

THE VASCULAR FLORA OF STEPHEN A. FORBES STATE PARK,
MARION COUNTY, ILLINOIS

Preliminary results from Fall 1997 to Spring 1998

A report submitted to the Illinois Department of Natural Resources

by

David M. Ketzner
Illinois Natural History Survey
Center for Wildlife Ecology
607 E. Peabody Drive
Champaign, IL 61820

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INTRODUCTION

Stephen A. Forbes State Park is located in Marion County, Illinois, approximately 14 miles northeast of the city of Salem. The area can be found on the Omega, Kimmundy, and Xenia 7.5 minute quadrangle maps published by the United States Geological Survey. Stephen A. Forbes State Park is approximately 3099 acres in size, and includes Forbes Lake, a reservoir of approximately 585 acres. Multiple use of the park is stressed and the area is managed for timber production, wildlife habitat, crops, and recreation. Facilities exist for recreation such as hunting, fishing, boating, picnicking, camping, hiking, and horseback riding.

Stephen A. Forbes State Park is located in the Mt. Vernon Hill Country Section of the Southern Till Plain Division, one of the fourteen natural divisions of Illinois (Schwegman et al., 1973). This division is entirely covered by glacial till of Illinoian age. The landscape of the study site includes broad, flat upland areas, moderate to steep slopes, and stream valleys. Bedrock outcrops can be found in a few areas. The lowest parts have been flooded by the damming of Lost Fork and its tributaries in the building of Forbes Lake.

The most recent consolidated rock at Stephen A. Forbes State Park is of the Pennsylvanian system and is covered only by Pleistocene and Recent glacial till, loess, and alluvial sediments. The Pennsylvanian system here is composed of the Mattoon Formation underlain by the Bond Formation (Willman et al., 1975). The Mattoon Formation is a complex of thin limestones, coals, black fissile shales, underclays, thick gray shales, and several well-developed sandstones. Sandstone outcrops can occasionally be found along Forbes Lake and several stream valleys in the study site. Shale outcrops can also be found along intermittent streams. Small outcrops of limestone were also observed on the upper slopes southeast of the Boat Dock & Concession Stand.

Soils at Stephen A. Forbes State Park belong to the Bluford-Hickory-Ava Association (Miles, 1996). This association occurs on side slopes along drainageways and on broad ridgetops. These soils formed under deciduous forest in loess and the underlying silty or loamy sediments or in glacial till. Common soil series occurring in the study area include Bluford silt loam, Ava silt loam, Atlas silt loam, and Hickory Loam. Other less common series include Gosport loam, Wynoose silt loam, and Wakeland silt loam.

Soils of the Bluford, Ava, and Atlas series occur on the broad ridgetops and upper side slopes within the study area. These soils are somewhat poorly drained or moderately well drained and occur on uplands. Hickory soils, which are very common at the study site, occur on most of the steep slopes within the park. These soils are well drained, moderately permeable, and formed in glacial till. This series often occurs on the slopes just above the shoreline of Forbes Lake. Soils of the Gosport series are moderately well drained and occur on side slopes along drainageways. These soils are formed in material weathered from shale bedrock. The Wynoose series consist of poorly drained, very slowly permeable soils which formed in loess on broad, nearly level uplands. Although this soil is not common within the study area, it does support the only known flatwoods community known within the park. Soils of the Wakeland series occur along intermittent streams and formed from silty alluvium.

A floristic study of an area the size of Stephen A. Forbes State Park cannot satisfactorily be completed in less than a year. Several growing seasons will be needed to thoroughly cover the entire park. This report can only be considered preliminary at best. It covers observations and collections of plants made in the Fall of 1997 and the Spring of 1998. Many species not included in this report are undoubtedly common at the study site. Also, since the entire park has not been covered, communities not mentioned in this report will probably be found. The statements of relative abundance for each species listed in Appendix 1 should not be taken as definitive, either. They are based on limited observation only, and will no doubt need to be modified as more field work is completed. It is my intention to continue field work on this project through the growing season of the year 2000. A final report will be issued to those interested after that date.

MATERIALS AND METHODS

Plants were field pressed immediately after collection using the methods of Radford et al. (1974). Plants were dried in an electric drying cabinet by means of artificial heat. Collections were identified with the aid of several botanical works and a binocular microscope. Usually more than one reference was consulted in the identification of a specimen. Identifications were often checked against specimens in the herbarium of the Illinois Natural History Survey (ILLS). The computer herbarium data base of the Illinois Natural History Survey was searched for additional collections from Stephen A. Forbes State Park. Those taxa not found by the author at the study site were checked and annotated if incorrect. Collections of taxa not found by the author are included in Appendix 1 and are considered to be a part of the flora of Stephen A. Forbes State Park. A complete set of specimens collected will be deposited in the herbarium of the Illinois Natural History Survey (ILLS).

The checklist of the flora of Stephen A. Forbes State Park (Appendix 1) is arranged alphabetically by family, genus, species, etc. Nomenclature follows Mohlenbrock (1986) unless otherwise noted. Relative abundance is based on observation and is admittedly subjective, but is as precise as is practical for a study of this nature. Relative abundance was rated for each taxon using the following scale:

Rare- very few individuals observed, usually less than ten.

Occasional- infrequently observed.

Common- frequently observed.

Abundant- very frequently observed.

Relative abundance refers to the abundance of a taxon within the study site as a whole, and not within a single community or collection site. All collections made during this study are represented in Appendix 1 by collection numbers. This number is the author's collection number unless otherwise stated. Those taxa listed in Appendix 1 that do not have collection numbers associated with them are based on sight records, and will be vouchered in the future.

COMMUNITIES

A community can be defined as an assemblage of organisms living together and linked by their effects on one another and their responses to the environment they share (Whittaker, 1975). Factors important in the development of communities include the plants and animals found in an area, soil types and moisture, aspect, slope, bedrock substrate, vegetation structure, and other natural forces.

Communities are very transitional in nature, making it very difficult to draw a line distinguishing one community from another. For example, the differences between a dry upland forest and a dry-mesic upland forest can readily be seen in their extreme expressions; however, when the two occur next to each other a zone of intergradation will always be present. In these transitional areas environmental factors may be interacting in a complex fashion, making the boundaries between communities ill-defined.

Community classification generally follows that of White and Madany (1978).

Dry-mesic upland forest

At Stephen A. Forbes State Park dry-mesic upland forest is the most commonly encountered forest community, occurring on slopes and in a few broad, flat upland areas

with well drained soils. In general, the dry-mesic forest communities on slopes are less disturbed than those on the broad upland ridges.

Dry-mesic upland forest is dominated in the canopy layer by *Quercus alba*, *Quercus velutina*, *Quercus rubra*, *Acer saccharum*, and *Carya ovata*. At Stephen A. Forbes State Park, *Quercus alba* is the most important of the canopy trees, often forming almost pure stands. *Acer saccharum* dominates some sites, probably due to fire suppression. A few stands of sugar maple were found in landscape positions unusual for this species. At these sites, sugar maple was found at relatively high elevations on slopes and on broad upland flats. Sugar maple probably was confined to ravines in the project area in pre-settlement times. Most of these sites are probably inundated today by Forbes Lake. Important species in the understory include *Acer saccharum*, *Viburnum prunifolium*, *Carya tomentosa*, *Carya ovata*, *Quercus alba*, *Quercus velutina*, and *Cornus florida*. Dominants in the herbaceous layer are yet to be well documented.

Several of the dry-mesic upland forest sites are very open, with widely spaced trees or treeless areas dominated by herbaceous species. Several prairie species such as *Baptisia leucophaea*, *Verbesina helianthoides*, *Schizachyrium scoparium*, *Parthenium integrifolium*, *Liatris aspera*, and *Veronicastrum virginicum* were found in these small openings.

Mesic floodplain forest

This community occurs in ravines, within the floodplains of the larger intermittent streams, such as Mountain Branch. Although flooding occurs in this community, it is of short duration only. Watershed sizes of the streams associated with this community are small and soils within the floodplain are generally well drained, making for fairly mesic conditions.

