

# A FLORISTIC INVENTORY OF THE OKLAHOMA DEPARTMENT OF WILDLIFE CONSERVATION'S LEXINGTON WILDLIFE MANAGEMENT AREA, CLEVELAND COUNTY, OKLAHOMA

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## ABSTRACT

This paper reports the results of a vascular plant inventory at the Oklahoma Department of Wildlife Conservation's Lexington Wildlife Management Area in Cleveland County, Oklahoma. Five hundred and six specific and infraspecific taxa in 90 families were collected. Two-hundred and ninety-six genera, 487 species, and 19 infraspecific taxa were identified. The largest families were the Poaceae with 86 taxa and the Asteraceae with 82 taxa. Sixty-eight taxa were non-native to the U.S. (13.4% of the flora). Four species tracked by the Oklahoma Natural Heritage Inventory were found.

## INTRODUCTION AND STUDY AREA

The Lexington Wildlife Management Area (LWMA) occupies 3,849 ha in Cleveland County in central Oklahoma approximately 12.0 km from the town of Lexington (Figure 1). Latitudinal extent ranges from 35.087460° – 35.058031° and longitudinal extent from -97.247320° – -97.247652°. Physiographically, the site is located within the Central Red-bed Plains geomorphic province, which consists of broad, flat plains and gently rolling hills of red sandstone and shale from the lower Permian (Curtis et al. 2008; Johnson 2008). Three soil associations are predominant at LWMA: Stephenville-Darnell Newalla Complex (approximately 19.7% of the WMA), Harrah fine sandy loam (13.8%), and the Newalla fine sandy loam (12.0%; Soil Survey Staff 2023). Approximately 0.4% of the WMA is covered by water (Soil

Survey Staff 2023). LWMA is located within the subtropical humid (Cf) climate zone, with a mean annual temperature of 15.9°C (Trewartha 1968; Oklahoma Climatological Survey 2023). Low temperatures (to -2.4°C) occur in January, while the warmest temperatures occur in July (to 27.7°C; Oklahoma Climatological Survey 2023). The month of May is typically the wettest, with an average precipitation of 13.1 cm. Mean annual precipitation is 95.6 cm (Oklahoma Climatological Survey 2023). Elevation ranges from 311.8 m to 379.5 m. Two small lakes, Smith and Dahlgren, are found at LWMA, in addition to numerous small ponds. Little Buckhead Creek runs north to south in the western part of the WMA, while Helsel Creek flows into Dahlgren Lake on the east side. The dominant potential vegetation type is Crosstimbers—a mosaic of *Schizachyrium scoparium* grassland and *Quercus stellata* and *Q. marilandica* woodland (Commission for Environmental

Cooperation 2021). Prior to this study, there was no complete inventory of the vascular plants at LWMA. Sporadic collections were made in the 1990s and again in 2019 (TORCH Portal 2023).

## METHODS

To ensure that the inventory was as complete as possible, aerial photos and the Oklahoma Department of Wildlife Conservation's Oklahoma Ecological Systems map (Diamond and Elliott 2015) were consulted to locate examples of all vegetation types present at the WMA before fieldwork began. Collection sites were selected based on these findings but were also chosen as new taxa were encountered. Voucher specimens of vascular plant taxa encountered at LWMA were taken throughout the growing seasons (March through October) of 2021 and 2022. Specimens with flowers or fruits were preferred, but sterile specimens were taken when only those could be located. Vouchers of taxa not native to the United States were collected only from naturalized populations. Manuals used for identification included Diggs et al. (1999) and Ryburn et al. (2018). Identifications were verified by comparison with specimens from the Robert Bebb Herbarium at the University of Oklahoma (OKL). Duration, growth habit, and nativity were determined using the PLANTS database (USDA-NRSC 2023); if the information from PLANTS was ambiguous, Taylor and Taylor (1991) was consulted. Classification and nomenclature follow Angiosperm Phylogeny Group IV (Stevens 2001 onwards) and the Integrated Taxonomic Information System (2023). Vegetation classifications were based on Diamond and Elliott (2015). All specimens were deposited at OKL.

## RESULTS AND DISCUSSION

Five hundred and ninety vascular plant collections were made at LWMA. Five hundred and six specific and infraspecific

taxa in 90 families and 296 genera were collected (Appendix A). Four of these families were ferns and allies, two were conifers, ten were monocots, and 74 were eudicots (Table 1). Four hundred and eighty-seven species and 19 infraspecific taxa were identified. Three-hundred and thirty-two taxa were perennials; there were 166 annuals and eight biennials. The largest families were the Poaceae with 86 taxa and the Asteraceae with 82 taxa. Three-hundred and thirty-four taxa were forbs, and 119 were graminoids. There were 27 trees, 18 shrubs/subshrubs, and eight vines. Four species tracked by the Oklahoma Natural Heritage Inventory (2023) were found, including *Schoenoplectus hallii*, a globally vulnerable species (Table 2). The U.S. Fish and Wildlife Service was petitioned to list *S. hallii* as a federally threatened or endangered species in 2010, but it has not been listed (Federal Register 2011).

Sixty-eight taxa were non-native to the U.S. (13.4 % of the flora). The families with the greatest numbers of exotic taxa were the Poaceae (21 taxa) and the Fabaceae (13 taxa). The genera *Bromus*, *Medicago*, and *Trifolium* had the most exotic species (five, three, and three respectively). *Pinus taeda*, which is native to southeastern Oklahoma, was also found at the WMA, but was most likely planted by a former property owner and has since naturalized.

Based on Diamond and Elliot (2015), LWMA was predicted to be dominated by seven vegetation types, and this prediction was accurate. The types are not discrete; they intergrade, with many taxa found in more than one vegetation type. The predominant vegetation type encountered at the LWMA was ***Crosstimbers post oak/blackjack oak forest and woodland***. This vegetation type is dominated by *Quercus stellata* (post oak) and *Quercus marilandica* (blackjack oak) as well as *Carya texana* (black hickory), *Ulmus alata* (winged elm), and *Juniperus virginiana* (eastern red cedar). Species commonly found in the understory

include *Symphoricarpos orbiculatus* (buck brush), *Toxicodendron radicans* (eastern poison ivy), *Solidago ulmifolia* (elmleaf goldenrod), and *Tridens flavus* (purpletop).

**Crosstimbers pasture and prairie** was the second most common vegetation type at LWMA. This type is dominated by native grass species such as *Schizachyrium scoparium* (little bluestem), *Sorghastrum nutans* (Indian grass), *Bothriochloa laguroides* (silver beardgrass), *Andropogon ternarius* (splitbeard bluestem), and *Andropogon virginicus* (broomsedge bluestem). Non-native grasses are also abundant, including *Cynodon dactylon* (Bermuda grass), *Bromus commutatus* (meadow brome), and *Schedonorus arundinaceus* (tall fescue). Common shrubs found in this vegetation type include *Prunus angustifolia* (Chickasaw plum), *Rhus glabra* (smooth sumac), *Rubus aboriginum* (garden dewberry), and *Rubus allegheniensis* (Allegheny blackberry). *Ambrosia psilostachya* (western ragweed) is an abundant forb in the pasture/prairie. Other common forbs include *Amphibachyris dracunculoides* (prairie broomweed), *Croton capitatus* (hogweed), *Desmanthus illinoensis* (Illinois bundleflower), and *Oenothera glaucifolia* (false gaura).

Another commonly encountered vegetation type was the **South Central Interior riparian hardwood woodland**. This vegetation type is found along the creeks at the LWMA. Species found in this type include *Celtis laevigata* (sugarberry), *Ulmus americana* (American elm), *Ulmus rubra* (slippery elm), and *Acer negundo* (boxelder). *Vitis vulpina* (fox grape), *Lespedeza procumbens* (trailing lespedeza), and *Persicaria virginiana* (jumpseed) are found in the understory.

Other vegetation types found at LWMA included **Crosstimbers young post**

**oak/blackjack oak woodland** and **Crosstimbers post oak/eastern red cedar woodland**. The young post oak/blackjack woodland is found on woodland margins and consists of successional vegetation. Common species include *Quercus stellata* (post oak) and *Quercus marilandica* (blackjack oak), *Rhus* species (sumac), *Tridens flavus* (purpletop tridens), *Smilax bona-nox* (saw greenbrier), and *Schedonorus arundinaceus* (tall fescue). Post oak/eastern red cedar woodland is dominated by *Juniperus virginiana*. Other species include *Quercus stellata* (post oak), *Cercis canadensis* (eastern redbud), *Symphoricarpos orbiculatus* (buck brush), *Elymus virginicus* (Virginia wild rye), and *Baptisia bracteata* (longbract wild indigo).

**Herbaceous wetland vegetation** is restricted to lake margins, ponds, seepy areas, and creek channels. Commonly encountered taxa include *Amorpha fruticosa* (desert false indigo), *Xanthium strumarium* (rough cocklebur), *Teucrium canadense* (Canada germander), *Andropogon glomeratus* (bushy bluestem), *Panicum virgatum* (switchgrass), and multiple species of *Juncus* (rushes).

