

Natural Features Inventory

Spring Valley Park, Kalamazoo, Michigan 2004

I. Introduction

Spring Valley Park is located in the city of Kalamazoo, in Sections 11 and 12 of Kalamazoo Township. The property consists of 180 acres of varied wooded hills, ravines, an 80 acre lake and two ponds, a meandering creek, and a wet meadow. Substantial areas for recreation are maintained as lawn, with parking, playground, picnicking, and restrooms provided. Scenic vistas can be explored by several miles of newly paved trails or by car on paved roads. About one quarter of the woods is remnant Dry Southern Forest (Oak/Hickory Hardwoods), grading into fields and Pine Plantations that are in succession or can be called Transitional Hardwood community. Another mostly unaltered area is a small Southern Wet Meadow community located in the western portion of the park. Several prior disturbed and artificially created plant communities exist along the lakeshore and lowlands, resembling Shrub-Carr habitat with a mixture of Mesic Southern Forest and Southern Floodplain Forest. Because of diversity of habitats and sizable acreage, a relatively high vascular plant species count of 426 was tallied.

Floristic Quality Assessment is a tool useful in determining the natural significance of a location by a thorough examination of the flora found there. When the Floristic Quality Index (FQI) computation for the 426 plant species recorded within the property is applied, a score of 51.4 is obtained. Using only the 281 native species, the FQI is 63.2. "Areas with FQI higher than 35 possess sufficient conservatism and richness that they are floristically important from a statewide perspective. Areas registering in the 50s and higher are extremely rare and represent a significant component of Michigan's native biodiversity and natural landscapes." (Herman et. al. 2001). The FQI is calculated by using the "Coefficient of Conservatism" value that has been given to each native vascular plant species in Michigan by the Department of Natural Resources Natural Heritage Program. The values range from 0 - 10 and "represent an estimated probability that a plant is likely to occur in a landscape relatively unaltered from what is believed to be pre-European settlement condition." (Herman et al. 2001). The FQI results will be higher when several diverse biotic communities occur at a particular site, and it is probable that more species will be recorded, the greater the size of the parcel. The Spring Valley Park site has several different plant communities on about 180 acres.

A number of rare plant and animal species in Michigan are given a status designation by the state for conservation purposes. This status refers to the placement of a species on the Department of Natural Resources' "Threatened and Endangered Species" list. The "Endangered" category indicates the most precarious status in the state, "Threatened" is the next most severe; third is "Special Concern." Special Concern species have a degree of rarity within the state, usually associated with diminishing habitat. While the Special Concern status offers no protection under the law, the species are monitored for future conservation considerations and should be protected to prevent future listing. The following three State of Michigan Listed Species were encountered during the study period on the Spring Valley Park property:

Plant: *Trillium recurvatum* Beck Prairie Trillium: **Threatened**; several groupings planted in the Transitional Woods near the creek in the western section of the park. The plants occur on both sides of the creek where several other wildflowers species have been planted in the past as landscape in a yard. Prairie Trillium's normal range is south and west of the Kalamazoo area. Because this is a cultivated population, it is not subject to regulation.

Reptile: *Terrapene carolina carolina*, Eastern Box Turtle: **Special Concern**; Three sightings in Oak/Hickory Hardwoods: two in the eastern part and one in the western section near the cemetery. Park staff report numerous additional sightings.

Bird: *Seiurus motacilla*, Louisiana Waterthrush: **Special Concern**; Heard calling in spring and early summer in Transitional Woods east of Deek's Pond. Possible nesting. The Louisiana Waterthrush prefers deciduous habitat of continuous forest cover with running water and would nest on or near the ground, often on stream banks (Brewer et al. 1991). This species has nested in Kalamazoo County but is now considered an uncommon breeder in southern Michigan.

A vascular plant species total of 444 including trees, shrubs, grasses, sedges, ferns, and other flowering plants were inventoried. Eighteen species are considered park plantings and are not reproducing. Of the remaining 426 reproducing species, 145, or 34% of the total, are non-native: this is typical since in Michigan, 33% of our flora is non-native. The listing of vascular plants contains the scientific name, author, common name, native or non-native status in Michigan, frequency, and comments on habitat. Species are listed by family in accordance with the Englerian system found in the three-volume *Flora of Michigan* (Voss 1972, 1985, 1996), however, some nomenclature reflects taxonomic innovations by recent authors. Field work was conducted with visits to habitats beginning in late summer 2003, and continued into early and late fall, and started up once again in early spring and continued through late summer 2004. Excursions on foot involved the "intuitive meander" method with closer attention given to productive areas in more intricate habitats such as found in the Wet Meadow.

It should be noted that plant communities change over time, in part due to the fluctuation of the water table associated with Spring Valley Lake. This can affect the number and frequency of species present, especially along the shores. Other changes to plant species and variation in frequency from year to year can be enormous. Several thousand plants one year can be reduced to a mere handful the next due to annual changes such as temperature fluctuation, and a variable water table due in part to the seasonal and yearly amount of precipitation in that area. Animal browsing and plant diseases can also seriously disturb a population. Plants occurring rarely and especially in a very local area, can simply be overlooked. Some plants are annuals, coming up for one year; blooming, fruiting and sometimes withering away forever.

Of the 56 species of birds listed for the property, 44 were seen or heard during the breeding season. These species are denoted as "SR" (summer resident) and most of them

probably nested in the area. Other birds listed were seen during the nesting season but appropriate habitat was not available within the property, or they were observed during migration. Although the vascular plants were the primary focus of the project, a number of incidental fauna species encountered are also recorded in tables following the plant community descriptions.

II. Plant Communities

The following five naturally occurring plant communities are found in Spring Valley Park:

1. Submergent Marsh, 2. Emergent Marsh, 3. Southern Wet Meadow, 4. Southern Shrub-Carr, and 5. Dry Southern Forest (Oak/Hickory/Hardwoods). Two additional communities represent sites that have been disturbed: 6. Transitional Woods, and 7. Fields, Lawns, Roads, and Parking Lots. The boundaries between communities are not well defined in most places and blend into one another. Where plant names are given, * denotes non-native species.

Palustrine (Wet Habitat)

1. Submergent Marsh

Historically, before Spring Valley Creek was changed into a reservoir, two or three small ponds connected by the stream existed on the property. During the late summer, it is evident from looking across the present Spring Valley Lake and Deek's Pond, that a vast submergent flora is present. Submergent plants are those which typically occur beneath the surface with some species sending up flowering bodies above the water. Some of these live in water over 15 feet deep. Flowering potamogeton, coontail, and water-milfoil cover the water for several hundred feet from shore in many places. Three pondweeds are common: Curly Pondweed* (*Potamogeton Crispus*), Fries's Pondweed (*P. frieserii*), and Long-leaved Pondweed (*P. nodosus*). Other underwater plants include, Slender Waterweed (*Elodea nuttallii*), Coontail (*Ceratophyllum demersum*), Spiked Water-milfoil (*Myriophyllum exalbescens*) and Eurasian Water-milfoil* (*Myriophyllum spicatum*) and are locally abundant.

Several small pools are present within the Wet Meadow community, and in some of them is found the small but locally abundant Star Duckweed (*Lemna trisulca*).

Looking in the water and seeing hundreds of fish along with admiring the "local catch" makes it apparent that Spring Valley Lake and Deek's Pond have a healthy fish population. Sunfish, Bluegills, Perch, Bass, and Pike are reported by fishermen, young and old alike. On almost every visit, several people were out casting from the shores or small boats.

2. Emergent Marsh

The Emergent Marsh is a community of plants that occurs along the edges of lakes and rivers, often including marshes. While no large areas of stable marsh are found within Spring Valley Park, many plant species comprise this community here, often a striking sight with its vivid and varied color of flowers along the shores. In this plant community, Spring Valley Park has a mixture of low forbs including grasses, sedges, and flowers; a shrub layer mostly of dogwood and willow; and a variety of trees.

Some plants found directly in the waters of Spring Valley Lake and Deek's Pond are Wapato (*Sagittaria latifolia*), Broad-leaved Cat-tail (*Typha latifolia*), Water Smartweed (*Polygonum amphibium*), Spatterdock (*Nuphar advena*), and the abundant and beautiful Fragrant Water-lily (*Nymphaea odorata*). Three of our flora's smallest flowering plants float in great masses on the surface of the water in late summer. Two of them are common in Spring Valley Lake: Small Duckweed (*Lemna minor*) and Great Duckweed (*Spirodela polyrhiza*). The other, Common Watermeal (*Wolffia columbiana*), is common only on the small pools within the Wet Meadow Community.

Locally abundant on the shores, or at times in the water, are several members of the sedge family: Low Umbrella Sedge (*Cyperus diandrus*), Needle Spike (*Eleocharis acicularis*), Creeping Spike-rush (*Eleocharis erythropoda*), Three-square (*Schoenoplectus pungens*), and Softstem Bulrush (*Schoenoplectus tabernaemontani*). Where common in pure stands, the spike rushes appear to be a carpet of fine grass.

Many species of grasses associated with this shoreline community are native to Michigan: Salt-marsh Cockspur Grass (*Echinochloa walteri*), Cut Grass (*Leersia oryzoides*), White Grass (*Leersia virginica*), and Purpletop (*Tridens flavus*). Reed Canary Grass (*Phalaris arundinacea*) may not be native to this area, but is instead likely a foreign clonal variety of the species.

Some of the colorful and showy native flowering species occurring along the shores in wet habitat are: Southern Blue Flag (*Iris virginica*), Spotted Touch-me-not (*Impatiens capensis*), Fringed Loosestrife (*Lysimachia ciliata*), Marsh Skullcap (*Scutellaria galericulata*), Mad-dog Skullcap (*Scutellaria lateriflora*), Great Blue Lobelia (*Lobelia siphilitica*), and Panicked Aster (*Aster lanceolatus*). Rough-fruited Water-hemp (*Amaranthus tuberculatus*) is common on the sandy shorelines (only two species in this genus are native to Michigan). Another common species, Peppermint* (*Mentha piperita*), has an interesting local history that may partially explain its abundance along the shores here. "The volatile oil distilled from peppermint plants is used to flavor gum, toothpaste, medicine, candy, and other articles. Commercial growing of peppermint in Michigan began in the mid-19th century. By the end of that century, Michigan produced 90% of the world's supply of mint oil -- all from a 90-mile radius of Kalamazoo." (Voss 1996; page 155, vol. III). The non-native but noticeably colorful Purple Loosestrife* (*Lythrum salicaria*) is sporadically common in some areas along the shore, but does not appear to have replaced the native species appreciably.

