

# **SUPPORTING POLLINATORS WITH NATIVE TREES AND SHRUBS**

NEW YORK STATE



**POLLINATOR  
PARTNERSHIP**



# Supporting Pollinators with Native Trees and Shrubs

## New York State

Pollinator Partnership (P2) is a non-profit organization dedicated exclusively to the protection and promotion of pollinators and their ecosystems. P2's mission is to promote the health of pollinators, critical to food and ecosystems, through conservation, education, and research. For more information and resources regarding pollinators and their conservation, please visit [www.pollinator.org](http://www.pollinator.org).

### Information for this guide was sourced from:

Lepidoptera data – Tallamy, D. W., & Shropshire, K. J. (2009). Ranking Lepidopteran Use of Native versus Introduced Plants. *Conservation Biology*, 23(4), 941–947.  
<http://www.jstor.org/stable/29738829>

New York Native Plants – New York Flora Atlas (<https://nyflora.org/new-york-flora-atlas/>)

Tree and Shrub Species Information – U.S. Forest Service, Fire Effects Information System (<https://www.feis-crs.org/feis/>) and USDA Plants Database (<https://plants.sc.egov.usda.gov/>)

Forest Data – New York Department of Environmental Conservation

### Please note the following:

Information regarding the number of lepidopteran supported by listed trees and shrubs only include native lepidopteran species.

The information presented in this guide is not meant to be an exhaustive list, but a general guide to assist in tree and shrub selection.

Content for this guide was assembled by Lacey Smith with editing and other support from Amber Barnes and Kaleigh Obrock. Published September 2023. Contact Lacey Smith ([lacey@pollinator.org](mailto:lacey@pollinator.org)) for comments on this guide or suggested revisions for future editions.



Protect their lives. Preserve ours.

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# Introduction

Pollinators provide vital ecosystem services to crops and wild plants. More than 80% of the world's blooming plants require animal pollination for successful fruit and seed set. According to the Empire State Native Pollinator Survey, at least 38% of New York's native pollinators are at risk of extinction.

Trees, shrubs, and woodland ecosystems are a critical, but often overlooked component used to support pollinator communities. Lepidoptera (butterflies and moths), in particular, have developed strong ties to woodland plants, with many trees and shrubs playing a key role in their reproductive cycle by serving as a necessary food source (larval host plant) for their young.

With 61% of New York state being forested and 76% of that being privately owned, New York forest owners, land managers, and conservation planners, are uniquely positioned to help the pollinators of New York survive and thrive into the future.






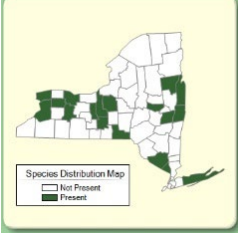
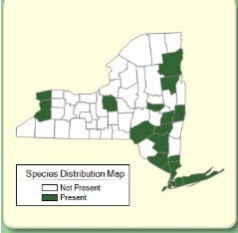
The goal of this document is to share information on the trees and shrubs that can support pollinators, providing landowners and land managers with the information needed to guide species selection when working in landscaping or woodland improvements.

## Native Trees and Shrubs for Lepidoptera Species In the Eastern United States




PLANT GENUS	Common Name	Number of Lepidoptera Species
<i>Quercus</i>	Oak	518
<i>Prunus</i>	Cherry, Plum	429
<i>Salix</i>	Willow	440
<i>Betula</i>	Birch	400
<i>Populus</i>	Poplar	358
<i>Acer</i>	Maple	287
<i>Vaccinium</i>	Blueberry	286
<i>Malus</i>	Crabapple	284
<i>Alnus</i>	Alder	248
<i>Carya</i>	Hickory	233
<i>Ulmus</i>	Elm	206
<i>Pinus</i>	Pine	191
<i>Rubus</i>	Blackberry; Raspberry	151
<i>Crataegus</i>	Hawthorn	150
<i>Picea</i>	Spruce	146
<i>Tilia</i>	Basswood	142
<i>Fraxinus</i>	Ash	141
<i>Castanea</i>	Chestnut	125
<i>Corylus</i>	Hazel	124
<i>Fagus</i>	Beech	124
<i>Juglans</i>	Walnut	123
<i>Rosa</i>	Rose	122
<i>Amelanchier</i>	Serviceberry	119
<i>Cornus</i>	Dogwood	115
<i>Viburnum</i>	Viburnum	97
<i>Ostrya</i>	Ironwood	91

Tree and shrub genera that support native lepidoptera species (moths and butterflies) as a larval host plant in the eastern United States. Lepidoptera data – Tallamy, D. W., & Shropshire, K. J. (2009). Ranking Lepidopteran Use of Native versus Introduced Plants. *Conservation Biology*, 23(4), 941–947. <http://www.jstor.org/stable/29738829>




## Quercus (Oak)

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
White oak ( <i>Q. alba</i> )	50-80'	No	Intermediate	Dry-Moist	4.5-6.8	Dry to mesic forests. Tolerant of a wide variety of soil types, it is lacking in the most xeric woodlands, in cool habitats, and in the richest deepest soils.	
Swamp white oak ( <i>Q. bicolor</i> )	50-70'	No	Intermediate	Moist-Wet	4.3-6.5	Swamps, wet depressions, and thickets. Often in swamps on ridges and hill tops. Always in at least seasonally wet soils. This species is often absent from deep alluvial soils where <i>Quercus macrocarpa</i> occurs.	
Scarlet oak ( <i>Q. coccinea</i> )	60-80'	No	Intolerant	Dry-Moist	4.5-6.9	Dry to dry-mesic forests and woodlands. Predominately on very dry ridges, hilltops, crests, and upper slopes.	
Scrub oak ( <i>Q. ilicifolia</i> )	3-30'	No	Intolerant	Dry	4.0-7.5	Pine and other barrens, rocky summits, openings in woodlands, and utility rights-of-way. Often on upper slopes, crests, and hilltops in dry acidic thin, sandy, or rocky soils.	
Bur oak ( <i>Q. macrocarpa</i> )	70-80'	No	Intermediate	Moist	4.5-7.5	Bottomland forests and swamps in deep alluvium, and limestone and alvar woodlands and forests. Usually does not occur in hilltop swamps where <i>Q. bicolor</i> occurs. On limestone bedrock it sometimes occurs in very dry soils.	
Chinquapin oak ( <i>Q. muehlenbergii</i> )	40-50'	No	Intolerant	Dry-Moist	5.0-8.0	Dry to mesic forests and woodlands on calcareous soils or bedrock including alvars, limestone woodlands and forests, and mesic forests in rich deep soils.	
Pin oak ( <i>Q. palustris</i> )	60-70'	No	Intolerant	Moist-Wet	4.5-6.5	Cultivated as well as native. It occurs primarily in small acidic swamps and forested depressions.	

## Quercus (Oak) continued


	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Chestnut oak ( <i>Q. montana</i> )	50-70'	No	Intermediate	Moist-Dry	4.5-6.5	Dry to dry-mesic acidic forests and woodlands. A good indicator of thin dry acidic soils it usually occurs on upper slopes, crests, ridges, and hill tops often with an understory of ericaceous shrubs.	
Red oak ( <i>Q. rubra</i> )	60-75'	No	Intermediate	Dry-Moist	4.3-7.3	The most widespread oak species in New York. Dry to mesic forests in a variety of soil types. It occurs in the coolest climates of any species of oak in New York as well as in warmer more southern forest types.	
Black oak ( <i>Q. velutina</i> )	60-80'	No	Intermediate	Dry	4.5-6.5	Dry to mesic forests. Prefers two main habitats: dry ridges and upper slopes sometimes with <i>Q. coccinea</i> ; and deep slightly acidic often sandy mesic soils on mid to lower slopes.	

## Prunus (Cherry and Plum)\*

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
American plum ( <i>P. americana</i> )	3.3-33'	Yes	Intolerant	Moist	5.0-7.0	Hedgerows, thickets, forest edges, young successional forests, and disturbed soils often in valley bottoms and floodplains.	
Fire cherry ( <i>P. pensylvanica</i> )	15-50'	Yes	Intolerant	Dry-Moist	4.3-7.3	Edges of forests, successional forests, logged areas, burned areas, forest openings, rocky summits, rock outcrops, cliffs, ledges, and bluffs.	
Wild black cherry ( <i>P. serotina</i> )	80-125'	Yes	Intolerant	Dry-Moist	4.0-7.5	Hardwood forests, forest edges, and hedgerows. A major forest tree in hardwood forests preferring rich mesic soils.	


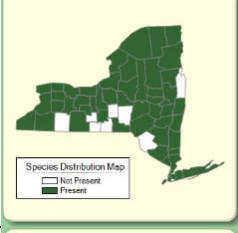





## Prunus (Cherry and Plum) continued




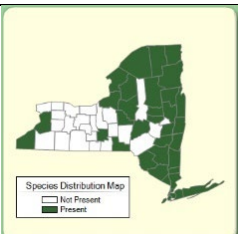
	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Choke Cherry ( <i>P. virginiana</i> )	10-25'	Yes	Intolerant	Dry-Moist	5.2-8.4	Thickets, hardwood forests, forest edges, hedgerows, and roadsides.	

\* Please note that *Prunus* is great for wildlife, but it can be poisonous to livestock. Be sure to avoid near livestock and grazers.



## Salix (Willow)

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Sage-leaved willow ( <i>S. candida</i> )	5-6'	Yes	Intermediate	Moist-Wet	5.7-7.6	Shrubby or herb dominated rich fens and sometimes in calcareous swamps and swamp openings.	
Pussy willow ( <i>S. discolor</i> )	15-30'	Yes	Tolerant	Moist-Wet	4.0-7.0	Swamps, rich fens, wet thickets, wet successional fields, roadsides, ditches, marshes, vernal pools, and edges of lakes and streams.	
Heart-leaved willow ( <i>S. eriocephala</i> )	40-50'	Yes	Tolerant	Moist-Wet	4.0-7.0	Swamps, wet thickets, wet successional fields, roadsides, ditches, marshes, and edges of lakes and streams.	
Silky willow ( <i>S. sericea</i> )	10-12'	Yes	Intermediate	Moist-Wet	5.2-7.0	Swamps, rich fens, wet thickets, wet successional fields, roadsides, ditches, marshes, and edges of lakes and streams.	
Autumn willow ( <i>S. serissima</i> )	3-15'	Yes	Intermediate	Moist-Wet	5.0-8.0	Rich herb or shrub dominated fens and calcareous swamps.	

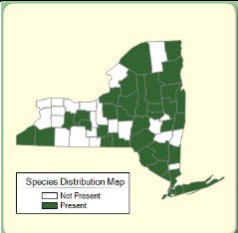

## Betula (Birch)

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Yellow birch ( <i>B. alleghaniensis</i> )	60-75'	No	Intermediate	Moist	4.0-8.0	Cool mesic forests and swamps. A widespread tree in NY it is dominant or co-dominant in some types of northern hardwood forests as well as cool swamps.	
Black birch ( <i>B. lenta</i> )	50-60'	No	Intolerant	Moist-Dry	3.6-6.8	A tree of young forests, rocky slopes, and talus slopes in mesic to dry soils. It is most common in warmer parts of NY and is an early successional species in mesic forests.	
Paper birch ( <i>B. papyrifera</i> )	60-70'	No	Intolerant	Dry-Moist	4.2-7.4	A tree of thin poor soils, talus and rocky slopes, and edges of forests and woodlands. In mesic forests it is an early successional species starting in forest clearings, after fire, or logging. Most common at higher elevations and in the northern parts of NY.	
Gray birch ( <i>B. populifolia</i> )	20-30'	No	Intermediate	Dry-Moist	3.5-6.5	Woodlands, pine barrens, edges of forests, bluffs, successional fields, thickets, disturbed ground, and roadsides on thin often rocky poor soils. Responds well to disturbance including fire.	

