Natural Resource Management Plan for Silver Lake Park West Harrison, NY

Prepared for Westchester County Department of Parks 2003

I. Site Information and Analysis

Description

Silver Lake Park is a 237 acre park located in West Harrison, New York, situated near White Plains and the County Airport. The Northern and North-Eastern boundaries are bordered by private properties. From about the center of the park south along the eastern edge is Old Lake St. and Lake St. The city of Harrison owns park land along the eastern edge of the Lake, where they maintain ball fields. The western edge of the park is bordered by private houses on Hall Ave. and Buckout Rd.

There are many elevation changes throughout the park, with wetlands scattered throughout the high ridges. The park-itself is shaped like an amphitheatre, with all streams and hills draining towards the Lake. It would be safe to assume that the surface waters from the park and the surrounding community all end up in Silver Lake. There are many exposed rock outcroppings, with the dominant bedrock being Granite, Schist, and Fordham Gneiss.

There are no buildings in the park. There are, however, a few historic sites in the park that should be maintained. There is one parking lot located on the eastern edge off of Old Lake St. which holds about 20 cars. It is a dirt lot, with a few picnic tables at the northern end by a trail head.

Trails

There are dozens of trail segments through the park, almost all of which run through forested areas. They cover most of the park, excluding the western corner of the park. There is one History Trail which leads through the battle field, through the woods to the unmarked cemetery just off County property in the northern part of the park. This trail is maintained by the White Plains Historic Society. There are 3 major trail loops and many crossings, identified by blazes on trees. These can be seen in Map 1.

Hazardous Materials

As of 2003, no hazardous materials have been found at Silver Lake Park.

Geology and Soil Conditions

Silver Lake Park has a tremendous amount of topographic variation. There are exposed rock outcroppings throughout the park. The dominant bedrock is Granite and Fordham Gneiss. There are large areas with Limestone base, as evidenced by the presence of many plants that rely upon the limestone.

There were 10 different soil types identified in Silver Lake Park by the USDA Soil Conservation Service, published in the Soil Survey of Putnam and Westchester Counties, New York. The soil types and identifying characteristics are listed in Appendix A.

There is one condition of the soil that has been noticed by Westchester County Conservation Division. There seems to be a thicker leaf litter layer in this park than in many throughout the County. The disappearance of this layer is most often attributed to the presence of non-native earth worms. These are present in fewer numbers in Silver Lake than elsewhere. This prevents a nutrient loading of the soil.

II Site Description and Inventory

A few biodiversity studies have been conducted in Silver Lake Park. The first few were conducted by the Torrey Botanical Society, beginning in 1946. The park was also surveyed by Ian MacDonald in the summer of 2000. Other additions were made to the list on multiple trips to the park by the Westchester County Conservation Division. The lists were combined and a biodiversity list compiled by Jason Klein in 2003. The list is available as Appendix B.

There are 23 associated communities in Silver Lake Park. They were chosen by the criteria set forth in the New York Department of Environmental Conservation's Ecological Communities of New York State. The list of associated communities is listed as Appendix C. A brief description of a few habitats and their associated species is below.

Silver Lake

Formerly known as Horton Pond and St. Mary's Lake, Silver Lake is a small lake located in the southern end of the park. Water flows into the Lake from the streams located in the northern part of the park. Outflow is at the southern end of the Lake through a man-made waterfall that was once a sluice way for Horton's Mill. The Lake is defined as a eutrophic dimictic lake. Eutrophic means that it is a nutrient-rich lake. This allows for algal blooms at certain times of year, especially in the summer months, when temperatures rise. Dimictic means that there is a period of mixing or turnover twice a year, usually in the spring and in the fall, as temperature stratification changes. The lake freezes over during the winter months in years when temperatures allow.

There are 2 distinct areas in the Lake. The southern end is deeper and tends to have little surface vegetation. The northern end of the Lake (north of the island) is much shallower and has a lot of surface vegetation. The very northern edge is extremely shallow and has a very mucky bottom. There is a lot of emergent vegetation in this area.

There is 1 island on the Lake. It is forested, and therefore probably is home to some breeding birds and reptiles.

The Lake is home to at least 8 different species of fish, including Carp, Bass and Perch. The Lake also has a large turtle population. There are large Snapping Turtles visible from the shoreline. Amphibians also use the Lake as a breeding spot. There are resident bullfrogs in the Lake as well.

There is light use of the lake by fishermen. Some of the data for the fish present has come from them. There is also light boating use by the Harrison City park area.

Merritt Hill

This field (Map 2) was the site of a few battles in the Third action of the Battle of White Plains during the War for Independence (Described below). It is the only field in the Park. A canon sits atop the field, commemorating this event. There are signs in two places describing the field. This field is also home to many species of native grass and wildflower.

Forest

Most of the park is forested. For the most part, this is old growth forest. This is due to the presence of hard wood trees with a full canopy. There are a few communities of forest in the Park, as listed in Appendix C. Most of the distinction between communities has to do with differing species present. This difference is caused by differences in the underlying substrate, degree of slope, and type of bedrock beneath. As expected with old growth forest, there is little underbrush through most of the park. This is a result of the full canopy. There are a few areas, however, where some invasive species such as Japanese Barberry have started to take over the forest floor. As with a lot of parks in the area, Oriental Bittersweet is present in a few places. This invasive vine kills the trees as it wraps itself around them, effectively strangling them.

Streams

There are many streams (at least 7) running though the park (Map 3). For the most part, they are small and shallow. There are area along them of fast flow, and some pooling areas. They tend to have a sandy base. This makes them ideal for dragonflies, damselflies, and other insects that prefer that type of substrate. There have been no reports of rare species in these streams, but this is an area that could use a little more investigation. Most of the streams start from wetlands that are present in the park. All of the streams flow into the Lake.

Wetlands

There are many wetlands scattered throughout the park (Map 3). There are at least 3 vernal pools in the park. These are defined as wetlands that have a full tree canopy, and dry up in the late summer months. They support specific species such as Fairy Shrimp, Wood Frogs, and Red-Spotted Newt. These are unique habitats that have seen a lot of destruction through development of land in Westchester County.

There are a few other types of wetland in the Park. These are located in the western part of the Park, along the high ridges between the Lake and the surrounding private land. The definitions of the wetlands are listed in Appendix C. They tend to hold water throughout the year, and do not have a canopy over them. They are considered swamps and fens. A few of them serve as the headwaters for some of the streams. These wetlands are important for supporting the amphibian, insect and bird populations in the Park. They are filled with shrubs, sedges and grasses that do not occur elsewhere in the Park.

There are also unmarked wet areas throughout the park. These are identified by the Skunk Cabbage present. There are also some nice wildflowers present in these wet areas.

All of the wetlands represent special microhabitat within the Park. Wetlands throughout Westchester County have been on the decline the past hundred years with suburbanization of the area. The wetlands in Silver Lake Park sustain the diversity of life within the park, and act as a throw-back to times when the land was not so developed.

III. Pre-Settlement Conditions

The largest difference before settlement was seen in the Lake. The Lake did not exist at this point, as it was formed by the damming of the Mamaroneck River. As of the

time of this report, no information was available regarding use of the land by the Native Americans. It can be assumed, however, that like much of the surrounding lands, this was used as hunting grounds.

