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A Checklist of the Vascular Flora of Lee County, Iowa

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The vascular flora of Lee County, Iowa, based upon field and herbarium study, is composed of 876 taxa (species plus hybrids), including 25 endangered and 5 threatened Iowa species. Naturalized species totaled 154. The study added 318 species to the county flora, a 57% increase to the flora of what had been called one of Iowa's "best collected counties." Two species are reported as additions to the state flora: *Habenaria lacera* (Michx.) Lodd. and *Vitis baileyana* Munson. The flora is most notable for the presence of many species which do not occur much farther northward in Iowa, being plants with floristic affinity to the Ozark Plateau in Missouri.

INDEX DESCRIPTORS: Endangered Plant Species, Iowa Vascular Flora, Lee County Flora, Threatened Plant Species.

Lee County, located in extreme southeastern Iowa, is adjacent to Missouri and Illinois and bounded on the east by the Mississippi River, on the south by the Des Moines River, and on the north by the Skunk River. The landscape is composed of 1) extensive alluvial deposits along the Mississippi and Des Moines rivers and 2) a relatively flat, but dissected upland surface which is the southeastern extremity of the Southern Iowa Drift Plain (Prior, 1976). The few exposures of rock in the county are shales and limestones located in the bluffs of the Des Moines and Mississippi rivers (Keyes, 1893). The soils provide a thick covering over the bedrock, being formed from a variety of transported parent materials, including Nebraskan and Kansan drift, Illinoian and Wisconsin age loess, and alluvium (Lockridge, 1979; Stevenson and Brown, 1918). The soils are classified into four major associations: 1) Clinton-Keswick-Lindley, 2) Grundy-Haig, 3) Lindley-Keswick-Weller, and 4) Otley-Mahaska-Taintor (Oschwald, *et al.*, 1974). At the time of settlement, the county was 75% woodland and 25% prairie (Stevenson and Brown, 1918). The forests are typified by oak-hickory communities with a few maple-basswood stands on especially steep north-facing slopes.

Although Iowa is typified by mid-continental climate, the extremes characteristic of this climatic-type are least apparent in Iowa in Lee County. The average annual temperature in Lee County is 52 F., with a January mean of 24 F. Rainfall in Lee County is the highest in the state, with an average of over 34 inches (Shaw and Barger, 1956). Growing season in Lee County is about 175 days, compared to a state-wide average of 158 days (Oschwald, *et al.*, 1974).

Floristic information on Lee County was first reported some 80 years ago by Fitzpatrick and Fitzpatrick (1897; 1898) as part of a preliminary flora of southern Iowa. The first intensive study of the Lee County vascular flora was conducted by Fults (1934), who listed 648 species based upon his personal collections, herbarium specimens, and some literature reports. Additions to that flora were made by Gilly and McDonald of Parsons College (now known as Maharishi International University, Fairfield), who conducted a series of floristic studies in southeastern Iowa and in Lee County in the area of the newly developed Shimek State Forest in the 1930's and 1940's. Their observations and additions were summarized in a series of reports (Gilly and McDonald, 1936; 1947; 1948; McDonald, 1937). Hayden (1940; 1945) reported on several rare Iowa plants in Lee County, including her discovery of a grove of *Sassafras* trees, the first found in Iowa, on a bluff south of Keokuk overlooking the Des Moines River. Thorne (1953) also reported on the status of *Sassafras* at that location and on the occurrence

of other rare Iowa plants on the same bluff, such as *Fraxinus quadrangulata* (Blue Ash). In their reviews of Iowa floristic studies, Gilly (1948) and Thorne (1954), both considered Lee County to be one of the best collected counties in the state.

As part of a doctoral research program, Davidson (1957; 1959; 1960) conducted additional floristic studies in Lee County, as part of his flora of southeastern Iowa. Davidson (1957) included dot maps in his unpublished dissertation which documented a county flora of 558 species for Lee County. Changes in nomenclature and insistence on herbarium specimen documentation account for the lower flora total noted by Davidson as compared to Fults. However, we noted many obvious omissions in the lists compiled by Fults (1934) and Davidson (1957), indicating to us that additional field survey and herbarium search was needed.

Another reason for conducting the survey in Lee County, was an awareness of the impact by man which was rapidly eliminating opportunities to observe or possibly preserve remaining natural areas. According to Thomson (1980), only 25% of the original area of woodland remains in trees, with the original woods of 180,000 acres (ca. 72,000 ha) in 1832 declining to 60,000 acres (ca. 24,000 ha) by 1875 following settlement. Today, 50,000 acres (ca. 20,000 ha) of woodlands remain, with much of it having been thinned, cut, or grazed to some extent. Recent investigations by Lammers (1977; 1980) on the flora and vegetation of Des Moines County has noted the extent of impact, especially on the floodplain of the Mississippi River wherein agricultural, navigational, flood control, and drainage projects have greatly reduced the wetlands, oxbows, lakes, and marshes which were once plentiful. Intact prairie is virtually non-existent, being converted by the plow to rowcrops early in settlement and on sandy prairies more recently with the advent of modern irrigation methods. Consequently, efforts to survey and inventory the remaining natural areas in Lee County were needed before too many other habitats also declined.

During 1979, the State Preserves Advisory Board sponsored a natural history foray in Lee County to conduct a preliminary survey for natural areas and to commence inventory of the flora and fauna. The foray initiated the preparation of this vascular flora, which is the third county flora prepared in conjunction with such forays. Earlier floras were prepared for Allamakee County (Peck, Roosa, & Eilers, 1980) and Fremont County (Peck, Eilers, & Roosa, 1978). The checklist format employed in this report provides a functional (albeit terse) statement on Lee County floristic data. Additional

data exist in the form of specimen label data, but space considerations preclude their publication. With implementation of BIOBANK (Eilers, 1979), a computer assisted specimen data system for the Iowa flora, such data will be compiled, stored, and be more conveniently available than at present. This report adds Lee County to the list of Iowa counties which have been treated with modern summaries of their flora (Eilers, 1975).

METHODS

Field collections were made mainly in 1979, with limited collecting from 1976 through 1980. All 15 of Davidson's collecting stations were visited. Additional stations of botanical interest were also located. Special emphasis was placed on a survey of the diverse habitats located within Shimek State Forest (Croton, Donnellson, Farmington, and Lick Creek Units). The extent of woodland and wetlands in the county exceeded our ability to conduct a complete search for natural areas. Although we added significantly to the flora of the county, continued field work would likely add to the county flora, possibly to the state flora, and would almost certainly locate additional stations of botanical interest.

Herbarium search was conducted 1) to corroborate the occurrence of species which were reported by Fults (1934) and Davidson (1957; 1959), but which were not observed during the foray and 2) to completely search the Iowa State University herbarium which was only partially examined by Davidson. Searches for Lee County plants were conducted at Iowa State University, University of Iowa, and University of Northern Iowa. Limited searches were conducted at Iowa Wesleyan College and Maharishi International University. Our vouchers were deposited at Iowa State University and University of Northern Iowa.

The checklist is alphabetized to facilitate manual and computer processing. Family and higher categories are in general agreement with treatments by Cronquist (1968) for seed plants and Crabbe, Jermy, and Mickel (1975) for ferns and fern allies. Binomials and common names are selected to follow: 1) recent Iowa taxonomic treatments for Apiaceae (Crawford, 1970), Orchidaceae (Niemann, 1974), Poaceae (Pohl, 1966), ferns and fern allies (Peck, 1976), and aquatic and wetland plants (Lammers & van der Valk, 1977; 1979), 2) regional manuals (Fernald, 1950; Gleason & Cronquist, 1963), and 3) state manuals of Illinois (Mohlenbrock, 1975; Mohlenbrock & Ladd, 1978) and Missouri (Steyermark, 1963). The list is annotated with an asterisk (*) before the binomial of non-native but naturalized plants, a double exclamation mark (!!) before an Iowa endangered plant, and a single exclamation mark (!) before an Iowa threatened plant (Roosa & Eilers, 1978).

Non-indigenous plants have been introduced into Shimek State Forest in the form of three plantations. We did not incorporate these species into the flora, even though some were reproducing successfully, since it was obvious that these plants had been planted by man in an equidistant grid. Plantations of the following species were observed: *Liriodendron tulipifera* (Tulip Tree), *Larix laricina* (American Larch), *Picea glauca* (White Spruce), *Pinus banksiana* (Jack Pine), *Pinus echinata* (Shortleaf Pine), *Pinus nigra* (Austrian Pine), *Pinus ponderosa* (Ponderosa Pine), *Pinus pungens* (Table Mountain Pine), *Pinus resinosa* (Red Pine), *Pinus rigida* (Pitch Pine), *Pinus strobus* (White Pine), *Pinus sylvestris* (Scotch Pine), and *Pinus virginiana* (Virginia Pine). On the other hand, other plants which are non-indigenous were listed, since they spread on their own and appear native. We added two species, *Zea mays* and *Glycine max* (corn and soybeans), as they were common along roadsides, not intentionally planted, and rarely became fertile, making their identity less obvious. These last two species, however, are not naturalized, but significant escapes from cultivation.

