

INVENTORY OF NATURAL AREAS WITHIN THE CITY OF NEWTON, MASSACHUSETTS

LAND MANAGEMENT COMMITTEE, NEWTON CONSERVATORS

July - September 2007

The Land Management Committee of the Newton Conservators began a survey of the natural areas within the City of Newton in the fall of 2005. These surveys were completed by groups of committee members on a weekly basis throughout the year. Committee members ranged from inexperienced to expert in identification abilities. A dated master list was created for each individual natural area.

The Newton Master List in this document shows the overall survey results. This document establishes a baseline of existing species, which allows us to detect changes over time. We will be able to learn if species are disappearing, and can monitor the progress of invasive species. Once the Land Management Committee has enough historical data, it will become possible to identify more subtle changes retroactively.

We will have a sense of the relative "wildness" of the various open spaces, which could affect decision making with regard to sitting future developments or re-assigning open space land uses.

The Newton Conservators promote the protection and preservation of natural areas, including parks, park lands, playgrounds, forests and streams, which are open or may be converted to open spaces for the enjoyment and benefit of the people of Newton for scientific study, education, and recreation. It further aims to disseminate information about these and other environmental matters.

Newton Master List Key

PROPERTY ABBREVIATIONS:	ACRES: DESCRIPTION:	ADMINISTERED BY:
AP Awtrey Property	0.5 woodland slope to dell	Newton Conservators
AW Avery Woods		
BM Baldpate Meadow Conservation Area	4.9 wooded wetland, wildlife	Conservation Commission
BP Bullough's Pond	9.0 shallow, man-made pond *	Parks and Recreation
CL Crystal Lake	33.0 shoreline path, "great pond" (a pond that's larger than ten acres) *	Parks and Recreation
CP Charles River Path, California Street	1.6 scenic view of Charles River	MDCR
CQ Charles River Path, Quinobequin Road	16.3 wooded, views of Charles River	MDCR
CR Charles River Path, Williams Street	1.5	City of Newton
CS Cold Spring Park	67.0 wooded areas, fields, brook, wetlands, birding *	Parks and Recreation
CW Charles River Path, Wells Ave.**	30.5 wetlands, wooded floodplain *	Conservation Commission
DR Dexter Road	0.2 wooded hillside	Newton Conservators
DP Dolan Pond Conservation Area	8.0 wetlands, paths, boardwalks, foot bridges, four small ponds, birding *	Conservation Commission
EB East Parish Burying Ground	3.0 burying ground used as early as 1672	City of Newton
EP Edmands Park	33.0 stone walls, woods, small clearings, wetlands, Edmands Brook, glacial esker *	Parks and Recreation
FB Frank Barney Conservation Area	1.7 woods, rock ledges, view	Conservation Commission
GC Goddard Christina Conservation Area	4.3 woods, wetland, wildlife	Conservation Commission
HB Hahn Brook Conservation Area	4.4 wooded floodplain, wildlife	Conservation Commission
HG Hemlock Gorge Reservation	23.0 stone bridge, deep river gorge, waterfall, steep banks, views *	MDCR
HO Houghton Garden**	wild garden, paths, stream, lagoon-like pond * (included in Webster Conservation Area Acres)	Conservation Commission
HW Hunnewell Woods Conservation Area	1.7 wooded slope	Conservation Commission
KP Kennard Park Conservation Area	32.3 post-agricultural forest, mixed and conifer woodlands, stone walls, red maple swamp, sensitive fern marsh *	Conservation Commission
KW Kesseler Woods	42.7 path, woodland	Conservation Commission
LM Leo J. Martin Golf Course	18 hole golf course partially in Newton Lower Falls	MDCR
MC Martin Conservation Area	0.6 wooded slope	Conservation Commission
MH Mary Hunnewell Fyfe Footbridge	several views of Charles River, riverbanks grassy sloping shorelines*	MDCR
NA Nahanton Park	57.0 meadows, wooded hillsides, wetlands, pond, open plateau overlooking river valley, birding *	Parks and Recreation
NC Newton Cemetery	100.0 hills, ponds, streams, birding	Newton Cemetery Corp.
NO Norumbega Park Conservation Area	13.0 trails, meadow, steep pine and hemlock covered riverbanks, wooded knoll, scenic view of Charles River *	Conservation Commission
OH Oak Hill Pathway	drumlin, elevation of 291 feet, sandy till, scenic view	Conservation Commission
OP Ordway Park	0.5 natural woodland garden *	Newton Conservators
OW Oakdale Woods Conservation Area	2.5 wooded, Stearns Brook, short trail	Conservation Commission
SB South Parish Burying Ground	1.3 burying ground dating from 1802	City of Newton
SF Stanford Flowed Meadow Conservation Area	28.0 wetlands, kettle hole, pathways *	Conservation Commission
SM Saw Mill Brook Conservation Area	31.9 trail, brook, wooded upland, wetland, stone fences, birding, dramatic puddingstone outcroppings *	Conservation Commission
VH Varick Hill Conservation Area & Aqueduct (within city block)	0.2 path, woodland	City of Newton & MWRA
WB West Parish Burying Ground	1.6 burying ground dating from 1781	City of Newton

WC	Webster Conservation Area	113.7	wooded area, rock out croppings, brooks, ponds, wetlands, field, deer park, historic woodland garden*	Conservation Commission
WI	Wilson Conservation Area & Aqueduct (within city block)	0.5	wooded area	Conservation Commission

[* Walking Trails in Newton's Park & Conservation Lands by Newton Conservators, Inc.](#)

**To be added at a later date

MDCR = Massachusetts Department of Conservation and Recreation

MWRA = Massachusetts Water Resources Authority

NATIVE - NON-NATIVE:

N Native

I Introduced

MI Middlesex County

MA Massachusetts

NE New England

AVOID avoid using these invasive plants

species are found in more than six locations

E MESA Rank *****

T MESA Rank *****

SC MESA Rank *****

Watch List (as of February 2007) *****

E Engangered

T Threatened

SC Special Concern

EXPLANATION:

(indigenous) taxa are those considered to include Massachusetts (Middlesex County) as part of their natural range within historical times ***

(non-indigenous) species, sometimes referred to as 'alien' or 'exotic,' are those which have been deliberately or accidentally introduced into Massachusetts (Middlesex County) through human activities, even if passively via adjacent states ***

occurs in Middlesex County***

occurs in Massachusetts ***

occurs in New England

they establish themselves at the expense of native plants *****

MESA = Massachusetts Endangered Species Act Ranks (MESA-ranks)

Any species of plant or animal in danger of extirpation throughout all or a significant portion of its range, and species of plants or animals in danger of extirpation as documented by biological research and inventory. *****

Any species of plant or animal likely to become an endangered species within the foreseeable future throughout all or a portion of its range, and any species declining or rare as deemed by biological research and inventory and likely to become endangered in the foreseeable future. *****

Any species of plant or animal which has been documented by biological research and inventory to have suffered a decline that could threaten the species if allowed to continue unchecked or that occurs in such small numbers or with such a restricted distribution or specialized habitat requirements that it could easily become threatened in Massachusetts. *****

*** *The Vascular Plants of Massachusetts A County Checklist* by Bruce A. Sorrie and Paul Somers**** *Alternative for Invasive Ornamental Plant Species* by The Connecticut Agricultural Experiment Station, and [Invasive Plant Atlas of New England \(IPANE\) http://nbj-njn.ciesin.columbia.edu/ipane/index.htm](http://nbj-njn.ciesin.columbia.edu/ipane/index.htm)

***** Status List of Massachusetts Rare Plants edited by Melissa Dow Cullina, Paul Somers and Kathy Wilensky from the Natural Heritage & Endangered Species Program, Massachusetts Division of Fisheries & Wildlife February, 2007

Field Guides used for Surveys:

A Field Guide to Mushrooms: North America, Peterson Field Guides by Kent H. McKnight and Vera B. McKnight
Ferns of Northeast and Central North America, Peterson Field Guides by Cobb/Farnsworth/Lowe
Fruit Key & Twig Key to Trees & Shrubs by William M. Harlow, PH.D.
National Audubon Society Field Guide to New England by Peter Alden
Newcomb's Wildflower Guide by Lawrence Newcomb
The Shrub Identification Book by George W.D. Symonds
The Sibley Guide to Birds of Eastern North America by David Allen Sibley
The Tree Identification Book by George W.D. Symonds

References used for Written Materials:

Alternatives for Invasive Ornamental Plant Species by The Connecticut Agricultural Experiment Station
National Audubon Society Field Guide to New England by Peter Alden
The Sibley Field Guide to Birds of Eastern North America by David Allen Sibley
The Vascular Plants of Massachusetts: A County Checklist by Bruce A. Sorrie and Paul Somers

Land Management Committee Members:

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Henry Finch
Pete Gilmore
Debbie Howard
Sam Jaffe
Bill Joplin
Robert Kittredge
Walter Kittredge
Ted Kuklinski
Don Lubin
Eric Reenstierna

Quantity of Species Represented:

approximately 615 Different Plant Species
approximately 162 Different Animal Species

BOTANICAL NAME	COMMON NAME	NATIVE	AP	AW	BM	BP	CL	CP	CQ	CR	CS	CW	DP	DR	EB	EP	FB	GC	HB	HG	HW	KP	KW	LM	MC	MH	NA	NC	NO	OH	OP	OW	SB	SF	SM	VH	WB	WC	WI	
FERNS:																																								
<i>Asplenium platyneuron</i>	ebony spleenwort	N-MI																			HG																			
<i>Athyrium filix-femina</i>	northern lady fern	N-MI	AP		BM	BP	CL	CP	CQ		CS	CW	DP	DR		EP				HB	HG	KP	KW	LM			NA	NC				OW		SF	SM		WC	WI		
<i>Cystopteris tenuis</i>	MacKay's fragile fern or brittle fern	N-MI																			HG																			
<i>Dennstaedtia punctilobula</i>	hayscented fern	N-MI					CL	CP			CS	CW	DP									KP		LM	MC		NA	NC				OW		SF	SM		WC			
<i>Dryopteris carthusiana = spinulosa</i>	spinulose or toothed wood fern, evergreen	N-MI			BM			CP			CS	CW	DP			EP	FB	GC	HB			KP	KW				NA	NC				OW		SF	SM		WC			
<i>Dryopteris cristata</i>	crested wood fern	N-MI			BM																															SM				
<i>Dryopteris intermedia</i>	intermediate or glandular wood fern	N-MI	AP		BM						CS	CW	DP			EP					HB		KP			MC	NA					OW			SM	VH	WC			
<i>Dryopteris marginalis</i>	marginal wood fern	N-MI									CS										HB	HG	KP			MC								SM		WC				
<i>Dryopteris x bootii</i>	Boott's wood fern				BM								CW																											
<i>Dryopteris x triploidea</i>	hybrid wood fern, fruitwood wood fern	N-MI									CS		DP								HB															SF		WC		
<i>Matteuccia struthiopteris = Pteris pen.</i>	ostrich fern	N-MI											CW										KP												SF					
<i>Onoclea sensibilis</i>	sensitive fern	N-MI			BM	BP	CL	CP	CQ		CS	CW	DP	DR		EP		GC	HB			KP	KW	LM			NA	NC							SF	SM	VH	WC		
<i>Osmunda cinnamomea</i>	cinnamon fern	N-MI			BM	BP	CL	CP	CQ		CS	CW	DP	DR				GC					KP		LM		NA	NC	NO			OW		SF	SM		WC			
<i>Osmunda claytoniana</i>	interrupted fern	N-MI			BM	BP			CQ		CS	CW				EP		GC	HB				KP		LM		NC				OW		SF	SM		WC				
<i>Osmunda regalis var. spectabilis</i>	royal fern	N-MI			BM	BP			CQ		CS	CW	DP	DR							HB		KP		LM		NA							SF	SM		WC			
<i>Polypodium virginianum</i>	rockcap fern, common polypody	N-MI																					KP															WC		
<i>Polypodium appalachianum x virginianum</i>	hybrid polypody	N-MI																			HG		KP															WC		
<i>Polystichum acrostichoides</i>	Christmas fern	N-MI											CS																									WI		
<i>Pteridium aquilinum var. latiusculum</i>	bracken fern, eastern bracken fern	N-MI						CP	CQ		CS	CW				EP	FB			HB			KP		LM	MC	NA		NO			OW		SF	SM		WC			
<i>Thelypteris noveboracensis</i>	New York fern	N-MI				BP					CS	CW				EP							KP		LM						OW		SF	SM		WC				
<i>Thelypteris palustris var. pubescens</i>	marsh fern	N-MI			BM	BP		CP	CQ			CW	DP								HB		KP		LM									SF	SM		WC			
<i>Thelypteris simulata = Parathelypteris sim.</i>	Massachusetts fern	N-MI																																				WC		
<i>Woodwardia virginica</i>	Virginia chain fern	N-MI																																				WC		
CLUB-MOSSES:																																								
<i>Dendrolycopodium hickeyi</i>	Hickey's club-moss or ground-pine	N-MI											CW																								SF	SM		WC
<i>Dendrolycopodium obscurum = L. obscurum</i>	ground-pine, princes-pine or tree club-moss	N-MI											CW										KP		LM				NO							SM		WC		
<i>Dendrolycopodium sp.</i>	club-moss																																							
HORSETAILS:																																								
<i>Equisetum arvense</i>	field or common horsetail	N-MI				BP					CS	CW	DP	DR		EP												NC				OW		SF				WC		