IV. Land Use History

Silver Lake Park has an extremely interesting history of land use. This is an important point in what makes this park so special. It has seen commercial, private and public land use, has had battle fought on it, and even played a part in the freeing of slaves. I was not able to find much information on the land pre-dating 1775. Judging from Revolutionary war accounts, it seems that most of the land in the Park-itself was left wild due to the topographical variation, while the surrounding areas were farmland.

Stony Hill Community

In 1775, the Purchase Meeting of the Society of Friends (Quakers) stated that Quakers who owned slaves "ought to restore them their natural rights as to liberty." As compensation for their labor, the freed slaves were given land in "the rough lands in the northwestern portion of the Town of Harrison." The Quakers built homes and a church for the freed slaves. This "rough area" is the hilly part of West Harrison located in the northern end of Silver Lake Park. This was Westchester County's first free black community. The Stony Hill community lasted a few hundred years, with the last family leaving in 1941. There is a cemetery and foundations of some of the houses still present just outside the County Park border. The cemetery contains the remains of John Lee Brown, the only Harrison man to die in the Civil War. The History Trail located within the Park leads to this area.

Revolutionary War

Silver Lake Park was the site of a few conflicts during the Battle of White Plains, from October 28, 1776 to November 1, 1776. The use of Silver Lake in this war began in the Third Action of the Battle of White Plains. George Washington had placed his left flank under General William Heath just to the west of the southern end of Silver Lake. The right flank was stationed at Purdy Hill under Putnam with Washington himself in the center. To protect against possible threats, he fortified Merritt Hill, southeast of the center of Silver Lake, across the road. (This is the Merritt Hill within Silver Lake Park) He placed Col. William Malcolm on Merritt Hill with his New York regiment. Also here was Lt. Fenno with one field piece (of artillery).

During the Third Action (Oct. 28), the British Light Horse Brigade appeared in a wheat field at the foot of Merritt Hill. Lt. Fenno fired artillery, causing a British horseman to be thrown from his horse. This resulted in the British Howe deciding to wait for reinforcements.

Before the Fourth Action (November 1), Heath decided to dig a new redout farther up on Hatfield Hill (west of the Park). Washington had moved his main position northwest of Silver Lake, using the Miller House as his headquarters (Now Washington's Headquarters) During the Fourth Action, Howe attacked Hatfield Hill. The British cannonade was answered by and effective American cannonade and the British withdrew. This was later followed by the Fifth Action, which occurred on Miller Hill where the county park Washington's Headquarters is located.

A house that still stands that was probably part of the Horton Mill complex at the southern end where the outflow from the Lake is situated was used as the Ammo stores for these battles.

Commercial Use

There is a long history of commercial use on Silver Lake, with not much information detailing the timeline of when and exactly where the usage was. It is important to remember that this usage all occurred on the shoreline around the Lake, and not through the entire Park. In fact, there is no evidence revealing that there was commercial use in other areas of the Park.

There was one ice house located around Silver Lake, where ice was "farmed" out of the Lake during the winter. Before electricity, houses had to import ice for use in a refrigerator. This was Charles Deutermann and Sons Ice House. The ice house itself was located to the west of the Lake, most likely near what is now called the Dellwood Property (which was given to White Plains by the County to form Liberty Park). Most of the ice harvested from this house was sold in White Plains.

The other commercial business on the Lake was the Horton Grist Mill, owned originally by John Horton. The mill itself was actually located off of Park property, to the south of Lake St. The dam beginning the sluice run is still present at the southern end of the Lake as the outflow area. The sluice ran across the street and powered the mill. The property that John Horton owned included the area where the ball fields are currently located.

Underground Railroad

Several resources have maintained that the cave (Map 4) located in the northern part of the Park, along the yellow trail was used as a hiding spot for fleeing slaves. The timing of the usage is not documented. This is no surprise, since the Underground Railroad would have survived in large part due to its secrecy. At one point in the Parks history (sometime during the mid-1900's) a sign was erected by the cave describing this. It is what appears to be a small root cellar located in an area of the park where there is little evidence of housing or farming. This would have been an ideal place to hide.

Silver Lake Park

The land now known as Silver Lake Park was acquired by the County in 1924 and 1925 for \$450,000. The Dellwood Parcel was added later in the Park's history. This parcel was then given to the City of White Plains in 2003 for the formation of Liberty Park. The southeastern edge of the Lake was given to the City of Harrison in 1952 for the formation of ball fields and a recreational park.

Civilian Conservation Corps

The Civilian Conservation Corps (CCC) was started by Roosevelt as part of his first 100 days. During the Great Depression, the CCC employed more than 3 million men between the age of 18 and 25. They were paid \$30 per month, \$25 of which was required to be sent home to their families. Run in the military style, they spent most of the days building roads and shelters, and planting trees. It is estimated that over 3 billion trees were planted by the 2650 camps in operation by the end of 1935. There are no pine

stands located in Silver Lake that are the tell-tale signs of CCC use, however it was documented that there was a camp present. In Silver Lake, most of the trail system was set up by the CCC. This is evidenced by the crude stairways located on many of the trails. There are also 2 shelters in the northwestern portion of the Park that were most likely erected by the CCC. The foundations are still standing, however the roofs are absent. The CCC ended in 1942, when America entered World War II.

V. Stewardship Objectives

As with many other Westchester County-Parks, the objective of this park should be to maintain the diversity of native species while trying to limit the spread of invasive species. Silver Lake Park is a gem located in a heavily developed area. Certain areas should be maintained to provide historical and cultural information, and to provide a glimpse of what it might have looked like in the past. Most of the park, however, has remained untouched through history. This is due, in most part, to its incredible topographical variation. The land is too hilly to have had farms on it, something that we don't find much of around Westchester. Similar areas, such as Wildcat Hollow in Ward Pound Ridge Reservation, show a tremendous amount of biodiversity, just as this Park does. This also means that Silver Lake Park should be used for passive recreation only. Harrison maintains a few ball fields on the eastern shore of the Lake, allowing for an active recreation area.

VI. Management Areas

Parking Lot

The parking lot itself does not need much attention aside from the occasional cleaning of debris from the edges. A section of lawn should be maintained around the parking lot, leaving about 4' of lawn on the eastern and western side of the lot. The northern and southern ends of the lot are where the trailheads emerge. The northern end should be mowed a little farther out to allow for the presence of a picnic table or two.

The southern end of the lot should be mowed as little as possible. Just south of the parking lot is a very sensitive area. Along the path leading to Merritt Hill, very near the lot, is a small patch of Spring Avens (Geum vernum). There is also a lot of Japanese Barberry in the area. There should be an effort to remove as much of the barberry and Multiflora Rose, so that they will not out compete the Avens. The pulling of these invasive species, once done, would probably not need to be repeated for a few years.

Merritt Hill

Merritt Hill is the field just south of the parking lot. As discussed before, this field saw some action in the Revolutionary War. There are a few signs for the field. One is in the parking lot, and one by Lake Street at the eastern end of the field. There is also a sign on a boulder by the canon located in the center of the field. Attention should be given to make sure that these signs have not been damaged, and that they are visible to the public. The field itself should be mowed once a year, in late October, to a height

of 6". This schedule for mowing allows the wildflowers and grasses present to grow through the summer. It is also important not to mow the field during the bird and reptile breeding season. The height of six inches is to prevent mowing any turtles that might be in the field at that time.