A primitive and interesting little moss-like vascular plant found growing locally on bare marl soil very near the shore of the upper Spring Valley Lake is Buck's Meadow Spike-moss (*Selaginella eclipses*). Although once common in Kalamazoo County (Hanes and Hanes 1947) this plant is often overlooked because of its diminutive size.

The shrubs that occur in some places along the wet shore resemble a Shrub-Carr community but it falls short of becoming a true climax plant community here. Common berry-producing species are: Pale Dogwood (*Cornus amomum*), Common Elder (*Sambucus canadensis*), Arrow-wood (*Viburnum dentatum*), and European Highbush Cranberry* (*Viburnum opulus*).

Numerous trees line the shores and have become well established, with many keeping their feet wet in or very near the water. Of the tree-size willows, Peach-leaved Willow (*Salix amigdaloides*), Black Willow (*Salix nigra*), and Crack Willow* (*Salix fragilis*) occur. The latter two species of willow have an interesting habit of reproduction: the brittle twigs snap off readily, floating away to become rooted in other shoreline locations. Hackberry (*Celtis occidentalis*), Cottonwood (*Populus deltoides*), Northern Catalpa* (*Catalpa speciosa*), and Bald Cypress* (*Taxodium distichium*) are also found in close proximity to the wet shoreline habitat. One must look twice at the several planted large Bald Cypress, quite out of place from its range in the southern states.

Wetland shores are home to many amphibians, reptiles and birds in the park. Usually heard more than seen, Spring Peepers and Western Chorus Frogs commonly call from along the shores in early spring. Painted Turtles and Common Map Turtles often bask in the sun on logs scattered along the shores. Birds frequently seen along the shores and in other wet areas are: Great Blue Heron, Mallard, Killdeer, Belted Kingfisher, Cedar Waxwing, Yellow Warbler, and Common Yellowthroat.

3. Southern Wet Meadow

The Wet Meadow communities found in Michigan are dominated by sedges and grasses with an assortment of wildflowers and the presence of cattails (*Typha spp*). This small area of about two acres, located in the western part of Spring Valley Park, is most likely a remnant from pre-settlement times when beaver were present and had an active role in establishing open meadows in stream valleys (former dam ponds). Over time, shrubs and trees have gradually encroached, shrinking the size of the open meadow, with many growing right in it. Abounding with quality and mostly native species, this remaining meadow appears to have had minimal disturbance in the past. Some fill from road building and altering of of the creek to construct Deek's pond probably also diminished the size of the once larger community. Much of the meadow is quite wet with small pools and springy areas where the large liverwort Great Scented Liverwort (*Conocephalum conicum*) can commonly be found. The Southern Wet Meadow is host to many plant species not found anywhere else on the property.

Foot-tall humps of the tussock-forming sedge, Tussock Sedge (*Carex stricta*), are local. Others present are: Bebb's Sedge (*Carex bebbii*), Small-yellow Sedge (*Carex*

cryptolepis), Porcupine Sedge (*Carex hystericina*), Rough Sedge (*Carex scabrata*), and Dark-green Bulrush (*Scirpus atrovirens*). Five species of ferns in the park are found only here: Cinnamon Fern (*Osmunda cinnamomea*), Royal Fern (*Osmunda regalis*), Marsh Shield Fern (*Thelypteris palustris*), Lady Fern (*Athyrium filix-femina*), and Sensitive Fern (*Onoclea sensibilis*). Outstanding are the numerous and colorful flowering forb species found in the Southern Wet Meadow: Jack-in-the-pulpit (*Arisaema triphyllum*), Skunk Cabbage (*Symplocarpus foetidus*), Great Waterdock (*Rumex orbiculatus*), Marsh-marigold (*Caltha palustris*), Swamp Saxifrage (*Saxifraga pensylvanica*), Many-flowered Marsh-pennywort (*Hydrocotyle umbellata*), Cowbane (*Oxypolis rigidior*), Swamp Milkweed (*Asclepias incarnata*), Virginia Mountain-mint (*Pycnanthemum virginianum*), White Turtlehead (*Chelone glabra*), Square-stemmed Monkey-flower (*Mimulus ringens*), Marsh Bellflower (*Campanula aparinoides*), Swamp Thistle (*Cirsium muticum*), Spotted Joe-pye Weed (*Eupatorium maculatum*), Boneset (*Eupatorium perfoliatum*), Cut-leaved Coneflower (*Rudbeckia laciniata*), Golden Ragwort (*Senecio aureus*), Rough-leaved Goldenrod (*Solidago patula*), and Showy Coneflower (*Rudbeckia fulgida*).

Species of trees that occur in the meadow: along the road, a Bald Cypress now with a 23" diameter, planted perhaps 50 years ago; and several small trees of Gray Birch (*Betula populifolia*), Silver Maple (*Acer saccharinum*), and Red Ash (*Fraxinus pennsylvanica*).

4. Southern Shrub-Carr

In Spring Valley Park, a small plant community that sporadically is found next to water and often on poorly drained soils is called Southern Shrub-Carr. Most of the shrub species here are native. As the name implies, this community is dominated by shrubs with the following found here: Hoary Willow (*Salix candida*), Pussy Willow (*Salix discolor*), Heart-leaved Willow (*Salix eriocephala*), Sandbar Willow (*Salix exigua*), Pale Dogwood (*Cornus amomum*), Red-osier Dogwood (*Cornus stolonifera*), Common Elder (*Sambucus canadensis*), Arrow-wood (*Viburnum dentatum*), Wayfaring Tree* (*Viburnum lentana*), and European Highbush Cranberry* (*Viburnum opulus*). Along with the shrubs, there are the typical associated wetland forbs: Marsh Shield Fern (*Thelypteris palustris*), Broad-leaved Cat-tail (*Typha latifolia*), Bulb-bearing Water-hemlock (*Cicuta bulbifera*), Swamp Milkweed (*Asclepias incarnata*), Marsh Bellflower (*Campanula aparinoides*), and Boneset (*Eupatorium perfoliatum*).

Terrestrial (Dry Habitat)

5. Dry Southern Forest (Oak/Hickory Hardwoods)

The Dry Southern Forest is characterized by several dominant species of Oaks and Hickories. Other constant associate canopy species are Sassafras (*Sassafras albidum*), Wild Black Cherry (*Prunus serotina*), and Red Maple (*Acer rubrum*). At Spring Valley Park, about 15 acres of this woods remains as a remnant of this once-vast presettlement forest. The upland presettlement forest was predominately Oak Hardwoods and Oak Savanna as mapped by Brewer (Brewer et al. 1984). The vegetation and community types for Southwestern Michigan were reconstructed using records from original surveys that notated tree species ("witness trees"). At Spring Valley Park, the Oak/Hickory

Woods now has a number of additional non-native species. They are discussed in the next plant community, Transitional Woods.

Many of the trees are large, with diameters (dbh) of two to three feet and are an imposing and grand sight. In the park woods, dominant species and their maximum measured diameters are: White Oak (*Quercus alba*): 38", Red Oak (*Quercus rubra*): 36", Black Oak (*Quercus velutina*): 41", and Pignut Hickory (*Carya glabra*): 23". Additional large but not dominant canopy tree species are: Bitternut Hickory (*Carya cordiformis*): 24", Sassafras (*Sassafras albidum*): 23", Wild Black Cherry (*Prunus serotina*): 35", Red Maple (*Acer rubrum*): 26", and Basswood (*Tilia americana*): 21". Where the woods is influenced by a higher water table, several more wetland species occur: Swamp White Oak (*Quercus bicolor*): 38", Tulip-tree (*Liriodendron tulipifera*): 22", Sycamore (*Platanus occidentalis*): 36", and American Elm (*Ulmus americana*): 26". Uncommon species found in the hardwoods are: Shagbark Hickory (*Carya ovata*): 17", Butternut (*Juglans cinerea*): 13", and White Ash (*Fraxinus americana*): 24".

The understory is composed of smaller trees of Hornbeam (*Carpinus caroliniana*), Hop-hornbeam (*Ostrya virginiana*), Sweet Crab (*Malus coronaria*) and Flowering Dogwood (*Cornus florida*), and the fall/winter flowering Witch-hazel (*Hamamelis virginiana*). The shrub layer is well represented by the native Wild Black Currant (*Ribes americanum*), Prickly Gooseberry (*Ribes cynosbati*), and rarely, Downy Arrow-wood (*Viburnum rafinesquianum*).

The low forb zone near the forest floor contains many flowering species, but nowhere are they common, possibly due to past grazing. Pieces of old barbed wire still delineate old pastures and farm boundaries, and nearby elderly residents remember when parts of the park were full of dairy cows roaming the hills in large pastures. The following spring flower display is at their best during May, before the forest tree leaves appear: False Spikenard (*Smilacina racemosa*), Starry False Solomon-seal (*Smilacina stellata*), Narrow-leaved Spring Beauty (*Claytonia virginica*), Wood Anemone (*Anemone quinquefolia*), Rue-anemone (*Anemonella thalictroides*), Round-lobed Hepatica (*Hepatica americana*), Early Meadow-rue (*Thalictrum dioicum*), May-apple (*Podophyllum peltatum*), and Partridge-berry (*Mitchella repens*). In other places, the typical oak ground cover of Pennsylvania Sedge (*Carex pensylvanica*) and Running Strawberry-bush (*Euonymus obovata*) is widespread. The small flowering rush Common Wood-rush (*Luzula multiflora*), occurs uncommonly and is found in widely scattered patches.

Fauna associated with the Oak/Hickory Hardwoods include sightings of Deer, Gray Squirrel, Eastern American Toad, Northern Ribbon Snake (the only snake observation during fieldwork), and Eastern Box Turtle. The Eastern Box Turtle is a Special Concern species in the State of Michigan. Three sightings indicate that a viable remnant population exists in Spring Valley Park. Oak/Hickory woods with close association of water is typical habitat for this species. Unshaded sandy areas are needed for their egg-laying (Harding 1997). Take care not to disturb potential egg-laying areas. Typical birds seen or heard are: Red Bellied Woodpecker, Hairy Woodpecker, Northern Flicker, Least

Flycatcher, Great Crested Flycatcher, White Breasted Nuthatch, Tufted Titmouse, Wood Thrush, Red-eyed Vireo, and Scarlet Tanager.