BOTANICAL NAME	COMMON NAME	NATIVE	AP	AP	AW	BM	BP	CL	CP	CQ	CR	CS	CW	DP	DR	EB	EP	FB	GC	HB	HG	HW	KP	KW	LM	MC	MH	NA	NC	NO	OH	OP	OW	SB	SF	SM	VH	WB	WC	WI					
Malus sp. = Pyrus	crabapple species	I-MI			AW	BM	BP	CL	CP	CQ			CW		DR		EP	FB	GC	HB	HG						MH	NA	NC	NO							SF	SM	VH	WB	WC	WI			
Morus alba	white mulberry	I-MI								CQ					DP				GC																				SF		VH				
Morus sp.	mulberry species									CP													HW																						
Nyssa sylvatica	black or sour gum, tupelo	N-MI										CS											KP																				SF		
Ostrya virginiana	hop-hornbeam, ironwood	N-MI				BM	BP		CP	CQ		CS			DR		EP	FB				HW																				SF	SM		WC
Phellodendron amurense	cork tree											CS																																	
Platanus occidentalis	American sycamore	N-MI				BM			CP																																				
Platanus x acerifolia	London planetree	I-MI																																											
Populus alba	white poplar	I-MI																							LM																				
Populus deltoides	cottonwood	N-MA, I-MI							CP			CS		DP					GC								MH	NA																VH	
Populus grandidentata	big-toothed aspen	N-MI										CS																																	
Populus sp.	aspen species	N-MI					BP																																						
Populus tremuloides	trembling or quaking aspen	N-MI							CP																																				
Prunus avium	sweet, Bing or Mazzard cherry	I-MI			AW							CS																																	
Prunus cerasus	sour or pie cherry	I-MI										CS																																	
Prunus pennsylvanica	pin cherry	N-MI							CP						DR								KP																						
Prunus serotina	black cherry	N-MI	AP	AW	BM	BP	CL	CP	CQ			CS	CW	DP	DR	EB	EP	FB	GC	HB	HG	HW	KP		LM	MC	MH	NA	NC	NO		OH	OP					SF	SM	VH	WB	WC	WI		
Prunus sp.	plum species						BP																																						
Prunus virginiana	choke-cherry	N-MI											CW					FB	GC				KP																						
Quercus alba	white oak	N-MI		AW		BP	CL		CQ			CS	CW		DR		EP	FB		HB	HG		KP			MC	MH	NA		NO		OP	OW				SF	SM	VH	WB	WC				
Quercus bicolor	swamp white oak	N-MI													DP									KP																					
Quercus coccoloba	scarlet oak	N-MI													DP		EP	FB				HW	KP																						WC
Quercus palustris	pin oak	N-MA, I-MI																																											
Quercus rubra	red oak	N-MI			AW	BM	BP	CL	CP	CQ		CS	CW	DP	DR	EB	EP	FB		HB	HG	HW	KP	KW		MC	NA	NC	NO			OP	OW	SB		SF	SM	VH	WB	WC	WI				
Quercus sp.	oak										CR																																		
Quercus velutina	black oak	N-MI		AW		BP	CL	CP	CQ			CS	CW			EB	EP			HB	HG		KP			MC	MH	NA		NO	OH	OP	OW			SF	SM	VH		WC					
Robinia pseudoacacia AVOID	black locust	I-MI		AW		BP	CL	CP	CQ			CS	CW	DP	DR	EB	EP	FB				HW		LM																					
Salix alba	white willow	I-MI													DP																														
Salix babylonica	weeping willow	I-MI					BP					CS																																	
Salix sp.	willow species			AW				CL	CP																			MH																	
Sassafras albidum	sassafras	N-MI								CQ					DR		EP			HB			KP																						
Sophora japonica	Japanese pagodatree																																												
Sorbus americana	American mountain ash, roundwood	N-MI																																											
Sorbus aucuparia	European mountain-ash, rowan-tree	I-MI					BP			CQ		CS		DP	DR	EB	EP	FB					KP																						
Sorbus sp.	mountain ash species											CS																																	
Stewartia pseudocamellia	Japanese stewartia																																												
Tilia americana	basswood	N-MI					BP	CL				CS	CW			EB	EP																												
Ulmus americana	American or white elm	N-MI		AW	BM		CL	CP	CQ			CS	CW	DP	DR		EP	FB	GC	HB																									
Ulmus glabra camperdownii	Camperdown elm	I-MI, Europe																																											
Ulmus sp.	elm	N-MI					BP																																						
Ulmus rubra	slippery or red elm	N-MI							CP	CQ		CS		DP			EP	FB			HG				LM	MC																			
Zelkova serata	Japanese zelkova																																												