There are a few trail segments in the field. These should be mowed often, so that they are passable without having to walk through the tall grasses. An ideal schedule would be to mow these trails twice a month, which might not be feasible. They should be mowed at least once a month, however.

Trails

The trail system, as it is, makes its way through most of the park. It is a complete trail system that probably should not see the addition of other trails. The only area without trails is the western corner of the park, where there are a lot of wetlands that act as headwaters for the streams leading to the Lake. The more human traffic that this area sees, the more likely it is that invasive species will make their way in. Therefore, the trails should probably stay away from the western corner.

The trails that exist do need some maintenance. Again, an ideal schedule would be that the trails are checked once a month. However, since this might not be feasible, they should be checked at least quarterly. Due to the amount of forest in the park, there might be a lot of trees that fall across the paths. There might also be dangerous hanging limbs in some areas.

Another issue facing the trails is the number of stream crossings. All of these were done by the CCC, and therefore are rocks placed across the stream. This works very well, as they need very little maintenance. They should, however, be checked occasionally for hazardous conditions.

Forest

The forest should be walked once a year, in the winter, looking for vines that would kill the trees. These are Porcelain Berry (Ampelopsis brevipedunculata) and Oriental Bittersweet (Celastrus orbiculata). If found, these vines should be cut at about 1' off the ground. This should probably be done by a few people at once, each taking a different part of the park. This would minimize the time needed to complete.

VI. Recommendations

- Biodiversity Reserve area for the whole park
- Passive Recreation Only
- Nature Center (possibly where the "boat house" is: Map 5). Silver Lake Park is located centrally in the County, minutes from both 287 and 684. This allows easy access from just about anywhere in the County. There is a tremendous potential for educational programs here, including anything from pond study to Native American programs. A nature center could be located where there are buildings along the entrance road in the parcel that was given to Harrison for the ball fields.
- Turtle study of the lake
- Better maintenance of trails

- More policing to curb quad and other off-road usage
- "Catch and Release" signs
- "Artificial Lure Only" signs
- Survey of the island
- Survey of stream invertebrates
- Informational meeting for everyone living on Old Lake St., Buckout Rd, Hall
 Ave, Daniel's Place, Sunset Dr, and Woodcrest Ave. (All the streets with houses
 bordering the park). The purpose of this meeting would be to inform them of the
 sensitivity of the wetlands inside of Silver Lake Park and to try and educate them
 about how their actions as properties bordering the park will affect these
 wetlands.
- Determination of Native American use of park
- Do not give away any more of the Park.
- A survey of the borders looking for encroachment should be done

Appendix A: Soil Types in Silver Lake Park

- Charlton Loam, 2 to 8 percent slope
- Charlton Loam, 25 to 35 percent slope
- Charlton-Chatfield complex, rolling, very rocky
- Chatfield-Hollis-Rock outcrop complex, rolling
- Chatfield-Hollis-Rock outcrop complex, hilly
- Hollis-Rock outcrop complex, very steep
- Knickerbocker fine sandy loam, 2 to 8 percent slopes
- Sun-Loam
- Urban Land: More than 60% cover with buildings or other structures

Biodiversity List for Silver Lake Park West Harrison, NY 3/03

Compiled by Jason Klein

Non-Vascular Plants

Characeae

Chara sp.

Muskgrass

Vascular Plants

Lycopodiaceae (Clubmoss Family)

Lycopodium obscurum

Ground Pine

Selaginellaceae (Spikemoss Family)

Selaginella apoda

Meadow Spikemoss

Equisetaceae (Horsetail Family)

Equisetum arvense Equisetum hyemale Equisetum pretense Common Horsetail Scouring Rush Meadow Horsetail

Ophioglossaceae (Adder's-Tongue Family)

Botrrychium virginianum

Rattlesnake Fern

Osmundaceae (Flowering-Fern)

Osmunda cinnamomea Osmunda claytoniana Osmunda regalis

Cinnamon Fern Interrupted Fern Royal Fern

Polypodiaceae (Polypody Family)

Polypodium virginianum

Rock Polypody

Adiantaceae (Maidenhair Fern Family)

Adiantum pedatum

Maidenhair Fern

Cyatheaceae (Tree Fern Family)

Dennstaedtia punctilobula Pteridium aquilinum

Hay-Scented Fern Bracken Fern

Aspleniaceae (Spleenwort Family)

Asplenium platyneuron Athyrium filix-femina

Athyrium filix femina var. rubella Athyrium thelypteroides

Cystopteris fragilis Dryopteris carthusiana Dryopteris cristata

Dryopteris intermedia Dryopteris marginalis Ebony Spleenwort

Lady Fern

Red-Striped Lady Fern Silvery Spleenwort Common Fragile Fern Spinulose Wood Fern

Crested Fern

Evergreen Wood Fern Marginal Wood Fern Onoclea sensibilis Phegopteris hexagonoptera Polystichum acrostichoides Thelypteris novaboracensis Thelypteris palustris Sensitive Fern Broad Beech Fern Christmas Fern New York Fern Marsh Fern

Pinaceae (Pine Family)

Picea abies Pinus strobus Tsuga canadensis

Norway Spruce White Pine Eastern Hemlock

Cupressaceae (Cypress Family)

Juniperus virginiana

Red Cedar

Magnoliaceae (Magnolia Family)

Liriodendron tulipifera Magnolia tripetalata Tulip Tree Umbrella Tree

Lauraceae (Laurel Family)

Lindera benzoin Sassafras albidum Spicebush Sassafrass

Aristolochiaceae (Birthwort Family)

Asarum canadense

Wild Ginger

Nymphaeaceae (Waterlily Family)

Nuphar advena Nuphar luteum ssp. variegata Spatterdock Spatterdock

Ceratophyllaceae (Hornwort Family)

Ceratophyllum demersum

Ceratophyllum echinatum

Coontail

S2/S3

Pickly Hornwort

Ranunculaceae (Crowfoot Family)

Actaea pachypoda
Anemone quinquefolia
Anemone virginiana
Anemonella thalictroides
Ranunculus abortivus
Ranunculus acris
Ranunculus bulbosus

Ranunculus hispidus var. caricetorum Ranunculus recurvatus

Ranunculus repens Thalictrum dioicum

Ranunculus ficaria

White Baneberry
Wood Anemone
Thimbleweed
Rue Anemone
Kidney-Leaved Crowfoot
Common Buttercup

Common Buttercup
Bulbous Buttercup
Lesser Celandine
Hispid Buttercup
Hooked Buttercup
Creeping Buttercup
Early Meadow Rue

Thalictrum pubescens Thalictrum sp

Tall Meadow Rue Rue

Berberidaceae (Barberry Family) Berberis thunbergii Caulophyllum thalictroides Podophyllum peltatum