Disturbed Communities

6. Transitional Woods

In the Spring Valley Park setting, a transitional woods is a successional plant community changing from fields and disturbed woods to a poorly defined plant community with a conglomerate of woodland species. Most of the woods is upland or on dry soils, with portions blending into lowland, wetter conditions. Some of the canopy trees have attained large size from nearly one hundred years of maturing. At Spring Valley Park the Transitional Woods has native species co-dominant with non-native species in the canopy, understory, shrub, forb and ground cover layers. Most non-natives escaped from nearby city landscape plantings and have become well established, producing seed in abundance, often giving the appearance and satisfying the requirements of native plants in providing food and shelter to the local animal populations. The non-native species found in the Transitional Woods also occur in the Oak/Hickory Hardwood community. Additional native and non-native species have been planted for aesthetics by park personnel in the distant past. Some small acreage of pine plantations were planted about 50 years ago containing Red Pine (*Pinus resinosa*), Scotch Pine (*Pinus sylvestris*), and some White Pine (*Pinus strobus*) and are included in Transitional Woods as they are also mostly successional to hardwoods. Sections of the Transitional Woods located near the creek in presettlement times may have been part of a Oak/Hickory forest with Red Oak (*Quercus rubra*) dominant. This influence can still be seen in the great amount of Red Oak still present today.

Two non-native species that have become established may prove to be new state records, and proper documentation and voucher specimens to the University of Michigan Herbarium will follow. One of the species is a European tree, Small-leaved Linden* (*Tilia cordata*), which is related to our native Basswood. The trees are located on the northern shore of Spring Valley Lake and have spread clonally and by seed to the surrounding hillside. The largest tree has an 11" diameter and perhaps was originally a landscape planting. The species has been known to escape in the northeastern states. The second possible new record for the state is a twining vine, now covering an area of small trees and shrubs near the same location as the Small-leaved Linden. This plant, Pipevine* (*Aristolochia tomentosa*), may also be an escape from nearby home site or park landscape.

Dominant trees found in the Transitional Woods community are: Red Oak (*Quercus rubra*), Box-elder (*Acer negundo*), Siberian Elm* (*Ulmus pumila*), White Mulberry* (*Morus alba*), Norway Maple* (*Acer platanoides*), Red Maple (*Acer rubrum*), and Wild Black Cherry (*Prunus serotina*). In a few locations dominating clones of Largetooth Aspen (*Populus grandidentata*) and Quaking Aspen (*Populus tremuloides*) occur. Aspen are some of the first to appear in young successional woods, and now many have matured and are dead. Many other tree components make up this woods; some of the less common species are: Black Walnut (*Juglans nigra*), American Beech (*Fagus*

grandifolia), Sweet Cherry* (*Prunus avium*), Black Locust* (*Robinia pseudoacacia*), Sour-gum (*Nyssa sylvatica*), Tree-of-Heaven* (*Ailanthus altissima*), and Ohio Buckeye (*Aesculus glabra*). Ohio buckeye is uncommon in extreme southern Michigan and are very rare in Kalamazoo County with only a single location reported mid-20th century (Hanes and Hanes 1947). The thriving population of about a dozen flowering trees and several saplings are situated in typical lowland habitat found between the Wet Meadow and the cemetery in the western end of the Spring Valley Park. Because of placement and location, these trees do not appear to be remnants from landscape plantings.

Where the soil is damp, the following tree species dominate: American Elm (*Ulmus americana*), Cottonwood (*Populus deltoides*), and Red Maple (*Acer rubrum*).

Decades ago, several groupings of trees were planted for aesthetic reasons in the then-young woods: White Pine (*Pinus strobus*), European Larch* (*Larix decidua*), Norway Spruce* (*Picea abies*), Hemlock (*Tsuga canadensis*), and Paper Birch (*Betula papyrifera*). A few young White Pine and Norway Spruce are reproducing.

The understory contains a similar equal mixture of native and non-native species: Swamp Sugar-pear (*Amelanchier interior*), Scarlet Hawthorn (*Crataegus pedicellata*), Redbud (*Cercis canadensis*), Common Buckthorn* (*Rhamnus cathartica*), Glossy Buckthorn* (*Rhamnus frangula*), Smooth Sumac (*Rhus glabra*), Staghorn Sumac (*Rhus Typhina*), and European Smoke Tree* (*Cotinus coggygria*). Two understory native species occurring only near Deek's pond and next to the Wet Meadow are Pawpaw (*Asimina triloba*) and American Hazelnut (*Corylus americana*).

In all locations, the shrub zone is completely dominated by non-native species often forming dense cover: Prickly-ash (*Zanthoxylum americanum*), Japanese Barberry* (*Berberis thunbergii*), Multiflora Rose (*Rosa multiflora**), Autumn Olive (*Elaeagnus umbellata**), Winged Euonymus* (*Euonymus alata*), Regal Privet* (*Ligustrum obtusifolium*), Common Privet (*Ligustrum vulgare**), Morrow Honeysuckle (*Lonicera morrowii**), Hybrid Honeysuckle (*Lonicera x bella**), and European Highbush Cranberry (*Viburnum opulus**).

The forb and ground cover is again dominated by non-native species with many, if not all, originating from nearby houses. Some of the following are evergreen: Lily-of-the-valley* (*Convallaria majalis*), Japanese Knotweed* (*Polygonum cuspidatum*), Giant Knotweed* (*Polygonum sachalinense*), Garlic Mustard* (*Alliaria petiolata*), Wintercreeper* (*Euonymus fortunei*), European Ivy* (*Hedera helix*), and Periwinkle* (*Vinca minor*).

Several interesting native wildflowers grow along both sides of the creek in the western section of the Transitional Woods. Prairie Trillium (*Trillium recurvatum*), a "Threatened" Species in Michigan, appears to have been planted or expanded from a nearby yard wildflower plantings. Wood Poppy (*Stylophorum diphyllum*), uncommon and local in Michigan, also occurs here and is not considered a naturally growing plant.

Bloodroot (*Sanguinaria canadensis*), found in the same proximity, may also fall into this category of native escapes.

Bird species inhabiting the Transitional Woods community are numerous in comparison to the other communities due to the variety of plants, creating mini-habitats, and close proximity to water almost everywhere. In addition to the species listed with the Oak/Hickory Hardwoods, the following are often seen or heard here: Black-capped Chickadee, Red-breasted Nuthatch (in pine plantations), Carolina Wren (near the wet Meadow), Blue-gray Gnatcatcher, Gray Catbird, Brown Thrasher, Louisiana Waterthrush (Special Concern species in Michigan), Rose-breasted Grosbeak, Eastern Towhee, and Baltimore Oriole.

7. Fields, Lawns, Roads, and Parking Lots

Fields, lawns and parking lots comprise a considerable amount of space (about one quarter of the park), providing places to relax and recreate. Careful planning and the planting of many trees over the years create scenic vistas of water, hills, woods, and landscaped lawn. While the main focus was not on landscape plantings, some are mentioned here: Tigertail Spruce* (*Picea polita*), with its upturned branch tips is from Japan; Weeping Willow* (*Salix babylonica*) with an enormous girth: 74"; several Western Soapberry* (*Sapindus drummondii*), one appearing to be a state record "Big Tree." The fields and some of roadsides near woods are generally dominant with non-native species of grasses. Although weedy, the following do not look out of place or give an unmaintained appearance: Quack Grass* (*Agropyron repens*), Redtop* (*Agrostis gigantea*), Hungarian Brome* (*Bromus inermis*), Downy Brome* (*Bromus tectorum*), Orchard Grass* (*Dactylis glomerata*), Smooth Crab Grass* (*Digitaria ischaemum*), Goose Grass* (*Eleusine indica*), Annual Bluegrass* (*Poa annua*), Green Foxtail* (*Setaria viridis*), and Timothy* (*Phleum pratense*). The native grasses Little Bluestem (*Andropogon scoparius*) and Sand Dropseed (*Sporobolus cryptandrus*) are found among the others. Dominant tree saplings of the fields are the non-native Siberian Elm* (*Ulmus pumila*), with dominant shrubs, the non-native Honeysuckles (*Lonicera*).

This open habitat provides food and cover for a variety of mammals and birds. Opossum, Eastern Cottontail, and Eastern Chipmunk were observed in the fields and along the wood-edge foraging for food. According to local people who stroll the park regularly, Red Fox sightings are not unusual. Geese are commonly seen grazing or resting on the lawn near Spring Valley Lake. Six adult pairs with goslings were observed in several locations as they moved around in search of food. The noticeable Mute Swans* nested on the upper shore of Spring Valley Lake. Mourning Dove, Eastern Phoebe, Eastern Kingbird, House Wren, American Robin, Chipping Sparrow, Song Sparrow, American Goldfinch, and House Sparrow* are most likely to be seen or heard in and around the open parklands.

III. Literature Cited

Brewer, Lawrence G., Thomas W. Hodler, and Henry A. Raup. (1984). Presettlement Vegetation of Southwestern Michigan. Western Michigan University. Supplement to The Michigan Botanist. Volume 23, Number 4, October 1984.

Brewer, Richard, Gail A. McPeck, and Raymond J. Adams, Jr. (1991). The Atlas of Breeding _____ Birds of Michigan. East Lansing: Michigan State University Press.

Hanes, Clarence R. and Florence N. Hanes. (1947). Flora of Kalamazoo County, Michigan Vascular Plants. Portland Maine: Anthoensen Press

Harding, James H. (1997). Amphibians and Reptiles of the Great Lakes Region. Ann Arbor: The University of Michigan Press.

Herman, K. D., L. A. Masters, M. R. Penskar, A. A. Reznicek, G. S. Wilhelm, W. W. Brodowicz, and K. P. Gardiner. (2001). Floristic Quality Assessment with Wetland Categories and Computer Applications for the State of Michigan - Revised, 2nd Edition. Lansing: Michigan Department of Natural Resources, Wildlife, Natural Heritage Program.

Voss, Edward G. (1972). Michigan Flora: Gymnosperms and Monocots. Vol. 1. Cranbrook Institute of Science, and University of Michigan Herbarium: Kingsport Press.

Voss, Edward G. (1985). Michigan Flora: Dicots (Sauruaceae-Cornaceae). Vol. 2. Cranbrook Institute of Science, and University of Michigan Herbarium: Kingsport Press.

Voss, Edward G. (1996). Michigan Flora: Dicots (Pyrolaceae-Compositae). Vol. 3. Cranbrook Institute of Science, and University of Michigan Herbarium: Kingsport Press.

IV. Bibliography

Barnes, Burton V., and Warren H. Wagner. (1981). Michigan Trees. Ann Arbor: The University of Michigan Press.

