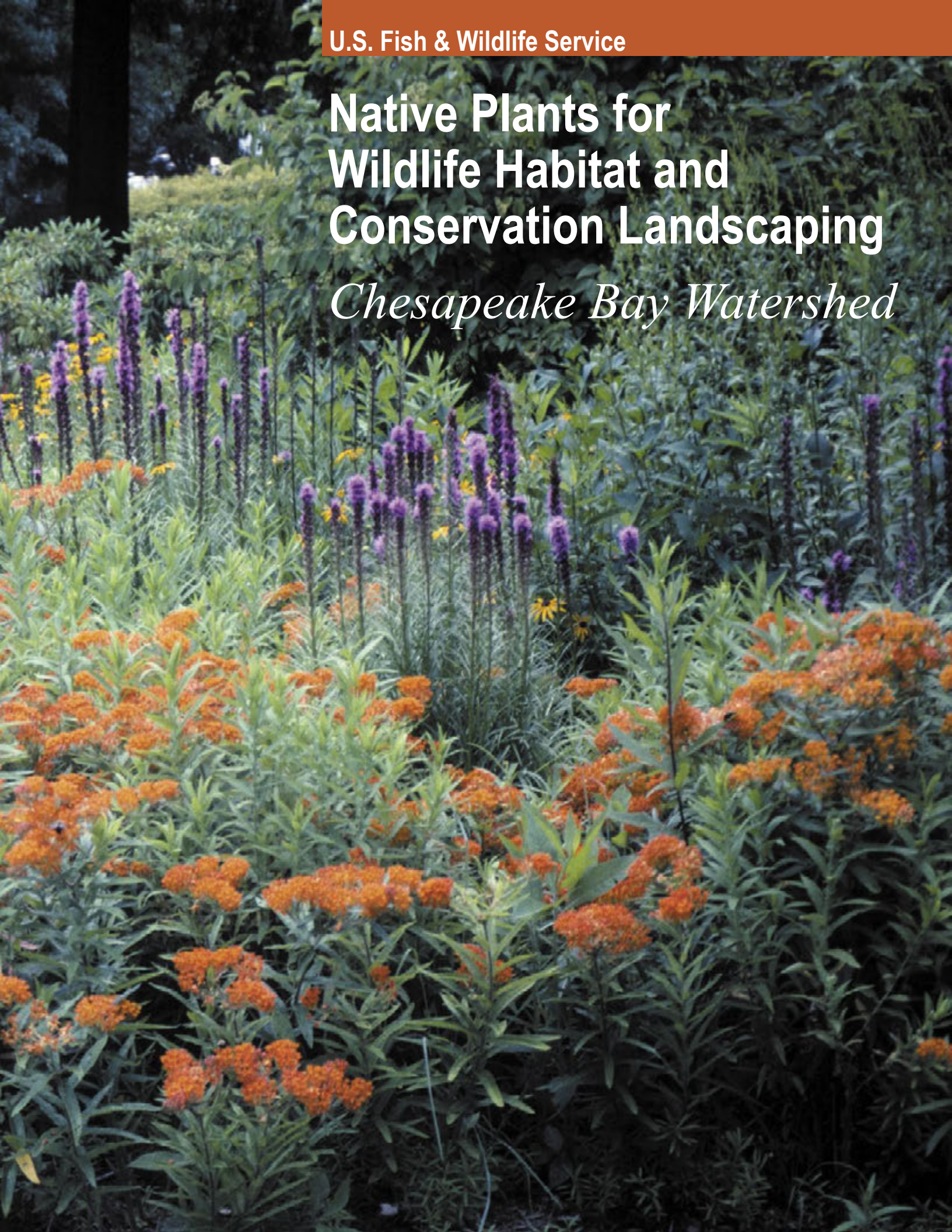
U.S. Fish & Wildlife Service

Native Plants for Wildlife Habitat and Conservation Landscaping

Chesapeake Bay Watershed



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To the Reader

The use of native plants in landscaping and of course habitat restoration is certainly not new. In fact, their use has grown exponentially in recent years. Natural resources professionals in turn have been flooded with requests for information on native plants to use in various types of planting projects. Communities, schools, businesses, nonprofit organizations, watershed groups, local governments, state and federal agencies and many others are enhancing and restoring habitat, solving ecological problems, reducing maintenance, or just beautifying surroundings, all using locally native plants. Natural resources professionals, in turn, have been flooded with requests for information on native plants to use in various types of planting projects. There are many excellent resources available on native plants - some more technical than others, some more comprehensive than others. The frustration voiced most frequently by users is the lack of color photographs of the plants. After all, it is the striking visual quality of these plants that is their best “selling point.”

This publication includes those pictures as well as user-friendly information on native species appropriate for planting in the Chesapeake Bay watershed and adjacent coastal regions. Although one guide cannot furnish the answers to every question, we have included as much useful information as possible in a limited space. Although the large number of species of plants included here may overwhelm some readers, this guide displays the great diversity of plants available. We hope you will bypass the over-used, non-native and sometimes invasive ornamental plants, and select the equally and often more attractive native plants. Pour through this guide the same way you look through nursery catalogs. Use it to plan and design your next planting, whether it’s a small corner of your front yard, a two-acre meadow seeding, or 100 acres of wetland restoration.

Native Plants for Wildlife Habitat and Conservation Landscaping:
Chesapeake Bay Watershed

Introduction

"Conservation landscaping" refers to landscaping with specific goals of reducing pollution and improving the local environment. In the Chesapeake Bay watershed (the land that drains to the Bay and its many tributaries), this style of landscaping is sometimes called "BayScaping," or beneficial landscaping.

Conservation landscaping provides habitat for local and migratory animals, conserves native plants and improves water quality. Landowners also benefit as this type of landscaping reduces the time and expense of mowing, watering, fertilizing and treating lawn and garden areas, and offers greater visual interest than lawn. Beneficial landscaping can also be used to address areas with problems such as erosion, poor soils, steep slopes, or poor drainage.

One of the simplest ways to begin is by replacing lawn areas with locally native trees, shrubs and perennial plants. The structure, leaves, flowers, seeds, berries and other fruits of these plants provide food and shelter for a variety of birds and other wildlife. The roots of these larger plants are also deeper than that of typical lawn grass, and so they are better at holding soil and capturing rainwater.

