

VASCULAR FLORA OF THE DUCK RIVER UNIT, TENNESSEE NATIONAL WILDLIFE REFUGE, HUMPHREYS COUNTY, TENNESSEE

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ABSTRACT—The Duck River Unit of the Tennessee National Wildlife Refuge includes 10,817 ha in Humphreys County, Tennessee. It is managed by the United States Fish and Wildlife Service, primarily to provide food, water, and cover for resident, migratory, and over-wintering waterfowl. Most of the unit is bottomlands of the impounded Tennessee and lower Duck Rivers (Kentucky Reservoir) that were agricultural prior to 1945. Management practices include wildlife plantings, agricultural production, and pools where dams and watergates allow water-level manipulations. Wetland habitat and community types include swamps, sloughs, marshes, wet meadows, dewatered zones, permanent deep water, variable shorelines, and bottomland forests. Although limited in area, uplands with secondary forests, successional fields, bluffs and outcrops, home sites, and cemeteries add to habitat diversity. Forty-nine collecting trips in 2001–2003 documented the vascular flora that includes 95 families, 408 genera, and 718 species. Over one-half of the species encountered were county records and one [*Echinochloa walteri* (Pursh) Heller] was a state record. Introduced taxa (121) constitute almost 17 percent of the flora; 145 taxa (20.2 percent) are woody. Large families are the Asteraceae (86 taxa), Poaceae (81), Cyperaceae and Fabaceae (42 each), Lamiaceae (24), Scrophulariaceae (20), Rosaceae (18), and Fagaceae (17). Large genera are *Carex* (21 species), *Quercus* (16), *Cyperus* and *Solidago* (9 each), and *Desmodium*, *Eupatorium*, and *Polygonum* (8 each). Six taxa are on the Tennessee elements of concern list: *Echinochloa walteri* (Pursh) Heller (special concern), *Heteranther limosa* (Sw.) Willd. (endangered), *Liparis loeselii* (L.) Rich. (endangered), *Sagittaria brevirostra* Mack. & Bush (threatened), *Scirpus fluviatilis* (Torr.) Gray (special concern), and *Spiranthes odorata* (Nutt.) Lindl. (endangered).

The United States National Wildlife Refuge System was established in 1903 and now includes more than 500 refuges totaling nearly 38 million ha, all managed by the United States Fish and Wildlife Service (Gove, 2000). Riley and Riley (1979) and Dutton and Thomas (1990) pointed out the need for botanical studies within refuges because of their great botanical diversity and richness. In Tennessee, only the Reelfoot Lake and Cross Creeks Refuges have had extensive floristic studies (Guthrie, 1989; Joyner and Chester, 1994).

This study provides an inventory and analyses of the vascular flora of the Duck River Unit, Tennessee National Wildlife Refuge (TNWR). The objectives were to: 1) inventory the vascular flora; 2) qualitatively estimate abundance of taxa; 3) record introduced taxa; 4) record federal and/or state-listed rare taxa; 5) assign taxa to a designated wetland indicator category; and 6) distinguish community/habitat types and assign taxa to one or more of the types.

THE STUDY AREA

The TNWR was established in 1945 and includes three units, Big Sandy, Duck River, and Busseltown (Benton, Decatur, Henry, and Humphreys counties). The 20,780 ha refuge is centered around the impounded Tennessee and lower Duck and Big Sandy Rivers and includes about 10,190 ha of rivers, streams, and pools, 7,608 ha of mostly upland forests, 1,214 ha of farmland, 1,317 ha of seasonally flooded basins, and the remainder in miscellaneous lands. Management goals are to provide: 1) habitat for

wildlife, especially resident, migratory, and over-wintering waterfowl and other birds, 2) habitat and protection for endangered species, and 3) recreation and environmental education opportunities for the public (United States Fish and Wildlife Service, 2000). Public usage includes fishing, hunting, hiking, nature study, and especially bird-watching with more than 500,000 visitors each year (Joan Stevens, TNWR, personal communication).

Location and Description of the Duck River Unit—The study area (the unit) includes 10,817 ha in Humphreys County, Tennessee, and is part of the Hustburg, Johnsonville, and Waverly topographic quadrangles (United States Geological Survey, 1949, 1950a, 1950b). The unit is within the Western Highland Rim Subsection, Highland Rim Section, of the Interior Low Plateau Province (Fenneman, 1938; Griffith et al., 1997). This subsection is a dissected plateau where topography varies from level-rolling to rugged and complex, often with steep slopes and deep ravines; elevations range from 107–305 m above sea level. Most of the unit is bottomlands of the impounded Tennessee and lower Duck Rivers (Kentucky Reservoir) and lies north and east of the confluence of the Rivers (Fig. 1). Elevations within the bottomlands range from 107–110 m (United States Geological Survey, 1949, 1950a, 1950b). An extensive levee system adjacent to Kentucky Reservoir surrounds the western border of the unit to prevent flooding during normal reservoir fluctuations. Uplands (up to 160 m) with secondary forests, successional fields, and limestone bluffs make up a portion of the unit along its northern periphery. A narrow strip of the unit extends along the southern side of the lower Duck River, and southward along the east side

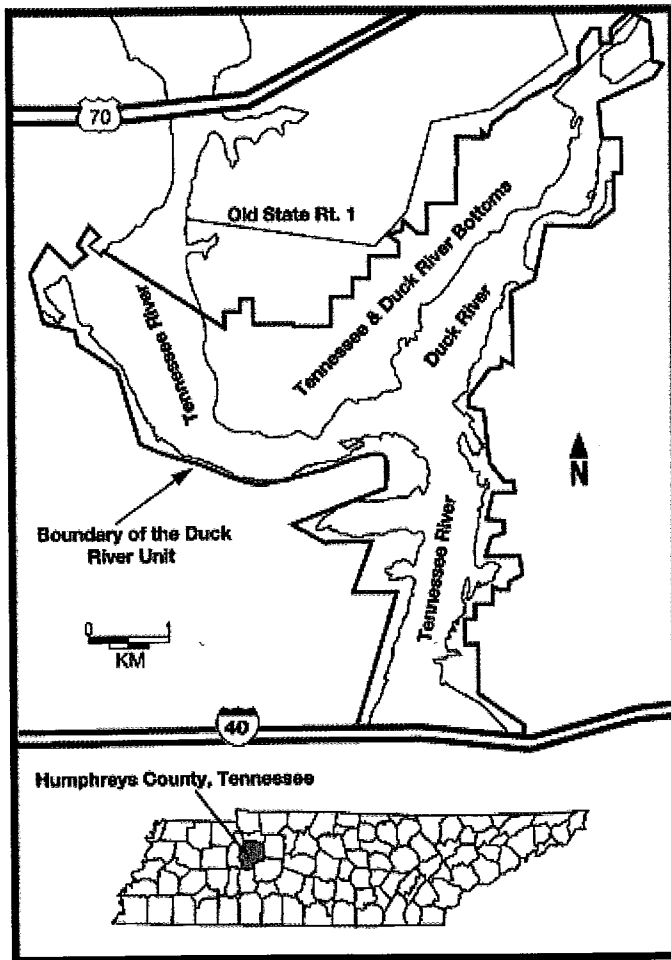


FIG. 1. Location of Humphreys County within Tennessee (lower), and approximate boundary of the Duck River Unit, Tennessee National Wildlife Refuge, within Humphreys County (upper).

of the Tennessee River. There, uplands (up to 180 m) with secondary forests, upland and low fields, limestone bluffs and outcrops, home sites, cemeteries, and the extensive and variable reservoir shorelines add to habitat diversity.

Climate—According to the system of Thornthwaite (1931), the area has a humid mesothermal climate with an adequate amount of water for plant growth throughout the year. In the Köppen system, the area has a mild rainy climate with hot summers and without a distinct dry season (Ackerman, 1941). Specifically for Humphreys County (Welles and Robbins, 1946), the average annual temperature is 15.4°C. Winter temperatures average 5°C while summers average 25.3°C. January is the coldest month (average = 4.6°C) and July the warmest (average = 26.2°C). Annual precipitation averages 150.4 cm and is generally distributed throughout the year, with autumn being the driest season and winter-spring the wettest. Snowfall makes up about 19 cm of the annual precipitation. The average frost-free season of 197 days extends from 18 April–22 October.

Geology and Soils—Much of the Western Highland Rim is underlain by mostly level-bedded, Mississippian limestones of the St. Louis, Warsaw, and Fort Payne formations. These are cherty, calcareous, and dolomitic silicstones with some limestones and shale. Much of the upland is covered by loess. Surface

geology includes chert-fragment solution residuum; cherty silty clay that is locally phosphatic, solution residuum; and cherty clay solution residuum (Griffith et al., 1997; Springer and Elder, 1980).

Three main soil associations are found within the unit (Springer and Elder, 1980). First, Pickwick (well-drained)-Paden (moderately well-drained) soils occupy the major bottomlands. These soils, formed in loess and alluvium, are cultivated intensely although occasional flooding is an agricultural problem. Second, well-drained and moderately well-drained Arrington-Lindell-Egam-Armour soils occur along the Duck River. The parent material is alluvium, in some places modified by loess, and agricultural usage is intense. Finally, Bodine-Mountview-Dickson soil associations are found on uplands and thus constitute a minor part of the unit. These soils are excessively drained and cherty on the steepest sections to well-drained and silty on more undulating sites. The more cherty soils originated from limestone, the silty soils from loess and limestone. Shallow soils over shale occupy the lowermost part of some of the upland sections; the majority of these sites are forested.

Vegetation and Flora—The unit is within the Western Mesophytic Forest Region (Braun, 1950), a transitional zone between mixed mesophytic forests eastward and oak and oak-hickory forests westward. Existing forests on the Western Highland Rim are a mosaic of types, with local topography, climate, and edaphic factors determining specific conditions. Four genera dominate: maples (*Acer*), hickories (*Carya*), oaks (*Quercus*), and elms (*Ulmus*) (Chester et al., 1995; Chester and Ellis, 1989); the cited references present a more complete description of the physical and vegetative features of the area.

The composition of the state's flora is generally well-known (Wofford and Kral, 1993), but many counties, such as Humphreys, have not been adequately surveyed. Data from the University of Tennessee Herbarium (2003) show that only 489 vascular species are vouchered from Humphreys County. By comparison, over 1300 taxa are known from Montgomery County and over 1200 from Stewart County, both nearby Western Highland Rim counties.

History—Native Americans belonging to the Archaic, Woodland, and Mississippian cultures utilized the area for several thousand years, as evidenced by artifacts and burial sites (Sims, 1971). The "The Big Bottom Site" near the Duck River has yielded various artifacts belonging to the Southern Cult or Death Cult (AD 1250–1500) and has been called the greatest archeological site in Tennessee (Peacock, 1984). Paint Rock, a bluff rising about 25 m out of the Duck River, once had Native American carvings of a half moon and seven stars, but that section of the bluff was apparently destroyed by road construction. Native Americans had villages surrounding Paint Rock, at nearby Hurricane Rock Hill, and about two miles below the Duck River on the Tennessee River (Garrett, 1963). Few European settlers entered the area before 1810, when the Native Americans were forced to move west of the Tennessee River (Goodspeed's History Series, 1886). Most of the bottomlands were soon cleared and remained agricultural until purchased by The Tennessee Valley Authority in association with the construction of Kentucky Lake (the impounded Tennessee River) between 1936–1943. The land was transferred to the United States Fish and Wildlife Service in 1945.

Modern Land Use—The impounded rivers, agricultural fields, wildlife food crops, swamps, sloughs, marshes, wet meadows, and wildlife pools dominate the landscape. Several all-

TABLE 1. Summary of the vascular flora of the Duck River Unit, Tennessee National Wildlife Refuge.

