



Photo Credit: Collin Adkins

Summary of Efforts from the 2014 Berkshire BioBlitz

Compiled and Reported by Collin Adkins, MassLIFT-AmeriCorps Member



I. Acknowledgements	p. 2
II. Summary of Scientific Efforts	p. 3
III. Summary of Community Service Efforts	p. 9
IV. Summary of Education Efforts	p. 10
V. Appendix	p. 11

I. Acknowledgements

It goes without saying that this event couldn't not have been possible were it not for the dedicated and enthusiastic volunteers who supported it. First of all, a special thanks to **Jane Winn, Lisa Provencher, and Scott LaGreca** for bringing me into this project, their guidance and support, and for creating the tradition of excellence that is the Berkshire BioBlitz. Thanks as well to the **Massachusetts Service Alliance, Great Barrington Land Conservancy and The Nature Conservancy** for funding this project with their generous donations/grants and to the Great Barrington **Big Y, Price Chopper and Guido's Fresh Marketplace** for helping put together our volunteer supper. I'd like to especially thank our hosts the **Berkshire South Regional Community Center, Berkshire Natural Resources Council, and Massachusetts Department of Conservation and Recreation.**

Thank you to all of our upstanding scientists, naturalists, educators, volunteers and more who supported the Berkshire BioBlitz:

**Adam Morris
Alexander Lenski
Alice Webber
Angela Sirois-Pitel
Ariel Kirk
Chelsea Piccone
Christine Ward
Dale Abrams
Ellen Woods
Greg Ward**

**Hannah Chamberlain
Jay Graham
Jim Pelletier
John Parker
John Wheeler
Jonathan Pierce
Karen LeBlanc
Karolina Fucikova
Katie Robb
Kiana Estime**

**Kirsten Martin
Mike Leavitt
Nancy Putnam
Rene Wendell
Seth Pierce
Tom Murray
Tom Tynning
Whitney Belaski
Will Conklin**



President of the Berkshire Mycological Society, John Wheeler, holds up an Oyster Mushroom.
Photo Credit: Collin Adkins

II. Summary of Scientific Efforts

Between 12:00pm of June 13, 2014 and 12:00pm of June 14, 2014 volunteers at the Berkshire BioBlitz identified a total of **402 species** of resident flora and fauna between the properties of Berkshire South Regional Community Center, Berkshire Natural Resources Council and Fountain Pond State Park in the vicinity of the Threemile Hill Trail in Great Barrington, MA.

Species Totals by Taxonomic Group	
Algae	56
Aquatic Plant	2
Fern	4
Flower	53
Moss	2
Mushroom/Fungus	45
Reed	1
Shrub	10
Tree	38
Vine	4
Subtotal of Plants/Fungi Species	215
Amphibian	8
Bird	52
Insect	97
Invertebrate	1
Mammal	11
Reptile	3
Arachnid	11
Moth	4
Subtotal of Animal Species	187
Grand Total of Species Identified	402

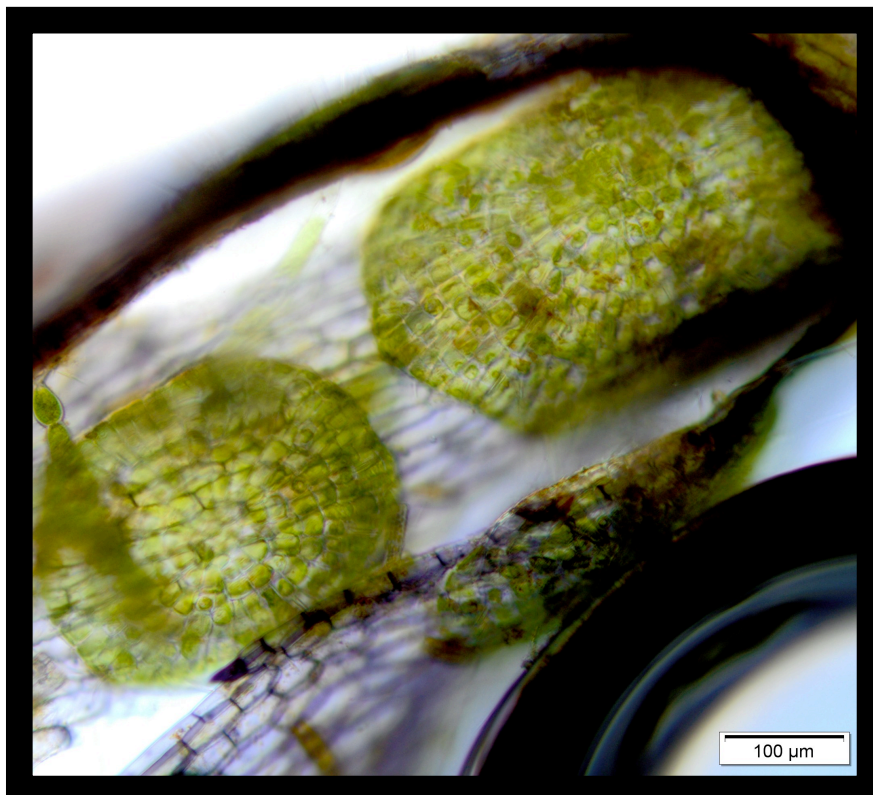
See Appendix for a complete list of species identified.

The Threemile Hill Trail is a unique 1.86 mi hike spanning three properties along threemile hill, Great Barrington. At one end, the trailhead abuts a regularly mowed lawn next to the Berkshire South Regional Community Center. Near this lawn is a small wetland area and a fair amount of forest-edge habitat. The trail proceeds uphill through a mostly deciduous forest that has become inundated with invasive shrubs and vines. As the trail gets to the top of the ridge, two more wetlands provide water to streams that flow west down the hillside. As the trail enters Berkshire Natural Resources Council property the forest changes to a predominantly Hemlock forest before transitioning back to a mixed hardwood forest near Fountain Pond State Park. This park boasts a well-diversified blend of microhabitats as well as a meadow abutting Route 7 and of course the beaver pond that draws commuters and geese alike to rest by its waters.