BOTANICAL NAME	COMMON NAME	NATIVE	AP	AW	BM	BP	CL	CP	CQ	CR	CS	CW	DP	DR	EB	EP	FB	GC	HB	HG	HW	KP	KW	LM	MC	MH	NA	NC	NO	OH	OP	OW	SB	SF	SM	VH	WB	WC	WI		
Rosa sp.																											NA	NC	NO	OH	OP	OW	SB	SF	SM	VH	WB	WC	WI		
Rubus allegheniensis	common, or Allegheny blackberry	N-MI									CS	CW	DP	DR	EP	FB	HB							LM	MC	NA				OP	OW		SF	SM	VH		WC				
Rubus idaeus	red raspberry	N-MI					CL				CS						FB									NA															
Rubus occidentalis	black raspberry, blackcap	N-MI	AP		BM			CP	CQ		CS	CW	DP		EB	EP			HB	HG	HW	KP		LM		MH	NA		NO				SB	SF		VH		WC	WI		
Rubus odoratus	purple flowering raspberry	N-MI																																							
Salix discolor	large pussy willow	N-MI				BP																					NA														
Sambucus nigra ssp. canadensis	black or common elderberry	N-MI			BM									DP													NA	NC							SF			WC			
Spiraea alba	meadowsweet	N-MI						CP						DP																									SF		
Spiraea	spirea						CL																																		
Spiraea tomentosa	steplebush	N-MI																																							
Spiraea x vanhouttei	Vanhoutte spirea	I-MI																										NC													
Symphoricarpos albus	snowberry	N-MA																																							
Syringa vulgaris	common lilac	I-MI												DP	EB												MH	NC													
Vaccinium angustifolium	low sweet, late sweet or lowbush-b.	N-MI		AW					CQ		CS	CW				EP	FB		HB				KP	KW		MC			NO		OP	OW		SF	SM	VH		WC			
Vaccinium corymbosum = caesariense	highbush-blueberry	N-MI		AW							CS	CW	DP				FB						KP			MC	NA		NO			OW		SF	SM			WC			
Vaccinium pallidum = vacillans	early sweet, hillside-, or lowbush b.	N-MI																																							
Viburnum acerifolium	maple-leaf viburnum, flower maple	N-MI									CS	CW				EP	FB		HB				KP			MC	NA				OP			SF	SM			WC			
Viburnum dentatum var. lucidum = recognitum	northern or smooth arrow-wood	N-MI			BM	BP		CP			CS	CW	DP	DR		EP	FB		HB			HW	KP	KW		MC	NA				OP			SF	SM			WC	WI		
Viburnum lantana	wayfaring tree, twistwood	I-MA																																							
Viburnum lentago	nannyberry, sheepberry, sweet v.	N-MI																																						SF	
Viburnum nudum var. cassinoides	wild raisin, witherod	N-MI																																						SF	SM
Viburnum opulus ssp. opulus	guelder rose, snowball	I-MI																																							
Viburnum opulus var. americanum	highbush cranberry	N-MI												DP						HG			KP																SF		
Viburnum sp.	viburnum																																								