Groups	Families	Genera	Species and lesser taxa		
			Native	Introduced	Total
Pteridophytes	11	17	21	0	21
Gymnosperms	3	3	3	1	4
Angiosperms					
Monocots	17	85	145	36	181
Dicots	94	303	429	83	512
Total	125	408	598	120	718

weather roads lead to boat ramps and bank-fishing sites, and numerous other, gated roads are used by refuge staff, by hikers, or to reach wildlife observation points. Twelve (others under construction) man-made pools range in size from a few to more than 100 ha; water levels are controlled by a series of dams and watergates. Pool levels are drawn down in summer, creating a dewatered zone where wildlife food crops are planted or native and introduced moist-soil plants develop. Pool levels are then raised in autumn and winter, creating forage and cover for waterfowl. Overflow from pools and the rivers is common and may last for a few weeks to several months depending upon depth of flooding and microtopography. Most of the drier bottoms are leased to area farmers for growing wheat, soybeans, milo, and corn, with portions left for wildlife. Fire (not observed), mechanical removal, and herbicides are used to control invasive vegetation (Gove, 2000).

MATERIALS AND METHODS

Forty-nine trips were made to the unit from April 2001–April 2003 to collect voucher specimens (more than 800), to estimate relative abundance of each taxon using the system of Joyner and Chester (1994), and to record habitat data. All parts of the unit were visited at least twice during each season except winter. Identifications followed standard manuals, including Fernald (1950), Radford et al. (1968), and Gleason and Cronquist (1991). Dr. H. R. De Selm and the late Dr. Vern McNeilus, both of The University of Tennessee (TENN), kindly helped with the identification of some grasses and sedges, respectively. Nomenclature (and nativity) mostly follows Wofford and Kral (1993). Vouchers were accessioned into the Austin Peay State University Herbarium (APSC) with duplicates forwarded to TENN. Specimens, including a few previous collections, and the accumulated abundance and habitat data, were used for floristic analyses and to prepare an annotated catalog of the flora.

Community/habitat types were identified from the wetland classification system for the Tennessee Valley Region (Carter and Burbank, 1978); upland community types were subjectively defined and named. All species were assigned to a wetland indicator category based on data from the United States Fish and Wildlife Service (1996). County records were determined from the Atlas of Tennessee Vascular Plants (Chester et al., 1993, 1997). Designations of rarity were from the Tennessee Natural Heritage Program (2003).

RESULTS AND DISCUSSION

Floristic Analyses—The study documented a vascular flora of 125 families, 403 genera, and 718 species and lesser taxa (Table 1). Large families included the Asteraceae (86 taxa), Poaceae (81), and Cyperaceae and Fabaceae (42 each); these four families accounted for 35 percent of the flora. Other large families included the Lamiaceae (24 taxa), Scrophulariaceae (19), Rosaceae (18), Fagaceae (17), Polygonaceae, Ranunculaceae, and Rubiaceae (13 each), Apiaceae (12), and Euphorbiaceae (11). The largest genus was *Carex* (21 taxa), followed by *Quercus* (16), *Cyperus* and *Solidago* (9 each), *Desmodium*, *Eupatorium*, and *Polygonum* (8 each), *Carya*, *Eragrostis*, and *Hypericum* (7 each), and *Aster*, *Bidens*, *Dichanthelium*, *Ludwigia*, and *Panicum* (6 each).

The woody component of 123 trees and shrubs and 22 vines included 20.2 percent of the flora. Large tree/shrub genera were *Quercus* (16 taxa), *Carya* (7), *Acer* (4) and, *Hypericum*, *Cornus*, *Crataegus*, *Prunus*, *Rosa*, *Rubus*, and *Ulmus* (3 each). Large woody vine genera were *Vitis* and *Smilax* (4 taxa each). The 121 non-native taxa accounted for almost 17 percent of the flora. County records (391 taxa) accounted for 54.5 percent of the flora and one state record [*Echinochloa walteri* (Pursh) Heller] was documented.

Rare Taxa—Six listed taxa were found. Categories of rareness are: 1) Endangered, a species whose continued existence as a viable component of the state's flora is in jeopardy; 2) Threatened, a species that appears likely to become endangered; and 3) Special Concern, a species that is uncommon in Tennessee, or has unique or highly specific habitat requirements or scientific value and therefore requires careful monitoring of its status. The listed taxa include:

Heteranthera limosa (Sw.) Willd. (Pontederiaceae). Threatened. This annual was found in two small populations, both on exposed mudflats of pool margins. It is otherwise known from Davidson, Henry, Humphreys, Montgomery, and Stewart counties.

Liparis loeselii (L.) Rich. (Orchidaceae). Endangered. A few plants of this herbaceous perennial were observed in a poorly drained bottomland forest near the Tennessee River. Otherwise, it is known from Carter, Coffee, DeKalb, Grundy, Stewart, and Unicoi counties.

Sagittaria brevirostra Mack. and Bush (Alismataceae). Threatened. Small populations of this herbaceous perennial were observed in a swampy area along the Tennessee River and within

a small stream near the mouth of the Duck River. Other counties with reported populations are Cumberland, Montgomery, and Stewart.

Scirpus fluviatilis (Torr.) Gray (Cyperaceae). Special Concern. This herbaceous perennial was observed in two emergent marshes near the Tennessee River with very small populations in each. It is otherwise known only from Henry County.

Spiranthes odorata (Nutt.) Lindl. (Orchidaceae). Endangered. A colony of about five plants of this herbaceous perennial was seen in a bottomland forest along frequently flooded edges of the Tennessee River. Interestingly, browsing by deer prevented most plants from flowering. Other Tennessee reports have been from Knox County (collected in 1896 and 2001) and Sumner County (last collected in 1949) (historic collection data supplied by Dr. B. E. Wofford, Curator of The University of Tennessee Herbarium).

Echinochloa walteri (Pursh) Heller (Poaceae). Special Concern. Extensive populations of this annual were observed around the large pools and in wet meadows adjacent to the Tennessee River. It is mostly a southern species and was not previously vouchered from Tennessee.

Plant Communities/Habitats—Each taxon was assigned to one or more community/ habitat types based on the apparent preference of the species for the type(s). Designation of wetland types follow a modification of Carter and Burbank (1978). Upland and other types were subjectively defined and named.

A. Wetland types:

Open water. This includes the deeper pools, sloughs, and the impounded Tennessee and lower Duck Rivers (Kentucky Reservoir).

Bottomland forests. Hardwood forests flooded annually, usually during winter and/or early spring (there is limited coverage of this type in the study area).

Swamps. Semi-permanently and permanently flooded areas with at least 30 percent coverage by water-tolerant woody plants. Subclasses are Shrub Swamp (dominated by shrubs or saplings of water-tolerant trees) and Dead Woody Swamp (recently flooded areas where most of the trees are dead).

Marshes. Shallow-water wetlands dominated by herbaceous emergents. Two subclasses include Wet Meadow (regularly flooded but may dry enough for agricultural usage) and Emergent Marsh (usually flooded permanently).

Seasonally dewatered zones. Areas of low relief around the pools are exposed by draw downs and then planted in wildlife food crops or native/introduced moist-soil plants allowed to develop. Exposed zones along the reservoir resulting from draw downs may include mud or sand flats, sand-gravel-rocky beaches, or a combination of these.

Shorelines of pools, sloughs, and Kentucky Reservoir. In addition to dewatered zones noted above, shorelines may include footslopes of upland forests, swamps, shrub swamps, fields, wet meadows, emergent marshes, or weedy thickets.

B. Upland and other community/habitat types (subjectively defined):

Low woods. Ravines and floodplains of small streams where there is little flooding.

Upland woods. Mesic to xeric slope and ridge secondary forests.

Upland fields. Former agricultural fields in various stages of

succession, some clipped regularly, some with extensive thickets.

Small streams and springs with seeps. Limited in area, but often floristically diverse.

Limestone bluffs and outcrops. Some wooded or within slope forests, some perpendicular with mostly herbaceous flora, occasionally with seeps near the base.

Agricultural fields. Regularly flooded in winter and spring, mostly planted in grains and legumes.

Cultural and other disturbed sites. Areas with on-going disturbance, including roadsides; lawns; boat ramp areas; gravel parking lots; bank-fishing areas; and levees that are irregularly mowed, under repair, or new construction; home sites; and cemeteries.

Wetland Species—The United States Fish and Wildlife Service (1996) has established a regional system of categorizing wetland plants based on habitat preference; the categories range from hydric to xeric and are coded as:

- OBL = Obligate Wetland: species that almost always (> 99% of the time) occur in wetlands;
- FACW = Facultative Wetland: usually occur in wetlands (67–99%), but are occasionally found in non-wetlands;
- FAC = Facultative: are equally likely to occur in wetlands or non-wetlands (34–66%);
- FACU = Facultative Upland: usually occur in non-wetlands (67–99%), but occasionally are found in wetlands (1–33%);
- UPL = Obligate Upland: occur in wetlands in another region, but occur almost always (> 99%) in non-wetlands in the region specified;
- NI = No Indicator: those species for which information was insufficient to determine indicator status or the species was not considered by the Regional Panel;
- NL = Not listed.

A positive (+) or negative (–) sign is used with the Facultative indicator categories to more specifically define the regional frequency of occurrence in wetlands. A positive sign indicates a frequency toward the higher end of the category (more frequently found in wetlands). A negative sign indicates a frequency toward the lower end of the category (less frequently found in wetlands). Taxa that predominantly occur in Southeast Region wetlands (codes OBL, FACW, and FAC+ and one-half of FAC) accounted for 43 percent (309 taxa) of the flora. Primarily upland taxa (codes FAC–, FACU, UPL, and one-half of FAC) accounted for 36 percent (258 taxa) of the flora. Taxa that were either given no indicator (NI) or apparently not included in the list (NL) accounted for 21 percent (151 taxa) of the flora.

ACKNOWLEDGMENTS

The authors extend appreciation to the staff of the Tennessee National Wildlife Refuge for their help and assistance. R. Wheat, Wildlife Biologist, was especially helpful in obtaining the federal-lands collecting permit. This study was done in partial fulfillment of the requirements for a Master of Science Degree by the first author at Austin Peay State University. The Center of Excellence for Field Biology at APSU provided significant financial support.

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APPENDIX 1

Annotated Checklist—The checklist is divided into Pteridophyta (ferns and fern allies), Gymnospermae (non-flowering seed plants), and Angiospermae (flowering plants), which is then divided into Monocotyledonae and Dicotyledonae. Families, genera, and species are arranged alphabetically. The annotations applied are outlined below in the following sequence; 1. Non-native taxa are preceded by an asterisk (*). 2. The community/habitat type(s) in which the species was most often observed. 3. The abundance is described as: infrequent, not always in stated community type(s) and usually in small numbers; occasional, often in stated community type(s) but rarely in large numbers; frequent, usually encountered in the community type(s) but not always in large numbers; abundant, expected in the type, usually in large numbers; rare, known from few locales, generally with small populations; locally abundant, known from few locales, with large numbers in each. 4. Collectors and collection numbers are listed as: EWC = Edward W. Chester, LYLE = Laurina Lyle, SF = Susan Fletcher, and SG = Stephanie Gunn. 5. Wetland indicator status: OBL (obligate wetland), FACW (facultative wetland), FAC (facultative), FACU (facultative upland), UPL (obligate upland), NI (no indicator), NL (not listed). 6. County records (CR) and the state record (SR) are based on Chester et al. (1993, 1997).