VASCULAR PLANT CHECKLIST

A total of 876 taxa (species plus hybrids) is reported, including 154 non-native, but naturalized species. Even though Lee County was "one of the best collected counties" in the state (Gilly (1948; Thorne, 1954), we added 318 species (57% increase) to the flora extracted from Davidson (1957). Two species were added to the state flora: *Habenaria lacera* and *Vitis baileyana*. The orchid was collected in the 1920's and had been overlooked by Iowa botanists until noted by one of us (TGL) when searching the Iowa Wesleyan College herbarium. The grape is new to the state, but may be treated with a lesser hierarchical rank as a variety of *V. vulpina*. The magnitude of the additions to the Lee County flora suggests to us that floristic efforts are probably equally rewarding in many other of Iowa's best collected counties, but especially so in southern Iowa.

One aspect of the Lee County flora warranting special mention is the presence of many plants with geographical affinity to the Ozark Plateau, as noted by Roosa and Eilers (1978) and Lammers (1980). Species in the Lee County flora which illustrate this include *Asimina triloba*, *Aster linarifolia*, *Carex crinita*, *C. deweyana*, *C. hirsutella*, *C. lurida*, *C. shortiana*, *Cercis canadensis*, *Danthonia spicata*, *Fraxinus quadrifolia*, *Lespedeza procumbens*, *Quercus marilandica*, *Q. muehlenbergii*, *Q. stellata*, *Rhus aromatica*, *Sassafras albidum*, *Scirpus georgianus*, *Tephrosia virginiana*, and *Veratrum woodii*. These species tend to not occur very far north in Iowa, but may be found in abundance to the south in Missouri (Steyermark, 1963).

The flora included 25 endangered and 5 threatened Iowa species. This number is lower than what we expected, based upon the county's position next to Missouri and Illinois and on its relatively large flora for an Iowa county (Thorne, 1954). The low number of endangered species probably reflects several aspects, including 1) absence of extensive rock outcrops, 2) essentially total elimination of upland prairie vegetation, 3) almost complete loss of floodplain sand prairies, 4) the lack of barriers restricting species to Lee County (Mississippi and Des Moines rivers are natural dispersal and migration routes), and 5) the earlier settlement (1820's) and longer cultivation of Lee County, as compared to the rest of Iowa.

Since habitat depletion or elimination has continued for over 160 years, any remaining natural vegetation or recovering vegetation, such as is found within Shimek State Forest, is a significant expression of Iowa's natural heritage. The checklist provided will facilitate future natural area inventories in Lee County.

EQUISETOPHYTA

EQUISETACEAE (Horsetail Family)

- Equisetum arvense* L. (Field Horsetail)
- Equisetum hyemale* L. (Common Horsetail)
- Equisetum laevigatum* A. Br. (Smooth Scouring-rush)
- Equisetum X ferrissii* Clute (*E. hyemale X laevigatum*)

POLYPODIOPHYTA

ADIANTACEAE (Maidenhair Fern Family)

- Adiantum pedatum* L. (Northern Maidenhair Fern)

ASPLENIACEAE (Common Fern Family)

- Asplenium platyneuron* (L.) Oakes ex D. C. Eat. (Ebony Spleenwort)
- Athyrium angustum* (Willd.) Presl (Northern Lady Fern)

Cystopteris bulbifera (L.) Bernh. (Bulblet Fern)
Cystopteris fragilis (L.) Bernh. var. *mackayi* Laws. (Mackay's Fragile Fern)
Cystopteris protrusa (Weath.) Blasdell (Creeping Fragile Fern)
Dryopteris cristata (L.) Gray (Crested Wood Fern)
Dryopteris spinulosa (O. F. Muell.) Watt (Spinulose Wood Fern)
Matteuccia struthiopteris (L.) Tod. (Ostrich Fern)
Onoclea sensibilis L. (Sensitive Fern)
Polystichum acrostichoides (Michx.) Schott (Christmas Fern)
Woodsia obtusa (Spreng.) Torr. (Blunt-lobed Cliff Fern)

DENNSTAEDTIACEAE (Bracken Fern Family)

Pteridium aquilinum (L.) Kuhn (Bracken Fern)

OPHIOGLOSSACEAE (Adder's-tongue Fern Family)

Botrychium dissectum Spreng. f. *dissectum* (Dissected Grape Fern)
Botrychium dissectum Spreng. f. *obliquum* (Muhl.) Fern. (Oblique Grape Fern)
Botrychium virginianum (L.) Sw. (Rattlesnake Fern)

OSMUNDACEAE (Royal Fern Family)

Osmunda claytoniana L. (Interrupted Fern)

THELYPTERIDACEAE (Marsh Fern Family)

Thelypteris palustris (L.) Schott (Marsh Fern)

PINOPHYTA

CUPRESSACEAE (Cypress Family)

Juniperus virginiana L. (Red Cedar)

MAGNOLIOPHYTA

MAGNOLIATAE (Dicots)

ACANTHACEAE (Acanthus Family)

!!*Justicia americana* (L.) Vahl. (Water Willow)
Ruellia humilis Nutt. (Wild Petunia)
Ruellia strepens L. (Smooth Ruellia)

ACERACEAE (Maple Family)

Acer negundo L. (Box-elder)
Acer nigrum Michx. f. (Black Maple)
Acer saccharinum L. (Silver Maple)

AIZOACEAE (Carpetweed Family)

**Mollugo verticillata* L. (Carpetweed)

AMARANTHACEAE (Amaranth Family)

Amaranthus albus L. (Pigweed)
Amaranthus graecizans L. (Prostrate Pigweed)
Amaranthus spinosus L. (Thorny Amaranth)
Amaranthus tamariscinus (Nutt.) Wood (Water-hemp)
Amaranthus tuberculatus (Moq.) J. D. Sauer (Water-hemp)
Froelichia floridana (Nutt.) Moq. (Cottonweed)

ANACARDIACEAE (Cashew Family)

Rhus aromatica Ait. (Fragrant Sumac)
Rhus glabra L. (Smooth Sumac)
Toxicodendron radicans (L.) Kuntze ssp. *negundo* (Greene) Gillis (Poison Ivy)
Toxicodendron rydbergii (Rydb.) Greene (Poison Ivy)

ANNONACEAE (Custard-apple Family)

Asimina triloba (L.) Dunal (Pawpaw)

APIACEAE (Parsley Family)

Chaerophyllum procumbens (L.) Crantz
Cicuta maculata L. (Spotted Cowbane)
 **Conium maculatum* L. (Poison Hemlock)
Cryptotaenia canadensis (L.) DC.
 **Daucus carota* L. (Wild Carrot)
Eryngium yuccifolium Michx. (Rattlesnake-master)
Osmorhiza claytonii (Michx.) Clark (Sweet Cicely)
Osmorhiza longistylus (Torr.) DC. (Anise-root)
 **Pastinaca sativa* L. (Parsnip)
Sanicula canadensis L. (Canadian Snakeroot)
Sanicula gregaria Bickn. (Common Snakeroot)
Sanicula marilandica L. (Black Snakeroot)
Sium suave Walt. (Water-parsnip)
Spermolepis inermis (Nutt.) Math. & Cronst.
Taenidia integerrima (L.) Drude (Yellow Pimpernel)
Thaspium barbinode (Michx.) Nutt. (Meadow-parsnip)
Zizia aurea (L.) W.D.J. Koch (Golden Alexanders)

APOCYNACEAE (Dogbane Family)

Apocynum androsaemifolium L. (Spreading Dogbane)
Apocynum cannabinum L. (Indian Hemp)
Apocynum sibiricum Jacq. (Indian Hemp)
Apocynum X medium Greene (*A. androsaemifolium* X *cannabinum*)

ARALIACEAE (Ginseng Family)

Aralia nudicaulis L. (Wild Sarsaparilla)
Aralia racemosa L. (Spikenard)
Panax quinquefolius L. (Ginseng)

ARISTOLOCHIACEAE (Birthwort Family)

Asarum canadense L. (Wild Ginger)

ASCLEPIADACEAE (Milkweed Family)

Asclepias amplexicaulis Sm. (Clasping Milkweed)
Asclepias hirtella (Pennell) Woodson (Hairy Milkweed)
Asclepias incarnata L. (Swamp Milkweed)
Asclepias purpureascens L. (Purple Milkweed)
Asclepias quadrifolia Jacq. (Four-leaved Milkweed)
Asclepias syriaca L. (Common Milkweed)
Asclepias tuberosa L. (Butterfly Weed)
Asclepias verticillata L. (Whorled Milkweed)
Cynanchum laeve (Michx.) Pers. (Bluevine)

ASTERACEAE (Aster Family)

