Poggenburg [Ebony Spleenwort] Locally common; moist, shaded sands. 541, 599.

Blechnaceae (Chain Fern family)

Woodwardia areolata (C. Linnaeus) T. Moore [Chain Fern] Locally common; moist sandy areas. 540, 550, 796, H. B. Parks s.n. TEX (1948).

Woodwardia virginica (C. Linnaeus) J. Smith [Virginia Chain Fern] Locally common; moist sandy areas. 559, 794.

Dennstaedtiaceae (Bracken family)

Pteridium aquilinum (C. Linnaeus) F.Kuhn var. *pseudocaudatum* (W. Clute) A.Heller [Western Bracken Fern] Collected in moist sandy area; although not frequently observed in Lee County, this fern is known to be weedy and widespread throughout the world (Diggs et al. 1999). 539, H. B. Parks s.n. TEX (1948).

Dryopteridaceae (Wood Fern family)

Woodsia obtusa (K. Sprengel) J. Torrey subsp. *obtusa* [Common Woodsia] Common; sandy, seepy areas. 358, 542, 618.

Marsileaceae (Water-clover family)

Marsilea vestita W. Hooker & R. Greville [Pepperwort] Uncommon; moist sandy areas. 589, 1200, J. Singhurst 6903 TEX (1998).

Ophioglossaceae (Adder's-tongue family)

Ophioglossum engelmannii K. Prantl [Engelmann's Adder's-tongue] Rare; moist sands. 141, 159, 430B.

Osmundaceae (Cinnamon Fern family)

Osmunda cinnamomea C. Linnaeus [Cinnamon Fern] Collected once in sandy, shaded marsh. 795.

Osmunda regalis C. Linnaeus [Royal Fern] Known to occur in wet places. Varieties not recognized. B. C. Tharp s.n. TEX (1941).

Salviniaceae (Water Fern family)

Azolla microphylla G. Kaulfuss [Mexican Mosquito Fern] (syn. *A. caroliniana*) Reported once from Lake Somerville-area pond. D. Coston 306 TAES (2001).

PINOPHYTA

Cupressaceae (Cypress family)

Juniperus virginiana C. Linnaeus [Eastern Red-Cedar] Abundant; fields, roadsides, sandy or rocky soils. Taxonomy follows Diggs et al. (1999) in not recognizing varieties. 372, 503.

Pinaceae (Pine family)

Pinus taeda C. Linnaeus [Loblolly Pine] Locally common; well-drained sandy areas. Parts of western Lee County share the famed "Lost Pines" with Bastrop County. 603, D. S. Correll 32170 LL (1966).

MAGNOLIOPHYTA – MONOCOTYLEDONS

Agavaceae (Yucca family)

Yucca louisianensis W. Trelease [Louisiana Yucca] Common; sandy fields along woodland edge and roadsides. Dr. Karen Clary (TxDOT) verified these vouchers (1213 by photograph). 685A, 713, 1189, 1213.

Alismataceae (Water-plantain family)

*Echinodorus cordifo*lius (C. Linnaeus) A. Grisebach [Creeping Burhead] Collected once in the area around the Lake Somerville State Park/Wildlife Management Area. J. Singhurst & W. Holmes 13368 BAYLU (2005).

Sagittaria brevirostra K. Mackenzie & B. Bush [Short-beak Arrowhead] Collected once along a marshy roadside. This voucher represents one of only a handful of collections from the state, and the only collection from central Texas in the TEX/LL herbaria. 365.

Sagittaria lancifolia C. Linnaeus subsp. *lancifolia* [Scythe-fruit Arrowhead] Rare; marshy bog. Most of the few collections of this species were collected in the coastal prairie; the notable exception being at least three vouchers from sphagnum bog sites in Gonzales County. 785.

Sagittaria montevidensis A. von Chamisso & D. von Schlechtendal subsp. *calycina* (G. Engelmann) C. Bogin [Giant Arrowhead] Reported to be abun-

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dant in wet silt on unshaded mudflats. W. R. Carr & E. A. Kutac 8800 TEX (1987).

Sagittaria platyphylla (G. Engelmann) J. G. Smith [Delta Arrowhead] Reported to occur in wet depressions along lake. W. R. Carr & E. A. Kutac 8769 TEX (1987).

Arecaceae (Palm family)

Sabal minor (N. von Jacquin) C. Persoon [Dwarf Palmetto] Collected and observed once, in sandy field. 1111.

Bromeliaceae (Pineapple family)

Tillandsia recurvata (C. Linnaeus) C. Linnaeus [Ballmoss] Abundant growing as an epiphyte, most commonly in *Quercus* tree branches. 1209.

Tillandsia usneoides (C. Linnaeus) C. Linnaeus [Spanish Moss] Collected once in *Ulmus* tree branches in moist woods. 1098.

Burmanniaceae (Burmannia family)

Burmannia capitata (J. Gmelin) K. von Martius [Cap Burmannia] Collected in 1949 from sphagnum bog. L. Robertson & C. M. Rowell, Jr. 2214 TEX (1949).

Commelinaceae (Dayflower family)

Commelina diffusa N. Burnman [Spreading Dayflower] Rare; moist bottomlands. 961.

Commelina erecta C. Linnaeus [Erect Dayflower] Abundant; sandy roadsides. Taxonomy follows FNA Vol. 22 in not recognizing varieties, as they are thought to intergrade freely. Voucher 991 showed intriguing variability in sheath fusion – one duplicate with sheath margins distinct to base, one duplicate with sheath margins connate basally. 287, 991, P. Fryxell 2505 TEX (1975).

€ *Tradescantia subacaulis* B. Bush [Stemless Spiderwort] Abundant; deep sands. Endemic to the deeps sands of east Texas. 128, 185, 477, 555, M. Knobloch s.n. TEX (1931), B. L. & M. Turner 95-53, 95-61 & 95-64 TEX (1995), T. J. Watson 1627 TEX (1993).

Tradescantia hirsutiflora B. Bush [Hairy-flower Spiderwort] Reported once, no locality information available. T. Avis 23 TAMU (1998).

Cyperaceae (Sedge family)

Ref: FNA volume 23

Bulbostylis capillaris (C. Linnaeus) K. Kunth ex C. Clarke [Hair-sedge] Locally common; moist sands. 258, W. R. Carr 8764-A TEX (1987), J. Singhurst 6926 TEX (1998).

Carex brevior (C. Dewey) K. Mackenzie ex J. Lunell [Short Caric Sedge] Collected once in slightly damp sandy soil. *Carex brevior* and *C. festucacea* (and to a lesser extent *C. albolutescens*) constitute a difficult complex; this species was determined largely on perigynium size. 271.

Carex bushii K. Mackenzie [Benjamin Bush's Caric Sedge] Common; wet areas along roadside ponds, sandy soils along forest edge. 308, 758, M. H. Mayfield, B. G. Milligan & K. McMurry 386 TEX (1990).

Carex cherokeensis L. Schweinitz [Cherokee Caric Sedge] Reported from wet areas along roadside pond. S. P. Lynch 2933 TEX (1979), M. H. Mayfield, B. G. Milligan & K. McMurry 387 TEX (1990).

Carex complanata J. Torrey & W. Hooker [Flat-fruit Caric Sedge] Collected once in sandy marshland. 767.

Carex crus-corvi R. Shuttleworth ex G. Kunze [Crowfoot Caric Sedge] Collected once in moist sand along lake edge, elsewhere common in roadside ditches, marshes. 1202.

Carex festucacea C. Schkuhr ex C. Willdenow [Fescue-like Caric Sedge] Uncommon; in wet soils adjacent to forest and along roadside. *Carex brevior* and *C. festucacea* (and to a lesser extent, C. *albolutescens*) constitute a difficult complex; this species was determined largely on perigynium size and shape, and achene size relative to perigynium. 752, M. H. Mayfield, B. G. Milligan & K. McMurry 385 TEX (1990). Ref: Godfrey & Wooten 1979.

Carex frankii K. Kunth [Joseph Frank's Caric Sedge] Collected once in moist bottomland. 769.

Carex leavenworthii C. Dewey [Melines Leavenworth's Caric Sedge] Collected once in moist sands. 256.

Carex longii K. Mackenzie [Long's Sedge] Reported from sandy soil along roadside. J. Kessler 6192 TAES (1982).

Carex lurida G. Wahlenberg [Sallow Caric Sedge] Collected once in marshy bottomland. Lee

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County is at the southwestern edge of this species' distribution. 762.

Carex microrhyncha K. MacKenzie [Small-beak Caric Sedge] Reported to be locally abundant in sandy gravelly loam beneath oaks. M. C. Johnston & L. A. Johnston 7169 & 7170 LL (1965).

Cyperus articulatus C. Linnaeus [Jointed Flat-sedge] Collected once in moist sands adjacent to lake. 1205.

Cyperus echinatus (C. Linnaeus) A. Wood [Globe Flat-sedge] (syn. *C. ovularis* (A. Michaux) J. Torrey) Common; sandy open woods. *Cyperus echinatus, C. croceus* and *C. retrorsus* constitute a difficult complex; this species was determined based on morphological characters and habitat as noted in FNA volume 23. 810, 824.

Cyperus erythrorhizos G. Muhlenberg [Red-Root Flat-sedge] Reported along pond's edge. D. Coston 297 TAES (2001).

Cyperus haspan C. Linnaeus [Sheathed Flat-sedge] Collected once in moist sandy soil; known to be weedy. 962.

Cyperus polystachyos C. Rottboll [Manyspike Flat-sedge] Uncommon; sandy marshes and bogs. 911, B. C. Tharp s.n. TEX (1941).

Cyperus pseudovegetus E. von Steudel [Marsh Flat-sedge]Common; moist sandy soil. Nomenclature follows BONAP in not recognizing varieties. 752, 884, 982, 1208.

Cyperus reflexus M. Vahl [Bent-awn Flat-sedge] Collected once in moist sandy soil. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 1024.

Cyperus retroflexus S. Buckley [One-flower Flat-sedge] (syn. *C. uniflorus* J. Torrey & W. Hooker non Thunb.) Common; open sandy fields. Nomenclature follows FNA volume 23 in not recognizing varieties. 824, 1185.

* *Cyperus rotundus* C. Linnaeus [Purple Flat Sedge] Reported once from sandy lawn. Introduced, native to the Old World. J. Kessler 6193 TAES (1982).

Cyperus strigosus C. Linnaeus var. *strigosus* [False Nutgrass] Common; moist sandy soils. 772, 986, 1034.

Cyperus virens A. Michaux var. *virens* (Green Flat Sedge) Collected once in sandy marsh. D. Lynch & E. A. Kutac 12162 TEX (1992).

Eleocharis flavescens (J. Poiret) I. Urban var. *flavescens* [Pale Spike-rush] Rare; in standing water along edge of drained bog. 977, B. C. Tharp s.n. TEX (1941).

Eleocharis obtusa (C. Willdenow) J. A. Schultes [Blunt Spike-rush] Common; in moist sandy soils. 788, 793, 960.

Eleocharis quadrangulata (A. Michaux) J. Römer & J. A. Schultes var. *crassior* M. Fernald [Square-stem Spike-rush] Collected once in standing water in drained bog. 793.

Eleocharis tortilis (J. Link) J. Schultes Common; wet sandy soils. 757, 771, 979, F. A. Barkley s.n. TEX (1954), B. C. Tharp s.n. TEX (May 1941), B. C. Tharp 44317 TEX (August 1941).

Fimbristylis autumnalis (C. Linnaeus) J. Römer & J. Schultes [Slender Fimbristylis] Common; wet sandy soils. 957, 987.

* *Fimbristylis miliacea* (C. Linnaeus) M. Vahl [Globe Fimbristylis] Uncommon; wet sandy soils. Introduced, native to Asia. 951, 1032.

Fimbristylis puberula (A. Michaux) M. Vahl ex J. Small & N. Britton Collected once in roadside ditch. No varietal designation is here attempted, as this voucher displays characters from both var. *puberula* and var. *interior*. However Turner et al. (2003) map Lee County to fall squarely in the range of var. *puberula*. M. H. Mayfield, B. G. Milligan & K. McMurry 384 TEX (1990).

Fimbristylis vahlii (J. Lamarck) J. Link [Vahl's Fimbristylis] Uncommon; moist sands, open roadsides. 422, W. R. Carr & D. Hernandez 15089 TEX (1995).

Fuirena squarrosa A. Michaux [Umbrella Sedge] Collected once in standing water along lake edge. 1055.

Isolepis carinata J. Hooker & G. Arnott ex J. Torrey [Annual Bulrush] (syn. *Scirpus koilolepis* (E. Steudel) H. Gleason) Uncommon; moist sandy soils. 264, 577.

Isolepis pseudosetacea (J. Daveau) M. Gandoger [Gulf Coast Lateral-Bulrush] (syn. *Isolepis molesta* (M.

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Johnston) S. Smith) Collected once in moist sandy soil. 265.

Lipocarpha drummondii (C. Nees von Esenbeck) G. Tucker [Common Hemicarpha] (syn. *Hemicarpha micrantha* (M. Vahl) Pax var. *drummondii* (C. Nees von Esenback) R. Mohlenbrock) Rare; reported once from seepy sands in post oak hills. R. Kral 24660 TEX (1965).

Rhynchospora corniculata (J. Lamarck) A. Gray [Horned Beak-rush] Collected once in muddy bottomland at forest edge. 881.

Rhynchospora globularis (A. Chapman) J. Small [Globe Beak-rush] Collected once in muddy, clayey sand along lake edge. 608.

Rhynchospora glomerata (C. Linnaeus) M. Vahl [Clustered Beak-rush] Reported once from shallow water in peat bog. L. W. Gibbs 120 TAMU (1947).

Rhynchospora gracilenta A. Gray [Slender Beak-rush] Collected once in sandy marsh. Lee County is on the western edge of theTexas distribution for this species. 975.

Rhynchospora harveyi W. Boott [Harvey's Beak-rush] Collected once in moist sandy soil. Originally in a mixed collection with *Scleria ciliata*, but Bill Carr's closer look parsed out the two species. 820-A.

Rhynchospora rariflora (A. Michaux) S. Elliott [Few-flower Beak-rush] Collected once in sandy marsh. Lee County is on the western edge of the Texas distribution for this species. 976.

Rhynchospora recognita (S. Gale) R. Kral [Globe beak-rush] Collected once in the area around the Lake Somerville State Park/Wildlife Management Area. J. Singhurst & W. Holmes 13398 BAYLU (2005).

Scleria ciliata A. Michaux [Fringed Nut-rush] Common; moist sandy soils. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 247, 820, M. H. Mayfield, B. G. Milligan & K. McMurry 389 TEX (1990).

Hydrocharitaceae (Tape-grass family)

* *Egeria densa* J. Planchon [Brazilian Water-weed] Reported once from Lake Somerville pond. Introduced, native to South America. J. Singhurst 14261 BAYLU (2006).

* *Hydrilla verticillata* (C. Linnaeus the Younger) J. Royle [Hydrilla] Locally common in still, shallow waters by Lake Somerville. Introduced, native to the Old World. W. R. Carr 8769 TEX (1987), W. R. Carr & E. A. Kutac 8807 TEX (1987), J. Singhurst & W. Holmes 13363 BAYLU (2005).

Hypoxidaceae (Star-grass family)

Hypoxis hirsuta (C. Linnaeus) F. Coville [Yellow Star-grass] Locally common; roadsides and woodlands. 144, 190, 494, T. J. Watson 1624 TEX (1993), M. Knobloch 1 TEX (1931).

Iridaceae (Iris family)

Herbertia lahue (J. Molina) P. Goldblatt subsp. *caerulea* (W. Herbert) P. Goldblatt [Pleat-leaf Iris] (syn. *Trifurcia lahue* (J. Molina) P. Goldblatt) var. *caerulea* (W. Herbert) P. Goldblatt) Uncommon; roadsides and lawns with mowing pressure. 676.

Nemastylis geminiflora T. Nuttall [Prairie Celestial] Locally common; sandy roadsides and alluvial sand fields. 215, 575, 586.

Sisyrinchium langloisii E. Greene [Pale Blue-eyed-grass] Common; ditches in moist, loamy sand. 193, 564, 573, 1127, T. J. Watson 1628 TEX (1993).

Sisyrinchium rosulatum E. Bicknell [Annual Blue-eyed-grass] Uncommon; sands and heavily disturbed roadsides. 290, 1155.

Juncaceae (Rush family)

Juncus bufonius C. Linnaeus var. *bufonius* [Toad Rush] Uncommon; moist sandy soil. 226, 266.

Juncus capitatus C. von Weigel [Capped Rush] Uncommon; moist sandy soil. 232, W. R. Carr & P. Turner 17952 TEX (1999).

Juncus diffusissimus S. Buckley [Slim-pod Rush] Collected once in sandy marsh. 751.

Juncus effusus C. Linnaeus var. *solutus* M. Fernald & K. Wiegand [Common Rush] Locally common; sandy marsh. 536, 759.

Juncus interior K. Wiegand [Inland Rush] Moist sandy soil. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 267, W. R. Carr et. al 34736 TEX (2015).

Juncus marginatus F. Rostkovius [Grass-leaf Rush] Common; found in open fields, roadsides, damp sands. Nomenclature follows Correll & Johnston (1970) and Diggs et al. (1999) in not recognizing varieties. 750, 821, 1165, D. S. Correll 23419 LL

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(1960), D. Lynch & E. A. Kutac 12163 TEX (1992).

Juncus validus F. Coville var. *validus* [Round-head Rush] Collected once in sandy marsh. 772.

Lemnaceae (Duckweed family)

Lemna aequinoctialis F. Welwitch [Lesser Duckweed] Collected once in standing water in roadside ditch. 384.

Spirodela polyrhiza (C. Linnaeus) M. Schleiden [Common Duckmeat] Collected once in Lake Somerville. 418.

* *Spirodela punctata* (G. Meyer) C. Thompson [Dotted Duckmeat] Collected once in standing water in cattail marsh. Introduced, native to S. America, Southeast Asia and Australia. 1220.

Liliaceae (Lily family)

Allium canadense C. Linnaeus var. *canadense* [Wild Garlic] Locally common; roadside ditches and wet places. The voucher had only bulbils, no flowers. 1228.

Allium canadense C. Linnaeus var. *mobilense* (E. von Regel) M. Ownbey [Meadow Garlic] Common; roadsides, oak woods, bottomlands. According to Ownbey & Aase (1955), this variety is distinct from other varieties in its combination of sexual reproduction, usually pink flowers, and filamentous pedicels, with distribution along the Gulf of Mexico coastline and adjacent sandy plains. While *A. canadense* var. *mobilense* is occasionally considered the sexually reproducing form of var. *canadense* and included within it (Turner et al. 2004), Ownbey & Aase (1955) consider the latter to be a complex of asexual tetraploids derived from the three mostly diploid sexual varieties. Many floras follow Ownbey & Aase's interpretation and nomenclature (Correll & Johnston 1970, Jones et al.1997, Diggs et al. 1999, FNA vol. 26 2002). 251, 296, 734, D. S. Correll 23421 LL (1960), C. E. Smith, Jr. 4280 LL (1964), B. C. Tharp s.n. TEX (1930).

Allium drummondii E. von Regel [Drummond's Onion] Abundant; sandy areas and roadsides. 166, 202, 437, 501.

Camassia scilloides (C. Rafinesque-Schmaltz) V. Cory [Eastern Camas] Collected in 1937 without habitat information, elsewhere usually found in open woods and prairies. R. W. Strandtmann s.n. TEX (1937).

Cooperia drummondii W. Herbert [Rain-lily] (syn. *Zephyranthes chlorosolen* (W. Herbert) D. Dietrich) Locally abundant after spring rains; roadsides and lawns. 437.

* *Crinum bulbispermum* (N. Burman) E. Milne-Redhead & H. Schweickerdt [Orange River lily] Collected and observed once, in and adjacent to standing water in roadside ditch. Infrequently collected in Texas but apparently common between Austin and the Gulf Coast in roadside ditches (pers. comm., Bill Carr and Adam Cohen). This species is commonly grown ornamentally and is likely an adventive garden escapee. Introduced, native to S. Africa. 1229.

* *Habranthus tubispathus* (L'Héritier de Brutelle) H. Traub [Atamosco-lily] Uncommon; residential lawns and alluvial sand fields. Introduced, native to S. America. 1210, J. Singhurst 6909 TEX (1998).

Nothoscordum bivalve (C. Linnaeus) N. Britton [Crowpoison] Abundant; roadsides and disturbed fields. 103.