BOTANICAL NAME	COMMON NAME	NATIVE	AP	AW	BM	BP	CL	CP	CQ	CR	CS	CW	DP	DR	EB	EP	FB	GC	HB	HG	HW	KP	KW	LM	MC	MH	NA	NC	NO	OH	OP	OW	SB	SF	SM	VH	WB	WC	WI				
VINES:																																											
Ampelopsis brevipedunculata	porcelain-berry	I-MI					CL																																				
Calystegia sepium ssp. sepium	European morning-glory, hedge-bindweed	I-MI				BP							DP										KW																				
Celastrus orbiculata	Oriental bittersweet	I-MI,Japan	AP		BM	BP	CL	CP	CQ			CS	CW	DP	DR	EP		GC	HB	HG	HW	KP	KW	LM		MH	NA	NC	NO		OP	OW	SB	SF	SM	VH		WC	WI				
Celastrus scandens	American bittersweet	N-MI					CL																																				
Cynanchum louiseae = nigrum	black swallow-wort, Louise's swallow-wort	I-MI						CP		CR											HG			KW																			
Echinocystis lobata	wild balsam-apple, prickly cucumber	N-MI						CP					DP																											WC	WI		
Euonymus fortunei	winter-creeper	I-MA	AP			BP	CL		CQ		CS			DR	EB	EP		GC	HB	HG																			VH	WC	WI		
Hedera helix	English or European ivy	I-MA	AP			BP	CL				CS			DR	EB		FB						KP																VH	WC			
Lonicera japonica	Japanese honeysuckle	I-MI, Japan			BM			CP		CR				DR	EP						HB	HG																			WI		
Lonicera sp.	honeysuckle																											NA												WC			
Parthenocissus quinquefolia	Virginia creeper, woodbine	N-MI	AP	AW	BM	BP	CL	CP	CQ			CS	CW	DP	DR		FB	GC	HB	HG	HW	KP		LM	MC	MH	NA	NC		OH	OP	OW	SB	SF	SM			WB	WC				
Parthenocissus tricuspidata	Boston ivy	I-MI																																									
Rubus flagellaris = jaysmithii	northern, common dewberry	N-MI							CQ			CS	CW		DR	EP	FB											NA													WC	WI	
Rubus hispida	bristly, running or swamp-dewberry	N-MI				BM						CS	CW																														
Sicyos angulatus	Bur-cucumber	N-MI																																									
Smilax glauca	sawbrier, wild sarsaparilla	N-MI														EP									LM																VH		
Smilax rotundifolia	common greenbrier, catbrier, bullbrier	N-MI							CQ			CS	CW	DP		EP					HB	HG		KP	LM			NA		NO									SF	SM		WC	
Solanum dulcamara	bittersweet climbing nightshade or bitters.	I-MI				BM	BP	CL	CP	CQ		CS	CW	DP								HG	HW	KP	LM		MH	NA	NC		OH					SB	SF	SM	VH	WB	WI		
Toxicodendron radicans	poison-ivy, climbing poison-ivy	N-MI	AP	AW	BM	BP	CL	CP	CQ		CS	CW	DP	DR	EB	EP	FB	GC	HB	HG	HW	KP	KW	LM	MC	MH	NA	NC	NO	OH	OP	OW	SB	SF	SM	VH	WB	WC	WI				
Vinca minor	periwinkle, myrtle	I-MI,Europe	AP			BP			CQ					DP	DR	EB		FB																								WC	WI
Vitis labrusca	fox-grape (Concord)	N-MI				BM																																					
Vitis riparia	river-bank or frost-grape	N-MI						CP			CS		DP								GC	HB																					
Vitis sp	grape							CL																				NA															
Wisteria floribunda	Japanese wisteria	I-MI, Japan						CL																				NA		NO													
Wisteria frutescens = macrostachya	Atlantic or long-clustered wisteria	I-MA									CS																																
Wisteria ssp.	wisteria	I-MA																																									

BOTANICAL NAME	COMMON NAME	NATIVE	AP	AW	BM	BP	CL	CP	CQ	CR	CS	CW	DP	DR	EB	EP	FB	GC	HB	HG	HW	KP	KW	LM	MC	MH	NA	NC	NO	OH	OP	OW	SB	SF	SM	VH	WB	WC	WI	
GRASSES & RUSHES:																																								
Carex pensylvanica	Pennsylvania sedge	N-MI															FB		HB				KP	KW			NA						SM		SM					
Carex sp.	sedges				BM			CP	CQ		CS	CW	DP						HB				KW											SF	SM		WC			
Carex stricta	tussock-sedge	N-MI									CS		DP																						SF					
Digitaria sp.	crab-grass												DP		EB		FB																							
Juncus effusus	soft or common rush	N-MI									CS		DP																											
Juncus sp.																				HB																				
Juncus tenuis	path-rush, yard-rush	N-MI									CS																NA											WC		
Panicum sp.	panicum																																							
Phalaris arundinacea	reed canary-grass	N-MI																																						
Phragmites australis	common reed	N-MI											CW																											
Schizachyrium scoparium = Andropogon s.	little bluestem, broom- or prairie-beardgrass	N-MI																										NA											WC	
Scirpus cyperinus = rubricosus	wool-grass, common bullesedge or bulrush	N-MI									CS		DP																											
Spartina sp.	cord-grass								CP																															
Typha latifolia	broad-leaved or common cat-tail	N-MI			BM	BP	CL				CS	CW	DP			EP																								