**Achillea millefolium* L. (Common Yarrow)

- Ambrosia artemisiifolia* L. (Common Ragweed)
Ambrosia psilostachya DC. var. *coronopifolia* (T. & G.) Farw. (Western Ragweed)
Ambrosia trifida L. (Great Ragweed)
Antennaria neglecta Greene (Field Pussytoes)
Antennaria plantaginifolia (L.) Richards (Pussytoes)
 **Anthemis cotula* L. (Stinking Chamomile)
 **Arctium minus* Schk. (Common Burdock)
Artemisia campestris L. ssp. *caudata* (Michx.) Hall & Clem. (Wormwood)
Aster azureus Lindl. (Bright Blue Aster)
Aster cordifolius L. (Blue Wood Aster)
Aster drummondii Lindl. (Drummond's Aster)
Aster ericoides L. (Heath Aster)
Aster laevis L. (Smooth Aster)
Aster lateriflorus (L.) Britt. (Side-flowered Aster)
Aster novae-angliae L. (New England Aster)
Aster oblongifolius Nutt. (Aromatic Aster)
Aster ontarionis Wieg. (Ontario Aster)
Aster pilosus Willd. (Heath Aster)
Aster praealtus Poir. (Willow Aster)
Aster puniceus L. (Swamp Aster)
Aster sagittifolius Wedemeyer ex Willd. (Arrow-leaved Aster)
Aster sericeus Vent. (Silky Aster)
Aster shortii Lindl. (Short's Aster)
Aster simplex Willd. (Panicked Aster)
 !!*Aster turbinellus* Lindl. (Frost-flower)
Bidens bipinnata L. (Spanish Needles)
Bidens cernua L. (Stick-tights)
Bidens comosa (Gray) Weig. (Beggar's-ticks)
Bidens coronata (L.) Britt. (Bur-marigold)
Bidens frondosa L. (Beggar's-ticks)
Bidens polylepis Blake (Swamp Marigold)
Bidens vulgata Greene (Tall Beggar's-ticks)
Boltonia asteroides (L.) L'Her. (Boltonia)
Cacalia atriplicifolia L. (Pale Indian-plantain)
 **Centaurea cyanus* L. (Batchelor's-button)
 **Chrysanthemum leucanthemum* L. (Ox-eye Daisy)
 **Cichorium intybus* L. (Chichory)
Cirsium altissimum (L.) Spreng. (Tall Thistle)
 **Cirsium arvense* (L.) Scop. (Canada Thistle)
Cirsium discolor (Muhl.) Spreng. (Field Thistle)
 !!*Cirsium undulatum* (Nutt.) Spreng. (Undulate Thistle)
Conyza canadensis (L.) Cronq. (Horseweed)
Conyza ramosissima Cronq. (Horseweed)
 **Coreopsis lanceolata* L. (Lance-shaped Tickseed)
Coreopsis palmata Nutt. (Stiff Tickseed)
Dyssodia papposa (Vent.) Hitchc. (Fetid Marigold)
Echinacea pallida Nutt. (Purple Coneflower)
Eclipta alba (L.) Hassk. (Yerba de Tajo)
Erechtites hieracifolia (L.) Raf. (Pilewort)
 **Erigeron annuus* (L.) Pers. (Daisy Fleabane)
Erigeron philadelphicus L. (Common Fleabane)
 **Erigeron strigosus* Muhl. (Daisy Fleabane)
Eupatorium altissimum L. (Thoroughwort)
Eupatorium perfoliatum L. (Boneset)
Eupatorium purpureum L. (Sweet-stemmed Joe-Pye-weed)
Eupatorium rugosum Houtt. (White Snakeroot)
Eupatorium serotinum Michx. (Late Flowering Snakeroot)
 **Galinsoga ciliata* (Raf.) Blake (Hairy Galinsoga)
Gnaphalium obtusifolium L. (Everlasting)
Gnaphalium purpureum L. (Purple Cudweed)
Helenium autumnale L. (Sneezeweed)
Helianthus annuus L. (Common Sunflower)
Helianthus grosseserratus Martens (Serrate Sunflower)
Helianthus laetiflorus Pers. (Beautiful Sunflower)
Helianthus occidentalis Riddell (Western Sunflower)
Helianthus petiolaris Nutt. (Petoied Sunflower)
Helianthus strumosus L. (Pale-leaved Wood Sunflower)
 **Helianthus tuberosus* L. (Jerusalem-artichoke)
Heliopsis helianthodes (L.) Sweet (Ox-eye)
Hieracium longipilum Torr. (Long-haired Hawkweed)
Hieracium scabrum Michx. (Rough Hawkweed)
Krigia biflora (Walt.) Blake (Two-flowered Dwarf Dandelion)
Kuhnia eupatorioides L. (False Boneset)
Lactuca canadensis L. (Canadian Lettuce)
 **Lactuca serriola* L. (Prickly Lettuce)
Liatris aspera Michx. (Rough Blazing Star)
Liatris cylindrica Michx. (Cylindrical Blazing Star)
Liatris pycnostachya Michx. (Crowbed Blazing Star)
 **Matricaria matricarioides* (Less.) Porter (Pine-apple Weed)
Parthenium integrifolium L. (Wild Quinine)
Polymnia canadensis L. (Leafcup)
Prenanthes alba L. (White Rattlesnake-root)
Prenanthes aspera Michx. (Harsh Rattlesnake-root)
Ratibida pinnata (Vent.) Barnh. (Prairie-coneflower)
Rudbeckia hirta L. (Black-eyed Susan)
Rudbeckia laciniata L. (Green-headed Coneflower)
Rudbeckia triloba L. (Thin-leaved Coneflower)
Senecio pauperculus Michx. (Balsam Ragwort)
Silphium integrifolium Michx. (Entire-leaved Rosinweed)
Silphium laciniatum L. (Compass Plant)
Silphium perfoliatum L. (Cup Plant)
Solidago canadensis L. (Canadian Goldenrod)
Solidago flexicaulis L. (Zigzag Goldenrod)
Solidago gigantea Ait. (Lat Goldenrod)
Solidago graminifolia (L.) Salisb. (Grass-leaved Goldenrod)
Solidago missouriensis Nutt. (Missouri Goldenrod)
Solidago nemoralis Ait. (Gray Goldenrod)
Solidago rigida L. (Stiff Goldenrod)
Solidago speciosa Nutt. (Showy Goldenrod)
Solidago ulmifolia Muhl. (Elm-leaved Goldenrod)
 **Sonchus asper* (L.) Hill (Spiny Sow-thistle)
 **Sonchus oleraceus* L. (Common Sow-thistle)
 **Tanacetum vulgare* L. (Tansy)
 **Taraxacum laevigatum* (Willd.) DC. (Red-seeded Dandelion)
 **Taraxacum officinale* Weber (Common Dandelion)
 **Tragopogon dubius* Scop. (Goat's Beard)
Verbesina alternifolia (L.) Britt. (Wings-tem)
Vernonia baldwini Torr. (Ironweed)
Vernonia fasciculata Michx. (Bunched Ironweed)
Vernonia gigantea (Walter) Trel. (Tall Ironweed)
Vernonia missurica Raf. (Missouri Ironweed)
Vernonia baldwini X *fasciculata*
Vernonia fasciculata X *gigantea*
 **Xanthium spinosum* L. (Spiny Cocklebur)
Xanthium strumarium L. (Cockle-bur)
- BALSAMINACEAE (Touch-me-not Family)
- Impatiens biflora* Walt. (Spotted Touch-me-not)
Impatiens pallida Nutt. (Pale Touch-me-not)
- BERBERIDACEAE (Barberry Family)
- **Berberis thunbergii* DC. (Japanese Barberry)
 **Berberis vulgaris* L. (Common Barberry)
Caulophyllum thalictroides (L.) Michx. (Blue Cohosh)

VASCULAR FLORA OF LEE COUNTY

Podophyllum peltatum L. (May-apple)

BETULACEAE (Birch Family)

Betula nigra L. (River Birch)*Corylus americana* Walt. (American Hazel)*Ostrya virginiana* (Mill.) K. Koch (Hop Hornbeam)

BIGNONIACEAE (Catalpa Family)

Campsis radicans (L.) Seem. (Trumpet-creeper)**Catalpa speciosa* Warder (Cigar-tree)

BORAGINACEAE (Borage Family)

Cynoglossum officinale* L. (Hound's-tongue)Echium vulgare* L. (Blue-weed)*Hackelia deflexa* (Wahl.) Opiz (Beggar's Lice)*Hackelia virginiana* (L.) Johnst. (Stickseed)**Lappula myosotis* Moench (European Stickseed)**Lithospermum arvense* L. (Corn-gromwell)*Lithospermum carolinense* (J.F. Gmel.) MacM. (Puccoon)*Mertensia virginiana* (L.) Pers. (Bluebells)*Myosotis verna* Nutt. (Scorpion-grass)

BRASSICACEAE (Mustard Family)