Japanese Barberry Blue Cohosh May-Apple

Menispermaceae (Moonseed Family) Menispermum canadense

Moonseed

Papaveraceae (Poppy Family) Chelidonium majus Sanguinaria Canadensis

Greater Celandine Bloodroot

Fumariaceae (Fumitory Family) Dicentra cucullaria

Dutchman's Breeches

Platanaceae (Plane-Tree Family) Platanus occidentalis

American Sycamore

Hamamelidaceae (Witch-Hazel Family) Hamamelis virginiana Liquidambar styraciflua

Witch Hazel Sweet Gum Tree

Ulmaceae (Elm Family) Ulmus americana Ulmus rubra

American Elm Slippery Elm

Moraceae (Mulberry Family) Morus alba Morus rubra

White Mulberry Red Mulberry

Urticaceae (Nettle Family) Boehmeria cylindrica Laportea canadensis

False Nettle Wood Nettle Pilea pumila Clearweed Urtica dioica var. gracilis Stinging Nettle Urtica dioica var. procera Tall Nettle

Juglandaceae (Walnut Family)

Carya cordiformis Carya glabra Carya ovalis Carya ovata Carya tomentosa

Bitternut Hickory Pignut Hickory Sweet Pignut, False Shagbark Shagbark Hickory Mockernut Hickory

Juglans nigra

Black Walnut

Myricaceae (Bayberry Family)

Myrica pensylvanica

Bayberry

Black Oak

Fagaceae (Beech Family)

Castanea dentate
Fagus grandiflolia
Quercus alba
Quercus palustris
Quercus rubra

Ouercus velutina

American Chestnut American Beech White Oak Pin Oak Red Oak

Betulaceae (Birch Family)

Alnus glutinosa*
Alnus incana
Alnus serrulata
Alnus sp.
Betula allegheniensis
Betula lenta
Betula populifolia
Carpinus caroliniana
Corylus americana
Ostrya virginiana

Black Alder
Speckled Alder
Smooth Alder
Alder
Yellow Birch
Black Birch
Gray Birch
American Hornbeam
American Hazel

Phytolaccaceae (Pokeweed Family)

Pytolacca americana

Pokeweed

Nyctaginaceae (Four-O'Clock Family)

Mirabilis nyctaginea

Wild Four-O'Clock

American Hop Hornbeam

Chenopodiaceae (Goosefoot Family)

Chenopodium album

Chenopodium ambrosioides

Pigweed Mexican Tea

Amaranthaceae (Amaranth Family)

Amaranthus powellii*

Amaranthus retroflexus

Amaranth
Green Amaranth / Pigweed

Portulacaceae (Purslane Family)

Claytonia virginica

Portulaca oleracea

Spring Beauty Purslane

Molluginaceae (Carpetweed Family)

Mollugo verticillata*

Carpetweed, Indian Chickweed

Caryophyllaceae (Pink Family)

Cerastium fontanum*
Cerastium vulgatum
Dianthus armeria
Paronychia canadensis
Saponaria officinalis
Scleranthus annuus
Silene latifolia
Silene stellata
Silene vulgaris
Stellaria graminea

Common Mouse-Ear Mouse-eared Chickweed

Deptford Pink
Forked Chickweed
Bouncing Bet
Knawel
White Campion
Starry Campion
Bladder Campion
Lesser Stitchwort
Common Chickweed

Polygonaceae (Buckwheat Family)

Stellaria media

Polygonum arenastrum
Polygonum arifolium
Polygonum caespitosum
Polygonum convolvulus
Polygonum cuspidatum*
Polygonum hydropiperoides
Polygonum lapathifolium
Polygonum pensylvanicum
Polygonum persicaria

Polygonum punctatum var. confertiflorum

Polygonum sagittatum
Polygonum scandens
Polygonum virginianum
Rumex acetosella
Rumex crispus
Rumex obtusifolius
Tovara virginiana

Prostrate Knotweed

Tearthumb

Long-bristled Smartweed

Black Bindweed Japanese Knotweed False Water Pepper Pale Smartweed

Pennsylvania Smartweed Lady's Thumb Knotweed

Water Smartweed

Arrow-Leaved Tearthumb Climbing False Buckwheat

Jumpseed Sheep Sorrel Curly Dock Broad Dock

Virginia Knotweed

Clusiaceae (Mangosteen Family)

Hypericum mutilum var. mutilum Hypericum perforatum

Dwarf St. John's Wort Common St. John's-Wort

Tiliaceae (Linden Family)

Tilia americana

American Basswood

Malvaceae (Mallow Family)

Abutilon theophrasti Malva neglecta

Velvet-Leaf Cheeses

Violaceae (Violet Family)

Viola arvensis Viola blanda

European Field Pansy Sweet White Violet Viola cucullata Viola hastate Viola palmate Viola pubescens Viola soraria

Marsh Blue Violet Halberd-Leaved Violet Early Blue (Wood) Violet Yellow Forrest Violet Common Blue Violet

Cucurbitaceae (Gourd Family) Echinocystis lobata

Wild Cucumber

Salicaceae (Willow Family)

Populus alba Populus deltoids Populus grandidentata Populus tremuloides Salix atrocinerea

Salix caprea Rare Escape
Salix nigra

White Poplar Cottonwood Large-Toothed Poplar Quaking Aspen Ashy Willow Goat Willow Black Willow

Brassicaceae (Mustard Family)

Alliaria petiolata*
Arabis canadensis
Arabis laevigata
Barbarea vulgaris*
Capsella bursa pastoris*
Cardamine bulbosa
Cardamine concatenata
Cardamine diphylla
Cardamine pensylvanica
Cardamine pratensis
Cardamine rhomboidea
Hesperis matronalis*
Lepidium virginicum
Sisymbrium altissimum*

Garlic Mustard
Sicklepod
Smooth Rock Cress
Common Winter Cress
Shepherd's Purse
Spring Cress
Five-Parted Toothwort
Broad-Leaved Toothwort
Pennsylvania Bittercrest
Cuckoo Flower
Spring Cress
Dame's Rocket
Pepper Grass
Tumble Mustard

Clethraceae (White Alder Family) Clethra alnifolia

Ericaceae (Heath Family)

Gaylussacia baccata

Kalmia latifolia

Lyonia ligustrum

Rhododendron periclymenoides

Vaccinium corymbosum

Vaccinium pallidum

Black Huckleberry Mountain Laurel Male Berry Pink Azalea Highbush Blueberry Hillside Blueberry

Sweet Pepperbush

Pyrolaceae (Shinleaf Family)

Chimaphila maculate

Spotted Wintergreen

Monotropaceae (Indian Pipe Family) Monotropa uniflora

Indian Pipe

Primulaceae (Primrose Family)

Lysimachia ciliata Lysimachia nummularia Lysimachia quadrifolia Lysimachia terrestris

Fringed Loosestrife Moneywort Whorled Loosestrife Swamp Candles

Hydrangeaceae (Hydrangea Family)

Hydrangea arborescens

Rare

Wild Hydrangea

Grossulariaceae (Currant Family)

Ribes triste

Swamp Red Currant

Crassulaceae (Sedum Family)

Sedum purpureum

Stonecrop

Saxifragaceae (Saxifrage Family)

Chrysosplenium americanum Saxifraga virginiensis

Golden Saxifrage Early Saxifrage

Rosaceae (Rose Family)

Agrimonia gryposepala Agrimonia pubescens Amelanchier arborea Aronia arbutifolia Duchesnea indica* Fragaria virginiana Geum canadense Geum vernum S1/S2 Geum virginianum Malus pumila* Potentilla argentea Potentilla canadensis Potentilla norvegica Potentilla recta Potentilla simplex Prunus avium Prunus serotina Prunus virginiana

Pyrus malus

Agrimony Cocklebur Shadbush Red Chokeberry Indian Strawberry Wild Strawberry White Avens Spring Avens Rough Avens Common Apple Silvery Cinquefoil Running Cinquefoil Rough Cinquefoil Rough-fruited Cinquefoil Common Cinquefoil Sweet Cherry Black Cherry

Choke Cherry

Apple Tree

Rosa multiflora
Rosa palustris
Rosa rugosa
Rubus allegheniensis
Rubus flagellarus
Rubus occidentalis
Rubus phoenicolasius*
Rubus sp.
Spiraea alba var. latifo

Spiraea alba var. latifolia

Spiraea sp.