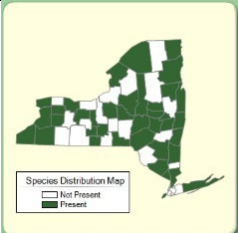


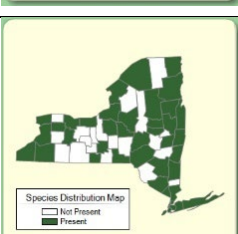
## Populus (Poplar)

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Balsam poplar ( <i>P. balsamifera</i> )	30-100'	No	Intolerant	Dry-Moist	4.5-7.0	Successional forests of a northern affinity, roadsides, clearings, and forest openings. In the cooler and more northern parts of New York.	
Eastern cottonwood ( <i>P. deltoides</i> )	36-190'	No	Intolerant	Dry-Wet	4.6-6.5	Floodplain and low forests, streamsides, gravel and sand bars in streams, ditches, swamps, and occasionally on upper and middle slopes of hardwood mesic forests.	

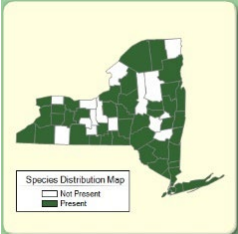
*Populus* (Poplar) continued

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Big-toothed aspen ( <i>P. grandidentata</i> )	60-80'	No	Intolerant	Moist	4.8-7.2	Successional forests, logged forests, burned forests, forest edges, openings in forests, successional fields, and roadsides.	
Quaking aspen ( <i>P. tremuloides</i> )	45-65'	No	Intolerant	Dry-Moist	4.3-9.0	Successional forests, logged forests, burned forests, forest edges, openings in forests, successional fields, and roadsides.	


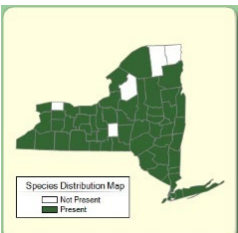
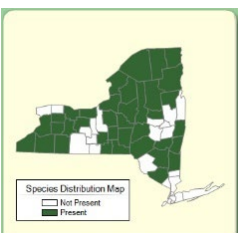
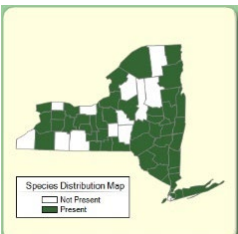
*Acer* (Maple)

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Black maple ( <i>A. nigrum</i> )	70-110'	No	Tolerant	Moist	4.5-7.3	Mostly restricted to calcareous or rich soils. Floodplain forests, rich mesic forests, and limestone forests.	
Striped maple ( <i>A. pensylvanicum</i> )	35-45'	No	Tolerant	Moist	4.4-6.5	A small understory tree that does well in cool microclimates. Forests with a northern affinity, slopes in ravines, and rocky forests.	
Red maple ( <i>A. rubrum</i> )	30-90'	Yes	Intermediate	Dry-Wet	4.7-7.3	Occurs in a wide variety of habitats and soil types. Wet swamps to dry forests and young successional habitats. This species is a very widespread and common tree.	
Silver maple ( <i>A. saccharinum</i> )	90-120'	Yes	Intermediate	Moist	4.0-7.3	Floodplain forests and banks of larger streams and rivers. This species is also widely cultivated.	

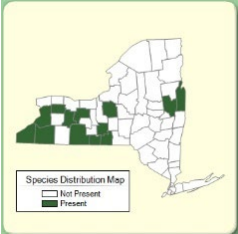
## Acer (Maple) continued

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Sugar maple ( <i>A. saccharum</i> )	90-120'	No	Tolerant	Dry-Moist	3.7-7.9	A widespread and common large tree. In northern or cool habitats it grows with other hardwoods notably beech and yellow birch as well as hemlock. In more southern areas it does well at the toe of the slope in deep rich soils.	



## Vaccinium (Blueberry)

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Common lowbush blueberry ( <i>V. angustifolium</i> )	2-24"	Yes	Intermediate	Dry-Moist	4.7-7.5	Dry to dry-mesic acidic forests, rocky summits, woodlands, barrens, rocky alpine areas, and fields with thin soils. Mostly in thin dry acidic rocky soils.	
Highbush blueberry ( <i>V. corymbosum</i> )	6.5-10'	Yes	Tolerant	Dry-Wet	4.7-7.5	In a wide variety of wetlands and also in dry thin soils on crests and upper slopes. Rich fens, acidic bogs, swamps, shrub swamps, wet thickets, edges of marshes, and mesic forests.	
Velvet-leaved blueberry ( <i>V. myrtilloides</i> )	4-35"	Yes	Intermediate	Moist-Wet	3.0-5.9	Hummocks in swamps, edges of swamps, cool northern forests, edges of forests, forest openings, barrens, and bluffs. More common in the northern and cooler parts of New York.	
Hillside blueberry ( <i>V. pallidum</i> )	9-21"	Yes	Tolerant	Dry-Moist	4.3-5.3	Dry to dry-mesic hardwood forests, edges of forests, woodlands, rocky summits, barrens, and old fields. Often associated with other <i>Vaccinium</i> spp. and ericaceous shrubs.	

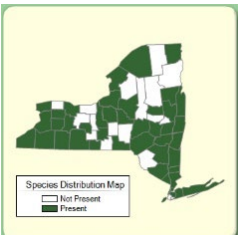
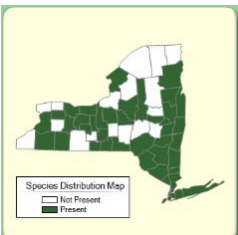
## Malus (Crabapple)

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Wild Crabapple ( <i>M. coronaria</i> )	20-30'	Yes	Intermediate	Moist	5.5-7.5	Thickets, hedgerows, forest edges, pastures, and successional fields. This taxon can also be found dying in successional forests.	



## Alnus (Alder)

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Speckled alder ( <i>A. incana</i> ssp. <i>rugosa</i> )	15-25'	No	Intermediate	Moist-Wet	4.8-7.7	Forms dense thickets along drainage channels, edges of streams, edges of lakes, fens, bogs, marshes, and forested swamps. A common wetland shrub that occurs in numerous wetland habitats.	
Smooth alder ( <i>A. serrulata</i> )	15-30'	No	Intolerant	Moist-Wet	5.0-7.0	Stream banks, wet thickets, and ditches. A southern species, it is most common in southeastern NY.	



## Carya (Hickory)

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Bitternut hickory ( <i>C. cordiformis</i> )	60-80'	No	Intolerant	Moist-Wet	4.8-7.4	Floodplain forests and wet-mesic to mesic hardwood forests often low on slopes. Occurs less frequently and in smaller numbers in drier habitats on upper slopes and hilltops.	
Pignut hickory ( <i>C. glabra</i> )	65-98'	No	Intermediate	Dry-Moist	4.8-7.3	Rocky summits, woodlands, and dry to mesic forests of a southern affinity. Mostly in dry rocky sites and when abundant perhaps indicating that the soils are calcareous or not very acidic.	

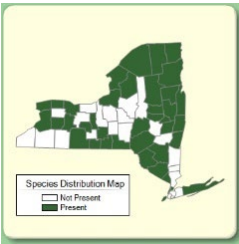


## Carya (Hickory) continued

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Shagbark hickory ( <i>C. ovata</i> )	60-80'	No	Intermediate	Dry-Moist	4.0-7.3	Of the hickories that occur in New York, <i>Carya ovata</i> grows in the widest range of forested habitats. It occurs with <i>C. glabra</i> in dry to mesic warm forests of a southern affinity, with <i>C. cordiformis</i> in low bottomland forests, as well as in rich mesic forests, dry calcareous forests, and sometimes on hummocks in swamps.	
Mockernut hickory ( <i>C. tomentosa</i> )	65-100'	No	Intermediate	Moist-Dry	4.7-6.9	Mesic to dry-mesic forests of a southern affinity.	

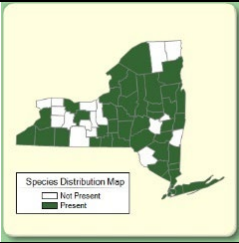
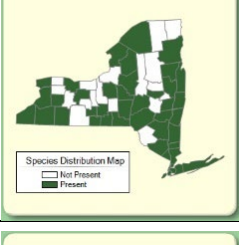
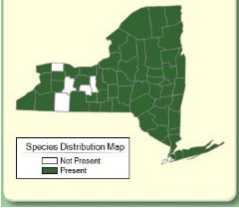
## Ulmus (Elm)

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
American elm ( <i>U. americana</i> )	40-60'	No	Intermediate	Moist-Wet	5.0-8.0	Wet thickets, stream edges, swamps, roadsides, mesic to wet forests, and forest edges. In wet to mesic often nutrient rich soils.	
Slippery elm ( <i>U. rubra</i> )	60-70'	No	Tolerant	Dry-Moist	5.0-7.5	Dry to mesic forests, forest edges, openings in forests, rock outcrops, and stream sides generally in calcareous sites.	

## Pinus (Pine)





	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Red pine ( <i>P. resinosa</i> )	75-200'	No	Intolerant	Dry-Moist	4.5-6.0	In central and western New York, it occurs on steep south and west facing slopes and bluffs in dry rocky soils. In other parts of New York, it occurs primarily on deep sandy soils or in pine barrens.	
Pitch pine ( <i>P. rigida</i> )	80-100'	No	Intolerant	Moist-Dry	3.5-5.1	Common in pine barrens on deep sandy soils with a frequent fire regime. Also on dry rocky soils or thin soils over bedrock on hilltops, bluffs, crests, and steep south and west facing slopes.	
White pine ( <i>P. strobus</i> )	100-150'	No	Intermediate	Dry-Wet	4.0-6.5	Occurs in a wide variety of wet to dry habitats including mesic forests, dry rocky forests on slopes, successional fields and shrublands, lake edges, hummocks in swamps, rises in bogs, and elsewhere.	

## Rubus (Blackberry and Raspberry)\*

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Common blackberry ( <i>R. allegheniensis</i> )	5-8'	Yes	Tolerant	Moist-Dry	4.6-7.5	Forest edges, logged forests, thickets, dirt roadsides, and disturbed soils in forests.	
Black raspberry ( <i>R. occidentalis</i> )	3-6'	Yes	Intermediate	Moist-Dry	5.2-7.5	Successional and disturbed forests, floodplain forests, forest edges, openings in forests, thickets, stream banks, and roadsides.	
Purple flowering raspberry ( <i>R. odoratus</i> )	5-8'	Yes	Intermediate	Wet-Moist	4.5-6.5	Forest edges, talus slopes, mesic rocky outcrops, disturbed soils in forests, and thickets. Generally in wet-mesic or sometimes mesic soils and often in at least partly shaded habitats.	

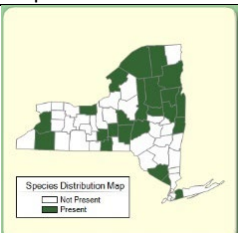
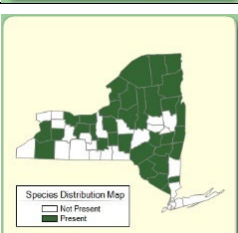
\* 24 species of Rubus documented in NY (14 native species). Considerable interbreeding and can be very difficult to identify.

## Crataegus (Hawthorn)\*

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Cockspur hawthorn ( <i>C. crus-galli</i> )	25-35'	Yes	Intolerant	Moist-Dry	4.5-7.2	Hedgerows, roadsides, young successional forests, abandoned pastures, thickets, rocky openings in forests, and forest edges.	
Holmes's hawthorn ( <i>C. holmesiana</i> )	20-30'	Yes	Tolerant	Dry-Moist	5.0-8.0	Hedgerows, roadsides, and successional forests.	
Frosted hawthorn ( <i>C. pruinosa</i> )	10-20'	Yes	Intermediate	Moist	5.0-8.0	Hedgerows, thin forests and woodlands, forest edges, and roadsides.	
Dotted hawthorn ( <i>C. punctata</i> )	20-30'	Yes	Intermediate	Moist-Wet	5.0-8.0	Hedgerows, thickets, successional forests, forest edges, and roadsides.	


\* Over 40 species documented in NY, considerable interbreeding and very difficult to distinguish most species.

## Picea (Spruce)


	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
White spruce ( <i>P. glauca</i> )	40-70'	No	Intermediate	Moist	4.0-8.2	Cultivated and occasionally naturalizing as well as native in the northern parts of New York in mesic cool forests. Sometimes in wetter soils.	
Black spruce ( <i>P. mariana</i> )	30-50'	No	Tolerant	Wet-Moist	4.7-6.5	Bogs, swamps, edges of streams, wet depressions in cool northern forests, and high elevation forests. In the warmer parts of New York, it is restricted to bogs and cool swamps.	