PTERIDOPHYTA

Aspleniaceae

Asplenium platyneuron (L.) B.S.P.; bottomland and slope forests; occasional. SG-47, 268. FACU

- A. rhizophyllum* L.; wooded outcrops; rare. SG-524. NL
- Azollaceae
Azolla caroliniana Willd.; swamps, sloughs, pools; locally abundant. SG-220. OBL
- Blechnaceae
Woodwardia areolata (L.) Moore; open outcrops, low woods; infrequent. SG-477. OBL
- Dennstaedtiaceae
Pteridium aquilinum (L.) Kuhn; dry road banks; infrequent. SG-474. FACU
- Dryopteridaceae
Polystichum acrostichoides (Michx.) Schott; bottomland and slope forests; occasional. SG-48. FAC
- Lycopodiaceae
Diphasiastrum digitatum (Brown) Holub; low woods; rare. SG-668. NL, CR
- Ophioglossaceae
Botrychium biternatum (Sav.) Underw.; bottomland forests; rare. LYLE-200. FAC
B. dissectum Spreng.; bottomland forests; rare. SG-324. FAC
B. virginianum (L.) Sw.; bottomland and slope forests; rare. SG-390. FACU
Ophioglossum pycnostichum (Fern.) Löve & Löve; bottomland forests; rare. SG-438. FACW, CR
- Osmundaceae
Osmunda regalis L. var. *spectabilis*; low woods; rare. SG-539. OBL
- Sinopteridaceae
Adiantum pedatum L.; slope forests; occasional. SG-522. FACU
Cheliantes lanosa (Michx.) Eaton; open bluffs; occasional. SG-548. NL
- Thelypteridaceae
Thelypteris hexagonoptera (Michx.) Weath.; slope forests; occasional. SG-431, 573. FACU+
T. noveboracensis (L.) Nieuwl.; low woods; infrequent. SG-574. FAC+
- Woodsiaceae
Athyrium filix-femina (L.) Roth subsp. *asplenoides* (Michx.) Hulten; bottomland forests; infrequent. SG-505. NI
Deparia acrostichoides (Sw.) Kato; low woods; rare. SG-538. FAC
Diplazium pycnocarpon (Spreng.) Brown; bottomland and slope forests; occasional. SG-532. FAC+
Onoclea sensibilis L.; bottomland forests; frequent. SG-351. FACW
Woodsia obtusa (Spreng.) Torr.; bottomland and slope forests; occasional. SG-286. NL
- SPERMATOPHYTA: GYMNOSPERMAE
- Cupressaceae
Juniperus virginiana L.; upland fields and forests; infrequent. SF-68. FACU-, CR
- Pinaceae
**Pinus taeda* L.; planted, spreading into upland fields; infrequent. SG-414. FAC, CR
- P. virginiana* Mill.; bluffs, xeric woods; occasional. SG-478, 641. NL, CR
- Taxodiaceae
Taxodium distichum (L.) Rich.; pools, sloughs, reservoir shorelines; frequent. SF-108 OBL, CR
- SPERMATOPHYTA: ANGIOSPERMAE 1. MONOCOTS
- Alismataceae
Alisma subcordatum Raf.; emergent marshes, wet meadows; occasional. SG-100. OBL, CR
Echinodorus cordifolius (L.) Griseb.; emergent marshes, wet meadows; infrequent. SG-30, 102. OBL
Sagittaria australis (Sm.) Small; spring seeps; rare. SG-702. OBL, CR
S. brevirostra Mack. & Bush; reservoir shorelines, small streams; infrequent. SG-610, 687. OBL, CR
S. calycina Engelm.; emergent marshes, wet meadows; frequent. SG-104. OBL
- Amaryllidaceae
Hymenocallis occidentalis (Leconte) Kunth; bottomland and slope forests; occasional. SG-277. OBL
**Narcissus poeticus* L.; old home sites; rare. SG-750. NL, CR
**N. pseudonarcissus* L.; old home sites; rare. SG-404. NL, CR
- Araceae
Arisaema dracontium (L.) Schott; bottomland forests; occasional. SG-143. FACW, CR
A. triphyllum (L.) Schott; bottomland and slope forests; frequent. SG-506. FACW-, CR
- Commelinaceae
**Commelina communis* L.; weedy levees and shorelines; infrequent. SG-271. FAC, CR
C. diffusa Burm.; roadside ditches; rare. SG-463. FACW, CR
C. erecta L.; roadside ditches; occasional. SG-183. NI, CR
C. virginica L.; bottomland forests; frequent. SG-206. FACW, CR
**Murdannia keisak* (Hassk.) Hand.-Mazz.; swamps, emergent marshes; locally abundant. SG-688. OBL, CR
Tradescantia ohioensis Raf.; bottomland forests, reservoir shorelines; occasional. SG-63. FAC, CR
T. subaspera Ker-Gawl.; bottomland forests; frequent. SG-57, 441. NL, CR
- Cyperaceae
Carex albicans Willd.; upland woods; frequent. SG-473. NI
C. blanda Dewey; upland woods; occasional. SG-360. FAC-
C. cephalophora Willd.; upland woods; occasional. SG-406. FAC, CR
C. complanata Torr. & Hook.; upland woods; occasional. SG-417. FAC+
C. crinita Lam.; emergent marshes, wet meadows; infrequent. SG-536. FACW+, CR
C. crus-corvi Shuttlew.; bottomland forests, wet meadows; abundant. SG-7, 35. OBL, CR
C. frankii Kunth; emergent marshes, wet meadows; occasional. SG-167, 179. OBL, CR
C. grayi Carey; bottomland forests; occasional. SG-36. FACW, CR
C. intumescens Rudge; bottomland forests; occasional. SG-492. FACW

- C. jamesii* Schwein.; bottomland and slope forests; infrequent. SG-336. NL
- C. laxiflora* Lam.; bottomland forests; occasional. SG-435. FACU, CR
- C. leavenworthii* Dewey; lawns, fields; frequent. SG-18. NL
- C. lupulina* Willd.; sloughs, emergent marshes, wet meadows; frequent. SG-105, 113. OBL, CR
- C. muhlenbergii* Schk.; upland woods; occasional. SG-359. NL
- C. oxylepis* Torr. & Hook.; upland woods; occasional. SG-471. FACW-, CR
- C. retroflexa* Willd.; slope forests; occasional. SG-389. NL
- C. rosea* Willd.; slope forests; occasional. SG-374. NL
- C. scoparia* Schk.; bottomland forests; frequent. SG-498. FACW, CR
- C. tribuloides* Wahl.; emergent marshes, wet meadows; occasional. SG-86. FACW+, CR
- C. typhina* Michx.; bottomland forests, wet meadows; occasional. SG-224. OBL, CR
- C. vulpinoidea* Michx.; emergent marshes, wet meadows; frequent. SG-17, 142. OBL, CR
- Cyperus aristatus* Rottb.; mudflats; abundant. SG-291. OBL
- C. echinatus* (L.) Wood; fields, roadsides; occasional. SG-76. FAC
- C. erythrorhizos* Muhl.; wet meadows; abundant. SG-280. OBL
- C. ferruginescens* Boeck.; wet meadows; abundant. SG-281. FACW, CR
- C. flavescens* L.; seep at base of bluff; rare. SG-605. OBL
- C. lancastrimensis* Porter; fields, roadsides; occasional. SG-109. FAC
- C. polystachyos* Rottb. var. *texensis*; reservoir shorelines; infrequent. SG-649. FACW, CR
- C. pseudovegetus* Steud.; emergent marshes, wet meadows; occasional. SG-91. FACW
- C. strigosus* L.; emergent marshes, wet meadows; occasional. SG-155. FACW+, CR
- Eleocharis acicularis* (L.) Roem. & Schult.; mudflats; abundant. SG-4. OBL
- E. obtusa* (Willd.) Schult.; emergent marshes, wet meadows; abundant. SG-3. OBL, CR
- E. quadrangulata* (Michx.) Roem. & Schult.; emergent marshes; rare. SG-636. OBL
- Fimbristylis autumnalis* (L.) Roem. & Schult.; mudflats; frequent. SG-589. OBL, CR
- F. vahlii* (Lam.) Link; mudflats; abundant. SG-279. OBL
- Hemicarpha micrantha* (Vahl) Britt.; mudflats; occasional. SG-692. NL
- Kyllinga pumila* Michx.; spring seeps; rare. SG-626. FACW
- Rhynchospora corniculata* (Lam.) Gray; emergent marshes, wet meadows; infrequent. EWC-13854, SG-154. OBL, CR
- Scirpus cyperinus* (L.) Kunth; emergent marshes, wet meadows; occasional. SG-256. OBL, CR
- S. fluviatilis* (Torr.) Gray; emergent marshes; rare. SG-146. OBL, CR
- S. pendulus* Muhl.; sloughs, pool edges, emergent marshes; occasional. SG-627. OBL
- Scleria oligantha* Michx.; upland fields; occasional. SG-472. FACU, CR
- D. villosa* L.; bottomland forests, low thickets; occasional. SG-171. FACW, CR
- Iridaceae**
- Iris cristata* Sol.; wooded streambanks; rare. SG-503. NL, CR
- I. virginica* L.; reservoir shorelines; rare. SG-580. OBL, CR
- Sisyrinchium albidum* Raf.; bottomland forests; infrequent. SG-124. FAC+, CR
- S. augustifolium* Mill.; bottomland forests, mesic fields; occasional. SG-81. FAC, CR
- Juncaceae**
- Juncus acuminatus* Michx.; emergent marshes, wet meadows; occasional. SG-5, 31, 466. OBL, CR
- J. diffusissimus* Buckl.; emergent marshes, wet meadows; abundant. SG-85, 116. FACW, CR
- J. effusus* L.; emergent marshes; wet meadows; frequent. SG-74. FACW+
- J. tenuis* Willd.; trails, old roads, wet meadows; occasional. SG-193. FAC, CR
- Luzula bulbosa* (Wood) Rydb.; slope forests; infrequent. SG-323. FACU, CR
- Lemnaceae**
- Lemna minor* L.; sloughs, swamps, pools; locally abundant. SG-534. OBL, CR
- Spirodela polyrhiza* (L.) Schleid.; sloughs, swamps, pools; infrequent. SG-563. OBL
- Liliaceae**
- Allium canadense* L.; low woods; infrequent. SG-16, 95. FACU-, CR
- **A. vineale* L.; lawns, cemeteries, fields; frequent. SG-34. FACU-, CR
- Erythronium americanum* Ker-Gawl.; bottomland and slope forests; infrequent. SG-326. NL, CR
- **Hemerocallis fulva* (L.) L.; home sites, roadsides; infrequent. SG-457. UPL, CR
- **Muscari atlanticum* Boiss. & Reut.; agricultural fields; occasional. SG-342. NL, CR
- Nothoscordum bivalve* (L.) Britt.; bluffs, slope woods; infrequent. SG-341, 370. FAC, CR
- **Ornithogalum umbellatum* L.; agricultural fields, lawns, roadsides; occasional. SG-337. FACU+, CR
- Polygonatum biflorum* (Walt.) Ell.; slope woods; rare. SG-757. FAC-
- Smilacina racemosa* (L.) Desf.; slope woods; occasional. SG-752. FACU, CR
- Trillium cuneatum* Raf.; bottomland and slope forests; occasional. SG-319. NL, CR
- T. recurvatum* Beck; bottomland and slope forests; infrequent. SG-344. FACU
- Najadaceae**
- Najas guadalupensis* (Spreng.) Mag.; sloughs, pools, reservoirs; abundant. SG-303. OBL
- **N. minor* All.; sloughs, pools, reservoirs; abundant. SG-487. OBL, CR
- Orchidaceae**
- Goodyera pubescens* (Willd.) Br.; bottomland forests; rare. SG-666. UPL, CR
- Liparis loeselii* (L.) Rich.; bottomland forests; rare. SG-537. FACW, CR
- Dioscoreaceae**
- **Dioscorea batatas* Dcne.; low woods and thickets; infrequent. SG-451. NL

- Spiranthes cernua* (L.) Rich.; low woods; rare. SG-724. FACW, CR
S. odorata (Nutt.) Lindl.; bottomland forests; rare. SG-730. OBL, CR
S. ovalis Lindl.; bottomland forests; occasional. SG-723, 729. FAC
S. vernalis Englem. & Gray; upland fields; occasional. SG-512. FACW-, CR
Tipularia discolor (Pursh) Nutt.; slope woods; infrequent. SG-266, 731. FACU, CR