Arabis canadensis L. (Sickle-pod)**Barbarea vulgaris* R. Br. (Yellow Rocket)**Brassica juncea* (L.) Coss. (Chinese Mustard)**Brassica nigra* (L.) Koch (Black Mustard)**Capsella bursa-pastoris* (L.) Medic. (Shepherd's Purse)*Cardamine pensylvanica* Muhl. (Bitter Cress)*Dentaria laciniata* Muhl. (Toothwort)*Descurainia pinnata* (Walt.) Britt. (Tansy-mustard)*Draba reptans* (Lam.) Fern. (Whitlow Grass)**Erysimum cheiranthoides* L. (Wormed Mustard)**Erysimum repandum* L. (Treacle Mustard)**Lepidium campestre* (L.) R. Br. (Cow-ress)**Lepidium densiflorum* Schrad. (Peppergrass)*Lepidium virginicum* L. (Poor-man's Pepper)*Rorippa islandica* (Oeder) Borbas (Yellow Cress)*Rorippa sessiliflora* (Nutt.) Hitchc. (Sessile-flowered Yellow Cress)**Sisymbrium altissimum* L. (Tumble Mustard)**Sisymbrium officinale* (L.) Scop. (Hedge Mustard)**Thlaspi arvense* L. (Penny Cress)

CAMPANULACEAE (Bluebelle Family)

Campanula americana L. (Tall Bellflower)*Lobelia cardinalis* L. (Cardinal Flower)*Lobelia inflata* L. (Indian-tobacco)*Lobelia spicata* Lam. (Pale Lobelia)*Lobelia siphilitica* L. (Great Blue Lobelia)*Triodanis perfoliata* (L.) Nieuwl. (Venus's Looking-glass)

CANNABINACEAE (Hemp Family)

Cannabis sativa* L. (Hemp)Humulus japonicus* Sieb. & Zucc. (Japanese Hops)*Humulus lupulus* L. (Common Hops)

CAPPARIDACEAE (Caper Family)

Polansia dodecandra (L.) DC. (Clammyweed)

CAPRIFOLIACEAE (Honeysuckle Family)

Lonicera dioica L. var. *dioica* (Wild Honeysuckle)*Lonicera dioica* L. var. *glaucescens* (Rydb.) Butters (Wild Honeysuckle)*Lonicera prolifera* (Kirchn.) Rehd. (Wild Grape-honeysuckle)*Sambucus canadensis* L. (Common Elder)*Symphoricarpos orbiculatus* Moench. (Coralberry)*Triosteum aurantiacum* (Bickn.) Wieg. (Wild Coffee)*Triosteum perfoliatum* L. (Tinker's Weed)*Viburnum dentatum* L. (Southern Arrow-wood)*Viburnum lentago* L. (Nannyberry)!!*Viburnum prunifolium* L. (Blackhaw)

CARYOPHYLLACEAE (Pink Family)

Agrostemma githago* L. (Corn-cockle)*Arenaria lateriflora* L. (Grove Sandwort)*Cerastium nutans* Raf. (Nodding Mouse-ear Chickweed)Cerastium vulgatum* L. (Common Mouse-ear Chickweed)**Dianthus armeria* L. (Carnation)**Lychnis alba* Miller (White Champion)*Paronychia canadensis* (L.) Wood (Forked Chickweed)*Paronychia fastigata* (Raf.) Fern. (Forked Chickweed)**Saponaria officinalis* L. (Soapwort)*Silene antirrhina* L. (Sleepy Catch-fly)*Silene nivea* (Nutt.) Oth. (Snowy Champion)**Silene cserei* Baumg. (Bladder-champion)*Silene stellata* (L.) Ait.f. (Stary Champion)**Stellaria media* (L.) Cyrillo (Common Chickweed)

CELASTRACEAE (Staff-tree Family)

Celastrus scandens L. (Bittersweet)*Euonymus atropurpureus* Jacq. (Wahoo)

CERATOPHYLLACEAE (Hornwort Family)

Ceratophyllum demersum L. (Coontail)

CHENOPODIACEAE (Goosefoot Family)

Chenopodium album* L. (Lamb's-quarter)Chenopodium ambrosioides* L. (Mexican Tea)**Chenopodium botrys* L. (Jerusalem-oak)*Chenopodium desiccatum* Nelson (Slender-leaved Goosefoot)*Chenopodium standleyanum* Aellen (Standley's Goosefoot)*Cycloloma atriplicifolium* (Spreng.) Coult. (Winged Pigweed)*Kochia scoparia* (L.) Schrad. (Summer Cypress)**Salsola iberica* Sennen & Pau (Russian-thistle)

CISTACEAE (Rockrose Family)

!!*Lechea mucronata* Raf. (Pinweed)*Lechea tenuifolia* Michx. (Slender Pinweed)

CONVOLVULACEAE

Convolvulus arvensis* L. (Field Bindweed)*Convolvulus sepium* L. (Wild Morning Glory)Ipomoea hederacea* Jacq. (Ivy-leaved Morning-glory)*Ipomoea pandurata* (L.) G.F.W. Meyer (Wild Sweet-potato)

**Ipomoea purpurea* (L.) Roth (Common Morning-glory)

CORNACEAE (Dogwood Family)

Cornus drummondii Meyer (Rough-leaved Dogwood)
Cornus obliqua Raf. (Silky Dogwood)
Cornus racemosa Lam. (Gray Dogwood)
Cornus rugosa Lam. (Round-leaved Dogwood)

CUCURBITACEAE (Gourd Family)

Cucurbita foetidissima HBK. (Fetid Wild Pumpkin)
 **Cucurbita maxima* Duchesne (Squash)
Sicyos angulatus L. (Bur Cucumber)

CUSCUTACEAE (Dodder Family)

Cuscuta cephalanthi Englm. (Dodder)
Cuscuta glomerata Choisy (Dodder)
Cuscuta gronovii Willd. (Dodder)
Cuscuta pentagona Engelm. (Dodder)

DIPSACACEAE (Teasel Family)

**Dipsacus sylvestris* Huds. (Teasel)

EBENACEAE (Ebony Family)

**Diospyrus virginiana* L. (Persimmon)

EUPHORBIACEAE (Spurge Family)

Acalypha gracilens Gray (Slender Three-seeded Mercury)
Acalypha rhomboidea Raf. (Three-seeded Mercury)
Acalypha virginica L. (Virginia Three-seeded Mercury)
 **Croton capitatus* Michx. (Hogwort)
Croton glandulosus L. (Glandular Croton)
Croton monanthogynus Michx. (Prairie Tea)
Euphorbia corollata L. (Flowering Spurge)
 **Euphorbia cyparissius* L. (Cypress Spurge)
Euphorbia dentata Michx. (Toothed Spurge)
Euphorbia maculata L. (Eyebane)
Euphorbia supina Raf. (Milk-purslane)

FABACEAE (Legume Family)

Amorpha canescens Pursh (Leadplant)
Amorpha fruticosa L. (False-indigo)
Amphicarpa bracteata (L.) Fern. (Hog-peanut)
Apios americana Medic. (Groundnut)
Astragalus canadensis L. (Milk-vetch)
Astragalus distortus T. & G. (Twisted Vetch)
Baptisia leucantha T. & G. (White False Indigo)
Baptisia leucophaea Nutt. (Cream-colored False Indigo)
Cercis canadensis L. (Redbud)
Cassia fasciculata Michx. (Partridge-pea)
Crotalaria sagittalis L. (Rattle-box)
Dalea leporina (Ait.) Bull. (Foxtail Dalea)
Desmodium canescens (L.) DC. (Hoary Tick-trefoil)
Desmodium cuspidatum (Muhl.) Loud. (Long-leaved Tick-trefoil)
Desmodium glutinosum (Muhl.) Wood (Tick-trefoil)
Desmodium illinoense Gray (Illinois Tick-trefoil)
Desmodium nudiflorum (L.) DC. (Naked Tick-trefoil)

Desmodium paniculatum (L.) DC. (Panicled Tick-trefoil)
 !!*Desmodium sessilifolium* (Torr.) T. & G. (Sessile-leaved Tick-trefoil)
Gleditsia tricanthos L. (Honey locust)
Gymnocladus dioica (L.) K. Koch (Kentucky Coffeebean-tree)
Lespedeza capitata Michx. (Bush Clover)
 **Lespedeza stipulacea* Maxim. (Korean Clover)
Lespedeza violacea (L.) Pers. (Violet Bush Clover)
Lespedeza virginica (L.) Britt. (Virginia Bush Clover)
 **Lotus corniculatus* L. (Birdsfoot-trefoil)
 **Medicago lupulina* L. (Black Medic)
 **Medicago officinalis* L. (Alfalfa)
 **Medicago sativa* L. (Alfalfa)
 **Melilotus alba* Desr. (White Sweet-clover)
 **Melilotus officinalis* (L.) Lam. (Yellow Sweet-clover)
Petalostemon purpureum (Vent.) Rydb. (Purple Prairie-clover)
 !!*Psoralea obobrychis* Nutt. (Scurf-pea)
Psoralea tenuiflora Pursh (Scurf-pea)
Robinia pseudoacacia L. (Black Locust)
Strophostyles helvola (L.) Ell. (Yellowish Wild Bean)
Strophostyles leiosperma (T. & G.) Piper (Smooth-seeded Wild Bean)
Tephrosia virginiana (L.) Pers. (Goat's-rue)
 **Trifolium campestre* Schreb. (Low Hop-clover)
 **Trifolium hybridum* L. (Alsike Clover)
 **Trifolium pratense* L. (Red Clover)
 **Trifolium repens* L. (White Clover)
 **Vicia villosa* Roth (Hairy Vetch)