INVASIVE PLANTS*

BOTANICAL NAME	QTY	AP	AW	BM	BP	CL	CP	CQ	CR	CS	CW	DP	DR	EB	EP	FB	GC	HB	HG	HW	KP	KW	LM	MC	MH	NA	NC	NO	OH	OP	OW	SB	SF	SM	VH	WB	WC	WI	
Ampelopsis brevipedunculata	1					CL																																	
Acer platanoides	32	AP	AW	BM	BP	CL	CP	CQ		CS		DP	DR	EB	EP	FB	GC	HB		HW		KW	LM	MC	MH		NC	NO	OH	OP	OW	SB	SF	SM	VH	WB	WC	WI	
Acer pseudoplatanus	3						CP			CS																												VH	
Aegopodium podagraria	6							CQ		CS		DP	DR											MC				NO											
Ailanthus altissima	15	AP	AW				CP			CS		DP						HB	HG							MH	NA	NC	NO					SF	SM	VH	WB		
Alliaria petiolata	31	AP	AW	BM		CL	CP	CQ	CR	CS	CW	DP	DR		EP	FB	GC	HB		HW	KP	KW	LM							OP	OW	SB	SF	SM	VH		WC	WI	
Alnus glutinosa	2						CP								EP																								
Amorpha fruticosa?	4						CP					DP											LM														SF		
Berberis thunbergii	23		AW	BM	BP	CL	CP	CQ		CS		DP	DR		EP		GC	HB	HG		KP				MH	NA		NO				OW		SF	SM		WC	WI	
Celastrus orbiculata	30	AP		BM	BP	CL	CP	CQ		CS	CW	DP	DR		EP		GC	HB	HG	HW	KP	KW	LM			MH	NA	NC	NO		OP	OW	SB	SF	SM	VH		WC	WI
Chelidonium majus	24	AP	AW	BM				CQ	CR	CS		DP	DR		EP	FB	GC	HB	HG	HW	KP	KW		MC				NO	OH				SF	SM	VH		WC	WI	
Cynanchum louiseae	4						CP		CR										HG			KW																	
Euonymus alatus	31	AP	AW	BM		CL	CP	CQ	CR	CS	CW	DP	DR	EB	EP	FB		HB		HW	KP		LM	MC	MH	NA	NC	NO	OH	OP	OW		SF	SM	VH		WC	WI	
Fallopia japonica	22		AW	BM	BP	CL	CP	CQ	CR	CS		DP	DR		EP	FB			HG	HW	KP						NA		OH		OW		SF	SM	VH		WC		
Glechoma hederacea	8		AW				CP			CS		DP								HW								NC					SF				WI		
Hesperis matronalis	2						CP																														WC		
Iris pseudacorus	3				BP	CL						DP																											
Ligustrum vulgare	6					CL												HB									NA		NO								WC	WI	
Lonicera japonica	10			BM			CP		CR				DR		EP			HB	HG										OH			SB		SM					
Lonicera maackii	1						CP																																
Lonicera sp.	4							CQ																MC		NA										SF			
Lonicera tatarica	1																				KP																		
Lysimachia nummularia	1											DP																											
Lythrum salicaria	13			BM	BP	CL		CQ		CS		DP			EP				HG				LM		MH	NA								SF			WC		
Ranunculus ficaria	2									CS																			NO										
Ranunculus repens	3											DP			EP																						SB		
Rhamnus cathartica	16					CL		CQ		CS		DP			EP	FB	GC	HB	HG		KP					MH	NA		NO					SF	SM		WC		
Rhamnus frangula	23			BM	BP			CQ		CS	CW	DP			EP	FB	GC	HB					LM	MC			NA	NC	NO	OH	OP	OW	SB	SF	SM		WB	WC	
Rhamnus sp.	1																			HW																			
Robinia pseudoacacia	14						CP	CQ		CS	CW	DP	DR	EB	EP	FB				HW							NA					OP		SF			WC		
Rosa multiflora	26		AW	BM	BP		CP	CQ	CR	CS	CW	DP	DR		EP		GC	HB	HG	HW	KP		LM			MH	NA	NC	NO	OH				SF	SM		WC	WI	
Rosa rugosa	1					BP																																	
Solanum dulcamara	21			BM	BP	CL	CP	CQ		CS	CW	DP							HG	HW	KP		LM			MH	NA	NC		OH			SF	SM	VH	WB	WI		

* Invasive Plant Atlas of New England (IPANE) <http://nbii-nin.ciesin.columbia.edu/ipane/index.htm>

SCIENTIFIC NAME	COMMON NAME	AP	AW	BM	BP	CL	CP	CQ	CR	CS	CW	DP	DR	EB	EP	FB	GC	HB	HG	HW	KP	KW	LM	MC	MH	NA	NC	NO	OH	OP	OW	SB	SF	SM	VH	WB	WC	WI	
MARINE INVERTEBRATES:																																							
	freshwater mussels							CQ																															
	snail							CQ																															
LAND INVERTEBRATES:																																							
Lubricus species	earthworm	AP												EB																									
SPIDERS:																																							
Leiobunum	daddy-long-legs																																				SB		
	forest wolf spider															FB																							
DRAGONFLIES:																																							
Enallagma cyathigerum	blue damselfly							CQ				DP																											
	blue dasher dragonfly				BP																																		
	damselfly																						LM																
	darning needle dragonfly					CL	CP																			NA	NC												
	dragonfly					CP																	LM			MH	NA	NC											
Ischnura veticalis	Eastern forktail damselfly				BP							DP																											
Leucorrhinia hudsonica	Hudsonian whiteface									CS																													
	red dragonfly											DP															NA												
Lestes rectangularis	slender spreadwing						CP																																
	spread-winged dragonfly				BP																																		
Argia fumipennis violacea	variable dancer dragonfly				BP																																		
	yellow-headed meadowhawk				BP																																		
GRASSHOPPERS:																																							
	grasshopper																																					SB	
BETLES:																																							
Popillia japonica	Japanese beetle									CS																													
	ladybird beetle				BP																					MH													
FLIES, MOSQUITOES:																																							
Tipula paludosa	European crane fly											DP																											
Musca domestic	house fly																				HW																		
Culex pipiens	house mosquito	AP	BM			CP					DP					GC				HW						NA		NO						SF			WC		
ANTS, WASPS, BEES:																																							
Bombus pennsylvanicus	American bumble bee	AP			BP													HB																			SM		
	ant																										NC												
Camponotus pennsylvanicus	black carpenter ant		AW																		HW																		
Xylocopa virginica	Eastern carpenter bee		AW		BP		CP	CQ			CW										HW			LM		MH	NA							SF	SM			WC	
Vespula maculifrons	Eastern yellow jacket					CL																																	
Apis mellifera	honey bee	AP	AW				CP				CW													LM															
	thread-waisted wasp				BP																																		
	white-faced hornet																										MH												
	hornet																																					SF	
BUTTERFLIES, MOTHS:																																							
Papilio polyxenes	black butterfly																																						
	black swallowtail									CS																													
	blue darning needle																					HB																OH	
Pieris rapae	cabbage white		AW	BM	BP		CP		CR	CS		DP			EP	FB	GC					HW	KP		LM				NC							SF			
	Canada darter						CP																																
Anax junius	common green darter						CP																						NA										
Malacosoma americanum	Eastern tent caterpillar																																					SF	