**Disturbed areas** include sites around structures, parking lots, oil pads, and gravel roads. *Conyza canadensis* (Canadian horseweed), *Helenium amarum* (yellowdicks), *Lespedeza cuneata* (sericea lespedeza), *Oenothera curtiflora* (velvetweed), and *Bromus tectorum* (cheatgrass) are common in disturbed areas, as well as many other weedy species such as *Arenaria serpyllifolia* (thymeleaf sandwort), *Capsella bursa-pastoris* (shepherd's purse), *Taraxacum officinale* (common dandelion), and *Erodium cicutarium* (redstem stork's bill).

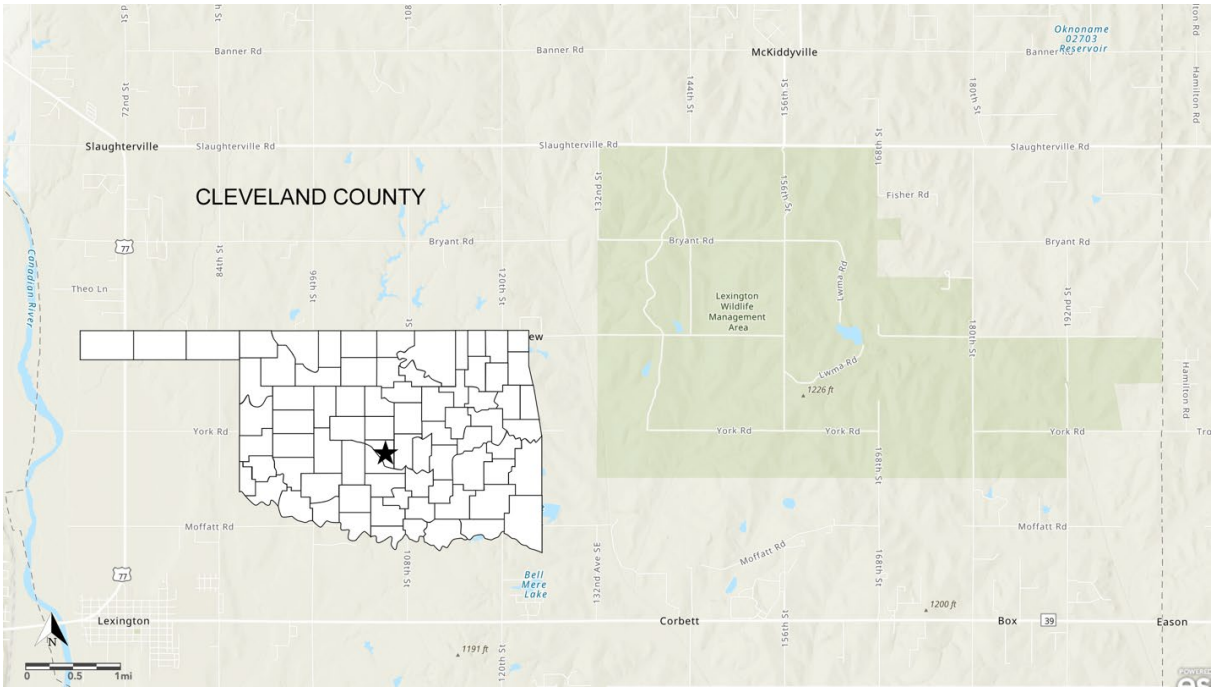


Figure 1 The Lexington Wildlife Management Area.

Table 1 Summary of the floristic inventory performed at the Lexington Wildlife Management Area by major vascular plant groups and resulting number of taxa.

Groups	Families	Genera	Specific and infraspecific taxa	Native Taxa	Nonnative Taxa	Nonnative Taxa Composition %
Ferns and Allies	4	5	5 (0.99%)	5	0	0
Conifers	2	2	2 (0.40%)	2	0	0
Magnoliids/Primitive Angiosperms	0	0	0	0	0	0
Monocots	10	60	132 (26.09%)	111	21	15.91%
Eudicots	74	229	367 (72.53%)	320	47	12.81%
<b>TOTAL</b>	<b>90</b>	<b>296</b>	<b>506</b>	<b>438</b>	<b>68</b>	<b>13.44%</b>

Table 2 Species located during this study that are tracked by the Oklahoma Natural Heritage Inventory (NatureServe Explorer 2023, Oklahoma Natural Heritage Inventory 2023). Status ranks are on a 1-5 scale, with a 1 indicating the taxon is critically imperiled. G ranks are at the global level and S ranks are at the subnational or state level.

Family	Taxon	Rank
Cyperaceae	<i>Schoenoplectus ballii</i> (A. Gray) S.G. Sm.	S1G3
Fabaceae	<i>Desmodium nuttallii</i> (Schindl.) B.G. Schub.	S1G5
Plantaginaceae	<i>Penstemon oklabomensis</i> Pennell	S3G3
Poaceae	<i>Panicum brachyanthum</i> Steud.	S2G5

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**APPENDIX A**  
**List of vascular plant taxa from the Lexington Wildlife Management Area,  
Cleveland County, Oklahoma.**

Taxa list with duration, growth habit, vegetation type, collection number, nativity, and heritage status. A=annual, B=biennial, P=perennial; T=tree, S=shrub/subshrub, V=woody vine, F=forb, G=graminoid; DA=disturbed area, HWV=herbaceous wetland vegetation, PBFW=post oak/blackjack oak forest and woodland, PEFW=Post oak/eastern red cedar forest and woodland, PP=pasture/prairie, RHW=riparian hardwood woodland, YPBW= young post oak/blackjack oak woodland. Exotic taxa are denoted with an asterisk (\*). Taxa native to the U.S. but not native to central Oklahoma are noted with a hash mark (#). Taxa tracked by the Oklahoma Natural Heritage Inventory (2023) are denoted with a dagger (†). Duration, growth habit, and nativity were determined using the PLANTS Database (USDA-NRCS 2023); if the information from PLANTS was ambiguous, Taylor and Taylor (1991) was consulted. Vegetation classifications were based on Diamond and Elliott (2015). Specimens were assigned collection numbers with the prefix *LEX*. Voucher specimens were deposited at the Robert Bebb Herbarium of the University of Oklahoma (OKL).

**Acanthaceae**

*Ruellia humilis* Nutt. (fringeleaf wild petunia); P; F; PP; LEX-206

**Adoxaceae**

*Sambucus nigra* L. ssp. *canadensis* (L.) R. Bolli (elderberry); P; S; PBFW, RHW; LEX-546  
*Viburnum rufidulum* Raf. (rusty blackhaw) P; S; PBFW, PEFW, RHW; LEX-556

**Amaranthaceae**

*Chenopodium pratericola* Rydb. (desert goosefoot) A; F; PBFW, PEFW, YPBW; LEX-539  
*Chenopodium standleyanum* Aellen (Standley's goosefoot); A; F; RHW; LEX-570  
*Cycloloma atriplicifolium* (Spreng.) J.M. Coult. (winged pigweed); A; F; PP; LEX-260  
*Froelichia floridana* (Nutt.) Moq. (cottonweed); A; F; PP; LEX-503

**Amaryllidaceae**

*Allium canadense* L. var. *fraseri* (Ownbey) Traub & Ownbey (Fraser meadow garlic); P; F; PP; LEX-164  
*Allium drummondii* Regel (Drummond's onion); P; F; PP; LEX-073  
*Nothoscordum bivalve* (L.) Britton (crowpoison); P; F; DA, PP; LEX-005

**Anacardiaceae**

*Rhus aromatica* Aiton (fragrant sumac); P; S; PP, YPBW; LEX-036  
*Rhus copallinum* L. (flameleaf sumac); P; S; DA, PP; LEX-353  
*Rhus glabra* L. (smooth sumac); P; S; PP; LEX-200  
*Toxicodendron radicans* (L.) Kuntze (eastern poison ivy); P; V; DA, PBFW, PEFW, RHW, YPBW; LEX-323

**Apiaceae**

*Ammoselinum popei* Torr. & A. Gray (plains sandparsley); A; F; PP; LEX-064  
*Chaerophyllum tainturieri* Hook. (hairyfruit chervil); A; F; PP; LEX-063  
*Daucus pusillus* Michx. (southwest wild carrot); A; F; PP; LEX-209  
*Lomatium foeniculaceum* (Nutt.) J.M. Coult. & Rose (biscuitroot); P; F; PP; LEX-003

*Polytaenia nuttallii* DC. (Nuttall's prairie parsley); P; F; PP; LEX-102  
*Sanicula canadensis* L. (Canadian blacksnakeroot); B; F; PBFW, PEFW, RHW; LEX-182  
*Spermolepis inermis* (Nutt. ex DC.) Mathias & Constance (Red River scaleseed); A; F; PP; LEX-169  
\**Torilis arvensis* (Huds.) Link (hedge parsley); A; F; DA, PP; LEX-199