FAGACEAE (Beech Family)

**Castanea dentata* (Marsh.) Borkh. (American Chestnut)
Quercus alba L. (White Oak)
Quercus bicolor Willd. (Swamp White Oak)
Quercus borealis Michx. f. (Northern Red Oak)
Quercus imbricaria Michx. (Shingle Oak)
Quercus macrocarpa Michx. (Bur Oak)
Quercus marilandica Muenchh. (Blackjack Oak)
Quercus muehlenbergii Engelm. (Chestnut Oak)
Quercus palustris Muenchh. (Pin Oak)
 !*Quercus stellata* Wang. (Post Oak)
Quercus velutina Lam. (Black Oak)
Quercus X bushii Sarg. (*Q. marilandica* X *velutina*)
Quercus X fernowii Trel. (*Q. alba* X *stellata*)

FUMARIACEAE (Fumewort Family)

Corydalis micrantha (Engelm.) Gray (Slender Fumewort)
Dicentra cucullaria (L.) Bernh. (Dutchman's Breeches)

GENTIACEAE (Gentian Family)

Gentiana alba Muhl. (Yellowish Gentian)
 !!*Sabatia campestris* Nutt. (Rose Gentian)

GERANIACEAE (Geranium Family)

Geranium carolinianum L. (Carolina Cranesbill)
Geranium maculatum L. (Wild Cranesbill)

HALORAGACEAE (Water-milfoil Family)

Myriophyllum spicatum L. (Water-milfoil)

HIPPOCASTANACEAE (Horse-chestnut Family)

VASCULAR FLORA OF LEE COUNTY

Aesculus glabra Willd. (Ohio Buckeye)

HYDROPHYLLACEAE (Waterleaf Family)

Ellisia nyctelea L. (Wild Tomato)
Hydrophyllum appendiculatum Michx. (Appended Waterleaf)
Hydrophyllum virginianum L. (Virginia Waterleaf)

HYPERICACEAE (St. John's-wort Family)

Hypericum mutilum L. (Dwarf St. John's-wort)
Hypericum punctatum Lam. (Spotted St. John's-wort)
Hypericum pyramidalatum Ait. (Great St. John's-wort)
Hypericum spathulatum (Spach.) Steudel (Robust St. John's-wort)
Hypericum sphaerocarpum Michx. (Round-seeded St. John's-wort)

JUGLANDACEAE (Walnut Family)

Carya cordiformis (Wang.) K. Koch (Bitternut Hickory)
Carya illinoensis (Wang.) K. Koch (Pecan)
Carya laciniata (Michx. f.) Loud. (Kingnut Hickory)
Carya ovata (Mill.) K. Koch (Shagbark Hickory)
Carya tomentosa Nutt. (Mockernut Hickory)
Carya X nussbaumeri Sarg. (*C. illinoensis* X *laciniata*)
Juglans cinerea L. (Butternut)
Juglans nigra L. (Black Walnut)

LAMIACEAE (Mint Family)

Agastache nepetoides (L.) Ktze. (Yellow Giant Hyssop)
 !*Blephila ciliata* (L.) Benth. (Pagoda Plant)
Blephila hirsuta (Pursh) Benth. (Hairy Wood Mint)
 **Glechoma hederacea* L. (Ground-ivy)
Hedeoma hispida Pursh (Mock Pennyroyal)
Hedeoma pulegioides (L.) Pers. (American Pennyroyal)
 **Lamium amplexicaule* L. (Henbit)
 **Leonurus cardiaca* L. (Common Mothwort)
Lycopus americanus Muhl. (Common Water Horehound)
Lycopus virginicus L. (Bugle Weed)
 **Marrubium vulgare* L. (Common Horehound)
Mentha arvensis L. (Field Mint)
 **Mentha gentilis* L. (Red Mint)
 **Monarda didyma* L. (Oswego-tea)
Monarda fistulosa L. (Wild Bergamot)
Monarda punctata L. (Dotted Monarda)
 **Nepeta cataria* L. (Catnip)
Physostegia virginiana (L.) Benth.
Prunella vulgaris L. (Heal-all)
Pycnanthemum tenuifolium Schrad. (Narrow-leaved Mountain Mint)
Pycnanthemum pilosum Nutt. (Hairy Mountain Mint)
Scutellaria lateriflora L. (Mad-dog Skullcap)
Scutellaria ovata Hill (Skullcap)
Scutellaria parvula Michx. (Small Skullcap)
Stachys palustris L. (Woundwort)
Stachys tenuifolia Willd. (Narrow-leaved Hedge Nettle)
Teucrium canadense L. (American Germander)

LAURACEAE (Laurel Family)

!!*Sassafras albidum* (Nutt.) Nees. (Sassafras)

LINACEAE

!!*Linum medium* (Planch.) Britt. (Wild Flax)
 **Linum usitatissimum* L. (Cultivated Flax)

LYTHRACEAE (Loosestrife Family)

!!*Cuphea petiolata* (L.) Koehne (Waxweed)
Lythrum dacotanum Nieuwl. (Loosestrife)
Peplis diandra Nutt. (Water-purslane)
 !!*Rotala ramosior* (L.) Koehne. (Tooth-cup)

MALVACEAE (Mallow Family)

**Abutilon theophrasti* Medic. (Velvet-leaf)
 **Althea rosea* (L.) Cav. (Hollyhock)
Callirhoe involucreta (T. & G.) Gray (Poppy Mallow)
Hibiscus militaris Cav. (Halbard Rose Mallow)
 **Malva moschata* L. (Musk Mallow)
 **Malva neglecta* Wallr. (Cheeses)
 **Malva rotundifolia* L. (Round-leaved Mallow)
 **Sida spinosa* L. (Prickly Mallow)

MENISPERMACEAE (Moonseed Family)

Menispermum canadense L. (Moonseed)

MONOTROPACEAE (Indian-pipe Family)

Monotropa hypopithys L. (False Beech-drops)

MORACEAE (Mulberry Family)

**Maclura pomifera* (Raf.) Schneid. (Osage Orange)
 **Morus alba* L. (White Mulberry)
Morus rubra L. (Red Mulberry)

NELUMBONACEAE

Nelumbo lutea (Willd.) Pers. (American Lotus)

NYCTAGINACEAE (Four-O'clock Family)

Mirabilis nyctaginea (Michx.) MacM. (Wild Four-O'clock)

NYMPHAEACEAE (Waterlily Family)

Nymphaea tuberosa Paine (White Waterlily)

OLEACEAE (Olive Family)

Fraxinus americana L. (White Ash)
Fraxinus nigra Marsh. (Black Ash)
Fraxinus pensylvanica Marsh. (Green Ash)
 !*Fraxinus quadrangulata* Michx. (Blue Ash)

ONAGRACEAE (Evening Primrose Family)

Circaea lutetiana L. ssp. *canadensis* (L.) Ascherson & Magnus (Enchanter's Nightshade)
Epilobium coloratum Muhl. (Cinnamon Willow-herb)
Gaura biennis L. (Biennial Gaura)
 **Gaura parviflora* Dougl. (Sparse-flowered Gaura)
Ludwigia alterniflora L. (Seedbox)
Ludwigia palustris (L.) Ell. (Marsh Purslane)

Ludwigia polycarpa Short & Peter (False Loosestrife)
Oenothera biennis L. (Evening Primrose)
Oenothera laciniata Hill (Evening Primrose)
Oenothera parviflora L. (Small-flowered Evening Primrose)
Oenothera rhombipetala Nutt. (Sand Primrose)

OROBANCHACEAE (Broom-rape Family)

Orobanche uniflora L. (Cancer-root)

OXALIDACEAE (Wood-sorrel Family)

Oxalis dillenii Jacq. (Wood-sorrel)
Oxalis stricta L. (Yellow Wood-sorrel)
Oxalis violacea L. (Violet Wood-sorrel)

PAPAVERACEAE (Poppy Family)

Sanguinaria canadensis L. (Bloodroot)

PHRYMACEAE (Lopseed Family)

Phyrma leptostachya L. (Lopseed)

PHYTOLACCACEAE (Pokeweed Family)

Phytolacca americana L. (Pokeweed)

PLANTAGINACEAE (Plantain Family)

Plantago aristata Michx. (Bracted Plantain)
 **Plantago lanceolata* L. (English Plantain)
 **Plantago major* L. (Common Plantain)
Plantago patagonica Jacq. (Salt-and-pepper Plant)
Plantago rugelii Dcne. (Rugel's Plantain)
Plantago virginica L. (Hoary Plantain)

PLATANACEAE (Plane-tree Family)

Platanus occidentalis L. (Sycamore)

POLEMONIACEAE (Polemonium Family)

Phlox divaricata L. (Blue Phlox)
Phlox maculata L. (Wild Sweet William)
Phlox pilosa L. (Phlox)
Polemonium reptans L. (Jacob's Ladder)

POLYGALACEAE (Milkwort Family)

Polygala sanguinea L. (Field Milkwort)

POLYGONACEAE (Buckwheat Family)

