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Highbush Blueberry Vaccinium corymbosum

> **Red Maple** Acer rubrum

# Native Plants for Wildlife Habitat

**Staghorn Sumac** *Rhus typhina* 

**Pickerelweed** Pontederia cordata

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Black-eyed Susan Rudbeckia hirta



Compiled by the U.S. Fish & Wildlife Service, Chesapeake Bay Field Office, in cooperation with Irvine Nature Center and Adkins Arboretum

The U.S. Fish & Wildlife Service is a federal agency responsible for protecting, enhancing and managing the nation's fish and wildlife resources. The Chesapeake Bay Field Office has several programs to assist private landowners and schools in wildlife habitat restoration.

U.S. Fish & Wildlife Service Chesapeake Bay Field Office 177 Admiral Cochrane Drive Annapolis, MD 21401 410/573 4500 www.fws.gov r5cbfo

The Irvine Nature Center is a private nonprofit educational organization offering programs of environmental studies and natural science to children and adults in the greater Baltimore area. The purpose of these programs is to inspire an appreciation and respect for the natural world, to increase awareness of environmental issues and to encourage individuals to sustain the earth's ecosystem.

Irvine Nature Center 8400 Greenspring Avenue Stevenson, MD 21153 410/484 2413 www.explorenature.org

Adkins Arboretum contains 500 acres of native trees and shrubs arranged in natural forest types. The arboretum offers educational programs.

Adkins Arboretum P.O. Box 100 Ridgely, MD 21660 410/634 2847 www.adkinsarboretum.org

Compiled by Rich Mason and Jason Hitchcock Cover illustration by Sandy Janniche Other illustrations by Sandy Glover and Rich Mason

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## ABOUT THIS GUIDE

This guide is intended to help in the selection of native plants for habitat restoration and natural landscaping projects. All of the plants occur naturally in parts of the Mid-Atlantic region. Plants are listed in alphabetical order by Latin name within each section.

## **GROWTH CONDITIONS**

#### Light

- Full sun: The site is in direct sunlight for at least 6 hours a day during the growing season.
- Partial sun: The site receives approximately 3 to 6 hours of direct sunlight.
- Shade: The site receives less then 3 hours of direct sun.

#### Moisture

- Flooded: Areas where standing water is present for much of the growing season. This is where typical emergent wetland plants will grow.
- Wet: Areas where the soil is saturated for much of the growing season, the exception being droughts. Wet conditions can be found at the edges of ponds, streams, and rivers and in ditches. Wet conditions may exist in poorly drained soils with a high clay content. Many plants that prefer wet conditions can tolerate periodic flooding as well as periodic drought.
- *Moist:* Areas where the soil is damp. These areas are occasionally saturated. Moist areas can be found near waterways at slightly higher elevations than wet sites. Moist conditions can be found where the sun and wind are partially blocked, such as in a woodland or on the shady side of a building.
- Well-drained: Areas where rain water drains fairly quickly and puddles do not remain long after hard rains. Generally, well-drained areas consist of soils containing enough sand or silt particles to allow rain water to percolate down through the soil.

Dry: Areas in full sun or in a windy location. South-facing slopes or areas against a south-facing wall may have dry conditions. Sandy soils drain well and have a tendency to be dry. Steep hills may be dry if rain water runs off quickly. Water does not remain after a rain in dry areas.

#### Salinity

The range of salinity tolerance is given in parts per thousand (ppt) for the herbaceous wetland plants.

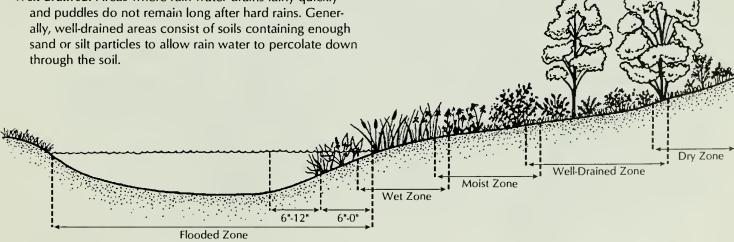
#### Soil

Many of the plants grow in a wide range of soil types, therefore information about soil was omitted. If your site has one of the following site conditions it would be wise to get advice on soil preparation from a nursery, botanist, Cooperative Extension Office or other expert:

- 1. Very sandy or heavy clay soils.
- 2. Compacted soils. Because compacted soils have less space between individual soil particles, air and water do not move readily through these soils. Air and water movement is critical to healthy plant growth. Roots cannot grow well in compacted soils. Compaction can occur from heavy equipment and removal of topsoil.
- 3. Soil ph below 5.5 or above 6.8. A ph outside this range will restrict or limit plant growth.

## WILDLIFE BENEFITS

Many of the plants listed provide some type of food for wildlife including seeds, fruit, nuts, berries or nectar. A list of selected species that are known to eat part of the plant is given. Plants also provide nesting habitat and shelter for many wildlife species.



## WHY USE NATIVE PLANTS?

Native or indigenous plants are adapted to the local soil, rainfall and temperature conditions, and have developed natural defenses to withstand many types of insects and diseases. Because of these traits, native plants will grow without a lot of maintenance. Wildlife species evolve with plants; therefore, they use native plant communities as their habitat. Using native plants helps preserve the balance of natural ecosystems. In contrast, many natural ecosystems have been degraded by exotic, or non-native plants introduced from other parts of the world. Some of these introduced plants are invasive, meaning they do not have any natural controls. Invasive plants can spread rapidly and smother native vegetation. Ecosystems impacted by invasive exotic plants have less wildlife and plant diversity than unaffected systems. A list of invasive exotic plants to avoid is provided in the back of this guide.

## WHERE TO FIND NATIVE PLANTS

Most nurseries carry some native plants. A few nurseries specialize in native plants and carry a greater selection than traditional nurseries. Plants should never be collected from the wild unless the area is being cleared for development.

## **TIPS ON SITE SELECTION**

- 1. Identify areas of unused lawn that could be naturalized for less maintenance and better wildlife habitat.
- 2. Look for opportunities to expand the size of existing natural areas.
- 3. Look for ways to make corridors for wildlife by connecting natural areas with hedgerows. Hedgerows are narrow bands of vegetation like the ones found between farm fields.