### Apocynaceae

*Apocynum cannabinum* L. (hemp dogbane); P; F; DA, PP; LEX-196  
*Asclepias amplexicaulis* Sm. (bluntleaf milkweed); P; F; PP; LEX-529  
*Asclepias asperula* (Decne.) Woodson (spider antelope horns); P; F; PP; LEX-106  
*Asclepias stenophylla* A. Gray (slimleaf milkweed); P; F; PP; LEX-531  
*Asclepias tuberosa* L. (butterflyweed); P; F; PP; LEX-195  
*Asclepias verticillata* L. (eastern whorled milkweed); P; F; PP; LEX-370  
*Asclepias viridiflora* Raf. (green milkweed); P; F; PP; LEX-578  
*Asclepias viridis* Walter (green antelopehorn); P; F; PP; LEX-105  
*Gonolobus suberosus* (L.) Br. var. *granulatus* (Scheele) Krings & Q.Y. Xiang (angularfruit milkvine); P; F; RHW; LEX-552

### Araliaceae

*Hydrocotyle verticillata* Thunb. (whorled pennyroyal) P; F; HWV; LEX-382

### Asparagaceae

*Androstaphium coeruleum* (Schelle) Greene (blue funnel lily); P; F; PP; LEX-034  
*Yucca arkansana* Trel. (Arkansas yucca); P; F; PP; LEX-116

### Aspleniaceae

*Asplenium platyneuron* (L.) Britton, Sterns & Poggenb. (ebony spleenwort); P; F; PBFW, PEFW, RHW; LEX-466

### Asteraceae

*Achillea millefolium* L. (common yarrow); P; F; DA, PP; LEX-121  
*Ageratina altissima* (L.) King & H. Rob. (white snakeroot); P; F; PBFW, RHW; LEX-469  
*Ambrosia artemisiifolia* L. (annual ragweed); A; F; YPBW; LEX-255  
*Ambrosia psilostachya* DC. (western ragweed); A; F; DA, PP; LEX-429  
*Ambrosia trifida* L. (great ragweed); A; F; DA, HWV; LEX-407  
*Amphiachyris dracunculoides* (DC.) Nutt. (prairie broomweed); A; F; DA, PP; LEX-420  
*Antennaria neglecta* Greene (field pussytoes); P; F; PEFW, YPBW; LEX-567  
*Antennaria parlinii* Fernald (Parlin's pussytoes); P; F; PBFW, PEFW; LEX-042  
*Arnoglossum plantagineum* Raf. (groovestem Indian plantain); P; F; PP; LEX-190  
*Artemisia ludoviciana* Nutt. (white sagebrush); P; F; PP, YPBW; LEX-474  
*Bidens bipinnata* L. (Spanish needles); A; F; HWV; LEX-430  
*Bidens aristosa* (Michx.) Britton (bearded beggarticks); A; F; HWV; LEX-297  
*Bradburia pilosa* (Nutt.) Semple (soft golden aster); A; F; DA, PP; LEX-392  
*Brickellia eupatorioides* (L.) Shinnars var. *texana* (Shinnars) Shinnars (false boneset); P; F; PP; LEX-572  
\**Carduus nutans* L. (musk thistle); B; F; DA, PP; LEX-191  
*Cirsium altissimum* (L.) Hill (tall thistle); B; F; PBFW, PEFW, PP, YPBW; LEX-442  
*Cirsium undulatum* (Nutt.) Spreng. (wavyleaf thistle); P; F; PP; LEX-341



*Conoclinium coelestinum* (L.) DC (blue mistflower); P; F; HWV; LEX-408  
*Conyza canadensis* (L.) Cronquist (Canadian horseweed); A; F; DA, PP; LEX-405  
*Coreopsis grandiflora* Hogg ex Sweet (largeflower tickseed); P; F; PP; LEX-220  
*Coreopsis tinctoria* Nutt. (golden tickseed); A; F; DA, PP; LEX-359  
*Croptilon hookerianum* (Torr. & A. Gray) House (Hooker's scratchdaisy); A; F; PP; LEX-257  
*Diaperia verna* (Raf.) Morefield (springy pygmyweed); A; F; DA, PP; LEX-077  
*Echinacea angustifolia* DC. (blacksamson echinacea); P; F; PP; LEX-178  
*Eclipta prostrata* (L.) L. (false daisy) A; F; HWV; LEX-443  
*Elephantopus carolinianus* Raeusch. (Carolina elephantsfoot); P; F; PBFW, PEFW; LEX-450  
*Erechtites hieraciifolius* (L.) Raf. ex DC. (burnweed); A; F; PBFW, PEFW, YPBW; LEX-295  
*Erigeron strigosus* Muhl. ex Willd. (prairie fleabane); A; F; DA, PP; LEX-056  
*Eupatorium altissimum* L. (tall thoroughwort); P; F; PP; LEX-456  
*Eupatorium perfoliatum* L. (common boneset); P; F; HWV; LEX-290  
*Eupatorium serotinum* Michx. (lateflowering thoroughwort); P; F; DA, HWV; LEX-444  
*Euthamia gymnospermoides* Greene (Texas goldentop); P; F; PP; LEX-494  
*Gaillardia aestivalis* (Walter) H. Rock (lanceleaf blanketflower); P; F; PP; LEX-287  
*Gamochaeta argyrinea* G.L. Nesom (silvery cudweed); A; F; DA, PP; LEX-075  
*Grindelia ciliata* (Nutt.) Spreng. (Spanish gold); A; F; DA, PP; LEX-435  
*Helenium amarum* (Raf.) H. Rock (yellowdicks); A; F; DA, PP; LEX-434  
*Helianthus annuus* L. (common sunflower); A; F; DA, PP; LEX-373  
*Helianthus hirsutus* Raf. (hairy sunflower); P; F; YPBW; LEX-364  
*Helianthus maximiliani* Schrad. (Maximilian sunflower); P; F; PP; LEX-457  
*Helianthus mollis* Lam. (ashy sunflower); P; F; PP; LEX-340  
*Helianthus pauciflorus* Nutt. (stiff sunflower); P; F; PP; LEX-417  
*Helianthus tuberosus* L. (Jerusalem artichoke); P; F; DA, PP; LEX-574  
*Heterotheca subaxillaris* (Lam.) Britton & Rusby (camphorweed); A; F; DA, PP; LEX-291  
*Hieracium longipilum* Torr. (hairy hawkweed); P; F; PBFW, PEFW; LEX-324  
*Hymenopappus tenuifolius* Pursh (Chalkhill woollywhite); B; F; PP; LEX-150  
*Iva angustifolia* Nutt. ex DC. (narrowleaf marsh Elder); A; F; DA, HWV; LEX-282  
*Lactuca ludoviciana* (Nutt.) Riddell (biannual lettuce); A; F; PBFW, PEFW, YPBW; LEX-244  
*\*Lactuca serriola* L. (prickly lettuce); A; F; DA, PP; LEX-348  
*Liatris punctata* Hook. (dotted blazing star); P; F; PP; LEX-452  
*Liatris squarrosa* (L.) Michx. (scaly blazing star); P; F; YPBW; LEX-401  
*Marshallia caespitosa* Nutt. ex DC. (puffballs); P; F; PP; LEX-221  
*Pluchea camphorata* (L.) DC. (camphorweed); P; F; HWV; LEX-502  
*Pluchea odorata* (L.) Cass. (sweetscent); A; F; HWV; LEX-551  
*Pseudognaphalium obtusifolium* (L.) Hilliard & B.L. Burt (rabbit tobacco); A; F; PBFW, PEFW; LEX-491  
*Pyrrhopappus carolinianus* (Walter) DC. (Carolina desert chicory); A; F; DA, PP; LEX-180  
*Pyrrhopappus grandiflorus* (Nutt.) Nutt. (tuberous desert chicory); P; F; DA, PP; LEX-114  
*Ratibida columnifera* (Nutt.) Woot. & Standl. (upright prairie coneflower); P; F; PP; LEX-214  
*Rudbeckia amplexicaulis* Vahl (clasping coneflower); A; F; PP; LEX-346  
*Rudbeckia hirta* L. (blackeyed Susan); P; F; PP; LEX-205  
*Silphium asteriscus* L. (starry rosinweed); P; F; PP; LEX-327  
*Silphium laciniatum* L. (compassplant); P; F; PP; LEX-371  
*Solidago altissima* L. ssp. *gilvocanescens* (Rydb.) Semple (Great Plains late goldenrod); P; F; DA, HWV; LEX-272  
*Solidago canadensis* L. (Canada goldenrod); P; F; DA, PP; LEX-516