Benefits of conservation landscaping

Americans manage approximately more than 30 million acres of lawn. We spend $750 million per year on grass seed. In managing our yards and gardens, we tend to over-apply products, using 100 million tons of fertilizer and more than 80 million pounds of pesticides annually. The average homeowner spends 40 hours per year behind a power mower, using a quart of gas per hour. Grass clippings consume 25 to 40% of landfill space during a growing season. Per hour of operation, small gas-powered engines used for yard care emit more hydrocarbon than a typical auto (mowers 10 times as much, string trimmers 21 times, blowers 34 times). A yard with 10,000 square feet of turf requires 10,000 gallons of water per summer to stay green; 30% of water consumed on the East Coast goes to watering lawns.

The practices described in this guide reduce the amount of intervention necessary to have attractive and functional landscaping. Conventional lawn and garden care contributes to pollution of our air and water and uses up non-renewable resources such as fuel and water. Many typical landscapes receive high inputs of chemicals, fertilizers, water and time, and require a lot of energy (human as well as gas-powered) to maintain. The effects of lawn and landscaping on the environment can be reduced if properties are properly managed by using organic alternatives applied correctly, decreasing the area requiring gas-powered tools, using native species that can be sustained with little watering and care, and using a different approach to maintenance practices.

With conservation landscaping, there is often less maintenance over the long term, while still presenting a "maintained" appearance. Conservation landscapes, like any new landscape, will require some upkeep, but these alternative measures are usually less costly and less harmful to the environment. New plants need watering and monitoring during the first season until they become established. Disturbed soil is prone to invasion by weeds - requiring manual removal (pulling) instead of chemical application. Over time, desired plants spread to fill gaps and natural cycles help with pest control. Garden maintenance is reduced to only minimal seasonal cleanup and occasional weeding or plant management. The savings realized by using little or no chemicals, and less water and gas, can more than make up for initial costs of installing the landscaping. Redefining landscaping goals overall and gradually shifting to using native species provide even greater rewards in terms of environmental quality, landscape sustainability, improved aesthetics, cost savings, and bringing wildlife to the property.

Why use native plants?

Native plants naturally occur in the region in which they evolved. While non-native plants might provide some of the above benefits, native plants have many additional advantages. Because native plants are adapted to local soils and climate conditions, they generally require less watering and fertilizing than non-natives. Natives are often more resistant to insects and disease as well, and so are less likely to need pesticides. Wildlife evolved with plants; therefore, they use native plant communities for food, cover and rearing young. Using native plants helps preserve the balance and beauty of natural ecosystems.

This guide provides information about native plants that can be used for landscaping projects as well as large-scale habitat restoration. All of the plants presented are native to the designated areas, however not *all* of the native species for that area have been included. Rather, plants have been included because they have both ornamental and wildlife value, and are generally available for sale. This guide covers the entire Chesapeake Bay watershed, including south central New York; most of Pennsylvania, Maryland and Virginia; the District of Columbia; Delaware, west of Delaware Bay; and the eastern panhandle of West Virginia.

The region's wildlife, plants, habitats and network of streams and rivers leading to the Bay are tremendous resources. As the human population throughout the Chesapeake Bay watershed grows and land-use pressures intensify, it is increasingly important to protect our remaining natural areas and wildlife, and restore and create habitat. By working together, these treasures can be conserved for future generations. Individual projects are great, collective measures are even better, yet every action helps no matter what size.

Conservation landscaping elements

We can incorporate elements of natural systems into the existing areas where we live, work, learn, shop and play. Landscaping provides valuable opportunities to reduce the effects of the built environment. These areas can be both aesthetically pleasing and functional. Use of native species will make your garden or landscaping more environmentally beneficial. By combining plant selection with some of the other concepts below, you can achieve more environmental benefits.

Reduce disturbance. Carefully decide where new development will occur to avoid destruction of existing habitat as much as possible. Take advantage of the site's existing natural features.

Reduce lawn or high maintenance areas. Replace turf or ornamental plantings by adding new landscaping beds and/or enlarge existing ones with native plants.

Think big, but start small. Draw up a plan for your entire yard but choose one small area for your first effort. Trial and error with the first project will help you learn without being overwhelmed. Phase in the whole project over time.

Use native plants. Start by using natives to replace dead or dying non-native plants, or as a substitute for invasive non-natives in existing gardens or landscaping. Plan to use native plants in new landscaping projects.

Avoid invasive species. Non-native plants can be invasive. They have few or no naturally occurring measures to control them, such as insects or competitors. Invasive plants can spread rapidly and smother or out-compete native vegetation. Invasive, non-native plants are not effective in providing quality habitat. A copy of the publication "Plant Invaders of Mid Atlantic Natural Areas" can be downloaded from www.nps.gov/plants/alien/pubs/midatlantic/index.htm.

Improve water quality. Native species planted on slopes, along water bodies and along drainage ditches help prevent erosion and pollution by stabilizing the soil and slowing the flow of rainwater runoff. To collect and filter runoff, depressions can be created and planted with native plants suited to temporary wet conditions. These "rain gardens" will capture water and hold it *temporarily for a*

In certain conditions, some native plants can also become aggressive spreaders, though their spread is more limited by natural controls than non-native aggressors. Plants that seed readily (such as black-eyed Susan, *Rudbeckia* species), or that spread by lateral roots (such as mint family plants *Monarda* or *Physostegia* species) should be used sparingly or controlled in gardens. Certain native species that are difficult to control or show up uninvited should not be planted, such as cattail (*Typha* species).

day or two and remove pollutants washing off of the surrounding land.

Enhance and create wildlife habitat. An animal's *habitat* is the area where it finds food, water, shelter, and breeding or nesting space, in a particular arrangement. If we want our gardens to have the greatest ecological value for wildlife, we need to mimic natural plant groupings and incorporate features that provide as many habitat features as possible.

Plants are one of the most important features of an animal's habitat, because they often provide most, or even all of the animal's habitat needs. Animals in turn help plants to reproduce through dispersal of pollen, fruits or seeds. Consequently, plants and animals are interdependent and certain plants and animals are often found together. So, it is important that plants be selected, grouped, and planted in a way that is ecologically appropriate.