The forest structure of threemile hill is typical of the region. Maple, Ash, oak hickory and tulip trees dominate the canopy while scattered white pines and apple trees remind us of a time when the slopes were cleared for agricultural use and charcoal making. Hemlock, beech, birch, and poplar occupy moist sites. The understory includes small trees such as box elder, hop hornbeam, and striped maple along with mountain laurel, viburnum, and lowbush blueberry. [Maps, historical information and directions to the Threemile Hill Trail can be found at \[www.gbtrails.org\]\(http://www.gbtrails.org\) and \[www.bnrc.net\]\(http://www.bnrc.net\).](#)

ALGAE – 56 species

I am incredibly impressed by the efforts of Karolina Fucikova (University of Connecticut) who was the sole phycologist at the 2014 Berkshire BioBlitz. Her dedication and hours spent peering into a microscope lead to a notable tally of 56 species of freshwater algae. She reported a good range of taxa including some Cyanobacteria like *Calothrix* and *Nostoc*, some Dinoflagellates (e.g., *Peridinium*), diatoms (e.g., *Epithemia*, her favorite), and loads of green algae. The best find (in her opinion) was the epiphytic *Coleochaete*, a close relative of the land plant lineage.



Coleochaete sp. Photo credit: Karolina Fucikova

AMPHIBIANS – 8 species

Threemile Hill Trail is perhaps best known for the numerous Red Efts (a life stage of the Eastern Newt, *Notophthalmus viridescens*) that cover the trails from Spring through Summer. In fact, users of the trails often need to mind their feet more often than not just to avoid stepping on them! Other amphibians of note include Wood Frog (*Rana sylvatica*), Gray Treefrog (*Hyla versicolor*), and Red Backed Salamander (*Plethodon cinereus*). These species likely take advantage of the cool moist climate of the hemlock stands on Threemile Hill as well as the vernal streams that form throughout the properties.

AQUATIC PLANTS – 2 species

Two species of aquatic plants, specifically water lilies, were recorded at Fountain Pond (*Nuphar lutea* & *Nuphar pubescense*). Unfortunately we did not have a botanist on-hand who was familiar with aquatic vegetation.

ARACHNIDS – 11 species

Sampling of arachnids during the 2014 Berkshire BioBlitz was conducted by Tom Murray (author and naturalist). He was able to identify 11 species.

BIRDS – 52 species

The threemile hill trail supports a variety of ecological niches for birds to occupy. Because of the diversity of the forest canopy, many forest birds were present such as the Ovenbird (*Seiurus avrocapillus*) and Rufous-Sided Towhee (*Pipilo erythrophthalmus*). There are also wetland habitats that support Great Blue Heron (*Ardea herodias*) and Red-Winged Blackbirds (*Agelaius phoeniceus*) and forest edge habitat that bring in many warbler species such as Blue-winged Warbler (*Vermivora pinus*) and Chestnut-Sided Warbler (*Setophaga pensylvanica*).

Of the 52 species identified only one species was noted as invasive: European Starling (*Sturnus vulgaris*). Identification of bird species owes a great deal of thanks to Tom Tynning, Christine & Greg Ward, and Jonathan Pierce. Rene Wendell also led an Owl Prowl expedition that turned up Barred Owl (*Stix varia*). He reported suspecting there are more owl species present.

FERNS – 4 Species

Four species of ferns were identified by Dale Abrams (Flying Cloud Institute) during a forest survey. Ferns identified: Hay-scented Fern (*Dennstaedtia punctilobula*), Sensitive Fern (*Onoclea sensibilis*), Cinnamon Fern (*Osmunda cinnamomea*), and Christmas Fern (*Polystichum acrostichoides*).

FLOWERS – 53 species

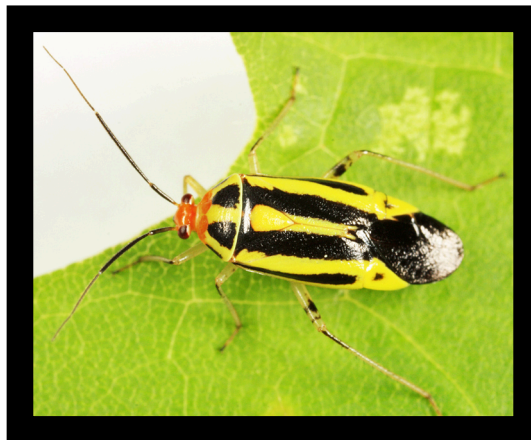
Angiosperms, being the most widespread and diverse group of land plants, exist in many different taxonomic groups but for the purposes of this report, we separated flowering trees, shrubs, and wildflowers. The 53 species identified in this group fall into the latter category.

Five species of invasive flowering plants were identified in this group: Garlic Mustard (*Aniaria petiolata*), Japanese Knotweed (*Follopia japonica*), Wild Parsnip (*Pastinaca sativa*), Crown Vetch (*Securigera varia*), and Bladder Campion (*Silene vulgaris*).

Sampling efforts of flowering plants along the Threemile Hill Trail can be credited to a host of naturalists and volunteers who sampled flowers in addition to the many other disciplines that each naturalist felt most adept in identifying. Ellen Woods (University of Connecticut), Christine Ward, Karen LeBlanc (Project Native), and Chelsea Piccone (Project Native) are responsible for the vast majority of flowers identified.

INSECTS – 97 species

Of the 18 taxonomic groupings that this report covers, the greatest number of species identified award goes to the insect category (97 species). This was due in no small part to the efforts of Tom Murray and Lisa Provencher. This taxonomic category includes beetles, wasps, bees, leafhoppers, butterflies and other subgroups but excludes Moths (see MOTHS section below). Only one species of insect was noted as invasive, the Hemlock Woolly Adelgid (*Adelges tsugae*).



Poecilocapsus lineatus, Photo Credit: Tom Murray

INVERTIBRATE – 1 species

The earthworm, *Lumbricus terrestris*, was given the taxonomic category invertebrate for lack of a better one. It was the only species in this category.

MAMMAL – 11 species

Jim Pelletier of the Berkshire Wildlife Trackers and the Appalachian Trail Conservancy lead a wildlife-tracking program and was asked to sample mammals especially. He and the others identified 11 species of mammals by both sighting the animal and identifying their tracks and sign as evidence that the species was utilizing this habitat. Many of these species appeared around the fountain pond area including River Otter (*Lontra Canadensis*), Muskrat (*Ondatra zibethicus*), and Black Bear (*Ursus americanus*). Fountain pond is also home to a resident Beaver (*Castor Canadensis*) population.

MOSS – 2 species

Two species of moss were identified though many more potentially exist on the properties.