The dominant canopy trees are *Juglans nigra*, *Celtis occidentalis*, and *Platanus occidentalis*. The understory is dominated by *Celtis occidentalis*, *Fraxinus americana*, and *Ulmus americana*. The dominant shrub is *Symphoricarpos orbiculatus*. The herbaceous, or ground layer is dominated by *Verbesina alternifolia*, *Sanicula gregaria*, *Elymus villosus*, and *Elymus virginicus*.

At least seventy-five species were observed in this community.

Flatwoods

This unusual community was found in only a small section of the park (W 1/2, SE 1/4, Sec. 32, T4N, R4E). Flatwoods occur on level to nearly level soil that has an impermeable or slowly permeable layer (White & Madany, 1978). The impermeable layer causes a shallow, perched water table. Shallow pools occur in the lower-lying areas in the spring, as the downward percolation of water is restricted by the hardpan. The hardpan also restricts plant root growth. Flatwoods normally have wet conditions in the spring, with xeric conditions in the summer and fall as the vernal pools dry up. Soils at this site are mapped as Wynoose silt loam and Bluford silt loam in the county soil survey (Miles, 1996).

The dominant trees of the canopy layer of this community are *Quercus palustris*, *Quercus imbricaria*, *Quercus stellata*, and *Ulmus americana*. *Quercus palustris*, pin oak, tends to be dominant in the wetter areas of the vernal pools. *Quercus stellata*, post oak, is more common in the drier areas of the community. The sapling layer is dominated by *Ulmus americana*. Dominant shrubs are *Toxicodendron radicans* and *Campsis radicans*. *Cinna arundinacea* is the dominant herbaceous species. Also important in the herbaceous layer is the woody vine, *Parthenocissus quinquefolia*.

At least seventy-eight species were observed in this plant community.

Pine plantations

This community is dominated by planted pine trees. The one pine plantation that was closely examined was dominated by shortleaf pine, *Pinus echinata*. This stand was approaching maturity, with fairly large trees. Saplings were rare, with no species abundant enough to be considered a dominant. The dominants in the shrub layer are *Sassafras albidum* and *Toxicodendron radicans*. The herbaceous, or ground layer, is very sparse, with *Parthenocissus quinquefolia* the only dominant.

Prairie plantings

Several old field areas within the park have been planted as prairies. These sites are periodically burned. Dominants include *Panicum virgatum*, *Sorghastrum nutans*, and *Andropogon gerardii*.

Successional fields

The successional field community includes abandoned cropland, abandoned forageland such as pasture and hayfield, and abandoned orchards. This community is fairly common at Stephen A. Forbes State Park, covering many acres of the park. Although successional fields are often dominated by weedy, exotic species, those at the study site are mostly dominated by native species and are have a diverse flora. Many of the older successional fields are dominated by native prairie grasses such as *Schizachyrium scoparium*, *Sorghastrum nutans*, and *Andropogon gerardii*. However, several successional fields are overgrown with smaller woody species. Soils in this community are usually eroded and are typically droughty. No wet successional fields have been found yet, although they may occur with the study site.

Field divisions

This community consists of narrow strips of trees between cultivated or mowed fields. These sites are usually dominated by native tree species and disturbance adapted shrubs and herbs.

Roadsides and gravel parking lots

The roadside community consists of the immediate area adjacent to the road and the road itself. Roadsides at Stephen A. Forbes State Park are generally well maintained by frequent mowing. Few collections have been made on roadsides thus far. Several gravel parking lots exist within the park, usually at trail heads. These parking lots are dominated by weedy, often exotic, herbaceous species. These parking lots are occasionally mowed to discourage growth of woody and rank species.

Artificial lake and ponds

Forbes Lake is an artificial impoundment constructed in 1963 with the damming of Lost Fork and its tributaries. The lake is approximately 585 acres in size with approximately 48 miles of shoreline. The maximum depth is 28 feet. Vascular plants are generally confined to the shallow water and the permanently wet areas immediately along the shoreline.

Several small ponds occur within the study site, the largest of which is Boston Pond (approximately 2 acres in size). These ponds have a flora similar to that of Forbes Lake.

Lawns

This community includes those areas which are maintained as lawns by frequent mowing. The largest area occurs at Circle Drive Picnic Area. This community is dominated by exotic cool-season grasses such as *Poa pratensis* and *Festuca pratensis*

Cropland

Several cultivated fields occur within the park. These sites are annually planted with corn, soybeans, or wheat. Non-cultivated plants are usually only present in the early spring when the fields are fallow. Most of these species are annuals which complete their life cycles before crops are planted in the spring.

Also common within the park are wildlife food plots. These sites are occasionally planted with species preferred by wildlife such as *Helianthus annuus*, *Sorghum bicolor*, *Fagopyrum esculentum*, and *Pennisetum americanum*. Many weedy species also occur in wildlife food plants.

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APPENDIX 1
CHECKLIST OF THE VASCULAR FLORA

ACANTHACEAE

Justicia americana (L.) Vahl Water Willow. Common. Wet areas at edge of lake.

Ruellia pedunculata Torr. Wild Petunia. Rare. Dry-mesic upland forest. 2362

Ruellia strepens L. Smooth Ruellia. Rare. Mesic floodplain forest.

ACERACEAE

Acer rubrum L. Red Maple. Rare. Persisting at an abandoned homesite.

Acer saccharinum L. Silver Maple. Occasional. Dry-mesic upland forest; field divisions; persisting at abandoned homesites. Most populations probably originate from plantings at homesites.

Acer saccharum Marsh. Sugar Maple. Abundant. Dry-mesic upland forest; mesic floodplain forest; flatwoods.

ADIANTACEAE

Adiantum pedatum L. Maidenhair Fern. Occasional. Dry-mesic upland forest.

ALISMACEAE

Alisma plantago-aquatica L. Water Plantain. Occasional. Wet areas near edge of lake and ponds.

Sagittaria graminea Michx. Narrow-leaved Arrowleaf. Rare. On bank of Boston Pond. 2114

AMARANTHACEAE

Amaranthus tuberculatus (Moq.) Sauer Water Hemp. Occasional. Wet areas near edge of lake. 2175

ANACARDIACEAE

Rhus glabra L. Smooth Sumac. Common. Successional fields; roadsides; field divisions; flatwoods.

Toxicodendron radicans (L.) Kuntze Poison Ivy. Abundant. Dry-mesic upland forest; mesic floodplain forest; flatwoods; pine plantations; field divisions; roadsides; successional fields. 2357

APIACEAE

Cicuta maculata L. Water Hemlock. Occasional. Wet areas near edge of lake; mesic floodplain forest.

Cryptotaenia canadensis (L.) DC. Honewort. Occasional. Mesic floodplain forest.

Daucus carota L. Queen-Anne's-lace. Common. Roadsides; gravel parking lots; successional fields.

Sanicula canadensis L. Canadian Black Snakeroot. Occasional. Dry-mesic upland forest; pine plantations.

Sanicula gregaria Bickn. Common Black Snakeroot. Occasional. Mesic floodplain forest.

Taenidia integerrima (L.) Drude Yellow Pimpernel Rare. Dry-mesic upland forest over shale outcrop along Mountain Branch. 2370

Thaspium trifoliatum (L.) Gray Meadow Parsnip. Occasional. Dry-mesic upland forest; mesic floodplain forest. 2372

Zizia aurea (L.) Koch Golden Alexanders. Occasional. Dry-mesic upland forest. 2315

APOCYNACEAE

Apocynum sibiricum Jacq. Indian Hemp. Common. Roadsides; successional fields; dry-mesic upland forest.

Vinca minor L. Common Periwinkle. Occasional. Roadsides; common around Henneman Cemetery where it is spreading into the surrounding dry-mesic upland forest. 2292

ARACEAE

Arisaema dracontium (L.) Schott Green Dragon. Occasional. Dry-mesic upland forest; mesic floodplain forest. 2335

Arisaema triphyllum (L.) Schott Jack-in-the-pulpit. Occasional. Dry-mesic upland forest; mesic floodplain forest.