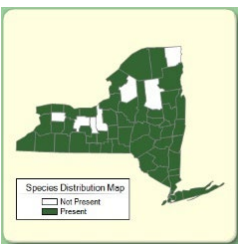
*Picea* (Spruce) continued

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Red spruce ( <i>P. rubens</i> )	60-75'	No	Tolerant		4.0-5.8	A component of northern mixed coniferous-hardwood forests with <i>B. alleghaniensis</i> , <i>F. grandifolia</i> , and <i>A. saccharum</i> . In northern and cool areas, it usually grows in thin mesic soils dropping out in the richer deeper soils where hardwoods dominate. Ascends to high elevation sites and also occurs occasionally near or in wetlands especially in the warmer and more southern parts of New York where it is a rare species.	

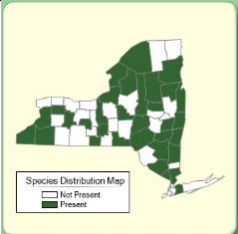
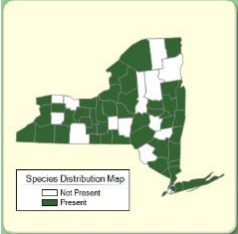
*Tilia* (Basswood)

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
American basswood ( <i>T. americana</i> )	75-130'	Yes	Tolerant	Moist-Dry	4.5-7.5	Rich mesic forests, talus slopes, bases of rock outcrops, bluffs, and thin soil over calcareous bedrock. This species is most abundant in deep rich mesic soils of valley bottoms and lower slopes as well as on talus slopes and in association with rocky outcrops.	

*Fraxinus* (Ash)\*


	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
White ash ( <i>F. americana</i> )	60-70'	No	Intolerant	Dry-Moist	4.7-7.5	Dry to mesic and occasionally wetter forests and in more open habitats like barrens, woodlands, and rocky summits. Also appearing as an early successional tree in old fields. Commonly produces abundant seedlings in both closed and open sites.	

*Fraxinus* (Ash)\* continued

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Black ash ( <i>F. nigra</i> )	40-60'	No	Intolerant	Wet-Moist	4.4-8.2	Swamps, rich wet forests, and edges of streams.	
Green ash ( <i>F. pennsylvanica</i> )	50-100'	No	Tolerant	Wet-Moist	4.7-8.1	Margins of streams and rivers, floodplain forests, low wet woods, and occasionally swamps although in larger swamps <i>F. nigra</i> is usually the dominant <i>Fraxinus</i> present.	


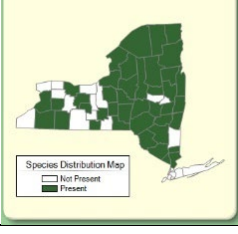
\* Ash trees are attacked by an invasive wood-boring beetle

*Castanea* (Chestnut)

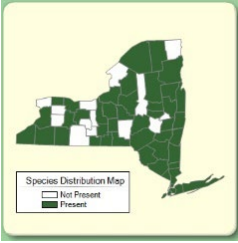
	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
American chestnut ( <i>C. dentata</i> )	*90-115'	No	Tolerant	Dry-Moist	5.5-6.5	Dry to mesic forests often associated with <i>Quercus</i> spp. The introduced chestnut blight kills the trees and mature trees are now rather scattered and rare. Still, stump sprouts and small trees are not uncommon, although they soon become infested with the blight.	

\* Historical records, average height now is approximately 20-30' due to chestnut blight.

*Corylus* (Hazel)


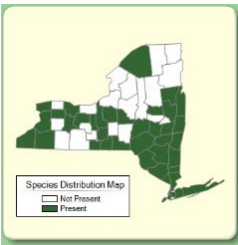
	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
American hazelnut ( <i>C. americana</i> )	3-10'	No	Intermediate	Moist	5.0-7.0	Edges of swamps, alluvial thickets, and weedy thickets.	
Beaked hazelnut ( <i>C. cornuta</i> )	13-20'	No	Tolerant	Moist-Dry	4.8-7.5	An understory shrub in deciduous and mixed deciduous coniferous forests. Also occurs on forest edges, cut forests, and in thickets. Generally grows in thin, poor soils.	

## Fagus (Beech)

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
American beech ( <i>F. grandifolia</i> )	65-80'	No	Tolerant	Moist	4.1-7.2	Mesic forests. A major component of northern hardwood forests where it is often in association with sugar maples. Beech occurs from sea level in coastal Long Island to high elevation forests in the mountains of northern New York.	

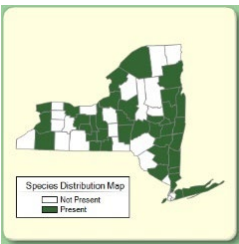

\*Information on Beech Leaf Disease: <https://www.dec.ny.gov/lands/120589.html#Threat>

## Juglans (Walnut)\*

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Butternut ( <i>J. cinerea</i> )	40-60'	No	Intolerant	Dry-Moist	6.0-7.0	In certain parts of its range in New York, it is primarily associated with talus slopes. Elsewhere in New York, it is associated with rich mesic hardwood forests on valley bottoms and lower slopes sometimes on calcareous bedrock and soils. Often it occurs in small patches of only a few trees. Butternut canker is killing this species and it is difficult to find individuals that are not infected.	
Black walnut ( <i>J. nigra</i> )	80-125'	No	Intolerant	Moist	4.6-8.2	Floodplain forests, low and rich mesic hardwood forests, and successional forests. Also, often found in large patches near old home sites. Does best in deep alluvial soils where it can become a dominant tree. It is also somewhat weedy and once established sometimes creates monospecific stands.	

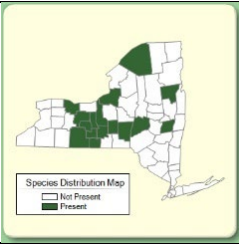
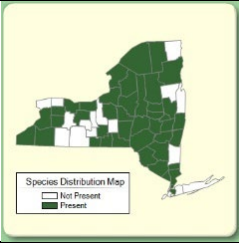

\* Juglans produces an allelopathic compound, juglone, that will inhibit the growth of other plants. Additional information from Penn State Extension: <https://extension.psu.edu/landscaping-and-gardening-around-walnuts-and-other-juglone-producing-plants>

*Rosa* (Rose)\*

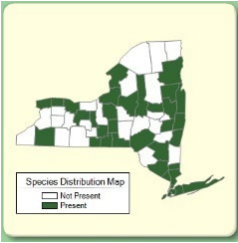

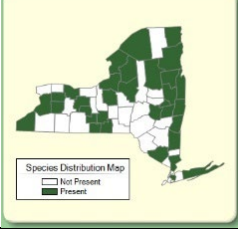
	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Pasture rose ( <i>R. carolina</i> )	2-5'	Yes	Intermediate	Dry- Moist	4.0- 7.0	Edges of forests, thin canopied forests, woodlands, edges of paths and dirt roads through forests, successional fields, and forest openings. Generally in dry to dry-mesic soils.	
Swamp rose ( <i>R. palustris</i> )	5-8'	Yes	Tolerant	Moist- Wet	4.0- 7.0	Swamps, edges of streams and lakes, marshes, and rich shrubby fens.	

\* Over 20 rose species documented in New York (11 native species).

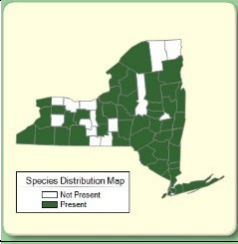
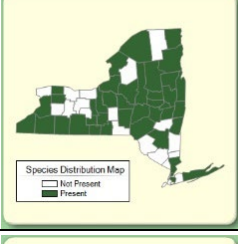
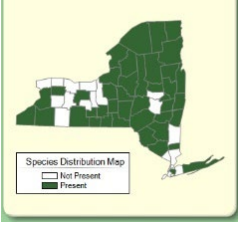
*Amelanchier* (Serviceberry)

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Lovely shadbush ( <i>A. amabilis</i> )	15-25'	Yes	Intermediate	Dry- Moist	5.5- 7.0	Bluffs, rims of ravines, tops of cliffs and rock outcrops, ledges, and adjacent forested slopes often in thin dry to dry-mesic calcareous soils.	
Common serviceberry ( <i>A. arborea</i> )	20-30'	Yes	Intermediate	Dry- Moist	5.5- 7.0	A wide variety of hardwood forests, forest edges, hedge rows, bluffs, ledges, roadsides, and occasionally hummocks in swamps.	
Mountain shadbush ( <i>A. bartramiana</i> )	2-8'	Yes	Intermediate	Moist	5.5- 7.0	Northern hardwood and mixed hardwood-coniferous forests, forest edges, opening in forests, and peatlands. A species of cool habitats predominantly occurring in the cooler and more northern parts of New York.	

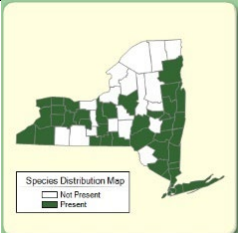
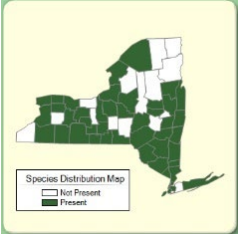
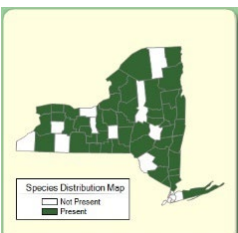
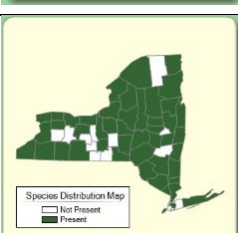
## Amelanchier (Serviceberry) continued

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Canadian Serviceberry ( <i>A. canadensis</i> )	20-30'	Yes	Intermediate	Dry-Wet	5.5-7.5	Maritime forests (forests adjacent to the Atlantic Ocean or Long Island Sound), dunes, thickets, swamps, and roadsides in dry-mesic to wet or inundated soils on steep slopes or flat areas.	
Smooth serviceberry ( <i>A. laevis</i> )	25-35'	Yes	Tolerant	Moist-Wet	4.8-7.0	Forests, forest edges, openings in forests, thickets, bluffs, rock outcrops, ledges, hummocks in swamps, and roadsides.	
Roundleaf serviceberry ( <i>A. sanguinea</i> )	6-10'	Yes	Tolerant	Dry-Moist	4.5-7.2	Bluffs, tops of cliffs and rock outcrops, ledges, and roadsides in thin dry to dry-mesic often rocky soils.	

## Cornus (Dogwood)\*

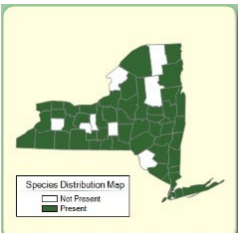
	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Alternate-leaved dogwood ( <i>C. alternifolia</i> )	25-30'	Yes	Tolerant	Moist	4.8-7.3	Understories of mesic, usually somewhat rich forests.	
Silky cornel ( <i>C. amomum</i> )	6-12'	Yes	Intermediate	Moist-Wet	5.0-7.0	Fens, swamps, shrub swamps, marshes, edges of ponds, edges of streams, and ditches.	
Bunchberry dogwood ( <i>C. canadensis</i> )	6-12''	Yes	Tolerant	Moist-Wet	5.5-6.9	Cool northern coniferous, hardwood, or mixed forests; on hummocks in swamps and bogs; sub-alpine forests; and edges of forests. Very common in the northern and cooler parts of New York.	

## Cornus (Dogwood)\* continued

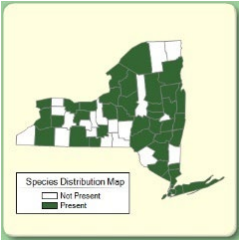



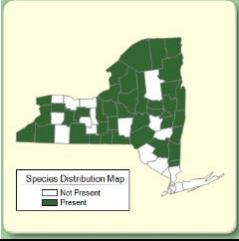
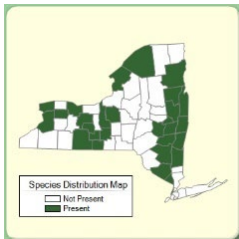
	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Flowering dogwood ( <i>C. florida</i> )	16-49'	Yes	Tolerant	Moist-Dry	4.8-7.7	Understories of hardwood forests, forest edges, and woodlands in mesic to dry soils. Also in cultivation.	
Gray dogwood ( <i>C. racemosa</i> )	4-10'	Yes	Tolerant	Moist-Wet	4.8-7.4	Old fields, shrub thickets, shrub swamps, hummocks in swamps, and hedgerows. Occurs both in uplands and wetlands.	
Round-leaved dogwood ( <i>C. rugosa</i> )	6-10'	Yes	Tolerant	Dry-Moist	6.4-7.8	Bluffs, rocky slopes, and talus as an understory shrub in woodlands and forests. Usually somewhat restricted in distribution at a site and preferring the specific niches listed.	
Red-osier dogwood ( <i>C. sericea</i> )	3-20'	Yes	Intermediate	Wet-Most	5.0-7.5	Shrub swamps, fens, marshes, and edges of ponds and streams often in calcareous soils but not restricted to these soils.	