Poaceae

- **Agrostis gigantea* Roth; upland fields; infrequent. SG-385. FACW, CR
A. perennans (Walt.) Tuck.; upland woods; occasional. SG-614. FACU
**Aira elegantissima* Schur; upland fields; occasional. SG-424. NL, CR
Alopecurus carolinianus Walt.; agricultural fields, wet meadows; frequent. SG-1. FACW
Andropogon gyrans Ashe; upland fields; occasional. SG-541. NL, CR
A. ternarius Michx.; upland fields; frequent. SG-713. FACU, CR
A. virginicus L.; upland fields; abundant. SG-633. FAC-, CR
Aristida longespica Poir.; upland fields; rare. SG-674. FACU, CR
A. oligantha Michx.; upland fields; occasional. SG-651. NL
A. purpurascens Poir.; upland fields; occasional. SG-652. OBL, CR
**Arthraxon hispidus* (Thunb.) Makino; roadside ditches; locally abundant. SG-695. FACU+
Arundinaria gigantea (Walt.) Muhl.; bottomland forests, streambanks; frequent. SG-151. FACW, CR
Brachiaria platyphylla (Griseb.) Nash; wet meadows; occasional. SG-306. FAC+, CR
**Bromus commutatus* Schrad.; roadsides, fields, levees; frequent. SG-20. NL, CR
B. pubescens Muhl.; roadsides, fields, levees; infrequent. SG-500. NI, CR
Chasmanthium latifolium (Michx.) Yates; bottomland and low woods; occasional. SG-293. FAC-, CR
Cinna arundinacea L.; bottomland forests, low woods; occasional. SG-248. FACW
**Cynodon dactylon* (L.) Pers.; lawns, boat ramps, cemeteries; frequent. SG-454. FACU, CR
**Dactylis glomerata* L.; fields, meadows, roadsides; occasional. SG-384. FACU, CR
Danthonia spicata (L.) Beauv.; upland woods; occasional. SG-382. NL, CR
Dichantherium acuminatum (Sw.) Gould & Clark; dry woods; occasional. SG-71, 108, 234. OBL
Dichantherium clandestinum (L.) Gould; upland woods; infrequent. SG-439. FACW, CR
D. commutatum (Schultes) Gould; upland woods; occasional. SG-426. FAC
D. laxiflorum (Lam.) Gould; upland woods; occasional. SG-425. FAC, CR
D. scoparium (Lam.) Gould; wet meadows; frequent. SG-582. FACW, CR
D. sphaerocarpon (Ell.) Gould var. *isophyllum* (Scribn.) Schultes; upland woods; infrequent. SG-489. FACU
**Digitaria ischaemum* (Schr.) Schr.; fields, ramps, roadsides; occasional. SG-716. UPL, CR
**D. sanguinalis* (L.) Scop.; fields, ramps, roadsides; occasional. SG-210. FAC-, CR
**Echinochloa crusgalli* (L.) Beauv. var. *frumentacea* (Link) Wright; wet meadows, emergent marshes; abundant; SG-114. FACW-, CR
E. walteri (Pursh) Heller; emergent marshes, wet meadows; locally abundant. SG-675, 701. OBL, SR
**Eleusine indica* (L.) Gaertn.; fields, meadows, boat ramps, roadsides; occasional. SG-159. FACU, CR
Elymus hystrix L.; wooded stream banks, bluffs; occasional. SG-502. UPL, CR
E. virginicus L.; roadsides, low woods; frequent. SG-94, 144. FAC, CR
Eragrostis capillaris (L.) Nees; dry fields, roadsides; occasional. SG-21. NL, CR
**E. cilianensis* (All.) Mosher; gravel lots, roadsides; frequent. SG-644. FACU, CR
**E. curvula* (Schrad.) Nees; road banks; occasional. SG-420. NL, CR
E. glomerata (Walt.) Dewey; reservoir shorelines; occasional. SG-648. OBL, CR
E. hypnoides (Lam.) B.S.P.; mudflats; abundant. SG-590. OBL
**E. pilosa* (L.) Beauv.; mudflats, wet meadows, ramps; frequent. SG-162, 194. FACU, CR
E. spectabilis (Pursh) Steud.; upland fields; infrequent. SG-632. FACU, CR
E. alopecuroides (L.) Ell.; upland fields; rare. SG-719. NL, CR
E. giganteus (Walt.) Muhl.; upland fields; rare. SG-714. NL, CR
E. strictus Baldw.; wet meadows; rare. SG-677. NL, CR
**Festuca pratensis* Huds.; fields, roadsides, levees; frequent. SG-396. FACU, CR
F. subverticillata (Pers.) Alex.; bottomland forests; occasional. SG-392. FACU
Hordeum pusillum Nutt.; low fields, wet meadows; occasional. SG-2. FACU
Leersia oryzoides (L.) Sw.; swamps, emergent marshes, wet meadows; frequent. SG-304. FACW
L. virginica Willd.; bottomland and low woods; occasional. SG-203. FACW
Leptochloa filiformis (Lam.) Beauv.; roadsides, fields; occasional. SG-635. NL, CR
L. panicoides (Presl) Hitchc.; emergent marshes, wet meadows; frequent. SG-117. FACW
**Lolium perenne* L.; roadsides, levees, fields; infrequent. SG-393. FACU
Melica mutica Walt.; bluffy woods; occasional. SG-366. NL
**Microstegium vimineum* (Trin.) Camus; roadside ditches; occasional. SG-288. FAC+, CR
Muhlenbergia schreberi Gmel.; roadsides, boat ramps, lawns; occasional. SG-295. FAC
Panicum anceps Michx.; upland fields; occasional. SG-552. FAC-, CR
P. capillare L.; upland fields; infrequent. SG-682. FAC, CR
P. dichotomiflorum Michx.; upland fields; infrequent. SG-679. FACW, CR
P. rigidulum Bosc ex Nees var. *elongatum* (Scribn.) Lelong; upland fields, wet meadows, emergent marshes; occasional. SG-558. FACW, CR

- P. rigidulum* Bosc ex Nees var. *rigidulum*; upland fields, wet meadows, emergent marshes; frequent. SG-254. FACW
- P. virgatum* L.; reservoir shorelines; abundant. SG-615, 691. FAC+, CR
- **Paspalum dilatatum* Poir.; fields, meadows; occasional. SG-559. FAC+, CR
- P. distichum* L.; pool and reservoir shorelines; occasional. SG-681. OBL, CR
- P. floridanum* Michx.; low fields, roadsides; occasional. SG-226. FACW, CR
- P. fluitans* (Ell.) Kunth; swampy woods near the reservoir; abundant. SG-707. OBL
- P. laeve* Michx.; fields, roadsides; infrequent. SG-557. FACW-, CR
- **Phleum pratense* L.; upland fields, roadsides; infrequent. SG-411. FACU, CR
- **Poa annua* L.; lawns, boat ramps, parking lots, roadsides; occasional. SG-22. FAC, CR
- P. autumnalis* Muhl.; bottomland forests; occasional. SG-388. FACW-
- **P. pratensis* L.; meadows, lawns; occasional. SG-415. FACW-, CR
- Schizachyrium scoparium* (Michx.) Nash; upland fields; frequent. SG-620. FACU, CR
- **Setaria faberi* Herrm.; roadsides, fields; frequent. SG-236. UPL
- S. parviflora* (Poir.) Kerguelen; roadsides, fields; infrequent. SG-725. FAC, CR
- **S. pumila* (Poir.) Roem. & Schult.; roadsides, fields; frequent. SG-186, 690. NI, CR
- **Sorghum halepense* (L.) Pers.; meadows, roadsides, fields; abundant. SG-449. FACU, CR
- **S. bicolor* (L.) Moench; agricultural fields; abundant. SG-678. FACU
- Sphenopholis obtusata* (Michx.) Scribn.; slope woods; occasional. SG-375. FAC+, CR
- Tridens flavus* (L.) Hitchc.; roadsides, fields, meadows; occasional. SG-616. NL, CR
- Tripsacum dactyloides* (L.) L.; shorelines, low fields; frequent. EWC-4230, SG-79. FAC+
- **Triticum aestivum* L.; roadsides, agricultural fields; infrequent. SG-391. NL
- Vulpia octoflora* (Walt.) Rydb.; upland fields; occasional. SG-420. FACU+, CR
- **Zea mays* L.; roadsides, agricultural fields; infrequent. SG-727, NL.
- Pontederiaceae
- Heteranthera limosa* (Sw.) Willd.; mudflats; occasional. SG-215, 222. OBL
- Potamogetonaceae
- **Potamogeton crispus* L.; reservoirs; occasional. SG-373. OBL
- P. nodosus* Poir.; pools and reservoirs; occasional. SG-219. OBL, CR
- Smilacaceae
- Smilax bona-nox* L.; upland woods, fields, thickets; frequent. SG-363. FAC, CR
- S. glauca* Walt.; upland woods, fields, thickets; occasional. SG-422. FAC, CR
- S. rotundifolia* L.; low fencerows, thickets, bottomland forests; occasional. SG-60. FAC
- S. tamnoides* L.; bottomland forests; occasional. SG-201. FAC+, CR
- Typhaceae
- Typha latifolia* L.; emergent marshes, wet meadows, ditches; locally abundant. SG-571. OBL, CR
- SPERMATOPHYTA: ANGIOSPERMAE 2. DICOTS
- Acanthaceae
- Dicliptera brachiata* (Pursh) Spreng.; bottomland forests; infrequent. SG-272. FACW
- Justicia americana* (L.) Vahl; shallow water of pools; occasional. SG-255. OBL
- J. ovata* (Walt.) Lind.; bottomland forests; rare. SG-189, 496. OBL, CR
- Ruellia caroliniensis* (Gmel.) Steud.; upland fields; occasional. SG-508. FACU, CR
- R. strepens* L.; roadsides, upland fields; frequent. SG-15, 145, 150. FAC-
- Aceraceae
- Acer negundo* L.; bottomland and slope forests; occasional. SF-65, 80. FACW, CR
- A. rubrum* L.; bottomland and slope forests; occasional. SF-138, SG-380. FAC
- A. saccharinum* L.; bottomland forests; occasional. SF-31, SG-330. FACW, CR
- A. saccharum* Marsh.; bottomland and slope forests; infrequent. SF-39. FACU-, CR
- Amaranthaceae
- **Alternanthera philoxeroides* (Mart.) Griseb.; sloughs, swamps, shorelines; abundant. EWC-4238, SG-67. OBL
- **Amaranthus hybridus* L.; agricultural fields, roadsides; infrequent. SG-665. NL, CR
- **A. spinosus* L.; agricultural fields, roadsides; rare. SG-585. FACU, CR
- A. tuberculatus* (Moq.) Sauer; mudflats, shorelines; occasional. SG-298. FACW+
- Iresine rhizomatosa* Standl.; bottomland forests; occasional. SG-250. FACW-, CR
- Anacardiaceae
- Rhus copallina* L.; upland fields, thickets; occasional. SG-175. FACU-, CR
- R. glabra* L.; upland fields, thickets; occasional. SF-159. NL, CR
- Toxicodendron radicans* (L.) Kuntze; bottomland forests, low and upland woods; frequent. Sight record. FAC
- Annonaceae
- Asimina triloba* (L.) Dunal; bottomland and slope forests; occasional. SG-347. FAC
- Apiaceae
- Chaerophyllum tainturieri* Hook.; lawns, fields, roadsides; occasional. SG-322, 447. FAC
- Cicuta maculata* L.; wet meadows, shorelines; occasional. SG-134. OBL, CR
- Cryptotaenia canadensis* (L.) DC.; low woods, shorelines; occasional. SG-205. FAC+, CR
- **Daucus carota* L.; fields, roadsides; occasional. SG-188. NL, CR