Spiraea japonica*

Fabaceae (Bean Family)

Amphicarpea bracteata
Apios americana
Desmodium canadense
Desmodium cuspidatum
Desmodium glutinosum
Desmodium nudiflorum
Desmodium paniculatum
Desmodium rotundifolium
Lespedeza intermedia

Lespedeza sp.
Lotus corniculata
Medicago lupulina*
Melilotus alba*
Melilotus officinale*
Robinia pseudoacacia*
Trifolium arvense*

Trifolium campestre*
Trifolium dubium
Trifolium hybridum*
Trifolium pretense*
Trifolium repens*
Vicia cracca
Vicia sativa*

Haloragaceae (Water Milfoil Family)

Myriophyllum sibiricum

Lythraceae (Loosestrife Family)

Lythrum salicaria*

Wisteria sp. *

Onagraceae (Evening Primrose Family)

Multiflora Rose
Swamp Rose
Wrinkled Rose
Allegheny Blackberry
Northern Dewberry
Black Raspberry
Wineberry
Blackberry
Meadowsweet
Gold Flame Spiraea
Japanese Spiraea

Hog Peanut Groundnut

Showy Tick-Trefoil

Large-Bracted Tick-Trefoil Pointed-Leaf Tick-Trefoil Naked-Flowered Tick-Trefoil

Panicled Tick-Trefoil Protrate Tick-Trefoil Wand-Like Bush-Clover

Bush-Clover Birdsfoot Trefoil Black Medick

White Sweet Clover

Yellow Sweet Clover

Black Locust

Rabbit's Foot Clover Palmate Hop Clover Pinnate Hop Clover Small Hop Clover Alsike Clover Red Clover

White Clover Cow Vetch Common Vetch

Wisteria

Water Milfoil

Purple Loosestrife

Circaea lutetiana Epilobium coloratum Ludwigia alternifolia Ludwigia palustris Oenothera biennis Enchanter's Nightshade Purple-Leaf Willow-Herb Seedbox / False Loosestrife Water Purslane Evening Primrose

Nyssaceae (Tupelo Family) Nyssa sylvatica

Tupelo

Cornaceae (Dogwood Family)

Cornus alternifolia Cornus amomum Cornus florida Cornus foemina ssp. racemosa Cornus sericea Green Osier Dogwood Swamp Dogwood Flowering Dogwood Gray Dogwood Red Osier Dogwood

Celastraceae (Staff-Tree Family)

Celastrus orbiculata*

Celastrus orbiculata* Euonymus alata* Oriental Bittersweet Winged Euonymus

Aquifoliaceae (Holly Family)

Ilex opaca Rare Ilex verticillata

American Holly Winterberry

Buxaceae (Boxwood Family)

Pachysandra terminalis*

Pachysandra

Euphorbiaceae (Spurge Family)

Acalypha virginica var rhomboidea Chamaesyce maculata Euphorbia cyparissias*

Three-Seeded Mercury Spotted Spurge Cypress Spurge

Rhamnaceae (Buckthorn Family)

Ceanothus americanus

New Jersey Tea

Vitaceae (Grape Family)

Ampelopsis brevipedunculata*
Parthenocissus quinquefolia
Vitis aestivalis
Vitis labrusca
Vitis riparia

Porcelain Berry Virginia Creeper Summer Grape Fox Grape Frost Grape

Polygalceae (Milkwort Family)

Polygala nuttallii Polygala sanguinea

Rare

Nuttall's Milkwort Blood Milkwort

Polygala verticillata

Whorled Milkwort

Staphyleaceae (Bladdernut Family)

Staphylea trifolia

Bladdernut

Aceraceae (Maple Family)

Acer negundo*
Acer nigrum
Acer platanoides*
Acer rubrum
Acer saccharinum
Acer saccharum

Box Elder Black Maple Norway Maple Red Maple Silver Maple Sugar Maple

Anacardiacae (Sumac Family)

Rhus glabra Rhus typhina Toxicodendron radicans Smooth Sumac Dwarf Sumac Poison Ivy

Simaroubaceae (Quassia Family)

Ailanthus altissima*

Tree-of-Heaven

Rutaceae (Rue Family)

Ptelea trifoliate

Wafer Ash

Oxalidaceae (Oxalis Family)

Oxalis dillenii ssp. filipes Oxalis europaea Oxalis stricta Wood-Sorrel Yellow Wood Sorrel Lady's Sorrel

Geraniaceae (Geranium Family)

Geranium maculatum Geranium robertianum Wild Geranium Herb-Robert

Balsaminaceae (Touch-Me-Not Family)

Impatiens capensis

Spotted Jewelweed

Araliaceae (Ginseng Family)

Aralia nudicaulis
Panax trifolius

Wild Sarsaparilla Dwarf Ginseng

Apiaceae (Carrot Family)

Cryptotaenia canadensis

Daucus carota*
Heracleum maximum

Honewort

Queen Anne's Lace Cow-Parsnip

Osmorhiza claytonii Pastinaca sativa* Sanicula canadensis Sanicula gregaria Sanicula marilandica

Sium suave

Apocynaceae (Dogbane Family)

Apocynum androsaemifolium Apocynum cannabinum

Vinca minor*

Asclepiadaceae (Milkweed Family) Asclepias exaltata Asclepias incarnata Asclepias syriaca Asclepias tuberosa

Asclepias sp.

Solanaceae (Nightshade Family)

Solanum dulcamara* Solanum nigrum Solanum ptycanthum

Solanum sp.