## **TIPS ON DESIGNING A HABITAT**

- 1. Where feasible, try to re-create components found in natural habitats. For instance, a woodland includes small herbaceous plants, small shrubs, large shrubs, small trees and large trees as well as decaying logs, dead brush and leaf litter. Incorporate as many of these features as possible into a woodland habitat project.
- 2. Arrange your native plants in aggregate groups or groves rather than individual plants surrounded by mowed lawn. Aggregate plantings resemble the natural plant communities that wildlife use as habitat. By not mowing between plants, other plants will colonize your planting, adding to the habitat diversity. Remove any invasive exotic plants.

- 3. Planting layout: Plants occur in natural plant communities in many different arrangements. The most common arrangement occurs when similar species of plants are loosely grouped together (see the following diagram). These groups overlap and are interspersed with other species.
- 4. Plant Spacing: Do not plant on a grid pattern with plants evenly spaced. Attempt to simulate the random spacing that occurs in natural plant communities. The following spacing guidelines are used to determine the number of plants needed for a specific area: Herbaceous plants 1' to 2' apart. Shrubs and small trees 5' to 8' apart. Large trees 10' to 15' apart.
- 5. Select a variety of plants that fruit or bloom during different times of the year to provide food for wildlife year round.

Planting Layout



Different species

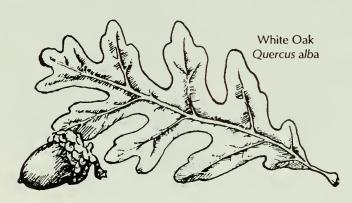
- Larger areas usually provide habitat for more species than smaller areas.
- 7. A diversity of plants will attract more wildlife.
- 8. Provide water if possible. Bird baths or shallow dishes work well. A small temporary puddle or pool may provide a place for frogs and salamanders to lay eggs.
- 9. Incorporate feeders and nesting boxes to complement plantings.
- 10. Avoid using toxic pesticides.

COMMON NAME/ SCIENTIFIC NAME	GROWTH CONDITIONS	CHARACTERISTICS	WILDLIFE BENEFITS
LARGE TREES Red Maple Acer rubrum	Light: partial to full sun Moisture: wet to well-drained (tolerates flooding)	Red March bloom, red fall color, medium to fast growth rate, height 40'-60', aggressive-do not over plant	Food: Seeds and sap. Wildlife: chickadees, robin, cardinal, finches, chipmunk, deer
<b>River Birch</b> Betula nigra	Light: partial to full sun Moisture: wet to well-drained (tolerates flooding)	Unique peeling reddish-white bark, medium to fast growth rate, height 30'-50'	Food: fruit, sap, buds. Wildlife: ducks, nuthatches, chickadees, finches, fox sparrow, rabbit
<b>Bitternut Hickory</b> Carya cordiformis	Light: partial sun Moisture: wet to well-drained	Slender with large crown, slow to medium growth rate, height 60'-80'	Food: nuts, sap, foliage. Wildlife: woodpeckers, blue jay, nuthatches, warblers, cardinal, chipmunk
<b>Hackberry</b> Celtis occidentalis	Light: partial to full sun Moisture: wet to well-drained	Adapted to a wide range of condi- tions, medium to fast growth rate, height 40'-60'	Food: fruit, twigs. Wildlife: mourning dove, quail, bluebird, catbird, thrushes, sparrows, squirrel, deer
<b>Persimmon</b> Diospyros virginiana	Light: full sun Moisture: wet to well-drained	Dioecious, orange fruit used for jellies, medium to slow growth rate, height 35'-60'	Food: fruit. Wildlife: woodpeckers, mockingbird, robin, cedar waxwing, bluebird, opossum, skunk, fox, deer
<b>Beech</b> Fagus grandifolia	Light: partial to full sun (prefers partial when young) Moisture: moist to well-drained	Beautiful, smooth silvery-white bark, excellent shade tree, slow growth rate, height 50'-100'	Food: nuts, sap, buds. Wildlife: wood duck, quail, woodpeckers, blue jay, tufted titmouse, chickadees, nuthatches
White Ash Fraxinus americana	Light: partial to full sun Moisture: moist to well-drained	Yellow to dark maroon fall color, medium growth rate, height 50'-80'	Food: seeds, foliage. Wildlife: finches, grosbeaks, wood duck, red-winged blackbird, squirrel, deer
<b>Green Ash</b> Fraxinus pennsylvanica	Light: partial to full sun Moisture: wet to well-drained	Yellow fall color, fast growth rate, height 50'-60'	Food: seeds, foliage. Wildlife: finches, grosbeaks, wood duck, red-winged blackbird, squirrel, deer
Black Walnut Juglans nigra	Light: full sun Moisture: moist to well-drained (best growth in rich moist soil)	Highly prized wood, edible nuts, medium growth rate, height 50'-75'	Food: nuts. Wildlife: woodpeckers, chickadees, blue jay, warblers, junco, Carolina wren, squirrel
<b>Sweet Gum</b> Liquidambar styraciflua	Light: partial to full sun Moisture: wet to well-drained	Adapted to a wide range of condi- tions, yellow-red fall color, medium to fast growth rate, height 60'-80'	Food: seeds. Wildlife: mourning dove, carolina wren, finches, junco, beaver, squirrel, chipmunk



