

Appendix A: Native Vegetation

Several sources were used to determine vegetation species native to the Catskill Mountain region. The first list of species that is provided here, includes species recommendations for planting in different locations within the riparian buffer including, upland, bench and streamside plantings (Table A.1). This list provides information regarding the characteristics of each plant, these characteristics are described below. The second list of species is a more comprehensive list of species that are native to the Catskill Mountain region and the habitat types that species are commonly found in (Table A.2). The information on plant characteristics and wetland indicator status was obtained from the USDA plants database. Wetland indicator status was also determined using *the National List of Plant Species That Occur in Wetlands: 1988 New York*.

Northeast Indicator Category (NEWIS): The estimated probability of a species occurring in wetlands versus nonwetlands in the region. OBL, FACW, FAC, FACU, UPL.

Indicator Category Definitions

OBL: Obligate Wetland. Occur almost always (estimated probability >99% under natural conditions in wetlands).

FACW: Facultative Wetland. Usually occur in wetlands (estimated probability 67%-99%), but occasionally found in nonwetlands.

FAC: Facultative. Equally likely to occur in wetlands or nonwetlands (estimated probability 34%-66%).

FACU: Facultative Upland. Usually occur in nonwetlands (estimated probability 67%-99%), but occasionally found in wetlands (estimated probability 1%-33%).

UPL: Obligate Upland. Occur in wetlands in another region, but occur almost always (estimated probability >99%) under natural conditions in nonwetlands in the region specified. If a species does not occur in wetlands in any region, it is not on the National List.

A positive (+) or negative (-) sign was used with the Facultative Indicator categories to more specifically define regional frequency of occurrence in wetlands. The positive sign indicates a frequency toward the higher end of the category (more frequently found in wetlands), and a negative sign indicates a frequency toward the lower end of the category (less frequently found in wetlands).

Habit: Habit symbols are combined to describe the life form of the species.

Symbol	Characteristic or Life Form
A	Annual
B	Biennial
C	Clubmoss
E	Emergent

@	Epiphytic
F	Forb
/	Floating
F3	Fern
G	Grass
GL	Grasslike
H	Partly woody
HS	Half shrub
H2	Horsetail
I	Introduced
N	Native
P	Perennial
+	Parasitic
P3	Pepperwort
Q	Quillwort
S	Shrub
-	Saprophytic
Z	Submerged
\$	Succulent
T	Tree
V	Herbaceous vine
W	Waterfern
WV	Woody vine

Species Characteristics

Growth Rate: The growth rate relative to other plant species. Slow, Moderate, Rapid, Unknown

Coarse Textured Soils: Can this plant establish and grow in coarse textured soils?

Coarse Textured Soils: Can this plant establish and grow in fine textured soils?

Moisture Use: What are this plant’s relative moisture requirements for growth?

Planting Density per Acre: The recommended minimum and maximum number of individuals to plant per acre.

Cuttings: Can the plant be propagated as cuttings?

Seedling Vigor: What is the relative vigor of the plant in seedling stage? Low, Medium, High, Unknown

Table A.1 Recommended species for planting in upland, bench and streamside locations within the riparian buffers of Catskill streams.

Species recommended for upland plantings

Scientific Name	Common Name	NEWIS	Growth Rate	Coarse Soils	Fine Soils	Moisture Use	Seedling Vigor	Cuttings
Trees								
<i>Acer rubrum</i>	Red maple	FAC	Rapid	Yes	Yes	High	Medium	No
<i>Betula alleghaniensis</i>	Yellow birch	FAC	Rapid	Yes	Yes	Medium	Medium	No
<i>Betula papyrifera</i>	Paper birch	FACU	Rapid	Yes	Yes	High	Medium	Yes
<i>Betula populifolia</i>	Gray birch	FAC	Rapid	Yes	Yes	Low	Medium	No
<i>Carya ovata</i>	Shagbark hickory	FACU	Rapid	Yes	No	Medium	High	No
<i>Pinus resinosa</i>	Red pine	FACU	Rapid	Yes	No	Low	High	No
<i>Pinus rigida</i>	Pitch pine	FACU	Rapid	Yes	No	Low	High	No
<i>Populus grandidentata</i>	Bigtooth aspen	FACU-	Rapid	Yes	No	High	Medium	No
<i>Prunus pensylvanica</i>	Pin cherry	FACU	Rapid	Yes	Yes	Medium	Low	Yes
<i>Prunus serotina</i>	Black cherry	FACU	Rapid	Yes	No	Medium	High	No
<i>Ulmus rubra</i>	Slippery or red elm	FAC	Rapid	Yes	Yes	High	High	No
Shrubs								
<i>Cornus florida</i>	Flowering Dogwood	FACU	Moderate	No	No	Low	Medium	No
<i>Kalmia latifolia</i>	Mountain laurel	FACU	Slow	Yes	No	Low	Low	Yes
<i>Prunus virginiana</i>	Choke cherry	FACU	Rapid	Yes	Yes	Medium	Medium	No
<i>Vaccinium angustifolium</i>	Lowbush blueberry	FACU	Moderate	Yes	Yes	Medium	Low	Yes

Species recommended for bench plantings.