- Eryngium prostratum* Nutt.; pool and reservoir shorelines, emergent marshes; occasional. SG-99. FACW, CR
- Hydrocotyle verticillata* Thunb.; emergent marshes; rare. SG-670. OBL, CR
- Osmorhiza longistylis* (Torr.) DC.; low woods and thickets; occasional. SG-525. FAC
- Ptilimnium capillaceum* (Michx.) Raf.; sandy shorelines; occasional. SG-89. OBL
- Sanicula canadensis* L.; bottomland and slope forests; occasional. SG-125. FACU
- **Torilis arvensis* (Huds.) Link; sandy shorelines, roadsides; frequent. SG-24, 38. NL
- Trepocarpus aethusae* Nutt. ex DC.; reservoir shorelines and adjacent woods; frequent. SG-40. FACW
- Zizia aurea* (L.) Koch; bottomland forests; occasional. SG-200. FAC+
- Apocynaceae
- Amsonia tabernaemontana* Walt.; bottomland forests, fields; infrequent. SG-345. OBL
- Apocynum cannabinum* L.; roadsides, ditches, fields; frequent. SG-42. FAC-
- Trachelospermum difforme* (Walt.) Gray; low woods and thickets; occasional. SG-64, 241, 628. FACW
- Aquifoliaceae
- Ilex decidua* Walt.; bottomland forests, shrub swamps; occasional. SF-81. FACW-, CR
- I. opaca* Ait.; upland woods; infrequent. SG-405. FAC-, CR
- Araliaceae
- Aralia spinosa* L.; bottomland and upland forest; infrequent. SF-158. FAC, CR
- Aristolochiaceae
- Aristolochia tomentosa* Sims; reservoir shoreline thickets; occasional. SG-54. FAC, CR
- Asclepiadaceae
- Asclepias incarnata* L.; low woods, fields, ditches; occasional. SG-595. OBL, CR
- A. perennis* Walt.; low woods; occasional. SG-37, 178, 529. OBL
- A. syriaca* L.; roadsides, thickets; rare. SG-475. UPL, CR
- A. tuberosa* L.; upland fields; infrequent. SG-490. NL
- A. variegata* L.; upland woods, thickets; infrequent. SG-418, 568. FACU
- Cynanchum laeve* (Michx.) Pers.; roadsides, shorelines; occasional. SG-122. FAC, CR
- Matelea gonocarpa* (Walt.) Shinnery; bottomland woods; occasional. EWC-13852, SG-58, 137, 161. FACW, CR
- Asteraceae
- Achillea millefolium* L.; upland fields; occasional. SG-419. FACU, CR
- Ageratina altissima* (L.) King & Rob.; roadsides, fields; occasional. SG-311. FACU-
- Ambrosia artemisiifolia* L.; upland fields, thickets; occasional. SG-312. FACU, CR
- A. trifida* L.; low fields and thickets; occasional. SG-289. FAC
- Artemisia annua* L.; home sites, roadsides; rare. SG-479. FACU, CR
- Aster dumosus* L.; upland fields; occasional. SG-570. FAC
- A. lanceolatus* Willd.; outcrops, slope forests; occasional. SG-307. NI
- A. paludosus* Ait. ssp. *hemisphericus* (Alex.) Cronq.; upland fields; rare. SG-711. FACU
- A. patens* Ait.; upland woods, bluffs; infrequent. EWC-14563. NL, CR
- A. pilosus* Willd.; low fields, thickets; occasional. SG-290. FAC-, CR
- A. urophyllus* Lindl.; open outcrops; rare. SG-685. NL, CR
- Bidens aristosa* (Michx.) Britt.; ditches, roadsides, fields; occasional. SG-32. FACW, CR
- B. bipinnata* L.; fields, roadsides; rare. SG-604. NL
- B. cernua* L.; wet meadows, shorelines; infrequent. SG-233, 278. OBL
- B. discoidea* (Torr. & Gray) Britt.; on dead logs in swamps; frequent. SG-703. FACW
- B. frondosa* L.; low woods; frequent. SG-699. FACW
- B. tripartita* L.; mudflats, low woods; occasional. SG-292, 698. FACW+
- Boltonia asteroides* (L.) L'Hér.; low fields, meadows; occasional. SG-285. FACW
- **Chrysanthemum leucanthemum* L.; upland fields, roadsides; occasional. SG-399. UPL, CR
- Cirsium discolor* (Muhl.) Spreng.; roadside thickets, upland fields; frequent. SG-624. UPL
- **C. vulgare* (Savi) Ten.; roadside thickets, upland fields; rare. SG-735. UPL, CR
- Conoclinium coelestinum* (L.) DC.; low fields, thickets, ditches; occasional. SG-569. FAC
- Conyza canadensis* (L.) Cronq.; low and upland fields; frequent. SG-586. FACU, CR
- Coreopsis major* Walt.; roadsides, upland fields; infrequent. SG-485. NL
- C. tripteris* L.; upland fields; occasional. SG-566. FAC
- **Eclipta prostrata* (L.) L.; wet fields, mudflats; occasional. SG-235. FACW-, CR
- Elephantopus tomentosa* L.; roadsides, home sites, fields; occasional. SG-212. FAC, CR
- Erechtites hieracifolia* (L.) Raf.; upland fields, thickets; occasional. SG-554. FAC-, CR
- Erigeron annuus* (L.) Pers.; roadsides, fields, ditches; occasional. SG-51. FACU, CR
- E. philadelphicus* L.; ditches, roadsides, fields; occasional. SG-13. FAC, CR
- E. pulchellus* Michx.; slope woods; infrequent. SG-754. NL
- E. strigosus* Muhl. ex Willd.; roadsides, agricultural fields; occasional. SG-52. FAC, CR
- Eupatorium album* L.; upland fields; rare. SG-565. NL
- E. capillifolium* (Lam.) Small; roadsides; rare. SG-734. FACU, CR
- E. fistulosum* Barr.; low fields, thickets; infrequent. SG-659. FAC+
- E. hyssopifolium* L.; upland fields; occasional. SG-619. NL
- E. perfoliatum* L.; upland fields; occasional. SG-567. FACW+, CR
- E. purpureum* L.; low fields, thickets; infrequent. SG-482. FAC, CR
- E. rotundifolium* L.; upland fields; occasional. SG-553. FAC
- E. serotium* Michx.; upland fields, roadsides; occasional. SG-294. FAC
- Fleischmannia incarnata* (Walt.) King & Rob.; open outcrops; frequent. SG-683. FACU+, CR

- **Galinsoga quadriradiata* Ruiz & Pav.; roadsides, ditches; frequent. SG-131, EWC-14562. NL
- Gnaphalium obtusifolium* L.; upland fields; occasional. SG-631. NL, CR
- G. purpureum* L.; upland fields; infrequent. SG-356, 445. UPL
- Helenium amarum* (Raf.) Rock; roadsides, agricultural fields; occasional. SG-96. FACU-, CR
- H. flexuosum* Raf.; low woods, shorelines; frequent. SG-176, 230. FACW, CR
- Helianthus microcephalus* Torr. & Gray; borders of upland woods; infrequent. SG-643. UPL
- H. silphoides* Nutt.; upland fields; rare. SG-689. NL, CR
- H. strumosus* L.; borders of upland woods; infrequent. SG-587. NL
- H. tuberosus* L.; streambanks, low fields; occasional. SG-301, 684. FAC
- **Heterotheca camporum* (Greene) Shinnery; roadsides; rare. SG-721. NL, CR
- Hieracium gronovii* L.; upland fields and woods; rare. SG-607, 623. UPL, CR
- **Iva annua* L.; wet meadows, roadsides; abundant. SG-283. FAC
- Krigia biflora* (Walt.) Blake; slope woods; occasional. SG-753. FACU
- K. caespitosa* (Raf.) Chambers; wet meadows, fields; occasional. SG-8, 275. FACU+
- K. dandelion* (L.) Nutt.; upland woods; occasional. SG-361. FACU
- Lactuca canadensis* L.; roadsides, thickets, fields; occasional. SG-217. FACU-
- L. floridana* (L.) Gaertn.; forest borders; infrequent. SG-596. FACU, CR
- **L. saligna* L.; roadsides; rare. SG-693. FACU, CR
- **L. serriola* L.; roadsides, fields; occasional. SG-263. FAC
- Liatris squarrulosa* Michx.; upland fields; occasional. SG-712. NL
- Melanthera nivea* (L.) Small; low woods near Kentucky Reservoir; occasional. SG-227, 238. FACU
- Mikania scandens* (L.) Willd.; low thickets, fencerows; occasional. SG-300. FACW+
- Pluchea camphorata* (L.) DC.; shorelines, mudflats; rare. SG-269. FACW
- Polymnia uvedalia* L.; bottomland forests and thickets; occasional. SG-501. NL, CR
- Pyrrhopappus carolinianus* (Walt.) DC.; roadsides, fields; occasional. SG-44, 73. NL, CR
- Rudbeckia hirta* L.; upland fields, roadsides; infrequent. SG-491. FACU
- R. triloba* L.; low fields, roadsides, thickets; occasional. SG-550. FACU-
- Senecio anonymus* Wood; upland fields; infrequent. SG-423. FACU-, CR
- S. glabellus* Poir.; bottomland fields and roadsides; occasional. SG-9. FACW+
- Sericocarpus linifolius* (L.) B.S.P.; upland fields; rare. SG-510. NL, CR
- Silphium perfoliatum* L.; mesic woods, streambanks; occasional. SG-245. FAC+
- Solidago caesia* L.; wooded outcrops; occasional. SG-708. FACU, CR
- S. canadensis* L.; fields, thickets, roadsides; occasional. SG-664. FACU, CR
- S. erecta* Pursh; upland woods; occasional. SG-715. NL
- S. flexicaulis* L.; wooded outcrops; occasional. SG-709. FACU, CR
- S. gigantea* Ait.; wet meadows, roadsides, thickets, fields; occasional. SG-274. FACW
- S. hispida* Muhl.; upland woods; occasional. SG-694. NL, CR
- S. nemoralis* Ait.; dry fields, roadsides; occasional. SG-592. NL, CR
- S. sphacelata* Raf.; open outcrops; abundant. SG-686, 726. NL
- S. ulmifolia* Muhl.; upland woods; occasional. SG-611. NL, CR
- **Sonchus asper* (L.) Hill; shorelines; infrequent. SG-119. FAC+, CR
- **Taraxacum officinale* Weber; roadsides, lawns, cemeteries; occasional. SG-164. FACU, CR
- Verbesina alternifolia* (L.) Britt.; low woods, thickets; occasional. SG-199. FAC
- Vernonia gigantea* (Walt.) Trel.; roadsides, fields, low woods; frequent. SG-249. FACW, CR
- **Xanthium strumarium* L.; agricultural fields, shorelines; abundant. SG-282. FAC
- Balsaminaceae**
- Impatiens capensis* Meerb.; bottomland forests, ditches; locally abundant. SG-240. FACW
- I. pallida* Nutt.; open outcrops; rare. SG-705. FACW, CR
- Berberidaceae**
- **Nandina domestica* Thunb.; home sites; rare. SG-518. NL, CR
- Podophyllum peltatum* L.; bottomland and slope forests; frequent. SG-343. FACU
- Betulaceae**
- Alnus serrulata* (Ait.) Willd.; shrub swamps, streambanks; rare. SG-467. FACW
- Betula nigra* L.; swamps, streambanks; occasional. SF-9,78. FACW
- Carpinus caroliniana* Walt.; bottomland and low woods; occasional. SG-257. FAC, CR
- Corylus americana* Walt.; low woods, streambanks; rare. SG-543. FACU
- Ostrya virginiana* (Mill.) Koch; bottomland and slope forests; infrequent. SF-110. FACU-, CR
- Bignoniaceae**
- Bignonia capreolata* L.; roadsides, woods, thickets, fencerows; occasional. SG-165. FAC, CR
- Campsis radicans* (L.) Seem. ex Bureau; bottomland and slope forests, fencerows, roadsides; frequent. SG-26. FAC
- **Catalpa speciosa* (Ward.) Engelm.; reservoir shorelines; infrequent. SG-412. FACU, CR
- Boraginaceae**
- Cynoglossum virginianum* L.; upland woods; infrequent. SG-401. UPL, CR
- Heliotropium indicum* L.; wet meadows, mudflats; occasional. SG-111, 196. FAC+
- Myosotis macrosperma* Engelm.; bottomland woods, roadsides, fields; occasional. SG-10. FAC
- M. verna* Nutt.; roadsides, fields; frequent. SG-339. FAC-, CR
- Brassicaceae**
- Arabis laevigata* (Muhl.) Poir.; bottomland forests; occasional. SG-352. NL