\* While most dogwoods are shade tolerant, many will require full-partial sunlight for blooms.


## Viburnum (Viburnums)

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Maple-leaf viburnum ( <i>V. acerifolium</i> )	3-6'	Yes	Tolerant	Moist-Dry	4.8-7.5	Understories of forests, woodlands, edges of forests, forested road banks, and rocky slopes often in acidic, but not deep soils. A very common understory shrub in mesic acidic deciduous forests (sometimes dominated by <i>Quercus rubra</i> ).	

*Viburnum* (Viburnums) continued

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Smooth arrowwood ( <i>V. dentatum</i> var. <i>lucidum</i> )	3-10'	Yes	Intermediate	Wet-Moist	4.5-7.3	Shrub swamps including rich fens, marshes, forested swamps, wet to mesic successional shrublands, thickets, occasional in mesic deciduous understories, and roadsides. Grows in a large variety of wet to dry habitats.	
Hobblebush ( <i>V. lantanoides</i> )	3-10'	Yes	Tolerant	Moist	4.9-7.0	Coniferous, mixed hardwood-coniferous, and hardwood forests; forested stream banks, rocky ledges, and ravine slopes. Very common in the cooler parts of the state including the Adirondacks where it can form dense thickets.	
Nannyberry ( <i>V. lentago</i> )	10-20'	Yes	Tolerant	Wet-Moist	5.0-7.0	Shrub and tree swamps, marshes, roadside ditches, and wet to mesic successional fields. It does best in wet soils but also grows in mesic or seasonally flooded areas.	
Black haw ( <i>V. prunifolium</i> )	10-15'	Yes	Tolerant	Dry-Moist	4.8-7.5	Dry-mesic forests, thickets, successional shrub thickets, and successional fields. Mostly in thin dry soils. Mostly restricted to southeastern NY.	
Highbush cranberry ( <i>V. opulus</i> L. var. <i>americanum</i> )	8-15'	Yes	Intolerant	Wet-Moist	5.5-7.5	Shrub and tree swamps (including rich fens), wet thickets, and marshes.	
Downy arrowwood ( <i>V. rafinesqueanum</i> )	3-8'	Yes	Tolerant	Dry-Moist	4.5-7.1	Dry to dry-mesic forests, bluffs, woodlands, and rocky summits mostly in calcareous or mineral rich thin soils. It generally occurs in small to large size patches which can be quite dense; the larger patches occurring in less shaded sites.	

## Ostrya (Ironwood)

	Height at Maturity	Nectar	Shade Tolerance	Soil Moisture	Soil pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Ironwood or hop hornbeam ( <i>O. virginiana</i> )	35-45'	No	Tolerant	Dry-Moist	4.2-7.6	An understory small tree it occurs in a variety of forested environments, woodlands, and rocky openings. It does best in thin forests and woodlands in rich dryish thin rocky soils and over calcareous bedrock. In these habitats it can become a dominant understory tree.	



### Quercus/Oaks:

- Additional oak species found in New York can be viewed in the New York Flora Atlas: <https://newyork.plantatlas.usf.edu/Results.aspx>
- Field Guide to Native Oak Species of Eastern North America: <https://www.fs.usda.gov/foresthealth/technology/pdfs/fieldguide.pdf>

### Prunus/Cherry:

- <https://newyork.plantatlas.usf.edu/Results.aspx>
- Information on identification characteristics: <https://www.minnesotawildflowers.info/search?kw=prunus>
- Please note that *Prunus* is great for wildlife, but it can be poisonous to livestock. Be sure to avoid near livestock and grazers.

### Salix/Willow:

- Additional information about willows as nectar resources: <https://doi.org/10.4141/cjps-2014-339>
- Additional species found in New York can be viewed in the New York Flora Atlas: <https://newyork.plantatlas.usf.edu/Results.aspx>

### Betula/Birch:

- Information on identification characteristics: <https://www.minnesotawildflowers.info/search?kw=betula>
- Additional information on identification characteristics: [https://dendro.cnre.vt.edu/dendrology/data\\_results.cfm](https://dendro.cnre.vt.edu/dendrology/data_results.cfm)
- Additional species found in New York can be viewed in the New York Flora Atlas: <https://newyork.plantatlas.usf.edu/Results.aspx>
- Information on identification characteristics: <https://www.minnesotawildflowers.info/search?kw=betula>

### Populus/Poplar:

- Additional species found in New York can be viewed in the New York Flora Atlas: <https://newyork.plantatlas.usf.edu/Results.aspx>
- Information on identification characteristics: [https://dendro.cnre.vt.edu/dendrology/data\\_results.cfm](https://dendro.cnre.vt.edu/dendrology/data_results.cfm)

### Acer/Maple:

- Additional species found in New York can be viewed in the New York Flora Atlas: <https://newyork.plantatlas.usf.edu/Results.aspx>
- Information on identification characteristics: <https://agmr.osu.edu/specialty-crop-business/maple-syrup/maple-tree-id>

### Vaccinium/Blueberry:

- Additional species found in New York can be viewed in the New York Flora Atlas: <https://newyork.plantatlas.usf.edu/Results.aspx>
- Information on identification characteristics: <https://www.minnesotawildflowers.info/search?kw=vacc>
- Additional information on identification characteristics: [https://dendro.cnre.vt.edu/dendrology/data\\_results.cfm](https://dendro.cnre.vt.edu/dendrology/data_results.cfm)
- Additional information on blueberries and protecting pollinators from pesticides on highbush blueberry: [https://www.pollinator.org/pollinator.org/assets/generalFiles/Blueberry-Pollinator-GUIDE\\_digital.pdf](https://www.pollinator.org/pollinator.org/assets/generalFiles/Blueberry-Pollinator-GUIDE_digital.pdf) and [https://www.pollinator.org/pollinator.org/assets/generalFiles/Blueberry-Pollinator-SUPPLEMENT\\_digital.pdf](https://www.pollinator.org/pollinator.org/assets/generalFiles/Blueberry-Pollinator-SUPPLEMENT_digital.pdf)

#### Malus/Crabapple:

- Information on identification characteristics: [https://www.illinoiswildflowers.info/trees/plants/wild\\_crab.htm](https://www.illinoiswildflowers.info/trees/plants/wild_crab.htm)
- Information on identifying non-native *Malus* spp.:  
<https://dendro.cnre.vt.edu/dendrology/syllabus/factsheet.cfm?ID=59>

#### Alnus/Alder:

- Information on identification characteristics: [https://dendro.cnre.vt.edu/dendrology/data\\_results.cfm](https://dendro.cnre.vt.edu/dendrology/data_results.cfm)

#### Carya/Hickory:

- Information on identification characteristics: [https://dendro.cnre.vt.edu/dendrology/data\\_results.cfm](https://dendro.cnre.vt.edu/dendrology/data_results.cfm)
- Hickory identification key: <https://bioimages.vanderbilt.edu/tree-key/hickory-key.htm>

#### Ulmus/Elm:

- Information on identification characteristics: [https://dendro.cnre.vt.edu/dendrology/data\\_results.cfm](https://dendro.cnre.vt.edu/dendrology/data_results.cfm)
- Information on Dutch Elm Disease: <https://extension.umn.edu/plant-diseases/dutch-elm-disease>

#### Pinus/Pine:

- Information on identification characteristics: [https://dendro.cnre.vt.edu/dendrology/data\\_results.cfm](https://dendro.cnre.vt.edu/dendrology/data_results.cfm)
- Additional species found in New York can be viewed in the New York Flora Atlas:  
<https://newyork.plantatlas.usf.edu/Results.aspx>

#### Rubus/Blackberry and Raspberry:

- Information on identification characteristics: [https://dendro.cnre.vt.edu/dendrology/data\\_results.cfm](https://dendro.cnre.vt.edu/dendrology/data_results.cfm)
- Additional species found in New York can be viewed in the New York Flora Atlas:  
<https://newyork.plantatlas.usf.edu/Results.aspx>

#### Crataegus/Hawthorn:

- Additional species found in New York can be viewed in the New York Flora Atlas:  
<https://newyork.plantatlas.usf.edu/Results.aspx>

#### Picea/Spruce:

- Additional species found in New York can be viewed in the New York Flora Atlas:  
<https://newyork.plantatlas.usf.edu/Results.aspx>

#### Fraxinus/Ash:

- Ash trees are attacked by an invasive wood-boring beetle:  
<https://dnr.wisconsin.gov/topic/foresthealth/emeraldashborer/signs>

#### Castanea/Chestnut:

- Information on Chestnut Blight: <https://www.invasivespeciesinfo.gov/terrestrial/pathogens-and-diseases/chestnut-blight>

#### Corylus/Hazel:

- Information on identification characteristics: [https://dendro.cnre.vt.edu/dendrology/data\\_results.cfm](https://dendro.cnre.vt.edu/dendrology/data_results.cfm)

#### Fagus/Beech:

- Information on Beech Leaf Disease: <https://www.dec.ny.gov/lands/120589.html#Threat>

#### Juglans/Walnut:

- Juglans produces an allelopathic compound, juglone, that will inhibit the growth of other plants. Additional information from Penn State Extension: <https://extension.psu.edu/landscaping-and-gardening-around-walnuts-and-other-juglone-producing-plants>

#### Rosa/Rose:

- Additional species found in New York can be viewed in the New York Flora Atlas: <https://newyork.plantatlas.usf.edu/Results.aspx>

#### Amelanchier/Serviceberry:

- Additional species found in New York can be viewed in the New York Flora Atlas: <https://newyork.plantatlas.usf.edu/Results.aspx>
- Information on identification characteristics: [https://dendro.cnre.vt.edu/dendrology/data\\_results.cfm?genus=Amelanchier](https://dendro.cnre.vt.edu/dendrology/data_results.cfm?genus=Amelanchier)
- Amelanchier Key from the Native Plant Trust: <https://gobotany.nativeplanttrust.org/dkey/amelanchier/>

#### Cornus/Dogwood:

- Additional species found in New York can be viewed in the New York Flora Atlas: <https://newyork.plantatlas.usf.edu/Results.aspx>
- Information on identification characteristics: [https://dendro.cnre.vt.edu/dendrology/data\\_results.cfm](https://dendro.cnre.vt.edu/dendrology/data_results.cfm)
- Information on dogwood diseases: <https://extension.psu.edu/dogwood-diseases>

#### Viburnum:

- Additional species found in New York can be viewed in the New York Flora Atlas: <https://newyork.plantatlas.usf.edu/Results.aspx>
- Information on identification characteristics: [https://dendro.cnre.vt.edu/dendrology/data\\_results.cfm](https://dendro.cnre.vt.edu/dendrology/data_results.cfm)

#### Ostrya/Ironwood:

- Additional information about ironwood: <https://mortonarb.org/plant-and-protect/trees-and-plants/ironwood/>

## Nectar and Pollen Producing Trees and Shrubs

### *Anacardiaceae* (sumac or cashew family)

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*Rhus aromatica* (fragrant sumac)

*Rhus glabra* (smooth sumac)

### *Aquifoliaceae* (holly family)

---

*Ilex laevigata* (smooth winterberry)

*Ilex mucronate* (mountain holly)

*Ilex verticillate* (common winterberry)

### *Caprifoliaceae* (honeysuckle family)

---

*Diervilla lonicera* (bush honeysuckle)

*Lonicera canadensis* (American fly honeysuckle)

*Lonicera dioica* (smooth-leaved honeysuckle)

*Lonicera oblongifolia* (swamp fly honeysuckle)