Brewer, Richard, Gail A. McPeck, and Raymond J. Adams, Jr. (1991). The Atlas of Breeding _____ Birds of Michigan. East Lansing: Michigan State University Press.

Cronquist, Arthur, and Henry A. Gleason. (1991). Manual of Vascular Plants of _____ Northeastern United States and Adjacent Canada. New York: The New York Botanical Garden.

Crow, Garrett E., and C. Barre Hellquist. (2000). Aquatic and Wetland Plants of Northeastern North America. Volume One: Pteridophytes, Gymnosperms, and

Angiosperms: Dicotyledons. Volume Two: Angiosperms: Monocotyledons. Madison: University of Wisconsin Press.

Hanes, Clarence R. and Florence N. Hanes. (1947). Flora of Kalamazoo County, Michigan Vascular Plants. Portland Maine: Anthoensen Press

Harding, James H. (1997). Amphibians and Reptiles of the Great Lakes Region. Ann Arbor: The University of Michigan Press.

Holmgren, Noel H. (1998). The Illustrated Companion to Gleason and Cronquist's Manual. New York: The New York Botanical Garden.

Herman, K. D., L. A. Masters, M. R. Penskar, A. A. Reznicek, G. S. Wilhelm, W. W. Brodowicz, and K. P. Gardiner. (2001). Floristic Quality Assessment with Wetland Categories and Computer Applications for the State of Michigan - Revised, 2nd Edition. Lansing: Michigan Department of Natural Resources, Wildlife, Natural Heritage Program.

Voss, Edward G. (1972). Michigan Flora: Gymnosperms and Monocots. Vol. 1. Cranbrook Institute of Science, and University of Michigan Herbarium: Kingsport Press.

Voss, Edward G. (1985). Michigan Flora: Dicots (Sauraceae-Cornaceae). Vol. 2. Cranbrook Institute of Science, and University of Michigan Herbarium: Kingsport Press.

Voss, Edward G. (1996). Michigan Flora: Dicots (Pyrolaceae-Compositae). Vol. 3. Cranbrook Institute of Science, and University of Michigan Herbarium: Kingsport Press.

Selaginellaceae, Spike-moss Family

Selaginella eclipses Buck, Buck's Meadow Spike-moss; rare and local on hard packed marl on bank of upper Spring Valley Lake

Equisetaceae, Horsetail Family

Equisetum arvense L., Field Horsetail; common in damp areas

Equisetum hyemale L., Common Scouring Rush; occasional on sandy dry open upland

Osmundacea, Royal Fern Family

Osmunda cinnamomea L., Cinnamon Fern; local in Wet Meadow

Osmunda regalis L., Royal Fern; local in Wet Meadow

Thelypteridaceae, Marsh Fern Family

Thelypteris palustris Schott, Marsh Shield Fern; common in Shrub-Carr and Wet Meadow

Aspleniaceae, Spleenwort Family

Asplenium platyneuron (L.) Britton, Sterns, & Poggenburg, Ebony Spleenwort; uncommon evergreen fern on sandy soils of overgrown plantation and Oak/Hickory Woods

Dryopteridaceae, Wood Fern Family

Athyrium filix-femina (L.) Roth, Lady Fern; uncommon in Wet Meadow

Dryopteris carthusiana (Villars) H. P. Fuchs, Spinulose Wood Fern; rare in Oak/Hickory Woods

Onoclea sensibilis L., Sensitive Fern; common in Wet Meadow

Pinaceae, Pine Family

Larix decidua Mill., European Larch*; occasional tree of plantations; up to 18" dbh

Larix laricina (DuRoi) K. Koch, Tamarack; rare tree in Wet Meadow

Picea abies (L.) Karsten, Norway Spruce*; occasional tree in Transitional Woods and lawn planting;
up to 12" dbh

Picea polita Carr., Tigertail Spruce*; several trees in planted in lawn

Picea pungens Engelmann, Blue Spruce*; uncommon tree planting in lawn and Transitional Woods

Pinus resinosa Aiton, Red Pine; common tree of plantations with some reproduced saplings

Pinus strobus L., White Pine; uncommon tree of plantations and as planting; common in Transitional Woods as saplings and large trees; up to 14" dbh

Pinus sylvestris L., Scotch Pine*; common tree of plantations, uncommon in Transitional Woods

Tsuga canadensis (L.) Carr., Hemlock; local planted tree in Transitional Woods

Taxodiaceae

Taxodium distichum (L.) Rich., Baldcypress*; several trees planted along edge of lake; up to 23" dbh; one adventive, a two-inch diameter tree along the upper eastern edge of Deek's Pond

Cupressaceae, Cypress Family

Juniperus virginiana L., Eastern Red-cedar; uncommon tree in Transitional Woods

Thuja occidentalis L., Northern White Cedar; several trees planted throughout park

Typhaceae, Cat-tail Family

Typha angustifolia L., Narrow-leaved Cat-tail*; common in Wet Meadow

Typha latifolia L., Broad-leaved Cat-tail; locally common along shores and in Shrub-Carr

Potamogetonaceae, Pondweed Family

Potamogeton crispus L., Curly Pondweed*; locally common in Spring Valley Lake

Potamogeton friesii Rupr., Fries's Pondweed; common in Spring Valley Lake along the shore

Potamogeton nodosus Poiret, Long-leaf Pondweed; common in Spring Valley Lake

Alismataceae, Water-plantain Family

Sagittaria latifolia Willd., Wapato; common along upper shore of Spring Valley Lake

Hydrocharitaceae, Frog's-bit Family

Elodea nuttallii (Planchon) St. John, Slender Waterweed; common along shore of Spring Valley Lake

Gramineae, Grass Family

Agropyron repens (L.) Beauv., Quack Grass*; common in open areas of disturbed poor soil

Agrostis gigantea Roth, Redtop*; locally abundant in dry or moist open areas of fields and roadsides

Agrostis stolonifera L., Creeping Bent*; uncommon in openings in Transitional Woods

Andropogon scoparius Michaux, Little Bluestem; uncommon in dry fields

Bromus inermis Leysser, Hungarian Brome*; uncommon in open dry areas especially along roads

Bromus latiglumis (Shear) Hitchc., Ear-leaved Brome; rare along open edge of Wet Meadow

Bromus tectorum L., Downy Brome*; common in fields especially along roads

Dactylis glomerata L., Orchard Grass*; common in open dry fields and especially along roads

Digitaria ischaemum (Schreber) Muhl., Smooth Crab Grass*; abundant weed in lawns and along roads

Echinochloa crusgalli (L.) Beauv., Barnyard Grass*; uncommon in damp areas along shores

Echinochloa walteri (Pursh) Heller, Salt-marsh Cockspur Grass; locally abundant on shores

Eleusine indica (L.) Gaertner, Goose Grass*; abundant in parking lots, lawn, and along roads

Eragrostis cilianensis (All.) Mosher, Stink Grass*; uncommon along edge of Spring Valley Lake

Eragrostis pectinacea (Michaux) Nees, Small Love Grass; abundant in parking lots, along roads and lake shores

Eragrostis spectabilis (Pursh) Steudel, Purple Love Grass; locally abundant in open dry fields

Leersia oryzoides (L.) Sw., Cut Grass; rare along shores

Leersia virginica Willd., White Grass; locally common in marsh near Deek's Pond

Lolium perenne L., Perennial Rye Grass*; common in dry fields and lawns

Muhlenbergia frondosa (Poiret) Fern., Common Satin Grass; abundant in Transitional Woods and nearby lawns,

Muhlenbergia mexicana (L.) Trin., Leafy Satin Grass; common along road and in Transitional Woods

Muhlenbergia schreberi J. F. Gmelin, Nimblewill; abundant along roads and in Transitional Woods

Panicum capillare L., Witch Grass; uncommon in disturbed areas in lawn

Panicum clandestinum L., Deer-tongue Grass; uncommon in Transitional Woods open areas

Panicum implicatum Britton, Slender-stemmed Panic-grass; uncommon on marl

Phleum pratense L., Timothy *; common in fields and especially along roads

Phalaris arundinacea L., Reed Canary Grass; locally common along shores

Poa annua L., Annual Bluegrass*; abundant in lawns and along shores

Poa compressa L., Canada Bluegrass*; widely scattered and abundant in all woods

Setaria faberi Herrm., Giant Foxtail*; uncommon but widely scattered in disturbed lawns and fields

Setaria verticillata (L.) Beauv., Bristly Foxtail*; common along roads
Setaria viridis (L.) Beauv., Green Foxtail*; common along roads, parking lots, and lawns
Sporobolus cryptandrus (Torrey) Gray, Sand Dropseed; uncommon in dry open fields
Tridens flavus (L.) Hitchc., Purpletop; uncommon along roads and along shore of Spring Valley Lake

Cyperaceae, Sedge Family

Carex albicans Willd., White Tinge Sedge; uncommon in Oak/Hickory Woods
Carex bebbii (Bailey) Fern., Bebb's Sedge; locally common in wet areas
Carex blanda Dewey, Woodland Sedge; uncommon in Transitional Woods
Carex brevior (Dewey) Mack., Fescue Sedge; uncommon on dry open bluffs
Carex cephalophora Willd., Oval-headed Sedge; uncommon in pine plantations and open dry areas
Carex cryptolepis Mack., Small-yellow Sedge; rare in Wet Meadow
Carex hystericina Willd., Porcupine Sedge; uncommon in Wet Meadow
Carex pennsylvanica Lam., Pennsylvania Sedge; abundant under oaks in upland woods
Carex scabrata Schw., Rough Sedge; uncommon in Wet Meadow
Carex stipata Willd., Awl-fruited Sedge; uncommon along upper Spring Valley Lake
Carex stricta Lam., Tussock Sedge; locally common in Wet Meadow
Cyperus diandrus Torrey, Low Umbrella Sedge; common along Spring Valley Lake shore on sand
Cyperus esculentus L., Yellow Nut-grass; uncommon along shores
Cyperus filiculmis Vahl, Slender Umbrella Sedge; common in open poor dry fields
Cyperus odoratus L., Coarse Umbrella Sedge; uncommon on sandy shores
Cyperus rivularis Kunth, Shining Umbrella Sedge; abundant on sandy shores
Cyperus strigosus L., Straw-colored Umbrella Sedge; uncommon along Spring Valley Lake shore on sand
Eleocharis acicularis (L.) R. & S., Needle Spike-rush; locally abundant on damp sandy shores
Eleocharis erythropoda Steudel, Creeping Spike-rush; locally common on sandy shores
Schoenoplectus pungens (Vahl) Palla, Three-square; abundant along the shoreline of Spring Valley Lake
Schoenoplectus tabernaemontani (K.C. Gmel.) Palla, Softstem Bulrush; locally common along the shoreline of Spring Valley Lake
Scirpus atrovirens Willd., Dark-green Bulrush; rare in Wet Meadow