Schoenolirion wrightii H. Sherman [Texas Sunnybell] Rare; seepy alluvial sand. Previous collections in Texas have been restricted to Austin, Brazos, and Jasper counties and as such this voucher represents the westernmost collection for Texas. 584.

Toxicoscordion nuttallii (A. Gray) P. Rydberg [Nuttall's Death-camas] (syn. *Zigadenus nuttallii* A. Gray) S. Watson) Locally common; clayey sand in open woodlands. 566, S. P. Lynch 2932 TEX (1979).

Orchidaceae (Orchid family)

Pogonia ophioglossoides (C. Linnaeus) A. de Jussieu [Rose Pogonia] Two vouchers from the same time and place were last collected from 1940, at a bog site. The species is unlikely to remain extant, as bogs in the area have largely been drained, converted to pasture, or otherwise degraded. B. C. Tharp s.n. TEX (1940), B. H. Warnock 20629 TEX (1940).

Spiranthes cernua (C. Linnaeus) L. C. Richard [Nodding Ladies'-tresses] Locally abundant in the fall, following adequate summer rains; seepy sandy loam in prairies and along woodland edges. The federally endangered *Spiranthes parksii* strongly

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resembles *S. cernua*, and may occur in Lee County as well. Further research will likely lead to its discovery. 464, K. H. Clary 413 TEX (2000). Ref: FNA vol. 26.

Spiranthes lacera (C. Rafinesque-Schmaltz) C. Rafinesque-Schmaltz var. *gracilis* (J. Bigelow) C. Luer [Slender Ladies'-tresses] Uncommon; seepy sand or rocky soil. 465, 1018. Ref: FNA vol. 26.

Poaceae (Grass family)

Ref: Gould (1975), FNA volume 25 (2003)

Agrostis hyemalis (T. Walter) N. Britton, E. Sterns, & J. Poggenburg [Winter Bentgrass] Collected once from open sands. 262.

* *Aira elegantissima* P. Schur [Annual Hairgrass] (syn. *Aira caryophyllea* C. Linnaeus var. *capillaris* (N. Host) A. Mutel) Collected once from open sands. Introduced, native to Europe. 268.

Andropogon glomeratus (T. Walter) N. Britton, E. Sterns, & J. Poggenburg [Bushy Bluestem] Common; seepy areas and roadside ditches. 1021.

Andropogon ternarius A. Michaux var. *ternarius* [Splitbeard Bluestem] Collected once in seepy sand. 1012.

Aristida desmantha K. von Trinius & F. Ruprecht [Curly Threeawn] Collected once in clayey sand. 1043.

Aristida longespica J. Poiret var. *geniculata* (C. Rafinesque-Schmaltz) M. Fernald [Slim-spike Threeawn] Common in open sands. 1013, 1067, B. C. Tharp s.n. TEX (1941) (2 specimens with different dates)

Aristida oligantha A. Michaux [Oldfield Threeawn] Collected once in seepy sand. 1014.

* *Arundo donax* C. Linnaeus [Giant Reed] Locally abundant along fencerows and in disturbed moist areas. Introduced, native to the Mediterranean area. 1230.

* *Avena fatua* C. Linnaeus [Wild Oats] Collected once in disturbed open field. Introduced, native to the Mediterranean area. 743.

* *Avena sativa* C. Linnaeus [Oats] Reported once from roadside ditch in stony red clay. Introduced, native to the Mediterranean area. R. Lonard 1836 TAES (1967).

Axonopus fissifolius (G. Raddi) J. Kuhlmann [Common Carpet Grass] Uncommon; moist sandy woods. 1035, B. C. Tharp s.n. TEX (1941).

Axonopus furcatus (J. Flugge) A. Hitchcock [Big Carpet Grass] Collected once in moist sandy woods. 1036. Ref: FNA vol. 25 (2003).

Bothriochloa barbinodis (M. Lagasca y Segura) W. Herter [Cane Bluestem] Collected once along roadside; common in the western two-thirds of Texas, less so in the eastern one-third where Lee County lies. 1011.

* *Bothriochloa ischaemum* (C. Linnaeus) Y. Keng [King Ranch (KR) Bluestem] Common; this plant can be extremely weedy and is commonly found in disturbed areas, roadsides and fields. Varieties not recognized. Introduced, native to Asia. 1226.

Bothriochloa laguroides (A. P. de Candolle) W. Herter subsp. *torreyana* (E. von Steudel) K. Allred & F. Gould [Silver Bluestem] Common; roadsides. 871.

Bouteloua curtipendula (A. Michaux) J. Torrey var. *curtipendula* [Side-Oats Grama] Common; sandy soils. State grass of Texas. 868, 1081, J. Singhurst 6902 TEX (1998).

Bouteloua hirsuta M. Lagasca y Segura [Hairy Grama] (syn. *Chondrosum hirsuta* (M. Lagasca y Segura) C. Kunth) Collected once in sandy soils. J. Singhurst 6901 TEX (1998).

Bouteloua rigidiseta (E. von Steudel) A. Hitchcock [Texas Grama] Locally abundant along roadsides. 746.

* *Briza minor* C. Linnaeus [Little Quaking Grass] Uncommon; sandy soil. Introduced, native to Europe. 233.

* *Bromus catharticus* M. A. Vahl [Rescue Grass] (syn. *Bromus unioloides* Kunth) Collected once in sandy soil, known to be common in the spring. Introduced, native to southern S. America. 286.

Buchloe dactyloides (T. Nuttall) G. Engelmann [Buffalo Grass] (syn. *Bouteloua dactyloides* (T. Nuttall) J. Columbus) Locally common; open fields. 1206.

Cenchrus spinifex A. Cavanilles [Common Sandbur] (syn. *C. incertus* M. Curtis) Common; sandy disturbed areas. 443, 998.

Chasmanthium latifolium (A. Michaux) H. Yates [Broad-leaf Woodoats] Collected once along edge

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of *Fraxinus-Carya* forest in creek floodplain. The voucher collected appears much more robust than other specimens viewed, and it significantly exceeds the range of measurements for this species. The voucher's spikelets measure to 6.5 cm in length (normally up to 5.0 cm) and with as many as 29 florets per spikelet (normally to 17 florets, rarely to 26). Further study into this robust specimen is required. 882.

Chasmanthium laxum (C. Linnaeus) H. Yates var. *sessilifolium* (J. Poiret) J. Wipff & S. Jones [Narrow-leaf Woodoats] Locally common in sandy prairie opening. Lee County is at the southwesternmost edge of this species' range, which extends northeast to North Carolina. 1064. Ref: FNA vol. 25 (2003).

Chloris cucullata G. Bischoff [Hooded Windmill Grass] Common; sandy disturbed soils. 848, 1001, 1006.

Chloris verticillata T. Nuttall [Tumble Windmill Grass] Common; sandy disturbed sites. 897, 1005, 1080.

Chloris virgata O. Swartz [Feather Finger Grass] Collected once along sandy roadside. 1007.

* *Cynodon dactylon* (C. Linnaeus) C. Persoon var. *dactylon* [Bermuda Grass] Common; disturbed sands. Introduced, native to Africa or India. 870.

* *Dactyloctenium aegyptium* (C. Linnaeus) A. Palisot de Beauvois [Crowfoot] Collected once along roadside. Introduced, native to the Old World tropics. 459.

Dichanthelium acuminatum (O. Swartz) F. Gould & C. Clark var. *acuminatum* [Woolly Rosette Grass] Collected once in deep sandy soils. Taxonomy follows FNA volume 25 (2003) and BONAP in recognizing *Dichanthelium* as a distinct genus, not a not a subgenus of *Panicum*. Taxonomy also departs from BONAP and follows FNA in recognizing the varieties of *D. acuminatum*, three of which are represented in this checklist. *243*.

Dichanthelium acuminatum (O. Swartz) F. Gould & C. A. Clark var. *lindheimeri* (G. Nash) F. Gould & C. A. Clark [Lindheimer's Rosette Grass] Common; sandy soils. 761, 1066, F.A. Barkley s.n. TEX (1947), B. C. Tharp s.n. TEX (1941).

Dichanthelium acuminatum (O. Swartz) F. Gould & C. A. Clark var. *villosum* F. Gould & C. A. Clark [White-haired Rosette Grass] Uncommon; sandy soils. 682, 754.

Dichanthelium laxiflorum J. Lamarck [Open-flower Rosette Grass] Collected once in sandy soil. 1065.

Dichanthelium linearifolium (F. Lamson-Scribner ex G. Nash) F. Gould Last reported in 1941, when it was locally common on gravelly sand. W. A. Silveus 7028, 7028-A, 7029-A & 7053 TEX (1941).

Dichanthelium nodatum (A. Hitchcock & M. A. Chase) F. Gould [Sarita Rosette Grass] Collected once in sandy soil. 297.

Dichanthelium oligosanthes (J. A. Schultes) F. Gould var. *scribnerianum* (G. Nash) F. Gould [Scribner's Rosette Grass] Collected once along ditch bank in sandy soil. [Longleaf Woodoats] D. S. Correll & I. M. Johnston 17382 LL (1957).

Dichanthelium ravenelii (F. Scribner & E. Merrill) F. Gould [Ravenel's Rosette Grass] Reported once from sandy loam soil. C. Kieschnick s.n. TAES (1973).

Dichanthelium scoparium J. Lamarck [Velvet Rosette Grass] Uncommon; moist sandy soils. 763, 935.

Dichanthelium sphaerocarpon S. Elliott var. *sphaerocarpon* [Round-seed Rosette Grass] Collected once in sandy soil. 263.

Digitaria bicornis (J. Lamarck) J. Roemer & J. Schultes [Asian Crab Grass] Reported once from loamy roadside. Following Diggs et al. 2006 this species is not reported as introduced, but this is subject to debate. R. Webster 1948 TAES (1979).

* *Digitaria ciliaris* (A. Retzius) G. Koler [Southern Crab Grass] Common; disturbed roadsides. Introduced, native to the Old World. 834, 1009, 1028.

* *Digitaria ischaemum* (J. von Schreber) J. von Schreber ex G. H. Muhlenberg [Smooth Crab Grass] Collected once in sandy seep along roadside. Introduced, native to Europe. Although present in most U.S. states, the Texas range for this species appears to be restricted to the eastern fourth of the state. 1026. Ref: FNA vol. 25.

Dinebra nealleyi (G. Vasey) P. Peterson & N. Snow [Nealley's Viper Grass] (syn. *Leptochloa nealleyi* Vasey) Reported once from pond habitat. D. Coston 291 TAES (2001).

Diplachne fusca (Linnaeus) Beauv. ex Roem. & J.A.Schultes subsp. *fascicularis* (J. Lamarck) P. Peterson & N. Snow [Bearded Sprangletop] (syn. *Leptochloa fusca* (L.) Kunth subsp. *fascicularis* (J.

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Lamarck) N. Snow) Reported once from pond habitat. D. Coston 290 TAES (2001).

Echinochloa crus-pavonis (K. Kunth) J. Schultes var. *macera* (K. Wiegand) F. Gould [Gulf Cock's-Spur Grass] Reported to be locally common in moist sand. W. R. Carr & E. A Kutac 8797 TEX (1987).

Echinochloa muricata (A. Palisot de Beauvois) M. Fernald [Rough Barnyard Grass] Collected once in moist sand. Varieties not recognized. D. Lynch & E. A. Kutac 12169 TEX (1992).

Echinochloa walteri (F. Pursh) A. Heller [Long-Awn Cock's-Spur Grass] Uncommon; moist sands. 974, A. Lievens, M. D. Lynch & D. Lynch 7595 TEX (1984).

* *Eleusine indica* (C. Linnaeus) J. Gaertner [Goose Grass] Collected once along very disturbed roadside patch. Introduced, native to the Old World tropics. 1223.

Eragrostis capillaris (C. Linnaeus) C. Nees von Esenbeck [Lacegrass] Uncommon; moist sandy soils. *Eragrostis capillaris* is the only annual species in a group of about 6 taxonomically difficult species (see note at *E. lugens*), and as these vouchers were tentatively considered annual, their identification is similarly tentative. Infrequently collected in Texas. 1027, 1074.

Eragrostis curtipedicellata S. Buckley [Gummy Lovegrass] Collected once along roadside. 1087.

Eragrostis lugens C. Nees von Esenbeck [Mourning Lovegrass] This species is part of a taxonomically difficult group, including *E. capillaris, E. hirsuta, E. intermedia, E. erosa* and *E. palmeri*. Key characters in the FNA vol. 25 were used to make this species determination. However, there is a strong resemblance to the annual *E. capillaris*, while *E. lugens* is perennial. Infrequently collected in Texas. 907.

Eragrostis pectinacea (A. Michaux) C. Nees von Esenbeck ex E. von Steudel [Spreading Lovegrass] Varieties not recognized. Collected once in sandy soils. J. Singhurst 6911 TEX (1998).

Eragrostis reptans (A. Michaux) C. Nees von Esenbeck [Creeping Lovegrass] (syn. *Neeragrostis reptans* (A. Michaux) E. Nicora) Dry lake beds, sandy soils. J. Larke, M. Dabney & E. A. Kutac s.n. TEX (1984), A. Lievens, M. D. Lynch & D. Lynch 7600 TEX (1984).

Eragrostis secundiflora J. Presl subsp. *oxylepis* (J. Torrey) S. Koch [Red Lovegrass] Abundant; sandy woods. 777, 841, 926, 1015, 1046, 1062, 1063, 1094.

Eriochloa contracta A. Hitchcock [Prairie Cup Grass] Reported once from pond. D. Coston 308 TAES (2001)

* *Eustachys retusa* (M. Lagasca y Segura) K. Kunth [Argentine Finger Grass] Collected once along roadside. Introduced, native to S. America. 427.

Gymnopogon ambiguus (A. Michaux) N. Britton, E. Sterns, & J. Poggenburg [Bearded Skeleton Grass] Collected once in woodland with sandstone-derived soils. 1214.

Leersia virginica C. Willdenow [Virginia Cut Grass] Collected once in a marsh. 965.

* *Lolium perenne* C. Linnaeus subsp . *multiflorum* (J. Lamarck) P. Husnot [Ryegrass] (syn. *Lolium perenne* var. *aristatum*) Common; roadsides and disturbed areas. Introduced, native to Europe. 259, 519, 1132.

Melica mutica T. Walter [Two-flower Melic Grass] Reported from the area around the Lake Somerville State Park/Wildlife Management Area. J. Singhurst & W. Holmes 13409 BAYLU (2005).

Nassella leucotricha (K. von Trinius & F. Ruprecht) R. Pohl [Winter Grass] (syn. *Stipa leucotricha* K. von Trinius & F. Ruprecht) Common; roadsides, open fields. 747, 1140.

Panicum anceps A. Michaux var. *anceps* [Beaked Panicum] Collected in 1941 without habitat information, elsewhere usually found in low moist areas. B. C. Tharp s.n. TEX (1941).

Panicum brachyanthum E. von Steudel [Pimple Panicum] Collected once along moist, sandy roadside. 944.

* *Panicum coloratum* C. Linnaeus [Klein Grass, Blue Panic Grass] Reported once without habitat or collector information. Location listed as Giddings. Introduced, native to Africa. No collector s.n. TAES (2003).

Panicum dichotomiflorum A. Michaux [Fall Panic Grass] Reported once from pond. D. Coston 295 TAES (2001).

Panicum hallii G. Vasey var. *filipes* (F. Lamson-Scribner) F. Waller [Filly Panicum] Reported from sandy soil. J. H. Brooks 54 TEX (1966).

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Panicum rigidulum C. Nees von Esenbeck var. *rigidulum* [Red-top Panicum] Collected once in moist sands. 980.

Panicum verrucosum G. H. Muhlenberg [Warty Panicgrass] Rare; moist sands bordering boggy marshland. Lee County is at the southwestern most tip of the range for this species, which extends along the Atlantic Coast to Massachusetts. 967.

Panicum virgatum C. Linnaeus [Switch Grass] Uncommon; roadside sandy seep. 946.

Paspalidium geminatum (P. Forsskål) O. Stapf [Egyptian Water Crown Grass] Reported once from muddy creek banks. F. W. Gould 12914 TAES (1969).

* *Paspalum dilatatum* J. Poiret [Dallis Grass] Common; roadsides and disturbed areas. Introduced, native to South America. 1003, D. Lynch & E. A. Kutac 12170 TEX (1992).

Paspalum floridanum A. Michaux [Florida Paspalum] Reported from open fields. B. C. Tharp & Brown GR-270 TEX (1947), B. C. Tharp s.n. TEX (1941).

* *Paspalum notatum* J. Flugge [Bahia Grass] Common; disturbed areas. Introduced as a pasture grass, native to Latin America. Nomenclature follows FNA vol. 25 (2003) in not recognizing varieties, because variation appears to be continuous. 110, 337.

Paspalum plicatulum A. Michaux [Brown-Seed Paspalum] Reported once from sandy pastureland. B. Mitchell 25 TAES (2003).

Paspalum setaceum A. Michaux [Thin Paspalum] Abundant; roadsides and disturbed areas. Nomenclature follows Gould (1975) in not recognizing varieties which are thought to be widely variable and intergrading. 1004, 1017, D. Lynch & E. A. Kutac 12171 TEX (1992), W. A. Silveus 7029, 7054 & 7055 TEX (1941).

* *Paspalum urvillei* E. von Steudel [Vasey Grass] Common; moist sandy soils. Introduced, native to South America. 760, 1022.

Phalaris caroliniana T. Walter [Carolina Canarygrass] Collected once in moist roadside ditch. 305.

* *Poa annua* C. Linnaeus [Annual Bluegrass] Common; roadsides and disturbed areas. Introduced, native to Europe. 138, 155, 486.

Poa arachnifera J. Torrey [Texas Bluegrass] Reported once from sandy edges of pond. R. B. Davis 64 TAMU (1948).

Sacciolepis striata (C. Linnaeus) G. Nash [American Cupscale] Collected once in moist sand along pond edge. Lee County is at the westernmost edge of this species' range, which extends along the coastal plain to Virginia. 968.

Schizachyrium scoparium (A. Michaux) G. Nash [Little Bluestem] Varieties not recognized. 1234.

Setaria parviflora (J. Poiret) M. Kerguelen [Knot-root Bristle Grass] Abundant; roadsides and moist disturbed areas. 445, 826, 945, 1025, 1073.

* *Sorghum halepense* (C. Linnaeus) C. Persoon [Johnson Grass] Abundant; roadsides, ditches, disturbed areas. Introduced, native to the Mediterranean area. 104.

Sporobolus indicus (C. Linnaeus) R. Brown [Smut Grass] Reported once from roadside in sandy loam soil. R. Spacek 64 TAES (1994).

Steinchisma hians (S. Elliott) G. Nash [Gaping Panicum] (syn. *Panicum hians* S. Elliott) Common; shaded roadside areas. 369, 856, B. C. Tharp s.n. TEX (1941).

Tridens albescens (G. Vasey) E. Wooton & P. Standley [White Tridens] Uncommon; moist clayey sands. Lee County is at approximately the eastern edge of this species' range, which extends west to Arizona and north to Kansas. 1002, R. Lonard 1843 TEX (1967).

Tridens flavus (C. Linnaeus) A. Hitchcock var. *flavus* [Purpletop] Common; roadside ditches and open sand. 940, 999, E. A. Kutac & D. Lynch 7604 TEX (1984).

Tridens strictus (T. Nuttall) G. Nash [Longspike Tridens] Collected once in open sunny sand. 1077.

Triplasis indica A. Palisot de Beauvois [Purple Sand Grass] Collected once along sandy roadside. 1008.

Urochloa ciliatissima (S. Buckley) R. Webster [Fringed Liverseed Grass] (syn. *Brachiaria ciliatissima* (S. Buckley) A. Chase) Reported once without habitat data. R. G. Reeves 1066 TAES (1940).

Urochloa texana (S. Buckley) R. D. Webster [Texas Signal-grass] (syn. *Brachiaria texana* (S. Buckley) S. Blake) Uncommon; sandy roadsides. 107, 1000.

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Vulpia octoflora (T. Walter) P. Rydberg var. *tenella* (C. Willdenow) M. Fernald [Common Sixweeksgrass] (syn. *Vulpia octoflora* T. Walter var. *glauca* (T. Nuttall) M. Fernald) Locally common; open sands. 260, 261.

Zizaniopsis miliacea (A. Michaux) A. S. Döll & P. Ascherson [Marsh-Millet] Collected once in the area around the Lake Somerville State Park/ Wildlife Management Area. J. Singhurst & W. Holmes 13411 BAYLU (2005).