Scientific Name	Common Name	NEWIS	Growth Rate	Coarse Soils	Fine Soils	Moisture Use	Seedling Vigor	Cuttings
Trees								
<i>Acer rubrum</i>	Red maple	FAC	Rapid	Yes	Yes	High	Medium	No
<i>Betula alleghaniensis</i>	Yellow birch	FAC	Rapid	Yes	Yes	Medium	Medium	No
<i>Betula populifolia</i>	Gray birch	FAC	Rapid	Yes	Yes	Low	Medium	No
<i>Fraxinus pennsylvanica</i>	Green ash	FACW	Rapid	Yes	Yes	Medium	Medium	No

<i>Populus balsamifera</i>	Balsam Poplar	FACW	Rapid	Yes	Yes	High	Medium	Yes
<i>Quercus bicolor</i>	Swamp white oak	FACW+	Rapid	Yes	Yes	High	High	No
<i>Ulmus americana</i>	American elm	FACW-	Rapid	Yes	Yes	High	Medium	Yes
<i>Ulmus rubra</i>	Slippery or red elm	FAC	Rapid	Yes	Yes	High	High	No
Shrubs								
<i>Alnus serrulata</i>	Hazel alder	OBL	Rapid	Yes	Yes	High	Low	No
<i>Alnus viridis ssp. crispa</i>	Mountain alder	FAC	Moderate	No	No	High	Medium	No
<i>Amelanchier arborea</i>	Downy Service Berry	FAC-	Moderate	Yes		Medium	Low	Yes
<i>Cornus amomum</i>	Silky dogwood	FACW	Moderate	Yes	Yes	High	Medium	Yes
<i>Rhododendron maximum</i>	Great or white laurel rhododendron	FAC	Slow	Yes	No	Medium	Low	Yes
<i>Vaccinium corymbosum</i>	Highbush blueberry	FACW-	Moderate	Yes	Yes	Medium	Low	Yes
<i>Sambucus nigra canadensis</i>	Common Edlerberry	FACW-	Rapid	No	No	Medium	High	No
Herbaceous								
<i>Adiantum pedatum</i>	Northern maidenhair	FAC-	Moderate	Yes	No	Medium	Low	No
<i>Andropogon gerardii</i>	Big Bluestem	FAC	Moderate	Yes	Yes	High	Low	No
<i>Arisaema triphyllum</i>	Jack-in-the-Pulpit	FACW-	Moderate	Yes	No	High	Low	No
<i>Athyrium filix-femina</i>	Common ladyfern	FAC	Moderate	No	No	Medium	Unknown	No
<i>Helenium autumnale</i>	common sneezeweed or Helen's Flower	FACW+	Rapid	Yes	Yes	Medium	High	No
<i>Helianthus tuberosus</i>	Jerusalem Artichoke	FAC	Rapid	Yes	No	Low	Medium	No
<i>Osmunda cinnamomea</i>	Cinnamon fern	FACW	Moderate	No	Yes	Medium	Medium	No

Species recommended for streamside plantings

Scientific Name	Common Name	NEWIS	Growth Rate	Coarse Soils	Fine Soils	Moisture Use	Seedling Vigor	Cuttings
Willows								
<i>Salix amygdaloides</i>	Peach-leaved willow	FACW	Rapid	Yes	No	High	Low	Yes
<i>Salix bebbiana</i>	Beaked willow	FACW	Moderate	Yes	Yes	High	Unknown	Yes

<i>Salix discolor</i>	Pussy willow	FACW	Rapid	Yes	Yes	High	High	Yes
<i>Salix eriocephala</i>	Gall willow	FACW	Rapid	No	Yes	High	High	Yes
<i>Salix nigra</i>	Black willow	FACW+	Rapid	Yes	Yes	High	Low	Yes
<i>Salix sericea</i>	Silky willow	OBL	Rapid	Yes	Yes	High	Medium	Yes
Shrubs								
<i>Alnus serrulata</i>	Hazel alder	OBL	Rapid	Yes	Yes	High	Low	No
<i>Cornus amomum</i>	Silky dogwood	FACW	Moderate	Yes	Yes	High	Medium	Yes
Herbaceous								
<i>Carex flaccosperma</i>	Blue Wood Sedge	FAC	Slow	No	Yes	High	Low	No
<i>Carex grayi</i>	Gray's Sedge	FACW+	Slow	No	Yes	High	Low	No
<i>Carex intumescens</i>	Greater bladder sedge	FACW+	Moderate	No	Yes	High	Low	No
<i>Carex lacustris</i>	Hairy sedge	OBL	Rapid	No	Yes	High	Low	No
<i>Carex stricta</i>	Upright sedge	OBL	Moderate	Yes	Yes	Medium	Medium	No
<i>Carex vulpinoidea</i>	Fox Sedge	OBL	Moderate	No	Yes	Medium	Medium	No
<i>Cinna arundinacea</i>	Sweet Woodreed	FACW+	Moderate	Yes	Yes	Low	Medium	No
<i>Elymus riparius</i>	Riverbank wildrye	FACW	Moderate	Yes	Yes	High	High	No
<i>Osmunda regalis</i>	Royal fern	OBL	Moderate	Yes	Yes	High	Unknown	Yes
<i>Peltandra virginica</i>	Arrow arum	OBL	Slow	Yes	Yes	High	Medium	No
<i>Symplocarpus foetidus</i>	Skunk cabbage	OBL	Moderate	Yes	Yes	High	Medium	No

Table A.2 Tree, shrub and herbaceous species native to the Catskill Mountain region.