MOTHS – 4 species

Moths were recorded separately with the intention that it would exemplify the efforts of a single collecting period from the Moth Light Demonstration planned for Friday, June 13th. Unfortunately, during this period heavy rain prompted localized flash flood warnings that cancelled the program. There was, however, one species of moth in particular, found and identified by Rene Wendell of the Trustees of Reservations, which left us clamoring about it. Pictured below is the Giant Leopard Moth (*Hypercompe scribonia*).



Hypercompe scribonia, Photo Credit: Rene Wendell

MUSHROOM/FUNGUS – 45 species

John Wheeler, president of the Berkshire Mycological Society, conducted sampling of mushrooms in addition to leading an educational program and providing moral support throughout the event. John's expertise and disposition was invaluable to the enjoyment of all at the BioBlitz. John identified 45 species of mushrooms including the largest oyster mushroom I have ever seen (pictured below the acknowledgements). None of these mushrooms or fungi are considered invasive.

REED – 1 species

One species of an invasive reed, *Phragmites australis*, was identified in several locations near water. This is a voracious and widespread invasive species.

REPTILE – 3 species

Only three species of reptiles were identified in the area of Fountain Pond: Garter snakes (*Thamnophis sirtualis*), Snapping Turtle (*Chelydra serpentina*), and Painted Turtle (*Chrysemys picta*). It is presumed by the naturalists assisting with the BioBlitz that there are many more species of reptiles to be found in this area especially in the boundaries of Fountain Pond.

SHRUB – 10 species

The understory and shrubs of the Threemile Hill Trail have been greatly impacted in some areas by woody invasive plants. Of the ten species identified as shrubs, four are invasive: predominantly Multiflora Rose (*Rosa multiflora*) and Japanese Barberry (*Berberis thunbergii*). Further north along the trail the understory shows less impact from invasives and is a blend of Mountain Laurel (*Kalmia latifolia*) and Northern Spicebush (*Lindera benzoin*).

TREE – 38 species

The diversity of trees along the Threemile Hill Trail was greater than first expected. Though there is a large Eastern Hemlock (*Tsuga Canadensis*) stand for one third of the trail, both the understory and canopy of the area is quite diverse. Maples, Oaks, and Birches are common throughout. The composition of the forest is a typical mixed hardwood and softwood forest of New England. It is also noteworthy that there were a few individuals of American Chestnut (*Castanea dentata*) identified near the trail. One species of tree was noted as being invasive: Norway Maple (*Acer platanoides*).

VINE – 4 species

There are a few common vine species present along Threemile Hill. Only one of which is invasive but is perhaps the most prevalent invasive species of the three

properties. Oriental Bittersweet (*Celastrus orbiculatus*) can be found on all three properties but is actively being managed.

III. Summary of Community Service Efforts

This was the first Berkshire BioBlitz, to my knowledge, that was 100% volunteer organized. In my opinion the volunteer efforts at this event were phenomenal. From the organizers to the scientists and everyone in between that made this event happen, it was all done voluntarily. Below is the summary of volunteer efforts as reported through the MassLIFT AmeriCorps program and the Massachusetts Service Alliance:

Number of Volunteers	24
Number of Volunteers New to the MassLIFT Program	19
Total Hours of Community Service	139.75
“New” Volunteer Hours	119

The numbers above do not include all of the effort that went into this project prior to the event. Many of the volunteers and participants during the BioBlitz were also involved in the planning and organization of the event.

Volunteers, were primarily recruited by word-of-mouth within the professional networks of all those involved in organizing the event. It was also helpful, however, to recruit volunteers at community/networking events such as Green Drinks and on online volunteer websites such as ConnectandServe.org.

IV. Summary of Education Efforts

An effort to engage school groups was a challenge during the 2014 Berkshire BioBlitz. Amongst the coordinators there was not one person solely dedicated to taking on this task, which in hindsight, would have been incredibly helpful. The attempts made to engage school groups fell down for what I suspect are a few reasons.

First, it was evident that the dates were very close to the end of the school year and for that reason was difficult for teachers to commit to attending. The timing of the event also made it difficult for teachers to arrange transportation. It was indicated by those invited, that having transportation provided to them would have been of great benefit.

Though directly inviting a select group of school teachers and students would allow for a potentially smoother transition into attending the event, it was recognized by the BioBlitz coordinators that a broader campaign to invite school groups may be more reliable. This approach would also likely be more time and labor intensive and would be better if there were a coordinator solely responsible for the educational efforts associated with the BioBlitz.

Lastly, it became apparent to myself and the other event coordinators that the initial attempts to reach out to schools and teachers was initiated later than expected. An early start to recruitment of school groups would likely have increased our success. I recommend at latest a March deadline for inviting schools and teachers to attend.

Though weather concerns could potentially have cancelled school group participation at this year's event, it was a disappointment that no school groups could be arranged. The participants that did arrive were those who had found out about the event through the community, word-of-mouth, and online eNews bulletins. Only one event did not receive any participants. There were 14 participants in total who attended educational programs.

V. Appendix

Common Name	Scientific Name (Genus species)	Taxonomic group	Evidence of Species Presence (V, T, A, C)	Date	Invasive? y/n
	Anabaena sp.	Algae	V	6/13/14	N
	Aphahocapsa sp.	Algae	V	6/13/14	N
	Bambusina brebissonii	Algae	V	6/13/14	N
	Botryococcus brocunii	Algae	V	6/13/14	N
	Bulbochaete sp	Algae	V	6/13/14	N
	Ceratium hirundinella	Algae	V	6/13/14	N
	Chroococcus Sp.	Algae	V	6/13/14	N
	Closterium cf. kutzingii	Algae	V	6/13/14	N
	Closterium cf. moniliferum	Algae	V	6/13/14	N
	Coleochaete soluta	Algae	V	6/13/14	N
	Cosmarium cf. pachydermum	Algae	V	6/13/14	N
	Cosmarium cf. subspeciosum	Algae	V	6/13/14	N
	Cosmarium contradctum	Algae	V	6/13/14	N
	Cryptomonas cf. marsonii	Algae	V	6/13/14	N
	Cymbella Sp.	Algae	V	6/13/14	N
	Desmidium swartzii	Algae	V	6/13/14	N
	Dinobryon sp.	Algae	V	6/13/14	N
	Diponeis sp.	Algae	V	6/13/14	N
	Epithemia turgida	Algae	V	6/13/14	N
	Euastrum binale	Algae	V	6/13/14	N
	Eudorina elegrouis	Algae	V	6/13/14	N
	Euglena cf. ceudeta	Algae	V	6/13/14	N
	Euglena Sp.	Algae	V	6/13/14	N
	Eunotia cf. bilunaris	Algae	V	6/13/14	N
	Euuotia exigua	Algae	V	6/13/14	N
	Gomphoneis	Algae	V	6/13/14	N
	Gomphonema truncatum	Algae	V	6/13/14	N
	Gymnodinium	Algae	V	6/13/14	N
	Keratellon sp.	Algae	V	6/13/14	N
	Klebscrmidium sp.	Algae	V	6/13/14	N
	Melosira sp.	Algae	V	6/13/14	N
	Microspora sp.	Algae	V	6/13/14	N
	Mougeotia sp.	Algae	V	6/13/14	N
	Navicula sp.	Algae	V	6/13/14	N