**Polygonum arenastrum* Jord. (Knotweed)
Polygonum coccineum Muhl. (Water Smartweed)
 **Polygonum convolvulus* L. (Black Bindweed)
Polygonum hydropiper L. (Common Smartweed)
Polygonum lapathifolium L. (Pale Smartweed)
Polygonum pennsylvanicum L. (Pinkweed)
 **Polygonum persicaria* L. (Lady's-thumb)
Polygonum punctatum Ell. (Knotweed)
Polygonum ramossissimum Michx. (Bushy Knotweed)
Polygonum sagittatum L. (Arrow-leaved Tearthumb)

Polygonum scandens L. (Climbing False-buckwheat)
Polygonum tenue Michx. (Knotweed)
Polygonum virginianum L. (Jumpseed)
 **Rumex acetosella* L. (Sheep-sorrel)
Rumex altissimus Wood (Pale Dock)
 **Rumex crispus* L. (Curly Dock)
Rumex maritimus L. (Dock)
Rumex orbiculatus Gray (Water Dock)
 **Rumex patientia* L. (Patience Dock)
Rumex verticillatus L. (Swamp Dock)

PORTULACACEAE (Purslane Family)

Claytonia virginica L. (Spring Beauty)
 **Portulaca oleracea* L. (Common Purslane)

PRIMULACEAE (Primrose Family)

Androsace occidentalis Pursh (Western Rock Jasmine)
Lysimachia ciliata L. (Fringed Loosestrife)
Lysimachia hybrida Michx. (Loosestrife)
 **Lysimachia nummularia* L. (Moneywort)
Lysimachia thyriflora L. (Tufted Loosestrife)

RANUNCULACEAE (Crowfoot Family)

Actea pachypoda Ell. (White Baneberry)
Actea rubra (Ait.) Willd. (Red Baneberry)
Anemone canadensis L. (Meadow Anemone)
Anemone quinquefolia L. (Wood Anemone)
Anemone virginiana L. (Thimbleweed)
Anemonella thalictroides (L.) Spach (Rue Anemone)
Aquilegia canadensis L. (Columbine)
Clematis pitcheri T. & G. (Leather Flower)
Delphinium carolinianum Walt. (Blue Larkspur)
Delphinium tricorne Michx. (Rock Larkspur)
Delphinium virescens Nutt. (Prairie Larkspur)
Hepatica acutiloba DC. (Liverleaf)
 !*Hydrastis canadensis* L. (Goldenseal)
Myosurus minimus L. (Mousetail)
Ranunculus abortivus L. (Small-flowered Crowfoot)
Ranunculus fascicularis Muhl. (Early Crowfoot)
Ranunculus flabellaris Raf. (Yellow Water-crowfoot)
Ranunculus scleratus L. (Cursed Crowfoot)
Ranunculatus septentrionalis Poir. (Northern Buttercup)
Thalictrum dasycarpum Fisch. & Ave-Lall (Purple Meadow-rue)
Thalictrum dioicum L. (Early Meadow-rue)
 !*Thalictrum revolutum* DC. (Wax Meadow-rue)

RHAMNACEAE (Buckthorn Family)

Ceanothus americanus L. (New Jersey Tea)
Rhamnus lanceolata Pursh (Lance-leaved Buckthorn)

ROSACEAE (Rose Family)

Agrimonia gryposepala Wallr. (Agrimony)
Agrimonia parviflora Ait. (Agrimony)
Agrimonia pubescens Wallr. (Downy Agrimony)
Amelanchier arborea (Michx. f.) Fern. (Shadbush)
Aruncus dioicus (Walt.) Fern. (Goat's Beard)
Crateagus crus-galli L. (Cockspur Hawthorn)
Crateagus cuneiformis (Marsh.) Eggleston (Hawthorn)

Crataegus margaretta Ashe (Margaret's Hawthorn)
Crataegus mollis (T. & G.) Sheele (Red Hawthorn)
Fragaria virginiana Dcne. (Wild Strawberry)
Geum laciniatum Murr. (Rough Avens)
Physocarpus opulifolius (L.) Maxim. (Ninebark)
Potentilla arguta Pursh (Tall Cinquefoil)
Potentilla rivalis Nutt. (River Cinquefoil)
Potentilla simplex Michx. (Old-field Cinquefoil)
 !!*Prunus hortulana* Baily (Hortulan Plum)
 **Prunus mahaleb* L. (Mahaleb Cherry)
Prunus serotina Ehrh. (Black Cherry)
Prunus virginiana L. (Choke Cherry)
 **Pyrus communis* L. (Pear)
Pyrus ioensis (Wood) Bailey (Wild Crabapple)
 **Pyrus malus* L. (Cultivated Apple)
Rosa arkansana Port. (Arkansas Rose)
Rosa carolina L. (Sunshine Wild Rose)
Rosa setigera Michx. (Prairie Rose)
Rosa virginiana Mill. (Virginian Rose)
Rosa X rudiusscula Greene (*R. arkansana* X *carolina*)
Rubus allegheniensis Porter (Common Blackberry)
Rubus flagellaris L. (Northern Dewberry)
Rubus occidentalis L. (Black Raspberry)
Spiraea alba Du Roi (Meadow Sweet)

RUBIACEAE (Madder Family)

Cephalanthus occidentalis L. (Buttonbush)
 **Diodia teres* Walt. (Buttonweed)
Galium aparine L. (Spring-cleavers)
Galium circaezans Michx. (Wild-licorice)
Galium concinnum T. & G. (Shining Bedstraw)
Galium obtusum Bigel. (Wild Madder)
Galium tinctorum L. (Stiff Bedstraw)
Galium triflorum Michx. (Sweet-scented Bedstraw)

RUTACEAE (Rue Family)

Ptelea trifoliata L. (Water-ash)
Zanthoxylum americanum Mill. (Northern Prickly-ash)

SALICACEAE (Willow Family)

**Populus alba* L. (Silver-leaved Poplar)
 **Populus alba* X *grandidentata* (Sharon Poplar; Shimek Poplar)
Populus deltoides Marsh. (Cottonwood)
Populus grandidentata Michx. (Large-toothed Aspen)
Populus tremuloides Michx. (Quaking Aspen)
Salix amygdaloides Anderss. (Peach-leaved Willow)
Salix discolor Muhl. (Large Pussy Willow)
Salix humilis Marsh. (Prairie Willow)
Salix interior Rowlee (Sandbar Willow)
Salix nigra L. (Black Willow)
Salix rigida Muhl. (Heart-leaved Willow)

SANTALACEAE (Sandalwood Family)

Comandra umbellata (L.) Nutt. (Bastard Toadflax)

SAXIFRAGACEAE (Saxifrage Family)

Heuchera richardsonii R. Br. (Alumroot)

Penthorum sedoides L. (Ditch Stonecrop)
Ribes missouriense Nutt. (Missouri Gooseberry)

SCROPHULARIACEAE (Figwort Family)

Aureolaria grandifolia (Benth.) Pennell (False Foxglove)
Bacopa rotundifolia (Michx.) Wettst. (Water Hyssop)
Castilleja coccinea (L.) Spreng. (Indian Paint Brush)
 **Chaenorrhinum minus* (L.) Lange (Dwarf Snapdragon)
 !!*Chelone obliqua* L. (Pink Turtlehead)
 !!*Conobea multifida* (Michx.) Benth. (Conobea)
Gerardia auriculata Michx. (Foxglove)
Gerardia tenuifolia Vahl (Slender False Foxglove)
Gratiola virginiana L. (Round-fruited Hedge Hyssop)
 **Linaria vulgaris* Hill (Butter and Eggs)
Lindernia anagallidea (Michx.) Pennell
Lindernia dubia (L.) Pennell (False Pimpernel)
 !!*Mimulus alatus* Ait. (Monkey Flower)
Mimulus ringens L. (Allegheny Monkey Flower)
Pedicularis canadensis L. (Common Lousewort)
Penstemon digitalis Nutt. (Foxglove Penstemon)
Penstemon pallidus Small (Pale Bearded-tongue)
Scrophularia lanceolata Pursh (Early Figwort)
Scrophularia marilandica L. (Late Figwort)
 **Verbascum blattaria* L. (Moth Mullein)
 **Verbascum phlomoides* L. (Mullein)
 **Verbascum thapsus* L. (Common Mullein)
 !!*Veronica americana* (Raf.) Schw. (American Brooklime)
 **Veronica arvensis* L. (Corn Speedwell)
Veronica peregrina L. (Purslane Speedwell)
Veronicastrum virginicum (L.) Farw. (Culver's-root)

SIMAROUBACEAE (Quassia Family)

**Ailanthus altissima* (Mill.) Swingle (Tree-of-heaven)

SOLANACEAE (Nightshade Family)

**Datura stramonium* L. (Jimsonweed)
Physalis heterophylla Nees (Ground-cherry)
Physalis virginiana Mill. (Ground-cherry)
 **Solanum americanum* Mill. (Black Night-shade)
 **Solanum carolinense* L. (Horse-nettle)
 **Solanum dulcamara* L. (European Bittersweet)
 **Solanum rostratum* Dunal (Buffalo-bur)