Convolvulaceae (Morning-Glory Family)

Calystegia sepium* Cuscuta gronovii

Polemoniaceae (Phlox Family)

Phlox paniculata*

Boraginaceae (Borage Family) Hackelia virginiana

Myosotis scorpioides*

Verbenaceae (Verbena Family) Phyrma leptostachya

Verbena urticifolia

Lamiaceae (Mint Family)

Ajuga reptans* Clinopodium vulgare* Collinsonia canadensis Glecoma hederacea* Lamium amplexicaule*

Sweet Cicely Wild Parsnip Snakeroot

Clustered Sanicle / Snakeroot

Black Snakeroot Water Parsnip

Spreading Dogbane Indian Hemp

Common Periwinkle

Poke Milkweed Swamp Milkweed Common Milkweed **Butterfly Weed** Milkweed

Climbing Nightshade Black Nightshade Nightshade

Nightshade

Hedge Bindweed

Dodder

Perennial Phlox

Stickseed, Beggar-Lice Forget-Me-Not

Lopseed White Vervain

Bugleweed Wild Basil Horse Balm

Gill-Over-the-Ground

Henbit

Lamium purpureum*
Leonurus cardiaca*
Lycopus americanus
Lycopus virginicus
Monarda didyma
Monarda fistulosa
Physostegia virginiana
Prunella vulgaris var. vulgaris*
Prunella vulgaris var. lanceolata

Pycanthemum tenuifolium
Pycanthemum virginianum

Satureja vulgaris Scutellaria lateriflora Narrow-Leaved Mountain Mint Virginia Mountain Mint

Cut-Leaf Water Horehound

Wild Basil

Purple Dead Nettle

Motherwort

Bugleweed

Oswego Tea

Heal-All

Wild Bergamot

False Dragonhead

Self-Heal / Heal-All

Mad-Dog Skullcap

Callitrichaceae (Water-Starwort Family)

Callitriche palustris

Water Starwort

Plantaginaceae (Plantain Family)

Plantago lanceolata*
Plantago major*
Plantago rugelii

English Plantain Common Plantain Pale Plantain

Oleaceae (Olive Family)

Fraxinus americana Fraxinus pennsylvanica

Fraxinus pennsylvanica var. subintegerrima Ligustrum obtusifolium* Rare

Ligustrum obtusifolium* Ligustrum vulgare Syringa vulgaris* White Ash Red Ash

Privet Privet Lilac

Scrophulariaceae (Figwort Family)

Agalinis purpurea
Agalinis tenuifolia
Aureolaria laevigata
Aureolaria virginica
Aureolaria sp.
Chelone glabra
Linaria vulgaris*
Mimulus ringens
Pedicularis canadensis
Verbascum blattaria

Pedicularis canadensis Verbascum blattaria Verbascum thapsus* Veronica filiformis* Veronica officinalis* Veronica serpyllifolia* Purple Gerardia
Slender Gerardia
Smooth False Foxglove
Downy False Foxglove
False Foxglove

False Foxglove
White Turtlehead
Butter and Eggs
Square-Stemmed

Square-Stemmed Monkeyflower

Wood Betony Moth Mullein Common Mullein Creeping Speedwell Common Speedwell Thyme-leaf Speedwell Orobanchaceae (Broome-Rape Family)

Epifagus virginiana Orobanche uniflora

Beechdrops
One-Flowered Cancer-Root

Bignoniaceae (Bignonia Family)

Paulownia tomentosa*

Paulownia

Campanulaceae (Bluebell Family)

Lobelia inflata Lobelia siphilitica

Indian Tobacco Lobelia Giant Blue Lobelia

Rubiaceae (Madder Family)

Cephalanthus occidentalis

Galium aparine Galium asprellum

Galium circaezans var. circaezans

Galium mollugo*

Galium trifidum var. trifidum

Galium triflorum Mitchella repens Buttonbush Cleaver's Bedstraw Rough Bedstraw White Wild Licorice Wild Madder Bedstraw

Sweet-Scented Bedstraw

Patridgeberry

Caprifoliaceae (Honeysuckle Family)

Lonicera japonica* Lonicera morrowii* Lonicera tatarica* Sambucus canadensis Viburnum acerifolium

Viburnun dentatum var. lucidum
Viburnum dilatatum* Rare

Viburnum lentago Viburnum prunifolium Japanese Honeysuckle Morrow's Honeysuckle Tartarian Honeysuckle Common Elderberry Maple-Leaf Viburnum Southern Arrowwood Viburnum Sweet Viburnum

Blackhaw Viburnum

Asteraceae (Aster Family)

Achillea millefolium Ambrosia artemisiifolia

Ambrosia trifida Antennaria neglecta Antennaria plataginifolia

Anthemis cotula*
Arctium lappa*
Arctium minus*
Artemisia annua*
Artemisia vulgaris*
Aster accuminatus
Aster cordifolius
Aster divaricatus

Yarrow
Great Ragweed
Giant Ragweed
Field Pussytoes
Plantain-leafed Pussytoes
Mayweed
Great Burdock
Lesser Burdock
Annual Wormwood
Mugwort
Whorled Aster
Heart-Leaved Aster

White Wood Aster

Aster dumosus Aster ericoides Aster laevis Aster lanceolatus Aster lateriflorus Aster lowrieanus Aster novae angliae Aster paternus Aster pilosus Aster racemosus Bidens frondosa Bidens laevis Centaurea jacea Centaurea maculosa* Centaurea nigra* Cichorium intybus* Cirsium arvense* Cirsium discolor Cirsium vulgare Conyza canadensis Echinacea purpurea* Erechtites hieracifolia Erigeron annuus Eupatorium dubium Eupatorium fistulosum Eupatorium maculatum Eupatorium purpureum Eupatorium rugosum Euthamia graminifolia Galinsoga parviflora* Galinsoga quadriradiata* Rare Gnaphalium obtusifolium Gnaphalium uliginosum Helianthus annuus* Helianthus decapetalus Helianthus strumosus Hieracium aurentiacum* Hieracium caespitosum* Hieracium gronovii Hieracium kalmii Hieracium paniculatum Hieracium piloselloides* Hieracium pretense Hieracium venosum Krigia biflora

Lactuca canadensis

Bushy Aster Heath Aster Smooth Aster Panicled Aster Calico Aster Lowrie's Aster New England Aster Toothed White Topped Aster Heath Aster Small White Aster Beggar-Ticks Bur Marigold Brown Knapweed Spotted Knapweed Black Knapweed Chicory Canada Thistle Field Thistle **Bull Thistle** Horseweed Purple Cone Flower Pilewort Daisy Fleabane Eastern Joe-Pye Weed Hollow Joe-Pye Weed Spotted Joe-Pye Weed Sweet Joe-Pye Weed White Snakeroot Grass-Leaved Goldenrod Ouickweed Quickweed Sweet Everlasting Low Cudweed Common Sunflower Thin-Leaved Sunflower Pale-Leaved Sunflower Orange Hawkweed King Devil Hairy Hawkweed Canada Hawkweed Panicled Hawkweed Glaucous King Devil Field Hawkweed Rattlesnake Weed Two-flowered Cynthia