Sweet Gum Liquidambar styraciflua

COMMON NAME/ SCIENTIFIC NAME	GROWTH CONDITIONS	CHARACTERISTICS	WILDLIFE BENEFITS
Tulip Poplar Liriodendron tulipifera	Light: partial to full sun Moisture: moist to well-drained	Graceful, large yellow flower, golden yellow fall color, fast growth rate, height 70'-120' or more	Food: seeds, şap, nectar. Wildlife: chickadees, woodpeckers, cardinal, finches, hummingbird, honeybees
Black Gum Nyssa sylvatica	Light: partial to full sun Moisture: wet to well-drained	Beautiful, shiny green leaves, bright red fall color, bluish berries, slow growth rate, height 30'-60'	Food: berries. Wildlife: wood duck, thrushes, woodpeckers, Eastern kingbird, cedar waxwing, squirrel
Sourwood Oxydendrum arboreum	Light: shade to full sun Moisture: well-drained	Pyramidal shape with drooping branches, white flowers, brilliant scarlet fall color, slow growth rate, height 25'-35'	Food: twigs. Wildlife: deer
Sycamore Platanus occidentalis	Light: partial to full sun Moisture: wet to well-drained	Unique white and brown peeling bark, fast growth rate, among the tallest of native trees, height 75'-100'	Food: seeds. Wildlife: finches, squirrel. Also provides nesting cavities.
Black Cherry Prunus serotina	Light: full sun Moisture: moist to well-drained	Adaptable to a range of conditions, white flowers, black berries, valuable timber, fast growth rate, height 40'-60'	Food: berries, sap. Wildlife: thrushes, orioles, tanagers, crows, grosbeaks, woodpeckers, deer, squirrel, rabbit
White Oak Quercus alba	Light: partial to full sun Moisture: well-drained	Majestic, light scaly bark, variable fall color, slow to medium growth rate, height 50'-90'	Food: acorns are a very important food source. Wildlife: quail, turkey, grouse, ducks, woodpeckers, blue
Swamp Oak Quercus bicolor	Light: partial to full sun Moisture: wet to well-drained	Good choice for wet sites, slow to medium growth rate, height 60'-70'	jay, brown thrasher, towhee, nuthatch, squirrel, chipmunk, raccoon, gopher, opossum, deer
Scarlet Oak Quercus coccinea	Light: full sun Moisture: moist to well-drained	Scarlet red fall color, medium growth rate, height 40'-60'	same as White Oak
Southern Red Oak Quercus falcata	Light: full sun Moisture: moist to well-drained	Large crown and limbs, good shade tree, variable fall color, medium to slow growth rate, height 70'-80'	same as White Oak
<b>Pin Oak</b> Quercus palustris	Light: full sun Moisture: wet to moist	Small branches, bronze or red fall color, medium growth rate, height 60'-80'	same as White Oak
Willow Oak Quercus phellos	Light: full sun Moisture: wet to well-drained	Adapted to a range of conditions, small willow-like leaves, slow to medium growth rate, height 70'-80'	same as White Oak





COMMON NAME/ SCIENTIFIC NAME	GROWTH CONDITIONS	CHARACTERISTICS	WILDLIFE BENEFITS
<b>Chesnut Oak</b> Quercus prinus	Light: partial to full sun Moisture: well-drained	Leaves similar to American Chestnut, orange-yellow fall color, slow to medium growth rate, height 60'-70'	same as White Oak
<b>Red Oak</b> Quercus rubra	Light: full sun Moisture: well-drained	Used extensively for landscaping, excellent red fall color, medium to fast growth rate, height 60'-75'	same as White Oak
Black Oak Quercus velutina	Light: full sun Moisture: well-drained	Similar and often hybridizes with Red Oak, medium to fast growth rate, height 50'-60'	same as White Oak
<b>Black Willow</b> Salix nigra	Light: partial to full sun Moisture: flooded to moist	Dense light green foliage, excellent streambank stabilizer, fast growth rate, height 40'-80'	Food: buds, twigs, foliage. Wildlife: grouse, beaver, deer
Sassafras Sassafras albidum	Light: partial to full sun Moisture: moist to well-drained	Dark green leaves of three different shapes, medium growth rate, height 30'-60'	Food: fruit. Wildlife: quail, catbird, flycatchers, mockingbird, pileated woodpecker
<b>Bald Cypress</b> Taxodium distichum	Light: partial to full sun Moisture: flooded to wet	Tall graceful tree with feathery light green foliage, deciduous conifer, medium growth rate, height 50'-70'	Food: seeds, foliage. Wildlife: ducks, marsh birds
SMALL TREES Juneberry, Shadbush, Serviceberry Amelanchier arborea A. canadensis	Light: shade to full sun Moisture: wet to well-drained	White flowers in early spring, blooms during shad run, edible berries in June, A. arborea small tree, A. canadensis more shrub-like, medium growth rate, height 15'-30'	Food: berries, twigs. Wildlife: thrushes, brown thrasher, catbird, woodpeckers orioles, tanagers, robin, junco, cardinal, beaver, squirrel, deer
<b>Pawpaw</b> Asimina triloba	Light: shade to full sun Moisture: wet to moist	Large leaves, unique flowers, edible fruit with banana-like taste, medium growth rate, height 6'-20'	Food: fruit. Wildlife: small mammals
Hornbeam, Ironwood, Musclewood Carpinus caroliniana	Light: shade to partial sun Moisture: wet to moist	Unique fluted gray bark, slow growth rate, height 20'-40'	Food: seeds, buds. Wildlife: wood duck, quail, beaver, squirrel, deer





COMMON NAME/ SCIENTIFIC NAME	GROWTH CONDITIONS	CHARACTERISTICS	WILDLIFE BENEFITS
Fringetree Chionanthus virginicus	Light: shade to full sun Moisture: wet to well-drained	Beautiful white flowers, fragrant, blue fall berries, slow growth rate, height 8'-20'	Food: berries. Wildlife: rabbit, deer
Flowering Dogwood Cornus florida	Light: shade to partial sun Moisture: well-drained	Large white flowers symbolizing spring in the Eastern woodlands, red berries, slow to medium growth rate, height 15'-30'	Food: berries, foliage, twigs. Wildlife: quail, woodpeckers, cedar waxwing vireos, cardinal, squirrel, rabbit
<b>Sweetbay Magnolia</b> Magnolia virginiana	Light: partial to full sun Moisture: wet to well-drained	Almost evergreen waxy foliage, large white flowers, red berries, medium to fast growth rate, height 15'-40'	Food: seeds, twigs. Wildlife: red-eyed vireo, woodpeckers, towhee, squirrel, deer
<b>Hop-Hornbeam</b> Ostrya virginiana	Light: partial to full sun Moisture: moist to well-drained	Graceful, drooping branches, slow growth rate, height 20'-40'	Food: nuts, buds. Wildlife: wood duck, quail, rabbit, deer, squirrel
<b>Common Chokecherry</b> Prunus virginiana	Light: partial to full sun Moisture: moist to well-drained	Hardy, white flowers, purple berries, yellow fall color, medium growth rate, height 15'-30'	Food: berries, buds, foliage. Wildlife: quail, bluebird, catbird, orioles, thrasher, woodpeckers, rabbit, squirrel
SHRUBS Smooth Alder Alnus serrulata	Light: partial to full sun Moisture: wet	Tall with multiple trunks, small white flowers, good streambank stabilizer, height 10'-20'	Food: seeds, buds. Wildlife: ducks, quail, finches, mourning dove, deer
<b>Devils Walking Stick,</b> Hercules Club Aralia spinosa	Light: partial to full sun Moisture: moist to well-drained	Large thorns, large white flower clusters, red berries in fall, slow to medium growth rate, height 8'-15'	Food: berries, nectar. Wildlife: robin, woodpeckers, catbird, sparrows, chipmunk, butterflies
<b>Red Chokeberry</b> Aronia arbutifolia	Light: partial to full sun Moisture: wet to well-drained	Small white flowers, bright red fruit, more fruit in full sun, slow growth rate, height 6'-10'	Food: berries, buds. Wildlife: grouse, chickadees, cedar waxwing, meadow- lark, squirrel
Black Chokeberry Aronia melanocarpa	Light: shade to full sun Moisture: wet to moist	More adapted to wetter areas than red chokeberry, dark purple berries, slow growth rate, height 3'-5'	Food: berries, buds. Wildlife: grouse, chickadees, cedar waxwing, meadow- lark, squirrel
<b>Buttonbush</b> Cephalanthus occidentalis	Light: partial to full sun Moisture: flooded to wet	Unusual round white flowers June- July, medium growth rate, height 3'-6'	Food: seeds, nectar. Wildlife: hummingbirds, ducks, rails, beaver, butterflies, other insects