Each plant prefers or tolerates a range of soil, sunlight, moisture, temperature and other conditions, as well as a variety of other factors including disturbance by natural events, animals or human activities. Plants sharing similar requirements are likely to be found together in plant *communities* that make up different habitat types - particular groupings of plant communities commonly recognized as wetlands, meadows, forests, etc. Some plants may tolerate a wider range of conditions than others, and therefore can be found at more than one type of site, in association with a different set of plants at each. By matching plants with similar soil, sunlight, moisture and other requirements, and planting them to the existing site conditions, the planted landscapes will do a good job of approximating a natural habitat.

Instead of isolated plantings, such as a tree in the middle of lawn, group trees, shrubs and perennials to create layers of vegetation. A forest has, for example, a *canopy* layer (tallest trees), *understory* layers (various heights of trees and shrubs beneath the canopy) and a ground layer or forest floor. These layers provide the structure and variety needed for shelter, breeding or nesting space for a diversity of wildlife.

To provide food and cover for wildife year-round, include a variety of plants that produce seeds, nuts, berries or other fruits, or nectar; use evergreens as well as deciduous plants (those that lose their leaves); and allow stems and seedheads of flowers and grasses to remain standing throughout fall and winter.

All animals need water year-round to survive. Even a small dish of water, changed daily to prevent mosquito growth, will provide for some birds and butterflies. Puddles, pools or a small pond can be a home for amphibians and aquatic insects. A larger pond can provide for waterfowl, such as ducks and geese, and wading birds such as herons. Running or circulating water will attract wildlife, stay cleaner and prevent mosquitoes.

Rock walls or piles, stacked wood, or brush piles provide homes for insects, certain birds and small mammals. Fallen logs and leaf litter provide moist places for salamanders, and the many organisms that recycle such organic matter, contributing nutrients to the soil. Standing dead tree trunks benefit cavity-nesting wildlife such as woodpeckers.

Consider naturalistic planting, or habitat restoration. It may be feasible to create a more natural landscape instead of a formal one. Naturalistic landscaping uses patterns found in nature, and allows some nature-driven changes to occur. Plants multiply, and succession or gradual replacement of species may take place, with less human intervention. A property located near natural areas, such as forests, wetlands and meadows, is a good candidate for a habitat project. Expand existing forest by planting trees and shrubs along the woods line, using native species that grow in the area, and allow birds and wind to bring the understory plants over time. Wet sites, areas with clay soils, or drainage ditches can be converted to wetlands. An open piece of ground or lawn can be planted as a meadow or grassland. Schools, homes, small businesses, large corporate sites, municipalities, military installations, recreational areas and other public lands can all include habitat plantings.

How to choose plants

Finding ready information about what plants "go together" for habitat restoration, enhancement, or creation projects is difficult. Often, the professional will examine a nearby natural area and try to mimic the combination of plant species found there. That may not be possible for individuals unfamiliar with natural areas. Fortunately, by following some simple guidelines, you will have garden spaces that grow well on your site and mirror the plant communities found naturally in your area. The plant lists found at the end of this guide will also help give you a start at planting appropriate groupings.

- **Know your site and plant to the existing site conditions.** Check the sun exposure, soil moisture and soil type where you plan to plant, and choose plants that will grow and thrive in those conditions. For a few dollars your state or local cooperative extension office can analyze a small soil sample you send them (for contact information, see your government listings in the phone book). The results will include soil type (sand, clay, loam, etc.), pH and fertility status and recommendations for amending the soil to make it into "average garden soil." However, by selecting native species that thrive in the *existing* conditions, you won't need to add soil, fertilizer, lime or compost. There are a wide variety of plants that will thrive in most conditions, even the driest, poorest soil or very wet clay soil. If, however, the soil test shows extreme pH - very acidic (pH of less than 5) or very basic (pH 8 or above), your plant choices will be fairly limited. In that case, you might choose to follow the instructions for making the soil more neutral. If the soil is hard, compacted fill dirt, you might want to improve it by adding organic matter and work the ground so that it can more easily be planted. If you alter the site, then select plants suited to the new conditions.

- **Choose plants native to your region of your state.** Along with planting to the existing site conditions, use locally native plants. Use the map on page 9 to identify which **physio-geographic region** the planting site lies in. If you're close to a border dividing two regions, you may choose plants from either or both regions.

- **Choose a habitat type.** Try to create or emulate a specific habitat, like woods, wetland or meadow, and choose plants that are appropriate to both your site and the habitat. Look through this guide and mark the plants with growth requirements that match conditions at the planting site. This will help improve the success of your planting, the habitat value, and the ecological functioning of the project. This publication will eventually be made available online, in a format that can be electronically sorted by plant characteristics or growth conditions.

Where to find native plants

Most nurseries carry some native plants, and some nurseries specialize and carry a greater selection. As the demand for native plants has grown, so has the supply at nurseries. Some plants will be more readily available than others. Here, we've focused on species most appropriate for planting and available through the nursery trade. A limited number of species included here are not commonly available but are able to be nursery grown. Take this guide along with you when you visit nurseries and if you need help, ask for nursery staff familiar with native plants. If you see a plant you like, check to see if it's included in the guide for your state and physiographic region. For those species that are more difficult to find, the hope and intention is that this publication will spark a demand, and hence a greater supply. If you have a favorite plant that you can't obtain, be sure to ask your local nursery to consider adding it to their stock. A list of some of the many retail and wholesale native plant nurseries in the Chesapeake Bay region is available from the U.S. Fish and Wildlife Service, Chesapeake Bay Field Office at www.fws.gov/r5cbfo/bayscapes.htm.

For the greatest ecological value, select the "true" native species, especially if planting for wildlife benefit. There are cultivated varieties (*cultivars*) available for many native plants. These are named using the scientific name (Latin genus and species, such as *Rudbeckia fulgida*) plus the cultivar name, a third word in single quotation marks (such as *Rudbeckia fulgida* 'Goldsturm'). These varieties have been grown to provide plants with certain physical characteristics, perhaps a different flower color, different foliage or a compact shape or size. Although these are suitable for gardening use, use true species (not cultivars) if you are planning a habitat project to provide

food for wildlife. These plants are most suited to use by the native wildlife, and will increase your chances of attracting them.

Native plants should never be removed from the wild unless an area is about to be developed. Even then, it is difficult to transplant wild-collected plants and to duplicate their soil and other growth requirements in a home garden. Plants that are grown from seed or cuttings by nurseries have a much greater tolerance for garden conditions. Help to preserve natural areas by purchasing plants that have been grown, not collected.