Potamogetonaceae (Pondweed family)

Potamogeton diversifolius C. Rafinesque-Schmaltz [Water-thread Pondweed] Uncommon; floating in aquatic environments. 311, 364, D. S. Correll 23417 LL (1960).

Smilacaceae (Greenbrier family)

Smilax bona-nox C. Linnaeus [Saw greenbrier] Abundant; forests, woodlands, and old fields, sometimes becoming weedy. Nomenclature follows Diggs et al. (1999), FNA vol. 26 (2002), and Correll & Johnston (1970) in not recognizing infraspecific taxa. 132, 380.

Smilax glauca T. Walter [Sawbrier] Collected once in a marshy bog. Lee County is at the westernmost edge of this species' range, which extends through the southeast quarter of the US through Connecticut. 981.

Smilax smallii T. Morong [Small's greenbrier] Uncommon; along pond edges or marshes. 533, 600, B. C. Tharp s.n. TEX (1941).

Smilax hispida G. Muhlenberg ex. J. Torrey [Bristly Greenbrier] (syn. *Smilax tamnoides* C. Linnaeus var. *hispida* (J. Torrey) M. Fernald) Reported once from 1932 without habitat data. O. E. Sperry s.n. TAES (1932).

Typhaceae (Cattail family)

Typha domingensis C. Persoon [Southern Cat-tail] Reported to be abundant in sandy marsh. B. D. Lynch & E. A. Kutac 12177 TEX (1992).

Typha latifolia C. Linnaeus [Common Cat-tail] Collected once in marshy roadside ditch. 1219.

Xyridaceae (Yellow-eyed Grass family)

Xyris jupicai L. C. Richard [Richard's Yellow-eyed Grass] Locally common; marshes and other wet areas. 786, 969, 970, 988.

MAGNOLIOPHYTA - DICOTYLEDONS

Acanthaceae (Wild Petunia family)

Justicia americana (C. Linnaeus) M. H. Vahl [American Water-Whitlow] Collected once in creek floodplain. 878.

Ruellia humilis T. Nuttall var. *humilis* [Prairie Petunia] Uncommon; sandy soils. This species apparently intergrades with var. *depauperata* in the vicinity of Lee County. 916, M. Knoboch s.n. TEX (1931). Ref: Turner 1991.

Ruellia nudiflora (G. Engelmann ex A. Gray) I. Urban var. *nudiflora* [Violet Ruellia] Common; roadsides and sandy soils. 435, 441, 742, 828.

Aceraceae (Maple family)

Acer negundo C. Linnaeus var. *negundo* [Texas Boxelder] Collected and observed only once along low floodplain. 1161.

Amaranthaceae (Amaranth family)

* *Alternanthera philoxeroides* (K. von Martius) A. Grisebach [Alligator-weed] Collected once in beach along Lake Somerville, where it was abundant. Introduced, native to South America. 1199.

Amaranthus arenicola I. M. Johnston [Sandhill Amaranth] Collected once in unshaded stream bank. A. Lievens, M. D. & D. Lynch 7596 TEX (1984).

Froelichia floridana (T. Nuttall) C. Moquin-Tandon [Field Snake-cotton] Common; sandy fields and roadsides. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 412, M. Knobloch s.n. TEX (1931), M. Mayfield & M. Phaneuf 1122 TEX (1991).

Froelichia gracilis (W. Hooker) C. Moquin-Tandon [Slender Snake-cotton] Common; sandy fields and roadsides. 411, 799, 1091, J. Singhurst 6927 TEX (1998).

Gossypianthus lanuginosus (J. Poiret) C. Moquin-Tandon var. *lanuginosus* [Woolly Cotton-flower] Locally common; sandy disturbed areas. 865, 1156.

Iresine rhizomatosa P. Standley [Rootstock Bloodleaf] Reported to be rare in moist sandy loam along creekside woodland. W. R. Carr & D. Hernandez 15086 TEX (1995).

Anacardiaceae (Sumac family)

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Rhus aromatica W. Aiton var. *serotina* (E. Green) A. Rehder [Fragrant Sumac] Rare; sandy open prairies. Lee County represents the western edge of this variety's range. One specimen (1048) closely matches typical material of this variety from east Texas; the other (294) has smaller, more apically rounded, more pubescent leaflets than the norm. This latter could even key to the west Texas *R. trilobata* var. *pilosissima*, but it seems to fit better within the variation of *R. aromatic* var. *serotina*. The *Rhus aromatica/trilobata* complex in Texas seems poorly understood and clearly needs study. 294, 1048.

Rhus copallinum C. Linnaeus [Flame-leaf Sumac] Collected once along fencerow. Following BONAP, no varieties recognized. 1218.

Toxicodendron diversilobum (J. Torrey & A. Gray) E. Greene var. *pubescens* P. Miller [Eastern Poison-Oak] Collected once in shaded field of sandy loam. 1061.

Toxicodendron radicans (C. Linnaeus) K. Kuntze [Poison Ivy] Abundant; many habitats including roadsides, disturbed areas, and woodlands. Varieties not recognized. 280.

Apiaceae (Carrot family)

Bowlesia incana H. Ruiz López & J. Pavón [Hoary Bowlesia] Collected once in shaded sands. Apparently rather common, especially as a lawn weed, but infrequently collected. 142.

Centella asiatica (C. Linnaeus) I. Urban [Asiatic Spadeleaf] (syn. *Centella erecta* (C. Linnaeus the Younger) M. Fernald) Uncommon; marshes and stream edges. 784.

Chaerophyllum tainturieri W. Hooker [Hairy-fruit Chervil]Common; roadsides and disturbed areas. In following BONAP taxonomy, no varieties are recognized. 124A, 124B, 301, 498, 583.

Daucus pusillus A. Michaux [Southwestern Carrot] Uncommon; roadside ditches and sandy fields. 720, 1172.

Eryngium hookeri W. Walpers [Hooker's Eryngo] Uncommon; moist soils and fields. 863, 886, D. Lynch & E. A. Kutac 12179 TEX (1992).

Eryngium prostratum T. Nuttall ex A. P. de Candolle [Creeping Eryngo] Rare; along edge of marshy bog. Lee County is on the westernmost edge of this species' range, which extends to Virginia. 781.

Hydrocotyle umbellata C. Linnaeus [Umbrella Water-pennywort] Locally common; moist places. 430C, 983.

Hydrocotyle ranunculoides C. Linnaeus the Younger [Floating Water-pennywort] Collected once along edge of marshy bog. 782.

Limnosciadium pinnatum (A. P. de Candolle) M. Mathias & L. Constance [Arkansas Dogshade] Collected once in moist sandy soil adjacent to Lake Somerville. 1198.

Limnosciadium pumilum (G. Engelmann & A. Gray) M. Mathias & L. Constance [Prairie Dogshade] Common; low moist areas. 745, D. S. Correll & H. B. Correll 37046 LL (1969), B. C. Tharp & Ecology class s.n. TEX (1930).

Polytaenia nuttallii A. P. de Candolle [Prairie-parsley] Collected once along moist loamy roadside. 662.

Ptilimnium capillaceum (A. Michaux) C. Rafinesque-Schmaltz [Thread-leaf Mock Bishop's-weed] Common; moist soils. 356, 753, M. Knobloch s.n. TEX (1931).

Sanicula canadensis C. Linnaeus [Canada Sanicle] Locally common; along woodland edges. Nomenclature follows Correll & Johnston (1970) and Diggs et al. (1999) in not recognizing varieties. 242, 703.

Spermolepis diffusa (T. Nuttall ex A. P. de Candolle) G. Nesom [Spreading Scaleseed] Abundant; open sandy fields and roadsides. Nesom (2012) used as reference for the Spermolepis genus. 188, 275, 604, 1168.

Spermolepis echinata (T. Nuttall ex A. P. de Candolle) A. Heller [Bristly-Fruit Scaleseed] Collected once in 1941. No locality information. B. C. Tharp 47343 TAES (1941).

Spermolepis inermis (T. Nuttall ex A. P. de Candolle) M. Mathias & L. Constance[Red River Scaleseed] Collected once along sandy roadside. 1143.

* *Torilis arvensis* (W. Hudson) J. Link [Hedge-parsley] Common; disturbed areas and roadsides. Introduced, native to the Mediterranean region. 1227.

Trepocarpus aethusae T. Nuttall ex A. P. de Candolle [Whitenymph] Collected once in seepy sandy field. 1173.

Apocynaceae (Oleander family)

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Amsonia repens L. Shinners [Creeping Bluestar] Rare, collected once in moist sand along the shores of Lake Somerville. Lee County represents the western edge of this species' range, which extends eastward to Louisiana. 588.

Aquifoliaceae (Holly family)

Ilex decidua T. Walter [Possumhaw] Common; sandy woodland edges, roadsides. 133, 303, B. C. Tharp s.n. TEX (1941).

Ilex vomitoria W. Aiton [Yaupon Holly] Abundant; sandy woods, fencerows, sometimes used in landscaping. 134.

Aristolochiaceae (Birthwort family)

Aristolochia erecta C. Linnaeus [Swan-flower] Uncommon (easily overlooked due to grass resemblance); sandy fields. This plant is a food source for the pipevine swallowtail butterfly caterpillar (*Battus philenor*), and this cryptic species can be located by following the movements of the butterfly as they search for a plant on which to lay eggs. 708, 950, M. Knobloch s.n. TEX (1931).

Asclepiadaceae (Milkweed family)

Asclepias arenaria J. Torrey [Sand Milkweed] Rare; sandy upland prairies. Lee County is at the extreme southeastern edge of this species' range, which extends through the Great Plains northwest to Wyoming. While Turner et al.'s (2003) Atlas maps this species to a few counties in the southwestern Panhandle, Correll and Johnston (1970) give the distribution as sandy upland areas further south and west in Texas. Several specimens from east Texas (Bastrop, Leon, and Freestone Counties) previously annotated as *A. latifolia* were examined by B. L. Turner and the author and identified as *A. arenaria*. 405.

€ *Asclepias linearis* G. Scheele [Slim Milkweed] Rare; dry rocky hillsides and prairies. Endemic to the eastern third of Texas. 1094.

Asclepias oenotheroides A. von Chamisso & D. von Schlechtendal [Side-cluster Milkweed] Common; roadsides and disturbed sandy areas. 438, 829.

Asclepias tuberosa C. Linnaeus subsp. *interior* R. Woodson [Butterfly-weed] Common; sandy fields. 336, 718, C. L. York 54324 TEX (1954).

Asclepias verticillata C. Linnaeus [Whorled Milkweed] Uncommon; sandy roadsides and fields. 1169.

Asclepias viridis T. Walter [Green Milkweed] Abundant; roadsides, disturbed areas, and sandy fields. 223, 431, 659B, 827, 1142.

Cynanchum racemosum (N. von Jacquin) N. von Jacquin var. *unifarium* (G. Scheele) E. Sundell [Talayote] Uncommon; sandy fields. 355, 875.

Gonolobus suberosus (Linnaeus) R. Brown var. *granulatus* (G. Scheele) A. Krings & Q. Xiang [Anglepod] (syn. *Matelea gonocarpos*) Collected once in moist sands. 357.

Matelea cynanchoides (G. Engelmann) R. Woodson [Prairie Milkvine] Common; sandy open fields and woods. 316, 710, 837.

Asteraceae (Sunflower family)

Ref: Cronquist 1980, Gandhi &

Thomas 1989, Taylor & Taylor 1983

Achillea millefolium C. Linnaeus [Common Yarrow] Collected once in a roadside ditch. W. Troutman 62 TAMU (1974).

Ambrosia psilostachya A. P. de Candolle [Western Ragweed] Common; disturbed areas and roadsides. 458.

Ambrosia trifida C. Linnaeus var. *texana* G. Scheele [Giant Ragweed] Abundant; disturbed areas and roadsides. 454.

Amphiachyris dracunculoides (A. P. de Candolle) T. Nuttall [Common Broomweed] (syn. *Gutierrezia dranunculoides* (A. P. de Candolle) S. Blake) Common; roadsides and disturbed areas. 108, 903, 993.

Aphanostephus skirrhobasis (A. P. de Candolle) W. Trelease var. *skirrhobasis* [Arkansas lazy daisy] Abundant; sandy fields and roadsides. 279, 705, 714, 846, 847, 922, C. L. York & Gertrude York 55198 TEX (1955).

Arnoglossum plantagineum C. Rafinesque-Schmaltz [Indian-plantain] (syn. *Cacalia plantaginea* C. Rafinesque-Schmaltz) L. Shinners) Collected once in loamy roadside field. 740.

Astranthium ciliatum (C. Rafinesque-Schmaltz) G. Nesom [Fringed Western Daisy] (syn. *Astranthium integrifolium* (A. Michaux) T. Nuttall subsp. *ciliatum* C. Rafinesque-Schmaltz) DeJong) Abundant; sandy fields and roadsides. 183, 203, 250, 527, W. R. Carr 17956 TEX (1999), F. W. Gould 5507 TEX (1950).

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Baccharis neglecta N. Britton [Roosevelt-weed] Common; roadsides and disturbed moist areas. 943.

Berlandiera pumila (A. Michaux) T. Nuttall var. *pumila* [Soft Greeneyes] Common; roadsides and sandy fields. 224, 285, 918, H. Gentry 52-665 TEX (1951), S. L. Orzell & E. L. Bridges 10547 TEX (1989). Ref: Nesom & Turner 1998.

Bigelowia nuttallii L. Anderson [Slender Bigelowia] Collected once in rocky, sandy outcrop. Lee County represents the westernmost edge of this species' range. 1070.

Boltonia diffusa S. Elliott var. *diffusa* [Small-head Boltonia] Collected once in moist bottomland loam. 879.

Calyptocarpus vialis C. Lessing [Prostrate lawnflower] Abundant; roadsides and lawns. 167.

* *Centaurea melitensis* C. Linnaeus [Malta Star-thistle] Collected once along roadside. Lee County is at the easternmost edge of this species' range in Texas. Native to Europe (Malta). 1134.

Chaetopappa asteroides T. Nuttall ex A. P. de Candolle [Common Least Daisy] Common; sandy fields and roadsides. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 184, 581, 735.

Chloracantha spinosa (G. Bentham) G. Nesom var. *spinosa* (syn. *Aster sinosum* G. Bentham) [Mexican Devilweed] Reported to be common in low, sandy ground. E. A. Kutac & D. Lynch 7546 TEX (1984).

Chrysopsis pilosa T. Nuttall [Soft Golden-aster] (syn. *Heterotheca pilosa* (T. Nuttall) L. Shinners) Common; sandy fields and roadsides. 325, 845, 902, 1071, 1174, D. S. Correll & I. M. Johnston 17383 LL (1957).

Chrysopsis texana G. Nesom (syn. *Bradburia hirtella* J. Torrey & A. Gray) Reported to be common in sandy forest openings and along roadsides. Endemic to Carrizo sands of east-central Texas but perhaps spreading to Louisiana (Diggs et al. 1999). W. R. Carr & E. A. Kutac 6099 TEX (1984), D. Lynch 7623 TEX (1984), J. C. Semple & L. Brouillet 3364 TEX (1978).

Cirsium engelmannii P. Rydberg [Blackland Thistle] Collected once along sandy roadside. 1135.

Cirsium horridulum A. Michaux var. *elliottii* J. Torrey & A. Gray [Bull Thistle] Common; sandy roadsides. 630, B. L. & M. Turner 95-57 TEX (1995).

Cirsium texanum S. Buckley [Texas Thistle] Common; sandy roadsides. 361, 615, G. Nesom 7057 TEX (1989).

Conoclinium coelestinum (C. Linnaeus) A. P. de Candolle [Mistflower](syn. *Eupatorium coelestinum* C. Linnaeus) Uncommon; moist soils. 447, 973, M. Knobloch s.n. TEX (1931) (2 different specimens).

Conyza canadensis (C. Linnaeus) A. Cronquist var. *canadensis* [Horse-tail Conyza] Collected once in moist sands. 927.

Conyza canadensis (C. Linnaeus) A. Cronquist var. *glabrata* (A.Gray) A. Cronquist [Horseweed] Uncommon; moist sands. 932, 997.

Coreopsis basalis (A. Dietrich) S. Blake [Golden-mane Coreopsis] Collected once in deep sand. C. L. York & G. York 55197 TEX (1955).

Coreopsis wrightii (A. Gray) H. Parker [Rock Coreopsis] Common; sandy fields. 312, 331, 722.

Croptilon divaricatum (T. Nuttall) C. Rafinesque-Schmaltz [Slender Goldenweed] Collected in 1941 without habitat information, elsewhere usually found in sandy disturbed areas. B. C. Tharp s.n. TEX (1941).

Croptilon hookerianum (J. Torrey & A. Gray) H. House var. *hookerianum* [Scratch Daisy] Collected in 1964 along highway. E. B. Smith 557 TEX (1964).

Croptilon rigidifolium (E. B. Smith) E. B. Smith [Scatch Daisy] Collected once in sandy field. 1047.

Diaperia candida (J. Torrey & A. Gray) G. Bentham & J. Hooker [Silver Evax] (syn. *Evax candida* (J. Torrey & A. Gray) A. Gray) Collected once in open sand. 273.

Diaperia verna (C. Rafinesque-Schmaltz) J. Morefield var. *verna* [Many-stem Evax] (syn. *Evax verna* C. Rafinesque-Schmaltz) Collected once in prairie remnant. 175.

Eclipta prostrata (C. Linnaeus) C. Linnaeus [Pieplant] Uncommon; along water body margins. 921.

Elephantopus carolinianus E. Raeuschel [Leafy Elephantopus] Uncommon; sandy wooded areas. 448, 984.

Engelmannia peristenia (C. Rafinesque-Schmaltz) G. Goodman & C. Lawson [Engelmann's Daisy]

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(syn. *E. pinnatifida* A. Gray ex T. Nuttall) Common; roadsides and sandy fields. 644.

Erigeron philadelphicus C. Linnaeus [Philadelphia Fleabane]Collected once along a roadside ditch in moist clay and full sun. T. Melcher 18 TAMU (1999).

Erigeron strigosus G. Muhlenberg ex C. Willdenow [Prairie Fleabane] Abundant; roadsides and sandy fields. No varieties recognized. 304, 488, 645, 733, 817, C. S. Lieb & V. J. Roessling, Jr. 730 TEX (1987). Ref: Cronquist 1980.

Erigeron tenuis J. Torrey & A. Gray [Slender Fleabane] Collected once in sandy soils. B. L. & M. Turner 95-59 TEX (1995).

Eupatorium compositifolium T. Walter [Yankee Weed] Collected once in seepy roadside area. 1020.

Eupatorium linearifolium T. Walter [Waxy Thoroughwort] (syn. *E. glaucescens* S. Elliott) Collected once along roadside. 941.

Eupatorium serotinum A. Michaux [Late Boneset] Collected once in moist deep sands. 910.

Eurybia hemispherica (E. Alexander) G. Nesom [Southern Prairie Aster] (syn. *Heleastrum hemisphaericum* (E. Alexander) L. Shinners, *Aster hemisphericus* E. Alexander) Collected once along roadside. Lee County represents the southwestern edge of this species' range, which extends northeast to Kentucky. 434.

Euthamia gymnospermoides E. Greene [Viscid Euthamia] Collected once along sandy roadside. W. R. Carr & E. A. Kutac 6136 TEX (1984).

* *Facelis retusa* (J. Lamarck) K. Schultz-Bipontinus [Trampweed] Collected once in sandy field. Introduced, native to South America. 237.

Fleischmannia incarnata (T. Walter) R. King & H. Robinson [Pink Boneset] (syn. *Eupatorium incarnatum* T. Walter) Reported from moist sandy loam. W. R. Carr & D. Hernandez 15087 TEX (1995), E. A. Kutac & D. Lynch 7551 TEX (1984).

Gaillardia aestivalis (T. Walter) H. Rock var. *aestivalis* [Prairie Gaillardia] Abundant; sandy fields and roadsides. 210, 456, M. W. Bierner 51351 TEX (1975), S. L. Orzell & E. L. Bridges 10546 TEX (1989), C. M. Rowell & G. L. Webster 7094 TEX (1947), B. L. & M. Turner 95-58, 95-66 & 95-69 TEX (1995), C. L. & G. York 55093 TEX (1955).

Gaillardia amblyodon J. Gay [Maroon Blanket-Flower] Abundant; sandy fields and roadsides. 333, 721, 1190, D. S. & H. B. Correll 18996 LL (1958), S. L. Orzell & E. L. Bridges 10545A & 10545B TEX (1989), T. J. Watson 1718, 1719, 1799 & 1812 TEX (1993).