Araceae, Arum Family

Arisaema triphyllum (L.) Schott, Jack-in-the-pulpit; uncommon in rich Oak/Hickory Woods along creek and Wet Meadow
Symplocarpus foetidus (L.) Nutt., Skunk Cabbage; locally common in damp areas by Wet Meadow

Lemnaceae, Duckweed Family

Lemna minor L., Small Duckweed; locally abundant along shores
Lemna trisulca L., Star Duckweed; locally common submergent in pools in Wet Meadow
Spirodela polyrhiza (L.) Schleiden, Great Duckweed; locally common along shores
Wolffia columbiana Karsten, Common Water Meal; locally common in pools in Wet Meadow

Commelinaceae, Spiderwort Family

Commelina communis L., Common Dayflower*; common but widely scattered in dry fields

Tradescantia ohiensis Raf., Common Spiderwort; uncommon but widely scattered in fields

Juncaceae, Rush Family

Juncus brachycephalus (Engelm.) Buch., Short-headed Rush; uncommon in Wet Meadow

Juncus tenuis Willd., Path Rush; common along roads and trails

Luzula multiflora (Retz.) Lej., Common Wood-rush; uncommon in Oak/Hickory Woods

Liliaceae, Lily Family

Allium vineale L., Field Garlic*; common in Transitional Woods and fields

Asparagus officinalis L., Garden Asparagus*; occasional in dry sandy areas

Convallaria majalis L., Lily-of-the-valley*; locally common throughout

Leucojum aestivum L. Snowflake*; rare escape in Transitional Woods

Narcissus pseudonarcissus L., Daffodil*; rare escape in Transitional Woods

Polygonatum biflorum (Walter) Ell., Hairy Solomon-seal; uncommon in rich Transitional Woods

Polygonatum pubescens (Willd.) Pursh, Downy Solomon-seal; uncommon in Transitional and Oak/Hickory Woods

Smilacina racemosa (L.) Desf., False Spikenard; common in Oak/Hickory Woods; uncommon in Transitional Woods

Smilacina stellata (L.) Desf., Starry False Solomon-seal; uncommon in Oak/Hickory Woods

Smilax tamnoides L., Bristly Green-brier; uncommon in Oak/hickory Woods

Smilax lasioneura Hooker, Carrion-flower; rare in Transitional Woods

Trillium recurvatum Beck, Prairie Trillium; planted along lower creek in Transitional Woods

Iridaceae, Iris Family

Iris virginica L., Southern Blue Flag; uncommon in wet areas along stream, shores, and Wet Meadow

Salicaceae, Willow Family

Populus alba L., Silver Poplar*; rare tree along Spring Valley Lake

Populus balsamifera L., Balsam Poplar; uncommon landscape tree

Populus deltoides Marsh., Cottonwood; abundant tree along Spring Valley Lake; uncommon tree in Transitional Woods; up to 42" dbh

Populus grandidentata Michaux, Largetooth Aspen; locally common tree in Transitional Woods

Populus tremuloides Michaux, Quaking Aspen; uncommon tree in Transitional Woods

Salix amigdaloides Andersson, Peach-leaved Willow; uncommon tree along shores; up to 23" dbh

Salix babylonica L., Weeping Willow*; uncommon tree planted near Spring Valley Lake; up to 74" dbh

Salix candida Willd., Hoary Willow; rare shrub along shores in Shrub-Carr

Salix discolor Muhl., Pussy Willow; uncommon shrub in Shrub-Carr

Salix eriocephala Michaux, Heart-leaved Willow; uncommon shrub in Shrub-Carr

Salix exigua Nutt., Sandbar Willow; abundant shrub in Shrub-Carr

Salix fragilis L., Crack Willow*; uncommon tree in damp areas; up to 29" dbh

Salix nigra Marsh., Black Willow; common tree along the lake; up to 18" dbh

Juglandiceae, Walnut Family

Carya cordiformis (Wang.) K. Koch, Bitternut Hickory; uncommon in canopy tree in Oak/Hickory Woods; up to 24" dbh,

Carya glabra (Miller) Sweet, Pignut Hickory; common canopy tree in Oak/Hickory Woods; up to 23" dbh

Carya ovata (Miller) K. Koch, Shagbark Hickory; uncommon canopy tree in Oak/Hickory Woods; up to 17" dbh

Juglans cinerea L., Butternut; rare tree in Oak/Hickory Woods; up to 13" dbh

Juglans nigra L., Black Walnut; uncommon tree and sapling in woods; up to 17" dbh

Betulaceae, Birch Family

Betula papyrifera Marsh., Paper Birch; uncommon tree planted in Transitional Woods

Betula pendula Roth, European White Birch*; rare tree planted in lawn

Betula populifolia Marsh., Gray Birch; uncommon medium tree in Wet Meadow

Carpinus caroliniana Walter, Hornbeam; uncommon understory tree in Oak/Hickory Woods

Corylus americana Walter, American Hazelnut; upland understory tree local near Deek's Pond

Ostrya virginiana (Miller) K. Koch, Hop-hornbeam; uncommon small tree in Oak/Hickory Woods

Fagaceae, Beech Family

Fagus grandifolia Ehrh., American Beech; uncommon canopy tree in Transitional Woods; up to 20" dbh

Quercus alba L., White Oak; common canopy tree of Oak/Hickory Woods; up to 38" dbh

Quercus bicolor Willd., Swamp White Oak; uncommon tree in lowland hardwoods; up to 38" dbh

Quercus palustris Muenchh., Pin Oak; landscape planting

Quercus rubra L., Red Oak; abundant canopy tree of Oak/Hickory and Transitional Woods; up to 36" dbh

Quercus velutina Lam., Black Oak; abundant canopy tree of Oak/Hickory and Transitional Woods; up to 41" dbh

Ulmaceae, Elm Family

Celtis occidentalis L., Hackberry; uncommon tree in transitional and Oak/Hickory Woods, and along lakes; up to 28" dbh

Ulmus americana L., American Elm; abundant tree in Transitional Woods; up to 26" dbh

Ulmus pumila L., Siberian Elm*; abundant tree in fields and Transitional Woods; up to 25" dbh

Ulmus rubra Muhl., Slippery Elm; uncommon tree in Transitional Woods; up to 31" dbh

Moraceae, Mulberry Family

Morus alba L., White Mulberry*; common tree in woods and as a park planting; up to 27" dbh

Urticaceae, Nettle Family

Boehmeria cylindrica (L.) Sw., False Nettle; uncommon in Shrub-Carr and on and near shores

Pilea fontana (Lunell) Rydberg, Bog Clearweed; locally common in marsh near Deek's Pond

Pilea pumila (L.) A., Gray, Clearweed; uncommon on shores

Urtica dioica L., Stinging Nettle; common near shores

Aristolochiaceae, Birthwort Family

Aristolochia tomentosa Sims., Pipevine*; local twining vine in Transitional Woods

Asarum canadense L., Wild-ginger; rare and local in wet hardwoods

Polygonaceae, Smartweed Family

Polygonum amphibium L., Water Smartweed; uncommon along lake shores both in and out of water

Polygonum aviculare L., Prostrate Knotweed*; abundant along roads and in lawns

Polygonum convolvulus L., False Buckwheat*; uncommon in Transitional Woods

Polygonum cuspidatum Sieb. & Zucc., Japanese Knotweed*; rare clone in Transitional Woods near house

Polygonum erectum L., Erect Knotweed; common in lawns

Polygonum lapathifolium L., Willow-weed; common along lake shores especially on sand

Polygonum pensylvanicum L., Pennsylvania Pinkweed; abundant along shores on sand

Polygonum persicaria L., Lady's-thumb*; common along the shores on sand

Polygonum punctatum Ell., Dotted Smartweed; common on shores in sand

Polygonum sachalinense Friedr. Schmidt, Giant Knotweed*; local in Transitional Woods spreading from yards

Polygonum sagittatum L., Arrow-leaved Tear-thumb; uncommon in Wet Meadow

Polygonum virginianum L., Jumpseed; common in woods, locally abundant

Rumex obtusifolius L., Bitter Dock*; uncommon in fields and along shores and roads

Rumex orbiculatus A. Gray, Great Water Dock; rare in Wet Meadow

Chenopodiaceae, Goosefoot Family

Chenopodium album L., Lambs-quarters; abundant along lake shore, roads and in lawns

Chenopodium glaucum L., Oak-leaved Goosefoot*; uncommon on shores on sand

Amaranthaceae, Amaranth Family

Amaranthus albus L., Tumble-weed; uncommon along roads in dry poor soil areas

Amaranthus tuberculatus (Moq.) Sauer, Rough-fruited Water-hemp; abundant along shore line on sand

Nyctaginaceae, Four-o'clock Family

Mirabilis nyctaginea (Michaux) MacM., Wild Four-o'clock*; along roads and Deek's pond

Phytolaccaceae, Pokeweed Family

Phytolacca americana L., Pokeweed; common in disturbed areas

Molluginaceae, Carpetweed Family

Mollugo verticillata L., Carpetweed*; locally abundant along roads and in lawns

Portulacaceae, Purslane Family

Claytonia virginica L., Narrow Leaved Spring Beauty; locally common in Oak/Hickory Woods

Portulaca oleracea L., Purslane; locally abundant along roads and in lawns

Caryophyllaceae, Pink Family

Arenaria serpyllifolia L., Thyme-leaved Sandwort*; common in lawns

Cerastium fontanum Baumg., Mouse-eared Chickweed*; uncommon in fields and openings in woods

Dianthus armeria L., Deptford Pink*; uncommon in Transitional Woods and fields

Dianthus deltoides L., Maiden Pink*; rare along roads

Lychnis coronaria (L.) Desr., Mullein Pink*; rare in fields

Saponaria officinalis L., Bouncing Bet*; locally abundant in fields and along roads

Scleranthus annuus L., Annual Knawel*; abundant in lawns

Silene pratensis (Rafn) Godron & Gren., White Champion*; locally common in fields and along lake shore

Stellaria media (L.) Vill., Common Chickweed*; common in lawns

Ceratophyllaceae, Hornwort Family

Ceratophyllum demersum L., Coontail; abundant in lakes

Nymphaeaceae, Water-lily Family

Nuphar advena (Aiton) Aiton f., Spatterdock; uncommon in upper Spring Valley Lake