SCIENTIFIC NAME	COMMON NAME	AP	AW	BM	BP	CL	CP	CQ	CR	CS	CW	DP	DR	EB	EP	FB	GC	HB	HG	HW	KP	KW	LM	MC	MH	NA	NC	NO	OH	OP	OW	SB	SF	SM	VH	WB	WC	WI		
<i>Papilio glaucus</i>	Eastern tiger swallowtail											CW DP																												
<i>Lymantria dispar</i>	gypsy moth																GC																SF				WI			
<i>Danaus plexippus</i>	monarch					CL																				NC										WC				
<i>Nymphalis antiopa</i>	mourning cloak						CP																														WC			
<i>Polites peckius</i>	Peck's skipper											DP																												
<i>Vanessa atalanta</i>	red admiral				BP																																			
<i>Papilio troilus</i> = <i>Heraclides</i>	spicebush swallowtail														EP																									
	swallowtail butterfly						CP																																	
	winter moth																																							
	yellow swallowtail																										NC						SB					WI		
OTHER INSECT:																																								
<i>Forficula auricularia</i>	European earwig						CP																																	
	wooly adelgid																																							

SCIENTIFIC NAME	COMMON NAME	AP	AW	BM	BP	CL	CP	CQ	CR	CS	CW	DP	DR	EB	EP	FB	GC	HB	HG	HW	KP	KW	LM	MC	MH	NA	NC	NO	OH	OP	OW	SB	SF	SM	VH	WB	WC	WI	
VERTEBRATES:																																							
FISH:																																							
Lepomis macrochirus	bluegill				BP																																		
FROGS:																																							
Bufo americanus	American toad							CQ																															
	brown toad																																					SM	
Rana catesbeiana	bullfrog											DP																											
Rana sp.	frog					CL											GC									NC											SF		
Rana clamitons	green frog											DP																										SM	
	tadpoles					CL																																	
Bufo sp.	toad																																						
TURTLES:																																							
Chrysemys picta	painted turtle											DP															NC											WC	
	turtle					CL																																	
SNAKES:																																							
Thamnophis sirtalis	common garter snake																																						SM
MAMMALS:																																							
Parascalops breweri	common mole																																						SF
Canis latrans	coyote											DP																											WC
Tamias striatus	Eastern chipmunk	AP		BM	BP			CQ		CS	CW				EP		GC	HB				KP	KW				NA	NC	NO	OH						SF	SM	WC	
Sylvilagus floridanus	Eastern cottontail rabbit	AP				CL	CP		CR		CW	DP										HW	KP															WC	
Sciurus carolinensis	Eastern gray squirrel	AP		BM	BP		CP	CQ	CR	CS	CW	DP			EP	FB					HW	KP			LM	MC		NC				OW		SF			WC	WI	
Spermophilus richardsor	ground squirrel																							LM															
Mephitis mephitis	striped skunk							CQ																														WC	
Peromyscus leucopus	white-footed mouse																																				SF		
Odocoileus virginianus	white-tail deer				BM																																	WC	

SCIENTIFIC NAME	COMMON NAME	AP	AW	BM	BP	CL	CP	CQ	CR	CS	CW	DP	DR	EB	EP	FB	GC	HB	HG	HW	KP	KW	LM	MC	MH	NA	NC	NO	OH	OP	OW	SB	SF	SM	VH	WB	WC	WI		
BIRDS:																																								
Anas rubripes	American black duck						CP	CQ																																
Carduelis tristis	American goldfinch				BP		CP		CR	CS	CW	DP			EP				HG							NA	NC						SF	SM						
Setophaga ruticilla	American redstart																					KP																		
Turdus migratorius	American robin	AP	AW	BM	BP		CP	CQ	CR	CS	CW	DP		EB	EP		GC	HB		HW	KP		LM			NA	NC	NO	OH	OP	OW		SF	SM	VH	WC				
Spizella arborea	American tree sparrow																									NA														
Icterus galbula	Baltimore oriole					CL	CP			CS		DP			EP		GC			HW			LM				NC													
Ceryle alcyon	belted kingfisher				BP	CL																															WC			
Mniotilta varia	black-and-white warbler											DP			EP																									
Poecile atricapilla	black-capped chickadee		BM	BP			CP	CQ	CR	CS	CW	DP		EB	EP	FB				HW	KP		LM	MC		NA	NC	NO		OW		SF	SM	VH	WC	WI				
Dendroica striata	blackpoll warbler											DP																												
Cyanocitta cristata	blue jay	AP							CR	CS	CW	DP	DR		EP							KP					NA	NC	NO				SF	SM	VH	WC	WI			
Sialia currucoides	bluebird																									NA														
Poliophtila caerulea	blue-gray gnat catcher																																				WC			
Anas discors	blue-winged teal												DP																											
Certhia americana	brown creeper									CS																											VH			
Molothrus ater	brown-headed cowbird												DP																											
Bucephala albeola	bufflehead					CL																																		
Branta canadensis	Canada goose			BP	CL	CP	CQ	CR		CS		DP	DR				GC						LM			NA							SF			WC				
Thtyothorus ludovicianus	Carolina wren						CP			CS	CW	DP																							SM					
Bombycilla cedrorum	cedar waxwing											DP			EB																									
Spizella passerina	chipping sparrow														EB								LM					NC									SB			
Corvus brachyrhynchos	common crow									CS		DP			EP		HB			HW	KP					MH	NA		NO											
Bucephala clangula	common goldeneye																																				SF			
Quiscalus quiscula	common grackle	AP	AW	BM	BP		CP		CR	CS		DP	DR		EP	FB	GC	HB		HW																	SF	SM	WC	WI
Mergus merganser	common merganser				BP																																	SF	WC	
Corvus corax	common raven									CS																											SF			
Geothlypis trichas	common yellowthroat														EP		GC																							
Accipiter cooperii	Cooper's hawk											DP																												
Junco hyemalis	dark-eyed junco									CS		DP			EP					HW							NA	NO					SF	SM	VH	WC				
Phalacrocorax auritus	double-crested cormorant																																				WC			
Picoides pubescens	downy woodpecker	AP	AW				CP	CQ		CS		DP			EP	FB				HW	KP							NO		OW		SF	SM	VH	WC					
Tyrannus tyrannus	eastern kingbird																																				WC			
Sayornis phoebe	eastern phoebe									CS		DP								HW																	WC			
Otus asio	eastern screech owl											DP																												
Pipilo maculatus	eastern towhee											DP																												
Contopus virens	eastern wood-pewee																		HB			KP					NA													
Sturnus vulgaris	European starling						CP		CR	CS		DP								HW								NC	NO								WI			
Regulus satrapa	golden-crowned kinglet									CS																	NA									VH				
Dumetella carolinensis	gray catbird						CP			CS	CW	DP			EP		GC					KP		LM			NA	NC		OP			SF							
Larus marinus	great black back gull												DP																								WC			
Ardea herodias	great blue heron							CQ		CS		DP																NC									WC			
Myiarchus crinitus	great crested flycatcher									CS		DP			EP													NC												
Ardea alba	great egret												DP																											
Picoides villosus	hairy woodpecker									CS																									SF		WC			
Catharus guttatus	hermit thrush											DP																												
Larus argentatus	herring gull																																				SF			
Lophodytes cucullatus	hooded merganser					CL		CQ																														WC		
Carpodacus mexicanus	house finch							CQ		CS																														
Passer domesticus	house sparrow	BM	BP	CL	CP	CQ	CR					DP			EP		GC			HW							NC										NC	OP	VH	
Troglodytes aedon	house wren											DP			EP																									
Charadrius vociferus	killdeer																				HW																WC			
Calidris minutilla	least sandpiper											DP																												
Anas platyrhynchos	mallard duck	AW		BP	CL	CP	CQ	CR		CS	CW	DP			EP		GC										MH	NC						SF	SM		WC			