Gaillardia pulchella A. Fougeroux [Indian Blanket] Reported to be abundant along the roadside and in ditches in April. O. Brown 78 TAES (1967).

* *Gamochaeta antillana* (I. Urban) A. Anderberg [Antilles Everlasting] Common; sandy fields and roadsides. Introduced, native to southeast South America. 238, 388, B. C. Tharp s.n. TEX (1941).

Gamochaeta pensylvanica (C. Willdenow) A. Cabrera [Cudweed] (syn. *Gnaphalium pensylvanicum* C. Willdenow) Common; sandy fields. 245, 518, B. C. Tharp s.n. TEX (1941).

Gamochaeta purpurea (C. Linnaeus) A. Cabrera [Purple Cudweed] (syn. *Gnaphalium purpureum* C. Linnaeus) Collected once in sandy field. 246.

Grindelia lanceolata T. Nuttall [Narrow-Leaf Gumweed] Reported to be occasional in open, sandy, xeric roadside. S. & G. Jones 1826 TAES (1988).

Grindelia papposa G. Nesom & Y. Suh [Saw-leaf Daisy] (syn. *G. ciliata* (T. Nuttall) Spreng., *Prionopsis ciliata* (T. Nuttall) T. Nuttall) Common; disturbed sandy areas. 857, A. Lievens, M. D. & D. Lynch 7634 TEX (1984), M. H. Mayfield & B. L. Westlund 1491 TEX (1992).

Gutierrezia texana (A. P. Candolle) J. Torrey & A. Gray var. *texana* [Texas Broomweed] (syn. *Xanthocephalum texanum* (A. P. Candolle) l. Shinners) Collected once along roadside. M. A. Lane 1962 TEX (1976).

* *Hedypnois cretica* (C. Linnaeus) Dumont de Courset [Cretanweed] Uncommon; roadsides. Introduced, native to the Mediterranean region. 198, 502, B. L. & M. Turner 95-68 & 95-83 TEX (1995).

Helenium amarum (C. Rafinesque-Schmaltz) H. Rock var. *amarum* [Bitterweed] Common; open fields, disturbed areas and roadsides. 408.

Helianthus annuus C. Linnaeus [Common Sunflower] Common in open sandy areas. 1236.

Helianthus debilis T. Nuttall subsp. *cucumerifolius* (J. Torrey & A. Gray) C. Heiser [Cucumber-leaf Sunflower] Collected once in moist sands. 859.

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Helianthus debilis T. Nuttall subsp. *silvestris* C. Heiser [Cucumber-leaf Sunflower] Common; sandy open fields. 404, 687A, 1187, E. A. Kutac & D. Lynch 7611 TEX (1984).

Helianthus occidentalis J. Riddell subsp. *plantagineus* (J. Torrey & A. Gray) L. Shinners [Shinners' Sunflower]Collected in 1973 without habitat information, elsewhere usually found in sandy open woods. P. & M. Chavez PIC-1 LL (1973).

Heterotheca subaxillaris (J. Lamarck) N. Britton & H. Rusby [Camphorweed] Abundant; roadsides, sandy fields and woodlands. 171, 468, 715, 994, 1096.

Hieracium gronovii C. Linnaeus [Gronovius' Hawkweed] Rare; sandy woods. Lee County represents the southwestern edge of this species' range, which extends northeast to southeast Canada. 914.

Hymenopappus artemisiifolius A. P. de Candolle var. *artemisiifolius* [Ragweed Woolly-white] Common; sandy fields and woods. 206, 641, 712, 717, C. E. Smith, Jr 4279 LL (1964). Ref: Turner 1989.

* *Hypochaeris glabra* C. Linnaeus [Cat's-Ear] Uncommon; disturbed sands and roadsides. This adventive species has only recently been recorded for Texas (Diggs et al. 1997) and has only been collected a few times. Introduced, native to Europe. 248, 517. Ref: Shinners 1966, Diggs et al. (1997).

* *Hypochaeris microcephala* (K. Schultz) A. Cabrera var. *albiflora* (K. Kuntze) A. Cabrera [Small-head Cat's-Ear] Collected once along highway, in sandy soil. M. Smith & S. Eddings 22 TEX (1994).

Iva asperifolia C. Lessing var. *angustifolia* (T. Nuttall ex A. P. de Candolle) B. Turner [Narrow-leaf Sumpweed] (syn. *I. angustifolia* T. Nuttall ex A. P. de Candolle) Uncommon; roadsides. 1016, 1084.

Iva annua C. Linnaeus [Marsh-elder] Uncommon, roadsides. Varieties not recognized. 1059, Hershberger s.n. TEX (1963).

Krigia cespitosa (C. Rafinesque-Schmaltz) K. Chambers [Weedy Dwarf-dandelion] (syn. *K. gracilis* (DC.) L. Shinners, *K. oppositifolia* C. Rafinesque-Schmaltz) Collected in sandy fields. D. Lynch 7660 TEX (1984), C. M. Rowell & F. A. Barkley 17T108 TEX (1947).

Krigia occidentalis T. Nuttall [Western Dwarf-dandelion] Common; sandy open fields and woods. 113, 140, 270, 469, F. W. Gould 5508 TEX (1950). Ref: Kim & Turner 1992.

Krigia virginica (C. Linnaeus) C. Willdenow [Carolina Dwarf-dandelion] Collected once in sandy open field. 186. Ref: Kim & Turner 1992.

Krigia wrightii (A. Gray) K. Chambers ex K. J Kim [Wright's Dwarf-dandelion] Collected once in sandy open field. 222. Ref: Kim & Turner 1992.

€ *Liatris cymosa* (H. Ness) K. Schumann [Branched Gayfeather] Locally abundant but only encountered in one location, in sandy alluvial soils adjacent to Lake Somerville. Endemic to the loamy clay soils of east Texas. The Texas Organization for Endangered Plants (TOES) gave this species Category V listing (Watch list) in 1993; more recently, Carr (2004) listed it with G2/S2 rare status. 409, D. Price 141 TEX (2000), J. Singhurst 6910TEX (1998). Ref: TOES 1993, Carr 2004a.

€ *Liatris elegans* (T. Walter) A. Michaux var. *bridgesii* M. Mayfield [Bridges' Blazingstar] Uncommon; sandy roadsides. Endemic to Carrizo sands of east-central Texas, and at the southwestern edge of its range in Lee County. 934, M. H. Mayfield& M. Phaneuf 1117, 1118, & 1119 TEX (1991). Ref: Mayfield 2002.

Liatris punctata W. Hooker var. *mucronata* (A. P. de Candolle) B.L. Turner [Narrow-leaf Gayfeather] (syn. *Liatris mucronata* (A. P. de Candolle) Common; sandy prairies and roadsides. 900, 1085.

Liatris squarrosa (C. Linnaeus) A. Michaux var. *squarrosa* [Alabama Blazingstar] (syn. *Liatris squarrosa* (C. Linnaeus) var. *alabamensis* (Alexander) Gaiser) Collected once in disturbed sandy loam. 850.

Lindheimera texana A. Gray & G. Engelmann [Texas-Star] Common; clayey sand along roadsides and in fields. 633, 680, R. Lonard 1842 TEX (1967), S. P. Lynch 2936 TEX (1979)

Mikania scandens (C. Linnaeus) C. Willdenow [Climbing Hempweed] Uncommon; marshes and creeksides. 449, 538, 959.

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Packera glabella (J. Poiret) C. Jeffrey [Butterweed] (syn. *Senecio glabellus* J. Poiret) Uncommon; moist sandy fields and woodland edges. Nomenclature follows Freeman & Barkley (1995) who argue convincingly for the recognition of the segregate genus *Packera*. 200, 590, 1106, S. P. Lynch 2937 TEX (1979), M. J. Minoia 16 TEX (1976).

€ *Palafoxia hookeriana* J. Torrey & A. Gray var. *hookeriana* [Showy Palafoxia] Rare; sandy soils in Pinus/Quercus woodland. Endemic to Texas. This variety and the variety below were found within a mile of each other in Lee County (though nearly a year apart). Though Turner (1976) expressed doubt that the two varieties occur sympatrically, Shinners (1952) found this to be true on occasion. This voucher specimen was covered with glandular hairs, had a larger involucre (10 mm high) and many more florets per head (71 florets). 947, M. Knobloch s.n. TEX (1931).

€ *Palafoxia hookeriana* J. Torrey & A. Gray var. *minor* L. Shinners Rare; sandy soils in *Pinus/Quercus* woodland. Endemic to Texas. See note above under *P. hookeriana* var. *hookeriana*. This specimen had glandular pubescence only on the upper portions of the stem, had a smaller involucre (7.5 mm high), and had fewer florets per head (28 florets). 1211.

Palafoxia rosea (B. Bush) V. Cory var. *rosea* [Rose Palafoxia] Common; roadsides and disturbed sandy fields. Endemic to Texas and Oklahoma. 452, 901, 930, 1079, W. R. Carr & E. A. Kutac 6100 TEX (1984).

Plectocephalus americanus (T. Nuttall) D. Don [American Basket-flower] (syn. *Centaurea americana* T. Nuttall) Collected once along sandy open roadside. 1238.

Pluchea camphorata (C. Linnaeus) A. P. de Candolle [Camphorweed] Collected once in sandy marsh. 906.

Pluchea foetida (C. Linnaeus) A. P. de Candolle var. *foetida* [Stinking Pluchea] Collected once in marshy bog. Lee County is at the extreme southwestern edge of this species' range, which extends to New Jersey. 972.

Pluchea odorata (C. Linnaeus) A. Cassini [Purple Pluchea] (syn. *P. purpurascens* (O. Swartz) A. P. de Candolle) Uncommon; sandy marshes and lakesides. 924, E. A. Kutac 7702 TEX (1984).

Pseudognaphalium obtusifolium (C. Linnaeus) O. Hilliard & B. Burtt [Fragrant Cudweed] (syn. *Gnaphalium obtusifolium* C. Linnaeus) Collected once in rocky sandstone woodland. 1041.

Pyrrhopappus carolinianus (T. Walter) A. P. de Candolle [Carolina False Dandelion] Common; sandy clay along roadsides. 569, 652, 1141.

Pyrrhopappus pauciflorus (D. Don) A. P. de Candolle [Many-stem False Dandelion] Common; sandy clay along roadsides. 505, 677, 678, T. J. Watson 1631 TEX (1993).

Ratibida columnifera (T. Nuttall) E. Wooton & P. Standley [Mexican-hat] (syn. *R. columnaris* (F. Pursh) J. Torrey & A. Gray) Locally common; in sandy clay along roadsides and in fields. 748.

Rudbeckia hirta C. Linnaeus var. *hirta* [Black-eyed Susan] Common; roadsides and disturbed areas. 320, 738, 995, E. A. Kutac & D. Lynch 7663 TEX (1984), R. E. Perdue, Jr. 1569 LL (1954).

Senecio ampullaceus W. Hooker [Texas Groundsel] Abundant; sandy open fields. Endemic to Texas. 197, 284, 591, 595, 656, 659, 1117, M. Knobloch s.n. TEX (1931).

Silphium gracile A. Gray [Simpson Rosinweed] Uncommon; moist sandy loam. 1120, 1162, B. L. & M. Turner 95-70 TEX (1995).

Silphium asteriscus C. Linnaeus var. *asteriscus* [Roughstem Rosinweed] (syn. *Silphium radula* T. Nuttall) Collected once in disturbed gravelly sand along railroad tracks. 851.

Solidago altissima C. Linnaeus [Tall Goldenrod] (syn. *S. canadensis* C. Linnaeus var. *scabra* J. Torrey & A. Gray) Common; sandy or rocky roadsides and disturbed areas. Guy Nesom (BRIT) identified the Solidagos collected by the author in Lee County. 453, 462, 1038, G. Nesom 7509 TEX (1992).

Solidago petiolaris W. Aiton [Downy Ragged Goldenrod]Collected once along forested roadside. R. Jordan s.n. TEX (1991).

Solidago radula T. Nuttall [Rough Goldenrod] Common; sandy, rocky roadsides. No varieties recognized. 371, 904, 1040.

Solidago ulmifolia G. Muhlenberg ex C. Willdenow var. *microphylla* A. Gray [Elm-leaf Goldenrod] Collected in 1931 without habitat information,

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elsewhere usually found in dry wooded areas, roadsides. M. Knobloch s.n. TEX (1931).

* *Soliva sessilis* H. Ruiz & J. Pavón [Lawn Burweed] (syn. *Soliva pterosperma* (Jussieu) Lessing) Uncommon; disturbed sandy areas. Introduced, native to South America. 292, 1207.

* *Sonchus asper* (C. Linnaeus) J. Hill [Prickly Sow-thistle] Common; roadsides and disturbed areas. Introduced, native to Eurasia. 239.

* *Sonchus oleraceus* C. Linnaeus [Common Sow-thistle] Uncommon; roadsides and disturbed areas. Introduced, native to Eurasia. 1010.

Symphyotrichum ericoides (C. Linnaeus) G. Nesom [Heath Aster] (syn. *Aster ericoides* C. Linnaeus) Locally common; disturbed areas and roadsides. No varieties recognized. 109, 460.

Symphyotrichum lanceolatum (C. Willdenow) G. Nesom [White Panicle Aster] (syn. *Aster lanceolatus* C. Willdenow) Collected once in 2005 along a ditch in clay loamy soil, full sun. J. Hinze 107 TAMU (2005).

Symphyotrichum patens (W. Aiton) G. Nesom var. *patens* [Late Purple Aster] (syn. *Aster patens* W. Aiton) Collected once in open sandy area. 1092.

Symphyotrichum pratense (C. Rafinesque-Schmaltz) G. Nesom [Silky Aster] (syn. *Aster pratensis* C. Rafinesque-Schmaltz) Rare; open woods, sandy soils. 466, M. Knobloch s.n. TEX (1931).

* *Taraxacum officinale* G. Weber ex F. Wiggers [Dandelion] Common; disturbed areas, lawn weed. Introduced, native to Eurasia. 1225.

Verbesina encelioides (A. Cavanilles) G. Bentham & J. Hooker ex A. Gray var. *encelioides* [Cowpen Daisy] Uncommon; disturbed sandy areas. 386, 949.

Verbesina virginica C. Linnaeus var. *virginica* [Frostweed] Common; moist disturbed areas, lowland wooded areas. 450.

Vernonia texana (A. Gray) J. Small [Texas Ironweed] Common; sandy woods and roadsides. 392, 852, 915, B. C. Tharp s.n. LL (1922).

Xanthisma texanum A. P. de Candolle subsp. *drummondii* (J. Torrey & A. Gray) J. Semple [Texas Sleepy Daisy] Uncommon; sandy open woods and fields. W. R. Carr & E. A. Kutac 7115 TEX (1985), J. C. Semple & W. H. Lewis 7662 LL (1970).

Xanthium strumarium C. Linnaeus [Cocklebur] Uncommon; disturbed sandy moist areas. No varieties recognized. 1203, A. Lievens & D. Lynch 7599 TEX (1984).

Berberidaceae (Barberry family)

Berberis trifoliolata M. Moricand [Agarita] (syn. *Mahonia trifoliolata* (M. Moricand) F. Fedde) Rare; much more common further west on limestone soils. Lee County is at the extreme easternmost edge of this species, which extends westward to southern Arizona. Jones et al. (1997) spelled the epithet "trifoliata". 121.

Bignoniaceae (Catalpa family)

Campsis radicans (C. Linnaeus) B. Seemann ex E. Bureau [Common Trumpet-creeper] Uncommon; along fencerows and disturbed areas. 1231.

Catalpa speciosa (J. Warder) J. Warder ex G. Engelmann [Northern Catalpa tree] Collected and observed only once, along creekbed lowland in loamy sand. This tree is native to the Mississippi River valley, from southwest Indiana and southern Illinois to Tennessee and Arkansas (Elias 1980). It is commonly cultivated in east Texas and those plants found in Lee County are likely all escapees. 1158.

Boraginaceae (Forget-me-not family)

* *Buglossoides arvense* (C. Linnaeus) I. Johnston (syn. *Lithospermum arvense* C. Linnaeus) Common; moist roadsides and disturbed areas. Introduced, native to Europe. 126, 479.

Heliotropium curassavicum C. Linnaeus var. *curassavicum* [Salt Heliotrope] Rare; alluvial sands adjacent to Lake Somerville. 415, 426.

* *Heliotropium indicum* C. Linnaeus [Turnsole] Rare; moist disturbed streambanks. Native to Asia. 1101, A. Lievens, M. D. & D. Lynch 7538 TEX (1984).

Heliotropium procumbens P. Miller [Prostrate Heliotrope] Uncommon; alluvial sands adjacent to Lake Somerville. 419, W. R. Carr 8765 TEX (1987).

Lithospermum caroliniense (T. Walter ex J. F. Gmelin) C. MacMillan var. *caroliniense* [Carolina Puccoon] Rare; sandy woods. 187, M. Knobloch s.n. TEX (1931).

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Lithospermum incisum J. Lehmann [Narrow-leaf Groomwell] Uncommon; moist roadsides. 117.

Myosotis macrosperma G. Engelmann [Spring Forget-me-not] Locally common; moist, sandy woods and roadsides. 545, 592, 1147.

Myosotis verna T. Nuttall [Early Scorpion-grass] Rare; open sandy woods. 241.

Brassicaceae (Mustard family)

* *Capsella bursa-pastoris* (C. Linnaeus) F. Medikus [Shepherd's-purse] Common; roadsides and weedy in lawns. Introduced, native to Europe. 122.

Cardamine parviflora C. Linnaeus var. *arenicola* (N. Britton) O. Schulz [Sand Bittercress] Common; roadsides and moist, sandy, disturbed areas. 485, 543, 1105, E. A. Kutac & D. Lynch 7550 TEX (1984).

Descurainia pinnata (T. Walter) N. Britton [Tansy-mustard] Abundant; roadsides and moist, sandy, disturbed areas. Subspecies not recognized. 127, 475, 531, 611.

Draba brachycarpa T. Nuttall ex J. Torrey & A. Gray [Short-pod Draba] Collected in 1952 without habitat information, elsewhere usually found in woods and along roads in sandy soils. B. C. Tharp s.n. TEX (1952).

Draba cuneifolia T. Nuttall ex J. Torrey & A. Gray [Wedge-leaf Draba] Collected once in roadside ditch in loamy sand. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 487.

Lepidium virginicum C. Linnaeus [Virginia Peppergrass] Abundant; sandy disturbed areas. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 509, 530, 636, 1119, T. J. Watson 1625 TEX (1993).

€ *Paysonia grandiflora* (W. Hooker) S. O'Kane & I. Al-Shehbaz [Big-flower Bladderpod] (syn. *Lesquerella grandiflora* (W. Hooker) S. Watson) Common; sandy soils. Endemic to Texas. 219, 1117, O. K. Biley & F. A. Barkley 17T104 TEX (1947), B. L. & M. Turner 95-65 TEX (1995).

Physaria gracilis (W. Hooker) S. O'Kane & I. Al-Shehbaz [Spreading Bladderpod] (syn. *Lesquerella gracilis* (W. Hooker) S. Watson) Collected once along roadside. Subspecies not recognized. P. Fryxell 1237 TEX (1970).

* *Rapistrum rugosum* (C. Linnaeus) C. Allioni [Annual Bastardcabbage] Uncommon; roadsides and sandy fields. Introduced, native to the Mediterranean area. 650, 1159.

Buddlejaceae (Buddleja family)

Polypremum procumbens C. Linnaeus [Juniper-leaf] Common; sandy roadsides. This genus is sometimes placed in Loganiaceae (Correll & Johnston 1970, Turner et al. 2003). 321, 819, 843.

Cactaceae (Cactus family)

Coryphantha missouriensis (R. Sweet) N. Britton & J. Rose [Missouri Foxtail Cactus] (syn. *Escobaria missouriensis*(R. Sweet) D. Hunt) Collected in 1947 in gravel hillside. Taxonomy follows Allan D. Zimmerman & Bruce D. Parfitt in FNA vol. 4 (2003) in not recognizing varieties. They state that at least one previously accepted variety (*Coryphantha missouriensis* var. *robustior*) is fictitious as it does not correspond with a populational entity. C. M. Rowell 7026 TEX (1947).

Opuntia humifusa (C. Rafinesque-Schmaltz) C. Rafinesque-Schmaltz var. *humifusa* [Eastern Prickly Pear] Locally common; sandy open fields. 1188.

Opuntia leptocaulis A. P. de Candolle [Pencil Cactus] (syn. *Cylindropuntia leptocaulis* (A. P. de Candolle) F. Knuth) Collected once in sandy field along woodland edge. 472.