Ask nurseries about the source of the native species sold. Did they come from seed or cuttings of plants found growing locally, or are they from another region? Ideally, the plants you use should come from stock from the same region, say, within about a 200-mile radius in the same physiographic province (coastal plain, Piedmont, or mountain). Differences exist from region to region even in the same plant species, due to differences in climactic conditions between distant locations. For example, a plant grown in Maine may flower at a different time than the same species grown in Maryland. They may have slight physical differences. These characteristics make a difference in designing gardens and they matter to wildlife seeking food sources. The more consumers ask for locally grown plants or seed, the more likely it is that nurseries will carry local stock.

Once you begin to explore and experiment with native plants, you'll soon discover that many of these plants go beyond just replacing worn out selections in your yard. Native plants will eventually reduce your labor and maintenance costs while inviting wildlife to your yard helping to create your own sense of place.

How to use this guide

Plant Names and Types

Plants are organized within each section alphabetically by scientific name. All scientific plant names used are based on names accepted by ITIS, the Integrated Taxonomic Information System. Plants are indexed at the back of the book by scientific as well as frequently used common names. Scientific names are changed periodically as new information is gathered; for those commonly recognized names that changed during development of this guide, the new names are used here, with a cross reference noted in the index. For example: *Aster divaricatus* is now *Eurybia divaricata*, so the plant is listed in the index under both *Aster* and *Eurybia*.

Plants are grouped by botanical categories: Ferns; Grasses & Grasslike Plants (includes grasses and plants with long slender leaves that may appear similar to a grass); Herbaceous Plants (includes flowers and groundcovers); Herbaceous Emergents (plants that grow in moist to wet soils, wetlands or in standing water with roots and part of their stems below water but with most of the plant above the water); Shrubs; Trees; and Vines.

A note about groundcovers: English ivy, periwinkle, creeping lily turf and Japanese pachysandra are some commonly used groundcovers, particularly for shade. However, these species are non-natives that are invasive in the landscape, so they should be *avoided*. What native alternatives can be used instead? A groundcover can be any plant that would physically cover or hide the bare ground from view. For the purposes of environmentally beneficial landscaping and habitat enhancement, any plant in the "herbaceous"category would make a good groundcover. For those gardeners and landscapers still seeking a low-growing, creeping, spreading, or clump-forming plant for a groundcover, these plants are marked with a GC symbol in the Notes column and a list is included at the end of the guide.

Characteristics

- **Height and/or Spread** The typical mature height or possible range of heights is given in feet, to the nearest half (0.5) foot. Height may vary depending on conditions (e.g., amount of moisture or sun). For trees and vines, spread is also given in feet. For trees, spread is the measurement of the crown of the plant; for vines, spread is the length a vine will grow along a surface.

- **Flowers: bloom period and flower color** The typical months in which the plant blooms are given. The exact time and duration of bloom may be shifted by days or weeks for different areas and/or depending on seasonal weather conditions and climactic trends. The basic, overall color of the flower is noted. The color of a flower's center or throat may not be included due to limited text space. For simplicity, some shades or tones of colors have been grouped, e.g. lavender, pale purple, bluish purple, even fuchsia may have been listed simply as purple; tan, brown, dark brown are all listed as brown; yellows and pinks may be similarly condensed.

- **Fruit: fruiting period, color and type** This information is provided for plants with more conspicuous fruits or visually interesting seeds. Terms used include: Achene, a dry flat seed such as in clematis; Berry, which includes small single berries such as blueberry, larger berries such as persimmon, aggregates such as blackberry and hips such as a rose hip; Capsule, including various types and sizes of dry fruits with two or more compartments containing seeds, such as iris, sweet pepperbush, hibiscus, or black-eyed Susan; Cone/cone-like such as pines, hemlock, or alder; fleshy pomes or drupes such as hawthorn, beach plum, paw paw, passion flower, or cherry; Nut/nut-like, as in acorns (oaks) or hickory; Pod, which may include pea-like legumes such as partridge pea or wild senna, *follicles* or other long pod-like *capsules* such as milkweeds, delphinium, or trumpet creeper; and Winged, such as the *samaras* of maples or elm.

- **Fall Color** The color listed indicates the fall color of the leaves, or of the stems for certain plants such as grasses. Some color shades have been grouped by the basic color, as for flower color. Evergreens, species that retain their leaves throughout the winter (in all plant categories), are designated with a ▲ symbol in the Notes column. Evergreens are popular for various landscaping uses and valuable for year-round cover for wildlife.

Growth Conditions

- **Light** The amount of sunlight a plant requires is defined as: Full Sun ☼, the site is in direct sunlight for at least six hours a day during the growing season; Partial shade ◑, the site receives approximately three to six hours of direct sunlight; and Shade ●, the site receives less than three hours of direct sunlight or filtered light.

- **Moisture** The amount of soil moisture a plant requires is defined as: Dry (D), areas where water does not remain after a rain (areas may be in full sun or in a windy location, on a steep slope, or have sandy soil); Moist (M), areas where the soil is damp, and may be occasionally saturated; and Wet (W), areas where the soil is saturated for much of the growing season, except in droughts. Many of the plants designated for wet areas tolerate specific ranges of water depths (see Flood Depth). Plants with the Dry designation can be considered drought tolerant.

- **Soil pH and Type** Many of the native plants listed will tolerate a range of soil types. Soil types are listed here as Organic (O), containing a high amount of organic material such as decayed leaves and bark; Clay or fine-textured (C) soils with a high clay content and some silt - very fine soil particles; Loamy or medium-textured (L) soils that contain a mix of mostly silt and sand but may contain some clay; and Sandy or coarse-textured (S) soils with larger particles. Soil information has necessarily been simplified for this guide, and lumped into these main categories, which will suffice for the novice. Soils in actuality are often a mixture or gradations of types, categorized by the percentages they contain of clay, silt or sand, for example clay loam (a certain mix of clay and sand); sandy clay; silt loam; or silty clay loam. For best results, select plants suited to existing site conditions rather than amending the soil. However, be aware that plant selection may be limited if your site has very sandy soil, heavy clay, compacted soil, or extreme soil pH (above 8 or below 5.5). In these cases, seek advice from a nurseryman, horticulturist, botanist, Cooperative Extension agent, or other expert.