Common Name	Scientific Name	Habitat Types
Trees		
American beech FACU	<i>Fagus grandifolia</i>	Northern hardwoods forest; moist, well-drained, acidic soils, dominant; AND Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; codominant; AND Appalachian oak-pine forest; mixed forest occurs on sandy soils, sandy ravines in pine barrens, or on slopes with well drained rocky soils; common associate; AND Spruce-northern hardwood forest; occurs on lower mountain slopes; codominant tree
American elm FAC, FACW; NT	<i>Ulmus americana</i>	Successional northern hardwoods; AND Red maple-hardwood swamp; found throughout New York; codominant
Balsam fir FAC, FACW; NT	<i>Abies balsamea</i>	Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); dominant; AND Mountain fir forest; 1100-1400 meters; cool upper slopes exposed to wind; almost entirely balsam fir; AND Spruce-fir rocky summit; exposed ledges and ridgetops; sparse woods; dominant; AND Pitch pine-oak-heath rocky summit; on warmer ridgetops; stunted oak and pine forest with dwarf shrub openings; dominant; AND Spruce-northern hardwood forest; occurs on lower mountain slopes; AND Boreal coniferous forest; southern most portion
Balsam poplar FACU, FACW; NT	<i>Populus balsamifera</i>	Successional northern hardwoods; characteristic tree
Basswood FACU	<i>Tilia americana</i>	Northern hardwoods forest; moist, well-drained, acidic soils, not dominant; AND Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; codominant
Bigtooth aspen FACU	<i>Populus grandidentata</i>	Successional northern hardwoods; characteristic tree
Bitternut hickory FACU, FAC	<i>Carya cordiformis</i>	Appalachian oak-hickory forest; dryer, warmer, south and west-facing slopes and lower elevations; not dominant; AND Red maple-hardwood swamp; found throughout New York; low percent cover
Black ash FACW NT	<i>Fraxinus nigra</i>	Red maple-hardwood swamp; found throughout New York; codominant
Black birch FACU	<i>Betula lenta</i>	Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; codominant
Black cherry FACU	<i>Prunus serotina</i>	Northern hardwoods forest; moist, well-drained, acidic soils, not dominant; AND Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; codominant; AND Appalachian oak-pine forest; mixed forest occurs on sandy soils, sandy ravines in pine barrens, or on slopes with well drained rocky soils; common associate; AND Successional northern hardwoods; characteristic tree
Black gum FAC	<i>Nyssa sylvatica</i>	Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation; AND Hemlock-hardwood swamp; found throughout upstate New York; less frequently occurring tree; AND Red maple-hardwood swamp; found throughout New York; low percent cover
Black oak	<i>Quercus velutina</i>	Appalachian oak-hickory forest; usually on ridgetops, upper slopes, or south and west facing slopes; dominant; AND Appalachian oak-pine forest; mixed forest occurs on sandy soils, sandy ravines in pine barrens, or on slopes with well drained rocky soils; dominant
Butternut FACU	<i>Juglans cinerea</i>	Red maple-hardwood swamp; found throughout New York; low percent cover
Chestnut oak UPL, FACU	<i>Quercus prinus</i>	Appalachian oak-hickory forest; dryer, warmer, south and west-facing slopes and lower elevations; dominant; AND Pitch pine-oak-heath rocky summit; on warmer ridgetops; stunted oak and pine forest with dwarf shrub openings; dominant; AND Appalachian oak-pine forest; mixed forest occurs on sandy soils, sandy ravines in pine barrens, or on slopes with well drained rocky soils; dominant
Choke cherry	<i>Prunus virginiana</i>	Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation

FACU, FAC		
Eastern hemlock FACU	<i>Tsuga canadensis</i>	Hemlock-hardwoods forest; 305-1006 meters; co-dominant with hardwood species; AND Spruce-fir rocky summit; exposed ledges and ridgetops; sparse woods; dominant; AND Pitch pine-oak-heath rocky summit; on warmer ridgetops; stunted oak and pine forest with dwarf shrub openings; dominant; AND Appalachian oak-pine forest; mixed forest occurs on sandy soils, sandy ravines in pine barrens, or on slopes with well drained rocky soils; common associate; AND Spruce-fir swamp; found in the Catskills ecozone; less frequently occurring tree; AND Hemlock-hardwood swamp; found throughout upstate New York; dominant
Eastern hop hornbeam FACU	<i>Ostrya virginiana</i>	Appalachian oak-hickory forest; dryer, warmer, south and west-facing slopes and lower elevations; not dominant
Gray birch FAC NT	<i>Betula populifolia</i>	Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation; AND Successional northern hardwoods; characteristic tree
Green ash FAC, FACW, NT	<i>Fraxinus pensylvanica</i>	Successional northern hardwoods; AND Hemlock-hardwood swamp; found throughout upstate New York; less frequently occurring tree; AND Red maple-hardwood swamp; found throughout New York; codominant
Ironwood	<i>Carpinus carolinianus</i>	Red maple-hardwood swamp; found throughout New York; low percent cover
Mountain ash FACU, FAC	<i>Sorbus americana</i>	Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); sub-canopy; AND Mountain fir forest; 1100-1400 meters; cool upper slopes exposed to wind; almost entirely balsam fir; occassional individual; AND Spruce-fir rocky summit; occurs on cool, dry, rocky ridgetops and summits; patchy or sparse vegetation; characteristic tree; AND Spruce-fir swamp; found in the Catskills ecozone; shrub layer often sparse; less frequently occurring shrub
Mountain maple FACU	<i>Acer spicatum</i>	Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); sub-canopy; AND Spruce-northern hardwood forest; occurs on lower mountain slopes; subcanopy tree
Mountain paper birch	<i>Betula cordifolia</i>	Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); common associate; AND Mountain fir forest; 1100-1400 meters; cool upper slopes exposed to wind; almost entirely balsam fir; small amounts of paper birch; AND Spruce-fir rocky summit; occurs on cool, dry, rocky ridgetops and summits; patchy or sparse vegetation; characteristic tree
Paper birch FACU	<i>Betula papyrifera</i>	Successional northern hardwoods; characteristic tree; AND Boreal coniferous forest; southern most portion
Pignut FACU	<i>Carya glabra</i>	Appalachian oak-hickory forest; usually on ridgetops, upper slopes, or south and west facing slopes; mixed in lower densities
Pin cherry FACU	<i>Prunus pensylvanica</i>	Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); sub-canopy; AND Successional northern hardwoods; characteristic tree
Pitch pine FACU	<i>Pinus rigida</i>	Pitch pine-oak-heath rocky summit; on warmer ridgetops; stunted oak and pine forest with dwarf shrub openings; dominant; AND Appalachian oak-pine forest; mixed forest occurs on sandy soils, sandy ravines in pine barrens, or on slopes with well drained rocky soils; dominant Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation; characteristic species
Quaking aspen FACU, FAC, IT	<i>Populus tremuloides</i>	Successional northern hardwoods; characteristic tree
Red maple FAC, NT	<i>Acer rubrum</i>	Northern hardwoods forest; moist, well-drained, acidic soils, not dominant; AND Appalachian oak-hickory forest; dryer, warmer, south and west-facing slopes and lower elevations; not dominant; AND Pitch pine-oak-heath rocky summit; on warmer ridgetops; stunted oak and pine forest with dwarf shrub openings; dominant; AND Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; codominant; AND Appalachian oak-pine forest; mixed forest occurs on sandy soils, sandy ravines in pine barrens, or on slopes with well drained rocky soils; common associate; AND Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation; AND Spruce-northern hardwood forest; occurs on lower mountain slopes; codominant tree; AND