SCIENTIFIC NAME	COMMON NAME	AP	AW	BM	BP	CL	CP	CQ	CR	CS	CW	DP	DR	EB	EP	FB	GC	HB	HG	HW	KP	KW	LM	MC	MH	NA	NC	NO	OH	OP	OW	SB	SF	SM	VH	WB	WC	WI
Zenaidura macroura	mourning dove	AP		BM			CP	CQ	CR	CS		DP		EB			GC			HW	KP		LM		NA	NC	NO	OH					SM		WC			
Cygnus oler	mute swan					CL		CQ															LM					NO					SF			WC		
Cardinalis cardinalis	northern cardinal			BM			CP		CR	CS	CW	DP			EP		GC			HW	KP									OW		SF	SM			WI		
Colaptes auratus	northern flicker	AW	BM				CP		CR	CS		DP		EB	EP												NC					SF	SM			WC		
Circus cyaneus	northern harrier																																					
Mimus polyglottos	northern mockingbird				BP	CL	CP					DP														NA	NC	NO										
Parula americana	northern parula									CS					EP																							
Seiurus noveboracensis	northern waterthrush											DP																										
Seiurus aurocapillus	ovenbird											DP									KP																	
Dendroica palmarum	palm warbler														EP																		SF			WC		
Dendroica pinus	pine warbler																																				WC	
Carpodacus purpureus	purple finch																																		SM			
Melanerpes carolinus	red-bellied woodpecker									CS		DP		EB	EP						KP													SF				
Sitta canadensis	red-breasted nuthatch											DP																										
Mergus serrator	red-breasted merganser							CQ																														
Vireo olivaceus	red-eyed vireo									CS		DP																										
Buteo jamaicensis	red-tailed hawk				BP	CL				CS	CW		DR	EB	EP					HG	KP		LM		MH	NA	NC						SF	SM		WC		
Agelaius phoeniceus	red-winged blackbird			BM	BP	CL	CP		CR	CS		DP			EP		GC				KP		LM			NA	NC						SF	SM		WC		
Larus delawarensis	ring-billed gull					CL																						NO					SF			WC		
Aythya collaris	ring-necked duck																																	SF				
Columba livia	rock dove (feral pigeon)				BP							DP																										
Pheucticus ludovicianus	rose-breasted grosbeak									CS																												
Piranga olivacea	scarlet tanager									CS																												
Accipiter striatus	sharp-shinned hawk				BP																													SF				
Tringa solitaria	solitary sandpiper											DP																										
Melospiza melodia	song sparrow				BP		CP	CQ	CR	CS		DP			EP		GC									NA	NC						SF	SM	VH		WC	
Actitis macularia	spotted sandpiper											DP																										
Catharus ustulatus	Swainson's thrush														EP						KP																	
Tachycineta bicolor	tree swallow											DP																										
Baeolophus bicolor	tufted titmouse			BM				CQ	CR	CS		DP			EP						KP			MC		NA		NO					SF	SM	VH		WC	
Cathartes aura	turkey vulture																				HW																WC	
Vireo gilvus	warbling vireo									CS		DP																						SF				
Sitta carolinensis	white-breasted nuthatch					CL		CQ		CS		DP			EP					HW	KP			MC	MH			NO		OW		SF	SM			WC		
Zonotrichia albicollis	white-throated sparrow							CQ	CR	CS	CW	DP			EP						KP							NO										
Aix sponsa	wood duck						CP	CQ				DP																									WC	
Hylocichla mustelina	wood thrush									CS					EP						KP												SF					
Dendroica petechia	yellow warbler						CP			CS		DP			EP								LM		NA	NC						SF						
Dendroica coronata	yellow-rumped warbler											DP			EP						KP												SF					