- Solidago missouriensis* Nutt. (Missouri goldenrod); P; F; PP; LEX-480  
*Solidago nemoralis* Aiton (gray goldenrod); P; F; PP; LEX-468  
*Solidago rigida* L. (stiff-leaved goldenrod); P; F; PP; LEX-283  
*Solidago speciosa* Nutt. (showy goldenrod); P; F; PP; LEX-515  
*Solidago ulmifolia* Muhl. ex Willd. (elmleaf goldenrod); P; F; PBFW, PEFW, YPBW; LEX-404  
\**Sonchus asper* (L.) Hill (spiny sowthistle); A; F; DA; LEX-122  
*Symphotrichum drummondii* (Lindl.) G.L. Nesom (Drummond's aster); P; F; PBFW, PEFW, YPBW;  
LEX-462  
*Symphotrichum ericoides* (L.) G.L. Nesom (white heath aster); P; F; PP; LEX-454  
*Symphotrichum oolentangiense* (Riddell) G.L. Nesom (skyblue aster); P; F; PBFW, PEFW, YPBW;  
LEX-521  
*Symphotrichum praealtum* (Poir.) G.L. Nesom (willowleaf aster); P; F; PBFW, PEFW, YPBW;  
LEX-520  
*Symphotrichum subulatum* (Michx.) G.L. Nesom (eastern annual saltmarsh aster); A; F; DA, HWV;  
LEX-550  
\**Taraxacum officinale* F.H. Wigg. (common dandelion); P; F; DA; LEX-014  
*Tetraneuris linearifolia* (Hook.) Greene (fineleaf fournerved daisy); A; F; PP; LEX-093  
*Thelesperma filifolium* (Hook.) A. Gray (stiff greenthread); P; F; PP; LEX-218  
\**Tragopogon dubius* Scop. (yellow salsify); A; F; DA, PP; LEX-099  
*Verbesina helianthoides* Michx. (gravelweed); P; F; PBFW, YPBW; LEX-530  
*Verbesina virginica* L. (white crownbeard); P; F; PBFW, PEFW, YPBW; LEX-292  
*Vernonia baldwinii* (Baldwin's ironweed); P; F; PP; LEX-368  
*Xanthium strumarium* L. (rough cocklebur); A; F; HWV; LEX-441

### **Bignoniaceae**

- Campsis radicans* (L.) Seem. ex Bureau (trumpet creeper); P; V; DA, YPBW; LEX-378

### **Boraginaceae**

- \**Buglossoides arvensis* (L.) I.M. Johnst. (field gromwell); A; F; DA; LEX-028  
*Lithospermum incisum* Lehm. (fringed gromwell); P; F; PP; LEX-033  
*Myosotis macrosperma* Engelm. (largeseed forget-me-not); A; F; PBRW, PEFW, YPBW; LEX-069

### **Brassicaceae**

- Boechera canadensis* (L.) Al-Shehbaz (sicklepod); B; F; PBFW, PEFW; LEX-082  
\**Capsella bursa-pastoris* (L.) Medik. (shepherd's purse); A; F; DA; LEX-002  
\**Cardamine hirsuta* L. (hairy bittercress); A; F; DA, PBFW, YPBW; LEX-021  
*Draba brachycarpa* Nutt. ex Torr. & A. Gray (shortpod draba); A; F; DA; LEX-016  
*Draba cuneifolia* Nutt. ex Torr. & A. Gray (wedgeleaf draba); A; F; PP; LEX-047  
\**Lepidium densiflorum* Schrad. (miner's pepperwort); A; F; DA; LEX-054  
*Lepidium oblongum* Small (veiny pepperweed); A; F; DA; LEX-046  
*Rorippa palustris* (L.) Besser (bog marshcress); A; F; HWV; LEX-071

### **Cactaceae**

- Opuntia humifusa* (Raf.) Raf. (devil's tongue); P; S; PP; LEX-500

### **Campanulaceae**

- Lobelia appendiculata* A. DC. (earflower lobelia); B; F; PP; LEX-149

*Triodanis perfoliata* (L.) Nieuwl. ssp. *biflora* (Ruix & Pav.) Lammers (clasping Venus' lookingglass); A; F; DA, PP; LEX-543

*Triodanis perfoliata* (L.) Nieuwl. ssp. *perfoliata* (clasping bellwort); A; F; DA, PP; LEX-174

### **Cannabaceae**

*Celtis laevigata* Willd. (sugarberry); P; T; PBFW, PEFW, YPBW; LEX-111

### **Caprifoliaceae**

*Symphoricarpos orbiculatus* Moench (buck brush); P; S; PBFW, PEFW, YPBW; LEX-422

### **Caryophyllaceae**

\**Arenaria serpyllifolia* L. (thymeleaf sandwort); A; F; DA; LEX-109

\**Cerastium glomeratum* Thuill. (sticky chickweed); A; F; DA; LEX-012

\**Cerastium pumilum* W. Curtis (European chickweed); A; F; DA; LEX-013

*Paronychia jamesii* Torr. & A. Gray (James' nailwort); P; F; PP; LEX-263

*Silene antirrhina* L. (catchfly); A; F; DA, PP; LEX-232

\**Stellaria pallida* (Dumort.) Crép. (common chickweed); A; F; DA; LEX-017

### **Celastraceae**

*Celastrus scandens* L. (staffvine); P; V; PBFW, PEFW, YPBW; LEX-152

\**Euonymus fortunei* (Turcz.) Hand.-Maz. (winter creeper); P; S; PBFW, YPBW; LEX-067

### **Cistaceae**

*Lechea mucronata* Raf. (hairy pinweed); P; F; PP; LEX-329

*Lechea tenuifolia* Michx. (narrowleaf pinweed); P; F; PP; LEX-328

### **Commelinaceae**

*Commelina erecta* L. (erect dayflower); P; F; HWV, PP; LEX-314

*Tradescantia ohioensis* Raf. (Ohio spiderwort); P; F; PP; LEX-130

### **Convolvulaceae**

*Cuscuta cuspidata* Engelm. (cusp dodder); P; F; PP; LEX-280

*Cuscuta pentagona* Engelm. var. *pentagona* (fiveangled dodder); A; F; DA, PP; LEX-532

*Evolvulus nuttallianus* Schult. (prostrate Evolvulus); P; F; PP; LEX-330

\**Ipomoea hederacea* Jacq. (entireleaf morningglory); A; F; DA; LEX-249

### **Cornaceae**

*Cornus drummondii* C.A. Mey. (roughleaf dogwood); P; T; PBFW, PEFW, YPBW; LEX-233

### **Cupressaceae**

*Juniperus virginiana* L. (eastern red cedar); P; T; PBFW, PEFW, YPBW; LEX-120

### **Cyperaceae**

*Carex albicans* Willd. ex Spreng. (whitetinge sedge); P; G; PBFW, PEFW; LEX-019

*Carex aureolensis* Steud. (golden cattail sedge); P; G; HWV; LEX-138

*Carex austrina* Mack. (southern sedge); P; G; PP; LEX-586

*Carex brevior* (Dewey) Mack. (fescue sedge); P; G; HWV; LEX-137

*Carex bushii* Mack. (Bush's sedge); P; G; PP; LEX-131  
*Carex flaccosperma* Dewey (thinfuit sedge); P; G; PBFW, PEFW; LEX-136  
*Carex granularis* Muhl. ex Willd. (limestone meadow sedge); P; G; PBFW, PEFW; LEX-139  
*Carex gravida* L.H. Bailey (heavy sedge); P; G; PP; LEX-133  
*Carex leavenworthii* Dewey (Leavenworth's sedge); P; G; PP; LEX-587  
*Carex microdonta* Torr. & Hook. (littletooth sedge); P; G; HWV; LEX-132  
*Carex vulpinoidea* Michx. (common fox sedge); P; G; PP; LEX-135  
*Cyperus acuminatus* Torr. & Hook. ex Torr. (taperleaf flatsedge); P; G; HWV; LEX-308  
*Cyperus echinatus* (L.) Alph. Wood (globe flatsedge); P; G; DA, PP; LEX-381  
*Cyperus lupulinus* (Spreng.) Marcks (Great Plains flatsedge); P; G; PP; LEX-541  
*Cyperus pseudovegetus* Steud. (marsh flatsedge); P; G; HWV; LEX-238  
*Cyperus strigosus* L. (strawcolored flatsedge); P; G; HWV; LEX-319  
*Eleocharis geniculata* (L.) Roem. & Schult. (Canada spikesedge); A; G; HWV; LEX-548  
*Eleocharis obtusa* (Willd.) Schult. (blunt spikesedge); A; G; HWV; LEX-237  
*Fimbristylis autumnalis* (L.) Roem. & Schult. (slender fimbry); A; G; HWV; LEX-448  
*Fimbristylis puberula* (Michx.) Vahl (hairy fimbry); P; G; PP; LEX-162  
*Fimbristylis vahlii* (Lam.) Link (Vahl's fimbry); A; G; HWV; LEX-459  
*Fuirena simplex* Vahl (western umbrella sedge); P; G; HWV; LEX-309  
*Rhynchospora harveyi* W. Boott (Harvey's beaksedge); P; G; PP; LEX-163  
†*Schoenoplectus hallii* (A. Gray) S.G. Sm. (Hall's bulrush); A; G; HWV; LEX-560; S1G3  
*Scirpus atrovirens* Willd. (dark green bulrush); P; G; HWV; LEX-145  
*Scirpus pendulus* Muhl. (pendulous bulrush); P; G; HWV; LEX-074  
*Scleria ciliata* Michx. (fringed nutrush); P; G; PP; LEX-166