*Lonicera villosa* (mountain fly honeysuckle)

### *Celastraceae* (spindle tree family)

---

*Euonymus atropurpureus* (American wahoo)

### *Clethraceae* (white alder family)

---

*Clethra alnifolia* (coastal sweet pepperbush)

### *Cornaceae* (dogwood family)

---

*Cornus alternifolia* (alternate-leaved dogwood)

*Cornus amomum* (silky dogwood)

*Cornus florida* (flowering dogwood)

*Cornus racemose* (gray dogwood)

*Cornus sericea* (red-osier dogwood)

### *Elaeagnaceae* (oleaster family)

---

*Shepherdia canadensis* (Canada buffalo berry)

### *Ericaceae* (heath family)

---

*Chamaedaphne calyculata* (leatherleaf)

*Gaylussacia baccata* (black huckleberry)

*Gaylussacia frondose* (dangleberry)

*Kalmia angustifolia* (sheep laurel)

*Kalmia latifolia* (Mountain laurel)

*Kalmia polifolia* (bog laurel)

*Rhododendron groenlandicum* (Labrador tea)

*Rhododendron maximum* (great laurel)

*Rhododendron prinophyllum* (early azalea)

*Rhododendron viscosum* (swamp azalea)

*Vaccinium angustifolium* (common low bush blueberry)

*Vaccinium corymbosum* (highbush blueberry)

### *Grossulariaceae* (currant family)

---

*Ribes Americanum* (wild black currant)

*Ribes cynosbati* (prickly gooseberry)

*Hamamelidaceae* (witch hazel family)

---

*Hamamelis virginiana* (witch hazel)

*Lauraceae* (laurel family)

---

*Lindera benzoin* (spicebush)

*Sassafras albidum* (sassafras)

*Lythraceae* (loosestrife family)

---

*Decodon verticillatus* (water willow)

*Magnoliaceae* (magnolia family)

---

*Liriodendron tulipifera* (tulip poplar or yellow poplar)

*Magnolia acuminata* (cucumber tree)

*Malvaceae* (mallow family)

---

*Hibiscus moscheutos* (swamp rose mallow)

*Tilia americana* (American basswood)

*Myricaceae* (bayberry or wax tree family)

---

*Morella caroliniensis* (bayberry)

*Nyssaceae* (tupelo family)

---

*Nyssa sylvatica* (blackgum)

*Rhamnaceae* (buckthorn family)

---

*Ceanothus americanus* (New Jersey tea)

*Rosaceae* (rose family)

---

*Amelanchier arborea* (downy shadbush)

*Amelanchier bartramiana* (mountain shadbush)

*Amelanchier laevis* (smooth shadbush)

*Aronia arbutifolia* (red chokeberry)

*Aronia melanocarpa* (black chokeberry)

*Crataegus punctata* (dotted hawthorn)

*Dasiphora fruticosa* (shrubby cinquefoil)

*Malus coronaria* (wild crabapple)

*Physocarpus opulifolius* (ninebark)

*Prunus americana* (American plum)

*Prunus pensylvanica* (fire cherry)

*Prunus serotina* (wild black cherry)

*Prunus virginiana* (choke cherry)

*Rosa carolina* (pasture rose)

*Rosa palustris* (swamp rose)

*Rubus odoratus* (purple flowering raspberry)

*Sorbus americana* (American mountain ash)

*Sorbus decora* (northern mountain ash)

*Spiraea alba* var. *alba* (narrow-leaved meadowsweet)

*Spiraea alba* var. *latifolia* (broad-leaved meadowsweet)

*Spiraea tomentosa* (steepleshub)

*Rubiaceae* (madder family)

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*Cephalanthus occidentalis* (buttonbush)

*Rutaceae* (rue family)

---

*Zanthoxylum Americanum* (prickly ash)

*Salicaceae* (willow family)

---

*Salix amygdaloides* (peach-leaved willow)

*Salix discolor* (pussy willow)

*Salix lucida* (shinning willow)

*Sapindaceae* (soapberry family)

---

*Acer rubrum* (red maple)

*Acer saccharinum* (silver maple)

*Staphyleaceae* (bladdernut family)

---

*Staphylea trifolia* (bladdernut)

*Thymelaeaceae* (stingbarks family)

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*Dirca palustris* (eastern leatherwood)

*Viburnaceae* (viburnum family)

---

*Sambucus nigra* ssp. *canadensis* (common elderberry)

*Sambucus racemosa* (red elderberry)

*Viburnum acerifolium* (maple-leaf viburnum)

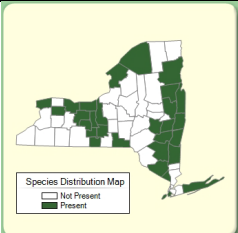
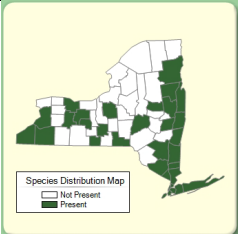
*Viburnum lantanoides* (hobblebush)

*Viburnum lentago* (nannyberry)

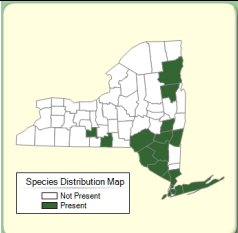
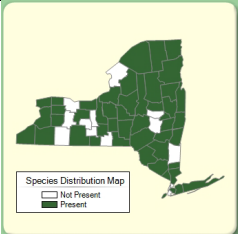
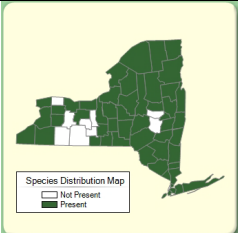
*Viburnum opulus* var. *americanum* (highbush cranberry)

*Viburnum prunifolium* (blackhaw)

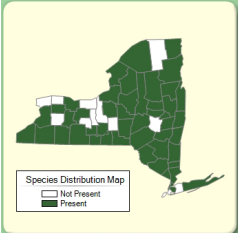
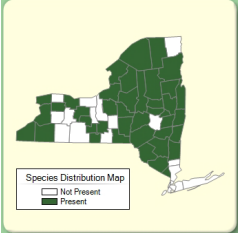
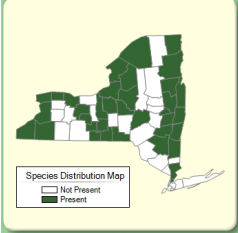
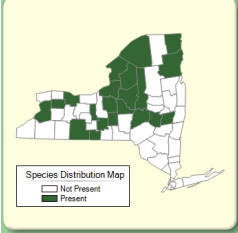
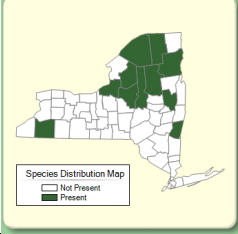
### Anacardiaceae (sumac or cashew family)

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Fragrant sumac <i>Rhus aromatica</i>	5-8'	Mar-May	Intermediate	Dry-Moist	5.0-7.5	Thin forests, edges of forests, openings, rocky openings, and thickets. Often in sandy or calcareous soils.	
Smooth sumac <i>Rhus glabra</i>	2-20'	July-Aug	Intermediate	Dry-Moist	5.3-7.5	A pioneer species. Similar habitat to <i>R. typhina</i> but perhaps a little less common. Old fields, edges of fields, roadsides, shrubby thickets, stream banks, and edges of forests.	

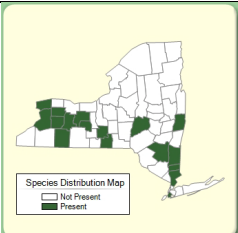
### Aquifoliaceae (holly family)

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Smooth winterberry <i>Ilex laevigata</i>	6-10'	May-July	Intermediate	Wet-Moist	4.5-6.5	Swamps with trees and/or shrubs dominant.	
Mountain holly <i>Ilex mucronata</i>	3-15'	May-June	Intermediate	Wet-Moist	5.6-6.0	Various types of acidic peat bogs, deciduous swamps, mixed coniferous-deciduous swamps, and shrub swamps. Mostly this species does not form dense thickets but occurs scattered in with a variety of other shrubs. Sometimes it can be dwarfed when in hostile bog conditions. It is more common in the northern parts of the state.	
Common winterberry <i>Ilex verticillata</i>	5-20'	June-Aug	Intermediate	Wet-Moist	4.5-6.5	Margins of ponds, kettle hole ponds, acidic bogs, deciduous swamps, and shrub swamps (sometimes being the dominant shrub). In most of NY this is our most common wetland <i>Ilex</i> .	

**Caprifoliaceae (honeysuckle family)**

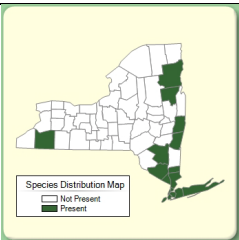
	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Bush honeysuckle <i>Diervilla lonicera</i>	1-3'	June-Aug	Tolerant	Dry-Moist	4.8-7.0	Bluffs, ledges, rims of cliffs, fine talus slopes, and thin dry rocky forests. Usually dry to dry-mesic and occasionally mesic soils in unshaded to partially shaded and less frequently fully shaded sites.	
American fly honeysuckle <i>Lonicera canadensis</i>	4-5'	May-June	Tolerant	Moist	6.1-7.8	Cool forests, forested or cool stream banks, and ledges. More common in cooler parts of NY as a general understory shrub in forests. In warmer parts of NY, it is more restricted to cooler sites.	
Smooth-leaved honeysuckle <i>Lonicera dioica</i>	5-10'	May-July	Tolerant	Dry-Moist	6.0-8.0	Rocky, thin forested slopes, forest edges, talus slopes, ledges, and thickets. A thin rather small vine becoming more robust in full sun.	
Swamp fly honeysuckle <i>Lonicera oblongifolia</i>	1-6'	May-July	Intolerant	Wet-Moist	6.6-7.3	Rich fens, rich swamps, and rich wet shrublands. Usually thinly scattered throughout or occurring in only a few small patches at a particular site.	
Mountain fly honeysuckle <i>Lonicera villosa</i>	1-5'	May-June	Intermediate	Wet-Moist	6.0-8.0	Fens both rich and somewhat poorer.	

**Celastraceae (spindle tree family)**

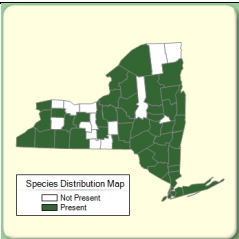
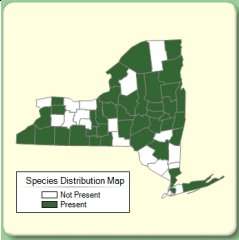
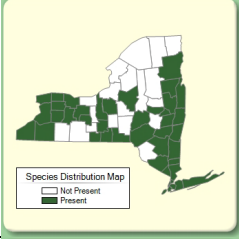
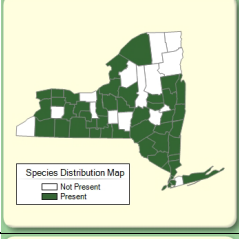
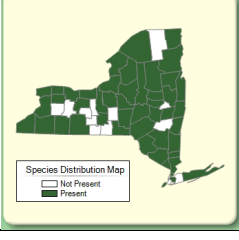
	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
American wahoo <i>Euonymus atropurpureus</i>	0.5-1.5'	May-June	Tolerant	Moist-Dry	5.0-8.0	Bottomland forests and forest openings in deep alluvium.	