- **Flood Depth** Some plants tolerate prolonged standing water, and occur in specific water depths or range of depths. In the Herbaceous Emergents section, the depth of water tolerated is indicated (in inches). Other types of wetland plants that can tolerate only intermittent flooding appear in other sections of the guide, and their flood tolerance

information is included in the Notes column. For more complete information on planning and planting wetlands, see the references listed at the end of this guide.

- **Salt Tolerance** Some plants that tolerate prolonged standing water can tolerate saltwater or brackish (partly salty) water. For plants in the Herbaceous Emergents section, the salinity range in which each of these plants will grow is given in parts (of salt) per thousand parts (of water) or ppt, from 0 ppt (fresh water) to the maximum salinity tolerated. For plants in other sections of the guide, the maximum salinity is given in the Notes column. Full seawater is approximately 32 ppt. If salinity is not given, then the plant grows in fresh water only or in drier conditions.

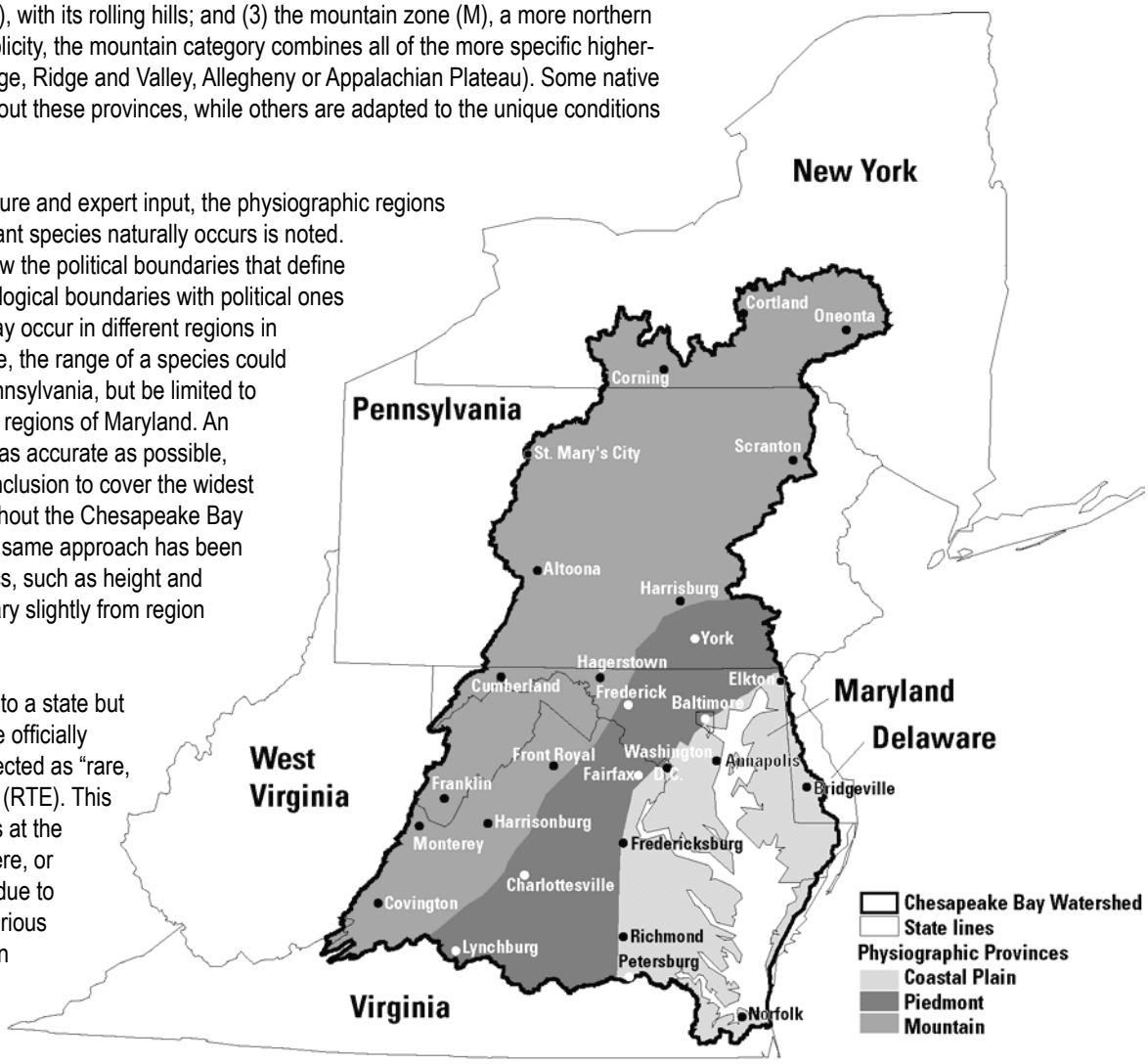
Habitat

For each plant in this guide, we include a description of habitats in which that plant may be found. Several habitat types may be mentioned as each plant is rarely found in one and only one habitat type. There are dozens of forest types, several types of wetlands including forested wetlands and even wet meadows. The habitats described include those that provide the conditions most preferred by each plant species. To help with planning projects, sample lists of plants to use in certain habitat types, or certain site conditions, are given in the back of this guide. More technically detailed information on plant communities can be found in resources listed in the references section.

Native To (Where To Use) - States and Physiographic Regions

From the sandy dunes of the coast to the rocky slopes of the mountains, the rich variety of habitats found throughout the region is strongly linked to its geology, topography and climate. For this guide, the states in the Chesapeake Bay watershed have been divided into three regions or provinces: (1) the coastal plain (C), an area with fairly flat topography and more southern climate; (2) the Piedmont plateau (P), with its rolling hills; and (3) the mountain zone (M), a more northern climate (see map). For simplicity, the mountain category combines all of the more specific higher-altitude provinces (Blue Ridge, Ridge and Valley, Allegheny or Appalachian Plateau). Some native plants are common throughout these provinces, while others are adapted to the unique conditions found only in one or two.

Based on the existing literature and expert input, the physiographic regions and states in which each plant species naturally occurs is noted. However, plants do not follow the political boundaries that define our states, so matching ecological boundaries with political ones is difficult. Certain plants may occur in different regions in different states. For example, the range of a species could extend throughout all of Pennsylvania, but be limited to the mountain and Piedmont regions of Maryland. An effort has been made to be as accurate as possible, while erring on the side of inclusion to cover the widest range of possibilities throughout the Chesapeake Bay watershed as a whole. This same approach has been used for other characteristics, such as height and bloom period, which may vary slightly from region to region.