STAPHYLEACEAE (Bladdernut Family)

Staphylea trifolia L. (Bladdernut)

TILIACEAE (Linden Family)

Tilia americana L. (Basswood)

ULMACEAE (Elm Family)

Celtis occidentalis L. (Hackberry)
Ulmus americana L. (American Elm)
 **Ulmus pumila* L. (Siberian Elm)
Ulmus rubra Muhl. (Slippery Elm)
Ulmus thomasi Sarg. (Cork Elm)

URTICACEAE (Nettle Family)

Boehmeria cylindrica (L.) Sw. (Bog-Hemp)
Laportea canadensis (L.) Wedd. (Wood Nettle)
Parietaria pennsylvanica Muhl. (Pellitory)
Pilea pumila (L.) Gray (Clearweed)
Urtica dioica L. (Stinging Nettle)

VERBENACEAE (Vervain Family)

Lippia lanceolata Michx. (Fog-fruit)
Verbena bracteata Lag. & Robr. (Bracted Vervain)
Verbena hastata L. (Blue Vervain)
Verbena stricta Vent. (Hoary Vervain)
Verbena urticifolia L. (White Vervain)

VIOLACEAE (Violet Family)

Viola missouriensis Greene (Missouri Violet)
Viola pedata L. (Pansy Violet)
Viola pratincola Greene (Common Blue Violet)
Viola pubescens Ait. (Smooth Yellow Violet)
Viola rafinesquii Greene (Field Pansy)
Viola sagittata Ait. (Arrow-leaved Violet)
Viola sororia Willd. (Downy Blue Violet)
Viola sagittata X *sororia*

VITACEAE (Grape Family)

!!*Ampelopsis cordata* Michx. (Raccoon Grape)
Parthenocissus quinquefolia (L.) Planch. (Virginia Creeper)
Parthenocissus vitacea (Knerr) Hitchc. (Woodbine)
 !!*Vitis baileyana* Munson (Possum Grape)
Vitis cinerea Engelm. (Winter Grape)
Vitis riparia Michx. (Riverbank Grape)
Vitis vulpina L. (Frost Grape)

ZYGOPHYLLACEAE (Caltrop Family)

**Tribulus terrestris* L. (Caltrop)

MAGNOLIATAE: LILIATAE (Monocots)

ALISMATACEAE (Water-plantain Family)

Alisma subcordatum Raf. (Water-plantain)
Echinodorus rostratus (Nutt.) Engelm. (Beaded Burhead)
Sagittaria engelmanniana J.G. Smith (Arrowhead)
Sagittaria graminea Michx. (Grass-like Arrowhead)
Sagittaria latifolia Willd. (Common Arrowhead)
Sagittaria rigida Pursh (Narrow Arrowhead)

ARACEAE (Arum Family)

Acorus calamus L. (Sweet Flag)
Arisaema dracontium (L.) Schott (Green Dragon)
Arisaema triphyllum (L.) Schott (Jack-in-the-pulpit)

COMMELINIACEAE (Spiderwort Family)

**Commelina communis* L. (Common Day Flower)
Commelina erecta L. (Day Flower)
Tradescantia ohioensis Raf. (Common Spiderwort)

CYPERACEAE (Sedge Family)

Carex albursina Sheldon (White Bear Sedge)
Carex annectens Bickn. (Connecting Sedge)
Carex atherodes Spreng. (Slough Sedge)
Carex bicknellii Britt. (Bicknell's Sedge)
Carex blanda Dewey (Woodland Sedge)
Carex brevior (Dew.) Mackenz. (Fescue Sedge)
 !!*Carex bushii* Mackenz. (Bush Sedge)
Carex cephalophora Muhl. (Woodbank Sedge)
Carex conjuncta Boott (Joined Sedge)
Carex crinita Lam. (Long-haired Sedge)
Carex cristatella Britt. (Dense-flowered Sedge)
Carex crus-corvi Shuttlew. (Crow-spur Sedge)
Carex davisii Schw. & Torr. (Davis' Sedge)
Carex festucacea Willd. (Fescue Sedge)
Carex frankii Kunth (Frank's Sedge)
Carex granularis Muhl. (Meadow Sedge)
Carex gravida L.H. Bailey (Heavy Sedge)
Carex grayii Carey (Gray's Sedge)
Carex hirsutella Mackenz. (Flattened Sedge)
Carex hirtifolia Mackenz. (Hairy-leaved Sedge)
Carex jamesii Schw. (James' Sedge)
Carex laeviconica Dewey (Smooth-coned Sedge)
Carex laevivaginata (Kukenth.) Mackenz. (Smooth-sheathed Sedge)
Carex lanuginosa Michx. (Wooly Sedge)
Carex lasiocarpa Ehrh. (Hairy Sedge)
Carex laxiflora Lam. (Drooping Sedge)
Carex leavenworthii Dewey (Leavenworth's Sedge)
Carex lupuliformis Sartw. (Hop-like Sedge)
Carex lupulina Muhl. (Hop Sedge)
Carex lurida Wahl. (Sallow Sedge)
Carex meadii Dew. (Mead's Sedge)
Carex molestia Mackenz. (Troublesome Sedge)
Carex muhlenbergii Schkuhr. (Muhlenberg's Sedge)
Carex muskingumensis Schw. (Muskingum's Sedge)
Carex normalis Mackenz. (Right-angled Sedge)
Carex pennsylvanica Lam. (Pennsylvania Sedge)
Carex rosea Schkuhr. (Rose-like Sedge)
Carex scoparia Schkuhr. (Broom Sedge)
Carex shortiana Dewey (Short's Sedge)
Carex sparganioides Muhl. (Bur-like Sedge)
Carex squarrosa L. (Wide-spreading Sedge)
Carex stipata Muhl. (Saw-beak Sedge)
Carex stricta Lam. (Tussock Sedge)
Carex tenella Schkuhr. (Two-seeded Sedge)
Carex tenera Dewey (Slender Sedge)
 !!*Carex tonsa* (Fem.) Bickn. (Deep Green Sedge)
Carex tribuloides Wahl. (Angled Sedge)
Carex typhina Michx. (Cat-tail Sedge)
Carex vulpinoidea Michx. (Foxtail Sedge)
Cyperus acuminatus Torr. & Hook. (Tapered Sedge)
Cyperus aristatus Rottb. (Sedge)
Cyperus erythrorhizos Muhl. (Red-rooted Sedge)
 **Cyperus esculentus* L. (Yellow Nutsedge)
Cyperus filiculmis Vahl. (Fern Flatsedge)
Cyperus odoratus L. (Fragrant Sedge)
Cyperus rivularis Kunth. (Brook Flatsedge)
Cyperus schweinitzii Torr. (Schweinitz's Flatsedge)
Cyperus strigosus L. (False Nutgrass)
Eleocharis acicularis (L.) R. & S. (Needle-shaped Spike-rush)
Eleocharis compressa Sulliv. (Flattened Spike-rush)
Eleocharis erythropoda Steud. (Red-footed Spikerush)
Eleocharis macrostachya Britt. (Marsh Spike-rush)
Eleocharis obtusa (Willd.) Schultes (Needle Spike-rush)
Eleocharis tenuis (Willd.) Schultes (Slender Spikerush)

VASCULAR FLORA OF LEE COUNTY

Scirpus americanus Pers. (Three-square Rush)
Scirpus atrovirens Willd. (Dark Green Bulrush)
Scirpus cyperinus (L.) Kunth (Woolgrass)
Scirpus fluviatilis (Torr.) A. Gray (River Bulrush)
Scirpus georgianus Harper (George's Rush)
Scirpus pendulus Muhl. (Drooping Rush)
Scirpus validus Vahl. (Soft-stemmed Bulrush)

DIOSCOREACEAE (Yam Family)

Dioscorea villosa L. (Wild Yam)

HYDROCHARITACEAE (Fog's-bit Family)

Elodea nuttallii (Planch.) St. John (Nuttall's Waterweed)
 !!*Vallisneria americana* Michx. (Tape grass)

IRIDACEAE (Iris Family)

**Belamcandra chiensis* (L.) DC. (Blackberry-lily)
Iris virginica L. (Southern Blue Flag)
Sisyrinchium angustifolium Mill. (Narrow-leaved Blue-eyed Grass)
Sisyrinchium campestre Bickn. (Plains Blue-eyed Grass)

JUNCACEAE (Rush Family)

Juncus acuminatus Michx. (Bog Rush)
Juncus balticus Willd. (Baltic Rush)
 !!*Juncus bufonius* L. (Toad Rush)
 !!*Juncus effusus* L. (Soft Rush)
Juncus interior Wieg. (Inland Rush)
Juncus tenuis Willd. (Path Rush)
Juncus torreyi Cor. (Torrey's Rush)
Luzula campestris (L.) DC. (Field Woodrush)

LEMNACEAE (Duckweed Family)

Lemna minor L. (Common Duckweed)
Lemna trisulca L. (Star Duckweed)
Spirodela polyrhiza (L.) Schleid. (Water-flaxseed)
Wolffia columbiana Karst. (Water-meal)
Wolffia punctata Grieseb. (Water-meal)