### **Ebenaceae**

*Diospyros virginiana* L. (eastern persimmon); P; T; PBFW, PEFW, YPBW; LEX-087

### **Equisetaceae**

*Equisetum x ferrissii* Clute (pro sp.) (Ferriss' horsetail); P; F; HWV; LEX-259

### **Euphorbiaceae**

*Acalypha gracilens* A. Gray (slender copperleaf); A; F; PP; LEX-246  
*Acalypha monococca* (Engelm. ex A. Gray) Lill. W. Mill. & Gandhi (slender threeseed mercury); A; F; PBFW; LEX-247  
*Acalypha rhomboidea* Raf. (Virginia threeseed mercury); A; F; RHW; LEX-523  
*Acalypha virginica* L. (Virginia copperleaf); A; F; RHW; LEX-563  
*Cnidoscolus texanus* (Müll. Arg.) Small (Texas bullnettle); P; F; DA, PP; LEX-211  
*Croton capitatus* Michx. (hogweed); A; F; DA, PP; LEX-302  
*Croton glandulosus* L. var. *lindheimeri* Müll. Arg. (tropic croton); A; F; DA; LEX-394  
*Croton monathogynus* Michx. (prairie tea); A; F; DA, PP; LEX-355  
*Euphorbia corollata* L. (flowering spurge); P; F; PP; LEX-425  
*Euphorbia cyathophora* Murray (fire on the mountain); A; F; PBFW, PEFW, YPBW; LEX-413  
\**Euphorbia davidii* Subils (David's spurge); A; F; DA; LEX-575  
*Euphorbia dentata* Michx. (toothed spurge); A; F; PBFW, PEFW, PP, YPBW; LEX-276  
*Euphorbia maculata* L. (milk purslane); A; F; DA, PP; LEX-300  
*Euphorbia marginata* Pursh (snow on the mountain); A; F; PP; LEX-418  
*Euphorbia nutans* Lag. (eyebane); A; F; DA, PP; LEX-505

*Euphorbia spathulata* Lam. (roughpod spurge); A; F; PP; LEX-192  
*Euphorbia stictospora* Engelm. (slimseed sandmat); A; F; DA; LEX-549  
*Stillingia sylvatica* L. (queen's delight); P; F; PP; LEX-294  
*Tragia betonicifolia* Nutt. (betonyleaf noseburn); P; F; PP; LEX-184

### Fabaceae

*Acacia angustissima* (Mill.) Kuntze (prairie acacia); P; F; PP; LEX-374  
*Amorpha canescens* Pursh (leadplant); P; F; PP; LEX-351  
*Amorpha fruticosa* L. (desert false indigo); P; S; HWV; LEX-101  
*Amphicarpaea bracteata* (L.) Fernald (American hog peanut); A; F; PBFW, PEFW, RHW; LEX-431  
*Apios americana* Medik. (groundnut); P; F; HWV; LEX-554  
*Astragalus crassicaarpus* Nutt. (groundplum milkvetch); P; F; PP; LEX-080  
*Baptisia australis* (L.) R. Br. (blue wild indigo); P; F; PP; LEX-108  
*Baptisia bracteata* Muhl. Ex Elliott (longbract wild indigo); P; F; PBFW, PEFW; LEX-431  
*Cercis canadensis* L. (eastern redbud); P; T; PBFW, PEFW, YPBW; LEX-035  
*Chamaecrista fasciculata* (Michx.) Greene (partridge pea); A; F; DA, PP; LEX-339  
*Chamaecrista nictitans* (L.) Moench (sensitive partridge pea); A; F; PP; LEX-440  
*Clitoria mariana* L. (pigeonwings); P; F; PBFW, PEFW, YPBW; LEX-403  
*Crotalaria sagittalis* L. (arrowhead rattlebox); P; F; PP; LEX-345  
*Dalea aurea* Nutt. ex Fraser (golden prairie clover); P; F; PP; LEX-361  
*Dalea candida* Michx. ex Willd. (white prairie clover); P; F; PP; LEX-236  
*Dalea enneandra* Nutt. ex Fraser (nineanther prairie clover); P; F; PP; LEX-336  
*Dalea purpurea* Vent. (purple prairie clover); P; F; PP; LEX-360  
*Desmanthus illinoensis* (Michx.) MacMill. ex B.L. Rob. & Fernald (Illinois bundleflower); P; F; DA, PP; LEX-213  
*Desmanthus leptolobus* Torr. & A. Gray (slenderlobe bundleflower); P; F; PP; LEX-477  
*Desmodium glutinosum* (Muhl. ex Willd.) Alph. Wood (pointedleaf ticktrefoil); P; F; RHW; LEX-566  
*Desmodium marilandicum* (L.) DC. (smooth small leaf ticktrefoil); P; F; PP; LEX-476  
†*Desmodium nuttallii* (Schindl.) B.G. Schub. (Nuttall's ticktrefoil); P; F; PP; LEX-526; S1G5  
*Desmodium obtusum* (Muhl. ex Willd.) DC. (stiff ticktrefoil); P; F; PBFW, YPBW; LEX-492  
*Desmodium paniculatum* (L.) DC. (panicledleaf ticktrefoil); P; F; PBFW, YPBW; LEX-490  
*Desmodium sessilifolium* (Torr.) Torr. & A. Gray (sessileleaf ticktrefoil); P; F; PP; LEX-342  
*Desmodium viridiflorum* (L.) DC. (velvetleaf ticktrefoil); P; F; PBFW, YPBW; LEX-475  
*Galactia regularis* (L.) Britton, Sterns & Poggenb. (eastern milkpea); P; F; PP; LEX-426  
\**Kummerowia striata* (Thunb.) Schindl. (Japanese clover); A; F; DA; LEX-267  
\**Lathyrus hirsutus* L. (Caley pea); A; F; DA; LEX-535  
\**Lespedeza cuneata* (Dum. Cours.) G. Don (sericea lespedeza); P; F; DA, PP; LEX-433  
*Lespedeza procumbens* Michx. (trailing lespedeza); P; F; RHW; LEX-582  
*Lespedeza stuevei* Nutt. (tall lespedeza); P; F; PP; LEX-446  
*Lespedeza virginica* (L.) Britton (slender lespedeza); P; F; PP; LEX-421  
\**Medicago lupulina* L. (black medick); A; F; DA; LEX-544  
\**Medicago minima* (L.) L. ex Bartal. (burr medick); A; F; DA; LEX-066  
\**Medicago sativa* L. (alfalfa); P; F; PP; LEX-203  
\**Melilotus albus* Medik. (white sweetclover); A; F; PP; LEX-197  
\**Melilotus officinalis* (L.) Lam. (yellow sweetclover); A; F; DA, PP; LEX-198  
*Mimosa nuttallii* (DC. ex Britton & Rose) B.L. Turner (Nuttall's sensitivebriar); P; F; PP; LEX-181  
*Neptunia lutea* (Leavenw.) Benth. (yellow puff); P; F; PP; LEX-335

*Psoralidium tenuiflorum* (Pursh) Rudb. (slimflower scurfpea); P; F; PP; LEX-115  
*Rhynchosia latifolia* Nutt. ex Torr. & A. Gray (prairie snoutbean); P; F; PP; LEX-243  
*Robinia pseudoacacia* L. (black locust); P; T; PBFW, PEFW, YPBW; LEX-455  
*Strophostyles helvola* (L.) Elliott (amberique-bean); A; F; PBFW, PEFW, YPBW; LEX-414  
*Strophostyles leiosperma* (Torr. & A. Gray) Piper (slickseed fuzzybean); A; F; PBFW, PEFW, YPBW;  
LEX-410  
*Stylosanthes biflora* (L.) Britton, Sterns & Poggenb. (sidebeak pencilflower); P; F; PP; LEX-222  
*Tephrosia virginiana* (L.) Pers. (Virginia tephrosia); P; F; PBFW, PEFW, YPBW; LEX-545  
\**Trifolium campestre* Schreb. (lesser hop clover); A; F; DA; LEX-061  
\**Trifolium pratense* L. (red clover); B; F; DA; LEX-068  
\**Trifolium repens* L. (white clover); P; F; DA; LEX-029  
*Vicia caroliniana* Walter (Carolina vetch); P; F; DA; LEX-148  
\**Vicia sativa* L. (garden vetch); A; F; DA; LEX-027  
\**Vicia villosa* Roth (winter vetch); A; F; DA; LEX-527

### **Fagaceae**

*Quercus marilandica* Münchh. (blackjack oak); P; T; PBFW, PEFW, YPBW; LEX-110  
*Quercus muehlenbergii* Engelm. (chinkapin oak); P; T; PBFW, RHW; LEX-119  
*Quercus shumardii* Buckley (Shumard's oak); P; T; PBFW, PEFW; LEX-525  
*Quercus stellata* Wangenh. (post oak); P; T; PBFW, PEFW, YPBW; LEX-117  
*Quercus velutina* Lam. (black oak); P; T; PBFW, PEFW, YPBW; LEX-076

### **Gentianaceae**

*Sabatia angularis* (L.) Pursh (squarestem rosegentian); A; F; PP; LEX-337  
*Sabatia campestris* Nutt. (meadow pink); A; F; DA, PP; LEX-400

### **Geraniaceae**

\**Erodium cicutarium* (L.) L'Hér. ex Aiton (redstem stork's bill); A; F; DA; LEX-113  
*Geranium carolinianum* L. (Carolina crane's bill); A; F; DA; LEX-059

### **Grossulariaceae**

*Ribes aureum* Pursh var. *villosum* DC. (golden currant); P; S; RHW; LEX-007

### **Haloragaceae**

\**Myriophyllum spicatum* L. (Eurasian water milfoil); P; F; HWV; LEX-299  
*Myriophyllum verticillatum* L. (whorled watermilfoil); P; F; HWV; LEX-234