Note: Some species native to a state but not commonly found may be officially designated and legally protected as "rare, threatened, or endangered" (RTE). This may be because the plant is at the edge of its natural range there, or its population has declined due to loss of habitat caused by various natural events and/or human activities in that region. Species that are listed in a state as RTE should

generally not be planted there, because importing species from elsewhere could potentially lead to damaging alteration of the gene pool of the remaining population. This guide lists only those states in which a plant is common and recommended for planting. As a general rule of thumb, if a plant you like is not designated in this guide for your state or your region of the state, we strongly encourage you to forego planting that and select another plant suited to your site.

Wildlife Value
The notation "high wildlife value" is based mainly on the value of the fruits, seeds and/or nectar used as food for wildlife, and the relative number of species using the plant for food. But remember that animals use leaves, twigs, roots and shoots for food or nesting material, and every plant has value as cover and/or nesting sites. In that respect, although we've marked those of higher wildlife (food) value, every plant in this guide has value to wildlife, as well as other environmental values.

The **types of wildlife** noted here are those desirable species that are likely to use the plants for food, including pollinators which are critical to plant reproduction, for gardens, natural areas and agricultural crops. The information here is fairly general. The songbird icon indicates use of a plant by small usually migratory birds, but may include upland game birds. The waterfowl icon may include shorebirds and wading birds along with ducks and geese. The hummingbird icon has been indicated separately because many people are interested specifically in attracting them. The butterfly icon may refer to the adults or to the larval stage that uses the plant as a host. The beneficial insect icon, besides butterflies, includes ladybugs, bees (essential pollinators) and other insects that serve as a pest control or other desirable role. The small mammal icon is noted for plants used by any of a variety of small animals, such as raccoons, opossums, foxes, etc., depending upon location and surrounding habitat.

Absent but not forgotten: Certain wildlife species are not represented, due in part to a lack of available information for every plant related to all types of animals. However, these are all likely to inhabit or occasionally visit a native plant garden or habitat planting, and their importance in the web of life should not be underestimated. Many insects have not been represented here, though they certainly use a wide variety of plants throughout their life cycles and are an integral part of the ecosystems we're trying to protect, conserve and enhance. Reptiles and amphibians, particularly salamanders, frogs and turtles, inhabit our yards as well as natural areas. They use plants for food and cover, and especially need water sources such as lakes, ponds, streams, puddles or even a small dish of water (aerated or changed daily to prevent mosquito breeding). Bats provide a valuable service as insect pest controllers and pollinators.

Notes
This catchall includes pertinent information that bears emphasizing or is not reflected in the other categories. It may include additional notes or clarification about the plant's characteristics, growth, and spread; tips or suggestions on cultivation; cultivars; or general use of the plant.

By providing these characteristics for each plant species we hope to provide you with a variety of choices to meet the conditions of your property as well as your personal preferences. Whether you are replacing a few individual plants, designing a new bed or planning for an entirely new look, this guide can help narrow the choices to plants most likely to thrive in your environment and create the landscape you desire.

 **Songbird**

 **Waterfowl**

 **Hummingbird**

 **Butterfly**

 **Beneficial insect**

 **Small mammal**

Providing the basic habitat structures described earlier and planting a diversity of plants (and therefore food sources) will bring a surprising and beneficial array of life to your property.

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Adiantum pedatum *northern maidenhair fern*  UWI MC	Height: 1-2' Fruit:	Light: ◐ ● Moisture: M Soil pH: 4.5-6.5 Soil type: L S O	moist woods, rocky shaded habitats	Region: M P C States: DC MD NY PA VA WV		grows in clumps; delicate texture; herbal uses GC
Asplenium platyneuron *ebony spleenwort*  RHW	Height: 0.5-1.5' Fruit:May-Sep	Light: ○ ◐ ● Moisture: M Soil pH: 4.5-7 Soil type: C L S	banks, open woods and thickets, slopes, rocky ledges, swamps	Region: M P C States: DC MD NY VA WV		easily transplanted; only moderate care needed; evergreen ▲ GC
Athyrium filix-femina *northern lady fern*  UWI KJS	Height: 1-3' Fruit:	Light: ◐ Moisture: M W Soil pH: Soil type: L S	woods, banks, wooded hillsides, sandy bogs	Region: M P C States: DC DE NY WV		varieties occur throughout region; in MD, VA can also use subspecies asplenioides (southern lady fern) GC
Botrychium virginianum *rattlesnake fern*  RHW	Height: 1-2' Fruit:	Light: ◐ ● Moisture: D M Soil pH: 5.6-6.9 Soil type: L O	rich, woods	Region: M P C States: DC DE MD NY VA WV		GC
Dennstaedtia punctilobula *hay-scented fern*  UWI RWF	Height: 1-3' Fruit:Jul-Oct	Light: ○ ◐ Moisture: D M Soil pH: Soil type: L	open woods and fields	Region: M P C States: DC MD NY VA WV		can spread over large areas of open understory or pasture GC
Dryopteris carthusiana (D. spinulosa) *toothed or spinulose woodfern*  UWI RWF	Height: 1-2.5' Fruit:Jun-Aug	Light: ◐ ● Moisture: M W Soil pH: 5-6 Soil type: L O	low woods, thickets, swamps, rich woods, rocky slopes	Region: M P States: DC DE MD NY PA VA WV		forms colonies; semi-evergreen ▲ GC
Dryopteris cristata *crested wood or shield fern, narrow swamp fern*  UWI RWF	Height: 1.5-2.5' Fruit:Jun-Sep	Light: ○ ◐ ● Moisture: M W Soil pH: 3.5-6.5 Soil type: C L	shallow emergent marshes, shrub swamps, wooded swamps, open shrubby wetlands	Region: M P C States: DC DE MD NY PA VA WV		small rosette fronds ▲ GC
Dryopteris intermedia *evergreen wood-fern*  UWI EJJ	Height: 2.5' Fruit:	Light: ◐ ● Moisture: D M W Soil pH: Soil type: L O	rich, moist to dry woods	Region: M P C States: DC DE NY PA VA WV		clump-former; not common on coastal plain; hybridizes with eight species ▲ GC