Buttonbush Cephalanthus occidentalis

Flowering Dogwood Cornus florida

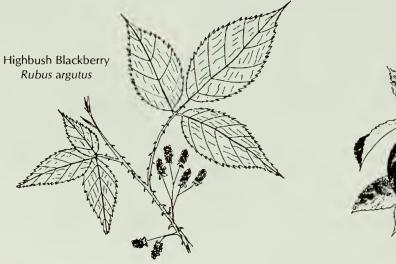
COMMON NAME/ SCIENTIFIC NAME	GROWTH CONDITIONS	CHARACTERISTICS	WILDLIFE BENEFITS
<b>Sweet Pepperbush</b> Clethra alnifolia	Light: partial to full sun Moisture: wet to moist	Showy white flower spikes July-Aug., slow to medium growth rate, height 3'-8'	Food: nectar. Wildlife: butterflies, other insects
Silky Dogwod Cornus amomum	Light: partial to full sun Moisture: wet to moist	White flowers, bluish fruit, medium growth rate, height 6'-10'	Food: berries, twigs. Wildlife: wood- peckers, vireos, cardinal, finches, pine warbler, deer
Gray Dogwood Cornus racemosa	Light: shade to full sun Moisture: wet to moist	White flowers, white berries, slow growth rate, height 10'-15'	Food: berries, twigs. Wildlife: wood- peckers, vireos, cardinal, finches, pine warbler, deer
<b>Red Osier dogwood</b> Cornus stolonifera	Light: partial to full sun Moisture: wet to moist	Good streambank stabilizer, red stems, white flowers and berries, fast growth rate, height 7'-9'	Food: berries, twigs. Wildlife: wood- peckers, vireos, cardinal, finches, pine warbler, deer
<b>Strawberry Bush</b> Euonymus americanus	Light: shade to partial sun Moisture: wet to dry	Green twigs, interesting red and orange fruit, medium growth rate, height 4'-7'	Food: foliage. Wildlife: deer, rabbit
<b>Witchhazel</b> Hamamelis virginiana	Light: partial to full sun Moisture: moist to well-drained	Small yellow flowers Oct Dec., medium growth rate, height 20'-25'	Food: seeds, twigs. Wildlife: grouse, deer
Inkberry Ilex glabra	Light: partial to full sun Moisture: wet to moist	Dioecious, evergreen, black berries, slow growth rate, height 6'-8'	Food: berries. Wildlife: woodpeckers, cedar waxwing, thrushes, finches, cardinal, chickadees, deer
Winterberry Ilex verticillata	Light: partial to full sun Moisture: wet to moist	Dioecious, bright red berries, slow growth rate, height 6'-10'	Food: berries. Wildlife: woodpeckers, cedar waxwing, thrushes, finches, cardinal, chickadees, deer
Virginia Sweetspire Itea virginica	Light: shade to full sun Moisture: moist to well-drained	Fragrant white flowers in mid-summer, slow to medium growth rate, height 3'-5'	Food: nectar. Wildlife: butterflies, other insects
Mountain Laurel Kalmia latifolia	Light: shade to full sun Moisture: moist to well-drained	Evergreen, showy white to pink flow- ers, slow growth rate, height 7'-15'	Food: nectar. Wildlife: butterflies, other insects
<b>Spicebush</b> Lindera benzoin	Light: shade to full sun Moisture: wet to well-drained	Fragrant twigs and leaves, red berries, yellow fall color, slow growth rate, height 6'-12'	Food: berries. Wildlife: thrushes, catbird, kingbird