	Oedogonium sp.	Algae	V	6/13/14	N
	Pandotina motum	Algae	V	6/13/14	N
	Pediastrum duplex	Algae	V	6/13/14	N
	Phacus Orbicularis	Algae	V	6/13/14	N
	Phormidium sp.	Algae	V	6/13/14	N
	Pinnularia Sp.	Algae	V	6/13/14	N
	Pleurotaenium trabecula	Algae	V	6/13/14	N
	spriogyra sp.	Algae	V	6/13/14	N
	Staurastrum cf. margartisceum	Algae	V	6/13/14	N
	Synura Uvella	Algae	V	6/13/14	N
	Tabella flocculosa	Algae	V	6/13/14	N
	Tolypothrix lanata	Algae	V	6/13/14	N
	Trachelomonas cf. robusta	Algae	V	6/13/14	N
	Trachelomonas charkowieusis	Algae	V	6/13/14	N
	Vaucheria sp.	Algae	V	6/13/14	N
	Volvox aureus	Algae	V	6/13/14	N
	Calothrix sp.	Algae	C	6/14/14	N
	Cosmarium reniforme	Algae	V	6/14/14	N
	Hyalotheca dissiliens	Algae	C	6/14/14	N
Lesser Duckweed	Lemna minor	Algae	V	6/14/14	N
	Netrium digitus	Algae	C	6/14/14	N
	Zygnema sp.	Algae	C	6/14/14	N
American Toad	Bufo americanus	Amphibian	V	6/13/14	N
Eastern Newt (Red Eft)	Notophthalmus viridescens	Amphibian	V	6/13/14	N
Red-backed Salamander	Plethodon cinereus	Amphibian	V	6/13/14	N
Bull Frog	Rana catesbeiana	Amphibian	V	6/13/14	N
Wood Frog	Rana sylvatica	Amphibian	A	6/13/14	N
Gray Treefrog	Hyla versicolor	Amphibian	V	6/14/14	N
Spring Peeper	Pseudacris crucifer	Amphibian	V	6/14/14	N
Green Frog	Rana clamitans	Amphibian	V	6/14/14	N
Yellow Water Lily	Nuphar lutea	Aquatic Plant	V	6/13/14	N
Pink Water Lily	Nymphia pubescens	Aquatic Plant	V	6/13/14	N
Sac Spiders	Clubonia sp.	Arachnid	V	6/14/14	N
Mesh-web Weavers	Dictyna sp.	Arachnid	V	6/14/14	N
Six-spotted Fishing Spider	Dolomedes triton	Arachnid	V	6/14/14	N

Jumping Spider Sp.	<i>Evarcha hoyi</i>	Arachnid	V	6/14/14	N
Jumping Spider Sp.	<i>Hentzia palmarum</i>	Arachnid	V	6/14/14	N
Jumping Spider Sp.	<i>Hentzia palmarum</i>	Arachnid	C	6/14/14	N
Orb Weaver	<i>Mangora</i> sp.	Arachnid	V	6/14/14	N
Jumping Spider Sp.	<i>Pelegrina</i> sp.	Arachnid	V	6/14/14	N
Long-jawed Orb Weavers	<i>Tetragnatha</i> sp.	Arachnid	V	6/14/14	N
Crab Spider	<i>Thomisidae</i> sp.	Arachnid	V	6/14/14	N
Jumping Spider Sp.	<i>Zygoballus</i> sp.	Arachnid	V	6/14/14	N
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	Bird	V	6/13/14	N
Great Blue Heron	<i>Ardea herodias</i>	Bird	V	6/13/14	N
Cedar Waxwing	<i>Bombycilla cedrorum</i>	Bird	V	6/13/14	N
Canada Goose	<i>Branta canadensis</i>	Bird	V	6/13/14	N
Northern Cardinal	<i>Cardinalis cardinalis</i>	Bird	V	6/13/14	N
American Goldfinch	<i>Carduelis tristis</i>	Bird	V	6/13/14	N
Turkey Vulture	<i>Cathartes aura</i>	Bird	V	6/13/14	N
Veery Thrush	<i>Catharus fuscescens</i>	Bird	A	6/13/14	N
Chimney Swift	<i>Chaetura pelagica</i>	Bird	V	6/13/14	N
Northern Flicker	<i>Colaptes auratus</i>	Bird	V	6/13/14	N
Eastern Wood Pewee	<i>Contopus virens</i>	Bird	A	6/13/14	N
American Crow	<i>Corvus brachyrhynchos</i>	Bird	V	6/13/14	N
Blue Jay	<i>Cyanocitta cristata</i>	Bird	V	6/13/14	N
Yellow Warbler	<i>Dendroica petechia</i>	Bird	V	6/13/14	N
Pileated Woodpecker	<i>Dryocopus Pileatus</i>	Bird	T	6/13/14	N
Gray Catbird	<i>Dumetella carolinensis</i>	Bird	V	6/13/14	N
Common Yellowthroat	<i>Geothlypis trichas</i>	Bird	V	6/13/14	N
Barn Swallow	<i>Hirundo rustica</i>	Bird	V	6/13/14	N
Wood Thrush	<i>Hylocichla mustelina</i>	Bird	A	6/13/14	N
Song Sparrow	<i>Melospiza melodia</i>	Bird	V	6/13/14	N
Black and	<i>Mniotilta varia</i>	Bird	A	6/13/14	N