ARISTOLOCHIACEAE

Aristolochia serpentaria L. Virginia Snakeroot. Occasional. Dry-mesic upland forest.

Asarum canadense L. Wild Ginger. Occasional. Dry-mesic upland forest.

ASCLEPIADACEAE

Asclepias hirtella (Pennell) Woodson Tall Green Milkweed. Occasional. Successional fields. 2091

Asclepias incarnata L. Swamp Milkweed. Common. Wet areas near edge of lake; ponds. 2086

Asclepias purpurascens L. Purple Milkweed. Occasional. Dry-mesic upland forest; roadsides. 2388

Asclepias viridis Walt. Green-flowered Milkweed. Rare. Successional field. 2386

ASPLENIACEAE

Asplenium platyneuron (L.) Oakes Ebony Spleenwort. Occasional. Dry-mesic upland forest; mesic floodplain forest.

Cystopteris protrusa (Weatherby) Blasd. Fragile Fern. Occasional. Dry-mesic upland forest.

Polystichum acrostichoides (Michx.) Schott Christmas Fern. Occasional. Dry-mesic upland forest; mesic floodplain forest.

ASTERACEAE

Achillea millefolium L. Common Yarrow. Common. Successional fields; roadsides; gravel parking lots. 2338

Ambrosia artemisiifolia L. Common Ragweed. Common. Successional fields, cropland; roadsides; gravel parking lots; roadsides; pine plantations. 2107

Ambrosia bidentata Michx. Ragweed. Occasional. Successional fields; dry, eroding slopes near lake. 2090

Antennaria plantaginifolia (L.) Richards. Pussytoes. Common. Dry-mesic upland forest. 2258

Arctium minus Bernh. Common Burdock. Occasional. Roadsides; successional fields; field divisions.

Aster anomalous Engelm. Blue Aster. Occasional. Dry-mesic upland forest. 2169

Aster lateriflorus (L.) Britt. Side-flowered Aster. Occasional. Mesic floodplain forest; flatwoods; wet areas near edge of lake and ponds.

Aster ontarionis Wieg. Ontario Aster. Occasional. Flatwoods.

Aster patens Ait. Spreading Aster. Occasional. Dry-mesic upland forest. 2173

Aster pilosus Willd. Hairy Aster. Common. Roadsides; gravel parking lots; successional fields.

Aster simplex Willd. Panicked Aster. Occasional. Flatwoods.

Aster turbinellus Lindl. Aster. Occasional. Dry-mesic upland forest. 2172

Bidens cernua L. Nodding Bur Marigold. Occasional. Wet areas near edge of lake and ponds. 2164

Bidens comosa (Gray) Wieg. Beggar-ticks. Occasional. Wet areas near edge of lake and ponds. 2165

Boltonia asteroides (L.) L'Her False Aster. Occasional. Flatwoods; wet areas near edge of lake and ponds.

Cichorium intybus L. Chicory. Occasional. Roadsides; gravel parking lots. 2124

Cirsium altissimum (L.) Spreng. Tall Thistle. Occasional. Dry-mesic upland forest; mesic floodplain forest; successional fields. 2081

- Cirsium discolor* (Muhl.) Spreng. Field Thistle. Common. Successional fields; roadsides. 2094
- Cirsium vulgare* (Savi) Tenore Bull Thistle. Occasional. Roadsides.
- Conyza canadensis* (L.) Cronq. Horseweed. Common. Successional fields; roadsides; gravel parking lots. 2110
- Coreopsis tripteris* L. Tall Tickseed. Rare. Wet area near edge of lake. 2087
- Eclipta prostrata* (L.) L. Yerba de Tajo. Occasional. Wet areas near edge of lake and ponds. 2131
- Erechtites hieracifolia* (L.) Raf. Fireweed. Rare. Flatwoods.
- Erigeron annuus* (L.) Pers. Daisy Fleabane. Common. Roadsides; gravel parking lots; successional fields; mesic floodplain forest.
- Erigeron philadelphicus* L. Marsh Fleabane. Common. Dry-mesic upland forest; roadsides; successional fields. 2322
- Erigeron strigosus* Muhl. Daisy Fleabane. Common. Successional fields; roadsides; gravel parking lots. 2381
- Eupatorium perfoliatum* L. Common Boneset. Occasional. Flatwoods; wet areas near edge of lake.
- Eupatorium rugosum* Houtt. White Snakeroot. Common. Dry-mesic upland forest; mesic floodplain forest; pine plantations; field divisions.
- Eupatorium serotinum* Michx. Late Boneset. Common. Wet areas near edge of lake and ponds; successional fields; pine plantations; roadsides. 2141
- Euthamia graminifolia* (L.) Salisb. Grass-leaved Goldenrod. Occasional. Successional fields; flatwoods. 2093
- Euthamia gymnospermoides* Greene Grass-leaved Goldenrod. Abundance unknown. "Prairie area." David J. Voegtlin # 80-274 (ILLS), 28 August 1980. Not yet observed by the author.
- Gnaphalium obtusifolium* L. Sweet Everlasting. Occasional. Successional fields. 2137
- Helianthus annuus* L. Common Sunflower. Planted in wildlife food plots and occasionally persisting.
- Helianthus divaricatus* L. Woodland Sunflower. Occasional. Dry-mesic upland forest; flatwoods.
- Hieracium longipilum* Torr. Hairy Hawkweed. Rare. Successional fields. 2092
- Lactuca canadensis* L. Wild Lettuce. Occasional. Roadsides; gravel parking lots; successional fields; flatwoods. 2128

Lactuca floridana (L.) Gaertn. Woodland Lettuce. Common. Dry-mesic upland forest; mesic floodplain forest; flatwoods; field divisions.

Lactuca saligna L. Willow Lettuce. Rare. Roadside. 2142

Lactuca serriola L. Prickly Lettuce. Common. Roadsides; gravel parking lots. 2119

Leucanthemum vulgare Lam. Ox-eye Daisy. Occasional. Successional fields; roadsides. 2352

Liatris scabra (Greene) K. Schum. Rough Blazing Star. Occasional. Successional fields; dry-mesic upland forest. 2136

Liatris scariosa (L.) Willd. var. *nieuwlandii* Lunell. Blazing Star. Occasional. Successional fields.

Parthenium integrifolium L. Wild Quinine. Rare. Dry-mesic upland forest.

Rudbeckia hirta L. Black-eyed Susan. Common. Roadsides; successional fields.

Rudbeckia subtomentosa Pursh. Fragrant Coneflower. Rare. Successional field.

Senecio glabellus Poir. Butterweed. Occasional. Roadsides; wet areas along intermittent streams; cropland.

Solidago caesia L. Blue-stem Goldenrod. Occasional. Dry-mesic upland forest.

Solidago canadensis L. Canada Goldenrod. Abundant. Successional fields; roadsides; flatwoods; pine plantations; mesic floodplain forest. 2159

Solidago juncea Ait. Early Goldenrod. Common. Dry-mesic upland forest. 2077

Solidago nemoralis Ait. Field Goldenrod. Common. Successional fields, often in eroding soil. 2139, 2178

Solidago ulmifolia Muhl. Elm-leaved Goldenrod. Common. Dry-mesic upland forest.

Taraxacum officinale Weber. Common Dandelion. Common. Roadsides; gravel parking lots; lawns; successional fields. 2326

Verbesina alternifolia (L.) Britt. Wingstem. Common. Mesic floodplain forest.

Verbesina helianthoides Michx. Wingstem. Occasional. Dry-mesic upland forest.

Vernonia missurica Raf. Missouri Ironweed. Rare. Flatwoods.

BALSAMINACEAE

Impatiens capensis Meerb. Spotted Touch-me-not. Occasional. Mesic floodplain forest; flatwoods; wet areas near edge of lake.