Sweet Pepperbush Clethra alnifolia

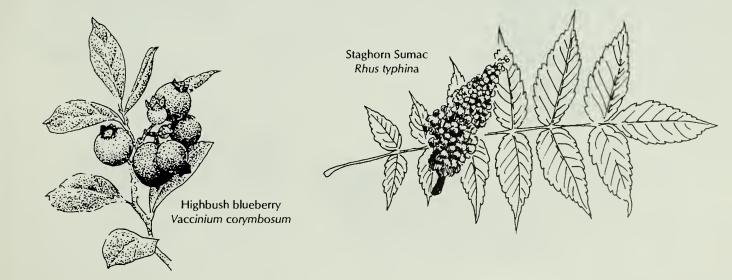


COMMON NAME/ SCIENTIFIC NAME	GROWTH CONDITIONS	CHARACTERISTICS	WILDLIFE BENEFITS
Wax Myrtle Myrica cerifera	Light: partial to full sun Moisture: wet to well-drained	Dioecious, evergreen, small waxy berries used in candle making, medium growth rate, height 5'-12'	Food: berries. Wildlife: quail, bluebird, catbird, tree swallow, yellow-rumped warbler
<b>Bayberry</b> Myrica pensylvanica	Light: partial to full sun Moisture: wet to well-drained	Dioecious, small waxy berries used in candle making, medium growth rate, height 5'-12'	Food: berries. Wildlife: quail, bluebird, catbird, tree swallow, yellow-rumped warbler
Flame Azalea Rhododendron calendulaceum	Light: partial to full Moisture: well-drained to dry	Deciduous, showy yellow to red- orange flowers, slow growth rate, height 4'-6'	Food: leaves, nectar. Wildlife: hummingbird, deer, butterflies, other insects
Pink Azalea Rhododendron periclymenoides	Light: partial to full sun Moisture: moist to well-drained	Deciduous, pink flowers, slow growth rate, height 4'-7'	Food: leaves, nectar. Wildlife: hummingbird, deer, butterflies, other insects
Swamp Azalea Rhododendron viscosum	Light: shade to partial sun Moisture: wet to moist	Deciduous, white flowers, slow growth rate, height 3'-8'	Food: leaves, nectar. Wildlife: hummingbird, deer, butterflies, other insects
Pasture Rose Rosa carolina	Light: full sun Moisture: well-drained to dry	Pink flowers with a subtle fragrance, forms dense thickets, medium growth rate, height 3'-6'	Food: fruit, buds, foliage. Wildlife: grouse, rabbit, deer
Swamp Rose Rosa palustris	Light: full sun Moisture: wet to moist	Pink flowers, forms thickets, medium growth rate, height 4'-7'	Food: fruit, buds. Wildlife: mocking- bird, catbird, robin, bluebird, quail
Highbush Blackberry Rubus argutus	Light: partial to full sun Moisture: well-drained to dry	Small white flowers, forms thickets, edible berries, medium growth rate, height 3'-5'	Food: fruit, foliage. Wildlife: grouse, quail, catbird, cardinal, chat, orioles, robin, sparrows, tanagers, thrushes, rabbit, deer
Flowering Raspberry Rubus odoratus	Light: partial to full sun Moisture: well-drained to dry	Pink flowers, forms thickets, edible berries, medium growth rate, height 5'-6'	Food: fruit, foliage. Wildlife: grouse, quail, catbird, cardinal, chat, orioles, robin, sparrows, tanagers, thrushes, rabbit, deer
Shining sumac Rhus copallinum	Light: full sun Moisture: well-drained to dry	Dioecious, greenish flower spikes, crimson fall color, fast growth rate, height 20'-30'	Food: fruit, twigs, foliage. Wildlife: quail, bluebird, catbird, robin, mockingbird, rabbit, deer

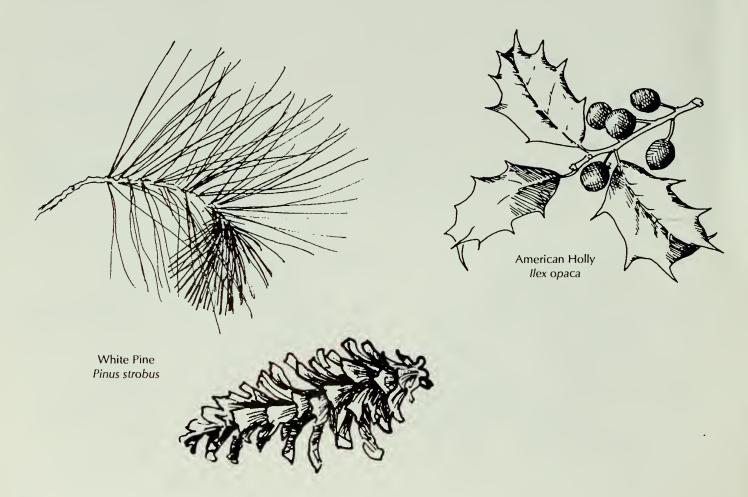


Elderberry Sambucus canadensis

COMMON NAME/ SCIENTIFIC NAME	GROWTH CONDITIONS	CHARACTERISTICS	WILDLIFE BENEFITS
<b>Smooth sumac</b> Rhus glabra	Light: full sun Moisture: well-drained to dry	Dioecious, forms groves, greenish crimson-colored fruit, bright red fall color, fast growth rate, height 9'-15'	Food: fruit, twigs, foliage. Wildlife: quail, bluebird, catbird, robin, mockingbird, rabbit, deer
<b>Staghorn sumac</b> Rhus typhina	Light: full sun Moisture: well-drained to dry	Dioecious, forms groves, greenish crimson colored fruit, variable fall color, fast growth rate, height 20'-30'	Food: fruit, twigs, foliage. Wildlife: quail, bluebird, catbird, robin, mockingbird, rabbit, deer
Elderberry, American Elder Sambucus canadensis	Light: partial to full sun Moisture: wet to moist	Large, upright, large clusters of white flowers, purple berries, fast growth rate, height 5'-12'	Food: berries, nectar. Wildlife: woodpeckers, blue jay, thrushes, grosbeaks, rabbit, squirrel
<b>Highbush blueberry</b> Vaccinium corymbosum	Light: partial to full sun Moisture: wet to well-drained	Small urn-shaped white flowers, blue berries, slow growth rate, height 6'-12'	Food: berries, foliage, twigs. Wildlife grouse, woodpeckers, kingbird, blue jay, robin, orioles, tanagers, squirrel
<b>Lowbush blueberry</b> Vaccinium vacillans V. angustifolium	Light: partial to full sun Moisture: well-drained to dry	Low-growing, small white flowers, slow growth rate, height 1'-2'	Food: berries, foliage, twigs. Wildlife grouse, woodpeckers, kingbird, blue jay, robin, orioles, tanagers, squirrel
<b>Arrowwood</b> Viburnum dentatum V. recognitum	Light: partial to full sun Moisture: moist to well-drained	Dense foliage, white flowers, small blue-black berries, wood used to make arrows, medium growth rate, height 6'-10'	Food: berries, foliage. Wildlife: grouse, cedar waxwing, brown thrasher, squirrel, deer
<b>Witherod</b> Viburnum nudum	Light: partial to full sun Moisture: moist to well-drained	Large leaves, creamy white flower clusters, red berries, red fall color, medium growth rate, height 10'-15'	Food: berries, foliage. Wildlife: grouse, cedar waxwing, brown thrasher, squirrel, deer
<b>Blackhaw</b> Viburnum prunifolium	Light: partial to full sun Moisture: moist to well-drained	White flower clusters, blue berries, red fall color, slow to medium growth rate, height 12'-15'	Food: berries, foliage. Wildlife: grouse, cedar waxwing, brown thrasher, squirrel, deer
American Cranberry Bush Viburnum trilobum	Light: partial to full sun Moisture: well-drained	White flower clusters, bright red berries, yellow to red fall color, medium growth rate, height 8'-12'	Food: berries, foliage. Wildlife: grouse, cedar waxwing, brown thrasher, squirrel, deer