Nymphaea odorata Aiton, Fragrant Water-lily; abundant in lakes especially near the shore

Ranunculaceae, Buttercup Family

Anemone quinquefolia L., Wood Anemone; uncommon and local in Oak/Hickory Woods

Anemone virginiana L., Thimbleweed; uncommon in Transitional Woods

Anemonella thalictroides (L.) Spach, Rue-anemone; uncommon and local in Oak/Hickory Woods

Caltha palustris L., Marsh-marigold; locally common in Wet Meadow

Clematis virginiana L., Virgin's Bower; rare in damp woods

Hepatica americana (DC.) Ker, Round-lobed Hepatica; uncommon in Oak/Hickory Woods

Ranunculus abortivus L., Small-flowered Buttercup; locally abundant in Transitional Woods

Ranunculus recurvatus Poir., Hooked Crowfoot; uncommon in Wet Meadow

Thalictrum dioicum L., Early Meadow-rue; locally common in Oak/Hickory Woods

Berberidaceae, Barberry Family

Berberis thunbergii DC., Japanese Barberry*; uncommon shrub in Oak/Hickory and Transitional Woods

Mahonia aquifolium (Pursh) Nutt., Oregon Grape*; uncommon in Transitional Woods

Podophyllum peltatum L., May-apple; locally abundant in Oak/Hickory Woods

Magnoliaceae, Magnolia Family

Liriodendron tulipifera L., Tulip-tree; uncommon canopy tree of Oak/Hickory Woods; up to 22" dbh

Annonaceae, Custard-apple Family

Asimina triloba (L.) Dunal, Pawpaw; local near Wet Meadow

Lauraceae, Laurel Family

Sassafras albidum (Nutt.) Nees, Sassafras; common tree of plantations and in Oak/Hickory and Transitional Woods; up to 23" dbh

Papaveraceae, Poppy Family

Sanguinaria canadensis L., Bloodroot; rare in woods along stream

Stylophorum diphyllum (Michaux) Nutt., Wood Poppy; introduced planting; rare in woods along stream

Brassicaceae, Mustard Family

Alliaria petiolata (Bieb.) Cavara & Grande, Garlic Mustard*; abundant in woods and fields

Arabidopsis thaliana (L.) Heynh., Mouse-ear Cress*; common in fields

Barbarea vulgaris R., Br., Yellow Rocket*; uncommon in fields and along roads

Berteroa incana (L.) DC., Hoary Alyssum*; common in fields and in lawns

Cardamine hirsuta L., Hairy Bittercress*; abundant in fields

Cardamine pensylvanica Willd., Pennsylvania Bittercress; uncommon in Wet Meadow

Erophyla verna (L.) Besser, Whitlow-grass*; abundant in fields

Hesperis matronalis L., Dame's Rocket*; common along roads in fields

Lepidium densiflorum Schrader, Prairie Pepperweed*; uncommon in fields and lawns

Lunaria annua L., Money-plant*; uncommon in transitional woods

Nasturtium officinale R. Br. Watercress*; locally common in open water in Wet Meadow

Crassulaceae, Orpine Family

Sedum acre L., Mossy Stonecrop*; locally abundant in lawns

Sedum sarmentosum Bunge, Stringy Stonecrop*; local large clone in Transitional Woods

Saxifragaceae, Saxifrage Family

Saxifraga pensylvanica L., Swamp Saxifrage; common in Wet Meadow

Grossulaceae, Gooseberry Family

Ribes americanum Miller, Wild Black Currant; uncommon in Oak/Hickory Woods

Ribes cynosbati L., Prickly Gooseberry; uncommon shrub in Oak/Hickory and Transitional Woods

Hamamelidaceae, Witch-hazel Family

Hamamelis virginiana L., Witch-hazel; common understory tree in Oak/hickory Woods

Platanaceae, Plane-tree Family

Platanus occidentalis L., Sycamore; uncommon park planting; canopy tree in rich Oak/Hickory Woods and as saplings along shores; up to 36" dbh

Hydrangeaceae, Hydrangea Family

Hydrangea sp.*; rare discard from cemetery growing in Transitional Woods

Rosaceae, Rose Family

Agrimonia gryposepala Wallr., Tall Hairy Agrimony; common in Oak/Hickory and Transitional Woods

Amelanchier interior Nielson, Swamp Sugar-pear; uncommon understory tree in upland woods

Crataegus pedicellata Sarg., Scarlet Hawthorn; uncommon understory tree in Transitional Woods

Duchesnea indica (Andrews) Focke, Indian-strawberry*; locally common in Transitional Woods and in nearby lawns

Fragaria virginiana Miller, Wild Strawberry; locally abundant in plantations, fields, and woods

Geum canadense Jacq., White Avens; common in Oak/Hickory and Transitional Woods

Malus coronaria (L.) Miller, Sweet Crab; rare in Oak/Hickory Woods

Malus pumila Miller, Apple*; occasional tree in border of Transitional Woods

Potentilla argentea L., Silvery Cinquefoil*; rare along shore of lake
Potentilla norvegica L., Rough Cinquefoil; rare in lawns and fields
Potentilla recta L., Rough-fruited Cinquefoil*; uncommon in fields
Potentilla simplex Michaux, Common Cinquefoil; common in woods and fields
Prunus americana Marsh., Wild Plum; landscape planting and rare native
Prunus avium (L.) L., Sweet Cherry*; common canopy tree in Transitional Woods; up to 14" dbh
Prunus mahaleb L., Perfumed Cherry*; uncommon small tree in Transitional Woods
Prunus nigra Aiton, Canada Plum; rare small tree in fields
Prunus serotina Ehrh., Wild Black Cherry; abundant canopy tree in Oak/Hickory and Transitional Woods, and in lawns; up to 35" dbh
Prunus virginiana L., Choke Cherry; uncommon small tree in fields and borders
Pyrus baccata L. Siberian Crab*; landscape planting
Pyrus communis L., Pear*; rare tree in Transitional Woods
Rosa carolina L., Carolina Rose; rare in Oak/Hickory Woods
Rosa multiflora Murray, Multiflora Rose*; common invasive shrub in fields, woods, and along shores
Rubus allegheniensis Porter, Common Blackberry; rare in openings
Rubus flagellaris Willd., Northern Dewberry; uncommon in wooded wet areas
Rubus hispidus L., Swamp Dewberry; uncommon in Transitional Woods
Rubus occidentalis L., Black Raspberry; abundant in openings and borders of woods
Rubus pubescens Raf., Dwarf Raspberry; uncommon in damp areas
Rubus setosus Bigelow, Small Bristleberry Raspberry; common in fields
Sorbus aucuparia L., European Mountain-ash*; rare understory tree in woods

Fabaceae, Pea Family

Cercis canadensis L., Redbud; occasional understory tree along lakeshores and in Transitional Woods
Desmodium cuspidatum (Willd.) Loudon, Large-bracted Tick-trefoil; rare in fields
Desmodium marilandicum (L.) DC., Smooth Small-leaved Tick-trefoil; rare in fields
Desmodium paniculatum (L.) DC., Panicked Tick-trefoil; rare in fields
Gleditsia tricanthos L., Honey Locust; tree planting of lawns and cloning along lake; up to 26" dbh
Lathyrus latifolius L., Everlasting Pea*; common in fields and rare along Spring Valley Lake
Lespedeza capitata Michaux, Round-headed Bush-clover; uncommon in open Oak/Hickory Woods
Medicago lupulina L., Black Medick*; abundant in lawns and along roads
Melilotus alba Medicus, White Sweet-clover*; common along roads and in fields
Melilotus officinalis (L.) Pallas, Yellow Sweet-clover*; common in fields
Robinia pseudoacacia L., Black Locust*; locally common clonal tree in fields and woods
Trifolium pratense L., Red Clover*; abundant in lawns, fields, and along roads
Trifolium repens L., White Clover*; abundant in lawns, fields, and along roads

Oxalidaceae, Wood-sorrel Family

Oxalis stricta L., Common Yellow Wood-sorrel; abundant in lawns, fields, and along roads

Geraniaceae, Geranium Family

Geranium maculatum L., Wild Geranium; abundant in Oak/Hickory Woods

Geranium molle L., Dove's-foot Cranesbill*; uncommon in lawns

Geranium robertianum L., Herb Robert; common in Transitional Woods

Rutaceae, Rue Family

Zanthoxylum americanum Miller, Prickly-ash; locally common shrub in thickets in Transitional Woods

Simaroubaceae, Quassia Family

Ailanthus altissima (Miller) Swingle, Tree-of-Heaven*; common tree in Transitional Woods and
uncommon along lake shore

Euphorbiaceae, Spurge Family

Euphorbia corollata L., Flowering Spurge; very common but scattered in fields

Anacardiaceae, Cashew Family

Cotinus coggygria Scop., European Smoke Tree*; several small trees in fields and Transitional Woods

Rhus glabra L., Smooth Sumac; uncommon small tree in Transitional Woods

Rhus glabra L., Smooth Sumac; common small tree of lakeshore, fields, and Transitional Woods

Toxicodendron radicans (L.) Kuntze, Poison Ivy; common vine in woods, fields, along the lake, and
borders of lawns

Celastraceae, Bittersweet Family

Celastrus orbiculata Thunb., Oriental Bittersweet*; uncommon invasive vine in woods and scattered
openings

Euonymus alata (Thunb.) Siebold, Winged Euonymus*; common shrub in woods

Euonymus fortunei (Turcz.) Handel-Mazz., Wintercreeper*; large evergreen groundcover clones in
Transitional Woods

Euonymus obovata Nutt., Running Strawberry-bush; common in Oak/Hickory Woods

Aceraceae, Maple Family

Acer negundo L., Box-elder; abundant tree in woods, fields, and near shores; up to 21'' dbh

Acer nigrum Michaux, Black Maple; rare tree in Transitional Woods; up to 16'' dbh

Acer platanoides L., Norway Maple*; abundant tree planted in lawns and in Oak/Hickory and
Transitional Woods; up to 24'' dbh

Acer rubrum L., Red Maple; abundant tree in transitional and Oak/Hickory Woods; up to 26'' dbh

Acer saccharinum L., Silver Maple; common tree along lakes; rare in upland; up to 34'' dbh

Acer saccharum Marsh., Sugar Maple; uncommon canopy tree in Oak/Hickory Woods and near
Wet Meadow; up to 32'' dbh