BERBERIDACEAE

Podophyllum peltatum L. Mayapple. Common. Dry-mesic upland forest; mesic floodplain forest; flatwoods; pine plantations. 2285

BETULACEAE

Betula nigra L. River Birch. Occasional. Mesic floodplain forest; wet areas near edge of lake.

BIGNONIACEAE

Campsis radicans (L.) Seem. Trumpet Creeper. Common. Mesic floodplain forest; flatwoods; roadsides; successional fields; field divisions; pine plantations.

BORAGINACEAE

Mertensia virginica (L.) Pers. Bluebells. Rare. Dry-mesic upland forest. 2282

Myosotis macrosperma Engelm. Scorpion Grass. Occasional. Dry-mesic upland forest. 2314

BRASSICACEAE

Arabidopsis thaliana (L.) Heynh. Mouse-ear Cress. Occasional. Fallow cropland. 2263

Arabis canadensis L. Sicklepod. Common. Dry-mesic upland forest. 2321

Barbarea vulgaris R. Br. Yellow Rocket. Common. Roadsides; gravel parking lots; successional fields; lawns; cropland; mesic floodplain forest.

Capsella bursa-pastoris (L.) Medic. Shepherd's Purse. Occasional. Fallow cropland.

Cardamine bulbosa (Schreb.) BSP. Spring Cress. Rare. Wet area near edge of lake. 2289

Cardamine hirsuta L. Spring Cress. Occasional. Fallow cropland; prairie planting; roadsides; gravel parking lots. 2288

Cardamine parviflora L. var. *arenicola* (Britt.) O. E. Schultz Small-flowered Bitter Cress. Occasional. Dry-mesic upland forest; roadsides; prairie plantings.

Dentaria laciniata Muhl. Toothwort. Occasional. Dry-mesic upland forest.

Draba brachycarpa Nutt. Short-fruited Whitlow Grass. Occasional. Fallow cropland; dry-mesic upland forest. 2264

Eriophila verna (L.) Chev. Mouse-eared Whitlow Grass. Occasional. Fallow cropland; lawns. 2261

Lepidium virginicum L. Common Peppergrass. Common. Roadsides; gravel parking lots.

Sibara virginica (L.) Rollins Sibara. Occasional. Fallow cropland. 2260

Thlaspi arvense L. Field Penny Cress. Occasional. Fallow cropland; roadsides.

CAESALPINIACEAE

Cassia fasciculata Michx. Partridge Pea. Common. Successional fields. 2063

Cassia marilandica L. Maryland Senna. Rare. Mesic floodplain forest.

Cercis canadensis L. Redbud. Occasional. Dry-mesic upland forest; mesic floodplain forest. 2259

Gleditsia triacanthos L. Honey Locust. Occasional. Mesic floodplain forest; flatwoods.

CAMPANULACEAE

Campanula americana L. American Bellflower. Occasional. Dry-mesic upland forest; mesic floodplain forest. 2098

Lobelia inflata L. Indian Tobacco. Common. Successional fields; flatwoods. 2099

Lobelia spicata Lam. Spiked Lobelia. Occasional. Dry-mesic upland forest; successional fields.

Triodanis perfoliata (L.) Nieuwl. Venus' Looking-glass. Common. Dry-mesic upland forest; prairie plantings; successional fields; roadsides; gravel parking lots. 2307

CAPRIFOLIACEAE

Lonicera japonica Thunb. Japanese Honeysuckle. Common. Successional fields; field divisions; roadsides; flatwoods; pine plantations. 2358

Lonicera maackii (Rupr.) Maxim. Amur Honeysuckle. Occasional. Field divisions; pine plantations. 2356

Sambucus canadensis L. Elderberry. Common. Field divisions; roadsides; successional fields; flatwoods; pine plantations.

Symphoricarpos orbiculatus Moench Coralberry. Common. Disturbed dry-mesic upland forest; mesic floodplain forest; flatwoods; pine plantations; field divisions. 2113

Viburnum prunifolium L. Black Haw. Common. Dry-mesic upland forest; mesic floodplain forest; flatwoods. 2291

CARYOPHYLLACEAE

Arenaria serpyllifolia L. Thyme-leaved Sandwort. Occasional. Roadsides; gravel parking lots. 2324

Cerastium vulgatum L. Common Mouse-eared Chickweed. Common. Roadsides; gravel parking lots; lawns; successional fields. 2340

Dianthus armeria L. Deptford Pink. Common. Roadsides; gravel parking lots; successional fields. 2384

Holosteum umbellatum L. Jagged Chickweed. Occasional. Fallow cropland; roadsides. 2265

Silene antirrhina L. Sleepy Catchfly. Rare. Disturbed areas in dry-mesic upland forest.

Silene stellata (L.) Ait. f. Starry Campion. Occasional. Dry-mesic upland forest.

Stellaria longifolia Muhl. Chickweed. Rare. Wet area near edge of lake.

Stellaria media (L.) Vill. Common Chickweed. Common. Roadsides; gravel parking lots; cropland; lawns. 2293

CELASTRACEAE

Euonymus atropurpurea Jacq. Yahoo. Occasional. Dry-mesic upland forest; field divisions. 2361

CERATOPHYLLACEAE

Ceratophyllum demersum L. Coontail. Common. Shallow water of lake and ponds.

CHENOPODIACEAE

Chenopodium standleyanum Aellen Goosefoot. Rare. Disturbed area in Henneman Cemetery, growing up through ground cover of periwinkle. 2156

CISTACEAE

Lechea tenuifolia Michx. Narrow-leaved Pinweed. Occasional. Dry-mesic upland forest.

COMMELINACEAE

Tradescantia virginiana L. Spiderwort. Occasional. Dry-mesic upland forest.

CONVOLVULACEAE

Ipomoea pandurata (L.) G. F. W. Mey. Wild Sweet Potato Vine. Rare. Pine plantations.

CORNACEAE

Cornus drummondii C. A. Mey. Rough-leaved Dogwood. Occasional. Mesic floodplain forest.

Cornus florida L. Flowering Dogwood. Occasional. Dry-mesic upland forest; pine plantations. 2290

CORYLACEAE

Corylus americana Walt. Hazelnut. Occasional. Dry-mesic upland forest; mesic floodplain forest; pine plantations; field divisions.

Ostrya virginiana (Mill.) K. Koch Hop Hornbeam. Occasional. Dry-mesic upland forest; mesic floodplain forest.

CUPRESSACEAE

Juniperus virginiana L. Red Cedar. Common. Successional fields; dry-mesic upland forest; mesic floodplain forest; flatwoods. 2240

CYPERACEAE

Carex artitecta Mack. Sedge. Common. Dry-mesic upland forest.

Carex blanda Dewey Sedge. Common. Dry-mesic upland forest. 2367

Carex bushii Mack. Sedge. Occasional. Successional fields; roadsides. 2345

Carex cephalophora Willd. Sedge. Common. Dry-mesic upland forest. 2309

Carex davisii Schwein. & Torr. Davis Sedge. Occasional. Dry-mesic upland forest; mesic floodplain forest. 2337

Carex frankii Kunth Sedge. Occasional. Ponds; wet areas near edge of lake. 2095

Carex glaucodea Tuckerm. Sedge. Common. Dry-mesic upland forest; flatwoods; pine plantations; successional fields. 2339

Carex granularis Willd. Sedge. Occasional. Dry-mesic upland forest. 2333

Carex grisea Wahlenb. Sedge. Common. Dry-mesic upland forest. 2318

Carex hirsutella Mack. Sedge. Common. Dry-mesic upland forest; successional fields. 2306

Carex jamesii Schwein. Sedge. Common. Dry-mesic upland forest. 2319

Carex muhlenbergii Willd. Sedge. Common. Dry-mesic upland forest. 2312

Carex normalis Mack. Sedge. Occasional. Wet areas near edge of lake; along intermittent stream through dry-mesic upland forest. 2328, 2365

Carex oligocarpa Willd. Sedge. Rare. Dry-mesic upland forest. 2334

Carex retroflexa Willd. Sedge. Abundance unknown. "Woods." Robert A. Evers # 112920 (ILLS), 23 May 1974. Not yet observed by the author.