Opuntia lindheimeri G. Engelmann [Texas Prickly Pear] (syn. *O. engelmannii* J. Salm-Dyck ex G. Engelmann var. *lindheimeri* (G. Engelmann) B. Parfitt & D. Pinkava Locally common; open sandy areas. 1237.

Callitrichaceae (Water Starwort family)

Callitriche heterophylla F. Pursh [Larger Waterwort] Uncommon; floating in ditches or marshes. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 483, 552.

Callitriche pedunculosa T. Nuttall [Nuttall's Water Starwort] (syn. *Callitriche nuttallii* J. Torrey) Uncommon; moist or wet sands. 148, 229, B. C. Tharp 52-18 TEX (1952).

Campanulaceae (Bluebell family)

Lobelia cardinalis C. Linnaeus subsp. *cardinalis* [Cardinal-flower] Rare; stream banks and low moist areas. 446, M. Knobloch s.n. TEX (1931).

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Lobelia puberula A. Michaux [Downy Lobelia] Rare; moist fields and roadsides. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 933, M. Knobloch 4 TEX (1931).

* *Sphenoclea zeylandica* J. Gaertner [Chickenspike] Sometimes placed in Sphenocleaceae. Collected once in Lake Somerville. Introduced, native to the Old World tropics. J. Larke s.n. TEX (1984).

Triodanis perfoliata (C. Linnaeus) J. Nieuwland subsp. *biflora* (H. Ruiz & J. Pavón) T. Lammers [Small Venus'-Looking-Glass] Common; roadsides and sandy areas. 208, 675, 1153.

Triodanis perfoliata (C. Linnaeus) J. Nieuwland var. *perfoliata* [Clasping Venus'-Looking-Glass] Common; roadsides and sandy areas. 277, 1179.

€ *Triodanis texana* R. McVaugh [Texas Venus'-Looking-Glass] Rare, collected once in sandy field. Endemic to Texas. 683.

Capparaceae (Caper family)

Polanisia erosa (T. Nuttall) H. Iltis subsp. *erosa* [Large Clammyweed] Collected once in sandy bog. H. B. Parks s.n. TEX (1948).

Caprifoliaceae (Honeysuckle family)

* *Lonicera japonica* C. Thunberg [Japanese Honeysuckle] Rare, collected once along fenceline in sandy soils. Introduced, native to Asia. 700.

Sambucus canadensis C. Linnaeus subsp. *canadensis* [Common Elderberry] Uncommon; moist lowlands. 534.

Symphoricarpos orbiculatus C. Moench [Coral-berry] Uncommon; sandy woods. 130, 877, D. S. Correll & I. M. Johnston 17381 LL (1957).

Viburnum rufidulum C. Rafinesque-Schmaltz [Southern Blackhaw] Locally common; moist woods and fencerows. 189, 597, 695, M. Knobloch s.n. TEX (1931), T. J. Watson 1629 TEX (1993).

Caryophyllaceae (Pink family)

Cerastium brachypodum (G. Engelmann ex A. Gray) B. Robinson [Gray Chickweed] Collected once along roadside. 1121.

* *Cerastium glomeratum* J. Thuillier [Sticky Chickweed] Common; moist sandy areas and disturbed roadsides. Introduced, native to Europe. 139, 165, 490, 516, 1108.

Loeflingia squarrosa T. Nuttall [Spreading Loeflingia] Infrequent; open, sandy fields. 272, 1183, C. M. Rowell & F. A. Barkley 17T105 TEX (1947).

Minuartia drummondii (L. Shinners) J. McNeill [Drummond's Sandwort] (syn. *Arenaria drummondii* L. Shinners) Uncommon; shaded sandy seeps and roadsides. 147, M. Knobloch s.n. TEX (1931) B. C. Tharp 52-16 TEX (1952).

Paronychia drummondii J. Torrey & A. Gray [Drummond's Nailwort] Abundant; open sandy fields. 279A, 335, 798, 1182, S. L. Orzell & E. L. Bridges 10535 TEX (1989), D. M. Rowell & F. A. Barkley 17T107 TEX (1947), B. L. & M. Turner 95-67 & 95-82 TEX (1995).

* *Petrorhagia dubia* (C. Rafinesque-Schmalz) G. López & A. Romo [Childing-Pink] Locally common; roadsides and disturbed areas. Introduced, native to the Mediterranean area. 611A.

* *Polycarpon tetraphyllum* (C. Linnaeus) C. Linnaeus [Four-leaf Manyseed] Uncommon; shaded sandy areas. Introduced, native to Europe and the Mediterranean area. 276, 779, 806.

Sagina decumbens (S. Elliott) J. Torrey & A. Gray subsp. *decumbens* [Trailing Pearlwort] Common; sandy seeps and roadsides. 149, 156, 609.

Silene antirrhina C. Linnaeus [Sleepy Catchfly] Collected once in open, sandy field. 274.

* *Silene gallica* C. Linnaeus [Forked Catchfly] Locally common; in loamy sand along roadsides. Introduced, native to Europe. 620, 653, 1126, 1151.

* *Stellaria media* (C. Linnaeus) D. Villars subsp. *media* [Common Chickweed] Common; moist soils in disturbed areas and along roadsides. Introduced, native to Europe. 114, 163, 524.

Chenopodiaceae (Pigweed family)

* *Chenopodium album* C. Linnaeus [Lamb's-quarters] Uncommon; collected once along shaded roadside. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. Introduced, native to Eurasia. 699.

* *Dysphania ambrosioides* (C. Linnaeus) Mosyakin & S. Clemants [Epazote] (syn. *Chenopodium ambrosioides* C. Linnaeus var. *ambrosioides*) Uncommon; sandy fields near woodlands. Introduced, native to tropical America. 1052, E. A. Kutac & D. Lynch 7547 TEX (1984).

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Cistaceae (Rock-rose family)

Helianthemum georgianum A. Chapman [Georgia Sunrose] Common; sandy roadsides and fields. 334, 1166, S. L. Orzell & E. L. Bridges 10543 TEX (1989).

Helianthemum rosmarinifolium F. Pursh [Rosemary Sunrose] Uncommon; sandy clay roadsides. 324, 741.

Lechea mucronata C. Rafinesque-Schmaltz [Hairy Pinweed] Common; moist sandy areas. 755, 813, S. L. Orzell & E. L. Bridges 10541 TEX (1989).

€ *Lechea san-sabeana* (S. Buckley) A. Hodgdon [San Saba Pinweed] Uncommon; moist sandy areas. Endemic to Texas. 1194, D. S. Correll 23418 LL (1960), C. L. & G. York 55094 TEX (1955).

Lechea tenuifolia A. Michaux [Narrow-leaf Pinweed] Collected once in sandy woods. 775.

Clusiaceae (St. John's-Wort family)

Hypericum drummondii (R. Greville & W. Hooker) J. Torrey & A. Gray [Drummond's St. John's-Wort] Common; sandy fields and woods. 393, 992, P. Fryxell 3123 TEX (1979), D. Lynch & E. A. Kutac 12074 TEX (1991).

Hypericum hypericoides (C. Linnaeus) H. von Crantz subsp. *hypericoides* [St. Andrew's-Cross] (syn. *Ascyrum hypericoides* C. Linnaeus) Common; sandy fields and woods. 403, 440, 686, J. Singhurst 6907 TEX (1998), B. C. Tharp s.n. TEX (1922).

Hypericum mutilum C. Linnaeus [Dwarf St. John's-Wort] Uncommon; moist sandy areas. 687B, 768, B. H. Warnock 232 TEX (1940).

Hypericum virginicum C. Linnaeus [Virginia St. John's-Wort] (syn. *Triadenum virginicum* (C. Linnaeus) C. Rafinesque-Schmaltz) Reported once in 1949 from sunny edge of moist peat bog in midst of being drained. J. L. Robertson, Jr. 535 TAMU (1949).

Triadenum walteri (J. Gmelin) H. Gleason [Greater Marsh St. John's-Wort] Uncommon; moist sandy areas. Lee County represents the southwestern edge of this species' range, which extends northeast to New Jersey. 966, B. C. Tharp s.n. TEX (1941).

Convolvulaceae (Morning Glory family)

Convolvulus equitans G. Bentham [Texas Bindweed] Collected once along roadside. 1129.

Dichondra caroliniensis A. Michaux [Carolina Ponyfoot] Abundant; roadsides, moist sandy soils, lawns. 152, 492, 572, 639, B. C. Tharp s.n. LL (1941), B. C. Tharp s.n. TEX (1941).

Dichondra recurvata B. Tharp & M. Johnston [Oak Woods Ponyfoot] Collected once in 1965 in dry loamy sand in oak mesquite woods. Endemic to central Texas. M. C. & L. A. Johnston 7168 LL (1965).

Evolvulus sericeus O. Swartz [Silky Evolvulus] Common; sandy fields and roadsides. 525, 832, 855.

Ipomoea cordatotriloba A. Dennstaedt var. *cordatotriloba* [Wild Morning-glory] (syn. *I. trichocarpa* S. Elliott)Common; moist sandy fields, disturbed areas and roadsides. 105, 374, 719.

Ipomoea lacunosa C. Linnaeus [Pitted Morning-glory] Collected once along roadside in floodplain. 1102.

Stylisma pickeringii (J. Torrey ex W. Curtis) A. Gray var. *pattersonii* (M. Fernald & B. Schubert) T. Myint [Patterson's Dawn-flower]Common; sandy fields and woods. 343, 803, 844, S. L. Orzell & E. L. Bridges 10544 TEX (1989).

Cornaceae (Dogwood family)

Cornus drummondii C. von Meyer [Rough-leaf Dogwood] Common; moist loamy or clayey fields and roadsides. 614, 654, 696.

Cornus florida C. Linnaeus [Flowering Dogwood] Collected and observed once in subcanopy in moist loamy soils. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 594.

Crassulaceae (Stonecrop family)

Crassula aquatica (C. Linnaeus) J. Schoenlein [Pygmyweed] (syn. *C. drummondii* (J. Torrey & A. Gray) F. Fedde, *Tillaea aquatica* C. Linnaeus) Water Reported to be common in mudflats. B. Ertter 5258 TEX (1984), R. McVaugh 7634 TEX (1947).

Cucurbitaceae (Squash family)

Cucurbita texana A. Gray [Texas Gourd] Collected once in open sandy alluvial field, known to occur in bottomland habitats across central Texas. The Texas Organization for Endangered Plants (TOES) gave this species Category V listing (Watch list) in 1993; more recently, Carr (2004) listed it with G3/S3 "quasi-rare" status. Once considered endemic to Texas (Correll and Johnston 1970), this species appears to be

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establishing itself outside of Texas (Diggs et al. 1999, Carr 2004 a,b). 862. Ref: TOES 1993, Carr 2004 a,b.

Ibervillea lindheimeri (A. Gray) E. Greene [Balsam Gourd] Common; sandy or loamy woods. 235, 699A, 854.

Melothria pendula C. Linnaeus var. *pendula* [Drooping Melonette] Collected once on fencerow along woodland edge. 898.

Cuscutaceae (Dodder family)

Cuscuta gronovii C. Willdenow ex J. A. Schultes [Common Dodder] Collected in 1941 without habitat information, elsewhere usually found in stream bottoms and low ground. Taxonomy follows Diggs et al. (1999) in not recognizing varieties. B. C. Tharp s.n. TEX (1941).

Droseraceae (Sundew family)

Drosera brevifolia F. Pursh [Annual Sundew] (syn. *D. annua* E. Reed)Locally common; moist sandy loam in woodland areas. Lee County is at the western edge of this species' range. 314, 598.

Ebenaceae (Ebony family)

Diospyros virginiana C. Linnaeus [Eastern Persimmon] Collected once along fencerow in loamy sand. 1216.

Ericaceae (Heather family)

Vaccinium arboreum H. Marshall [Farkleberry] Common; sandy fields and woods. Lee County is near the western edge of this species' range. 269, 939.

Euphorbiaceae (Spurge family)

Acalypha monococca (G. Engelmann ex A. Gray) L. Miller & K. Gandhi [Slender One-seed Copperleaf] Abundant; open sandy areas. Taxonomy follows Diggs et al. (1999) in not recognizing varieties. 382, 389, 444, 890, 1090, D. Lynch & E. A. Kutac 12066 TEX (1991). Ref: Gandhi & Hatch 1988, Levin 1999.

Argythamnia mercurialina (T. Nuttall) J. Müller of Aargau var. *pilosissima* (G. Bentham) L. Shinners [Tall Wild Mercury] (syn. *Ditaxis mercurialina* (J. Coulter) T. Nuttall) Collected once in open sandy field. 1191.

Chamaesyce maculata (C. Linnaeus) J. Small [Spotted Euphorbia] (syn. *Euphorbia maculata* C. Linnaeus) Common; open sands. Taxonomy follows Diggs et al. (1999) in recognizing this genus as distinct from Euphorbia. 463, 833. Ref: Webster 1994.

Chamaesyce nutans (M. Lagasca y Segura) J. Small [Eyebane] (syn. *Euphorbia nutans* M. Lagasca y Segura) Common; open sands. Taxonomy follows Diggs et al. (1999) in recognizing this genus as distinct from Euphorbia. 433, 461. Ref: Webster 1994.

Cnidoscolus texanus (J. Müller of Aargau) J. Small [Texas Bull-nettle] Locally common; open sandy fields and forests. 278.

Croton argyranthemus A. Michaux [Silver Croton] Uncommon; sandy areas along forest edges. 1193, S. L. Orzell & E. L. Bridges 10539 TEX (1989), C. L. & G. York 55207 TEX (1955).

Croton capitatus A. Michaux var. *lindheimeri* (G. Engelmann & A. Gray) J. Müller of Aargau [Woolly Croton] Common; sandy fields and open disturbed sites. 406, 836, J. A. Churchill 90-1178 TEX (1990).

Croton glandulosus C. Linnaeus var. *septentrionalis* J. Müller of Aargau [Northern Croton] Abundant; open disturbed sites. 390, 818, 830, 889, 919, 1089. Ref: Johnston 1959.

Croton lindheimerianus G. Scheele var. *lindheimerianus* [Three-seed Croton] Common; sandy fields. 831, 894, S. Ginzbarg & E. A. Kutac 241 TEX (1984).

Croton monanthogynus A. Michaux [One-seed Croton] Collected along roadside. P. Fryxell 2044 TEX (1972).

Euphorbia bicolor G. Engelmann & A. Gray [Snow-on-the-prairie] Locally abundant; disturbed pastureland (avoided by cattle). 436.

Euphorbia corollata C. Linnaeus [Flowering Spurge] Abundant; sandy or clayey areas. 288, 340.

Euphorbia dentata A. Michaux [Toothed Spurge] (syn. *Poinsettia dentata* (A. Michaux) J. Klotzsch & C. Garcke) Collected once in disturbed sandy field. 341.

Euphorbia spathulata J. Lamarck [Warty Euphorbia] Collected once in disturbed clayey soil. 1154.

Euphorbia tetrapora G. Engelmann [Weak Euphorbia] Common; sandy fields. 157, 497, M. C. Johnston & L. A. Johnston 7171 LL (1965).

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Phyllanthus abnormis H. Baillon var. *abnormis* [Drummond's Leaf-flower] Collected along open sandy roadside. S. L. Orzell & E. L. Bridges 10551 TEX (1989).

Phyllanthus polygonoides T. Nuttall ex K. Sprengel [Knotweed Leaf-flower] Collected once in sandy roadside. 1086.

Stillingia sylvatica A. Garden ex C. Linnaeus subsp. *sylvatica* [Queen's-Delight] Common; open sands. 289, S. L. Orzell & E. L. Bridges 10549 TEX (1989), C.E. Smith Jr. 4278 LL (1964), C. L. & G. York 55086 TEX (1955).

Tragia betoncifolia T. Nuttall [Betony Noseburn] Common; sandy soils. 407, 864, B. C. Tharp s.n. TEX (1930). Ref: Miller & Webster 1967.

Tragia brevispica G. Engelmann & A. Gray [Short-spike Noseburn] Common; sandy soils. 432, 835, W. R. Carr & D. Hernandez 15085 TEX (1995). Ref: Miller & Webster 1967.

Tragia urticifolia A. Michaux var. *texana* L. Shinners [Nettle-leaf Noseburn] Collected once in sandy soil. 814. Ref: Miller & Webster 1967.

* *Triadica sebifera* (C. Linnaeus) J. Small [Chinese Tallow Tree] (syn. *Sapium sebiferum* (C. Linnaeus) W. Roxburgh) Uncommon; disturbed moist areas. Introduced, native to China and Japan. 381.

Fabaceae (Legume family)

Acacia farnesiana (C. Linnaeus) C. Willdenow [Huisache] (syn. *A. smallii* D. Isely, *Vachellia farnesiana* (C. Linnaeus) R. Wight & G. Arnott) Collected once along highway fencerow. Nomenclature follows Diggs et al. (1999). 646.

* *Albizia julibrissin* I. Durazzo [Mimosa] Collected and observed once in alluvial sands in open field. Introduced, commonly cultivated and escaping; native to south Asia. 359.

Apios americana F. Medikus [Groundnut] Collected once in the area around the Lake Somerville State Park/Wildlife Management Area. J. Singhurst & W. Holmes 13446 BAYLU (2005).

Astragalus distortus J. Torrey & A. Gray var. *engelmannii* (E. Sheldon) M. Jones [Engelmann's Milk-vetch] Collected in 1947 in clayey soil, also known to occur in sandy soils. B. C. Tharp & F. Barkley 47138 TEX (1947).

Astragalus leptocarpus J. Torrey & A. Gray [Slim-pod Milk-vetch] Uncommon; sandy soils. 182, M. Knobloch s.n. TEX (1931).

Astragalus nuttallianaus A. P. de Candolle var. *nuttallianus* [Nuttall's Milk-vetch] Collected in 1930 without habitat information, elsewhere usually found in disturbed areas. B. C. Tharp s.n. TEX (1930).

€ *Astragalus pleianthus* (L. Shinners) R. Barneby [Edwards Plateau Milk-vetch] Collected in 1930 without habitat information, elsewhere usually found in prairies and woodlands. B. C. Tharp s.n. TEX (1930).

Baptisia bracteata G. Muhlenberg ex S. Elliott var. *leucophaea* (T. Nuttall) J. Kartesz & K. Gandhi [Plains Wild Indigo] (syn. *B. leucophaea* T. Nuttall) Locally abundant; roadsides, disturbed areas, farmland. 499, B. Crozier 59 TEX (1994), H. Gentry 52-662 TEX (1951), C. L. & A. A. Lundell 100092 LL (1941). A hybrid of *Baptisia leucophaea* and *B. nuttalliana* is reported from Lee County (C. L. & G. York 54062 TEX [1954]) collected in a sandy post oak woodland. B. L. Turner, who is working on the FNA treatment for this genus, verified the specimen. The hybrid suggests the presence of *B. nuttalliana* in or around Lee County as well. Ref: B. L. Turner, pers. comm.

Centrosema virginianum (C. Linnaeus) G. Bentham [Butterfly-pea] Uncommon; sandy woods and roadsides. 399, 912.

Cercis canadensis C. Linnaeus var. *canadensis* [Eastern Redbud] Rare, collected once along shaded streambank. Lee County is at the southwestern edge of this variety's range; further to the west in calcareous soils, variety *texensis* is common. 1157.

Chamaecrista fasciculata (A. Michaux) E. Greene [Partridge-pea] Common; sandy soils along roadsides and in disturbed fields. 348, 379, 840, M. Knobloch s.n. TEX (1931).

Crotalaria sagittalis C. Linnaeus [Arrow Crotalaria] Collected once along sandy roadside. 811.

Dalea candida (A. Michaux ex C. Willdenow) var. *candida* [White Prairie-clover] (syn. *Petalostemon candidum* A. Michaux) Reported once from sandy loam soil. S. E. Wolff 2451 TAES (1930).

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Dalea multiflora (T. Nuttall) L. Shinners [Round-head Prairie-clover] (*Petalostemum multiflorus* T. Nuttall) Collected once in the area around the Lake Somerville State Park/Wildlife Management Area. J. Singhurst & W. Holmes 13402 BAYLU (2005).

Dalea phleoides (J. Torrey & A. Gray) L. Shinners var. *microphylla* (J. Torrey & A. Gray) [Long-bract Prairie-clover] (syn. *D. drummondiana* L. Shinners, *Petalostemum microphyllum* J. Torrey & A. Gray) A. Heller) Collected in open sandy woods. 807, M. Knobloch s.n. TEX (1931), E. A. Kutac & D. Lynch 7665 TEX (1984).