Wild Lettuce

Lactuca floridana Rare Blue Lettuce Lactuca serriola Prickly Lettuce Lapsana communis* **Nipplewort** Leucanthemum vulgare* Ox-eye Daisy Matricaria discoidea Chamomile Matricaria matricarioides Pineapple Weed Prenanthes alba White Lettuce Prenanthes altissima Tall White Lettuce Prenanthes serpentaria Lion's Foot Prenanthes trifoliata Gall-of-the-Earth Rudbeckia hirta var. pulcherrima* Black-Eyed Susan Senecio vulgaris* Common Groundsel Solidago arguta var. arguta Cut-Leaved Goldenrod Silverrod Goldenrod Solidago bicolor Solidago caesia Blue-Stem Goldenrod Solidago canadensis Late Goldenrod Solidago canadensis var. altissima Tall Goldenrod Solidago canadensis var. canadensis Canada Goldenrod E3 Solidago erecta Slender Goldenrod Solidago flexicaulis Zigzag Goldenrod Solidago gigantean Late Goldenrod Solidago juncea Early Goldenrod Solidago macrophylla Large-Leaved Goldenrod Solidago nemoralis Gray Goldenrod Solidago odora Sweet Goldenrod Solidago patula Sharp-Leaved Goldenrod Solidago puberula Downy Goldenrod Solidago rugosa Rough Stemmed Goldenrod Solidago speciosa Showy Goldenrod Sonchus arvensis* Field Sow Thistle Sonchus asper * Spiny-Leaved Sow Thistle Sonchus oleraceus* Common Sow Thistle Tanacetum vulgare* Common Tansy Common Dandelion Taraxacum officinale* Tragopogon pratensis* Yellow Goat's Beard Tussilago farfara* Coltsfoot Veronia noveboracensis New York Ironweed Xanthium strumarium var. glabratum Common Cocklebur

Alismataceae (Water-Plantain Family)

Alisma plantago-aquatica

Sagittaria latifolia

Potamogernaceae

Potamogeton crispus Potamogeton sp.

Water Plantain Common Arrowhead

Curly-leaf Pondweed

Pondweed

Potamogeton zosteriformis

Flat-stem Pondweed

Najadaceae (Naiad Family)

Najas flexilis

Naiad

Araceae (Arum Family)

Arisaema triphyllum Symplocarpus foetidus

Jack-in-the-Pulpit Skunk Cabbage

Lemnaceae (Duckweed Family)

Lemna minor

Duckweed

Commelinaceae (Dayflower Family)

Commelina communis

Dayflower

Juncaceae (Rush Family)

Juncus effusus var. solutus Juncus tenuis Luzula multiflora

Path Rush Wood Rush

Soft Rush

Cyperaceae (Sedge Family)

Carex albicans var. albicans
Carex amphibola var. turgida
Carex annectens
Carex appalachica
Carex blanda
Carex bromoides
Carex cephalophora
Carex communis
Carex crinita
Carex digitalis
Carex foenea
Carex laevivaginata

Carex laxiculmis
Carex laxiflora
Carex lupulina
Carex lurida
Carex normalis
Carex pallescens
Carex pensylvanica
Carex platyphylla

Carex radiate
Carex rosea
Carex scoparia var. scoparia
Carex sparganoides
Carex stricta

WOOD K

Sedge

Loose-Flowered Sedge Sedge Sedge Sedge Sedge Sedge

Broad-Leaf Sedge

Sedge Sack Sedge Sedge Sedge

Tussock Sedge

Carex swanii
Carex tetanica
Carex tribuloides
Carex virescens
Carex vulpinoidea
Cyperus strigosus
Eleocharis intermedia
Scirpus atrovirens
Scirpus hattorianus

Scirpus microcarpus ssp. rubrotinctus

Scirpus tabernaemontanii Scirpus sp. (validus) Sedge
Sedge
Sedge
Sedge
Sack Sedge
Umbrella Sedge
Spikerush
Dark Green Bulgus

Dark Green Bulrush

Bulrush Bulrush

Soft-Stemmed Bulrush

Bulrush

Poaceae (Grass Family)

Agrostis gigantea* Agrostis perennans

Agrostis stolonifera var. stolonifera

Agropyron repens

Anthoxanthum odoratum* Arrhenatherum elatius*

Brachyletrum erectum var. erectum

Brachyletrum inermis var. inermis

Bromus pubescens*
Cinna arundinacea
Dactylis glomerata*
Danthonia compressa
Danthonia spicata
Digitaria ischaemuum*
Digitaria sanguinalis*
Echinochloa crus-galli*

Elymus hystrix Elytrigia repens* Eragrostis spectabilis Festuca rubra*

Festuca subverticillata Festuca trachyphylla*

Glyceria sp.

Glyceria striata var. striata

Rare

Holocus lanatus*
Holocus mollis*
Leersia virginica
Lolium perenne*
Lolium pratensis*
Microstegium vimineum
Muhlanhargia sahrahari

Muhlenbergia schreberi Muhlenbergia tenuiflora Redtop, Black Bent Autumn or Upland Bent

Creeping Bent Quack Grass

Sweet Vernal Grass

Tall Oatgrass Brachyletrum

Canada Brome Stout Woodreed Orchard Grass Northern Oatgrass Poverty-Grass Smooth Crabgrass Tall Crabgrass Barnyard Grass Bottle Brush Grass

Purple Love Grass Red Fescue

Manna Grass Fowl Manna Grass Velvet Grass Velvet Grass White Cut Grass English Rye Grass

Japanese Stilt Grass Nimble-Will Grass Woodland Drop-Seed

Panicum acuminatum Panicum clandestinum Panicum dichotomiflorum Panicum dichotomum Panicum sp. Phleum pratense Phragmites australis Poa annua Poa compressa Poa nemoralis* Poa pratensis* Schizachyrium scoparium Setaria faberi Setaria glauca Setaria pumila Setaria viridis Sphenopholis obtusata var. major Tridens flavus

Typhaceae (Cat-Tail Family)

Typha latifolia

Liliaceae (Lily Family)

Allium canadense

Allium tricoccum

Allium vineale*

Asparagus officinalis*

Erythronium americanum

Hypoxis hirsuta

Lilium canadense

Maianthemum canadense

Maianthemum racemosum

Ornithogalum umbellatum*

Polygonatum biflorum

Polygonatum pubescens

Smilacina racemosa Trillium erectum Uvularia sessilifolia Veratrum viride

Iridaceae (Iris Family)

Iris pseudoacorus*

Iris versicolor

Sisyrinchium altissimum

Sisyrinchium angustifolium

Sisyrinchium montanum

Panic Grass
Deer-tongue Grass
Fall Panic Grass
Panic Grass
Panic Grass
Panic Grass
Common Reed
Annual Bluegrass
Canada Bluegrass
Wood Bluegrass
Kentucky Bluegrass
Little Bluestem
Nodding Foxtail Grass
Yellow Foxtail Grass

Green Foxtail Grass Slender Wedgegrass Purple Top Grass

Broad-Leaf Cattail

Wild Onion
Wild Leek
Field Garlic
Asparagus
Trout Lily
Yellow Star Grass
Canada Lily
Canada Mayflower

Star of Bethlehem Solomon's Seal Hairy Solomon's Seal False Solomon's Seal Purple Trillium Wild Oats False Hellebore

Yellow Flag Blue Flag

Stout Blue-Eyed Grass Blue-Eyed Grass Smilacaceae (Greenbrier Family)

Smilax glauca Smilax herbacea Smilax rotundifolia Sawbrier Carrion Flower Cat Brier

Dioscoreaceae (Yam Family)

Dioscorea villosa

Wild Yam

Orchidaceae (Orchid Family)

Galearis spectabilis

Н

Showy Orchis

Animals

Bryozoa

Pectinatella magnifica

Bryozoan

Crustacea

Isopoda

Oniscus asellus

Pill Bug

Insecta

Coleoptera

Donacia cincticornis

Spatterdock Beetle

Plecoptera

?