Carex rosea Willd. Sedge. Common. Dry-mesic upland forest. 2313

Carex shortiana Dewey Sedge. Rare. In bed of intermittent stream through dry-mesic upland forest. 2329

Carex squarrosa L. Sedge. Rare. Flatwoods.

Carex vulpinoidea Michx. Fox Sedge. Common. Wet areas near edge of lake and ponds.

Cyperus ovularis (Michx.) Torr. Round-headed Sedge. Occasional. Successional fields.

Eleocharis acicularis (L.) Roem. & Schultes Spike Rush. Occasional. Wet areas near edge of lake and ponds.

Eleocharis obtusa (Willd.) Schult. Spike Rush. Common. Wet areas near edge of lake and ponds. 2239

Eleocharis palustris (L.) Roem. & Schultes Spike Rush. Occasional. Wet areas near edge of lake and ponds.

Eleocharis verrucosa (Svens.) Harms Spike Rush. Rare. In vernal pools of flatwoods.

Scirpus atrovirens Willd. Bulrush. Occasional. Wet areas near edge of lake and ponds; flatwoods.

Scirpus pendulus Muhl. Bulrush. Rare. Flatwoods.

EBENACEAE

Diospyros virginiana L. Persimmon. Common. Successional fields; field divisions; dry-mesic upland forest; flatwoods; pine plantations; roadsides. 2360

ELAEAGNACEAE

Elaeagnus umbellata Thunb. Autumn Olive. Common. Roadsides; successional fields; flatwoods; dry-mesic upland forest; mesic floodplain forest.

EQUISETACEAE

Equisetum arvense L. Common Horsetail. Rare. Wet area near edge of lake.

EUPHORBIACEAE

Chamaesyce maculata (L.) Small Nodding Spurge. Common. Roadsides; gravel parking lot; successional fields. 2085

Chamaesyce supina (Raf.) Moldenke Milk Spurge. Common. Roadsides; gravel parking lots. 2073

Croton capitatus Michx. Capitata Croton. Occasional. Successional fields. 2064

Crotonopsis elliptica Willd. Rushfoil. Occasional. Successional fields. 2067

Euphorbia corollata L. Flowering Spurge. Common. Successional fields; roadsides; dry-mesic upland forest; pine plantations. 2076

FABACEAE

Amorpha fruticosa L. False Indigo. Occasional. Wet areas near edge of lake.

Amphicarpa bracteata (L.) Fern. Hog Peanut. Rare. On north-facing slope over shale outcrop in dry-mesic upland forest.

Baptisia leucophaea Nutt. Cream Wild Indigo. Rare. Open dry-mesic upland forest.

- Coronilla varia* L. Crown Vetch. Occasional. Roadsides; gravel parking lots.
- Desmodium paniculatum* (L.) DC. Panicked Tick Trefoil. Occasional. Flatwoods; pine plantations.
- Kummerowia stipulacea* (Maxim.) Makino Korean Bush Clover. Common. Roadsides; gravel parking lots. 2127
- Kummerowia striata* (Thunb.) Schindl. Japanese Bush Clover. Common. Roadsides; gravel parking lots.
- Lespedeza cuneata* (Dum.-Cours.) G. Don Sericea Lespedeza. Common. Successional fields; roadsides. 2135
- Lespedeza virginica* (L.) Britt. Slender Bush Clover. Occasional. Successional fields. 2138
- Medicago lupulina* L. Black Medic. Common. Roadsides; gravel parking lots; successional fields. 2379
- Melilotus alba* Medic. White Sweet Clover. Common. Roadsides; gravel parking lots; successional fields.
- Melilotus officinalis* (L.) Pallas Yellow Sweet Clover. Common. Roadsides; gravel parking lots; successional fields. 2377
- Psoralea psoralioides* (Walt.) Cory var. *eglandulosa* (Eil.) Freeman Sampson's Snakeroot. Abundance unknown. "Woodland border." Robert A. Evers # 83520 (ILLS), 3 June 1965. Not yet observed by the author.
- Robinia pseudoacacia* L. Black Locust. Occasional. Roadsides; successional fields; field divisions.
- Stylosanthes biflora* (L.) BSP. Pencil-flower. Rare. Dry-mesic upland forest. 2080
- Tephrosia virginiana* (L.) Pers. Goat's Rue. Occasional. Openings in dry-mesic upland forest.
- Trifolium campestre* Schreb. Yellow Hop Clover. Common. Roadsides; gravel parking lots; successional fields. 2380
- Trifolium pratense* L. Red Clover. Common. Roadsides; gravel parking lots; successional fields.
- Trifolium repens* L. White Clover. Common. Roadsides; gravel parking lots; successional fields; lawns.
- FAGACEAE
- Quercus alba* L. White Oak. Abundant. Dry-mesic upland forest; pine plantations; successional fields; field divisions.
- Quercus bicolor* Willd. Swamp White Oak. Occasional. Mesic floodplain forest.

Quercus imbricaria Michx. Shingle Oak. Occasional. Successional fields; field divisions; roadsides; mesic floodplain forest; flatwoods. 2157

Quercus marilandica Muenchh. Blackjack Oak. Occasional. Flatwoods; field divisions. 2242

Quercus palustris Muenchh. Pin Oak. Occasional. Flatwoods.

Quercus rubra L. Red Oak. Occasional. Dry-mesic upland forest; mesic floodplain forest.

Quercus stellata Wangh. Post Oak. Occasional. Dry-mesic upland forest; flatwoods; successional fields. 2243

Quercus velutina Lam. Black Oak. Occasional. Dry-mesic upland forest; pine plantations; field divisions; successional fields.

GENTIANACEAE

Frasera caroliniensis Walt. American Colombo. Occasional. Dry-mesic upland forest.

Sabatia angularis (L.) Pursh Marsh Pink. Occasional. Successional fields.

GERANIACEAE

Geranium carolinianum L. Wild Cranesbill. Occasional. Roadsides; gravel parking lots; successional fields. 2376

Geranium maculatum L. Wild Geranium. Occasional. Dry-mesic upland forest.

HYDRANGEACEAE

Hydrangea arborescens L. Wild Hydrangea. Rare. North-facing slope over shale outcrop in dry-mesic upland forest.

HYPERICACEAE

Hypericum mutilum L. Dwarf St. John's Wort. Occasional. Wet areas near edge of lake; ponds; successional fields. 2100

Hypericum punctatum Lam. Spotted St. John's Wort. Common. Successional fields. 2078

IRIDACEAE

Sisyrinchium angustifolium Mill. Blue-eyed Grass. Rare. Mesic floodplain forest. 2373

JUGLANDACEAE

Carya cordiformis (Wang.) K. Koch Bitternut Hickory. Occasional. Mesic floodplain forest.

Carya glabra (Mill.) Sweet Pignut Hickory. Occasional. Dry-mesic upland forest.

Carya ovata (Mill.) K. Koch Shagbark Hickory. Common. Dry-mesic upland forest; flatwoods; pine plantations.

Carya tomentosa (Poir.) Nutt. Mockernut Hickory. Occasional. Dry-mesic upland forest; flatwoods.

Juglans nigra L. Black Walnut. Occasional. Mesic floodplain forest.

JUNCACEAE

Juncus tenuis Willd. Path Rush. Common. Roadsides; gravel parking lots; along trails.

LAMIACEAE

Blephilia ciliata (L.) Benth. Pagoda Plant. Rare. Mesic floodplain forest. 2371

Hedeoma hispida Pursh Rough Pennyroyal. Rare. Gravel parking lots. 2125

Hedeoma pulegioides (L.) Pers. American Pennyroyal. Occasional. Dry-mesic upland forest. 2160

Lamium amplexicaule L. Henbit. Occasional. Lawns; roadsides; gravel parking lots; fallow cropland. 2270

Lycopus americanus Muhl. Common Water Horehound. Occasional. Wet areas near edge of lake. 2082

Mimulus alatus Ait. Winged Monkey-flower. Occasional. Wet areas near edge of lake. 2134

Monarda bradburiana Beck Wild Bergamot. Occasional. Dry-mesic upland forest. 2311

Prunella vulgaris L. Self-heal. Rare. Flatwoods.