### **Heliotropiaceae**

*Heliotropium tenellum* (Nutt.) Torr. (pasture heliotrope); A; F; DA, PP; LEX-376

### **Hypericaceae**

*Hypericum drummondii* (Grev. & Hook.) Torr. & A. Gray (nits and lice); A; F; PP; LEX-343  
*Hypericum hypericoides* (L.) Crantz (St. Andrew's cross); P; F; PBFW, PEFW, YPBW; LEX-365  
*Hypericum punctatum* Lam. (spotted St. Johnswort); P; F; PBFW, PEFW, YPBW; LEX-383

### **Iridaceae**

*Sisyrinchium campestre* E.P. Bicknell (prairie blue-eyed grass); P; F; PP; LEX-040

*Sisyrinchium pruinatum* E.P. Bicknell (dotted blue-eyed grass); P; F; PP; LEX-070

### Juglandaceae

*Carya illinoensis* (Wangenh.) K. Koch (pecan); P; T; RHW; LEX-498

*Carya texana* Buckley (black hickory); P; T; PBFW, PEFW, YPBW; LEX-518

### Juncaceae

*Juncus diffusissimus* Buckley (slimpod rush); P; G; HWV; LEX-332

*Juncus dudleyi* Wiegand (Dudley's rush); P; G; HWV; LEX-161

*Juncus effusus* L. (common rush); P; G; HWV; LEX-185

*Juncus marginatus* Rostk. (grassleaf rush); P; G; HWV; LEX-159

*Juncus scirpoides* Lam. (needlepod rush); P; G; HWV; LEX-261

*Juncus tenuis* Willd. (field rush); P; G; DA, PP; LEX-142

### Krameriaceae

*Krameria lanceolata* Torr. (trailing ratany); P; F; PP; LEX-193

### Lamiaceae

*Agastache nepetoides* (L.) Kuntze (catnip giant hyssop); P; F; PP; LEX-590

*Hedeoma hispida* Pursh (rough pennyroyal); P; F; PP; LEX-177

*Hedeoma reverchonii* (A. Gray) A. Gray (Reverchon's false pennyroyal); P; F; PP; LEX-321

\**Lamium amplexicaule* L. (common henbit); A; F; DA; LEX-008

*Lycopus americanus* Muhl. ex W.P.C. Bartram (water horehound); P; F; HWV; LEX-313

*Monarda fistulosa* L. (wild bergamont); P; F; PP; LEX-387

*Salvia azurea* Michx. ex Lam. (blue sage); P; F; PP; LEX-579

*Scutellaria parvula* Michx. (small skullcap); P; F; PP; LEX-084

*Teucrium canadense* L. (Canada germander); P; F; HWV; LEX-391

### Lentibulariaceae

*Utricularia gibba* L. (humped bladderwort); P; F; HWV; LEX-318

### Linaceae

*Linum rigidum* Pursh (orange flax); A; F; PP; LEX-171

*Linum sulcatum* Riddell (grooved yellow flax); A; F; PP; LEX-245

### Linderniaceae

*Lindernia dubia* (L.) Pennell (moistbank pimpernel); A; F; HWV; LEX-436

### Loganiaceae

*Mitreola petiolata* (J.F. Gmel.) Torr. & A. Gray (lax hornpod); A; F; HWV; LEX-412

### Lythraceae

*Ammannia coccinea* Rottb. (valley redstem); A; F; HWV; LEX-485

*Lythrum alatum* Pursh (winged lythrum); P; F; HWV; LEX-388

*Rotala ramosior* (L.) Koehne (lowland toothcup); A; F; HWV; LEX-271

### **Malvaceae**

- Callirhoe alcaeoides* (Michx.) A. Gray (plains poppymallow); P; F; PP; LEX-104  
*Callirhoe involucrata* (Torr. & A. Gray) A. Gray (purple poppymallow); P; F; PP; LEX-207  
\**Sida abutilifolia* Mill. (spreading fanpetals); P; F; DA; LEX-279

### **Menispermaceae**

- Cocculus carolinus* (L.) DC. (redberry moonseed); P; F; PBFW, PEFW, YPBW; LEX-296

### **Molluginaceae**

- Mollugo verticillata* L. (carpetweed); A; F; DA; LEX-347

### **Montiaceae**

- Phemeranthus parviflorus* (Nutt.) Kiger (sunbright); P; F; PP; LEX-589

### **Moraceae**

- \**Morus alba* L. (white mulberry); P; T; PBFW, PEFW, YPBW; LEX-473  
*Morus rubra* L. (red mulberry); P; T; PBFW, PEFW, YPBW; LEX-230

### **Nelumbonaceae**

- Nelumbo lutea* Willd. (American lotus); P; F; HWV; LEX-380

### **Nyctaginaceae**

- Mirabilis albida* (Walter) Heimerl (white four o'clock); P; F; PP; LEX-252

### **Oleaceae**

- \**Ligustrum sinense* Lour. (Chinese privet); P; S; PBFW, PEFW, YPBW; LEX-472

### **Onagraceae**

- Ludwigia alternifolia* L. (bushy seedbox); P; F; HWV; LEX-386  
*Ludwigia palustris* (L.) Elliott (marsh primrose willow); P; F; HWV; LEX-144  
*Ludwigia peploides* (Kunth) P.H. Raven (floating primrose); P; F; HWV; LEX-153  
*Oenothera berlandieri* (Spach) Steud. (Berlandier's sundrops); P; F; PP; LEX-078  
*Oenothera curtiflora* W.L. Wagner & Hoch (velvetweed); A; F; DA, PP; LEX-293  
*Oenothera filiformis* (Small) W.L. Wagner & Hoch (longflower beeblossom); A; F; DA; LEX-298  
*Oenothera glaucifolia* W.L. Wagner & Hoch (false gaura); P; F; PP; LEX-427  
*Oenothera laciniata* Hill (cutleaf eveningprimrose); P; F; DA, PP; LEX-086  
*Oenothera linifolia* Nutt. (threadleaf sundrop); A; F; PP; LEX-223  
*Oenothera macrocarpa* Nutt. (bigfruit evening primrose); P; F; PP; LEX-216  
*Oenothera rhombipetala* Nutt. ex Torr & A. Gray (fourpoint evening primrose); P; F; PP; LEX-402  
*Oenothera speciosa* Nutt. (showy evening primrose); P; F; PP; LEX-126  
*Oenothera villosa* Thunb. (hairy evening primrose); P; F; DA; LEX-509

### **Ophioglossaceae**

- Botrychium virginianum* (L.) Sw. (rattlesnake fern); P; F; RHW; LEX-571  
*Ophioglossum engelmannii* Prantl (limestone adder's tongue); P; F; PP; LEX-125



**Orobanchaceae**

- Agalinis fasciculata* (Elliott) Raf. (beach false foxglove); A; F; PP; LEX-268  
*Agalinis heterophylla* (Nutt.) Small (prairie false foxglove); A; F; PP; LEX-274  
*Buchnera americana* L. (American bluehearts); P; F; PP; LEX-372  
*Castilleja indivisa* Engelm. (entireleaf Indian paintbrush); A; F; PP; LEX-103

**Oxalidaceae**

- Oxalis corniculata* L. (yellow Oxalis); P; F; DA; LEX-044  
*Oxalis violacea* L. (violet woodsorrel); P; F; PBFW, PEFW, PP, YPBW; LEX-026

**Passifloraceae**

- Passiflora incarnata* L. (purple passionflower); P; F; DA, PP; LEX-286

**Penthoraceae**

- Penthorum sedoides* L. (ditch stonecrop); P; F; HWV; LEX-397

**Phrymaceae**

- Mimulus alatus* Aiton (sharpwing monkeyflower); P; F; HWV; LEX-411  
*Phryma leptostachya* L. (lopseed); P; F; PBFW, PEFW, RHW, YPBW; LEX-231

**Phytolaccaceae**

- Phytolacca americana* L. (pokeweed); P; F; DA, PP; LEX-284

**Pinaceae**

- #*Pinus taeda* L. (loblolly pine); P; T; PP; LEX-555

**Plantaginaceae**

- Leucospora multifida* (Michx.) Nutt. (narrowleaf paleseed); A; F; HWV; LEX-331  
*Nuttallanthus texanus* (Scheele) D.A. Sutton (Texas toadflax); A; F; DA, PP; LEX-143  
*Penstemon cobaea* Nutt. (cobea beardtongue); P; F; PP; LEX-123  
†*Penstemon oklahomensis* Pennell (Oklahoma penstemon); P; F; PP; LEX-094; S3G3  
*Plantago aristata* Michx. (largebracted plantain); A; F; PP; LEX-204  
*Plantago patagonica* Jacq. (wooly plantain); A; F; PP; LEX-055  
*Plantago virginica* L. (Virginia plantain); A; F; PP; LEX-062  
\**Veronica arvensis* L. (rock speedwell); A; F; DA; LEX-043  
*Veronica peregrina* L. (purslane speedwell); A; F; PP; LEX-096  
\**Veronica persica* Poir. (winter speedwell); A; F; DA; LEX-018