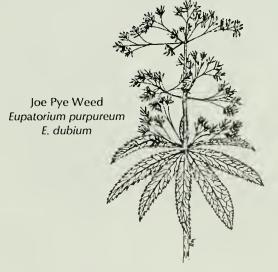


COMMON NAME/ SCIENTIFIC NAME	GROWTH CONDITIONS	CHARACTERISTICS	WILDLIFE BENEFITS
EVERGREEN TREES American Holly Ilex opaca	Light: partial to full sun Moisture: moist to well-drained	Dioecious, shiny green leaves, red berries on female plant, medium growth rate, height 20'-40'	Food: berries, sap. Wildlife: thrushes, woodpeckers, catbird, mockingbird, mourning dove, squirrel, deer
Eastern Red Cedar Juniperus virginiana	Light: full sun Moisture: well-drained to dry	Narrow shape, thick foliage, many blue berries, medium growth rate, height 30'-50'	Food: berries. Wildlife: quail, wood- peckers, robin, bluebird, warblers, grosbeaks, cedar waxwing, deer
White Pine Pinus strobus	Light: partial to full sun Moisture: moist to dry	Large beautiful evergreen with soft needles, fast growth rate, height 50'-80'	Food: seeds, sap. Wildlife: doves, woodpeckers, nuthatches, brown creeper, finches, squirrels
<b>Lobiolly Pine</b> Pinus taeda	Light: full sun Moisture: wet to moist	Long needles, open branches, fast growth rate, height 70'-90'	Food: seeds, sap. Wildlife: doves, woodpeckers, nuthatches, brown creeper, finches, squirrels
Virginia Pine Pinus virginiana	Light: full sun Moisture: well drained to dry	Colonizer of dry sites, 1" to 3" needles, medium growth rate, height 50'-80'	Food: seeds, needles. Wildlife: doves, chickadees, nuthatches, beaver, squirrel, deer
Eastern Hemlock Tsuga canadensis	Light: shade to full sun Moisture: moist to well-drained	Short soft needles, pyramid shaped, prefers cooler climates, medium growth rate, height 40'-70'	Food: seeds, foliage, twigs. Wildlife: chickadees, crossbills, porcupine, squirrel, deer



COMMON NAME/ SCIENTIFIC NAME	GROWTH CONDITIONS	CHARACTERISTICS	WILDLIFE BENEFITS
HERBACEOUS WETLAND PLANTS Sweet Flag Acorus calamus	Light: partial to full sun Moisture: flooded 0"-6" Salinity: fresh to 10ppt	Upright flat leaf blade, yellow-brown flower, spreads moderately, height 1'- 4'	Food: roots. Wildlife: ducks, muskrat
Swamp Milkweed Asclepias incarnata	Light: partial to full sun Moisture: wet to moist Salinity: fresh	Pink flower clusters July-Aug., height 2'-4'	Food: nectar. Wildlife: butterflies, other insects, Monarch butterfly host plant
New England Aster Aster novae-angliae	Light: partial to full sun Moisture: wet to moist Salinity: fresh	Lavender/blue flowers AugOct., height 3'-5'	Food: nectar. Wildlife: butterflies, other insects
<b>Tussock Sedge</b> Carex stricta	Light: full sun Moisture: flooded 0"-6" Salinity: fresh	Grows in clumps or tussocks, grasslike, soft weeping leaves, spreads moderately, height 1'-3'	Food: seeds, leaves. Wildlife: tree and field sparrows, finches, deer
<b>Boneset</b> Eupatorium perfoliatum	Light: partial to full sun Moisture: wet to moist Salinity: fresh	White flower clusters July-Aug., height 3'-5'	Food: nectar. Wildlife: butterflies, other insects
<b>Joe Pye Weed</b> Eupatorium purpureum Eupatorium dubium	Light: partial to full sun Moisture: wet to moist Salinity: fresh	Large purple/white flower clusters July-Aug., height 5'-10'	Food: nectar. Wildlife: butterflies, other insects
Marsh Hibiscus Hibiscus moscheutos	Light: partial to full sun Moisture: flooded 0"-3" Salinity: fresh to 15ppt	Dense, shrub like, large showy pink or white flowers, spreads slowly, height 3'-7'	Food: nectar. Wildlife: hummingbird
Blue Water Iris, Blue flag Iris versicolor	Light: full sun to produce flower Moisture: flooded 0"-6" Salinity: fresh	Long flat leave blades, showy blue flowers, spreads slowly, height 1'-2'	Food: nectar, shoots. Wildlife: muskrat, butterflies, other insects
<b>Soft Rush</b> Juncus effusus	Light: full sun Moisture:wet Salinity: fresh	Upright round stems, grows in clumps, spreads slowly, height 2'-3'	Food: roots. Wildlife: marshbirds
<b>Cardinal Flower</b> Lobelia cardinalis	Light: partial to full sun Moisture: wet to moist Salinity: fresh	Brilliant red tubular shaped flowers July-Sept., height 2'-3'	Food: nectar. Wildlife: hummingbird, butterflies, other insects





COMMON NAME/ SCIENTIFIC NAME	GROWTH CONDITIONS	CHARACTERISTICS	WILDLIFE BENEFITS
Spatterdock, Yellow Water Lily Nupharluteum	Light: partial to full sun Moisture: flooded 12"-36" Salinity: fresh	Large round leaves float on water surface, large yellow flowers May- Oct., spreads slowly, height 0'-1'	Food: seeds, stems. Wildlife: some ducks, beaver, muskrat
Fragrant Water Lily Nuphar odorata	Light: partial to full sun Moisture: flooded 12"-36" Salinity: fresh	White or rose-colored flower, otherwise same as above	Food: seeds, stems. Wildlife: some ducks, beaver, muskrat
Arrow Arum, Duck Corn Peltandra virginica	Light: partial to full sun Moisture: flooded 6"-24" Salinity: fresh to 2ppt	Large triangular-shaped leaves, large seeds, spreads slowly, height 1'-2'	Food: seeds. Wildlife: wood duck, king rail
<b>Pickerelwéed</b> Pontederia cordata	Light: partial to full sun Moisture: flooded 0"-12" Salinity: fresh to 3ppt	Heart-shaped leaves, showy purple flower spikes, spreads moderately, height 2'-4'	Food: seeds, nectar, roots. Wildlife: waterfowl, butterflies
<b>Duck Potato,</b> Arrowhead Sagittaria latifolia	Light: partial to full sun Moisture: flooded 6"-24" Salinity: fresh	Large leaves shaped liked arrowheads, edible tubers, spreads rapidly, height 2'-3'	Food: tubers, seeds, Wildlife: several duck species, swans, muskrat
Lizards Tail Saururus cernuus	Light: partial to full sun Moisture: flooded 0"-12" Salinity: fresh	Heart-shaped leaves, long slender flower spikes, spreads rapidly, height 3'-4'	Minimal food value
<b>Wool Grass</b> Scirpus cyperinus	Light: full sun Moisture: wet Salinity: fresh	Brown drooping flowers that feel wooly in texture, spreads moder- ately, height 4'-6'	Food: seeds, roots. Wildlife: many duck species, shorebirds, muskrat
Three Square Scirpus pungens (S. americanus)	Light: full sun Moisture: flooded 0"-6" Salinity: fresh to 15ppt	Upright stout triangular-shaped stems, slender leaves, spreads rapidly, height 3'-4'	Food: seeds, roots. Wildlife: many duck species, marsh and shore birds, blackbird, muskrat
<b>Soft Stem Bulrush</b> Scirpus tabernaemontani ( S. validus)	Light: full sun Moisture: flooded 0"-12" Salinity: fresh to 5ppt	Tall round soft stems, brown flower cluster, spreads rapidly, height 4'-10'	Food: seeds, roots. Wildlife: many duck species, marsh and shore birds, blackbird, muskrat
Salt Marsh Cordgrass Spartina alterniflora	Light: full sun Moisture: flooded 0"-12" Salinity: brackish to 35ppt	Dominant plant of the lower salt marsh zone, upright flat leaf blades, spreads rapidly, height 2'-7'	Food: seeds, roots. Wildlife: black duck, Canada goose, snow goose, rails, seaside and sharp-tailed sparrows, muskrat