Pycnanthemum tenuifolium Schrad. Slender Mountain Mint. Common. Dry-mesic upland forest; flatwoods; pine plantations; successional fields. 2079

Scutellaria australis (Fassett) Epling Small Skullcap. Occasional. Dry-mesic upland forest; flatwoods.

Scutellaria incana Biehler Downy Skullcap. Rare. Mesic floodplain forest.

Stachys tenuifolia Willd. Smooth Hedge Nettle. Rare. Mesic floodplain forest.

LAURACEAE

Sassafras albidum (Nutt.) Nees Sassafras. Common. Flatwoods; pine plantations; field divisions; roadsides; successional fields.

LILIACEAE

Allium canadense L. Wild Onion. Occasional. Mesic floodplain forest. 2374

Asparagus officinalis L. Asparagus. Rare. Successional field.

Erythronium albidum Nutt. White Dog-tooth Violet; White Trout Lily. Occasional. Dry-mesic upland forest. 2267

Hemerocallis fulva (L.) L. Orange Day Lily. Rare. Persisting at abandoned homesites.

Narcissus poeticus L. Poet's Narcissus. Rare. Persisting at an abandoned homesite.

Polygonatum commutatum (Schult.) A. Dietr. Solomon's Seal. Occasional. Dry-mesic upland forest; mesic floodplain forest.

Smilacina racemosa (L.) Desf. False Solomon's Seal. Occasional. Dry-mesic upland forest; pine plantations.

Trillium recurvatum Beck. Red Trillium, Wake Robin. Common. Dry-mesic upland forest. 2280

Uvularia grandiflora Sm. Yellow Bellwort. Occasional. Dry-mesic upland forest. 2296

LYTHRACEAE

Cuphea viscosissima Jacq. Clammy Cuphea. Rare. Wet area near edge of lake. 2162

Rotala ramosior (L.) Koehne. Tooth-cup. Occasional. Wet areas near edge of lake; ponds. 2116

MAGNOLIACEAE

Liriodendron tulipifera L. Tulip Tree. Rare. Pine plantations, where it may have been planted.

MALVACEAE

Abutilon theophrasti Medik. Velvet-leaf. Occasional. Wildlife food plots; cultivated fields. 2106

Hibiscus lasiocarpus Cav. Hairy Rose Mallow. Occasional. Wet areas near edge of lake.

Sida spinosa L. Prickly Sida. Occasional. Cultivated fields; roadsides; gravel parking lots. 2108

MENISPERMACEAE

Menispermum canadense L. Moonseed. Rare. Mesic floodplain forest.

MORACEAE

Maclura pomifera (Raf.) Schneider. Osage Orange. Occasional. Mesic floodplain forest; flatwoods.

Morus rubra L. Red Mulberry. Occasional. Dry-mesic upland forest; mesic floodplain forest; flatwoods; field divisions. 2347

OLEACEAE

Fraxinus americana L. White Ash. Occasional. Dry-mesic upland forest; mesic floodplain forest; pine plantations.

Fraxinus pennsylvanica Marsh. Green Ash. Occasional. Flatwoods; wet areas near edge of lake and ponds.

ONAGRACEAE

Circaea lutetiana L. ssp. *canadensis* (L.) Aschers. & Magnus Enchanter's Nightshade. Occasional. Mesic floodplain forest; pine plantations.

Ludwigia alternifolia L. Seedbox. Occasional. Wet areas near edge of lake; flatwoods. 2083

Ludwigia peploides (HBK.) Raven ssp. *glabrescens* (Ktze.) Raven Creeping Primrose Willow. Common. Wet areas near edge of lake and ponds. 2084

Oenothera biennis L. Evening Primrose. Common. Successional fields; roadsides; gravel parking lots. 2120

OPHIOGLOSSACEAE

Botrychium dissectum Spreng. Cut-leaved Grape Fern. Rare. Pine plantation near Boston Pond.

Botrychium dissectum Spreng. var. *obliquum* (Muhl.) Clute Grape Fern. Rare. Pine plantation near Boston Pond.

Botrychium virginianum (L.) Sw. Rattlesnake Fern. Occasional. Dry-mesic upland forest; mesic floodplain forest. 2331

ORCHIDACEAE

Corallorhiza wisteriana Conrad Wister's Coral-root Orchid. Rare. Dry-mesic upland forest.

Cypripedium pubescens Willd. Yellow Lady's-slipper Orchid. Abundance unknown. Habitat unknown. L. J. Stannard s.n. (ILLS), 16 May 1967. Not yet observed by the author. The herbarium label says "From a colony of 7 plants."

Liparis liliifolia (L.) Rich. Twayblade Orchid. Rare. Dry-mesic upland forest.

Spiranthes cernua (L.) Rich. Nodding Ladies' Tresses. Rare. At edge of dry-mesic upland forest near road. 2241

OXALIDACEAE

Oxalis stricta L. Yellow Wood Sorrel. Common. Dry-mesic upland forest. I am following the treatment of Eiten (1963) for this genus. 2368

Oxalis violacea L. Violet Wood Sorrel. Occasional. Dry-mesic upland forest.

PAPAVERACEAE

Dicentra cucullaria (L.) Bernh. Dutchman's Breeches. Occasional. Dry-mesic upland forest. 2266

Sanguinaria canadensis L. Bloodroot. Occasional. Dry-mesic upland forest; mesic floodplain forest.

PASSIFLORACEAE

Passiflora lutea L. Small Passion-flower. Rare. Dry-mesic upland forest.

PHRYMACEAE

Phryma leptostachya L. Lopseed. Occasional. Dry-mesic upland forest; pine plantations.

PHYTOLACCACEAE

Phytolacca americana L. Pokeweed. Common. Roadsides; successional fields; field divisions; pine plantations; cropland. 2112

PINACEAE

Pinus echinata Mill. Shortleaf Pine. Planted in plantations. Also occasionally adventive in dry-mesic upland forest.

PLANTAGINACEAE

Plantago lanceolata L. Buckhorn. Common. Roadsides; gravel parking lots; prairie plantings.

Plantago rugelii Dcne. Rugel's Plantain. Common. Roadsides; gravel parking lots; lawns. 2129

Plantago virginica L. Dwarf Plantain. Occasional. Roadsides; successional fields; prairie plantings.

PLATANACEAE

Platanus occidentalis L. Sycamore. Occasional. Flatwoods; mesic floodplain forest; wet areas near edge of lake.

POACEAE

Agrostis alba L. Red Top. Occasional. Successional fields; wet areas near edge of lake and ponds.

Agrostis elliottiana Schult. Awned Bent Grass. Abundance unknown. "Open area." Robert A. Evers # 112914 (ILLS), 23 May 1974. Not yet observed by the author.

Agrostis hyemalis (Walt.) BSP. Tickle Grass. Occasional. Successional fields. 2383

Agrostis perennans (Walt.) Tuckerm. Upland Bent Grass. Common. Dry-mesic upland forest.