**Poaceae**

- Agrostis hyemalis* (Walter) Britton, Sterns & Poggenb. (winter bentgrass); P; G; PP; LEX-173  
*Andropogon gerardii* Vitman (big bluestem); P; G; PP; LEX-338  
*Andropogon glomeratus* (Walter) Britton, Sterns & Poggenb. (bushy bluestem); P; G; HWV; LEX-464  
*Andropogon ternarius* Michx. (splitbeard bluestem); P; G; PP; LEX-467  
*Andropogon virginicus* L. (broomsedge bluestem); P; G; PP; LEX-460  
*Aristida basiramea* Engelm. ex Vasey (forked threeawn); A; G; PP; LEX-482  
*Aristida desmantha* Trin. & Rupr. (curly threeawn); A; G; PP; LEX-496  
*Aristida oligantha* Michx. (prairie threeawn); A; G; DA, DA, PP; LEX-481

- Aristida purpurascens* Poir. (arrowfeather threeawn); P; G; PP; LEX-495  
*Aristida purpurea* Nutt. var. *purpurea* (purple threeawn); P; G; PP; LEX-147  
*Aristida purpurea* Nutt. var. *wrightii* (Nash) Allred (Wright's threeawn); P; G; PP; LEX-240  
\**Bothriochloa ischaemum* (L.) Keng (yellow bluestem); P; G; DA, PP; LEX-202  
*Bothriochloa laguroides* (DC.) Herter (silver beardgrass); P; G; PP; LEX-363  
*Bouteloua curtipendula* (Michx.) Torr. (sideoats grama); P; G; PP; LEX-357  
*Bouteloua dactyloides* (Nutt.) Columbus (buffalograss); P; G; PP; LEX-091  
*Bouteloua hirsuta* Lag. (hairy grama); P; G; PP; LEX-333  
*Bouteloua rigidisetæ* (Steud.) Hitchc. (Texas grama); P; G; PP; LEX-225  
\**Bromus catharticus* Vahl (rescuegrass); A; G; PP; LEX-095  
\**Bromus commutatus* Schrad. (meadow brome); A; G; DA; LEX-128  
\**Bromus hordeaceus* L. (soft brome); A; G; PP; LEX-176  
*Bromus pubescens* Muhl. Ex Willd. (hairy woodland brome); P; G; PBFW, PEFW, YPBW; LEX-092  
\**Bromus racemosus* L. (bald brome); A; G; PP; LEX-129  
\**Bromus tectorum* L. (cheatgrass); A; G; DA; LEX-030  
*Cenchrus incertus* M.A. Curtis (field sandbur); P; G; DA, PP; LEX-488  
*Chasmanthium latifolium* (Michx.) H.O. Yates (Indian woodoats); P; G; RHW; LEX-384  
*Coleataenia anceps* (Michx.) Soreng (beaked panicum); P; G; PBFW, PEFW, YPBW; LEX-453  
*Coleataenia longifolia* (Torr.) Soreng ssp. *rigidula* (Bosc ex Nees) Soreng (redtop panicum); P; G; HWV; LEX-581  
\**Cynodon dactylon* (L.) Pers. (Bermuda grass); P; G; DA, PP; LEX-366  
*Dichantherium acuminatum* (Sw.) Gould & C.A. Clark var. *acuminatum* (tapered rosettegrass); P; G; PBFW, PEFW, YPBW; LEX-265  
*Dichantherium acuminatum* (Sw.) Gould & C.A. Clark var. *fasciculatum* (Torr.) Freckmann (western panicum); P; G; PBFW, PEFW, YPBW; LEX-151  
*Dichantherium dichotomum* (L.) Gould (cypress panicum); P; G; PBFW, PEFW, YPBW; LEX-083  
*Dichantherium laxiflorum* (Lam.) Gould (openflower rosette grass); P; G; PP; LEX-172  
*Dichantherium malacophyllum* (Nash) Gould (softleaf rosettegrass); P; G; PP; LEX-168  
*Dichantherium oligosanthos* (Schult.) Gould (Heller's rosette grass); P; G; PP; LEX-079  
*Dichantherium ovale* (Elliott) Gould & C.A. Clark (eggleaf rosette grass); P; G; PBFW, PEFW, YPBW; LEX-547  
*Dichantherium scoparium* (Lam.) Gould (velvet panicum); P; G; HWV; LEX-289  
*Dichantherium sphaerocarpon* (Elliott) Gould (roundseed panicum); P; G; PP; LEX-179  
*Digitaria ciliaris* (Retz.) Koeler (fingergrass); A; G; PP; LEX-486  
\**Digitaria ischaemum* (Schreb.) Muhl. (small crabgrass); A; G; DA; LEX-510  
*Echinochloa muricata* (P. Beauv.) Fernald (rough barnyard grass); A; G; HWV; LEX-254  
\**Eleusine indica* (L.) Gaertn. (goosegrass); A; G; DA; LEX-447  
*Elymus canadensis* L. (Canada wildrye); P; G; PBFW, PEFW, YPBW; LEX-175  
*Elymus glabriflorus* (Vasey ex L.H. Dewey) Scribn. & C.R. Ball (Southeastern wildrye); P; G; PBFW, PEFW; LEX-305  
*Elymus virginicus* L. (Virginia wild rye); P; G; PBFW, PEFW, YPBW; LEX-242  
\**Eragrostis barrelieri* Daveau (Mediterranean lovegrass); A; G; PP; LEX-322  
\**Eragrostis curvula* (Schrad.) Nees (weeping lovegrass); P; G; PP; LEX-219  
*Eragrostis hirsuta* (Michx.) Nees (bigtop lovegrass); P; G; PP; LEX-517  
*Eragrostis secundiflora* J. Presl ssp. *oxylepis* (Torr.) S.D. Koch (red lovegrass); P; G; PP; LEX-325  
*Eragrostis spectabilis* (Pursh) Steud. (purple lovegrass); P; G; PP; LEX-479  
*Festuca paradoxa* Desv. (clustered fescue); P; G; PBFW, PEFW, RHW, YPBW; LEX-266

- Gymnopogon ambiguus* (Michx.) Britton, Sterns & Poggenb. (bearded skeletongrass); P; G; PP; LEX-416
- Hordeum pusillum* Nutt. (little barley); A; G; DA, PP; LEX-089
- Leersia oryzoides* (L.) Sw. (rice cutgrass); P; G; HWV; LEX-463
- Leersia virginica* Willd. (white grass); P; G; RHW; LEX-428
- Leptochloa panicea* (Retz.) Ohwi (mucronate sprangletop); A; G; HWV; LEX-281
- \**Lolium perenne* L. (perennial rye grass); P; G; DA, PP; LEX-227
- Mnesithea cylindrica* (Michx.) de Koning & Sosef (Carolina jointail); P; G; PP; LEX-229
- Muhlenbergia capillaris* (Lam.) Trin. (hairawn muhly); P; G; PBFW, PEFW, YPBW; LEX-524
- Muhlenbergia paniculata* (Nutt.) Columbus (tumblegrass); P; G; PP; LEX-228
- Muhlenbergia sobolifera* (Muhl. ex Willd.) Trin. (rock muhly); P; G; PEFW; LEX-239
- †*Panicum brachyanthum* Steud. (prairie panicgrass); A; G; YPBW; LEX-513; S2G5
- Panicum capillare* L. (ticklegass); A; G; PP; LEX-350
- Panicum dichotomiflorum* Michx. (western witchgrass); A; G; HWV; LEX-258
- Panicum virgatum* L. (switchgrass); P; G; HWV; LEX-439
- \**Paspalum distichum* L. (knotgrass); P; G; HWV; LEX-154
- Paspalum floridanum* Michx. (Florida Paspalum); P; G; PP; LEX-310
- Paspalum setaceum* Michx. (thin Paspalum); P; G; PP; LEX-303
- Phalaris caroliniana* Walter (Carolina canarygrass); A; G; PP; LEX-533
- \**Poa annua* L. (annual bluegrass); A; G; DA, PEFW; LEX-006
- \**Poa pratensis* L. (Kentucky bluegrass); A; G; PBFW, PEFW, YPBW; LEX-097
- \**Schedonorus arundinaceus* (Schreb.) Dumort. (tall fescue); P; G; PBFW, PEFW, YPBW; LEX-157
- Schizachyrium scoparium* (Michx.) Nash (little bluestem); P; G; PP; LEX-423
- Setaria parviflora* (Poir.) Kerguelen (knotted bristlegrass); P; G; PP; LEX-170
- \**Setaria pumila* (Poir.) Roem. & Schult. (yellow bristlegrass); A; G; DA, PP; LEX-312
- \**Setaria viridis* (L.) P. Beauv. (green bristlegrass); A; G; DA, PP; LEX-262
- Sorghastrum nutans* (L.) Nash (Indian grass); P; G; PP; LEX-424
- \**Sorghum halepense* (L.) Pers. (Johnsongrass); P; G; DA, PP; LEX-201
- Sphenopholis obtusata* (Michx.) Scribn. (prairie wedgescale); P; G; PP; LEX-085
- Sporobolus cryptandrus* (Torr.) A. Gray (sand dropseed); P; G; PP; LEX-507
- Sporobolus pyramidatus* (Lam.) Hitchc. (whorled dropseed); P; G; PP; LEX-478
- Steinchisma hians* (Elliott) Nash (gaping grass); P; G; HWV; LEX-285
- Tridens flavus* (L.) Hitchc. (purpletop); P; G; PBFW, PEFW, YPBW; LEX-437
- Urochloa fusca* (Sw.) B.F. Hansen & Wunderlin (browntop signalgrass); A; G; DA; LEX-277
- \**Vulpia bromoides* (L.) Gray (brome fescue); A; G; DA; LEX-155
- \**Vulpia myuros* (L.) C.C. Gmel. (rattail fescue); A; G; DA, PP; LEX-065
- Zizaniopsis milacea* (Michx.) Döll & Asch. (giant cutgrass); P; G; HWV; LEX-187