		Successional northern hardwoods; characteristic tree; AND Spruce-fir swamp; found in the Catskills ecozone; codominant tree; AND Hemlock-hardwood swamp; found throughout upstate New York; codominant; AND Red maple-hardwood swamp; found throughout New York; dominant
Red oak FACU	<i>Quercus rubra</i>	Northern hardwoods forest; moist, well-drained, acidic soils, not dominant; AND Appalachian oak-hickory forest; dryer, warmer, south and west-facing slopes and lower elevations (1); usually ridgetops, upper slopes (3) dominant; AND Pitch pine-oak-heath rocky summit; on warmer ridgetops; stunted oak and pine forest with dwarf shrub openings; dominant; AND Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; codominant; AND Appalachian oak-pine forest; mixed forest occurs on sandy soils, sandy ravines in pine barrens, or on slopes with well drained rocky soils; dominant; AND Red pine rocky summit; cool, dry, rocky ridgetops and summits; POSSIBLY in the Catskills; codominant Spruce-fir rocky summit; exposed ledges and ridgetops; sparse woods with a shrub layer; dominant; AND Pitch pine-oak-heath rocky summit; on warmer ridgetops; stunted oak and pine forest with dwarf shrub openings; dominant; AND Red pine rocky summit; cool, dry, rocky ridgetops and summits; POSSIBLY in the Catskills; dominant
Red spruce FACU	<i>Picea rubens</i>	Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); dominant; AND Mountain fir forest; 1100-1400 meters; cool upper slopes exposed to wind; almost entirely balsam fir; occasional individual; AND Spruce-fir rocky summit; occurs on cool, dry, rocky ridgetops and summits; patchy or sparse vegetation; characteristic tree Spruce-northern hardwood forest; occurs on lower mountain slopes; codominant tree; AND Spruce-fir swamp; found in the Catskills ecozone; dominant tree Boreal coniferous forest; southern most portion
Scarlet oak	<i>Quercus coccinea</i>	Appalachian oak-pine forest; mixed forest occurs on sandy soils, sandy ravines in pine barrens, or on slopes with well drained rocky soils; dominant; AND Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation; characteristic species
Scrub oak	<i>Quercus ilicifolia</i>	Appalachian oak-hickory forest; dryer, warmer, south and west-facing slopes and lower elevations; dominant
Serviceberry FAC, FACU, NT	<i>Amelanchier arborea</i>	Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation
Shagbark hickory FACU	<i>Carya ovata</i>	Appalachian oak-hickory forest; dryer, warmer, south and west-facing slopes and lower elevations; not dominant
Slippery or red elm FAC, NT	<i>Ulmus rubra</i>	Red maple-hardwood swamp; found throughout New York; codominant
Striped maple FACU	<i>Acer pensylvanicum</i>	Hemlock-hardwoods forest; 305-1006 meters; mid-story tree; AND Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); sub-canopy; AND Spruce-northern hardwood forest; occurs on lower mountain slopes; subcanopy tree
Sugar maple UPL, FACU	<i>Acer saccharum</i>	Northern hardwoods forest; moist, well-drained, acidic soils, dominant; AND Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; codominant; AND Spruce-northern hardwood forest; occurs on lower mountain slopes; codominant tree
Swamp white oak FACW, OBL, NT	<i>Quercus bicolor</i>	Red maple-hardwood swamp; found throughout New York; codominant
Sweet pignut, Red hickory UPL, FACU	<i>Carya ovalis</i>	Appalachian oak-hickory forest; usually on ridgetops, upper slopes, or south and west facing slopes; mixed in lower densities
White ash FACU	<i>Fraxinus americana</i>	Appalachian oak-hickory forest; dryer, warmer, south and west-facing slopes and lower elevations; not dominant; AND Successional northern hardwoods; AND Red maple-hardwood swamp; found throughout New York; codominant
White oak	<i>Quercus alba</i>	Appalachian oak-hickory forest; dryer, warmer, south and west-facing slopes and lower elevations (1); usually ridgetops, upper slopes (3) dominant; AND

FACU		Appalachian oak-pine forest; mixed forest occurs on sandy soils, sandy ravines in pine barrens, or on slopes with well drained rocky soils; dominant
White pine FACU	<i>Pinus strobus</i>	Northern hardwoods forest; moist, well-drained, acidic soils, not dominant; AND Spruce-fir rocky summit; exposed ledges and ridgetops; sparse woods; dominant; AND Pitch pine-oak-heath rocky summit; on warmer ridgetops; stunted oak and pine forest with dwarf shrub openings; dominant; AND Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; codominant; AND Appalachian oak-pine forest; mixed forest occurs on sandy soils, sandy ravines in pine barrens, or on slopes with well drained rocky soils; dominant; AND Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation; AND Red pine rocky summit; cool, dry, rocky ridgetops and summits; POSSIBLY in the Catskills; codominant; AND Successional northern hardwoods; characteristic tree; AND Spruce-fir swamp; found in the Catskills ecozone; less frequently occurring tree; AND Hemlock-hardwood swamp; found throughout upstate New York; less frequently occurring tree; AND Red maple-hardwood swamp; found throughout New York; low percent cover
Yellow birch FACU, FAC, NT	<i>Betula alleghaniensis</i>	Northern hardwoods forest; moist, well-drained, acidic soils, dominant; AND Spruce-fir forest; higher elevation peaks (900-1200 meters); sub-canopy or (common associate Source 3); AND Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; codominant; AND Spruce-northern hardwood forest; occurs on lower mountain slopes; codominant tree; AND Spruce-fir swamp; found in the Catskills ecozone; less frequently occurring tree; AND Hemlock-hardwood swamp; found throughout upstate New York; codominant; AND Red maple-hardwood swamp; found throughout New York; codominant