- Alopecurus carolinianus* Walt. Common Foxtail. Occasional. Fallow cropland.
- Alopecurus pratensis* L. Meadow Foxtail. Rare. Roadside. 2287
- Andropogon gerardii* Vitman Big Bluestem. Occasional. Successional fields; prairie plantings.
- Bromus commutatus* Schrad. Hairy Chess. Occasional. Roadsides; gravel parking lots. 2378
- Bromus pubescens* Muhl. Canada Brome Grass. Common. Dry-mesic upland forest; mesic floodplain forest. 2364
- Bromus tectorum* L. Downy Chess. Common. Gravel parking lots; roadsides. 2327
- Chasmanthium latifolium* (Michx.) Yates Sea Oats. Occasional. Wet areas near edge of lake; along intermittent streams. 2176
- Cinna arundinacea* L. Stout Wood Reed. Occasional. Mesic floodplain forest; flatwoods; wet areas near edge of lake.
- Danthonia spicata* (L.) Roem. & Schultes Curly Oat Grass. Occasional. Dry-mesic upland forest; successional fields.
- Dichanthelium acuminatum* (Sw.) Gould & Clark Panic Grass. Common. Dry-mesic upland forest; flatwoods; pine plantations; successional fields. 2363, 2385
- Dichanthelium boscii* (Poir.) Gould & Clark Large-fruited Panic Grass. Common. Dry-mesic upland forest. 2308
- Dichanthelium clandestinum* (L.) Gould Deer Tongue. Occasional. Mesic floodplain forest; wet areas near edge of lake.
- Dichanthelium depauperatum* (Muhl.) Gould Panic Grass. Rare. Successional field. 2351
- Digitaria ischaemum* (Schreb.) Muhl. Smooth Crabgrass. Common. Roadsides; gravel parking lots; successional fields; cropland. 2118
- Digitaria sanguinalis* (L.) Scop. Hairy Crabgrass. Common. Roadsides; gravel parking lots; successional fields; cropland. 2072
- Eleusine indica* (L.) Gaertn. Goose Grass. Occasional. Roadsides; gravel parking lots. 2123
- Elymus hystrix* L. Bottlebrush Grass. Rare. Mesic floodplain forest.
- Elymus villosus* Muhl. Slender Wild Rye. Occasional. Mesic floodplain forest; flatwoods; pine plantations.
- Elymus virginicus* L. Virginia Wild Rye. Common. Mesic floodplain forest; flatwoods; pine plantations.

- Eragrostis cilianensis* (All.) Mosher Stinking Love Grass. Common. Roadsides; gravel parking lots. 2122
- Eragrostis frankii* C. A. Meyer Love Grass. Rare. Roadside. 2143
- Eragrostis pectinacea* (Michx.) Nees Love Grass. Common. Roadsides; gravel parking lots. 2121
- Eragrostis spectabilis* (Pursh) Steud. Tumble-grass. Occasional. Successional fields. 2177
- Festuca obtusa* Biehler Nodding Fescue. Common. Dry-mesic upland forest; mesic floodplain forest. 2331
- Festuca pratensis* Huds. Meadow Fescue. Common. Roadsides; gravel parking lots; successional fields; flatwoods.
- Glyceria striata* (Lam.) Hitchcock Fowl Manna Grass. Common. Wet areas near edge of lake and ponds; flatwoods. 2316
- Hordeum pusillum* Nutt. Little Wild Barley. Occasional. Roadsides; gravel parking lots. 2341
- Leersia oryzoides* (L.) Swartz Rice Cutgrass. Common. Wet areas near edge of lake and ponds.
- Muhlenbergia glabrifloris* Scribn. Muhly. Occasional. Dry-mesic upland forest. 2168
- Muhlenbergia schreberi* J. F. Gmel. Nimble Will. Occasional. Roadsides; along trails. 2117
- Panicum dichotomiflorum* Michx. Fall Panicum. Occasional. Wildlife food plots; cropland; roadsides; gravel parking lots. 2158
- Panicum rigidulum* Bosc Munro Grass. Occasional. Wet areas near edge of lake. 2088
- Panicum virgatum* L. Switch Grass. Occasional. Successional fields; prairie plantings.
- Paspalum laeve* Michx. Bead Grass. Rare. Wet area near edge of Boston Pond. 2115
- Phalaris arundinacea* L. Reed Canary Grass. Occasional. Wet areas near edge of lake.
- Phleum pratense* L. Timothy. Common. Roadsides; gravel parking lots; successional fields.
- Phragmites australis* (Cav.) Steud. Giant Reed. Occasional. Wet areas near edge of lake and ponds.
- Poa bulbosa* L. Bulbous Bluegrass. Rare. Roadside; picnic area. 2283
- Poa compressa* L. Canadian Bluegrass. Common. Dry-mesic upland forest; flatwoods; successional fields.

Poa pratensis L. Kentucky Bluegrass. Common. Successional fields; roadsides; gravel parking lots; lawns. 2354

Poa sylvestris Gray Woodland Bluegrass. Occasional. Dry-mesic floodplain forest; mesic floodplain forest.

Schizachyrium scoparium (Michx.) Nash Little Bluestem. Common. Successional fields; dry-mesic upland forest.

Setaria faberi Herrm. Giant Foxtail. Common. Roadsides; gravel parking lots; successional fields. 2070

Setaria glauca (L.) Beauv. Yellow Foxtail. Common. Roadsides; gravel parking lots; successional fields. 2071

Setaria viridis (L.) Beauv. var. *major* (Gaudin) Pospichal Giant Green Foxtail. Rare. Clover field. 2109

Sorghastrum nutans (L.) Nash Indian Grass. Occasional. Successional fields; prairie plantings.

Sphenopholis obtusata (Michx.) Scribn. var. *major* (Torr.) Erdman Wedge Grass. Common. Dry-mesic upland forest; wet area area near edge of lake. 2317

Tridens flavus (L.) Hitchcock Purple-top. Common. Successional fields; roadsides. 2065

Tripsacum dactyloides (L.) L. Gama Grass. Rare. Successional field.

Vulpia octoflora (Walt.) Rydb. Six-weeks Fescue. Occasional. Dry-mesic upland forest. 2310

POLEMONIACEAE

Phlox divaricata L. Blue Phlox. Common. Dry-mesic upland forest; mesic floodplain forest. 2286

Phlox pilosa L. Downy Phlox. Occasional. Edges of dry-mesic upland forest; roadsides. 2343

POLYGALACEAE

Polygala sanguinea L. Field Milkwort. Occasional. Successional fields. 2074

POLYGONACEAE

Fagopyrum esculentum Moench Buckwheat. Planted in wildlife food plots where it may self seed and persist for short times.

Polygonum cespitosum Blume var. *longisetum* (DeBruyn) Stewart Creeping Smartweed. Rare. At edge of foot trail through mesic floodplain forest.

Polygonum hydropiperoides Michx. Mild Water Pepper. Occasional. Wet areas near edge of lake.

Polygonum lapathifolium L. Pale Smartweed. Common. Wet areas near edge of lake. 2068

Polygonum pensylvanicum L. Common Smartweed. Occasional. Wet areas near edge of lake and ponds. 2140

Polygonum persicaria L. Lady's Thumb. Occasional. Roadsides; gravel parking lots. 2126

Polygonum punctatum Ell. Dotted Smartweed. Occasional. Wet areas near edge of lake and ponds. 2133

Polygonum sagittatum L. Tear Thumb. Occasional. Wet areas near edge of lake. 2130

Polygonum scandens L. False Buckwheat. Common. Roadsides.

Rumex acetosella L. Sour Dock. Occasional. Successional fields; roadsides. 2344

Rumex altissimus Wood Pale Dock. Occasional. Wet areas near edge of lake.

Rumex crispus L. Curly Dock. Common. Roadsides; gravel parking lots; successional fields.

PORTULACACEAE

Claytonia virginica L. Spring Beauty. Common. Dry-mesic upland forest. 2268

POTAMOGETONACEAE

Potamogeton nodosus Poir. Pondweed. Occasional. Shallow water of lake. 2132

PRIMULACEAE

Dodecatheon meadia L. Shooting-star. Rare. Dry-mesic upland forest.

Lysimachia lanceolata Walt. Loosestrife. Rare. Flatwoods.

Samolus valerandii L. Brookweed. Rare. Wet area near edge of lake. 2166

PYROLACEAE

Monotropa hypopithys L. Pinesap. Rare. Dry-mesic upland forest.

RANUNCULACEAE

Aquilegia canadensis L. Columbine. Rare. On sandstone outcrop along stream in dry-mesic upland forest.