### Polygalaceae

- Polygala incarnata* L. (procession flower); A; F; PP; LEX-194
- Polygala verticillata* L. (whorled milkwort); A; F; PP; LEX-224

### Polygonaceae

- Eriogonum longifolium* Nutt. (longleaf eriogonum); P; F; PP; LEX-288
- \**Fallopia convolvulus* (L.) Á. Löve (black bindweed); A; F; DA; LEX-536
- \**Fallopia scandens* (L.) Houlb (climbing false buckwheat); P; F; YPBW; LEX-251
- Persicaria hydropiperoides* (Michx.) Small (swamp smartweed); A; F; HWV; LEX-235

*Persicaria lapathifolia* (L.) Gray (curlytop knotweed); A; F; HWV; LEX-409  
*Persicaria setacea* (Baldwin) Small (bog smartweed); P; F; HWV; LEX-316  
*Persicaria virginiana* (L.) Gaertn. (jumpseed); P; F; RHW; LEX-573  
\**Rumex crispus* L. (curly dock); P; F; DA, HWV; LEX-189  
*Rumex hastatulus* Baldwin (heartwing dock); P; F; HWV; LEX-186

### **Portulacaceae**

\**Portulaca oleracea* L. (purslane); A; F; HWV; LEX-585

### **Potamogetonaceae**

*Potamogeton nodosus* Poir. (longleaf pondweed); P; F; HWV; LEX-141

### **Primulaceae**

*Androsace occidentalis* Pursh (western rockjasmine); A; F; DA; LEX-001  
*Samolus valerandi* L. (seaside brookweed); P; F; HWV; LEX-270

### **Ranunculaceae**

*Anemone berlandieri* Pritz. (tenpetal thimbleweed); P; F; PP; LEX-048  
*Delphinium carolinianum* Walter ssp. *virescens* (Nutt.) R.E. Brooks (Carolina larkspur); P; F; DA, PP;  
LEX-210  
*Ranunculus sceleratus* L. (cursed buttercup); A; F; HWV; LEX-072

### **Rosaceae**

*Agrimonia parviflora* Aiton (manyflowered groovebur); P; F; PP; LEX-256  
*Fragaria virginiana* Duchesne (Virginia strawberry); P; F; DA; LEX-025  
*Geum canadense* Jacq. (white avens); P; F; PBFW, PEFW, YPBW; LEX-212  
*Prunus angustifolia* Marshall (Chickasaw plum); P; S; PP; LEX-011  
*Prunus gracilis* Engelm. & A. Gray (Oklahoma plum); P; S; PP; LEX-528  
*Prunus mexicana* S. Watson (Mexican plum); P; T; PBFW, PEFW, YPBW; LEX-023  
\**Pyrus calleryana* Decne. (Callery pear); P; T; PBFW, PP; LEX-112  
*Rosa foliolosa* Nutt. ex Torr. & A. Gray (white prairie rose); P; F; PP; LEX-208  
\**Rosa multiflora* Thunb. (multiflora rose); P; S; RHW; LEX-558  
*Rubus aboriginum* Rydb. (garden dewberry); P; S; PP; LEX-059  
*Rubus allegheniensis* Porter (Allegheny blackberry); P; S; PP; LEX-587

### **Rubiaceae**

*Cephalanthus occidentalis* L. (common buttonbush); P; S; HWV; LEX-356  
\**Cruciata pedemontana* (Bellardi) Ehrend. (piedmont bedstraw); A; F; DA; LEX-058  
*Diodella teres* (Walter) Small (poorjoe); A; F; DA; LEX-390  
*Diodia virginiana* L. (Virginia buttonweed); P; F; HWV; LEX-389  
*Galium aparine* L. (bedstraw); A; F; DA; LEX-100  
*Galium circaezans* Michx. (licorice bedstraw); P; F; PBFW, PEFW, YPBW; LEX-158  
*Galium virgatum* Nutt. (southwest bedstraw); A; F; DA; LEX-057  
*Houstonia pusilla* Schoepf (tiny bluet); A; F; DA; LEX-010  
*Stenaria nigricans* (Lam.) Terrell (diamondflowers); P; F; PP; LEX-215

**Salicaceae**

*Populus deltoides* W. Bartran ex Marshall (plains cottonwood); P; T; DA; LEX-508

*Salix nigra* Marshall (black willow); P; T; HWV; LEX-098

**Sapindaceae**

*Acer negundo* L. (boxelder); P; T; RHW; LEX-124

*Sapindus saponaria* L. var. *drummondii* (Hook. & Arn.) L.D. Benson (western soapberry); P; T; PBFW, PEFW, YPBW; LEX-471

**Sapotaceae**

*Sideroxylon lanuginosum* Michx. (gum bully); P; T; PBFW, PEFW, YPBW; LEX-118

**Scrophulariaceae**

\**Verbascum thapsus* L. (common mullein); B; F; DA; LEX-415

**Simaroubaceae**

\**Ailanthus altissima* (Mill.) Swingle (tree of heaven); P; T; DA; LEX-537

**Smilacaceae**

*Smilax bona-nox* L. (saw greenbrier); P; V; PBFW, PEFW, YPBW; LEX-052

*Smilax tamnoides* L. (bristly greenbrier); P; V; PBFW, PEFW, YPBW; LEX-344

**Solanaceae**

*Physalis heterophylla* Nees (clammy groundcherry); P; F; DA; LEX-160

*Physalis pubescens* L. (groundcherry); A; F; PP; LEX-307

*Solanum carolinense* L. (Carolina horsenettle); P; F; DA, PP; LEX-183

*Solanum dimidiatum* Raf. (western horsenettle); P; F; DA, PP; LEX-349

*Solanum rostratum* Dunal (buffalobur nightshade); A; F; DA, PP; LEX-367

*Solanum ptychanthum* Dunal (West Indian nightshade); A; F; DA, PP; LEX-352

*Solanum elaeagnifolium* Cav. (silverleaf nightshade); P; F; DA, PP; LEX-375

**Tetrachondraceae**

*Polypremum procumbens* L. (juniper leaf); A; F; HWV; LEX-540

**Typhaceae**

*Typha domingensis* Pers. (southern cattail); P; F; HWV; LEX-320

**Ulmaceae**

*Ulmus alata* Michx. (winged elm); P; T; PBFW, PEFW, YPBW; LEX-037

*Ulmus americana* L. (American elm); P; T; PBFW, PEFW, RHW; LEX-419

*Ulmus rubra* Muhl. (slippery elm); P; T; PBFW, PEFW, RHW; LEX-127

**Urticaceae**

*Boehmeria cylindrica* (L.) Sw. (smallspike false nettle); P; F; HWV; LEX-445

**Valerianaceae**

*Valerianella radiata* (L.) Dufr. (beaked cornsalad); A; F; DA, PP; LEX-088

### **Verbenaceae**

- Glandularia canadensis* (L.) Nutt. (rose verbena); P; F; PP, YPBW; LEX-004  
*Phyla lanceolata* (Michx.) Greene (lanceleaf frogfruit); P; F; HWV; LEX-385  
*Verbena halei* Small (slender verbena); P; F; PP; LEX-060  
*Verbena stricta* Vent. (tall vervain); P; F; DA, PP; LEX-511  
*Verbena urticifolia* L. (white vervain); P; F; PBFW, YPBW; LEX-396

### **Violaceae**

- Viola bicolor* Pursh (field pansy); A; F; DA; LEX-009  
*Viola sororia* Willd. (common blue violet); A; F; PBFW, PEFW, YPBW; LEX-038  
*Viola villosa* Walter (Carolina violet); P; F; PBFW, PEFW, YPBW; LEX-020

### **Vitaceae**

- Ampelopsis arborea* (L.) Koehne (peppervine); P; S; DA, RHW; LEX-557  
*Ampelopsis cordata* Michx. (heartleaf peppervine); P; V; PBFW, PEFW; LEX-465  
*Vitis cinerea* (Engelm.) Engelm. ex Millard var. *helleri* (L.H. Bailey) M.O. Moore (Heller's grape); P; V;  
PBFW, PEFW; LEX-497  
*Vitis vulpina* L. (fox grape); P; V; RHW; LEX-553

### **Woodsiaceae**

- Woodsia obtusa* (Spreng.) Torr. (bluntlobe cliff fern); P; F; RHW; LEX-559