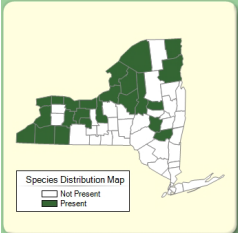
### Clethraceae (white alder family)

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Coastal sweet pepperbush  <i>Clethra alnifolia</i>	4-6'	June-Aug	Intermediate	Moist-Wet	4.5-7.0	Edges of acidic ponds, acidic sphagnum wetlands, and bog edges. Often with other shrubs including <i>Rhododendron viscosum</i>	

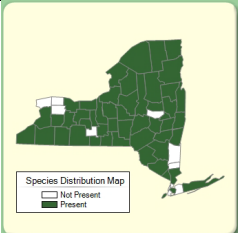
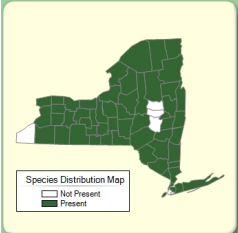
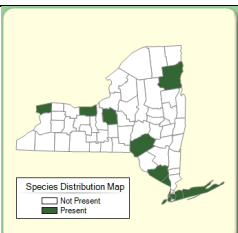
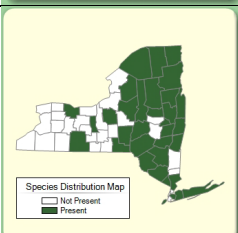
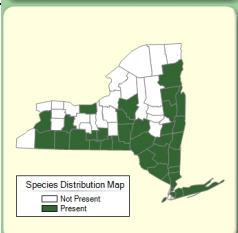
### Cornaceae (dogwood family)

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Alternate-leaved dogwood  <i>Cornus alternifolia</i>	25-30'	May-June	Tolerant	Moist	4.8-7.3	Understories of mesic, usually somewhat rich forests.	
Silky dogwood  <i>Cornus amomum</i>	6-12'	June-July	Intermediate	Wet-Moist	5.0-7.0	Fens, swamps, shrub swamps, marshes, edges of ponds, edges of streams, and ditches.	
Flowering dogwood  <i>Cornus florida</i>	16-49'	April-May	Tolerant	Moist-Dry	4.8-7.7	Understories of hardwood forests, forest edges, and woodlands in mesic to dry soils.	
Gray dogwood  <i>Cornus racemosa</i>	4-10'	June-July	Tolerant	Moist-Wet	4.8-7.4	Old fields, shrub thickets, shrub swamps, hummocks in swamps, and hedgerows. Occurs both in uplands and wetlands.	
Red-osier dogwood  <i>Cornus sericea</i>	3-20'	May-June	Intermediate	Wet-Moist	5.0-7.5	Shrub swamps, fens, marshes, and edges of ponds and streams often in calcareous soils but not restricted to these soils.	

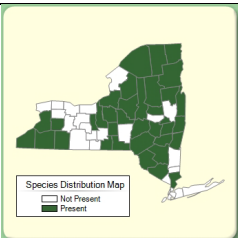
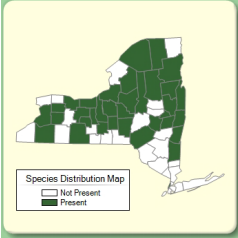
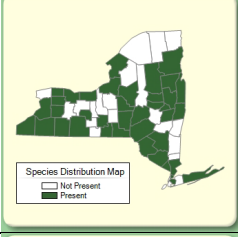
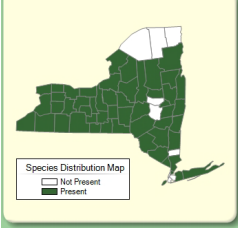
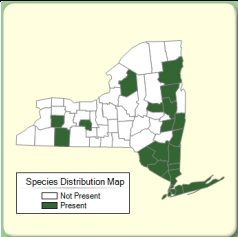
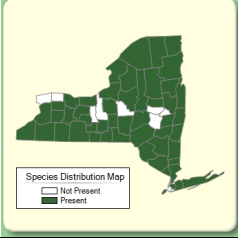
## *Elaeagnaceae* (oleaster family)

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Canada buffalo berry  <i>Shepherdia canadensis</i>	3-13'	April- May	Intermediate	Dry- Moist	5.3- 8.0	Calcareous rocky open bluffs and ledges. Fairly local and populations are usually small.	

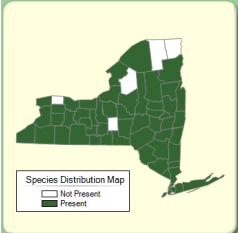
## *Ericaceae* (heath family)

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Leatherleaf  <i>Chamaedaphne calyculata</i>	3-5'	April- June	Intolerant	Wet- Moist	5.0- 6.0	Bogs, edges of ponds, and acidic peaty open sites. Mostly confined to acidic peatlands where it can form dense extensive monospecific stands or become mixed with other low shrubs to form dense shrub thickets.	
Black huckleberry  <i>Gaylussacia baccata</i>	1-3'	June- July	Tolerant	Dry- Moist	4.5- 6.5	Dry-mesic to mesic acidic hardwood forests of a southern affinity, bluffs, woodlands, and rocky summits. Occasionally occurs in wet acidic peatlands. Often occurs high on slopes or on hilltops in association with <i>Vaccinium</i> spp.	
Dangleberry  <i>Gaylussacia frondosa</i>	5-6'	Mar- May	Intermediate	Dry- Moist	3.8- 5.5	Dry to mesic upland forests of a southern affinity often in association with other ericaceous shrubs.	
Sheep laurel  <i>Kalmia angustifolia</i>	1-3'	June- July	Intermediate	Wet- Dry	4.5- 6.5	Sub-alpine forests, wet acidic peatlands, dry sandy forests, and forest edges. Primarily a species of acidic soils, it grows in dry to wet open or slightly shaded habitats.	
Mountain laurel  <i>Kalmia latifolia</i>	6-10'	April- June	Intermediate	Moist- Dry	4.5- 5.5	Oak dominated mesic to dry forests, woodlands, rocky summits, utility rights-of-way, and occasionally acidic swamps. Very limited in central and western New York but quite common in the southeastern parts of the state.	

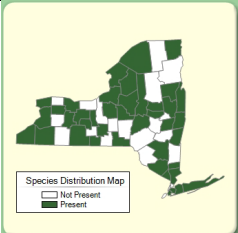
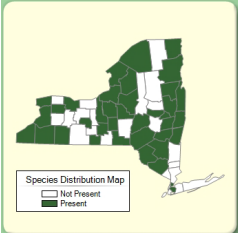
*Ericaceae* (heath family) continued

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Bog laurel <i>Kalmia polifolia</i>	0.5-2.5'	May-June	Intermediate	Wet-Moist	6.0-7.3	Acidic bogs. Often grows mixed with other shrubs.	
Labrador tea <i>Rhododendron groenlandicum</i>	1-3'	June-August	Intermediate	Wet-Moist	5.0-7.0	Bogs, wet peaty sub-alpine forest openings, and rocky high elevation sites.	
Great laurel <i>Rhododendron maximum</i>	10-20'	June-August	Tolerant	Moist	4.0-5.5	Swamps, edges of ponds, and occasionally in wet forests. In central and western New York, it is restricted to small disjunct patches in cool swamps. In southeastern New York, it becomes more common.	
Early azalea <i>Rhododendron prinophyllum</i>	2-8'	May-June	Intermediate	Moist	4.5-6.0	Dry to dry-mesic forests, forest edges, bluffs, hummocks and edges of swamps, and utility rights-of-way. Primarily a species of slightly open dry acidic oak dominated forests but also somewhat frequent on hummocks in swamps.	
Swamp azalea <i>Rhododendron viscosum</i>	3-8'	June-July	Intermediate	Wet-Moist	4.0-7.0	Acidic swamps, swamp edges, and edges of ponds. Most common in the more southern parts of New York and restricted or absent from the rest of the state.	
Common lowbush blueberry <i>Vaccinium angustifolium</i>	0.25-2'	May-June	Intermediate	Dry-Moist	4.7-7.5	Dry to dry-mesic acidic forests, rocky summits, woodlands, barrens, rocky alpine areas, and fields with thin soils. Mostly in thin dry acidic rocky soils.	

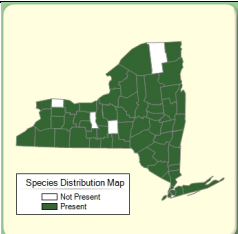
***Ericaceae* (heath family) continued**

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Highbush blueberry  <i>Vaccinium corymbosum</i>	6.5-10'	May-June	Tolerant	Wet-Dry	4.7-7.5	In a wide variety of wetlands and also in dry thin soils on crests and upper slopes. Rich fens, acidic bogs, swamps, shrub swamps, wet thickets, edges of marshes, and mesic forests.	

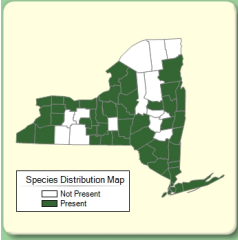
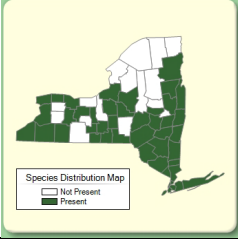
***Grossulariaceae* (currant family)**

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Wild black currant  <i>Ribes americanum</i>	3-5'	May-June	Intermediate	Wet-Moist	5.0-7.8	Floodplain forests, thickets, and stream edges. Often in deep well drained alluvium.	
Prickly gooseberry  <i>Ribes cynosbati</i>	2-4'	April-June	Intermediate	Moist-Wet	5.6-6.5	Mesic hardwood forests, successional forests, forest edges, and thickets. Mostly in somewhat to very calcareous soils.	

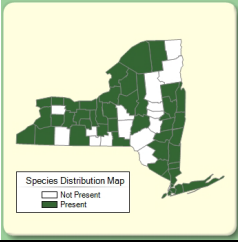
***Hamamelidaceae* (witch hazel family)**

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Witch hazel  <i>Hamamelis virginiana</i>	20-30'	Oct-Nov	Intermediate	Dry-Moist	4.5-6.2	An understory shrub in various dry-mesic to mesic hardwood forests.	

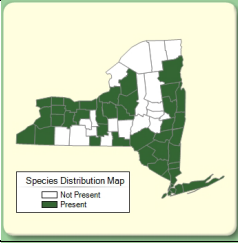
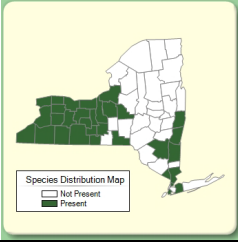
### Lauraceae (laurel family)

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Spicebush <i>Lindera benzoin</i>	6-12'	May-June	Tolerant	Wet-Moist	4.5-6.0	Floodplain forests, swamps, shrub swamps, wet woods, mesic forests, seeps in forests, and fens. Occurs in mesic to wet soils often but not always in at least partial shade. In some forest understories it can be the dominant species in the shrub layer.	
Sassafras <i>Sassafras albidum</i>	40-100'	April-May	Intolerant	Moist-Dry	4.5-7.3	Mesic to dry forests, edges of forests, woodlands, talus slopes, bluffs, sand dunes, dry stream banks, pastures, hedge rows, successional fields, and road banks. Often in sandy or gravelly soils.	

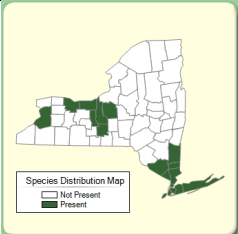
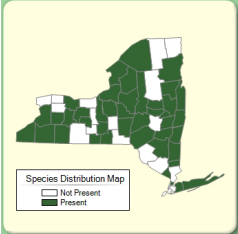
### Lythraceae (loosestrife family)

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Water willow <i>Decodon verticillatus</i>	6-8'	July-Aug	Intermediate	Wet	4.9-8.6	On the edges of ponds and lakes, swamps, and wet thickets. Occasionally in sphagnum dominated peatlands. Sometimes forming dense impenetrable thickets in shallow to deep water.	

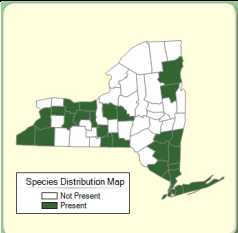
### Magnoliaceae (magnolia family)

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Tulip poplar or yellow poplar <i>Liriodendron tulipifera</i>	80-200'	April-June	Intolerant	Moist	4.5-6.5	Mesic to wet-mesic hardwood forests. This tree is often an indicator of deep rich mesic circumneutral soils growing primarily in valley bottoms (excluding the lowest floodplains) and on lower slopes.	
Cucumber tree <i>Magnolia acuminata</i>	60-80'	May-June	Intermediate	Moist	5.2-7.0	Mesic forests sometimes in deep rich and/or calcareous soils. Occasionally in dry-mesic or wet-mesic soils. It often occurs sparsely distributed and does not become a dominant tree in New York.	