Stonefly (Sp. Not identified)

Mollusca

Gastropoda

Physa heterostropha

Pewter Pond Snail

Odonata

Zygoptera

Calopteryx maculata Enallagma civile Enallagma geminatum Enallagma signatum Enallagma traviatum Ischnura posita Ischnura verticalis

Ebony Jewelwing Familiar Bluet Skimming Bluet Orange Bluet Slender Bluet Fragile Forktail Eastern Forktail

Anisoptera

Anax junius Basiaeschna janata Epitheca cynosura Epitheca princeps Libellula luctuosa Perithemis tenera Plathemis lydia Green Darner Springtime Darner Common Baskettail Prince Baskettail Widow Skimmer Eastern Amberwing Common Whitetail

Lepidoptera

Epargyreus clarus
Erynnis juvenalis
Malacosoma americanum
Megisto cymela
Papilio glauca
Pieris rapae
Polites themistocles
Speyeria cybele
Vanessa atalanta

Silver-Spotted Skipper
Juvenal's Duskywing
Eastern Tent Caterpillar Moth
Little Wood Satyr
Tiger Swallowtail
Cabbage White
Tawny-Edged Skipper
Great Spangled Fritillary
Red Admiral

Osteichthyes

Cyprinus carpio
Esox niger
Ictalurus sp.
Lepomis gibbosus
Lepomis macrochirus
Micropterus salmoides
Morone americana
Perca flavescens

Common Carp Chain Pickerel Catfish Pumpkinseed Sunfish Bluegill Sunfish Largemouth Bass White Perch Yellow Perch

Amphibia

Ambystoma maculatum Bufo americanus x fowlerii Hyla versicolor Notophthalmus viridescens Pseudacris crucifer Rana catesbeiana Rana sylvatica Yellow-Spotted Salamander Hybrid Toad Gray Treefrog Red-Spotted Newt Spring Peeper Bullfrog Wood Frog

Reptilia

Chelydra serpentine Chrysemys picta Terrapene carolina Thamnophis sirtalis

Snapping Turtle Painted Turtle Eastern Box Turtle Eastern Garter Snake

Aves

Double-Crested Cormorant

Green-Backed Heron

Great Egret

Great Blue Heron

Canada Goose

Mallard Duck

Wood Duck

Solitary Sandpiper

Turkey Vulture

Red-Tailed Hawk

Ruffed Grouse

Wild Turkey

Belted Kingfisher

Downy Woodpecker

Red-Bellied Woodpecker

Northern Flicker

Pileated Woodpecker

Eastern Kingbird

Great-Crested Flycatcher

Eastern Wood-Peewee

Eastern Phoebe

Tree Swallow

Northern Rough-Winged Swallow

Blue Jay

American Crow

Common Grackle

Black-Capped Chickadee

Tufted Titmouse

White-Breasted Nuthatch

Carolina Wren

Veery

Wood Thrush

American Robin

Gray Catbird

Brown Thrasher

European Starling

White-Eyed Vireo

Red-Eyed Vireo

Red-Lycu vico

Warbling Vireo

Solitary Vireo

Blue-Winged Warbler

Black and White Warbler

Black-Throated Blue Warbler

Black-Throated Green Warbler

Yellow Warbler

Yellow-Rump Warbler
Worm-Eating Warbler*
Ovenbird
Common Yellowthroat
Louisiana Waterthrush
Northern Waterthrush
Rose-Breasted Grosbeak
Northern Cardinal
Eastern Towhee
Chipping Sparrow
Red-Winged Blackbird
Common Grackle
Northern Oriole

Mammalia

Canis latrans
Mephitis mephitis
Procyon lotor
Sciurus carolinensis
Tamias striatus
Vulpes fulva

Coyote Skunk Raccoon Gray Squirrel Eastern Chipmunk Red Fox

Appendix C Associated Communities of Silver Lake Park Taken from Ecological Communities of New York State, part of the New York Natural Heritage Program

A. Natural Strend Rocky Headwater Stream (pg. 10) 6. I Aunither Streem Marsh Headwater Stream (pg. 11) Mid-reach Stream (pg. 11) Lucytone system Eutrophic Dimictic Lake (pg. 16) Shallow Emergent Marsh (pg. 22)/② A. WituFel Lules + Pards Shrub Swamp (pg. 23) 7. Estrophic dimeter Inland Non-Calcareous Lake Shore (pg. 24)(4) Sedge Meadow (pg. 26) 9 Palustine systm A open mineral S. I welk Rich Sloping Fen (pg. 27) Red Maple - Hardwood Swamp (pg. 32) Vernal Pool (pg. 32) 4 B. Open Poulled Shoreline Outcrop (pg. 41) C. Erestel Mineral Scalum Cliff Community (pg. 43) 16 Calcareous Cliff Community (pg. 43) 17 Terratrial system

A open uplands

B. Bones + windleds Successional Old Field (pg. 44) 32 Limestone Woodland (pg. 50) Appalachian Oak-Hickory Forest (pg. 55) Chestnut Oak Forest (pg. 56) 7 Forsky uplaily Rich Mesophytic Forest (pg. 57) 10 D. Terrestrial Cultural Beech-Maple Mesic Forest (pg. 57)4 Mowed Roadside/Pathway (pg. 64) 13 Unpaved Road/Path (pg. 65) Mowed Field (Not in book) – War field is maintained by occasional (once a year) mowing, allowing grasses and wildflowers to grow the rest of the season. It is similar to a Successional Old Field community.

Appendix D: Turtles of Silver Lake

Marking AB AC AH AJ K L P	Species Slider Painted Painted Painted Snapping Snapping Snapping Snapping	Length(cm) 24.7 16.5 14.5 16.1 40.5 40 42.3 32.4	Width(cm) 17.1 12 10.3 12 34 31 33.5 23.5	9.4 6 5.1 6.1 13.5 15 17.2	Weight 4 lbs, 9.7 oz. 1 lb, 3.2 oz. 13.6 oz. 1 lb, 1.9 oz.	Date Caught 6/25/2003 6/26/2003 6/27/2003 6/27/2003 6/26/2003 6/26/2003 6/27/2003 6/27/2003	Comments Male
AL	P.L. Mder	12.5	10.4	5	10.1 64	3/4/200-1	
	RE Stide		14.7	3.2	21b, 5802	15/4/2004	
AP	Pauligle	129	9	4.3	93 ne.	3/4/2004	
AQ	Painted Slider	10.3	8.4	4.1	6.0 62	8/4/2004	musica tail
AR	stider	13.9	10.4	5.1	12.802	8/4/2004	Mussing tail
AS	slider	10.6	8.6	3.9		8/4/2004	
.A X	Slider	104	8.3	Ч	6.0 02	6/4/20CL	1 algreans
BC	Slider	16:1	11:5	6.1	116,3.76	2. 8/4/2004	algoe en ba
BH	j. Cint	15.0	[]	5 6	1 16, 1.1	02 15/200	t made
LB	•	12.0	16.7	5.8	316,41	toz 5/5/2000	THE STATE OF THE S
N/S	Shativ		14	7.9		102 81512 3.	