Desmanthus illinoensis (A. Michaux) C. MacMillan ex B. Robinson & M. Fernald [Illinois Bundle-flower] Collected once along roadside in loamy soil. 378.

Desmodium ciliare (G. Muhlenberg ex C. Willdenow) A. P. de Candolle [Hairy Small-leaf Tick-clover] Reported once from sandy loam soil. S. E. Wolff 2444 TAES (1930).

Desmodium sessilifolium (J. Torrey) J. Torrey & A. Gray [Sessile-leaf Tick-clover] Collected once in sandy soil. 396.

Erythrina herbacea C. Linnaeus [Coral-bean] Collected once in sandy woodland. Identification based on young, sterile specimen. Turner (pers. comm.) concurred that the leaves have the distinctive Erythrina appearance. 556.

Galactia volubilis (C. Linnaeus) N. Britton [Downy Milk-pea] Common; roadsides and disturbed areas. 366, 816, 891.

Gleditsia triacanthos C. Linnaeus [Common Honey-locust] Uncommon; moist sandy soil in flood-plain. Positive identification requires mature leaves or fruits; the voucher had neither character. This provisional species identification is based an abundance of pubescence on nearly mature leaves. 1112.

Glottidium vesicarium (N. von Jacquin) R. Harper [Bladderpod] (syn. *Sesbania vesicaria* (Jacquin) Elliott) Uncommon; moist sandy soils. 938, M. Knobloch s.n. TEX (1931).

Indigofera miniata C. Ortega var. *leptosepala* (T. Nuttall ex J. Torrey & A. Gray) [Western Scarlet-pea] Collected once along roadside in clayey loam. 442.

* *Indigofera suffruticosa* P. Miller [Indigo] Collected once in loamy sand woodland. Introduced, native to tropical America. 1060.

* *Lathyrus hirsutus* C. Linnaeus [Rough-pea] Collected once in disturbed open field. 744. Introduced, native to the Mediterranean area.

Lathyrus pusillus S. Elliott [Low Peavine] Collected in 1930 without habitat information, elsewhere usually found in sandy soils and along roadsides. B. C. Tharp s.n. TEX (1930).

Lespedeza hirta (C. Linnaeus) J. Hornemann [Hairy Bush-clover] Collected once in sandy woods. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 1050.

Lespedeza procumbens A. Michaux [Trailing Bush-clover] Collected once in sandy woods. 1039.

Lespedeza virginica (C. Linnaeus) N. Britton [Slender Bush-clover] Collected in 1931 without habitat information, elsewhere usually found in sandy woods and along fencerows. M. Knobloch s.n. TEX (1931).

Lupinus subcarnosus W. Hooker [Texas Bluebonnet] Abundant in spring; roadsides and sandy fields. Endemic to sandy areas of south-central Texas. 207.

Lupinus texensis W. Hooker [Texas Bluebonnet] Collected along roadside. Endemic to Texas. F. W. Gould & R. G. Reeves 8191 TEX (1958).

* *Medicago lupulina* C. Linnaeus [Black Medick] Collected once in sandy woods. Introduced, native to Eurasia. 476.

* *Medicago polymorpha* C. Linnaeus [California Bur-clover] Common; roadsides. Introduced, native to Eurasia. 174A, 651, B. C. Tharp s.n. TEX (1930).

* *Melilotus indicus* (C. Linnaeus) C. Allioni [Sour-clover] Common; roadsides. Introduced, native to the Mediterranean region and south Asia. 174B, 571, 622, 642.

Mimosa nuttallii (A. P. de Candolle) B. Turner [Catclaw Sensitive-briar] (syn. *Schrankia nuttallii* (A. P. de Candolle ex N. Britton & J. Rose) P. Standley) Collected in 1948 in sandy marsh. H. B. Parks s.n. TEX (1948).

Mimosa latidens (Small) B. Turner [Karnes' Mimosa] (syn. *Schrankia latidens* (J. Small) K. Schumann.)-

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Collected once in sandy field, reported to be more common on limestone soils. 332.

Neptunia lutea (M. Leavenworth) G. Bentham [Yellow-puff] Common; sandy roadsides. 362, 872.

Neptunia pubescens G. Bentham var. *pubescens* [Tropical Puff] Collected in sandy savannah. G. L. Webster & B. Westlund 33576 TEX (2001).

Pediomelum hypogaeum (T. Nuttall ex J. Torrey & A. Gray) P. Rydberg var. *subulatum* (B. Bush) J. Grimes [Scurf-pea] (syn. *Psoralea subulata* B. Bush) Collected and observed once in moist sands adjacent to pond. 702.

Prosopis glandulosa J. Torrey [Mesquite] Common, locally abundant; sandy fields and disturbed areas. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 211.

Psoralidium tenuiflorum (F. Pursh) P. Rydberg [Slim-leaf Scurf-pea] (syn. *Psoralea tenuiflora* F. Pursh) Rare; roadsides in sandy clay. 1150, C. M. Rowell & F. A. Barkley 17M100 TEX (1947).

Sesbania drummondii (P. Rydberg) V. Cory [Rattle-bush] Common, locally abundant; moist sands along ponds, roadside ditches. 400, M. Knobloch s.n. TEX (1931).

Strophostyles helvola (C. Linnaeus) S. Elliott [Trailing Wild Bean] Common; along roadsides and disturbed areas in moist sands. 385, 391, 890, 1103, M. Knobloch s.n. TEX (1931).

Strophostyles leiosperma (J. Torrey & A. Gray) C. Piper [Slickseed Fuzzybean] Common; sandy roadsides. 749, 923.

Stylosanthes biflora (C. Linnaeus) N. Britton, E. Sterns, & J. Poggenburg [Side-beak Pencil-flower] Common; sandy roadsides and fields. 397, 731, 773.

Styphnolobium affine (J. Torrey & A. Gray) W. Walpers [Eve's Necklace] (syn. *Sophora affinis* J. Torrey & A. Gray) Collected and observed once, along fencerow in sandy soil; elsewhere known to occur in limestone soils. 617, 893.

Tephrosia onobrychoides T. Nuttall [Multi-bloom Tephrosia] Common; sandy roadsides and fields. 398, 895, 1178, M. Knobloch s.n. TEX (1931).

€ *Trifolium bejariense* M. Moricand [Bejar clover] Rare; open sandy fields and oak woods. Endemic to the eastern half of Texas. 254, B. C. Tharp s.n. TEX (1930).

Trifolium carolinianum A. Michaux [Carolina clover] Rare; open sandy fields. 291, W. R. Carr & P. Turner 17957 TEX (1999).

* *Trifolium repens* C. Linnaeus var. *repens* [White Clover] Collected in 1930 without habitat information, elsewhere usually found along roadsides and disturbed areas. Introduced, native to Europe. B. C. Tharp & E. Whitehouse s.n. TEX (1930).

* *Trifolium vesiculosum* G. Savi [Arrow-leaf Clover] Collected and observed once along heavily-disturbed sandy roadside. Introduced, native to Eurasia. 899.

Vicia ludoviciana T. Nuttall subsp. *ludoviciana* [Deer Pea Vetch] Common; sandy roadsides. 173, 613, M. Knobloch s.n. TEX (1931).

* *Vicia sativa* C. Linnaeus subsp. *nigra* (C. Linnaeus) F. Ehrhart [Common Vetch] Collected once along sandy roadside. Introduced, native to Europe and the Mediterranean region. 625.

Fagaceae (Oak family)

Quercus incana W. Bartram [Bluejack Oak] Uncommon; sandy woods. 310, 693, 1049.

Quercus margarettiae W. Ashe ex J. Small [Sand Post Oak] (syn. *Q. stellata* F. von Wangenheim var. *margarettiae* (W. Ashe) C. Sargent) Uncommon; sandy woods with deep sand. Nomenclature follows Diggs et al. (1999). 315.

Quercus marilandica O. von Munchhausen [Blackjack Oak] Common; sandy and loamy woods. 548.

Quercus nigra C. Linnaeus [Water Oak] Abundant; shaded streambanks. 537, 547, 730, 985, 1069.

Quercus phellos C. Linnaeus [Willow Oak] Uncommon; shaded streambanks. Lee County is at the westernmost edge of this species' range. 1097, 1109, E. A. Kutac & D. Lynch 7382 TEX (1983).

Quercus stellata F. von Wangenheim [Post Oak] Abundant, a major component of the oak savannah in Lee County. Sandy fields. 1212.

Quercus virginiana P. Mill [Live Oak] Reported in open field near Giddings. T. Bedford 13 TAMU (1997).

Fumariaceae (Fumitory family)

Corydalis micrantha (G. Engelmann ex A. Gray) subsp. *australis* (A. Chapman) G. Ownbey [Southern Corydalis] Locally common; roadsides in sandy

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or loamy soil. 112, 520, 529, G. B. & F. Ownbey 1652 TEX (1952).

Gentianaceae (Gentian family)

* *Centaurium pulchellum* (O. Swartz) G. Druce [Pretty Mountain-pink] Common; fields and roadsides. Introduced, native to Europe. Taxonomy follows Diggs et al. (1999). Holmes and Wivagg (1996) point out that some Texas material previously identified as *C. pulchellum* is actually *C. muhlenbergii* (Griseb.) Piper (now treated *as Zeltnera muhlenbergii* (Griseb.) Mansion by Mansion, 2002), and both could possibly occur in Lee County. However, the collections cited here all appear to be *C. pulchellum* according to the key in Holmes and Wivagg. 209, 316, 736, 1138.

Sabatia campestris T. Nuttall [Prairie Rose Gentian] Uncommon; sandy clayey soils along roadsides and fields. 317.

Geraniaceae (Geranium family)

* *Erodium cicutarium* (C. Linnaeus) L'Heritier de Brutelle ex W. Aiton [Filaree] Uncommon; roadsides. Introduced, native to Europe. 491.

Geranium carolinianum C. Linnaeus [Crane's-bill] Common; roadsides and disturbed fields. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 180, 557, 624.

Haloragaceae (Water-Milfoil family)

* *Myriophyllum aquaticum* (J. da Conceição Vellozo) B. Verdcourt [Parrot's-Feather] Reported once from pond with silty mud bottom. Introduced, native to Brazil. R. B. Davis 63 TAMU (1948).

Proserpinaca palustris C. Linnaeus [Marsh Mermaid-Weed] Uncommon; marshy areas by ponds. 790, 1057.

Hamamelidaceae (Witch Hazel Family)

Liquidambar styraciflua C. Linnaeus [Sweetgum] Reported from 1966 along prairie/forest edge. If these do not represent planted individuals, Lee County is at the southwesternmost edge of the native range for this species, which extends northeast to Rhode Island. D. S. Correll 32171 LL (1966).

Hydrophyllaceae (Waterleaf family)

Hydrolea ovata T. Nuttall ex J. Choisy [Hairy Hydrolea] Uncommon; marshy areas around ponds. 905, 971, M. H. Mayfield & B. L. Westlund 1490 TEX (1992).

Nama hispidum A. Gray [Rough Nama] Common; sandy open fields and roadsides. 338, 402, 808, 1181.

Nemophila phacelioides T. Nuttall [Baby Blue-eyes] Collected in 1969 in moist meadow. D. S. & H. B. Correll 37044 LL (1969).

€ *Nemophila sayersensis* B. B. Simpson, J. Neff, & M. Helfgott [Sayersville Blue-eyes]Locally common; sandy open fields. Endemic to central Texas in fossil beach sands. 1115. Ref: Simpson et al. 2001.

Phacelia glabra T. Nuttall [Smooth Phacelia] Locally common; sandy fields. 137, 201, 576, 582.

Phacelia strictiflora (G. Engelmann & A. Gray) A. Gray [Prairie Phacelia] Uncommon; sandy fields. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 554, 684, C. L. Lundell 14860 LL (1948), L. C. & C. L. Lundell 3243 LL (1948).

Juglandaceae (Walnut family)

Carya aquatica (F. Michaux) T. Nuttall [Swamp Hickory] Collected once from tree planted in yard, from seed supposedly collected in the wild, in Lee County. Elsewhere known to grow in stream banks and wet woods. 1083.

Carya illinoinensis (F. von Wangenheim) K. Koch [Pecan] Uncommon; sandy marsh. 764.

Carya texana S. Buckley [Black Hickory] Uncommon; sandy creek terraces and rocky hillsides. These two vouchers show a wide variety of leaf size and shape. Bud scale arrangement, a commonly used character for this genus, was not clear for either voucher. 727, 1053.

Juglans nigra C. Linnaeus [Black Walnut] Rare; lowland alluvial sands. 1100.

Krameriaceae (Ratany family)

Krameria lanceolata J. Torrey [Trailing Ratany] Uncommon; loamy sand in fields and along roadsides. 353, P. Fryxell 1826 TEX (1971), S. L. Orzell & E. L. Bridges 10538 TEX (1989).

Lamiaceae (Mint family)

€ *Brazoria truncata* (G. Bentham) G. Engelmann & A. Gray var. *truncata* [Blunt-sepal Brazoria] Locally common; open sandy fields. Endemic to central

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Texas, associated with Carrizo sands. 295, 344, 709, 1175, W.R. Carr et. al. 34738 TEX (2015), D. S. Correll 23416 LL (1960), B. C. Tharp s.n. TEX (1935), M. & B. L. Turner 36, 59, 51 & 52 TEX (1995). Ref: M. W. Turner 1996, 2003.

Hedeoma acinioides G. Scheele [Slender Hedeoma] Uncommon; roadsides. Lee County is at the eastern edge of this species' range, which is more commonly found on limestone soils of further west Texas. 638, 1128, C. C. Albers s.n. TEX (1965), O. K. Bailey & F. A. Barkley 17098 TEX (1947).

Hedeoma hispida F. Pursh [Rough Hedeoma] Uncommon; sandy fields. 322, 1146, C. C. Albers s.n. TEX (1965).

* *Lamium amplexicaule* C. Linnaeus [Henbit] Common; disturbed areas, lawns, and roadsides. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. Introduced, native to s. Europe along the Mediterranean to Iran. 102, 521.

Lycopus rubellus C. Moench [Water-horehound] Uncommon; sandy marshy area along creeks and ponds. 1093, W. R. Carr 15092 TEX (1995).

Monarda citriodora V. de Cervantes ex M. Lagasca y Segura subsp. *citriodora* [Lemon Beebalm] Uncommon; sandy fields. 328, 739.

Monarda clinopodioides A. Gray [Basil Beebalm] Common; sandy fields and roadsides. 318, 352, 661, 1167, C. C. Albers 48018 TEX (1948).

€ *Monarda punctata* C. Linnaeus var. *intermedia* (E. McClintock & C. Epling) Waterfall [Spotted Beebalm] Collected once in open sandy field. Endemic to Texas. 323.

Monarda punctata C. Linnaeus var. l*asiodonta* A. Gray [Plumetooth Beebalm] Collected once in 1960 in open woods. D. S. Correll 23420 LL (1960).

€ *Monarda viridissima* D. Correll [Green Beebalm] Rare; open sandy fields. Endemic to east-central Texas, in outcrops of Carrizo sands. 1045, M. Knobloch s.n. TEX (1931). Ref: Turner 1994b.

Physostegia intermedia (T. Nuttall) G. Engelmann & A. Gray [Intermediate Obedient-plant] Collected and observed once, in moist sandy ditch. 1196.

* *Prunella vulgaris* C. Linnaeus [Heal-all] Rare; roadsides. Varieties not recognized, in accordance with Brooks (1986) who reports that too many intermediates exist to recognize infraspecific taxa. The exotic status of this species is tentative, as variety lanceolata is native and variety vulgaris is considered introduced from Europe (Brooks 1986; Diggs et al. 1999). 892, 1224, B. L. & M. Turner 95-60 TEX (1995).

Pycnanthemum tenuifolium H. Schrader [Slender Mountain mint] Collected once in 1984 in sandy soil. Lee County is at the western edge of this species' range. E. A. Kutac & D. Lynch 7592 TEX (1984).

€ *Rhododon ciliatus* (G. Bentham) C. Epling [Texas Sandmint] Rare; open sandy fields and roadsides. Endemic to east-central Texas, associated with Carrizo sands. 838, S. L. Orzell & E. L. Bridges 10536 TEX (1989), B. L. & M. Turner 95-84 TEX (1995). Ref: Turner 1995.

Salvia coccinea P. Buchoz ex A. Etlinger [Tropical Sage] Collected once in sandy wooded area. 681.

Salvia lyrata C. Linnaeus [Lyre-leaf Sage] Uncommon; low moist areas along creeks and in disturbed areas. 1075, T. J. Watson 1630 TEX (1993).

Scutellaria drummondii G. Bentham var. *drummondii* [Drummond's Skullcap] Abundant; sandy loam fields and roadsides. 217, 225, 298, 637, 707, C. C. Albers s.n. TEX (1965), S. L. Orzell & E. L. Bridges 10537 TEX (1989), C. M. Rowell, Jr. & F.A. Barkley 17M097 TEX (1947), B. L. & M. W. Turner 9562 TEX (1995). Ref: Turner 1994a.

Scutellaria ovata J. Hill [Heart-leaf Skullcap] Collected once in the area around the Lake Somerville State Park/Wildlife Management Area. J. Singhurst & W. Holmes 13376 BAYLU (2005).

Scutellaria parvula A. Michaux [Small Skullcap] Uncommon; sandy, open roadsides. 199, 647.

Stachys crenata C. Rafinesque-Schmaltz [Shade Betony] (syn. *S. agraria* auct. non A. von Chamisso & D. von Schlectendal.) Uncommon; disturbed fields and along woodlands. 1152, C. M. Rowell & F. A. Barkley 17M101 TEX (1947).

Teucrium canadense C. Linnaeus [American Germander] Collected once in 1957 in sandy woods. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. D. S. Correll & I. M. Johnston 17380 LL (1957).

Trichostema dichotomum C. Linnaeus [Forked Bluecurls] Rare; sandy woods. 1042.

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Lentibulariaceae (Bladderwort family)

Utricularia gibba C. Linnaeus [Cone-spur bladderwort] Collected once in muddy edge of pond. 783.

Linaceae (Flax family)

Linum berlandieri W. Hooker var. *berlandieri* [Berlandier's Yellow Flax] (syn. *L. rigidum* F. Pursh var. *berlandieri* (J. Hooker) J. Torrey & A. Gray) Common; sandy fields and roadsides. 561, 629, 1136, R. Lonard 1835 TEX (1967).

Linum imbricatum (C. Rafinesque-Schmaltz) L. Shinners [Tufted Flax] Uncommon; sandy or clayey roadsides. 214, 567, R. Lonard 1834 TEX (1967).

Linum medium (J. Planchon) N. Britton var. *texanum* (J. Planchon) M. Fernald [Texas Flax] Common; sandy roadsides. 345, 874, 1195.

Loganiaceae (Strychnine family)

€ *Spigelia texana* (J. Torrey & A. Gray) A. L. de Candolle [Pinkroot] Collected once in moist sandy loam in woodland. W. R. Carr & D. Booher 15080 TEX (1995).

Lythraceae (Loosestrife family)

Ammannia coccinea C. Rottball [Purple Ammannia] Uncommon; moist sands along Lake Somerville. W. R. Carr & D. Hernandez 15090 TEX (1995), E. A. Kutac 7689 TEX (1984).

Rotala ramosior (C. Linnaeus) B. Kohne [Toothcup] Collected once in sandy marsh. 978.

Malvaceae (Mallow family)

Callirhoe involucrata (T. Nuttall ex J. Torrey & A. Gray) A. Gray var. *linearíloba* (J. Torrey & A. Gray) A. Gray ex S. Watson [Slim-lobe Poppy-mallow] Abundant; roadsides. 177, 474, 560, 648, R. Lonard 1849 TEX (1967), T. J. Watson, Jr. 279 TEX (1969).

Hibiscus laevis C. Allioni [Scarlet Rose-mallow] (syn. *H. militaris* A. Cavanilles)Uncommon; low moist sandy areas. 416, D. S. Correll 36371 LL (1968), P. Fryxell 703 TEX (1968).

Hibiscus moscheutos C. Linnaeus subsp. *lasiocarpos* (A. Cavanilles) O. Blanchard [Woolly Rose-mallow] Collected once in marshy area. 770.

Malvaviscus arboreus A. Cavanilles var. *drummondii* (J. Torrey & A. Gray) R. Schery [Texas-mallow] (syn. *M. drummondii* J. Torrey & A. Gray) Uncommon; along woodland in sandy soils. 421.