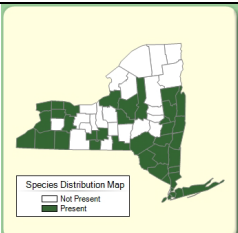
### Malvaceae (mallow family)

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Swamp rose mallow <i>Hibiscus moscheutos</i>	3-7'	July-Sept	Intermediate	Moist-Wet	4.0-7.5	Brackish and fresh tidal and non-tidal often large and extensive marshes.	
American basswood <i>Tilia americana</i>	75-130'	June-July	Intermediate	Moist-Dry	4.5-7.5	Rich mesic forests, talus slopes, bases of rock outcrops, bluffs, and thin soil over calcareous bedrock. Although occurring throughout New York's mesic hardwood forests, excepting the cooler parts of the state, this species is most abundant in deep rich mesic soils of valley bottoms and lower slopes as well as on talus slopes and in association with rocky outcrops.	

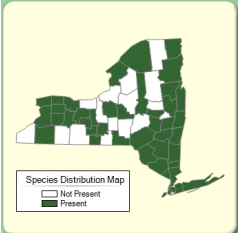
### Myricaceae (bayberry or wax tree family)

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Bayberry <i>Morella caroliniensis</i>	2-6'	April-June	Intermediate	Wet-Dry	4.5-7.0	This species is found in upland maritime habitats, dunes, rich open to forested fens, and open habitats in sandy or thin acidic soils.	

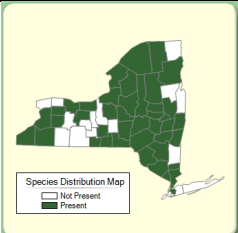
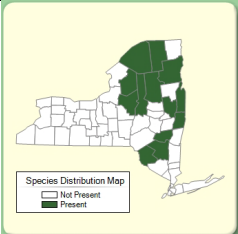
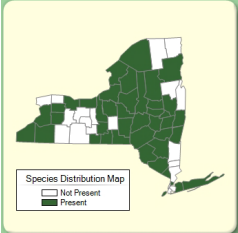
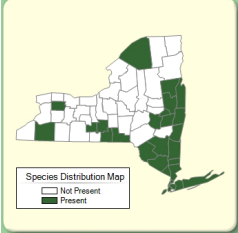
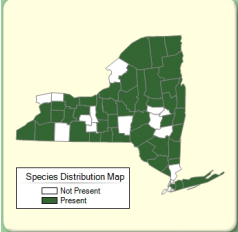
### Nyssaceae (tupelo family)

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Blackgum <i>Nyssa sylvatica</i>	60-80'	April-June	Tolerant	Wet-Moist	4.5-6.0	Swamps, wet depressions, wet woods, and borders of ponds and streams. Also in dry upland sites. Sometimes these upland sites are associated with seasonal springs or seeps. In the upland sites, populations are sometimes very small.	

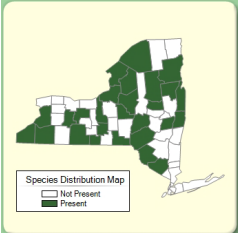
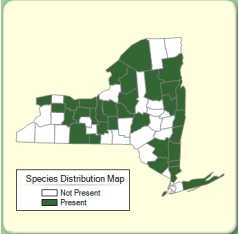
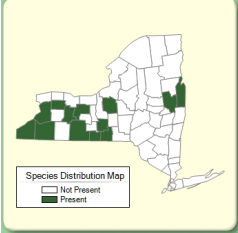
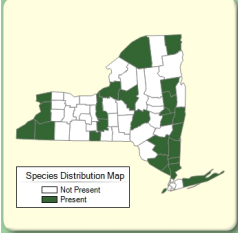
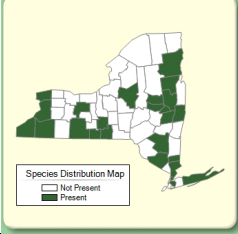
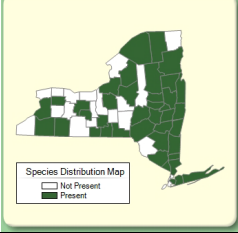
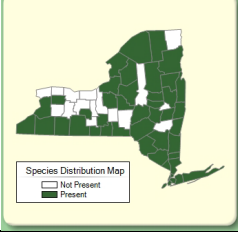
## Rhamnaceae (buckthorn family)

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
New Jersey tea <i>Ceanothus americanus</i>	1-3'	June-Aug	Intermediate	Moist-Dry	4.3-6.5	Edges of hardwoods forests, openings in forests, exposed rims of cliffs, utility rights-of-way, and roadside banks in dry-mesic thin often rocky or sandy circumneutral to calcareous soils.	

## Rosaceae (rose family)

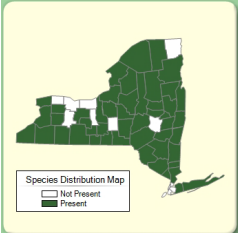
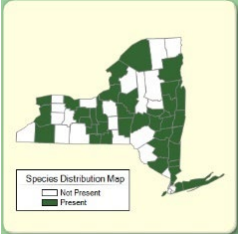
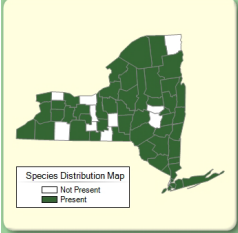
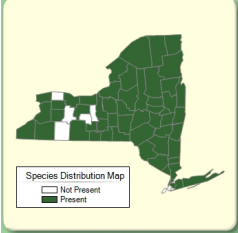
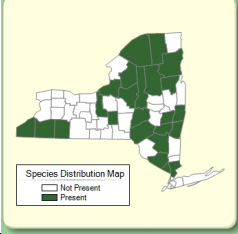
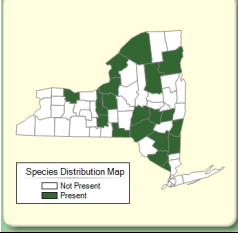
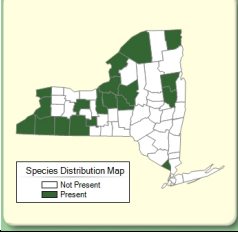
	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Downy shadbush <i>Amelanchier arborea</i>	20-30'	April-May	Intermediate	Dry-Moist	5.5-7.0	A wide variety of hardwood forests, forest edges, hedge rows, bluffs, ledges, roadsides, and occasionally hummocks in swamps.	
Mountain shadbush <i>Amelanchier bartramiana</i>	2-8'	May-June	Intermediate	Moist	5.5-7.0	Northern hardwood and mixed hardwood-coniferous forests, forest edges, opening in forests, and peatlands. A species of cool habitats predominately occurring in the cooler and more northern parts of New York.	
Smooth shadbush <i>Amelanchier laevis</i>	25-35'	April-May	Intermediate	Moist-Dry	4.8-7.0	Forests, forest edges, openings in forests, thickets, bluffs, rock outcrops, ledges, hummocks in swamps, and roadsides.	
Red chokeberry <i>Aronia arbutifolia</i>	5-12'	May-June	Intermediate	Wet-Moist	5.5-7.5	Swamps, marshes, wet thickets, lake edges, and peatlands.	
Black chokeberry <i>Aronia melanocarpa</i>	3-10'	May-June	Intermediate	Wet-Dry	4.4-6.5	Swamps, marshes, wet thickets, lakes edges, peatlands, rock outcrops, rocky summits, pine barrens, and sandy forests.	

*Rosaceae* (rose family) continued

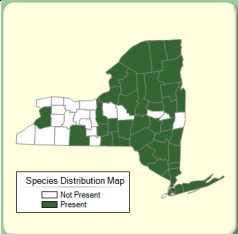
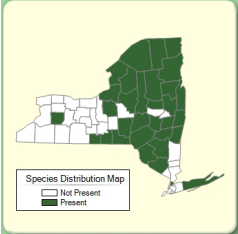
	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Dotted hawthorn <i>Crataegus punctata</i>	10-30'	May-June	Intermediate	Moist-Dry	5.0-8.0	Hedgerows, thickets, successional forests, forest edges, and roadsides.	
Shrubby cinquefoil <i>Dasiphora fruticosa</i>	1-3'	July-Sept	Intermediate	Dry-Wet	5.0-8.0	Calcareous cliffs, ledges, rocky river shores, seeps, swamps, and rich fens. A plant of calcareous regions.	
Wild crabapple <i>Malus coronaria</i>	20-30'	May-June	Intermediate	Moist	5.5-7.5	Thickets, hedgerows, forest edges, pastures, and successional fields. This taxon can also be found dying in successional forests.	
Ninebark <i>Physocarpus opulifolius</i>	2-8'	May-June	Intermediate	Moist	5.0-8.0	Riverbanks, thickets in valley bottoms, and rock outcrops.	
American plum <i>Prunus americana</i>	3-33'	April-May	Intolerant	Moist	5.0-7.0	Hedgerows, thickets, forest edges, young successional forests, and disturbed soils often in valley bottoms and floodplains.	
Fire cherry <i>Prunus pensylvanica</i>	15-50'	May-June	Intolerant	Dry-Moist	4.3-7.3	Edges of forests, successional forests, logged areas, burned areas, forest openings, rocky summits, rock outcrops, cliffs, ledges, and bluffs.	
Wild black cherry <i>Prunus serotina</i>	80-125'	May-June	Intolerant	Moist	4.0-7.5	Hardwood forests, forest edges, and hedge rows. A major forest tree in hardwood forests preferring rich mesic soils.	



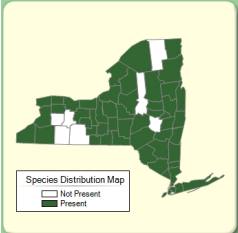
*Rosaceae* (rose family) continued

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Choke cherry <i>Prunus virginiana</i>	10-25'	April-June	Intermediate	Moist-Dry	5.2-8.4	Thickets, hardwood forests, forest edges, hedgerows, and roadsides.	
Pasture rose <i>Rosa carolina</i>	2-5'	June-Aug	Intermediate	Dry-Moist	4.0-7.0	Edges of forests, thin canopied forests, woodlands, edges of paths and dirt roads through forests, successional fields, and forest openings. Generally in dry to dry-mesic soils.	
Swamp rose <i>Rosa palustris</i>	3-7'	June-July	Intermediate	Wet-Moist	4.0-7.0	Swamps, edges of streams and lakes, marshes, and rich shrubby fens.	
Purple flowering raspberry <i>Rubus odoratus</i>	3-5'	June-Aug	Intermediate	Moist-Wet	4.5-6.5	Forest edges, talus slopes, mesic rocky outcrops, disturbed soils in forests, and thickets. Generally in wet-mesic or sometimes mesic soils and often in at least partly shaded habitats.	
American mountain ash <i>Sorbus americana</i>	10-30'	June-July	Intolerant	Moist	5.3-6.8	Cool northern coniferous to hardwood forests, sub-alpine forests, forest edges and openings, open rocky ridges and summits, and talus slopes.	
Northern mountain ash <i>Sorbus decora</i>	10-40'	June-July	Intermediate	Moist-Dry	4.0-7.0	Cool northern coniferous to hardwood forests, sub-alpine forests, forest edges and openings, open rocky ridges and summits, and talus slopes. Often in cooler and higher elevation sites than <i>Sorbus americana</i> .	
Narrow-leaved meadowsweet <i>Spiraea alba</i> var. <i>alba</i>	3-6'	July-Sept	Intermediate	Moist-Wet	4.3-6.8	Streamside meadows, swamps, wet forests, marshes, peatlands, wet thickets, forest openings, ditches, and thin soil over bedrock on exposed open rocky summits.	

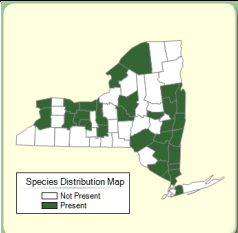
*Rosaceae* (rose family) continued

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Broad-leaved meadowsweet <i>Spiraea alba</i> <i>var. latifolia</i>	2-6'	July-August	Intermediate	Moist-Wet	5.6-7.3	Streamside meadows, swamps, wet forests, marshes, peatlands, wet thickets, forest openings, ditches, and thin soil over bedrock on exposed open rocky summits.	
Steeplebush <i>Spiraea tomentosa</i>	2-3'	Aug-Sept	Intermediate	Moist-Wet	4.5-7.0	Streamside meadows, wet thickets, ditches, peatlands, swamps, and marshes.	