LILIACEAE (Lily Family)

Allium canadense L. (Wild Garlic)
 **Asparagus officinalis* L. (Asparagus)
 **Hemerocallis fulva* L. (Asian Daylily)
Hypoxis hirsuta (L.) Cov. (Yellow Star-grass)
Lilium michiganense Farw. (Michigan Lily)
Polygonatum biflorum (Walt.) Eil. (Small Solomon's-seal)
Polygonatum pubescens (Wild.) Pursh (Large Solomon's-seal)
Smilacina racemosa (L.) Desf. (Large False Solomon's-seal)
Smilacina stellata (L.) Desf. (Small False Solomon's-seal)
Smilax ecirrhata (Engelm.) Wats. (Carrion-flower)
Smilax herbacea L. (Carrion-flower)
Smilax hispida Muhl. (Greenbrier)
Trillium flexipes Raf. (Large-flowered Trillium)
Trillium nivale Riddell (Snow Trillium)
Trillium recurvatum Beck (Wake-robin)
Uvularia grandiflora Sm. (Bellwort)
Veratrum woodii Robbins (False Hellebore)

NAJADACEAE (Naiad Family)

Najas flexilis (Willd.) Rostk. & Schmidt (Naiad)
Najas guadelupensis (Spreng.) Magnus (Naiad)

ORCHIDACEAE (Orchid Family)

Cypripedium calceolus L. (Yellow Lady's Slipper)
 !!*Habenaria lacera* (Michx.) Lodd. (Ragged Orchid)
Liparis lilifolia (L.) Rich. (Lilia-leaved Twayblade)

POACEAE (Grass Family)

**Agropyron repens* (L.) Beauv. (Quack Grass)
Agropyron smithii Rydb. (Wheat-grass)
 **Agrostis gigantea* Roth (Redtop)
Agrostis hyemalis (Walt.) BSP. (Tickle Grass)
Agrostis perennans (Walt.) Tuckerm. (Autumn Bent Grass)
Alopecurus carolinianus Walt. (Carolina Foxtail)
Andropogon gerardii Vitman (Big Bluestem)
Andropogon scoparius Michx. (Little Bluestem)
Aristida dichotoma Michx. (Poverty-grass)
Aristida longespica Poir. (Triple-awned Grass)
Aristida oligantha Michx. (Triple-awned Grass)
Aristida tuberculosa Nutt. (Sea-beach Needlegrass)
 **Avena sativa* L. (Cultivated Oats)
Bouteloua curtipendula (Michx.) Torr. (Side-oats Grama)
Brachyelytrum erectum (Schreb.) Beauv. (Bearded Shorthusk)
 **Bromus inermis* Leyss. (Smooth Brome)
 **Bromus japonicus* Thunb. (Japanese Chess)
Bromus pubescens Muhl. ex Willd. (Brome Grass)
 **Bromus secalinus* L. (Cheat)
 **Bromus tectorum* L. (Downy Chess)
Calamagrostis canadensis (Michx.) Beauv. (Blue Joint)
Cenchrus longispinus (Hack.) Fern. (Field Sandbur)
 **Chloris verticillata* Nutt. (Windmill Grass)
Cinna arundinacea L. (Wood Reedgrass)
 **Dactylis glomerata* L. (Orchard Grass)
 **Danthonia spicata* (L.) Beauv. (Poverty Oatgrass)
Diarrhena americana Beauv.
Digitaria filiformis (L.) Koeler (Finger Grass)
 **Digitaria ischaemum* (Schreb.) Muhl. (Smooth Crab Grass)
 **Digitaria sanguinalis* (L.) Scop. (Common Grass)
Echinochloa muricata (Beauv.) Fern. (Barnyard Grass)
Echinochloa crusgallii (L.) Beauv. (Barnyard Grass)
Eleusine indica (L.) Gaertn. (Goosegrass)
Elymus canadensis L. (Nodding Wild Rye)
Elymus villosus Muhl. (Slender Wild Rye)
Elymus virginicus L. (Virginia Wild Rye)
 **Eragrostis cilianensis* (All.) Link (Stink Grass)
Eragrostis frankii C.A. Mey. var. *frankii* (Love Grass)
Eragrostis frankii C.A. Mey. var. *brevipes* Fassett (Love Grass)
Eragrostis hypnoides (Lam.) B.S.P. (Pony Grass)
Eragrostis pectinacea (Michx.) Nees (Lovegrass)
Eragrostis spectabilis (Pursh) Steud. (Purple Lovegrass)
Festuca arundinacea Schreb. (Alta Fescue)
Festuca obtusa Biehler (Nodding Fescue)
Festuca octoflora Walt. (Six-weeks Fescue)
 **Festuca pratensis* Huds. (Meadow Fescue)
Glyceria septentrionalis Hitchc. (Sweet Grass)
Glyceria striata (Lam.) Hitchc. (Fowl Manna Grass)
Hordeum jubatum L. (Squirrel-tail Grass)
Hordeum pusillum Nutt. (Small Wild Barley)
Hystrix patula Moench. (Bottle-brush Grass)
Leersia lenticularis Michx. (Catchfly Grass)

Leersia oryzoides (L.) Sw. (Rice Cutgrass)
Leersia virginica Willd. (Whitegrass)
Leptoloma cognatum (Schult.) Chase (Fall Witch Grass)
Lolium perenne L. var. *italicum* Parn. (Annual Rye Grass)
Melica nitens (Scribn.) Hitchc. (Three-flower Melic)
**Miscanthus sacchariflorus* (Maxim.) Hack. (Plume Grass)
Muhlenbergia frondosa (Poir.) Fern. (Leafy Muhly)
Muhlenbergia schreberi Gmel. (Drop-seed)
Panicum capillare L. (Old-witch Grass)
Panicum clandestinum L. (Hidden Panic Grass)
Panicum commonsianum Ashe var. *euchlamydeum* (Shinners) Pohl
 (Common's Panic Grass)
Panicum dichotomiflorum Michx. (Panic Grass)
Panicum implicatum Scribn. (Panic Grass)
Panicum latifolium L. (Broad-leaved Panic Grass)
Panicum oligosanthes Schultes (Few-flowered Panic Grass)
Panicum scribnerianum Nash (Small Panic Grass)
Panicum virgatum L. (Switch Grass)
Paspalum ciliatifolium Michx. (Bead Grass)
Phalaris arundinaceae L. (Reed Canary Grass)
**Phleum pratense* L. (Timothy)
**Poa compressa* L. (Kentucky Blue Grass)
**Poa pratensis* L. (Canada Blue Grass)
Poa sylvestris A. Gray (Woodland Blue Grass)
**Setaria faberi* Herrm. (Giant Foxtail)
**Setaria lutescens* (Weigel) Hubb. (Yellow Foxtail)
Setaria verticillata (L.) Beauv. (Bristly Foxtail)
**Setaria viridis* (L.) Beauv. (Green Foxtail)
Sorghastrum nutans (L.) Nash (Indian Grass)
**Sorghum bicolor* (L.) Moench (Sorghum)
**Sorghum halepense* (L.) Pers. (Johnson Grass)
Spartina pectinata Link (Slough-grass)
Sphenopholis obtusata (Michx.) Scribn. var. *obtusata* (Wedge Grass)
Sporobolus asper (Michx.) Kunth. (Drop-seed)
Sporobolus cryptandrus (Torr.) Bray (Sand Dropseed)
Sporobolus vaginiflorus (Torr.) Wood. (Poverty Grass)
Stipa spartea Trin. (Porcupine Grass)
Tridens flavus (L.) Hitchc. (Purpletop)
Triplasis purpurea (Walt.) Chapm. (Sand-grass)
Tripsacum dactyloides L. (Gama Grass)
**Triticum aestivum* L. (Wheat)
**Zea mays* L. (Corn)

PONTERIACEAE (Pickerel Weed Family)

Heteranthera dubia (Jacq.) MacM. (Water-stargrass)
Pontederia cordata L. (Pickerel Weed)

POTAMOGETONACEAE (Pondweed Family)

Potamogeton berchtoldii Fieber (Pondweed)
Potamogeton diversifolius Raf. (Diverse-leaved Pondweed)
Potamogeton foliosus Raf. (Leafy Pondweed)
Potamogeton nodosus Poir. (Knotty Pondweed)
Potamogeton pectinatus L. (Sago)
Potamogeton zosteriformis Fern. (Flat-stem Pondweed)

SPARGANIACEAE (Bur-reed Family)

Sparganium americanum Nutt. (American Bur-reed)
Sparganium eurycarpium Engelm. (Broad-fruited Bur-reed)

TYPHACEAE (Cat-tail Family)

Typha angustifolia L. (Narrow-leaved Cat-tail)
Typha latifolia L. (Common Cat-tail)
Typha X glauca Godr. (*T. angustifolia* X *latifolia*)

ZANNICHELLIACEAE (Horned Pondweed Family)

Zannichellia palustris L. (Horned Pondweed)

SUMMARY OF CHECKLIST

114 Families
 437 Genera
 876 Taxa (species plus hybrids)

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