Modiola caroliniana (C. Linnaeus) G. Don [Carolina Modiola] Common; roadsides and disturbed areas. 192, 1131.

Sida ciliaris C. Linnaeus [Bracted Sida]Collected in sandy soils and along roadside. L. J. Dorr & L. C. Barnett 2721 TEX, J. Singhurst 6925 TEX (1998).

Sida lindheimeri G. Engelmann & A. Gray [Lindheimer's Sida] Uncommon; sandy clay roadsides. 410, 413.

Sida rhombifolia C. Linnaeus [Axocatzin] Collected once in clayey sands in low open woods. This perennial species has a virtually pantropical distribution, reaching the temperate zone as an annual. Most references list it as native, with Hatch et al. (1990) the notable exception. Ref: Fryxell 1985. 1088.

Sida spinosa C. Linnaeus [Prickly Sida] Uncommon; roadsides. 931, 990.

Melastomataceae (Melastome family)

Rhexia mariana C. Linnaeus [Maryland Meadow-beauty] Locally common in marshy areas. Varieties not recognized. 689A, 756.

Meliaceae (Mahogany family)

* *Melia azedarach* C. Linnaeus [China-berry] Uncommon; roadsides and disturbed areas. Introduced, native to the Himalaya Mountains and East Asia. 623.

Menispermaceae (Moonseed family)

Cocculus carolinus (C. Linnaeus) A. P. de Candolle [Carolina Snailseed] Abundant; roadsides, woodland edges, disturbed areas. 387, 457.

Molluginaceae (Carpetweed family)

* *Glinus radiatus* (H. Ruiz López & J. Pavón) P. Rohrbach [Spreading Sweetjuice] Reported to be common along sandy creek terrace. Introduced, native to tropical America. W. R.Carr & D. Hernandez 15091 TEX (1995).

* *Mollugo verticillata* C. Linnaeus [Green Carpetweed] Common; open, disturbed deep sands. Introduced, native to tropical America. 342, 800, 860, 1184.

Moraceae (Mulberry family)

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Maclura pomifera (C. Rafinesque-Schmaltz) C. Schneider [Bois D'arc] Collected once in bottomland woodland. 1123.

Morus rubra C. Linnaeus [Red Mulberry] Collected once along woodland roadside. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 698.

Myricaceae (Wax-Myrtle family)

Morella cerifera (C. Linnaeus) J. Small [Wax-myrtle] (syn. *Myrica cerifera* C. Linnaeus) Collected once along creek ledge. Nomenclature follows Diggs et al. (1999) in recognizing the genus as Myrica, not Morella. 535.

Nelumbonaceae (Lotus family)

Nelumbo lutea C. Willdenow [Yellow Lotus] Uncommon, but locally abundant in the shallow waters of Lake Somerville. 417.

Nyctaginaceae (Four-O'Clock family)

Boerhavia erecta C. Linnaeus [Erect Spiderling] Uncommon; sandy roadsides and disturbed areas. 839.

Mirabilis linearis (F. Pursh) A. Heimerl [Linear-Leaf Four O'Clock] Collected once along fencerow. Lee County is near the eastern edge of the Texas range for this species. 1095.

Nyctaginia capitata J. Choisy [Devil's bouquet] Collected once from hilly, loamy roadside. S. Helfert 130 TAES (1974).

Nymphaeaceae (Water-Lily family)

Nuphar advena (W. Aiton) W. T. Aiton subsp. *advena* [Spatter-dock] Uncommon; lakes and ponds. 791.

Nymphaea odorata W. Aiton [White Water-lily] Collected once in marshy pond. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 797.

Nyssaceae (Sour-Gum family)

Nyssa sylvatica H. Marshall [Black-gum] Rare; marshy bog. This genus is sometimes placed in Cornaceae. Lee County is at the western edge of this species' range in Texas. 549, 787, A. Jack 34 TEX (1990), B. C. Tharp s.n. TEX (1941).

Oleaceae (Olive family)

Forestiera acuminata (A. Michaux) J. Poiret [Swamp Privet] Collected once along swampy edge of lake. D. Lynch & E. A. Kutac 7543 TEX (1984).

Forestiera ligustrina (A. Michaux) J. Poiret [Privet Forestiera] Collected once along creek. 619A.

Fraxinus pennsylvanica H. Marshall [Green Ash] Common; bottomlands around creekbeds. 885, P. Fryxell 2506 LL (1975).

Onagraceae (Evening-Primrose family)

Ludwigia alternifolia C. Linnaeus [Seedbox] Uncommon; marshy areas. 1056, M. Knobloch 15 TEX (1931).

Ludwigia decurrens T. Walter [Primrose-willow] Collected once in marshy area. 956.

Ludwigia glandulosa T. Walter [Torrey's Seedbox] Collected once in standing water in roadside ditch. 368.

Ludwigia peploides (K. Kunth) P. Raven subsp. *glabrescens* (K. E. O. Kuntze) P. Raven [Water-primrose] Common; roadside ditches and sandy marshes. 383, 395.

Oenothera berlandieri (E. Spach) E. von Steudel subsp. *berlandieri* [Half-shrub Sundrops] (syn. *Calylophus berlandieri* E. Spach subsp. *berlandieri*) Locally abundant; roadsides and sandy fields. Pollen approximately 95% viable (aniline blue dye and random sample count). Pollen viability is useful for differentiating between this species, which is self-incompatible, and *O. serrulatus* (below), which is self-compatible. 313, 704.

Oenothera heterophylla E. Spach [Variable Evening-primrose] Uncommon; sandy fields and open woods. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 801, P. Fryxell 2510 TEX (1975).

Oenothera laciniata J. Hill [Cut-leaf Evening-primrose] Common; roadsides and disturbed areas. 205, 249, 628, 690, 723.

Oenothera patriciae J. Small [Plains Evening-Primrose] (syn. *Gaura brachycarpa* J. Small) Common; sandy roadsides and fields. 627, 660, 1124.

Oenothera serrulatus T. Nuttall [Yellow Evening-primrose] (syn. *Calylophus serrulatus* (T. Nuttall) P. Raven) Locally common; sandy roadside. Pollen approximately 67% viable (aniline blue dye and random sample count). Pollen viability is useful for differentiating between this species,

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which is self-compatible, and *Oenothera berlandieri* (above), which is self-incompatible. 664.

Oenothera speciosa T. Nuttall [Showy-primrose] Common, locally abundant; roadsides and disturbed areas. 179, 570, 643, 649.

Orobanchaceae (Broomrape family)

* *Orobanche ramosa* C. Linnaeus [Broomrape] Locally abundant; roadsides. Introduced, native to southern Europe. Listed as a federally noxious weed (Jones et al. 1997), it poses a serious risk to crop species, especially those of the family Solanaceae. Several sightings of the plant (including all of mine) occurred along roadsides where it was parasitizing weedy species. Musselman (1996) has suggested that this roadside distribution may have been spread by equipment used for roadside mowing. This species was first discovered in Texas in 1981 in Karnes County. 514, 1133, 1232. Ref: Musselman & Nixon 1981; Musselman 1996.

Oxalidaceae (Woodsorrel family)

Oxalis dillenii (A. Gray) B. Turner [Gray-green Woodsorrel] Abundant; roadsides, disturbed fields, and lawns. Nomenclature follows Diggs et al (1999) in lumping *O. stricta* and *O. dillenii*, and synonymizing with *O. corniculata* var. *wrightii*. 116, 236, 563, 606, 619, 780, B. C. Tharp 52-11 TEX (1952).

Oxalis violacea C. Linnaeus [Violet Woodsorrel] Uncommon; sandy fields. 240, 1082.

Papaveraceae (Poppy family)

Argemone albiflora J. Hornemann subsp. *texana* G. Ownbey [White Prickly-poppy] Locally abundant; sandy disturbed areas. 420, 858, 1144.

Passifloraceae (Passionflower family)

Passiflora lutea C. Linnaeus [Yellow Passion-flower] Common; moist shaded woodland edges. 377.

Phytolaccaceae (Pokeweed family)

Phytolacca americana C. Linnaeus [Pokeweed] Locally abundant; disturbed sandy areas. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 347, B. C. Tharp s.n TEX (1941).

Plantaginaceae (Plantain family)

Plantago aristata A. Michaux [Bottlebrush Plaintain] Uncommon; deep sands. 326, C. L. York 54323 TEX (1954).

Plantago heterophylla T. Nuttall [Slim-spike Plantain] Collected once in open sandy field. 230.

Plantago hookeriana F. von Fischer & C. von Meyer [Tallow-weed] Locally common; sandy open uplands. 244, 691, C. M. Rowell & F. A. Barkley 17T103 TEX (1947).

Plantago virginica C. Linnaeus [Pale-seed Plantain] Common; sandy or loamy woodlands. 257, 526, 587, 663.

Plantago wrightiana J. Decaisne [Wright's Plantain] Collected once in deep sands. 327.

Platanaceae (Sycamore family)

Platanus occidentalis C. Linnaeus [Sycamore] Collected once in a field bordering a residence, elsewhere common in stream bottoms. 1233.

Polemoniaceae (Phlox family)

Ipomopsis rubra (C. Linnaeus) E. Wherry [Standing-cypress] Collected once along sandy roadside. 809.

Phlox cuspidata G. Scheele [Pointed Phlox] Abundant; roadsides, fields and open woods. 154, 568, C. J. Ferguson & M. Mayfield 92 TEX (1995), W. L. McCart 5790 TEX (1955), E. Whitehouse 554 TEX (1934).

Phlox drummondii C. Linnaeus [Drummond's Phlox] Abundant; roadsides, fields and open woods. Infraspecific taxa not recognized. 181, 253, 473, C. J. Ferguson & M. Mayfield 91 TEX (1995), C. M. Rowell & F. A. Barkley 17T102 TEX (1947).

Polygalaceae (Milkwort family)

Polygala incarnata C. Linnaeus [Pink Milkwort] Locally common; sandy woods. 346, 350, 853.

Polygala polygama T. Walter [Bitter Milkwort] Rare; sandy woodland edges. 706, 1176.

Polygala verticillata C. Linnaeus [Whorled Milkwort] Common; sandy woods. 363, 724, 815, 873.

Polygonaceae (Smartweed Family)

Eriogonum longifolium T. Nuttall var. *longifolium* [Long-leaf Wild Buckwheat] Collected once in sandy alluvial soil. J. Singhurst 6905 TEX (1998).

Eriogonum multiflorum G. Bentham [Heart-sepal Wild Buckwheat] Locally common; sandy open fields. 948, 1044.

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Persicaria hydropiperoides (A. Michaux) J. Small [Swamp Smartweed] (syn. *Polygonum hydropiperoides* J. Small) Locally common; low, moist areas. 728, 880.

Persicaria pensylvanica (C. Linnaeus) M. Gómez [Pink Smartweed] (syn. *Polygonum pensylvanicum* C. Linnaeus) Uncommon; clumps in open fields. 1029.

Persicaria punctatum (S. Elliott) J. Small [Water Smartweed] (syn. *Polygonum punctatum* S. Elliott) Uncommon; moist fields. 370, 805.

Polygonella americana (F. von Fischer & C. von Meyer) J. Small [Southern Jointweed] Collected once in xeric sands. S. L. Orzell & E. L. Bridges 10540 TEX (1989).

Polygonum ramosissimum A. Michaux [Bushy Knotweed] Reported to be rare in alluvial creek bottomland. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. W. R. Carr 15081 TEX (1995).

Polygonum tenue A. Michaux var. *tenue* [Pleat-leaf Knotweed] Collected once in sandy woodland. 925.

Rumex altissimus A. Wood [Pale Dock] Collected once along open streambank. D. Lynch 7536 TEX (1984).

Rumex chrysocarpus G. Moris [Amamastla] Collected once in roadside ditch. D. Lynch & E. A. Kutac 12174 TEX (1992).

* *Rumex crispus* C. Linnaeus [Curly Dock] Locally abundant; urban drainage ditches and other disturbed moist areas. Introduced, native to Europe. 506.

Rumex hastatulus W. Baldwin [Heart-wing Sorrel] Abundant; roadside ditches and other disturbed moist areas. This identification is provisional, as it was difficult to decide between *R. hastatulus* and *R. acetosella*. Positive identification relies on fruits and life habit, and all but one (716) of my vouchers were in flower only, and probably annual. 161, 176, 252, 578, 607, 716.

* *Rumex pulcher* C. Linnaeus [Fiddle Dock] Collected once in sandy marsh. Introduced, native to Europe. 1204.

Portulacaceae (Purslane family)

Claytonia virginica C. Linnaeus [Virginia Springbeauty] Rare; collected once in moist sandy field. Varieties not recognized. 146.

Portulaca pilosa C. Linnaeus [Shaggy Portulaca] (syn. *P. mundula* I. Johnston)Rare; collected once in xeric sands. 849.

Talinum parviflorum T. Nuttall [Flame-flower] (syn. *Phemeranthus parviflorus* (T. Nuttall) R. Kiger) Collected once in alluvial sands. J. Singhurst 6929 TEX (1998).

Primulaceae (Primrose family)

* *Anagallis arvensis* C. Linnaeus [Scarlet Pimpernel] Uncommon; roadsides and disturbed areas. Introduced, native to Europe. 191.

* *Anagallis minima* (C. Linnaeus) E. Krause [Pimpernel] (syn. *Centunculus minimus* C. Linnaeus) False Uncommon; moist sandy soils. Introduced, native to Europe. 228.

Samolus.parviflorus C. Rafinesque-Schmaltz [Thin-leaf Brookweed] (syn. *Samolus valerandi* L. subsp. *parviflorus* (C. Rafinesque-Schmaltz) O. Hultén) Uncommon; along creeks and seepage areas. 414, 425, 729.

Ranunculaceae (Buttercup Family)

Anemone berlandieri G. Pritzel [Ten-petal Anemone] (syn. *A. heterophylla* (J. Torrey & A. Gray) T. Nuttall ex A. Wood) Common; roadsides and fields, in clayey or sandy soils. 119, S. P. Lynch 2935 TEX (1979)

Anemone caroliniana T. Walter [Carolina Thimbleweed] Collected once along hiking trail in vicinity of Lake Somerville. J. Larke et al. 7 TEX (1984).

Clematis pitcheri J. Torrey & A. Gray var. *pitcheri* [Leather-flower] Collected once along fencerow in stream bottomland. 887.

Delphinium carolinianum T. Walter subsp. *vimineum* (D. Don) M. Warnock [Blue Larkspur] Locally common; roadsides. Voucher 500 displayed characteristics associated with subsp. *virescens* such as grayish-white flowers and some 5-segmented leaves but the stated subspecies occasionally shares these characteristics as well. Because the two subspecies intergrade in central Texas, certain infraspecific determination is difficult. 216, 500, 658. Ref: FNA vol. 3 (1997).

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Myosurus minimus C. Linnaeus [Tiny Mousetail] Rare or rarely collected (easily overlooked); shaded creek ledges. 1113.

Ranunculus fascicularis G. Muhlenberg ex. J. Bigelow [Early Buttercup] Reported once. W. R. Carr et. al. 34739 TEX (2015).

Ranunculus laxicaulis (J. Torrey & A. Gray) J. Darby [Many-flowered Spearwort] Reported from 1931 without habitat information, elsewhere usually found in moist soil, ditches and marshes. B.C. Tharp s.n. TEX (1931).

Ranunculus macranthus G. Scheele [Showy Buttercup] Locally common; wet sandy soils. 194, 593, 1160.

* *Ranunculus muricatus* C. Linnaeus [Rough-seed Buttercup] Collected once along roadside in standing water. Introduced, native to Europe. 631.

Ranunculus pusillus J. Poiret [Weak Buttercup] Rare; standing water. The Correll & Correll specimen is clearly this species, while the identification of my collection is tentative, based on vegetative material only, and strangely, strongly resembling Echinodorus berteroi. There is another *R. pusillus* voucher from nearby Gonzales County with mostly vegetative parts (with only diminutive flowers) that was initiallyincorrectly identified as Echinodorus berteroi. Taxonomy follows Diggs et al. (1999) in not recognizing varieties. 137A, D. S. & H. B. Correll 37045 LL (1969).

* *Ranunculus sardous* H. von Crantz [Hairy Buttercup] Rare; shady loamy sand creekbed. The positive identification of this specimen added a third Texas record to the TEX/LL collection, and extends the range westward for the species. Monique Reed (1998) suggests that many R. sardous vouchers may be mislabeled as R. fascicularis or otherwise (I found three mislabeled as R. hispidus, thus adding records 4-6 for the state) and that the occurrence and distribution may be more extensive than currently known. The characters in the FNA volume 3 provided sufficient differencesto lead to this determination. Introduced, native to Europe, the Pacific Islands, and Australia. 1104. Ref: FNA vol. 3 (1997).

Rhamnaceae (Buckthorn family)

Berchemia scandens (J. Hill) K. Koch [Alabama Supplejack] Common, locally abundant; woods and fencerows. 299, 451, 504, B. C. Tharp s.n. LL (1941).

Frangula caroliniana (T. Walter) A. Gray [Carolina Buckthorn] (syn. *Rhamnus caroliniana* T. Walter) Uncommon; moist loamy woods. 1054

Rosaceae (Rose family)

Crataegus spathulata A. Michaux [Little-hip Hawthorn] Collected once in sandy woods. 694.

Prunus angustifolia H. Marshall [Chickasaw Plum] Uncommon; sandy roadsides and fields, along fencerows. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 118, 377A.

Prunus caroliniana (P. Miller) W. Aiton [Laurel Cherry] Collected once in moist, sandy woods. 1118.

Prunus gracilis G. Engelmann & A. Gray [Sand Plum] Uncommon; sandy open woods. 302, 725.

Prunus mexicana S. Watson [Wild Mexican Plum] Uncommon; roadside drainage areas. 125, M. Knobloch s.n. TEX (1931).

* *Prunus persica* (C. Linnaeus) A. Batsch [Peach] Collected once along fencerow. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. Introduced, native to east Asia. 701.

Rubus argutus J. Link [Sawtooth Blackberry] Collected once in sandy marsh. 765.

Rubus trivialis A. Michaux [Southern Dewberry] Abundant, sometimes forming thickets; roadsides, woodland edges. Nomenclature follows Diggs et al. (1999), as Jones et al. (1997) does not list this species for Texas. 111.

Rubiaceae (Coffee family)

Cephalanthus occidentalis C. Linnaeus [Buttonbush] Uncommon; stream banks and damp woods. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 428, A. Jack 35 TEX (1990), A. Le Duc 36 TEX (1990).

Diodia teres T. Walter [Buttonweed] Common; roadsides and sandy fields. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 394, 861, 996, 1051.

Diodia virginiana C. Linnaeus [Virginia Buttonweed] Uncommon; roadsides and sandy fields. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 804, 936.

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Galium aparine C. Linnaeus [Cleavers] Common; fields, roadsides, and disturbed areas. 496, 621.

Galium pilosum W. Aiton [Hairy Bedstraw] Uncommon; sandy woods. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 610, 908.

Galium tinctorium (C. Linnaeus) J. Scopoli [Dye Bedstraw] Collected once in sandy woodland. 866.

Hedyotis nigricans (J. Lamarck) F. Fosberg var. *nigricans* [Prairie Bluets] (syn. *Houstonia nigricans* (J. Lamarck) F. Fosberg var. *nigricans*, *Stenaria nigricans* (J. Lamarck) E. Terrell var. *nigricans*) Common; clayey sandy fields or roadsides. 1125, R. Lonard 1838 TEX (1967).

Houstonia pusilla J. Schopf [Tiny Bluet] (syn. *Hedyotis crassifolia* C. Rafinesque-Schmaltz) Abundant; roadsides, bottomlands, moist woods. 115, 172, 467, 480, 495, 596.

Houstonia rosea (C. Rafinesque-Schmaltz) E. Terrell [Rose Bluet] (syn. *Hedyotis rosea* C. Rafinesque-Schmaltz) Collected once in sandy open field. 150.

€ *Houstonia subviscosa* (C. Wright ex A. Gray) A. Gray [Nodding Bluet] (syn. *Hedyotis subviscosa* (C. Wright ex A. Gray) L. Shinners)Collected in 1947 in sandy field. Endemic to the Carrizo sands and southern parts of Texas. C. M. Rowell & F. A. Barkley 17T106 TEX (1947).

Oldenlandia uniflora C. Linnaeus [Clustered mille graines] (syn. *Hedyotis uniflora* (C. Linnaeus) J. Lamarck) Rare; sandy marsh. 952, 1031.