White Warbler					
Black-capped Chickadee	Parus atricapillus	Bird	V	6/13/14	N
Rose-breasted Grosbeak	Pheucticus ludovicianus	Bird	V	6/13/14	N
Rufous-sided Towhee	Pipilo erythrophthalmus	Bird	A	6/13/14	N
Common Grackle	Quiscalus quiscula	Bird	V	6/13/14	N
Oven Bird	Seiurus avrocapillus	Bird	A	6/13/14	N
American Redstart	Setophaga ruticilla	Bird	A	6/13/14	N
White-breasted Nuthatch	Sitta carolinensis	Bird	V	6/13/14	N
Yellow-bellied Sapsucker	Sphyrapicus varius	Bird	T	6/13/14	N
Barred Owl	Stix varia	Bird	V	6/13/14	N
European Starling	Sturnus vulgaris	Bird	A	6/13/14	N
Tree Swallow	Tachycineta bicolor	Bird	V	6/13/14	N
American Robin	Turdus migratorius	Bird	V	6/13/14	N
Eastern Kingbird	Tyrannus tyrannus	Bird	V	6/13/14	N
Blue-winged Warbler	Vermivora pinus	Bird	V	6/13/14	N
Red-eyed Vireo	Vireo olivaceus	Bird	V	6/13/14	N
Mourning Dove	Zenaida macroura	Bird	V	6/13/14	N
Tufted Titmouse	Baeolophus bicolor	Bird	V	6/14/14	N
Red-tailed Hawk	Buteo jamaicensis	Bird	V	6/14/14	N
Hermit Thrush	Catharus guttatus	Bird	V	6/14/14	N
Common Raven	Corvus corax	Bird	V	6/14/14	N
Black-throated Blue Warbler	Dendroica caerulescens	Bird	V	6/14/14	N
Black-throated Green Warbler	Dendroica virens	Bird	V	6/14/14	N
Willow Flycatcher	Empidonax traillii	Bird	V	6/14/14	N

American Kestrel	Falco sparverius	Bird	V	6/14/14	N
Baltimore Oriole	Icterus galbula	Bird	V	6/14/14	N
Red-bellied Woodpecker	Melanerpes carolinus	Bird	V	6/14/14	N
Downy Woodpecker	Picoides pubescens	Bird	V	6/14/14	N
Yellow-rumped Warbler	Setophaga coronata	Bird	V	6/14/14	N
Chestnut-sided Warbler	Setophaga pensylvanica	Bird	V	6/14/14	N
Northern Rough-winged Swallow	Stelgidopteryx serripennis	Bird	V	6/14/14	N
Blue-headed Vireo	Vireo solitarius	Bird	V	6/14/14	N
Hay-scented Fern	Dennstaedtia punctilobula	Fern	V	6/13/14	N
Sensitive Fern	Onoclea sensibilis	Fern	V	6/13/14	N
Cinnamon Fern	Osmunda cinnamomea	Fern	V	6/13/14	N
Christmas Fern	Polystichum acrostichoides	Fern	V	6/13/14	N
Garlic Mustard	Aniaria petiolata	Flower	V	6/13/14	Y
Wild Saspirilla	Aralia nudicaulis	Flower	V	6/13/14	N
Jack-in-the-Pulpit	Arisaema triphyllum	Flower	V	6/13/14	N
Swamp milkweed	Asclepias syriaca	Flower	V	6/13/14	N
Virgin's Bower	Clematis virginia	Flower	V	6/13/14	N
Bluebead Lily	Clintonia borealis	Flower	V	6/13/14	N
Three-leaf Goldthread	Coptis trifolium	Flower	V	6/13/14	N
Bunchberry	Cornus canadensis	Flower	V	6/13/14	N
Canada Thistle	Eirsium arvense	Flower	V	6/13/14	N
Bedstraw	Galium sp	Flower	V	6/13/14	N
Wild Geranium	Geranium maculatum	Flower	V	6/13/14	N
Herb Robert	Geranium robertium	Flower	V	6/13/14	N
Bluet	Houstonia sp.	Flower	V	6/13/14	N
Winterberry	Ilex verticillata	Flower	V	6/13/14	N
Jewelweed	Impatiens capensis	Flower	V	6/13/14	N
Honeysuckle	Lonicera spp	Flower	V	6/13/14	N

Purple Loosestrife	Lythrum salicaria	Flower	V	6/13/14	N
Wild Lily-of-the-Valley	Maianthemum canadense	Flower	V	6/13/14	N
Canada Mayflower	Maianthemum canadensis	Flower	V	6/13/14	N
False Solomon Seal	Maianthemum racemosum	Flower	V	6/13/14	N
Indian Cucumber-Root	Medeola virginiana	Flower	V	6/13/14	N
Partridge berry	Miechella repens	Flower	V	6/13/14	N
Yellow Sorrel	Oxalis stricta	Flower	V	6/13/14	N
Pokeweed	Phytolacca americana	Flower	V	6/13/14	N
Plantain	Plantago major	Flower	V	6/13/14	N
Common Cinquefoil	Potentilla simplex	Flower	V	6/13/14	N
Dewberry	Rubus flagellaris	Flower	V	6/13/14	N
Blackberry	Rubus spp	Flower	V	6/13/14	N
Curled Dock	Rumea crispis	Flower	V	6/13/14	N
Pussy willow	Salix discolor	Flower	V	6/13/14	N
Bloodroot	Sanguinaria canadensis	Flower	V	6/13/14	N
Goldenrod	Solidago sp	Flower	V	6/13/14	N
Skunk Cabbage	Symplocarpus foetidus	Flower	V	6/13/14	N
Dandelion	Teraxacum officinale	Flower	V	6/13/14	N
Foam Flower	Tiarella trifoliata	Flower	V	6/13/14	N
Starflower	Trientalis borealis	Flower	V	6/13/14	N
White Clover	Trifolium repens	Flower	V	6/13/14	N
White Clover	Trifolium sp	Flower	V	6/13/14	N
Snow Trillium	Trillium nivale	Flower	V	6/13/14	N
Common Cattail	Typha latifolia	Flower	V	6/13/14	N
Common Nettle	Urtica dioica	Flower	V	6/13/14	N
Nettle	Urtica spp	Flower	V	6/13/14	N
Bellwort	Uvularia spp	Flower	V	6/13/14	N
Groundsel	Zizia aurea	Flower	V	6/13/14	N
Aster	Asteraceae sp.	Flower	V	6/14/14	N
Daisy	Erigeron sp.	Flower	V	6/14/14	N
Japanese Knotweed	Follopia japonica	Flower	V	6/14/14	Y
Blue Flag	Iris versicolor	Flower	V	6/14/14	N
Wild Parsnip	Pastinaca sativa	Flower	V	6/14/14	Y
Buttercup	Ranunculus sp.	Flower	V	6/14/14	N
Crown Vetch	Securigera varia	Flower	V	6/14/14	Y
Bladder	Silene vulgaris	Flower	V	6/14/14	Y