Ferns

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Dryopteris marginalis *marginal or evergreen shield fern, evergreen wood fern*	 UWI RWF	Height: 1-3' Fruit:Jun-Oct	Light: ◑ ● Moisture: D M Soil pH: Soil type: C L S	moist woods, clearings	Region:M P C States: DC DE MD NY PA VA WV		clump-former; attractive; easily transplanted ▲ GC
Onoclea sensibilis *sensitive fern*	 UWI KJS	Height: 1-3.5' Fruit:Jun-Oct	Light: ○ ◑ ● Moisture: M W Soil pH: Soil type: C L S	fresh tidal and nontidal marshes, meadows, swamps, woods	Region:M P C States: DC DE MD NY PA VA WV		spreads in wet areas; fertile fronds dark brown, erect GC
Osmunda cinnamomea *cinnamon fern*	  RHW, UWI TK	Height: 2-5' Fruit:Apr-May	Light: ○ ◑ ● Moisture: M W Soil pH: 4.5-7 Soil type: C L	woods, marshes, swamps, bogs, streamsides	Region:M P C States: DC DE MD NY PA VA WV		tolerates drought; fertile fronds reddish brown, wooly GC
Osmunda claytoniana *interrupted fern*	 UWI EJJ	Height: 1-4' Fruit:	Light: ◑ ● Moisture: M Soil pH: 4-6 Soil type: C L	fields, forest and swamp edges	Region:M P States: DC DE MD PA VA WV		grows in clumps GC
Osmunda regalis *royal fern*	 UWI EJJ	Height: 1.5-6' Fruit:Apr-Jun	Light: ○ ◑ ● Moisture: M W Soil pH: 4-6 Soil type: C L S	fresh tidal and nontidal marshes and swamps, woods, irregularly, seasonally, or permanently saturated (up to 100% of growing season)	Region:M P C States: DC DE MD NY PA VA WV		tolerates full sun if moist; tolerates drought; tolerates irregular, seasonal or permanent saturation; only tolerates flooding for a few days GC
Polystichum acrostichoides *Christmas fern*	 USFWS BES	Height: 0.5-2' Fruit:Jun-Oct	Light: ◑ ● Moisture: M Soil pH: 4.5-7 Soil type: L S	woods, thickets, rocky slopes	Region:M P C States: DC DE MD NY PA VA WV		grows in clumps; easily grown in rock gardens and shaded places; impartial to soil type ▲ GC
Pteridium *bracken fern*	 CM NRCS	Height: 1.5-6' Fruit:	Light: ○ ◑ Moisture: D M W Soil pH: Soil type: C L S	dry pine woods, swamps, marshes, fields, waste places	Region:M P C States: DC DE MD NY PA VA WV		forms large colonies; host for several ant types GC
Thelypteris noveboracensis *New York fern*	 USFWS BES	Height: 1-2.5' Fruit:Jun-Sep	Light: ◑ ● Moisture: M W Soil pH: 4-7 Soil type: C L S	forested wetlands, dry to damp woods, thickets	Region:M P C States: DC DE MD NY VA WV		tolerates drought; easily transplanted; forms large colonies; spreads easily GC

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Thelypteris palustris *marsh fern*	Height: 2-3' Fruit:Jun-Oct	Light: Moisture: M W Soil pH: Soil type: C L S	swamps, bogs, fields, thickets, fresh marshes, wooded streambank	Region:M P C States: DC DE MD NY VA WV		spreads GC
Woodwardia areolata *netted chain fern*	Height: 0.5-2' Fruit:Jul-Oct	Light: Moisture: M W Soil pH: Soil type:	bogs, swamps, woods	Region: P C States: DC DE MD VA		spreads by creeping rhizome GC
Woodwardia virginica *Virginia chain fern*	Height: 3-6' Fruit:Jul-Sep	Light: Moisture: M W Soil pH: Soil type:	swampy places, woods	Region: P C States: DC DE MD NY VA		spreads by creeping rhizome GC


UWI RWF


PLANTS RM91


PLANTS


RHW

Osmunda regalis


RHW

Osmunda cinnamomea


RS MNPS

Polystichum acrostichoides


USFWS BES

New fern fiddleheads emerging.

Grasses & Grasslike Plants

		Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Agrostis perennans *autumn bentgrass*	 PLANTS RM95	Height: 1-3' Flowers: Jun-Oct	Light: ◐ ◑ ● Moisture: D M W Soil pH: 5.5-7.5 Soil type: C L	dry or moist thickets, open woods	Region: M P C States: DC DE PA VA WV		
Ammophila breviligulata *dunegrass, American beachgrass*	 UWI RRK	Height: 1.5-3.5' Flowers: Jul-Sep	Light: ◐ Moisture: D Soil pH: 5.8-7.8 Soil type: L S	maritime beaches, dunes, grasslands, shrublands	Region: C States: VA		prefers well-drained, sandy sites; spreads rapidly by rhizomes
Andropogon gerardii *big bluestem*	 RHW	Height: 2-6.5' Flowers: Jun-Sep	Light: ◐ ◑ Moisture: D M W Soil pH: 6-7.5 Soil type: C L S	dry or wet open woods, prairies, swales, shores; dry open areas	Region: M P States: DC DE NY PA VA WV		clump forming; attractive, with winter interest
Andropogon glomeratus (A. virginicus var. abbreviatus) *bushy bluestem*	 PLANTS	Height: 1.5-5' Flowers: Aug-Oct, reddish brown	Light: ◐ ◑ Moisture: M W Soil pH: 5-6.3 Soil type: C L S	fresh marshes, coastal areas	Region: M P C States: DC DE VA WV		tolerates drought; grows in tufts; reddish fall color
Andropogon virginicus *broomsedge*	 PLANTS JS	Height: 1-3' Flowers: Aug-Nov, reddish brown	Light: ◐ Moisture: D M W Soil pH: 4.9-7 Soil type: C L S	wet meadows, transition areas	Region: M P C States: DC DE MD NY VA WV		wildlife food and cover; tolerates drought; grows in tufts; reddish-tan fall color
Calamagrostis canadensis *bluejoint reedgrass*	 PLANTS 1995	Height: 1.5-5' Flowers: Jun-Aug	Light: ◐ ◑ Moisture: M W Soil pH: 4.5-8 Soil type: C L	meadows, bogs, thickets	Region: M States: DC DE NY VA WV		
Carex crinita var. crinita *long hair sedge*	 RHW	Height: 1-5' Flowers: Jun-Aug	Light: ◐ ◑ Moisture: M W Soil pH: 4-7.5 Soil type: C L	swales, thickets, low woods	Region: M P C States: DC DE NY VA WV		
Carex glaucodea *blue wood sedge*	 NYNHP, NYNHP	Height: 0.5-2' Flowers: May-Jul, brown to reddish	Light: ◑ ● Moisture: D M Soil pH: Soil type:	moist to dry woods and fields	Region: P C States: DC DE MD VA		clump-forming; alternative to Liriope GC