Richardia tricocca (J. Torrey & A. Gray) P. Standley [Prairie Buttonweed] Collected once in open sandy field. 774.

* *Sherardia arvensis* C. Linnaeus [Spurwort] Common; roadsides, disturbed fields. Introduced, native to the Old World. 120, 612, 1130, 1177.

Rutaceae (Citrus family)

Zanthoxylum clava-herculis C. Linnaeus [Prickly-Ash] Uncommon; open sandy fields. 282, 339.

Salicaceae (Willow family)

Populus deltoides W. Barton ex H. Marshall subsp. *deltoides* [Eastern Cottonwood] Collected once in seepy marsh. 942.

Salix nigra H. Marshall [Black Willow] Common; moist bottomlands. 602, 632.

Sapindaceae (Soapberry family)

Cardiospermum halicacabum C. Linnaeus [Common Balloonvine] Uncommon; disturbed sandy field. 869, A. Lievens & D. Lynch 7549 TEX (1984).

Sapindus saponaria C. Linnaeus var. *drummondii* (W. Hooker & G. Arnott) L. Benson [Western Soapberry] Common; stream bottoms and disturbed damp soil. 1099, 1201.

Sapotaceae (Chicle family)

Sideroxylon lanuginosum A. Michaux subsp. *oblongifolium* (T. Nuttall) T. Pennington [Gum Bumelia] (syn. *Bumelia lanuginosa* (A. Michaux) Persoon subsp. *oblongifolia* (T. Nuttall) A. Cronquist) Collected once in sandy prairie. 1215.

Saxifragaceae (Saxifrage family)

Lepuropetalon spathulatum S. Elliott [Petiteplant] Uncommon, easily overlooked; moist sandy soils. 145, 482, W. R. Carr & P. Turner 17947 TEX (1999), R. McVaugh 7632 TEX (1947).

Micranthes texana (S. Buckley) J. Small [Texas Pseudosaxifrage] (syn. *Saxifraga texana* S. Buckley) Rare; sandy fields. 143, B. C. Tharp 52-12 TEX (1952).

Scrophulariaceae (Figwort family)

Agalinis heterophylla (T. Nuttall) J. Small ex N. Britton [Prairie False Foxglove] (syn. *Gerardia heterophylla* T. Nuttall) Reported once. G. Beisert 5 TAMU (1987).

Agalinis strictifolia (G. Bentham) F. Pennell [Stiffleaf False Foxglove] (syn. *Gerardia strictifolia* G. Bentham) Common, locally abundant; roadsides and disturbed areas. 455, 937.

Bacopa monnieri (C. Linnaeus) F. Pennell [Coastal Water-hyssop] Uncommon; moist areas around ponds and creekbeds. 920, 1197.

Bacopa rotundifolia (A. Michaux) R. Wettstein [Disc Water-hyssop] Collected once in wet silt along creekbed. W. R. Carr 8805 TEX (1987).

* *Bellardia trixago* (C. Linnaeus) C. Allioni [Mediterranean Lineseed]Common, locally abundant; roadsides and disturbed fields. Introduced, native to the Old World, first collected in Texas in 1980. 626, 737, 1163. Ref:Diggs et al. (1999).

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Castilleja indivisa G. Engelmann [Indian-paintbrush] Abundant in the springtime; roadsides and sandy fields. 151, 169, 329, 351, M. Knobloch s.n. TEX (1931), B. C. Tharp 52-14 TEX (1952), C. L. York 54063 TEX (1954).

Gratiola flava M. Leavenworth [Golden Hedge-hyssop] Uncommon; moist or dry sandy soils. 153, 585, W. R. Carr & P. Turner 17951 TEX (1999), R. McVaugh 7633 TEX (1947).

Gratiola virginiana C. Linnaeus [Round-fruit Hedge-hyssop] Reported once in shallow water at edge of pond. B. Brown 81 TAMU (1947).

Lindernia dubia (C. Linnaeus) F. Pennell var. *anagallidea* (A. Michaux) T. Cooperrider [Clasping False Pimpernel] Collected once along roadside ditch. 367.

Mecardonia procumbens (P. Miller) J. K. Small [Prostrate Mecardonia] Common; roadside ditches, moist soils. 195, 360, 562, 1139, 1149.

Nuttallanthus canadensis (C. Linnaeus) D. Sutton [Oldfield Toad-flax] (syn. *Linaria canadensis* C. Linnaeus) Collected once in deep sands. 255.

Nuttallanthus texanus (G. Scheele) D. Sutton [Texas Toad-flax] (syn. *Linaria texana* G. Scheele) Common; roadsides and sandy fields. 170, 522.

Penstemon laxiflorus F. Pennell [Beardtongue] Uncommon; roadsides and fields with sandy loamy soils. Nomenclature follows Diggs et al. (1999) in recognizing *P. laxiflorus* at the species level, rather than as the infraspecific taxon *P. australis* subsp. *laxiflorus*. 306, 640.

* *Verbascum thapsus* C. Linnaeus [Common Mullein] Uncommon, collected once along roadside with mowing history. Introduced, native to Eurasia. 1235.

* *Veronica arvensis* C. Linnaeus [Common Speedwell] Common; roadsides, lawns, and sandy disturbed areas. Introduced, native to Europe. 164, 679.

Veronica peregrina C. Linnaeus subsp. *peregrina* [Purslane Speedwell] Collected once in heavily disturbed sandy dirt heap. 1107.

Veronica peregrina C. Linnaeus subsp. *xalapensis* (K. Kunth) F. Pennell [Jalapa Speedwell] Common; roadsides and moist disturbed areas. 532, J. Larke & K. Lynch 5 TEX (1984), B. C. Tharp 7551 TEX (1930).

Solanaceae (Nightshade family)

Physalis mollis T. Nuttall var. *mollis* [Field Ground-cherry] Abundant; roadsides, sandy fields and woods. 218, 281, 307, 634, 657, S. L. Orzell & E. L. Bridges 10548 TEX (1989).

Solanum dimidiatum C. Rafinesque-Schmaltz [Western Horse-nettle] Locally common; roadsides and disturbed areas. 319.

Solanum elaeagnifolium A. Cavanilles [Silver-leaf Nightshade] Common, locally abundant; roadsides and disturbed areas. 106.

Solanum ptychanthum M. Dunal [American Nightshade] (syn. *S. americanum* auct. non P. Miller) Common; open, sandy fields. 711, 1037, 1180, 1222.

Solanum rostratum M. Dunal [Buffalo-bur] Collected once along sandy roadside. 1221.

Ulmaceae (Elm family)

Celtis laevigata C. Willdenow var. *laevigata* [Sugarberry] Common; stream bottoms. Nomenclature departs from BONAP in following FNA volume 3 (1997) and Diggs et al. (1999) in recognizing infraspecific taxa. I am also in agreement with Diggs et al. (1999) who note that further treatment appears necessary to determine whether this is the appropriate taxonomic level. 1122, 1217.

Planera aquatica J. Gmelin [Water-elm] Rare; streambeds and floodplains. Lee County represents the westernmost edge of this species' range. 1100B, 1114, E. A. Kutac & D. Lynch 7541 TEX (1984), D. Lynch & E. A. Kutac 12178 TEX (1992).

Ulmus americana C. Linnaeus [American Elm] Common; moist lowland areas. 131, 300, 478.

Ulmus crassifolia T. Nuttall [Cedar Elm] Abundant; common in many habitats, upland and lowland. 876, 1068.

Urticaceae (Nettle family)

Boehmeria cylindrica (C. Linnaeus) O. Swartz [Bog-hemp] Uncommon; marshy areas and along creeks. 958, 1030.

Parietaria pensylvanica G. Muhlenberg ex C. Willdenow var. *pensylvanica* [Cucumberweed] Common, locally abundant; disturbed areas, moist woods. 507, 544.

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Urtica chamaedryoides F. Pursh [Stinging Nettle] Uncommon; moist woods. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 283, 470, E. A. Kutac, D. Lynch, B. Ertter, & S. Ginzbarg 6 TEX (1984).

Valerianaceae (Valerian family)

€ *Valerianella florifera* L. Shinners [Texas Cornsalad]Uncommon; sandy open soil. W. R. Carr & P. Turner 17948 TEX (1999), C. L. York 54064 TEX (1954).

Valerianella radiata (C. Linnaeus) P. Dufresne [Beaked Cornsalad] Common; moist sandy or clayey soils. 158, 221, 489, 574, T. J. Watson 1626 TEX (1993).

Valerianella woodsiana (J. Torrey & A. Gray) W. Walpers [Wood's Cornsalad] Collected in moist sandy clay. W. R. Carr 12667 TEX (1993), "Ecology Class" s.n. TEX (1930).

Verbenaceae (Verbena Family)

Callicarpa americana C. Linnaeus [American Beautyberry] Uncommon; sandy, moist woodlands. 354.

Glandularia canadensis (C. Linnaeus) T. Nuttall [Rose Vervain] (syn. *Verbena canadensis* C. Linnaeus) Uncommon; sandy woodlands. 309, 685.

Glandularia pumila (P. Rydberg) R. Umber [Pink Vervain] (syn. *Verbena pumila* P. Rydberg) Uncommon; open sandy fields. 101, 178.

Lantana urticoides A. von Hayek [Texas Lantana] (syn. *Lantana horrida* sensu H. Moldenke, non K. Kunth) Reported to be frequent in disturbed, sandy loam pastureland. N. Wolff 8 TAES (2005).

Phyla lanceolata (A. Michaux) E. Greene [Lance-leaf Frogfruit] Collected once in moist sands. 917.

Phyla nodiflora (C. Linnaeus) E. Greene [Common Frogfruit] (syn. *Phyla incisa* J. Small) Common; moist, disturbed areas. 330.

* *Verbena brasiliensis* J. Velloso de Miranda [Brazilian Vervain] Locally common; sandy roadsides. Introduced, native to South America. 635, 697, 867.

Verbena halei J. Small [Slender Vervain] Abundant; fields and disturbed areas. 204, 349.

Violaceae (Violet family)

Hybanthus verticillatus (C. Ortega) H. Baillon [Nodding Green-violet] Rare, collected once along roadside in sandy loam. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 1148.

Viola bicolor F. Pursh [Johnny-jump-up] Uncommon; roadsides and sandy fields. 129, 528.

Viola sororia C. Willdenow [Sister Violet] Common; moist roadsides and woodlands. Nomenclature follows Diggs et al. (1999) in not recognizing varieties. 135, 162, 493, 511, 1110, M. Knobloch 8 TEX (1931).

Viscaceae (Mistletoe family)

Phoradendron tomentosum (A. P. de Candolle) G. Engelmann ex A. Gray [Mistletoe] Abundant; parasitic on a number of tree species. 136, B. H. Warnock 45-77 TEX (1945).

Vitaceae (Grape family)

Ampelopsis arborea (C. Linnaeus) [Peppervine] Common, locally abundant; fencerows, disturbed areas. 439, 812.

Cissus incisa C. Des Moulins [Cow-itch] Common; disturbed areas, streambeds and other moist areas. 375, J. Singhurst 6908 TEX (1998).

Parthenocissus quinquefolia (C. Linnaeus) J. Plachon [Virginia Creeper] Common, locally abundant; streambeds and forest edges. Voucher 1164 had several leaves with 7 leaflets suggesting the related *P. heptaphylla*. However, that species has much smaller leaflets, succulent texture (unlike collected voucher), and endemic distribution on the Edwards Plateau. 376, 1164.

Vitis aestivalis A. Michaux var. *lincecumii* (S. Buckley) T. Munson [Pigeon Grape]Common; sandy fields and forest edges. Two of the vouchers listed below have leaves that are much more deeply incised than most vouchers at TEX/LL. 692, 929, 1192.

Vitis mustangensis S. Buckley [Mustang Grape] Abundant; fencerows, disturbed areas, streambeds. 655.

Vitis rotundifolia A. Michaux var. *rotundifolia* [Muscadine Grape] Collected once in moist sands along forest edge. 822, F. A. Barkley s.n. TEX (1954).

Zygophyllaceae Creosotebush family)

* *Tribulus terrestris* (C. Linnaeus) [Puncturevine] Reported once from bog in 1948. Introduced, native to the Mediterranean region. H. B. Parks s.n. TAES (1948).

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Literature Cited in Appendix 1 Lee County Checklist

BONAP, see Kartesz.

Brooks, R. E. 1986. Lamiaceae. Pp. 708–740 in *Flora of the Great Plains*, ed. T. M. Barkley. Lawrence: University Press of Kansas.

Bureau of Economic Geology. 1974. Geologic Atlas of Texas, Austin Sheet, reprinted 1981. The University of Texas at Austin.

Carr, W. R. 2004a. An Annotated list of the G3/T3 and rarer plant taxa of Texas. Unpublished February 2004 draft. Accessed 3 May 2006. <http://www.nature.org/wherewework/northamerica/states/texas/files/rareplan tlist404.pdf>.

———. 2004b. Travis County Flora Project. Unpublished draft updated in March 2004. Accessed 1 May 2006.

———. 2009. No Place but Texas: An Annotated List of Plant Taxa Endemic to the Lone Star State (incomplete working draft). Nature Conservancy, San Antonio, Texas. Accessed Sept. 2017 at: http://www.guynesom.com/Texendemicsweb.htm

Correll, D. S. 1956. *Ferns and Fern Allies of Texas*. Renner: Texas Research Foundation.

——— **and M. C. Johnston.** 1970. *Manual of the vascular plants of Texas*. Renner: Texas Research Foundation.

Cronquist, A. Asteraceae. 1980. *Vascular Flora of the Southeastern United States*, Vol. 1. Chapel Hill: The University of North Carolina Press.

Diggs, G. M., Jr., R. J. O'Kennon, and B. L. Lipscomb. 1997. *Hypochaeris glabra,* a new Asteraceae for Texas. Sida 17: 631–632.

———, **B. L. Lipscomb and R. J. O'Kennon.** 1999. *Shinners & Mahler's Illustrated Flora of North Central Texas*. Sida, Botanical Miscellany, No. 16. Fort Worth: Botanical Research Institute of Texas.

Elias, T. S. 1980. *The Complete Trees of North America*. New York: Gramercy Publishing Company.

Flora of North America Editorial Committee, eds. 1993+. *Flora of North America North of Mexico*. 20+ vols. New York and Oxford. Vol. 3, 1997; Vol. 22, 2000; Vol. 23, 2002; Vol. 25, 2003; Vol. 26, 2002.

Freeman, C. C. and T. M. Barkley. 1995. A synopsis of the genus *Packera* (Asteraceae: Senecioneae) in Mexico. Sida 16: 699–709.

Fryxell, P. A. 1985. Sidus Sidarum – V. The North and Central American species of *Sida*. Sida 11(1): 62–91.

Gandhi, K. N. and S. L. Hatch. 1988. Nomenclatural changes in *Acalypha* (Euphorbiaceae) and *Chamaecrista* (Fabaceae). Sida 13(1): 122–123.

——— **and R. D. Thomas.** 1989. *Asteraceae of Louisiana*. Sida, Botanical Miscellany, No. 4. Fort Worth: Botanical Research Institute of Texas.

Godfrey, R. K. and J. W. Wooten. 1979. *Aquatic and wetland plants of southeast United States* (Vol.1: monocotyledons). Athens: University of Georgia Press.

Gould, F. W. 1975. *The grasses of Texas*. College Station: Texas A&M University Press.

Kartesz, J. T., The Biota of North America Program (BONAP). 2015. Taxonomic Data Center. (http://www.bonap.net/tdc). Chapel Hill, N.C. [maps generated from Kartesz, J. T. 2015. Floristic Synthesis of North America, Version 1.0. Biota of North America Program (BONAP). (in press)].

Hatch, S. L., K. N. Gandhi and L. E. Brown. 1990. Checklist of the vascular plants of Texas. Texas Agric. Exp. Sta. Misc. Publ. 1655: 1–158.

Johnston, M. C. 1959. The Texas species of *Croton* (Euphorbiaceae). Southw. Nat. 3: 175–203.

Jones, S. D., J. K. Wipff and P. M. Montgomery. 1997. *Vascular Plants of Texas: A Comprehensive Checklist including Synonymy, Bibliography, and Index*. Austin: University of Texas Press.

Kim, K-J. and B. L. Turner. 1992. Systematic overview of *Krigia* (Asteraceae- Lactueae). Brittonia 44: 173–198.

Levin, G. A. 1999. Evolution in the *Acalypha gracilens/monococca* complex (Euphorbiaceae): Morphological Analysis. Syst. Bot. 23(3): 269–287.

Mansion, G. 2002. A new classification of the polyphyletic genus *Centaurium* Hill (Chironiinae, Gentianaceae): description of the New World endemic *Zeltnera*, and reinstatement of *Gyrandra* Griseb. and *Schenkia* Grisb. Taxon 53: 719–740.

Mayfield, M. H. 2002. The Varieties of *Liatris elegans* (Asteraceae). Sida 20: 597–603.

Miller, K. I. and G. L. Webster. 1967. A preliminary revision of *Tragia* (Euphorbiaceae) in the United States. Rhodora 69: 241–305.

Musselman, L. J. and K. C. Nixon. 1981. Branched broomrape (*Orobanche ramosa*) in Texas. Plant Disease 65: 752–753.

Nesom, G. L. 2012. Taxonomy of *Apiastrum*, *Ammoselinum*, and *Spermolepis* (Apiaceae). Phytoneuron 2012-87: 1–49.

——— **and B. L. Turner.** 1998. Variation in the *Berlandiera pumila* (Asteraceae) complex. Sida 18: 493–502.

———. 2012. Taxonomy of *Apiastrum*, *Ammoselinum*, and *Spermolepis* (Apiaceae). Phytoneuron 2012-87: 1–49.

Ownbey, M. and H. C. Aase. 1955. Cytotaxonomic Studies in *Allium* I: The *Allium canadense* alliance. Research Studies of the State College of Washington, Monographic Supplement No.1: 1-106.

Shinners, L. H. 1966. *Hypochoeris microcephala* var. *albiflora* (Compositae) in southeastern Texas: New to North America. Sida 2: 393–394.

Simpson, B. B., D. M. Helfgott, and J. L. Neff. 2001. A new cryptic species of *Nemophila* (Hydrophyllaceae) from Texas and the Leptotypification of *N. phacelioides* Nuttall. Lundellia 4: 30–36.

Taylor, C. E. S. and R. J. Taylor. 1983. *Solidago* (Asteraceae) in Oklahoma and Texas. Sida 10: 223–251.

Texas Organization for Endangered Species (TOES). 1993. *Endangered, threatened, and watch list of Texas Plants*. Austin: TOES Publication 9.

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Texas Parks and Wildlife Department (TPWD). 2006. Navasota Ladies'-tresses (*Spiranthes parksii*). Accessed 22 April 2006c. <http://www.tpwd.state.tx.us/huntwild/wild/species/navasolt>.

TOES 1993, see Texas Organization for Endangered Species (TOES).

Turner, B. L. unpublished. Texas Species of *Tradescantia* (Commelinaceae).

———. 1989. *Hymenopappus carrizoanus* (Asteraceae-Helenieae), A new species from the Carrizo sands of central Texas. Phytologia 67: 293–296.

———. 1991. Texas species of *Ruellia* (Acanthaceae). Phytologia 71: 281–299.

———. 1994a. A taxonomic overview of *Scutellaria* section *Resinosa*. Phytologia 76: 345–382.

———. 1994b. Taxonomic treatment of *Monarda* (Lamiaceae) for Texas and Mexico. Phytologia 77: 56–79.

———. 1995. Synoptical study of *Rhododon* (Lamiaceae). Phytologia78(6): 448-451.

———, **H. Nichols, G. Denny, and O. Doron.** 2003. *Atlas of the Vascular Plants of Texas*, 2 Volumes. (*Vol. 1, Introduction and Dicots; Vol. 2, Ferns, Gymnosperms and Monocots*). Sida, Botanical Miscellany, No. 24. Fort Worth: Botanical Research Institute of Texas.

Turner, M. W. 1996. Systematic study of the genus *Brazoria* (Lamiaceae) and *Warnockia* (Lamiaceae), a new genus from Texas. Pl. Syst. Evol. 203: 65–82.

———. 2003. A new species of *Brazoria* (Lamiaceae) from the CentralMineral Region of Texas. Sida 20: 1565–1571.

United States Department of Agriculture (USDA). 2006. Plants Database. Accessed 28 March 2006. <http://plants.usda.gov>.

Webster, G. L. 1994. Synopsis of the genera and suprageneric taxa ofEuphorbiaceae. Ann. Missouri Bot. Gard. 81: 33–144.

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