Campion					
Horsenettle	Solanum carolinense	Flower	V	6/14/14	N
Great Yellow Bumblebee	Bombus distinguendus	Insect	V	6/13/14	N
Common Basket tail	Epitheca cynosura	Insect	C	6/13/14	N
Giant Leopard Moth	Hypercompe scribonia	Insect	V	6/13/14	N
Deer Tick	Ixodes scapularis	Insect	V	6/13/14	N
Common Whitetail	Libellula lydia	Insect	V	6/13/14	N
Tiger Swallowtail	Papilio glaucus	Insect	V	6/13/14	N
Hemlock Woolly Adelgid	Adelges tsugae	Insect	V	6/14/14	Y
Leafhopper	Agalliopsis sp.	Insect	C	6/14/14	N
Ground Beetle	Agonum sp. (Subgenus Europhilus)	Insect	C	6/14/14	N
Metallic Wood-boring Beetle	Agrilus cyanescens	Insect	C	6/14/14	N
Ichneumon Wasp	Agrothereutes abbreviatus iridescens	Insect	C	6/14/14	N
Common Green Darner	Anax junius	Insect	V	6/14/14	N
Spider Wasp	Anoplius sp.	Insect	V	6/14/14	N
Water Louse	Asellus aquaticus	Insect	C	6/14/14	N
Giant Water Bug	Belostoma sp.	Insect	V	6/14/14	N
Four-spotted Ground Beetle	Bembidion quadrimaculatum	Insect	C	6/14/14	N
Vetch Bruchid	Bruchus brachialis	Insect	C	6/14/14	N
Poplar Leaf Aphid	Chaitophorus populicola	Insect	V	6/14/14	N
Chalcid Wasp	Chalcidoidea sp.	Insect	C	6/14/14	N
Tortoise Beetle	Charidotella sp.	Insect	C	6/14/14	N
Snipe Fly	Chrysopilus sp.	Insect	V	6/14/14	N
Springtail	Collembola sp.	Insect	V	6/14/14	N
Water Boatman	Corixidae sp.	Insect	C	6/14/14	N
Acrobat Ants	Crematogaster sp.	Insect	V	6/14/14	N
Flea Beetle	Crepidodera sp.	Insect	C	6/14/14	N
True Bug	Cymus angustatus	Insect	V	6/14/14	N
Lady Beetle	Diomus terminatus	Insect	C	6/14/14	N
Leafhopper	Empoasca petiolaridis	Insect	C	6/14/14	N
Mayflies	Ephemeroptera sp.	Insect	V	6/14/14	N

Prince Baskettail	<i>Epitheca princeps</i>	Insect	V	6/14/14	N
Baskettail Dragonfly	<i>Epitheca sp.</i>	Insect	V	6/14/14	N
Eastern Pondhawk	<i>Erythemis simplicicollis</i>	Insect	V	6/14/14	N
Plate-thigh Beetle	<i>Eucinetus sp.</i>	Insect	C	6/14/14	N
Black Pollen Beetle	<i>Fabogethes nigrescens</i>	Insect	C	6/14/14	N
European Earwig	<i>Forficula auricularia</i>	Insect	V	6/14/14	N
Water Striders	<i>Gerris sp.</i>	Insect	V	6/14/14	N
Crawling Water Beetle	<i>Haliplus sp.</i>	Insect	C	6/14/14	N
Stink Bug	<i>Halyomorpha halys</i>	Insect	V	6/14/14	N
Gall Midge	<i>Harmandia sp.</i>	Insect	V	6/14/14	N
Multicolored Asian Lady Beetle	<i>Harmonia axyridis</i>	Insect	V	6/14/14	N
Common Sawfly	<i>Hemitaxonus dubitatus</i>	Insect	C	6/14/14	N
Water Mites	<i>Hydrachnellae sp.</i>	Insect	V	6/14/14	N
Water Scavenger Beetle	<i>Hydrochus sp.</i>	Insect	C	6/14/14	N
Predacious Diving Beetle	<i>Hydrocolus sp.</i>	Insect	C	6/14/14	N
Water Measurer	<i>Hydrometra martini</i>	Insect	C	6/14/14	N
Predacious Diving Beetle	Hydroporini	Insect	C	6/14/14	N
Predacious Diving Beetle	<i>Hygrotus sp.</i>	Insect	C	6/14/14	N
Plant Bug	<i>Ilnacora malina</i>	Insect	C	6/14/14	N
White Clover Weevil	<i>Ischnopterapion virens</i>	Insect	C	6/14/14	N
Eastern Forktail	<i>Ischnura verticalis</i>	Insect	V	6/14/14	N
Predacious Diving Beetle	<i>Laccophilus maculosus</i>	Insect	C	6/14/14	N
Citronella Ants	<i>Lasius sp.</i>	Insect	V	6/14/14	N
Leafhopper	<i>Latalus ocellaris</i>	Insect	C	6/14/14	N
Meadow Plant Bug	<i>Leptopterna dolabrata</i>	Insect	C	6/14/14	N
Dot-tailed Whiteface	<i>Leucorrhinia intacta</i>	Insect	V	6/14/14	N
Rolled-winged	<i>Leuctra sp.</i>	Insect	V	6/14/14	N