Hippocastanaceae, Buckeye Family

Aesculus glabra Willd., Ohio Buckeye; locally common tree south of Wet Meadow; up to 10' dbh

Sapindaceae, Soapberry Family

Sapindus drummondii H. & A., Western Soapberry*; several trees planted in lawn; up to 17'' dbh

Balsaminaceae, Touch-me-not Family

Impatiens capensis Meerb., Spotted Touch-me-not; abundant along lake shores and other damp areas

Impatiens pallida Nutt., Pale Touch-me-not; locally common in Transitional Woods

Rhamnaceae, Buckthorn Family

Rhamnus cathartica L., Common Buckthorn*; abundant small tree in fields, and Transitional Woods;
up to 6" dbh

Rhamnus frangula L., Glossy Buckthorn*; abundant shrub in fields and Transitional Woods

Vitaceae, Grape Family

Parthenocissus inserta (A., Kerner) Fritsch, Thicket Creeper; uncommon vine in Oak/Hickory Woods

Parthenocissus quinquefolia (L.) Planchon, Virginia Creeper; abundant vine in fields and woods

Vitis riparia Michaux, River-bank Grape; common vine of woods, fields, and shores

Tiliaceae, Linden Family

Tilia americana L., Basswood; common canopy tree in rich Oak/Hickory Woods; up to 21" dbh

Tilia cordata Mill., Small-leaved Linden*; locally common tree along the north side of Spring Valley Lake; up to 11" dbh

Malvaceae, Mallow Family

Abutilon theophrasti Medicus, Velvet-leaf*; uncommon in fields

Malva neglecta Wallr., Common Mallow*; common in lawns

Guttiferae, St., John's-wort Family

Hypericum perforatum L., Common St., John's-wort*; common in fields

Hypericum punctatum Lam., Spotted St., John's-wort; uncommon in along shores

Violaceae, Violet Family

Viola affinis Le Conte, Le Conte's Violet; uncommon in woods

Viola canadensis L., Canada Violet; uncommon in Wet Meadow

Viola cucullata Aiton, Marsh Violet; uncommon in Wet Meadow

Viola odorata L., English Violet*; abundant in plantations and Transitional Woods

Viola pubescens Aiton, Downy Yellow Violet; uncommon in Oak/Hickory Woods

Elaeagnaceae, Oleaster Family

Elaeagnus umbellata Thunb., Autumn Olive*; common shrub in upland fields

Lythraceae, Loosestrife Family

Lythrum salicaria L., Purple Loosestrife*; common along shores

Nyssaceae, Tupelo Family

Nyssa sylvatica Marsh, Sour-gum; uncommon tree along Deek's Pond; up to 13" dbh

Onagraceae, Evening-primrose Family

Circaea lutetiana L., Enchanter's-nightshade; abundant in various woods communities

Epilobium coloratum Biehler, Purple-leaved Willow-herb; rare along shores and in Wet Meadow

Epilobium hirsutum L., Great Hairy Willow-herb*; rare in Shrub-Carr

Oenothera biennis L., Common Evening-primrose; abundant in fields and along roads

Haloragaceae, Water-milfoil Family

Myriophyllum exallescens Fern., Spiked Water-milfoil; uncommon in Spring Valley lake

Myriophyllum spicatum L., Eurasian Water-milfoil*; common in Spring Valley lake

Araliaceae, Ginseng Family

Aralia nudicaulis L., Wild Sarsaparilla; uncommon in Oak/Hickory Woods

Hedera helix L., European Ivy*; uncommon evergreen and sometimes climbing vine near residences

Umbelliferae, Carrot Family

Cicuta bulbifera L., Bulb-bearing Water-hemlock; rare along shores in Shrub-Carr

Cryptotaenia canadensis (L.) DC., Honewort; uncommon in woods

Daucus carota L., Wild Carrot*; abundant in fields and along edge of lawn

Hydrocotyle umbellata L., Many-flowered Marsh-pennywort; uncommon along Deek's Pond and in Wet Meadow

Osmorhiza longistylis (Torrey) DC., Smoother Sweet-cicely; uncommon in damp woods

Oxypolis rigidior (L.) Raf., Cowbane; uncommon in Wet Meadow

Cornaceae, Dogwood Family

Cornus amomum Miller, Pale Dogwood; abundant shrub in Shrub-Carr

Cornus florida L., Flowering Dogwood; uncommon understory tree in Oak/Hickory Woods

Cornus foemina Miller, Gray Dogwood; common shrub in Shrub-Carr

Cornus stolonifera Michaux, Red-osier Dogwood; common shrub in Shrub-Carr

Pyrolaceae, Wintergreen Family

Chimaphila maculata (L.) Pursh, Spotted Wintergreen; uncommon in Oak/Hickory Woods

Primulaceae, Primrose Family

Lysimachia ciliata L., Fringed Loosestrife; uncommon in damp areas along Deek's Pond

Samolus parviflorus Raf., Water-pimpernel; local in damp woods

Oleaceae, Olive Family

Forsythia suspensa Vahl, Forsythia*; rare planting in Transitional Woods

Fraxinus americana L., White Ash; uncommon canopy tree of Oak/Hickory Woods; common in fields and Transitional Woods; up to 24" dbh

Fraxinus pennsylvanica Marshall, Red Ash; uncommon tree along edge of Wet Meadow; up to 16" dbh

Ligustrum obtusifolium Siebold & Zucc., Regal Privet*; common shrub in Transitional Woods

Ligustrum ovalifolium Hassk., California Privet*; rare shrub in Transitional Woods

Ligustrum vulgare L., Common Privet*; abundant shrub in Transitional Woods, along roads, and fields

Apocynaceae, Dogbane Family

Apocynum cannabinum L., Indian-hemp; common in fields and along shores

Vinca minor L., Periwinkle*; locally common evergreen ground cover in Transitional Woods

Asclepiadaceae, Milkweed Family

Asclepias incarnata L., Swamp Milkweed; uncommon in Shrub-Carr and in Wet Meadow

Asclepias syriaca L., Common Milkweed; common in fields and along shores

Convolvulaceae, Morning-glory Family

Calystegia sepium (L.) R. Br. Hedge Bindweed; common along shores

Convolvulus arvensis L., Field Bindweed*; common in disturbed areas

Cuscutaceae, Dodder Family

Cuscuta gronovii Schultes, Common Dodder; uncommon parasitic annual vine in Wet Meadow

Boraginaceae, Borage Family

Hackelia virginiana (L.) I. M. Johnston, Virginia Stick-seed; locally common in Transitional Woods

Myosotis scorpioides L., True Forget-me-not*; uncommon along lakes

Myosotis stricta Roemer & Schultes, Blue Scorpion-grass*; locally abundant in lawns

Verbenaceae, Vervain Family

Verbena hastata L., Blue Vervain; uncommon along shores

Verbena urticifolia L., White Vervain; common along lakeshore and in Transitional Woods

Lamiaceae, Mint Family

Ajuga reptans L., Carpet Bugle*; occasional in mowed areas

Glechoma hederacea L., Ground Ivy*; abundant evergreen weed in lawns and Transitional Woods

Lamium amplexicaule L., Henbit*; rare near mowed areas

Lamium purpurium L., Purple Dead-nettle*; common in mowed areas

Leonurus cardiaca L., Motherwort*; abundant in Transitional Woods and fields

Lycopus americanus W. P. C. Barton, Cut-leaved Water-horehound; common along shores

Lycopus uniflorus Michaux, Northern Bugleweed; abundant along shores on sand

Mentha arvensis L., Wild Mint; uncommon in damp areas

Mentha piperita L., Peppermint*; abundant along shores

Monarda fistulosa L., Wild-bergamot; uncommon in fields

Nepeta cataria L., Catnip*; common along roads, in fields, and shores

Pycnanthemum virginianum (L.) B. L. Rob. & Fernald, Virginia Mountain-mint; locally abundant in Wet Meadow

Scutellaria galericulata L., Marsh Skullcap; uncommon in damp areas

Scutellaria lateriflora L., Mad-dog Skullcap; uncommon along edge of upper Spring Valley Lake

Solanaceae, Nightshade Family

Solanum carolinense L., Horse-nettle*; uncommon in open areas

Solanum dulcamara L., Bittersweet Nightshade*; common vine along shores

Solanum ptychanthum Dunal, Black Nightshade; common in disturbed areas

Scrophulariaceae, Figwort Family

Chelone glabra L., White Turtlehead; uncommon in Wet Meadow and openings

Linaria vulgaris Miller, Butter-and-eggs*; common in fields; uncommon along shores

Mimulus ringens L., Square-stemmed Monkey-flower; uncommon along lakes and in Wet Meadow

Scrophularia marilandica L., Eastern Figwort; rare in Transitional Woods

Verbascum blattaria L., Moth Mullein*; common along roads and in fields

Verbascum thapsus L., Common Mullein*; uncommon in fields

Veronica persica Poiret, Bird's-eye Speedwell*; common in lawns

Veronica serpyllifolia L., Thyme-leaved Speedwell*; common in lawns

Bignoniaceae, Trumpet Creeper Family

Campsis radicans (L.) Bureau, Trumpet-creeper*; rare in Transitional Woods

Catalpa speciosa (Warder) Engelm., Northern Catalpa*; occasional tree in Transitional Woods and along shores; up to 18" dbh

Plantaginaceae, Plantain Family

Plantago lanceolata L., English Plantain*; abundant in lawn and along roads

Plantago major L., Common Plantain*; common along roads and in grass

Plantago rugelii Decne., Rugel's Plantain; abundant in lawns and along roads

Rubiaceae, Madder Family

Galium aparine L., Cleavers; common in Transitional Woods

Galium asprellum Michaux, Rough Bedstraw; rare in Wet Meadow

Galium lanceolatum Torrey, Yellow Wild Licorice; uncommon in Oak/Hickory and Transitional Woods

Galium oderatum (L.) Scop., Sweet Woodruff*; uncommon in Transitional Woods

Galium triflorum Michaux, Fragrant Bedstraw; uncommon in Transitional Woods

Mitchella repens L., Partridge Berry; rare in Oak/Hickory Woods

Caprifoliaceae, Honeysuckle Family

Lonicera japonica Thunb., Japanese Honeysuckle*; local vine along edge of Transitional Woods

Lonicera maackii (Rupr.) Herder, Amur Honeysuckle*; abundant shrub in fields and woods