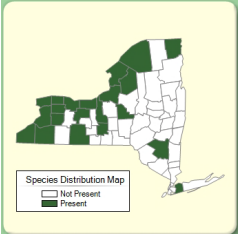
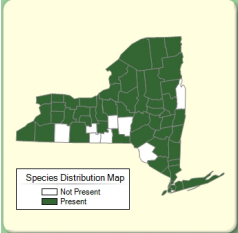
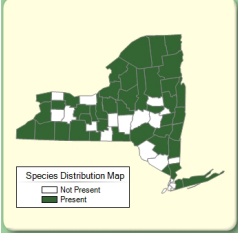
*Rubiaceae* (madder family)

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Buttonbush <i>Cephalanthus occidentalis</i>	6-12'	July-Aug	Intermediate	Moist-Wet	4.7-8.6	Ponds, vernal pools, edges of lakes, stream edges, and shrub swamps predominately in shallow water.	

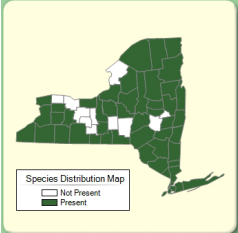
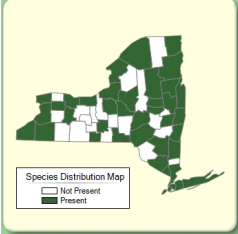
*Rutaceae* (rue family)

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Prickly ash <i>Zanthoxylum americanum</i>	15-25'	April-May	Tolerant	Wet-Moist	6.8-7.2	Wet thickets, low and floodplain mesic forests, streamside thickets, thin soils over limestone and calcareous bedrock, and other calcareous habitats both wet and dry.	

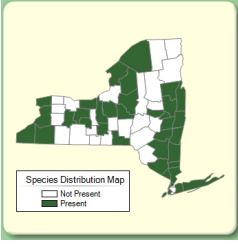
**Salicaceae (willow family)**

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Peach-leaved willow  <i>Salix amygdaloides</i>	20-40'	May-June	Intolerant	Moist	6.0-8.0	Edges of lakes, floodplain forests, and stream sides.	
Pussy willow  <i>Salix discolor</i>	10-30'	March-April	Intolerant	Wet-Moist	4.0-7.0	Swamps, rich fens, wet thickets, wet successional fields, roadsides, ditches, marshes, vernal pools, and edges of lakes and streams.	
Shinning willow  <i>Salix lucida</i>	3-20'	May-June	Intolerant	Wet-Moist	5.8-7.2	Shrub swamps, stream and lake edges, rich fens, ditches, and wet thickets. Populations are often isolated and small.	

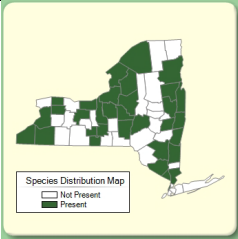
**Sapindaceae (soapberry family)**

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Red maple  <i>Acer rubrum</i>	30-90'	March-April	Intermediate	Dry-Wet	4.7-7.3	Occurs in a wide variety of habitats and soil types. Wet swamps to dry forests and young successional habitats. This is a very widespread and common tree.	
Silver maple  <i>Acer saccharinum</i>	90-120'	March-April	Intermediate	Moist	4.0-7.3	Floodplain forests and banks of larger streams and rivers. This species is also widely cultivated.	

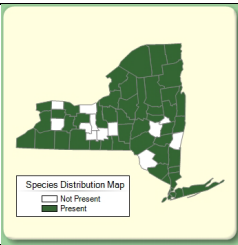
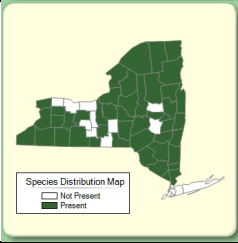
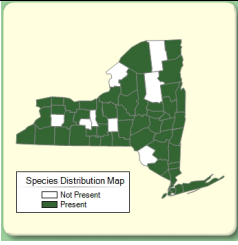
### Staphyleaceae (bladdernut family)

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Bladdernut <i>Staphylea trifolia</i>	10-20'	April-May	Tolerant	Dry-Moist	6.8-7.2	Rocky forests, rock outcrops, thin soils on exposed calcareous bedrock, banks of forested streams, and mesic forests (particularly floodplain forests) and thickets. Prefers dry to mesic highly calcareous sites but when in rocky forested sites it may not be as strong of a calciphile.	

### Thymelaeaceae (stingbarks family)

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Eastern leatherwood <i>Dirca palustris</i>	3-6'	March-April	Tolerant	Dry-Moist	5.0-7.0	Rich mesic to dry-mesic forests, stream edges, and forested seeps. Associated with highly calcareous soils.	

### Viburnaceae (viburnum family)

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Common elderberry <i>Sambucus nigra</i> ssp. <i>canadensis</i>	8-10'	June-July	Intermediate	Wet-Moist	5.0-8.0	Marshes, thickets, and stream banks. Mostly in non or only slightly shaded habitats and usually wet or seasonally flooded (sometimes mesic) soils.	
Red elderberry <i>Sambucus racemosa</i>	7-20'	May-June	Tolerant	Moist	5.0-8.0	Cool mesic forests, rocky forested slopes, roadsides in cooler parts of the state, and thickets. Mostly in shaded habitats.	
Maple-leaf viburnum <i>Viburnum acerifolium</i>	3-6'	May-June	Tolerant	Moist-Dry	4.8-7.5	Understories of forests, woodlands, edges of forests, forested road banks, and rocky slopes often in acidic not deep soils. A very common understory shrub in mesic acidic deciduous forests (sometimes dominated by <i>Quercus rubra</i> ).	

*Viburnaceae* (viburnum family) continued

	Height at Maturity	Bloom Time	Shade Tolerance	Soil Moisture	pH	Habitat Notes from NY Flora Atlas	Species Distribution Map from NY Flora Atlas
Hobblebush <i>Viburnum lantanoides</i>	6-12'	May-June	Tolerant	Moist	4.9-7.0	Coniferous, mixed hardwood-coniferous, and hardwood forests; forested stream banks, rocky ledges, and ravine slopes. Very common in the cooler parts of the state including the Adirondacks where it can form dense thickets.	
Nannyberry <i>Viburnum lentago</i>	10-25'	May-June	Intermediate	Wet-Moist	5.0-7.0	Shrub and tree swamps, marshes, roadside ditches, and wet to mesic successional fields. It does best in wet soils but will also grow in mesic or seasonally flooded areas.	
Highbush cranberry <i>Viburnum opulus</i> var. <i>americanum</i>	8-15'	May-June	Intermediate	Wet-Moist	5.5-7.5	Shrub and tree swamps (including rich fens), wet thickets, and marshes.	
Blackhaw <i>Viburnum prunifolium</i>	12-15'	April-June	Tolerant	Dry-Moist	4.8-7.5	Dry-mesic forests, thickets, successional shrub thickets, and successional fields. Mostly in thin dry soils. <i>Viburnum prunifolium</i> is mostly restricted to southeastern NY.	

# BLOOM CHART FOR TREES AND SHRUBS

SPECIES	COMMON NAME	BLOOM								
		MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV
<i>Acer rubrum</i>	Red maple									
<i>Acer saccharinum</i>	Silver maple									
<i>Amelanchier arborea</i>	Downy shadbush									
<i>Amelanchier bartramiana</i>	Mountain shadbush									
<i>Amelanchier laevis</i>	Smooth shadbush									
<i>Aronia arbutifolia</i>	Red chokeberry									
<i>Aronia melanocarpa</i>	Black chokeberry									
<i>Ceanothus americanus</i>	New Jersey tea									
<i>Cephalanthus occidentalis</i>	Buttonbush									
<i>Chamaedaphne calyculata</i>	Leatherleaf									
<i>Clethra alnifolia</i>	Coastal sweet pepperbush									
<i>Cornus alternifolia</i>	Alternate-leaved dogwood									
<i>Cornus amomum ssp. amomum</i>	Silky dogwood									
<i>Cornus florida</i>	Flowering dogwood									
<i>Cornus racemosa</i>	Gray dogwood									
<i>Cornus sericea</i>	Red-osier dogwood									
<i>Crataegus punctata</i>	Dotted hawthorn									
<i>Dasiphora fruticosa</i>	Shrubby cinquefoil									
<i>Decodon verticillatus</i>	Water willow									
<i>Diervilla lonicera</i>	Bush honeysuckle									
<i>Dirca palustris</i>	Eastern leatherwood									
<i>Eubotrys racemosa</i>	Swamp fetterbush									
<i>Euonymus atropurpureus</i>	American wahoo									
<i>Gaylussacia baccata</i>	Black huckleberry									
<i>Gaylussacia frondosa</i>	Dangleberry									
<i>Hamamelis virginiana</i>	Witch hazel									
<i>Hibiscus moscheutos</i>	Swamp rose mallow									
<i>Ilex laevigata</i>	Smooth winterberry									
<i>Ilex mucronata</i>	Mountain holly									
<i>Ilex verticillata</i>	Common winterberry									
<i>Kalmia angustifolia</i>	Sheep laurel, sheepkill									
<i>Kalmia latifolia</i>	Mountain laurel									
<i>Kalmia polifolia</i>	Bog laurel									
<i>Lindera benzoin</i>	Spicebush									
<i>Liriodendron tulipifera</i>	Tulip tree, yellow poplar									
<i>Lonicera canadensis</i>	American fly honeysuckle									
<i>Lonicera dioica</i>	Smooth-leaved honeysuckle									
<i>Lonicera oblongifolia</i>	Swamp fly honeysuckle									
<i>Lonicera villosa</i>	Mountain fly honeysuckle									
<i>Magnolia acuminata</i>	Cucumber tree									

# BLOOM CHART FOR TREES AND SHRUBS

SPECIES	COMMON NAME	BLOOM								
		MAR	APRIL	MAY	JUNE	JULY	AUG	SEP	OCT	NOV
<i>Malus coronaria</i>	Wild crab apple									
<i>Morella caroliniensis</i>	Bayberry									
<i>Nyssa sylvatica</i>	Blackgum, sourgum									
<i>Physocarpus opulifolius</i>	Ninebark									
<i>Prunus americana</i>	American plum									
<i>Prunus pensylvanica</i>	Pin cherry, fire cherry									
<i>Prunus serotina</i>	Black cherry									
<i>Prunus virginiana var. virginiana</i>	Choke cherry									
<i>Rhododendron groenlandicum</i>	Labrador tea									
<i>Rhododendron maximum</i>	Great rosebay, great laurel									
<i>Rhododendron prinophyllum</i>	Early azalea									
<i>Rhododendron viscosum</i>	Swamp azalea									
<i>Rhus aromatica</i>	Fragrant sumac									
<i>Rhus glabra</i>	Smooth sumac									
<i>Ribes americanum</i>	Wild black currant									
<i>Ribes cynosbati</i>	Prickly gooseberry									
<i>Rosa palustris</i>	Swamp rose									
<i>Rubus odoratus</i>	Purple-flowering raspberry									
<i>Salix amygdaloides</i>	Peach-leaved willow									
<i>Salix discolor</i>	Pussy willow									
<i>Salix lucida</i>	Shining willow									
<i>Sambucus nigra ssp. canadensis</i>	Common elderberry									
<i>Sambucus racemosa</i>	Red elderberry									
<i>Sassafras albidum</i>	Sassafras									
<i>Shepherdia canadensis</i>	Canada buffalo berry									
<i>Sorbus americana</i>	American mountain ash									
<i>Sorbus decora</i>	Northern mountain ash									
<i>Spiraea alba var. alba</i>	Narrow-leaved meadowsweet									
<i>Spiraea alba var. latifolia</i>	Broad-leaved meadowsweet									
<i>Spiraea tomentosa</i>	Steeplebush									
<i>Staphylea trifolia</i>	Bladdernut									
<i>Tilia americana</i>	American basswood									
<i>Vaccinium angustifolium</i>	Lowbush blueberry									
<i>Vaccinium corymbosum</i>	Highbush blueberry									
<i>Viburnum acerifolium</i>	Maple-leaved viburnum									
<i>Viburnum lantanoides</i>	Hobblebush									
<i>Viburnum lentago</i>	Nannyberry									
<i>Viburnum opulus var. americanum</i>	Highbush cranberry									
<i>Viburnum prunifolium</i>	Blackhaw									
<i>Zanthoxylum americanum</i>	Prickly ash									

**POLLINATOR  
PARTNERSHIP**

Protect their lives. Preserve ours.