Stonefly					
Case-bearing Leaf Beetle	Lexiphanes saponatus	Insect	C	6/14/14	N
Twelve-spotted Skimmer	Libellula pulchella	Insect	V	6/14/14	N
Rose Chafer	Macrodactylus sp.	Insect	C	6/14/14	N
Flea Beetle	Margaridisa atriventris	Insect	C	6/14/14	N
Grasshoppers	Melanoplus sp.	Insect	V	6/14/14	N
Click Beetle	Melanotus americanus	Insect	C	6/14/14	N
Satellite Flies	Miltogramminae	Insect	V	6/14/14	N
Broad-nosed Weevil	Myosides seriehispidus	Insect	C	6/14/14	N
Flower Bud Weevil	Nanophyes marmoratus	Insect	C	6/14/14	N
Plant Bug	Neolygus sp.	Insect	C	6/14/14	N
Cuckoo Bees	Nomada sp.	Insect	V	6/14/14	N
Backswimmer	Notonecta sp.	Insect	C	6/14/14	N
Skeletonizing Leaf Beetle	Ophraella conferta	Insect	C	6/14/14	N
Scorpionfly	Panorpa sp.	Insect	V	6/14/14	N
Water Scavenger Beetle	Paracymus sp.	Insect	C	6/14/14	N
Weevil	Parauleutes nebulosus	Insect	C	6/14/14	N
Katydid	Phaneropterinae	Insect	V	6/14/14	N
Meadow Spittlebug	Philaenus spumarius	Insect	C	6/14/14	N
Soldier Beetle	Podabrus rugosulus	Insect	C	6/14/14	N
Four-lined Plant Bug	Poecilocapsus lineatus	Insect	C	6/14/14	N
Fourteen-spotted Lady Beetle	Propylea quatuordecimpunctata	Insect	C	6/14/14	N
Barklouse	Psocoptera sp.	Insect	V	6/14/14	N
Flea Beetle	Psylliodes sp.	Insect	C	6/14/14	N
Toe-winged Beetle	Ptilodactyla sp.	Insect	C	6/14/14	N
Phantom Crane Fly	Ptychoptera quadrifasciata	Insect	V	6/14/14	N
Firefly	Pyractomena sp.	Insect	C	6/14/14	N
Firefly	Pyropyga decipiens	Insect	C	6/14/14	N
Willow Pinecone Gall	Rabdophaga strobiloides	Insect	V	6/14/14	N
Soldier Beetle	Rhagonycha angulata	Insect	C	6/14/14	N
Lady Beetle	Scymnus sp.	Insect	C	6/14/14	N
Black Flies	Simulium sp.	Insect	V	6/14/14	N
Plant Bug	Slaterocoris atritibialis	Insect	C	6/14/14	N
Water Skater	Stenus sp.	Insect	C	6/14/14	N

Flower Longhorn Beetle	<i>Strangalia acuminata</i>	Insect	C	6/14/14	N
Flea Weevil	<i>Tachyerges ephippiata</i>	Insect	C	6/14/14	N
Metallic Wood-boring Beetle	<i>Taphrocerus sp.</i>	Insect	C	6/14/14	N
Odorous House Ant	<i>Tapinoma sessile</i>	Insect	V	6/14/14	N
Pleasing Fungus Beetle	<i>Toramus pulchellus</i>	Insect	C	6/14/14	N
Cimbicidae Sawfly	<i>Trichiosoma triangulum</i>	Insect	C	6/14/14	N
Skeletonizing Leaf Beetle	<i>Tricholochmaea sp.</i>	Insect	C	6/14/14	N
Weevil	<i>Tychius sp.</i>	Insect	C	6/14/14	N
Earthworm	<i>Lumbricus terrestris</i>	Invertebrate	V	6/13/14	N
Coyote	<i>Canas latrans</i>	Mammal	T	6/13/14	N
American Beaver	<i>Castor canadensis</i>	Mammal	V	6/13/14	N
White Tailed Deer	<i>Odocoileus virginianus</i>	Mammal	V	6/13/14	N
Muskrat	<i>Ondatra zibethicus</i>	mammal	V	6/13/14	N
Eastern Chipmunk	<i>Tamias striatus</i>	Mammal	V	6/13/14	N
Black Bear	<i>Ursus americanus</i>	Mammal	T	6/13/14	N
River Otter	<i>Lontra canadensis</i>	Mammal	V	6/14/14	N
Vole	<i>Microtis sp.</i>	Mammal	V	6/14/14	N
Eastern Gray Squirrel	<i>Sciurus carolinensis</i>	Mammal	V	6/14/14	N
Red Squirrel	<i>Sciurus vulgaris</i>	Mammal	V	6/14/14	N
Cottontail	<i>Sylvilagus sp.</i>	Mammal	V	6/14/14	N
Princess Pine	<i>Lycopodium obscurum</i>	Moss	V	6/13/14	N
Haircap Moss	<i>Polytrichum juniperinum</i>	Moss	V	6/14/14	N
Gypsy Moth	<i>Lymantria dispar</i>	Moth	V	6/14/14	N
Pearl Crescent	<i>Phyciodes tharos</i>	Moth	V	6/14/14	N
Peck's Skipper	<i>Polites peckius</i>	Moth	V	6/14/14	N
Virginian Tiger Moth	<i>Spilosoma virginica</i>	Moth	V	6/14/14	N
Spring Agrocybe	<i>Agrocybe praecox</i>	Mushroom/Fungus	C	6/13/14	N
	<i>Chalciporus piperatus</i>	Mushroom/Fungus	C	6/13/14	N
	<i>Clavulina pyxidata</i>	Mushroom/Fungus	C	6/13/14	N
	<i>Clitocybe gibba</i>	Mushroom/Fungus	C	6/13/14	N
	<i>Crepidotus</i>	Mushroom/Fungus	C	6/13/14	N

	crocophyllus				
Golden Scruffy Collybne	Cyptotrama chysopeplum	Mushroom/Fungus	C	6/13/14	N
	Entoloma strictius	Mushroom/Fungus	C	6/13/14	N
	Hygrophorus marginatus	Mushroom/Fungus	C	6/13/14	N
	Hygrophorus parvulus	Mushroom/Fungus	C	6/13/14	N
	Leccinum holopus	Mushroom/Fungus	C	6/13/14	N
	Leccinum sp.	Mushroom/Fungus	C	6/13/14	N
	Lenzites betulina	Mushroom/Fungus	C	6/13/14	N
	Lycogala epidendrum	Mushroom/Fungus	C	6/13/14	N
	Marasmius pyrocephalus	Mushroom/Fungus	C	6/13/14	N
	Megacollybia platyphylla	Mushroom/Fungus	C	6/13/14	N
Orange Mycena	Mycena leaina	Mushroom/Fungus	C	6/13/14	N
	Mycena pseudoinclinata	Mushroom/Fungus	C	6/13/14	N
	Oxyporus populinus	Mushroom/Fungus	C	6/13/14	N
Haymakers Mushroom	Panaeolina foenisecii	Mushroom/Fungus	C	6/13/14	N
Club-Shaped Stinkhorn	Phallophorus saccatus	Mushroom/Fungus	C	6/13/14	N
	Pluteus cervinus	Mushroom/Fungus	C	6/13/14	N
	Polyporus aveolarus	Mushroom/Fungus	C	6/13/14	N
	Polyporus elegans	Mushroom/Fungus	C	6/13/14	N
	Pseudomerulius aureus	Mushroom/Fungus	C	6/13/14	N
	Schizophyllum commune	Mushroom/Fungus	C	6/13/14	N
Eyelash Cup Fungi	Scutellinia scutillata	Mushroom/Fungus	C	6/13/14	N
	Stereum complicatum	Mushroom/Fungus	C	6/13/14	N
	Stereum ostrea	Mushroom/Fungus	C	6/13/14	N
	Tremella mesentrica	Mushroom/Fungus	C	6/13/14	N
	Trichaptum bifforme	Mushroom/Fungus	C	6/13/14	N
Porcini	Boletus edulis	Mushroom/Fungus	C	6/14/14	N
White Star Slime	Ceratiomyxa fruticulosa	Mushroom/Fungus	C	6/14/14	N
Alkaina Collybia	Collybia alkalivirens	Mushroom/Fungus	C	6/14/14	N
Orange Jelly Fungus	Dacrymyces palmatus	Mushroom/Fungus	C	6/14/14	N
Tinder Polypore	Fomes fomentarius	Mushroom/Fungus	V	6/14/14	N
Fomitopsis	Fomitopsis cajanderi	Mushroom/Fungus	C	6/14/14	N
Reishi	Ganoderma lucidum	Mushroom/Fungus	C	6/14/14	N