- **Brassica rapa* L.; agricultural fields; frequent. SG-749. NL
 **Capsella bursa-pastoris* (L.) Medik.; agricultural fields, roadsides, lawns; occasional. SG-338. FACU+, CR
 **Cardamine hirsuta* L.; lawns, roadsides, fields; frequent. SG-313. FAC, CR
Dentaria diphylla Michx.; slope woods; frequent. SG-737. NI, CR
D. heterophylla Nutt.; slope woods; occasional. SG-739. FAC+
D. laciniata Muhl.; bottomland and slope forests; frequent. SG-325. FACU
Iodanthus pinnatifidus (Michx.) Steud.; bottomland forests; infrequent. SG-387. FACW
Lepidium virginicum L.; roadsides, lawns, fields; frequent. SG-12. FACU
Rorippa palustris (L.) Bess. ssp. *fernaldiana* (Butters & Abbe) Jons.; wet meadows; infrequent. SG-101. OBL, CR.
R. sessiliflora (Nutt.) Hitchc.; wet meadows; occasional. SG-756. FACW+
Sibara virginica (L.) Rollins; agricultural fields; infrequent. SG-354. FAC, CR
- Callitrichaceae
Callitriche heterophylla Pursh; sloughs, pools; locally abundant. SG-328. OBL, CR
C. terrestris Raf.; agricultural fields; occasional. SG-372. FACW, CR
- Campanulaceae
Campanula americana L.; low thickets and woods; occasional. SG-528. FAC, CR
Lobelia cardinalis L.; wet meadows, shorelines; occasional. SG-252. FAC
L. inflata L.; upland woods and fields; occasional. SG-184. FAC, CR
L. puberula Michx.; upland fields; infrequent. SG-667, 732. FACW-
Triodanis perfoliata (L.) Nieuwl.; roadsides, fields; occasional. SG-27. FACU+
- Capparaceae
 **Polanisia dodecandra* (L.) DC.; sandy reservoir shorelines; locally abundant. SG-265. FACU-
- Caprifoliaceae
 **Lonicera japonica* Thunb.; fields and thickets; abundant. SG-448. FAC-, CR
Sambucus canadensis L.; roadsides, low woods, fields; occasional. SG-174. FACW-, CR
Symphoricarpus orbiculatus Moench; low woods; occasional. SG-551. FAC-
- Caryophyllaceae
 **Arenaria serpyllifolia* L.; roadsides, sandy reservoir shorelines; occasional. SG-395. FAC, CR
 **Cerastium glomeratum* Thuill.; lawns, meadows; occasional. SG-334. FACU-, CR
 **Dianthus armeria* L.; roadsides; infrequent. SG-216. UPL, CR
 **Saponaria officinalis* L.; sandy reservoir shorelines, stream-banks; rare. SG-564. FACU, CR
Silene antirrhina L.; roadsides, fields; infrequent. SG-486. NL
S. virginica L.; slope woods, bluffs; infrequent. SG-358. NL
 **Stellaria media* (L.) Vill.; lawns, roadsides; frequent. SG-315. FACU
S. pubera Michx.; slope woods; infrequent. SG-740. NL
- Celastraceae
Euonymus americanus L.; slope woods; infrequent. SG-403. NL
- Chenopodiaceae
 **Chenopodium album* L.; roadsides, fields, thickets; rare. SG-728. FAC-, CR
 **C. ambrosioides* L.; roadsides, fields, thickets; rare. SG-601. FACU, CR
- Cistaceae
Lechea tenuifolia Michx.; dry road banks; infrequent. SG-661. NL
- Clusiaceae
Hypericum denticulatum Walt.; upland fields; infrequent. SG-575. FACW
H. drummondii (G. & H.) Torr. & Gray; upland fields; occasional. SG-185. FACU, CR
H. hypericoides (L.) Crantz; low woods; occasional. SG-229, 495. FAC, CR
H. mutilum L.; roadsides, agricultural fields; occasional. SG-153. FACW, CR
H. prolificum L.; low woods; infrequent. EWC-13858, SG-129. FACU
H. punctatum Lam.; upland fields, thickets, roadsides; occasional. SG-187. FAC, CR
H. stragulum Adams & Rob.; upland woods, fields; infrequent. SG-488. NL, CR
Triadenum tubulosum (Walt.) Gleason; low woods; occasional. SG-655. OBL, CR
T. walteri (Gmel.) Gleason; low woods; occasional. SG-657. OBL, CR
- Convolvulaceae
Calystegia sepium (L.) Br.; roadsides, thickets, fields; frequent. SG-132, 163. FAC, CR
Cuscuta campestris Yunck.; roadsides, fencerows; occasional. SG-56, 78. NL, CR
 **Ipomoea coccinea* L.; reservoir shorelines, low fields; occasional. EWC-4235, SG-166. FAC
 **I. hederacea* Jacq.; roadsides, ditches, agricultural fields; occasional. SG-80, 169. FAC-, CR
I. lacunosa L.; pool and reservoir shorelines, low fields; occasional. SG-270. FAC+
I. pandurata (L.) Mey.; roadsides, fields, low woods; frequent. SG-84. FACU, CR
- Cornaceae
Cornus amomum Mill.; sloughs, swamps, wet woods; occasional. SF-66. FACW+
C. drummondii Mey.; bottomland forests; infrequent. SG-465, 706. FAC, CR
C. florida L.; bottomland and slope forests; infrequent. SG-331. FACU
- Crassulaceae
Sedum pulchellum Michx.; open outcrops; rare. SG-462. UPL
S. ternatum Michx.; wooded outcrops; locally abundant. SG-520. NL, CR
- Cucurbitaceae
 **Cucurbita pepo* L.; reservoir shorelines; rare. SG-647. NL, CR
Melothria pendula L.; low thickets; occasional. SG-593. FACW-, CR
Sicyos angulatus L.; low thickets and woods; frequent. SG-299. FACW-

Ebenaceae

Diospyros virginiana L.; bottomland and slope forests; infrequent. SF-33. FAC

Elaeagnaceae

**Elaeagnus umbellata* Thunb.; home sites, slope woods; rare. SG-335. NL, CR

Ericaceae

Chimaphila maculata (L.) Pursh; upland woods; rare. SG-660, 717. NL, CR

Kalmia latifolia L.; wooded outcrops; infrequent. SG-672. FACU

Oxydendrum arboreum (L.) DC.; slope woods; occasional. SG-430. FACU

Vaccinium arboreum Marsh.; upland woods, fields; frequent. SG-513. FACU

V. corymbosum L.; upland fields; rare. SG-517. FACW, CR

Euphorbiaceae

Acalypha ostryifolia Ridd.; agricultural fields; occasional. SG-209. NL, CR

A. rhomboidea Raf.; roadsides, fields; occasional. SG-190. FAC—

A. virginica L.; upland fields; rare. SG-542. FACU—, CR

Croton glandulosus L. var. *septentrionalis* Müll. Arg.; reservoir shorelines; occasional. SG-704. NL, CR

C. monanthogynus Michx.; dry roadsides, fields; infrequent. SG-603. NL

Euphorbia commutata Engelm.; low fields, open bluffs; occasional. SG-397. FACU, CR

E. corollata L.; upland fields; infrequent. SG-509. NL

E. dentata Michx.; roadsides, fields; rare. SG-634. NL, CR

E. maculata L.; roadsides, agricultural fields; abundant. SG-251. FACU

E. supina Raf.; sandy pool and reservoir shorelines; occasional. SG-646. NL

Phyllanthus carolinensis Walt.; sandy pool and reservoir shorelines; occasional. SG-645. FAC+

Fabaceae

**Albizia julibrissin* Durazz.; roadsides, home sites; occasional. SG-180. NL, CR

Amorpha glabra Desf. ex Poir.; shoreline thickets, streambanks; frequent. SG-650, SF-10. NL, CR

Amphicarpaea bracteata (L.) Fern.; low woods, streambanks; occasional. SG-656. FAC, CR

Apios americana Medik.; low thickets, roadsides; abundant. SG-276. FACW, CR

Astragalus canadensis L.; open outcrops; infrequent. SG-464. FAC, CR

Baptisia alba (L.) Br.; bottomland and low woods; infrequent. SG-149, 440. FAC

Cercis canadensis L.; slope woods; infrequent. SF-69. FACU, CR

Chamaecrista fasciculata (Michx.) Greene; roadsides, fields; frequent. SG-239. FACU

C. nictitans (L.) Moench; pool and reservoir shorelines; locally abundant. SG-267. FACU

Clitoria mariana L.; open outcrops; rare. SG-549. NI, CR

Desmanthus illinoensis (Michx.) MacM.; reservoir shorelines; infrequent. SG-228. FAC, CR

D. canescens (L.) DC.; upland fields; occasional. SG-718. NL

D. marilandicum (L.) DC.; upland fields; infrequent. SG-621. NL, CR

D. nudiflorum (L.) DC.; wooded outcrops; infrequent. SG-576. NL, CR

D. paniculatum (L.) DC.; roadsides, open fields; occasional. SG-237, 287. FACU

D. pauciflorum (Nutt.) DC.; low woods; infrequent. SG-577. NL, CR

D. perplexum Schub.; roadsides, fields; occasional. SG-75. NL, CR

D. rotundifolium DC.; upland woods; frequent. SG-540. NL, CR

D. viridiflorum (L.) DC.; upland fields; rare. SG-625. NL

Dioclea multiflora (Torr. & Gray) Mohr; reservoir shoreline thickets; occasional. SG-55. FAC+, CR

Gleditsia triacanthos L.; bottomland and slope forests, fields; occasional. SF-62. FAC, CR

**Glycine max* (L.) Merrill; agricultural fields; frequent. SG-243. NL

**Kummerowia stipulacea* (Maxim.) Schindl.; roadsides, fields; infrequent. SG-680. FACU—

**K. striata* (Thunb.) Schindl.; roadsides, fields; occasional. SG-533. FACU, CR

**Lathyrus hirsutus* L.; home sites, low fields; infrequent. SG-398. NI, CR

**Lespedeza cuneata* (Dum. Cours.) Don; roadsides, fields; abundant. SG-177. UPL, CR

L. hirta (L.) Hornem.; upland fields; occasional. SG-617. NL, CR

L. procumbens Michx.; upland fields; frequent. SG-511. NL

L. repens (L.) Bart.; upland fields; infrequent. SG-555. NL, CR

L. virginica (L.) Britt.; upland fields; occasional. SG-618. NL

**Melilotus alba* Medik.; roadsides, fields; occasional. SG-53. NL, CR

Robinia pseudoacacia L.; bottomland and slope forests; occasional. SF-71,79. UPL, CR

Senna marilandica (L.) Link; reservoir shorelines; infrequent. SG-597. FAC, CR

**S. obtusifolia* (L.) Irwin & Barn.; agricultural fields, reservoir shorelines; locally abundant. EWC-4236. FACU+

Sesbania exaltata (Raf.) Cory; wet meadows, pool shorelines; abundant. EWC-13851, SG-157. FACW—, CR

Strophostyles helvula (L.) Eil.; wet meadows; occasional. SG-302, 676. FAC

**Trifolium campestre* Schreb.; lawns, fields, roadsides; infrequent. SG-365. NL

**T. pratense* L.; roadsides, fields, ditches; occasional. SG-97. FACU—, CR

**T. repens* L.; lawns, fields, roadsides; infrequent. SG-197. FACU, CR

**Vicia sativa* L. ssp. *nigra* (L.) Ehrend.; roadsides, fields; occasional. SG-413. FACU, CR

**V. villosa* Roth ssp. *varia* (Host) Corb.; roadsides, fields, ditches; frequent. SG-43. NL, CR

Wisteria frutescens (L.) Poir.; reservoir and pool shoreline thickets; occasional. SG-59. FACW, CR

Fagaceae

Fagus grandifolia Ehrend.; slope forests; occasional. SF-111. FACU, CR

Quercus alba L.; upland woods; occasional. SG-400. FACU, CR

Q. coccinea Münchh.; upland woods; rare. SG-613. NL

Q. falcata Michx.; upland woods; occasional. SG-407. FACU—

- Q. imbricaria* Michx.; low woods; infrequent. SG-453. FAC-, CR
Q. lyrata Walt.; bottomland forests, reservoir shorelines; infrequent. EWC-4232, SG-264. OBL
Q. michauxii Nutt.; bottomland forests; infrequent. SG-225. FACW-, CR
Q. montana Willd.; wooded outcrops; rare. SG-640. UPL, CR
Q. muhlenbergii Engelm.; wooded outcrops; infrequent. SG-530. UPL, CR
Q. nigra L.; reservoir shorelines; rare. SG-493. FAC, CR
Q. pagoda Raf.; bottomland forests; occasional. SF-11. FAC+, CR
Q. palustris Münchh.; bottomland forests; frequent. SG-561. FACW, CR
Q. phellos L.; bottomland forests; frequent. SF-8, 40, SG-259. FACW-
Q. rubra L.; upland woods; frequent. SG-531, 638. FACU
Q. shumardii Buckley; bottomland forests; abundant. EWC-4233, SG-258. FACW-
Q. stellata Wang.; upland woods; infrequent. SF-35. FACU
Q. velutina Lam.; upland woods; occasional. SG-408. UPL, CR