Delphinium tricornis Michx. Wild Larkspur. Occasional. Dry-mesic upland forest. 2281

Hydrastis canadensis L. Goldenseal. Occasional. Dry-mesic upland forest. 2284

Ranunculus abortivus L. Small-flowered Crowfoot. Common. Fallow cropland; lawns. 2262

Ranunculus harveyi (A. Gray) Britt. Harvey's Buttercup. Very rare, only one individual observed. In mound of soil on roadside through dry-mesic upland forest.

Ranunculus hispidus Michx. Bristly Buttercup. Occasional. Dry-mesic upland forest. 2295

Ranunculus micranthus Nutt. Small-flowered Buttercup. Occasional. Dry-mesic upland forest; picnic areas.

ROSACEAE

Amelanchier arborea (Michx. f.) Fern. Shadbush. Rare. Flatwoods.

Agrimonia parviflora Ait. Swamp Agrimony. Occasional. Mesic floodplain forest; flatwoods; pine plantations; wet areas near edge of lake and ponds.

Agrimonia pubescens Wallr. Soft Agrimony. Rare. Pine plantation.

Agrimonia rostellata Wallr. Woodland Agrimony. Occasional. Dry-mesic upland forest; mesic floodplain forest. 2096

Crataegus crus-galli L. Cock-spur Thorn. Rare. Mesic floodplain forest.

Crataegus pruinosa (Wendl.) K. Koch Hawthorn. Occasional. Dry-mesic upland forest; pine plantations; field divisions. 2359

Geum canadense Jacq. White Avens. Common. Dry-mesic upland forest; mesic floodplain forest; flatwoods; pine plantations; field divisions.

Malus ioensis (Wood) Britt. Iowa Crab Apple. Occasional. Successional fields; field divisions. 2297

Porteranthus stipulatus (Muhl.) Britt. Indian Physic. Occasional. Dry-mesic upland forest.

Potentilla simplex Michx. Common Cinquefoil. Common. Dry-mesic upland forest; flatwoods; pine plantations; successional fields.

Prunus americana Marsh. Wild Plum. Occasional. Successional fields; field divisions. 2279

Prunus serotina Ehrh. Wild Black Cherry. Common. Dry-mesic upland forest; mesic floodplain forest; flatwoods; pine plantations; field divisions.

Rosa carolina L. Carolina Rose. Occasional. Dry-mesic upland forest; dry roadside embankments.

Rosa multiflora Thunb. Multiflora Rose. Common. Roadsides; successional fields; field divisions; flatwoods; pine plantations; mesic floodplain forest. 2353

Rosa setigera Michx. Prairie Rose. Occasional. Field divisions; flatwoods.

Rubus allegheniensis Porter Common Blackberry. Common. Successional fields; roadsides; field divisions; dry-mesic upland forest; flatwoods; pine plantations. 2348

Rubus flagellaris Willd. Dewberry. Common. Successional fields; flatwoods. 2382

Rubus occidentalis L. Black Raspberry. Common. Roadsides; successional fields; field divisions; pine plantations; mesic floodplain forest.

Rubus pensylvanicus Poir. Blackberry. Common. Successional fields; roadsides. 2346

RUBIACEAE

Cephalanthus occidentalis L. Buttonbush. Occasional. Wet areas near edge of lake.

Diodia teres Walt. Rough Buttonweed. Occasional. Successional fields. 2066

Galium aparine L. Goosegrass. Common. Dry-mesic upland forest; roadsides; successional fields; field divisions.

Galium circaezans Michx. Wild Licorice. Occasional. Dry-mesic upland forest; pine plantations.

Galium triflorum Michx. Sweet-scented Bedstraw. Occasional. Pine plantations; mesic floodplain forest.

Hedyotis crassifolia Raf. Tiny Bluets. Occasional. Successional fields; lawns. 2271

Hedyotis longifolia (Gaertn.) Hook. Long-leaved Bluets. Occasional. Successional fields. 2075

SAXIFRAGACEAE

Heuchera americana L. var. *hirsuticaulis* (Wheelock) Rosend., Butt. & Lak. Tall Alumroot. Occasional. Dry-mesic upland forest. 2320

SALICACEAE

Populus deltoides Marsh. Cottonwood. Occasional. Mesic floodplain forest.

Salix exigua Nutt. Sandbar Willow. Occasional. Wet areas near edge of lake and ponds.

Salix humilis Marsh. Prairie Willow. Occasional. Field divisions; successional fields; flatwoods.

Salix nigra Marsh. Black Willow. Occasional. Wet areas near edge of lake and ponds.

SCROPHULARIACEAE

Aureolaria flava (L.) Farw. Smooth False Foxglove. Rare. Dry-mesic upland forest.

Mimulus alatus Ait. Winged Monkey-flower. Occasional. Wet areas near edge of lake.

Penstemon calycosus Small Smooth Beardstongue. Occasional. Dry-mesic upland forest. 2366

Penstemon pallidus Small Pale Beardstongue. Common. Dry-mesic upland forest. 2323

Verbascum thapsus L. Woolly Mullein. Occasional. Roadsides.

Veronica arvensis L. Corn Speedwell. Common. Roadsides; gravel parking lots; lawns. 2325

Veronicastrum virginicum (L.) Farw. Culver's Root. Occasional. Dry-mesic upland forest.

SIMAROUBACEAE

Ailanthus altissima (Mill.) Swingle Tree-of-Heaven. Rare. Along roadside at edge of dry-mesic upland forest; probably near an abandoned homesite.

SMILACACEAE

Smilax hispida Muhl. Bristly Catbrier. Occasional. Flatwoods; mesic floodplain forest.

SOLANACEAE

Physalis pruinosa L. Ground Cherry. Rare. Wet area near edge of lake. 2174

Solanum carolinense L. Horse-nettle. Occasional. Roadsides; successional fields; pine plantations.

STAPHYLEACEAE

Staphylea trifolia L. Bladdernut. Rare. Dry-mesic upland forest. 2369

TAXODIACEAE

Taxodium distichum (L.) Rich. Bald Cypress. Rare. Planted at the edge of Boston Pond. A few small individuals appear to be adventive at this site.

TYPHACEAE

Typha latifolia L. Common Cat-tail. Common. Wet areas near edge of lake & ponds.

ULMACEAE

Celtis occidentalis L. Hackberry. Occasional. Flatwoods; mesic floodplain forest; pine plantations; field divisions.

Ulmus americana L. American Elm. Common. Dry-mesic upland forest; mesic floodplain forest; flatwoods; pine plantations.

Ulmus rubra Muhl. Slippery Elm. Occasional. Dry-mesic upland forest.

URTICACEAE

Boehmeria cylindrica (L.) Sw. False Nettle. Common. Wet areas near edge of lake; ponds. 2069

Parietaria pensylvanica Muhl. Pellitory. Occasional. Flatwoods; gravel parking lot. 2375

Pilea pumila (L.) Gray Clearweed. Rare. Pine plantations.

VERBENACEAE

Phyla lanceolata (Michx.) Greene Fog-fruit. Common. Wet areas near edge of lake; ponds. 2089

Verbena hastata L. Blue Vervain. Occasional. Successional fields; wet areas near edge of lake. 2111

Verbena urticifolia L. White Vervain. Common. Roadsides; successional fields; pine plantations.

VIOLACEAE

Viola pedata L. Bird's-foot Violet. Rare. Dry-mesic upland forest.

Viola pratincola Greene Common Blue Violet. Occasional. Mesic floodplain forest.

Viola rafinesquii Greene Johnny-jump-up. Common. Fallow cropland; lawns; roadsides; gravel parking lots. 2269

VITACEAE

Parthenocissus quinquefolia (L.) Planch. Virginia Creeper. Abundant. Dry-mesic upland forest; mesic floodplain forest; flatwoods; pine plantations; field divisions.

Vitis aestivalis Michx. Summer Grape. Occasional. Dry-mesic upland forest; flatwoods; pine plantations.