Duck Potato Sagittaria latifolia

COMMON NAME/ SCIENTIFIC NAME	GROWTH CONDITIONS	CHARACTERISTICS	WILDLIFE BENEFITS
Salt Meadow Hay Spartina patens	Light: full sun Moisture: wet to moist Salinity: brackish to 35ppt	Dominant plant in the higher salt marsh zone, soft hay-like texture, spreads moderately, height 1'-3'	Food: seeds, roots. Wildlife: black duck, Canada goose, snow goose, rails, seaside and sharp-tailed sparrows, muskrat
<b>New York Ironweed</b> Vernonia noveboracensis	Light: full sun Moisture: wet to moist Salinity: fresh	Large deep-purple flower cluster Aug- Sept., height 5'-8'	Food: nectar. Wildlife: butterflies, other insects
Wild Rice Zizania aquatica	Light: full sun Moisture: flooded 0'-3' Salinity: fresh	Tall, slender, grasslike, prized gourmet food, height 6'-10'	Food: seeds. Wildlife: ducks, rails, blackbirds, sparrows, bobolink
HERBACEOUS MEADOW PLANTS Wild Columbine Aquilegia canadensis	Light: full sun Moisture: well-drained to dry	Unusual scarlet/yellow tubular flowers March-May, height 1'-2'	Food: nectar. Wildlife: humming- birds, butterflies, other insects
Common Milkweed Asclepias syriaca	Light: full sun Moisture: well-drained to dry	Pinkish flower clusters June-July, unique seed pod, height 2'-5'	Food: nectar. Wildlife: butterflies (Monarch host plant), other insects
Butterflyweed Asclepias tuberosa	Light: full sun Moisture: well-drained to dry	Brilliant orange flowers June-July, height 1'-2'	Food: nectar. Wildlife: butterflies (Monarch host plant), other insects
<b>Great Aster</b> Aster grandiflorus	Light: partial to full sun Moisture: wet to moist	Purple/violet flowers SeptNov., height 2'-5'	Food: nectar, seeds, leaves. Wildlife: butterflies, other insects, limited use by birds and small mammals
Smooth Aster Aster laevis	Light: partial to full sun Moisture: moist	Purple/violet flowers SeptNov., height 2'-5'	Food: nectar, seeds, leaves. Wildlife: butterflies, other insects, limited use by birds and small mammals
<b>New England Aster</b> Aster novae-anlgiae	Light: partial to full sun Moisture: wet to moist	Purple/violet flowers SeptNov., height 2'-5'	Food: nectar, seeds, leaves. Wildlife: butterflies, other insects, limited use by birds and small mammals
Showy Aster Aster spectabilis	Light: partial to full sun Moisture: well-drained to dry	Purple/violet flowers SeptNov., height 2'-5'	Food: nectar, seeds, leaves. Wildlife: butterflies, other insects, limited use by birds and small mammals
Wild Blue Indigo Baptisia australis	Light: full sun Moisture: well-drained to dry	Indigo/blue flowers May-June, height 3'-5'	Food: nectar. Wildlife: butterflies, other insects





COMMON NAME/ SCIENTIFIC NAME	GROWTH CONDITIONS	CHARACTERISTICS	WILDLIFE BENEFITS
<b>Lance-leaved Coreopsis</b> Coreopsis lanceolata	Light: full sun Moisture: moist to well-drained	Yellow flowers May-July, height 2'-3'	Food: nectar. Wildlife: butterflies, other insects
<b>Tickseed</b> Coreopsis tinctoria	Light: full sun Moisture: well-drained to dry	Indigenous to prairie states, naturalized in east, similar to above species	Food: nectar. Wildlife: butterflies, other insects
Whorled Coreopsis Coreopsis verticillata	Light: full sun Moisture: moist to dry	Often sold as "Moonbeam" , Yellow flowers June-July, height 1'-3'	Food: nectar. Wildlife: butterflies, other insects
Purple Coneflower Echinacea purpurea	Light: full sun Moisture: moist to well-drained	Large daisy-like purple flowers June- July, height 3'-4'	Food: nectar, seeds. Wildlife: butter- flies, other insects, goldfinch
<b>Sneezweed</b> Helenium flexuosum	Light: partial to full sun Moisture: wet to moist	Member of the daisy family, yellow flowers June-Sept., height 2'-5'	Food: nectar. Wildlife: butterflies, other insects
Narrow Leaved Sunflower Helianthus angustifolius	Light: partial to full sun Moisture: moist to well-drained	Yellow flower Aug. to Oct., height 2'-5'	Food: nectar, seeds. Wildlife: mourning dove, quail, sparrows, blackbirds, butterflies, other insects
<b>Common Sunflower</b> Helianthus annuus	Light: partial to full sun Moisture: wet to well-drained	Annual, indigenous to prairie states, naturalized in east, yellow flowers July- Oct., height 2'-10'	Food: nectar, seeds. Wildlife: mourning dove, quail, sparrows, blackbirds, butterflies, other insects
<b>Blazing Star</b> Liatris spicata	Light: partial to full sun Moisture: wet to well-drained	Pinkish to lavender flower spikes June- Sept., height 2'-5'	Food: nectar. Wildlife: butterflies, other insects
<b>Down</b> y lobelia Lobelia puberula	Light: partial to full sun Moisture: wet to moist	Blue tubular-shaped flowers July-Oct., height 2'-3'	Food: nectar. Wildlife: butterflies, other insects
<b>Monkey Flower</b> Mimulus alatus Mimulus ringens	Light: full sun Moisture: moist to well-drained	Violet pink or white flowers June-Oct., height 1'	Food: nectar. Wildlife: butterflies, other insects
<b>Bee Balm</b> Monarda didyma	Light: full sun Moisture: moist to well-drained	Scarlet colored tubular-shaped flowers June-Aug., height 2'-4'	Food: nectar. Wildlife: hummingbirds, butterflies, other insects
Wild Bergamont Monarda fistulosa	Light: partial to full sun Moisture: moist to well-drained	Lavender or white tubular-shaped flowers July-Aug., height 2'-4'	Food: nectar. Wildlife: hummingbirds, butterflies, other insects
<b>Beardtongue</b> Penstemon laevigatus P. digitalis	Light: partial sun Moisture: moist	White flowers May-June, height 1'-2'	Food: nectar. Wildlife: butterflies, other insects