Shrubs

American fly honeysuckle FACU	<i>Lonicera canadensis</i>	Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); shrub layer; AND Spruce-northern hardwood forest; occurs on lower mountain slopes; characteristic shrub
Beaked hazelnut UPL, FACU	<i>Corylus cornuta</i>	Appalachian oak-hickory forest; usually on ridgetops, upper slopes, or south and west facing slopes; subcanopy low shrub
Bearberry UPL, FACU	<i>Arctostaphylos uva-ursi</i>	Red pine rocky summit; cool, dry, rocky ridgetops and summits; POSSIBLY in the Catskills; characteristic shrub Spruce-fir swamp; found in the Catskills ecozone; shrub layer often sparse; less frequently occurring shrub
Canada yew FACU, FAC	<i>Taxus canadensis</i>	Spruce-northern hardwood forest; occurs on lower mountain slopes; characteristic shrub
Chokeberry Chokeberry, Black FAC, FACW, NS Chokeberry, Purple FACW, NS Chokeberry, Red FACW, NS	<i>Aronia</i> spp. ? Notes say dry <i>Aronia melanocarpa</i> <i>Aronia prunifolia</i> <i>Aronia arbutifolia</i>	Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation
Choke-cherry FACU, FAC	<i>Prunus virginiana</i>	Appalachian oak-hickory forest; dryer, warmer, south and west-facing slopes and lower elevations; sub-canopy
Common elderberry FACW, UPL, NS	<i>Sambucus canadensis</i>	Red maple-hardwood swamp; found throughout New York; characteristic shrub
Common juniper	<i>Juniperus communis</i>	Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation; characteristic shrub
Deerberry FACU	<i>Vaccinium stamineum</i>	Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation

Dwarf raspberry/blackberry FACW, FAC, NF	<i>Rubus pubescens</i>	Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); shrub layer
Flowering dogwood FACU	<i>Cornus florida</i>	Appalachian oak-hickory forest; dryer, warmer, south and west-facing slopes and lower elevations; sub-canopy
Gray dogwood	<i>Cornus racemosa</i>	Appalachian oak-hickory forest; usually on ridgetops, upper slopes, or south and west facing slopes; subcanopy low shrub; AND Red maple-hardwood swamp; found throughout New York; characteristic shrub
Great rhododendron FAC, NT	<i>Rhododendron maximum</i>	Hemlock-hardwood swamp; found throughout upstate New York; characteristic shrub
Green alder	<i>Alnus viridis</i>	Mountain fir forest; 1100-1400 meters; cool upper slopes exposed to wind; almost entirely balsam fir; occassional individuals; AND Spruce-fir swamp; found in the Catskills ecozone; shrub layer often sparse; less frequently occurring shrub
Hazel/Brook alder OBL, FACW, NT	<i>Alnus serrulata</i>	Red maple-hardwood swamp; found throughout New York; characteristic shrub
Highbush blueberry FACW,NS	<i>Vaccinium corymbosum</i>	Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation; AND Spruce-fir swamp; found in the Catskills ecozone; shrub layer often sparse; less frequently occurring shrub; AND Hemlock-hardwood swamp; found throughout upstate New York; characteristic shrub; AND Red maple-hardwood swamp; found throughout New York; characteristic shrub
Hobblebush FAC, NS	<i>Viburnum lantanoides</i>	Hemlock-hardwoods forest; 305-1006 meters; shrub layer; AND Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); shrub layer; AND Spruce-northern hardwood forest; occurs on lower mountain slopes; characteristic shrub; AND Hemlock-hardwood swamp; found throughout upstate New York; less frequently occurring shrub
Huckleberry FACU	<i>Gaylussacia baccata</i>	Spruce-fir rocky summit; exposed ledges and ridgetops; sparse woods with a shrub layer; dominant; AND Pitch pine-oak-heath rocky summit; on warmer ridgetops; stunted oak and pine forest with dwarf shrub openings; dominant; AND Appalachian oak-pine forest; mixed forest occurs on sandy soils, sandy ravines in pine barrens, or on slopes with well drained rocky soils; shrub layer; AND Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation; characteristic shrub
Labrador tea OBL, FACW, NS	<i>Ledum groenlandicum</i>	Mountain fir forest; 1100-1400 meters; cool upper slopes exposed to wind; almost entirely balsam fir; occassional individuals
Lowbush blueberry FACU	<i>Vaccinium angustifolium</i>	Spruce-fir rocky summit; exposed ledges and ridgetops; sparse woods with a shrub layer; dominant; AND Pitch pine-oak-heath rocky summit; on warmer ridgetops; stunted oak and pine forest with dwarf shrub openings; dominant; AND Appalachian oak-hickory forest; usually on ridgetops, upper slopes, or south and west facing slopes; subcanopy low shrub; AND Appalachian oak-pine forest; mixed forest occurs on sandy soils, sandy ravines in pine barrens, or on slopes with well drained rocky soils; shrub layer; AND Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation; characteristic shrub; AND Red pine rocky summit; cool, dry, rocky ridgetops and summits; POSSIBLY in the Catskills; characteristic shrub
Maple-leaved viburnum UPL, FACU	<i>Viburnum acerifolium</i>	Hemlock-hardwoods forest; 305-1006 meters; shrub layer; AND Appalachian oak-hickory forest; usually on ridgetops, upper slopes, or south and west facing slopes; subcanopy low shrub
Mountain alder FAC, FACW, NS	<i>Alnus viridis</i> ssp. <i>crispa</i> <i>Alnus crispa</i>	Hemlock-hardwood swamp; found throughout upstate New York; less frequently occurring shrub
Mountain/Early azalea FAC, NS	<i>Rhododendron prinophyllum</i>	Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); shrub layer
Mountain holly, Catberry OBL, NS	<i>Nemopanthus mucronatus</i>	Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); shrub layer; AND Spruce-fir swamp; found in the Catskills ecozone; shrub layer often sparse; characteristic and dominant shrub; AND Hemlock-hardwood swamp; found throughout upstate New York; less frequently occurring shrub
Mountain laurel FACU	<i>Kalmia latifolia</i>	Spruce-fir rocky summit; exposed ledges and ridgetops; sparse woods with a shrub layer; dominant; AND Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation

Nannyberry FAC, FACU, NTS	<i>Viburnum lentago</i>	Hemlock-hardwood swamp; found throughout upstate New York; less frequently occurring shrub
Northern Arrowwood FACW, NS	<i>Viburnum recognitum</i>	Red maple-hardwood swamp; found throughout New York; characteristic shrub
Raspberries	<i>Rubus</i> spp.	Hemlock-hardwoods forest; 305-1006 meters; shrub layer
Red elderberry FACU	<i>Sambucus racemosa</i>	Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); shrub layer Appalachian oak-hickory forest; usually on ridgetops, upper slopes, or south and west facing slopes; subcanopy low shrub
Redosier dogwood	<i>Cornus sericea</i>	Red maple-hardwood swamp; found throughout New York; characteristic shrub
Scrub oak	<i>Quercus ilicifolia</i>	Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation; characteristic shrub
Shadbush/ downy serviceberry FAC, FACU, NT	<i>Amelanchier arborea</i>	Appalachian oak-hickory forest; dryer, warmer, south and west-facing slopes and lower elevations; sub-canopy
Sheep laurel FAC, NS	<i>Kalmia angustifolia</i>	Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation
Silky dogwood FACW, NS	<i>Cornus amomum</i>	Red maple-hardwood swamp; found throughout New York; characteristic shrub
Southern low blueberry	<i>Vaccinium pallidum</i>	Appalachian oak-hickory forest; usually on ridgetops, upper slopes, or south and west facing slopes; subcanopy low shrub; AND Appalachian oak-pine forest; mixed forest occurs on sandy soils, sandy ravines in pine barrens, or on slopes with well drained rocky soils; shrub layer; AND Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation; characteristic shrub
Speckled alder FACW, FAC, OBL, NT	<i>Alnus incana</i> ssp. <i>rugosa</i>	Hemlock-hardwood swamp; found throughout upstate New York; less frequently occurring shrub Red maple-hardwood swamp; found throughout New York; characteristic shrub
Spicebush FACW	<i>Lindera benzoin</i>	Red maple-hardwood swamp; found throughout New York; characteristic shrub
Sweet fern	<i>Comptonia peregrina</i>	Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation; characteristic shrub
Velvetleaf Blueberry FAC, FACU, FACW, NS	<i>Vaccinium myrtilloides</i>	Spruce-fir rocky summit; occurs on cool, dry, rocky ridgetops and summits; patchy or sparse vegetation; shrub layer; AND Spruce-fir swamp; found in the Catskills ecozone; shrub layer often sparse; less frequently occurring shrub
Wild raisin, Withe-rod FACW, NS	<i>Viburnum cassinoides</i>	Spruce-fir swamp; found in the Catskills ecozone; shrub layer often sparse; less frequently occurring shrub; AND Hemlock-hardwood swamp; found throughout upstate New York; less frequently occurring shrub; AND Red maple-hardwood swamp; found throughout New York; characteristic shrub
Winterberry FACW, OBL, NST	<i>Ilex verticillata</i>	Spruce-fir swamp; found in the Catskills ecozone; shrub layer often sparse; less frequently occurring shrub; AND Hemlock-hardwood swamp; found throughout upstate New York; less frequently occurring shrub Red maple-hardwood swamp; found throughout New York; characteristic shrub
Witch hazel FAC, FACU, NST	<i>Hamamelis virginiana</i>	Appalachian oak-hickory forest; dryer, warmer, south and west-facing slopes and lower elevations; sub-canopy

Herbaceous

Arrow arum OBL	<i>Peltandra virginica</i>	Red maple-hardwood swamp; found throughout New York; characteristic herb
Bellwort, Sessile-leaf FACU	<i>Uvularia sessilifolia</i>	Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; groundlayer plant
Black cohosh	<i>Cimicifuga racemosa</i>	Appalachian oak-hickory forest; usually on ridgetops, upper slopes, or south and west facing slopes; groundlayer herb
Bluebeads FAC, FACU, PNF	<i>Clintonia borealis</i>	Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); characteristic herb; AND Mountain fir forest; 1100-1400 meters; cool upper slopes exposed to wind; characteristic herb; AND Spruce-northern hardwood forest; occurs on lower mountain slopes; characteristic groundlayer plant
Bracken fern	<i>Pteridium aquilinum</i>	Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation

FACU, FAC		
Bristly/Stiff clubmoss FAC, FACU PNC	<i>Lycopodium annotinum</i>	Mountain fir forest; 1100-1400 meters; cool upper slopes exposed to wind; characteristic herb
Bromelike sedge FACW, PNGL	<i>Carex bromoides</i>	Hemlock-hardwood swamp; found throughout upstate New York; less frequently occurring herb
Bunchberry FAC, FACU, NS	<i>Cornus canadensis</i>	Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); characteristic herb; AND Mountain fir forest; 1100-1400 meters; cool upper slopes exposed to wind; characteristic herb; AND Spruce-fir rocky summit; occurs on cool, dry, rocky ridgetops and summits; patchy or sparse vegetation; characteristic herb; AND Spruce-northern hardwood forest; occurs on lower mountain slopes; characteristic groundlayer plant; AND Spruce-fir swamp; found in the Catskills ecozone; shrub layer often sparse; characteristic herb
Canada mayflower (Wild Lily of the Valley) FAC, FACU, PNF	<i>Maianthemum canadense</i>	Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); characteristic herb; AND Mountain fir forest; 1100-1400 meters; cool upper slopes exposed to wind; characteristic herb; AND Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; groundlayer plant; AND Spruce-northern hardwood forest; occurs on lower mountain slopes; characteristic groundlayer plant; AND Hemlock-hardwood swamp; found throughout upstate New York; characteristic herb
Christmas fern FACU, UPL, FAC	<i>Polystichum acrostichoides</i>	Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; groundlayer plant Spruce-fir swamp; found in the Catskills ecozone; shrub layer often sparse; characteristic herb; AND Hemlock-hardwood swamp; found throughout upstate New York; characteristic herb; AND Red maple-hardwood swamp; found throughout New York; dominant fern
Common (Tufted) hairgrass	<i>Deschampsia flexuosa</i>	Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation; characteristic herb; AND Spruce-fir rocky summit; occurs on cool, dry, rocky ridgetops and summits; patchy or sparse vegetation; characteristic herb; AND Red pine rocky summit; cool, dry, rocky ridgetops and summits; POSSIBLY in the Catskills; characteristic herb
Common wood fern	<i>Dryopteris campyloptera</i>	Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; groundlayer plant; AND Spruce-northern hardwood forest; occurs on lower mountain slopes; characteristic groundlayer plant
Common wood-sorrel	<i>Oxalis acetosella</i>	Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); characteristic herb; AND Mountain fir forest; 1100-1400 meters; cool upper slopes exposed to wind; characteristic herb; AND Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; groundlayer plant; AND Spruce-northern hardwood forest; occurs on lower mountain slopes; characteristic groundlayer plant; AND Spruce-fir swamp; found in the Catskills ecozone; shrub layer often sparse; characteristic herb
Cow-wheat FACU	<i>Melampyrum lineare</i>	Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation; characteristic herb
Creeping snowberry FACW, NS	<i>Gaultheria hispidula</i>	Spruce-fir swamp; found in the Catskills ecozone; shrub layer often sparse; characteristic herb
Crested wood fern FACW, OBL, PNEF3	<i>Dryopteris cristata</i>	Red maple-hardwood swamp; found throughout New York; herbaceous layer
Dewdrop, Robin-Run-Away Fac, FACU, FACW, PNF	<i>Dalibarda repens</i>	Spruce-fir swamp; found in the Catskills ecozone; shrub layer often sparse; characteristic herb
False nettle, Small spike FACW, OBL, PNF	<i>Boehmeria cylindrica</i>	Red maple-hardwood swamp; found throughout New York; characteristic herb
False Solomon's seal FACU	<i>Smilacina racemosa</i>	Appalachian oak-hickory forest; usually on ridgetops, upper slopes, or south and west facing slopes; groundlayer herb
Foamflower FAC, PNF	<i>Tiarella cordifolia</i>	Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; groundlayer plant
Goldthread FACW, FAC, PNF	<i>Coptis trifolia</i>	Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); characteristic herb; AND Mountain fir forest; 1100-1400 meters; cool upper slopes exposed to wind; characteristic herb; AND Spruce-northern hardwood forest; occurs on lower mountain slopes; characteristic groundlayer plant; AND

		Spruce-fir swamp; found in the Catskills ecozone; shrub layer often sparse; characteristic herb; AND Hemlock-hardwood swamp; found throughout upstate New York; characteristic herb
Greater bladder sedge FACW, OBL, PNGL	<i>Carex intumescens</i>	Red maple-hardwood swamp; found throughout New York; characteristic herb
Hairy/Smooth Sheath sedge OBL, PNGL	<i>Carex lacustris</i>	Red maple-hardwood swamp; found throughout New York; characteristic herb
Harebell FACU, UPL, FAC	<i>Campanula rotundifolia</i>	Spruce-fir rocky summit; occurs on cool, dry, rocky ridgetops and summits; patchy or sparse vegetation; characteristic herb
Hepatica americana	<i>Hepatica americana</i>	Appalachian oak-hickory forest; usually on ridgetops, upper slopes, or south and west facing slopes; groundlayer herb
Indian cucumber-root	<i>Medeola virginiana</i>	Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; groundlayer plant; AND Spruce-northern hardwood forest; occurs on lower mountain slopes; characteristic groundlayer plant
Jewelweed FACW, ANF	<i>Impatiens capensis</i>	Red maple-hardwood swamp; found throughout New York; characteristic herb
Large-leaf goldenrod	<i>Solidago macrophylla</i>	Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); characteristic herb; AND Mountain fir forest; 1100-1400 meters; cool upper slopes exposed to wind; characteristic herb; AND Spruce-fir rocky summit; occurs on cool, dry, rocky ridgetops and summits; patchy or sparse vegetation; characteristic herb
Little bluestem FACU, PNG	<i>Schizachyrium scoparium</i>	Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation
Marsh fern	<i>Thelypteris palustris</i>	Red maple-hardwood swamp; found throughout New York; dominant fern
Marsh marigold OBL, PNF	<i>Caltha palustris</i>	Red maple-hardwood swamp; found throughout New York; characteristic herb
Mountain (Whorled) aster	<i>Aster acuminatus</i>	Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); characteristic herb; AND Mountain fir forest; 1100-1400 meters; cool upper slopes exposed to wind; characteristic herb
Mountain goldenrod FACU	<i>Solidago spathulata</i> ssp. <i>randii</i>	Spruce-fir rocky summit; occurs on cool, dry, rocky ridgetops and summits; patchy or sparse vegetation; characteristic herb
Mountain sorrel, white woodsorrel FAC, UPL, PNF	<i>Oxalis montana</i>	Hemlock-hardwood swamp; found throughout upstate New York; less frequently occurring herb
Mountain wood fern	<i>Dryopteris campyloptera</i>	Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); characteristic herb; AND Mountain fir forest; 1100-1400 meters; cool upper slopes exposed to wind; characteristic herb; AND Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; groundlayer plant
Northern long sedge	<i>Carex folliculata</i>	Spruce-fir swamp; found in the Catskills ecozone; shrub layer often sparse; characteristic herb; AND Hemlock-hardwood swamp; found throughout upstate New York; less frequently occurring herb
Partridge berry FACU	<i>Mitchella repens</i>	Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; groundlayer plant
Pennsylvania sedge	<i>Carex pensylvanica</i>	Appalachian oak-hickory forest; usually on ridgetops, upper slopes, or south and west facing slopes; groundlayer herb Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation; characteristic herb; AND Red pine rocky summit; cool, dry, rocky ridgetops and summits; POSSIBLY in the Catskills; characteristic herb
Pink corydalis	<i>Corydalis sempervirens</i>	Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation
Poverty-grass	<i>Danthonia spicata</i>	Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation; characteristic herb; AND Red pine rocky summit; cool, dry, rocky ridgetops and summits; POSSIBLY in the Catskills; characteristic herb
Purple trillium FACU, UPL	<i>Trillium erectum</i>	Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; groundlayer plant
Rattlesnake root FACU	<i>Prenanthes alba</i>	Appalachian oak-hickory forest; usually on ridgetops, upper slopes, or south and west facing slopes; groundlayer herb