Fumariaceae

- Dicentra cucullaria* (L.) Bernh.; slope forests; rare. SG-320. NL, CR

Gentianaceae

- Bartonia paniculata* (Michx.) Muhl.; low woods; abundant. SG-662. OBL, CR
Sabatia angularis (L.) Pursh; upland fields, roadsides; infrequent. SG-547. FAC, CR

Geraniaceae

- Geranium carolinianum* L.; roadsides, fields, boat ramps, shorelines; frequent. SG-14. FACU

Haloragaceae

- Myriophyllum spicatum* L.; Kentucky Reservoir; occasional. SG-297. OBL, CR

Hamamelidaceae

- Liquidambar styraciflua* L.; bottomland and slope forests; occasional. SF-12. FAC+

Hydrophyllaceae

- Hydrolea uniflora* Raf.; emergent marshes, wet meadows; infrequent. SG-223. OBL
H. macrophyllum Nutt.; slope forests; infrequent. SG-738. NL
Nemophila aphylla (L.) Brum.; bottomland forests; frequent. SG-327. FACW, CR

Juglandaceae

- Carya aquatica* (Michx.) Nutt.; reservoir shorelines; rare. SF-82. OBL, CR
C. cordiformis (Wang.) Koch; bottomland and slope forests; infrequent. SG-560. FAC, CR
C. glabra (Mill.) Sweet; upland woods; occasional. SG-262. FACU
C. illinoensis (Wang.) Koch; bottomland forests; rare. SG-310. FAC+, CR
C. laciniosa (Michx.) Loudon; bottomland forests; rare. SG-309. FACW-, CR
C. ovata (Mill.) Koch; bottomland and slope forests; infrequent. SF-139. FACU
C. tomentosa (Poir.) Nutt.; bottomland and slope forests; occasional. SF-157. NL, CR

- Juglans nigra* L.; bottomland and slope forests; occasional. SF-117. FACU, CR

Lamiaceae

- Agastache nepetoides* (L.) Kuntze; low thickets; infrequent. SG-600. FAC
Blephilia hirsuta (Pursh) Benth.; upland woods; frequent. SG-598. FACU, CR
Cunila origanoides (L.) Britt.; upland woods; frequent. SG-612. NL
**Glechoma hederacea* L.; lawns, low woods; infrequent. SG-658. FACU, CR
Hedeoma hispidum Pursh; upland fields; infrequent. SG-427. NL, CR
**Lamium amplexicaule* L.; lawns, boat ramps, home sites; infrequent. SG-364. NL, CR
**L. purpureum* L.; lawns, boat ramps, home sites; frequent. SG-316. NL, CR
Lycopus americanus Muhl.; low woods; occasional. SG-653. OBL, CR
L. virginicus L.; low woods; occasional. SG-671. OBL
**Mentha × piperita* L.; wet meadows; rare. SG-583. FACW, CR
Monarda fistulosa L.; low woods, thickets; rare. SG-468. FACU-
**Perilla frutescens* (L.) Britt.; roadsides, shorelines, boat ramps; occasional. SG-296. FAC
**Prunella vulgaris* L.; roadsides, fields, boat ramps; occasional. SG-191. FAC-
Pycnanthemum incanum (L.) Michx.; roadsides, fields, thickets; occasional. SG-526. NL
P. tenuifolium Schrad.; upland fields; infrequent. SG-556. FAC-
Salvia lyrata L.; upland woods, fields; occasional. SG-383. FAC-, CR
Scutellaria elliptica Muhl.; slope woods; rare. SG-545. NL, CR
S. integrifolia L.; low woods; infrequent. SG-654. FAC, CR
S. lateriflora L.; wooded outcrops; occasional. SG-606. FACW+
S. nervosa Pursh; slope woods; infrequent. SG-572. FAC
S. ovata Hill; roadsides, low woods; occasional. SG-61, 127. FACU, CR
Stachys tenuifolia Willd.; low woods, ditches; occasional. SG-120. FACW-
Teucrium canadense L.; roadsides, low woods, ditches; frequent. SG-82. FACW-
Trichostema dichotomum L.; upland fields; infrequent. SG-700. UPL, CR

Lauraceae

- Lindera benzoin* (L.) Blume; bottomland and streambank forests; occasional. SG-499. FACW, CR
Sassafras albidum (Nutt.) Nees; upland woods; infrequent. SG-436. FACU

Linaceae

- Linum virginianum* L.; upland fields; rare. SG-514. FAC+, CR

Lythraceae

- Ammania coccinea* Rottb.; emergent marshes, wet meadows, mudflats; locally abundant. SG-93, 156, 261. OBL
Cuphea viscosissima Jacq.; low roadsides, fields; infrequent. EWC-14561. FACU, CR

- Rotala ramosior* (L.) Koehne; emergent marshes, wet meadows, mudflats; occasional. SG-247. OBL, CR
- Magnoliaceae
Liriodendron tulipifera L.; upland woods; infrequent. SG-379. FACU, CR
- Malvaceae
**Abutilon theophrasti* Medik.; old home site; rare. SG-579. FACU-, CR
Hibiscus laevis All.; wet meadows, emergent marshes; frequent. EWC-4229, SG-152. OBL
H. moscheutos; wet meadows, emergent marshes; rare. SG-581. OBL, CR
**Sida spinosa* L.; roadsides, wet meadows, fields; locally abundant. SG-173. FACU
- Melastomataceae
Rhexia virginica L.; low fields; rare. SG-588. FACW+, CR
- Menispermaceae
Calycocarpum lyonii (Pursh) Gray; low thickets; occasional. SG-170. FACW-, CR
Cocculus carolinus (L.) DC.; low thickets; occasional. SG-246. FAC
- Molluginaceae
**Mollugo verticillata* L.; agricultural fields, lawns, roadsides; locally abundant. SG-207. FAC
- Moraceae
**Maclura pomifera* (Raf.) Schneid.; bottomland forests, reservoir shorelines; rare. SF-77. FACU, CR
**Morus alba* L.; low woods; rare. SG-455. FACU-, CR
M. rubra L.; bottomland and slope forests; occasional. SF-73. FAC, CR
- Nelumbonaceae
Nelumbo lutea (Willd.) Pers.; swamps, pools; locally abundant. EWC-4228, SG-128. OBL
- Nymphaeaceae
Nuphar luteum (L.) Sibth. & Sm. ssp. *macrophyllum* (Small) Beal; sloughs, pools; locally abundant. SG-221. OBL, CR
- Nyssaceae
Nyssa aquatica L.; bottomland forests, pool and reservoir shorelines; rare. EWC-13859. OBL
N. sylvatica Marsh.; upland woods; occasional. SG-428. FAC
- Oleaceae
Forestiera acuminata (Michx.) Poir.; pool and reservoir shorelines; occasional. SF-18. OBL, CR
**Forsythia suspensa* (Thunb.) Vahl; old home sites; rare. SG-594. NL
Fraxinus americana L.; bottomland and slope forests; occasional. SF-70, 85. FACU
F. pennsylvanica Marsh.; bottomland forests; frequent. SF-36, 64, SG-260. FACW
F. quadrangulata Michx.; wooded outcrops; rare. SG-476. NL, CR
**Ligustrum vulgare* L.; bottomland forests, fields, thickets; infrequent. SF-17, SG-181. UPL, CR
- Onagraceae
Ludwigia alternifolia L.; emergent marshes, wet meadows; frequent. SG-253. OBL, CR
- L. decurrens* Walt.; wet meadows; occasional. SG-92. OBL, CR
L. glandulosa Walt.; emergent marshes, wet meadows; frequent. SG-147. OBL, CR
L. leptocarpa (Nutt.) Hara; emergent marshes, wet meadows; occasional. SG-308, EWC-4237. OBL
L. palustris (L.) Ell.; emergent marshes, wet meadows; frequent. SG-232. OBL
L. peploides (H.B.K.) Raven; pools, emergent marshes; frequent. SG-106. OBL, CR
Oenothera biennis L.; roadsides, fields, meadows; occasional. SG-158. FACU-, CR
- Orobanchaceae
Epifagus virginiana (L.) Bart.; mesic slope woods; rare. SG-546, 733. NL
- Oxalidaceae
Oxalis stricta L.; roadsides, fields, lawns; occasional. SG-39. UPL
O. violacea L.; upland woods; occasional. SG-362. NL
- Papaveraceae
Sanguinaria canadensis L.; wooded outcrops; rare. SG-521. UPL, CR
- Passifloraceae
Passiflora incarnata L.; roadsides, low woods, thickets; occasional. SG-103. NL, CR
P. lutea L.; low woods, fields, thickets; occasional. SG-139. NL, CR
- Phrymaceae
Phryma leptostachya L.; bottomland and slope woods; occasional. SG-527. FACU
- Phytolaccaceae
Phytolacca americana L.; roadsides, thickets, fields; occasional. SG-88. FACU+, CR
- Plantaginaceae
Plantago aristata Michx.; lawns, roadsides, fields; occasional. SG-65,107. NL
**P. lanceolata* L.; lawns, roadsides, fields; infrequent. SG-458. FAC, CR
P. rugelii Dcne.; lawns, roadsides, fields; frequent. SG-148. FAC, CR
P. virginica L.; low fields, boat ramps, shorelines; frequent. SG-377. FACU-, CR
- Platanaceae
Platanus occidentalis L.; bottomland forests, streambanks; infrequent. SF-67. FACW-, CR
- Polemoniaceae
Phlox divaricata L.; slope forests, wooded bluffs; frequent. SG-755. FACU-
P. paniculata L.; bottomland forests, streambanks; occasional. SG-198. FACU, CR
Polemonium reptans L.; wooded outcrops, slope woods; infrequent. SG-432. FAC
- Polygalaceae
Polygala sanguinea L.; upland fields; rare. SG-516. FAC-
P. verticillata L.; upland fields; occasional. SG-515. UPL, CR
- Polygonaceae
Brunnichia ovata (Walt.) Shinnery; shrub swamps, low

thickets, reservoir shorelines; occasional. EWC-4234, SG-118. FACW

**Polygonum aviculare* L.; roadsides, ditches, fields; frequent. SG-87. FAC-, CR

**P. caespitosum* Blume; shorelines, wet meadows; frequent. SG-121, 123. FACW-, CR

P. hydropiperoides Michx.; emergent marshes, wet meadows, ditches; occasional. SG-62, 231. OBL

P. lapathifolium L.; roadsides, fields, ditches; occasional. SG-98. FACW

P. pensylvanicum (L.) Small; roadsides, fields, ditches; occasional. SG-68. FACW, CR

P. punctatum Ell.; wet meadows; occasional. SG-115. FACW+

P. scandens L.; roadsides, wet meadows, thickets; abundant. SG-273. FAC-

P. virginianum L.; low woods; occasional. SG-195. FAC

**Rumex acetosella* L.; roadsides, fields, ditches, lawns; occasional. SG-110. FACU+

R. altissimus Wood; low fields, ditches; frequent. SG-376. FACW

**R. conglomeratus* Murray; wet meadows; occasional. SG-456. FACW-, CR

**R. crispus* L.; roadsides, fields, thickets; frequent. SG-19. FAC

Portulacaceae

Claytonia virginica L.; bottomland and slope forests; frequent. SG-348. FACU-, CR