COMMON NAME/ SCIENTIFIC NAME	GROWTH CONDITIONS	CHARACTERISTICS	WILDLIFE BENEFITS
Wild or Blue Phlox Phlox divaricata	Light: partial to full sun Moisture: moist to dry	Pink flowers April-May, height .5'-1.5'	Food: nectar. Wildlife: hummingbird, butterflies, other insects
<b>Summer Phlox</b> Phlox paniculata	Light: partial to full sun Moisture: wet to moist	Lavender flowers July-Sept., height 2'-7'	Food: nectar. Wildlife: hummingbird, butterflies, other insects
Black-eyed Susan Rudbeckia hirta	Light: partial to full sun Moisture: moist to well-drained	Yellow flowers with dark center June- Aug., height 2'-3'	Food: nectar. Wildlife: butterflies, other insects
G <b>reen Coneflower</b> Rudbeckia lanciniata	Light: partial to full sun Moisture: wet to moist	Greenish yellow flowers AugOct., height 2'-8'	Food: nectar. Wildlife: butterflies, otherinsects
<b>Three-lobed</b> C <b>oneflower</b> Rudbeckia triloba	Light: partial to full sun Moisture: moist to dry	Deep yellow flowers June-Oct., height 2'-5'	Food: nectar. Wildlife: butterflies, other insects
Rough Goldenrod Solidago rugosa GRASSES	Light: partial to full sun Moisture: wet to moist	More than 100 goldenrod species in North America, wispy yellow flowers, height 3'-5'	Food: seeds, nectar. Wildlife: goldfinch.junco.sparrows, butterflies, other insects
<mark>Big Bluestem</mark> Andropogon gerardii	Light: partial to full sun Moisture: moist to dry	Also called Turkey's Foot due to the look of seed head, attractive reddish brown in fall, height 3-8'	Food: seeds, leaves. Wildlife: sparrows, junco, deer
Broomsedge Andropogon virginicus	Light: partial to full sun Moisture: moist to dry	A common, attractive, golden brown grass, height 1.5-4'	Food: seeds, leaves. Wildlife: sparrows, junco, deer
Ca <b>nada Wild Rye</b> Elymus canadensis	Light: partial to full sun Moisture: moist to dry	Fast growing, good soil stabilizer, drooping seed head looks like a bottle brush, height 2'-4'	Information not available
Switchgrass Panicum virgatum	Light: full sun Moisture: wet to moist	Important wildlife food, seed heads turn golden yellow in fall, height 3'-6'	Food: seeds, leaves. Wildlife: ducks, rails, doves, important for many sparrow species, rabbit
ittle Bluestem chizachyrium scoparium	Light: full to partial sun Moisture: moist to dry	Attractive bluish green stems, widely used in formal landscapes, stems turn reddish in fall, height 1.5'-5'	Food: seeds, leaves. Wildlife: sparrows, junco, deer
<b>ndiangra</b> ss Sorgastrum nutans	Light: full to partial sun Moisture: moist to dry	Green stems, silky brown seed heads, golden brown fall color, height 5'-8'	Information not available





## **INVASIVE EXOTIC PLANTS**

The following is a partial list of exotic plants known to be invasive in parts of the Mid-Atlantic region. None of the following should be planted. We recommend consulting an expert about removing any of the following from your site.

#### Trees

Norway maple (Acer platanoides) Sycamore maple (Acer pseudoplatanus) Tree of heaven (Ailanthus altissima) Russian olive (Elaeagnus angustifolia) Autumn olive (Elaeagnus umbellata) White mulberry (Morus alba) Empress tree (Paulownia tomentosa) Sweet cherry (Prunus avium) White cottonwood (Populus alba)

## Shrubs

Japanese barberry (Berberis thunbergii) Winged euonymus (Euonymus alatus) Privet (Ligustrum obtusifolium) Bush honeysuckles (Lonicera spp.) Common buckthorn (Rhamnus cathartica) European buckthorn (Rhamnus frangula) Multiflora rose (Rosa multiflora) Japanese spirea (Spiraea japonica)

## Vines

Porcelain berry (Ampelopsis brevipedunculata) Oriental bittersweet (Celastrus orbiculata) Climbing euonymus (Euonymus fortunei) English ivy (Hedera helix) Japanese honeysuckle (Lonicera japonica) Mile a minute vine (Polygonum perfoliatum) Kudzu (Pueraria lobata) Periwinkle (Vinca minor) Japanese wisteria (Wisteria floribunda)

#### **Herbaceous** Plants

Five leaf Akebia (Akebia quinata) Garlic mustard (Alliaria petiolata) Giant reed (Arundo donax) Asiatic sound sedge (Carex frutescens) Spotted knapweed (Centaurea maculosa) Canada thistle (Cirsium arvense) Bull thistle (Cirsium vulgare) Crown vetch (Coronilla varia) Chinese yam (Dioscorea batatas) Chinese lespedeza (Lespedeza cuneata) Purple loosestrife (Lythrum salicaria) Eulalia (Microstegium vimineum) Aneilimia (Murdannia keisak) Beafsteak plant (Perilla frutescens) Common reed (Phragmites australis) Japanese knotweed (Polygonum cuspidatum) Johnson grass (Sorgum halepense)

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