Varnish Shelf	Ganoderma tsugae	Mushroom/Fungus	C	6/14/14	N
Red Globe slime	Hemitrichia calyculata	Mushroom/Fungus	C	6/14/14	N
Chaga	Inonotus obliquus	Mushroom/Fungus	C	6/14/14	N
Pinwheel Marasmus	Marasmius rotula	Mushroom/Fungus	C	6/14/14	N
Blue Mycena	Mycena subcaerulea	Mushroom/Fungus	C	6/14/14	N
Perenniporia decay	Perennipora subacida	Mushroom/Fungus	C	6/14/14	N
Birch Polypore	Piptoporus betulinus	Mushroom/Fungus	V	6/14/14	N
Oyster Mushroom	Pleurotus populinus	Mushroom/Fungus	C	6/14/14	N
Phragmites	Phragmites australis	Reed	V	6/13/14	Y
Garter Snake	Thamnophis sirtualis	Reptile	V	6/13/14	N
Common Snapping Turtle	Chelydra serpentina	Reptile	V	6/14/14	N
Painted Turtle	Chrysemys picta	Reptile	V	6/14/14	N
Japanese Barberry	Berberis thunbergii	Shrub	V	6/13/14	Y
Mountain Laurel	Kalmia Latifolla	Shrub	V	6/13/14	N
Spicebush	Lindera benzoin	Shrub	V	6/13/14	N
Buckthorn	Rhamnus cathartica	Shrub	V	6/13/14	Y
Multiflora rose	Rosa multiflora	Shrub	V	6/13/14	Y
Spiraea spp	Spiraea spp	Shrub	V	6/13/14	N
Wild Blueberry	Vaccinium angustifolium	Shrub	V	6/13/14	N
Arrowwood	Viburnum recognitum	Shrub	V	6/13/14	N
Winged Euonymus	Euonymus alatus	Shrub	V	6/14/14	Y
Hobblebush	Viburnum lantanoides	Shrub	V	6/14/14	N
Stripped Maple	Acer pensylvanicum	Tree	V	6/13/14	N
Norway maple	Acer platanoides	Tree	V	6/13/14	Y
Red Maple	Acer rubrum	Tree	V	6/13/14	N
Sugar Maple	Acer saccharum	Tree	V	6/13/14	N
Yellow Bird	Betula alleghaniensis	Tree	V	6/13/14	N
Black Birch	Betula lenta	Tree	V	6/13/14	N
White Birch	Betula papyrifera	Tree	V	6/13/14	N
Iron Wood	Carpinus caroliniana	Tree	V	6/13/14	N
Shagbark Hickory	Carya ovata	Tree	V	6/13/14	N
Hickory	Carya sp.	Tree	V	6/13/14	N
American Chestnut	Castanea dentata	Tree	V	6/13/14	N

Grey Dogwood	Cornus racemosa	Tree	V	6/13/14	N
Red Osier Dogwood	Cornus sericea	Tree	V	6/13/14	N
White Ash	Fraxinus americana	Tree	V	6/13/14	N
American Beech	Fugus grandifolia	Tree	V	6/13/14	N
American Witchhazel	Hamemalis virginiana	Tree	V	6/13/14	N
Tulip Poplar	Liriodentron tulipitera	Tree	V	6/13/14	N
White Pine	Pinus strobus	Tree	V	6/13/14	N
Quaking Aspen	Populus tremuloides	Tree	V	6/13/14	N
Black Cherry	Prunus serotina	Tree	V	6/13/14	N
White Oak	Quercus alba	Tree	V	6/13/14	N
Chestnut Oak	Quercus prinus	Tree	V	6/13/14	N
Red Oak	Quercus rubra	Tree	V	6/13/14	N
Common Buckthorn	Rhamnus cathartica	Tree	V	6/13/14	N
Staghorn Sumac	Rhus typhina	Tree	V	6/13/14	N
Eastern Hemlock	Tsuga canadensis	Tree	V	6/13/14	N
Slippery Elm	Ulmus rubra	Tree	V	6/13/14	N
Unknown Elm	Ulmus spp	Tree	V	6/13/14	N
Box Alder	Acer negundo	Tree	V	6/14/14	N
Alder	Alnus rugosa	Tree	V	6/14/14	N
Serviceberry	Amelanchies sp.	Tree	V	6/14/14	N
Hawthorn	Crataegus sp.	Tree	V	6/14/14	N
Green Ash	Fraxinus pennsylvanica	Tree	V	6/14/14	N
Apple	Malus sp.	Tree	V	6/14/14	N
Eastern Cottonwood	Populus deltoides	Tree	V	6/14/14	N
Bigtooth Aspen	Populus grandidentata	Tree	V	6/14/14	N
Willow	Salix sp.	Tree	V	6/14/14	N
Sassafras	Sassafras albidum	Tree	V	6/14/14	N
Oriental Bittersweet	Celastrus orbiculatus	Vine	V	6/13/14	Y
Virginia Creeper	Parthenocissus spp	Vine	V	6/13/14	N
Poison Ivy	Toxicodendron radicans	Vine	V	6/13/14	N
Wild Grape	Vitis spp	Vine	V	6/13/14	N