**Portulaca oleracea* L.; sandy reservoir shorelines, agricultural fields; infrequent. SG-608. FACU, CR

Primulaceae

Lysimachia ciliata L.; roadsides, ditches; occasional. SG-140. FACW-

**L. nummularia* L.; bottomland woods; locally abundant. SG-204. FACW+, CR

Samolus parviflorus Raf.; bottomland woods, seeps; occasional. SG-33. OBL, CR

Ranunculaceae

Aquilegia canadensis L.; open outcrops; infrequent. SG-459. FAC-, CR

Cimicifuga racemosa (L.) Nutt.; slope woods; infrequent. SG-434. NL, CR

Clematis crispa L.; low woods; infrequent. SG-368. FACW+, CR

C. viorna L.; roadsides, low woods; infrequent. SG-77. NL, CR

C. virginiana L.; thickets; rare. SG-637. FAC+, CR

Myosurus minimus L.; agricultural fields; rare. SG-371. FACW-

Ranunculus abortivus L.; wet meadows, fields, lawns; frequent. SG-318. FAC

R. hispidus Michx.; bottomland and slope forests; occasional. SG-333. FAC

R. pusillus Poir.; emergent marshes, wet meadows; frequent. SG-378. FACW+

R. recurvatus Poir.; bottomland forests, streambanks; infrequent. SG-350. FAC, CR

**R. sardous* Crantz; roadsides, ditches, fields; frequent. SG-28,50. FAC+, CR

Thalictrum revolutum DC.; wet meadows; rare. SG-437. FAC+, CR

T. thalictroides (L.) Eames & B. Boivin; slope forests; infrequent. SG-746. NL

Rhamnaceae

Rhamnus caroliniana Walt.; roadsides, mesic woods; occasional. SG-578. NL

Rosaceae

Agrimonia parviflora Ait.; low fields; occasional. SG-584. FAC

Amelanchier arborea (Michx.) Fern.; slope forests; rare. SG-639. FACU

Aruncus dioicus (Walt.) Fern.; wooded outcrops; rare. SG-433. FACU+, CR

Crataegus mollis (Torr. & Gray) Scheele; bottomland forests; occasional. SF-14. FAC

C. phaenopyrum (L.) Medik.; bottomland forests; infrequent. SF-13,34,38. FAC-, CR

C. virdis L.; bottomland forests; infrequent. SG-356. FACW, CR

Geum canadense Jacq.; roadsides and fields; occasional. SG-135. FACW, CR

Malus augustifolia (Ait.) Michx.; upland fields, thickets; rare. SG-381. NL

Potentilla simplex Michx.; upland fields; infrequent. SG-386. FACU

Prunus augustifolia Marsh.; upland fields, thickets; rare. SG-722. NL

**Prunus persica* (L.) Batsch; old home sites; rare. SG-402. NL

P. serotina Ehrend.; bottomland and slope forests; infrequent. SF-72. FACU

**Rosa cultivar*; old home sites; locally abundant. SG-446. NL

**Rosa multiflora* Thunb.; fencerows, thickets, roadsides; infrequent. SG-25,484. UPL, CR

R. setigera Michx.; fencerows, fields, roadsides; rare. SG-452. FACU, CR

Rubus argutus Link; upland fields, roadsides; occasional. SG-49. FAC

**R. bifrons* Vest; open bluff and adjacent roadside; locally abundant. SG-469. NL, CR

R. flagellaris Willd.; upland fields, roadsides; occasional. SG-346. UPL

Rubiaceae

Cephalanthus occidentalis L.; shrub swamps, slough, pool, and reservoir shorelines; abundant. SF-109. OBL, CR

Diodia teres Walt.; upland fields; occasional. SG-182. FACU-

D. virginiana L.; emergent marshes, wet meadows; frequent. SG-45. FACW

Galium aparine L.; lawns, fields, thickets; occasional. SG-349. FACU, CR

G. circaezans Michx.; roadsides, low woods; occasional. SG-112. FACU-, CR

G. pilosum Ait.; upland woods; infrequent. SG-470. NL

G. tinctorium L.; low woods; occasional. SG-69. FACW, CR

G. triflorum Michx.; wooded outcrops; infrequent. SG-480, 507. FACU, CR

Hedyotis caerulea (L.) Hook.; open outcrops, slope forests; occasional. SG-742. FAC, CR

H. crassifolia Raf.; lawns, fields; occasional. SG-314. FAC, CR

H. purpurea (L.) Torr. & Gray; upland woods; occasional. SG-409. NL

- Oldenlandia boscii* (DC.) Chapm.; shorelines, mudflats; occasional. SG-669. FACW-, CR
- Spermacoce glabra* Michx.; wet meadows; frequent. SG-130. FACW, CR
- Rutaceae**
- Ptelea trifoliata* L.; bottomland and slope forests around outcrops; infrequent. SG-429. FAC
- Salicaceae**
- Populus deltoides* Bartr. ex Marsh.; bottomland forests, streambanks; infrequent. SF-16. FAC+
- Salix caroliniana* Michx.; pool and reservoir shorelines; frequent. SF-76. OBL
- S. nigra* Marsh.; bottomland forests, streambanks; occasional. SF-83. OBL
- Sapindaceae**
- **Cardiospermum halicacabum* L.; wet meadows, pool and reservoir shorelines; infrequent. EWC-4231. FAC
- Sapotaceae**
- Bumelia lycioides* (L.) Pers.; roadsides, bottomland and slope forests; infrequent. SG-218. FACW
- Saururaceae**
- Saururus cernuus* L.; sloughs, swamps; abundant. SG-450. OBL, CR
- Saxifragaceae**
- Heuchera villosa* Michx.; outcrops; infrequent. SG-461, 523. NL
- Hydrangea cinerea* Ser.; low woods, outcrops; frequent. SG-443. NL
- Itea virginica* L.; low woods; infrequent. SG-535. FACW+, CR
- Penthorum sedoides* L.; emergent marshes, wet meadows; occasional. SG-242. OBL, CR
- Saxifraga virginiana* Michx.; outcrops; frequent. SG-741. FAC-, CR
- Scrophulariaceae**
- Agalinis fasciculata* (Ell.) Raf.; upland fields; occasional. SG-673. FAC+, CR
- A. tenuifolia* (Vahl) Raf.; upland fields; infrequent. SG-663. FACU
- Aureolaria flava* (L.) Farw.; forest borders; occasional. SG-642. NL
- Bacopa rotundifolia* (Michx.) Wettst.; swamps, shallow pools; locally abundant. SG-214. OBL, CR
- Chelone glabra* L.; low woods; rare. SG-720. OBL
- Dasystema macrophylla* (Nutt.) Raf.; slope woods and bluffs; infrequent. FAC, CR
- Gratiola neglecta* Torr.; agricultural fields, wet meadows; frequent. SG-369. OBL, CR
- G. virginiana* L.; emergent marshes, wet meadows; infrequent. SG-357. OBL, CR
- **Kickxia elatine* (L.) Dum.; rocky reservoir shorelines; occasional. SG-211. FACU
- Leucospora multifida* (Michx.) Nutt.; wet meadows, mudflats; rare. SG-602. OBL
- Lindernia dubia* (L.) Penn.; wet meadows, mudflats; occasional. SG-90, 160. FACW+, CR
- Mimulus alatus* Ait.; wet meadows; occasional. SG-192. OBL
- Pedicularis canadensis* L.; slope forests; locally abundant. SG-751. FACU+
- Penstemon calycosus* Small; roadsides, slope forests; occasional. SG-23. FACU
- Scrophularia marilandica* L.; low thickets, roadsides; occasional. SG-599. FACU, CR
- **Verbascum blattaria* L.; roadsides, fields, ditches; occasional. SG-83. FAC, CR
- **V. thapsus* L.; roadsides, fields, ditches; occasional. SG-46. NI, CR
- **Veronica arvensis* L.; lawns, roadsides; occasional. SG-332. UPL
- **V. peregrina* L.; wet meadows, fields; occasional. SG-353. FAC+, CR
- **V. serpyllifolia* L.; lawns, roadsides; occasional. SG-394. FAC+, CR
- Simaroubaceae**
- **Ailanthus altissima* (Mill.) Swingle; roadsides; infrequent. SG-481. FACU-, CR
- Solanaceae**
- **Datura stramonium* L.; fields, thickets; infrequent. SG-629. NL, CR
- Physalis angulata* L.; roadsides, ditches; occasional. SG-70, 172. FAC, CR
- P. heterophylla* Nees; roadsides, fields; rare. SG-630. NL
- P. longifolia* Nutt. var. *subglabrata* Mack. & Bush; roadsides, fields; occasional. SG-138. NL
- P. pubescens* L.; sandy reservoir shorelines; infrequent. SG-609. UPL
- Solanum carolinense* L.; roadsides, ditches, fields; occasional. SG-41. FACU, CR
- S. ptychanthum* Dunal; roadsides, fields, ditches; infrequent. SG-244, 284. FACU, CR
- Staphyleaceae**
- Staphylea trifolia* L.; wooded outcrops; rare. SG-340. FAC, CR
- Styracaceae**
- Halesia tetraptera* Ellis; bottomland forests; occasional. SF-75, SG-427. NI
- Styrax americana* Lam.; bottomland forests, reservoir shorelines; frequent. SG-494. FACW
- S. grandifolia* Ait.; low woods; rare. SG-544. FACU-
- Ulmaceae**
- Celtis laevigata* Willd.; bottomland and slope forests; frequent. SF-15. FACW
- C. occidentalis* L.; bottomland and slope forests; occasional. SF-74. FAC, CR
- Planera aquatica* (Walt.) Gmel.; pool and reservoir shorelines; occasional. SF-86. OBL, CR
- Ulmus alata* Michx.; bottomland and slope forests; frequent. SF-32. FACU+
- U. americana* L.; bottomland and slope forests; occasional. SF-84. FACW
- U. rubra* Muhl.; bottomland and slope forests; frequent. SF-37, 63, 138. FAC, CR
- Urticaceae**
- Boehmeria cylindrica* (L.) Sw.; bottomland and low woods; occasional. SG-213. FACW+, CR
- Laportea canadensis* (L.) Wedd.; bottomland and low woods; occasional. SG-208. FACW, CR
- Pilea pumila* (L.) Gray; low woods; frequent. SG-697. FACW, CR

Urtica chamaedryoides Pursh; low woods; infrequent. EWC-13841. FAC, CR

Valerianaceae

**Valerianella locusta* (L.) Betcke; sandy reservoir shorelines; infrequent. SG-367. NL, CR

V. radiata (L.) Dufur.; roadsides, agricultural fields; frequent. SG-11. FAC-

Verbenaceae

Callicarpa americana L.; wooded outcrops; rare. SG-696. FACU-, CR

Phyla lanceolata (Michx.) Gr.; emergent marshes, wet meadows; occasional. SG-126. FACW+, CR

Verbena simplex Lehm.; roadsides; occasional. SG-410. NL, CR

V. urticifolia L.; roadsides, low woods; occasional. SG-133, 202. FAC+

Violaceae

Viola cucullata Ait.; low woods; frequent. SG-736. OBL, CR

V. palmata L.; slope forests; infrequent. SG-748. FACW-

V. pedata L.; dry, open roadsides and bluffs; rare. SG-747. FACU, CR

V. pubescens Ait.; bottomland forests; frequent. SG-329. FACU

V. rafinesquii Greene; lawns, fields; occasional. SG-317. FAC

V. sororia Willd.; bottomland forests, lawns, fields; occasional. SG-321. FAC

Viscaceae

Phoradendron leucarpum (Raf.) Reveal & Johns.; parasitic on various hardwood species; occasional. Sight record. NL, CR

Vitaceae

Ampelopsis arborea (L.) Koehne; shorelines, thickets; infrequent. SG-460. FAC+, CR

Ampelopsis cordata Michx.; roadsides, fencerows; occasional. SG-66. FAC+, CR

Parthenocissus quinquefolia (L.) Planch.; roadsides, bottomland and low woods; frequent. SG-136. FAC, CR

Vitis aestivalis Michx.; bottomland forests. SG-504. FAC-

V. palmata Vahl; low woods; infrequent. SG-29. FACW-, CR

V. rotundifolia Michx.; low woods, fencerows; infrequent. SG-72. FAC

V. vulpina L.; low woods, fencerows; occasional. SG-141, 168. FAC+