Round-leaf violet FAC, PNF	<i>Viola rotundifolia</i>	Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; groundlayer plant
Royal fern OBL, PNF3	<i>Osmunda regalis</i>	Red maple-hardwood swamp; found throughout New York; dominant fern
Sensitive fern FACW, PNEF3	<i>Onoclea sensibilis</i>	Hemlock-hardwood swamp; found throughout upstate New York; characteristic herb Red maple-hardwood swamp; found throughout New York; dominant fern
Shining clubmoss FACW, FAC, PNC	<i>Lycopodium lucidulum</i>	Mountain Spruce-fir forest; higher elevation peaks (900-1200 meters); characteristic herb; AND Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; groundlayer plant; AND Spruce-northern hardwood forest; occurs on lower mountain slopes; characteristic groundlayer plant
Skunk cabbage OBL, PNF	<i>Symplocarpus foetidus</i>	Red maple-hardwood swamp; found throughout New York; characteristic herb
Small ricegrass	<i>Oryzopsis pungens</i>	Spruce-fir rocky summit; occurs on cool, dry, rocky ridgetops and summits; patchy or sparse vegetation; characteristic herb
Spinulose wood fern	<i>Dryopteris carthusiana</i>	Red maple-hardwood swamp; found throughout New York; herbaceous layer
Star flower FAC, PNF	<i>Trientalis borealis</i>	Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; groundlayer plant; AND Spruce-fir swamp; found in the Catskills ecozone; shrub layer often sparse; characteristic herb
Tall meadow rue FACW, PNF	<i>Thalictrum pubescens</i>	Red maple-hardwood swamp; found throughout New York; characteristic herb
Threeseeded sedge OBL, PNGL	<i>Carex trisperma</i>	Spruce-fir swamp; found in the Catskills ecozone; shrub layer often sparse; characteristic herb; AND Hemlock-hardwood swamp; found throughout upstate New York; less frequently occurring herb
Three-toothed cinquefoil	<i>Potentilla tridentata</i>	Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation; characteristic herb; AND Spruce-fir rocky summit; occurs on cool, dry, rocky ridgetops and summits; patchy or sparse vegetation; characteristic herb
Trailing arbutus	<i>Epigaea repens</i>	Red pine rocky summit; cool, dry, rocky ridgetops and summits; POSSIBLY in the Catskills; characteristic herb
Twisted stalk, Rosy FAC, FACU, PF	<i>Streptopus roseus</i>	Hemlock-northern hardwood forest; occurs on middle to lower slopes of ravines; cool, mid-elevation slopes; groundlayer plant; AND Spruce-northern hardwood forest; occurs on lower mountain slopes; characteristic groundlayer plant
Upright sedge OBL, PNEGL	<i>Carex stricta</i>	Red maple-hardwood swamp; found throughout New York; characteristic herb
White goldenrod	<i>Solidago bicolor</i>	Appalachian oak-hickory forest; usually on ridgetops, upper slopes, or south and west facing slopes; groundlayer herb
White hellebore FACW, FACU, OBL, PNF	<i>Veratrum viride</i>	Red maple-hardwood swamp; found throughout New York; characteristic herb
Wild Sarsaparilla FACU, FAC	<i>Aralia nudicaulis</i>	Appalachian oak-hickory forest; usually on ridgetops, upper slopes, or south and west facing slopes; groundlayer herb; AND Spruce-northern hardwood forest; occurs on lower mountain slopes; characteristic groundlayer plant; AND Hemlock-hardwood swamp; found throughout upstate New York; less frequently occurring herb
Wintergreen FACU	<i>Gaultheria procumbens</i>	Pitch pine-oak-heath rocky summit; occurs on warm, dry, rocky ridgetops and summits; sparse vegetation; AND Red pine rocky summit; cool, dry, rocky ridgetops and summits; POSSIBLY in the Catskills; characteristic herb

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