Lonicera x bella Zabel, Hybrid Honeysuckle*; abundant in fields and woods

Sambucus canadensis L., Common Elder; common shrub in Shrub-Carr

Viburnum dentatum L., Arrow-wood; rare shrub along Spring Valley Lake in Shrub-Carr

Viburnum lantana L., Wayfaring Tree*; uncommon shrub in Shrub-Carr

Viburnum opulus L., European Highbush Cranberry*; common shrub along roads, in Shrub-Carr, and in Transitional Woods

Viburnum rafinesquianum Schultes, Downy Arrow-wood; rare shrub in Oak/Hickory Woods

Campanulaceae, Harebell Family

Campanula aparinoides Pursh, Marsh Bellflower; uncommon in Shrub-Carr and Wet Meadow

Lobelia siphilitica L., Great Blue Lobelia; common along lakeshores

Asteraceae, Aster Family

Achillea millefolium L., Common Yarrow; common in fields, wood openings, and in lawns

Ambrosia artemisiifolia L., Common Ragweed; abundant in fields, along roads and shores

Ambrosia trifida L., Great Ragweed; uncommon along roads in damp areas

Antennaria howellii Greene, Howell's Field Pussytoes; uncommon in Oak/Hickory Woods

Antennaria parlinii Fernald, Plantain Pussytoes; uncommon in Oak/Hickory Woods

Arctium minus Burnh., Common Burdock*; common along shores and borders of woods

Aster cordifolius L., Heart-leaved Aster; common in woods and along shores

Aster lanceolatus Willd., Panicked Aster; common along shores and other open damp areas

Aster lateriflorus (L.) Britton, Calico Aster; common along shores and other open damp areas

Aster pilosus Willd., Hairy Aster; uncommon in damp areas

Bellis perennis L., English Daisy*; locally common in mowed areas

Bidens cernuus L., Nodding Bur-marigold; locally common along shores

Bidens connatus Willd., Purplestem Tickseed; locally abundant along shores

Bidens frondosus L., Common Beggar-ticks; locally abundant along shores

Centaurea maculosa Lam., Spotted Bluet*; abundant in fields and along roads

Centaurea cyanus L., Bachelor's Button*; planted; local in seed netted area for erosion control

Cichorium intybus L., Chicory*; abundant in fields and along roads

Cirsium muticum Michaux, Swamp Thistle; uncommon in Wet Meadow

Cirsium vulgare (Savi) Tenore, Bull Thistle*; uncommon in fields

Conyza canadensis (L.) Cronquist, Horseweed; abundant in fields and along roads

Cosmos bipinnatus Car., Common Cosmos*; planted; local in seed netted area for erosion control

Crepis capillaris (L.) Wallr., Smooth Hawk's-beard*; common in lawns

Erigeron annuus (L.) Pers., White-top; common in fields and openings

Erigeron philadelphicus L., Common Fleabane; uncommon in openings in Transitional Woods

Eupatorium maculatum L., Spotted Joe-pye Weed; uncommon in Wet Meadow

Eupatorium perfoliatum L., Boneset; uncommon in Shrub-Carr and Wet Meadow

Eupatorium rugosum Houtt., White Snakeroot; uncommon in openings in Transitional Woods

Euthamia graminifolia (L.) Nutt., Common Flat-topped Goldenrod; common along shores

Gnaphalium obtusifolium L., Fragrant Cudweed; uncommon in fields

Helianthus divaricatus L., Woodland Sunflower; uncommon in openings along roads and woods

Helianthus strumosus L., Pale-leaved Wood Sunflower; locally common in openings along road

Hypochoeris radicata L., Cat's-ear*; common in fields and lawns

Prenanthes altissima L., Tall White Lettuce; uncommon in Oak/Hickory Woods

Rudbeckia fulgida Aiton, Showy Coneflower; Rare on marl along upper Spring Valley Lake and in Wet Meadow

Rudbeckia hirta L., Black-eyed Susan; uncommon in fields

Rudbeckia laciniata L., Cut-leaved Coneflower; uncommon in Wet Meadow

Senecio aureus L., Golden Ragwort; abundant along upper stream and in Wet Meadow

Senecio vulgaris L., Common Groundsel*; uncommon in mowed areas

Solidago altissima L., Tall Goldenrod; common in open areas along lakes and in fields

Solidago caesia L., Bluestem Goldenrod; uncommon in Oak/Hickory Woods

Solidago canadensis L., Canada Goldenrod; common in fields

Solidago flexicaulis L., Zigzag Goldenrod; uncommon in openings

Solidago gigantea Aiton, Late Goldenrod; common in openings and fields

Solidago nemoralis Aiton, Gray Goldenrod; uncommon in poor soil fields

Solidago patula Willd., Rough-leaved Goldenrod; uncommon in Wet Meadow

Solidago rugosa Miller, Rough-stemmed Goldenrod; uncommon in fields and woods
Solidago speciosa Nutt., Showy Goldenrod; locally common in fields and Oak/Hickory Woods
Solidago uliginosa Nutt., Bog Goldenrod; uncommon in Wet Meadow
Sonchus arvensis L., Field Sow-thistle*; rare along mowed edge
Sonchus asper (L.) Hill, Prickly Sow-thistle*; uncommon in openings
Sonchus oleraceus L., Common Sow-thistle*; local along edge of lawn
Taraxacum officinale Wiggers, Common Dandelion*; abundant along roads and in lawns
Vernonia missurica Raf., Missouri Ironweed; rare in damp areas of Oak/Hickory Woods
Xanthium strumarium L., Cocklebur*; uncommon along shores

Mammals

Didelphidae, Opossum Family

Didelphis virginiana, Virginia Opossum

Leporidae, Rabbit Family

Sylvilagus floridanus, Eastern Cottontail

Sciuridae, Squirrel Family

Marmota monax, Woodchuck

Tamias striatus, Eastern Chipmunk

Sciurus carolinensis, Gray Squirrel

Sciurus niger, Fox Squirrel

Muridae; Rat, Mouse, Lemming, and Vole Family

Ondatra zibethicus, Muskrat

Procyonidae, Raccoon Family

Procyon lotor, Raccoon

Canidae, Dog Family

Vulpes vulpes, Red Fox

Amphibians

Bufonidae; Toad Family

Bufo americanus, Eastern American Toad

Hylidae; Tree Frog Family

Hyla versicolor, Eastern Gray Treefrog

Pseudacris crucifer, Spring Peeper

Pseudacris triseriata triseriata, Western Chorus Frog

Ranidae; Frog Family

Rana clamitans, Green Frog

Rana sylvatica, Wood Frog

Reptiles

Family Colubridae

Subfamily Natricinae

Thamnophis sauritus, Northern Ribbon Snake

Emydidae; Pond and Box Turtle Family

Chrysemys picta, Painted Turtle

Graptemys geographica, Common Map Turtle

Terrapene carolina carolina, Eastern Box Turtle **Special Concern**; Three sightings in Oak/Hickory Woods

Birds

SR = Summer Resident

* = Non-native Species

Podicipedidae

Podiceps auritus, Horned Grebe

Ardeidae

Ardea herodias, Great Blue Heron SR

Butorides virescens, Green Heron SR

Anatidae

Cygnus olor, Mute Swan* SR on nest

Branta canadensis, Canada Goose SR six pairs with young

Anas platyrhynchos, Mallard SR with 12 young

Cathartidae

Coragyps atratus, Black Vulture SR

Rallidae

Fulica americana, American Coot

Charadriidae

Charadrius vociferus, Killdeer

Scolopacidae

Tringa solitaria, Solitary Sandpiper

Laridae

Larus delawarensis, Ring-billed Gull

Columbidae

Columba livia, Rock Dove* SR

Zenaida macroura, Mourning Dove SR

Apodidae

Chaetura pelagia, Chimney Swift SR

Alcedinidae

Ceryle alcyon, Belted Kingfisher SR

Picidae

Melanerpes carolinus, Red-bellied Woodpecker SR

Picoides villosus, Hairy Woodpecker SR

Colaptes auratus, Northern Flicker SR

Tyrannidae

Empidonax minimus, Least Flycatcher
Sayornis phoebe, Eastern Phoebe SR
Myiarchus crinitus, Great Crested Flycatcher SR
Tyrannus tyrannus, Eastern Kingbird SR

Hirundinidae

Tachycineta bicolor, Tree Swallow
Stelgidopteryx serripennis, Northern Rough-winged Swallow

Corvidae

Cyanocitta cristata, Blue Jay SR
Corvus brachyrhynchos, American Crow SR

Paridae

Parus atricapillus, Black-capped Chickadee SR
Parus bicolor, Tufted Titmouse SR

Sittidae

Sitta canadensis, Red-breasted Nuthatch SR
Sitta carolinensis, White-breasted Nuthatch SR

Troglodytidae

Thryothorus ludovicianus, Carolina Wren SR
Troglodytes aedon, House Wren SR

Sylviidae

Polioptila caerulea, Blue-gray Gnatcatcher SR

Turdidae

Hylocichla mustelina, Wood Thrush SR
Turdus migratorius, American Robin SR

Mimidae

Dumetella carolinensis, Gray Catbird SR
Toxostoma rufum, Brown Thrasher

Bombycillidae

Bombycilla cedrorum, Cedar Waxwing SR

Vireonidae

Vireo olivaceus, Red-eyed Vireo SR

Parulidae

Dendroica coronata, Yellow-rumped Warbler
Dendroica petechia, Yellow Warbler SR
Geothlypis trichas, Common Yellowthroat SR
Dendroica palmarum, Palm Warbler
Seiurus motacilla, Louisiana Waterthrush; **Special Concern** in Michigan; calling in
spring and early summer SR

Thraupidae

Piranga olivacea, Scarlet Tanager SR

Cardinalidae

Cardinalis cardinalis, Northern Cardinal SR
Pheucticus ludovicianus, Rose-breasted Grosbeak SR

Emberizidae

Pipilo erythrophthalmus, Eastern Towhee SR
Spizella passerina, Chipping Sparrow SR

Melospiza melodia, Song Sparrow SR
Zonotrichia albicollis, White-throated Sparrow

Icteridae

Quiscalus quiscula, Common Grackle SR
Molothrus ater, Brown-headed Cowbird SR
Icterus galbula, Baltimore Oriole SR

Fringillidae

Carduelis tristis, American Goldfinch SR

Passeridae

Passer domesticus, House Sparrow* SR

Papilionidae; Swallowtails

Papilio cresphontes, Giant Swallowtail; uncommon in August
Papilio polyxenes, Black Swallowtail; uncommon in August
Papilio troilus, Spicebush Swallowtail; uncommon in August