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Carex lurida *sallow sedge, lurid sedge*  RHW	Height: 1-3.5' Flowers: Jun-Oct	Light: ○ ◑ Moisture: W Soil pH: 4.9-6.8 Soil type: C L S	swales, swamps, woods	Region: M P C States: DC DE NY PA VA WV		wetland plant; interesting seeds
Carex pensylvanica *Pennsylvania sedge*   CM NRCS, CM NRCS	Height: 0.5-1.5' Flowers: Apr-Jul, reddish to white	Light: ◑ ● Moisture: D M Soil pH: Soil type: S	open, dry, sandy or rocky woods, wooded slopes	Region: P C States: DC DE MD NY PA VA WV		alternative to lawn; plant densely; fine textured leaves less than 6 inches GC
Carex stricta *tussock sedge*  CM NRCS	Height: 1-3.5' Flowers: May-Aug, reddish to purple brown	Light: ○ Moisture: M W Soil pH: 3.5-7 Soil type: C L S	fresh tidal and nontidal marshes, shrub swamps, forested wetlands, swales, fields	Region: M P C States: DC DE MD NY VA WV		grows in clumps; partly persists in winter; tolerates flooding to 6 inches
Carex vulpinoidea *fox sedge*  UWI RWF	Height: 0.5-3.5' Flowers: Jun-Aug	Light: ○ ◑ Moisture: W Soil pH: 6.8-8.9 Soil type: C L	shallow emergent marshes, shrub swamps, floodplain forests, hardwood swamps	Region: M P C States: NY VA WV	high wildlife value	grows in clumps; tolerates saturation and flooding to 6 inches
Chasmanthium latifolium *wild oats, river oats, sea oats, spanglegrass*  USFWS BES, USFWS BES	Height: 2-5' Flowers: Jul-Sep, green then tan	Light: ○ ◑ Moisture: D M Soil pH: 5-7 Soil type: C L S	streambanks, alluvial woods	Region: M P C States: DC DE MD VA WV		
Danthonia spicata *poverty oatgrass, poverty grass*  UWI RWF	Height: 0.5-2' Flowers: May-Jul	Light: ○ ◑ ● Moisture: D M Soil pH: Soil type: S	open woods, pastures, meadows	Region: M P C States: DC DE NY PA VA WV		GC
Dichanthelium clandestinum *deer-tongue*  USDA JE	Height: 2-5' Flowers: May-Oct	Light: ○ ◑ Moisture: D M W Soil pH: 4-7.5 Soil type: C L S	moist woods, roadsides	Region: M P C States: DC DE NY PA VA WV		
Dichanthelium commutatum *variable panicgrass*  PLANTS 1997	Height: 1-2.5' Flowers: May-Oct	Light: ◑ ● Moisture: D M Soil pH: 4-6.5 Soil type: L S	rocky or sandy woods	Region: M P C States: DC DE NY PA VA WV		

Grasses & Grasslike Plants

		Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Elymus canadensis *Canada wild rye*	 CM NRCS	Height: 2-6.5' Flowers: Jun-Oct	Light: ☼ Moisture: D M Soil pH: 5-7.9 Soil type: C L S	dry, sandy, gravely, or rocky soil	Region: M P C States: DC MD VA WV		
Elymus hystrix (Hystrix patula) *bottlebrush grass*	 RHW	Height: 2-4' Flowers: Jun-Aug	Light: ☼ ◐ ● Moisture: M Soil pH: Soil type: L	alluvial woods	Region: M P C States: DC DE MD NY PA VA WV		
Elymus riparius *riverbank wild-rye*	 UWI EJJ	Height: 0.5-5' Flowers: Jul-Sep	Light: ☼ ◐ Moisture: D M W Soil pH: 4.5-7.2 Soil type: C L S O	rich thickets, streamsides, alluvial flats, meadows	Region: P C States: DE PA VA WV		good for streambank conditions
Elymus virginicus *Virginia wild rye*	 CM NRCS	Height: 1-5.5' Flowers: Jun-Oct	Light: ◐ ● Moisture: D M Soil pH: 5-7 Soil type: C L S O	rich thickets, shores, meadows	Region: M P C States: DC DE MD PA VA WV		tolerates a wide range of conditions; forms clumps
Festuca rubra *red fescue*	 RS MNPS	Height: 0.5-3' Flowers: May-Jul	Light: ☼ ◐ Moisture: M W Soil pH: 5-8 Soil type: C L	dry woods, roadsides, waste areas	Region: M States: DC DE MD VA		can be used as turf grass; grows best in part shade GC
Leersia oryzoides *rice cutgrass*	 PLANTS 1995	Height: 5' Flowers: Jun-Oct	Light: ☼ ◐ Moisture: M W Soil pH: 5.1-8.8 Soil type: C L S	fresh tidal and nontidal marshes, meadows, ditches, muddy shores	Region: M P C States: DC DE NY PA VA WV		good for sediment stabilization, erosion control; tolerates drought; tolerates flooding to 6 inches
Panicum amarum *bitter or coastal panic grass, beachgrass*	 CM NRCS	Height: 1-3' Flowers: Aug-Oct	Light: ☼ Moisture: D M Soil pH: 5-7.5 Soil type: L S	sandy coastal shores and dunes	Region: C States: DC DE MD VA		prostrate form, produces little viable seed, use transplants; Panicum amarum var. amarulum (coastal panicgrass), taller form, can be seeded.
Panicum virgatum *switchgrass*	 USFWS BES	Height: 3-6' Flowers: Jul-Oct	Light: ☼ ◐ Moisture: D M W Soil pH: 4.5-8 Soil type: C L S	fresh and brackish tidal and nontidal marshes, wet meadows, open woods, prairies, dunes	Region: M P C States: DC DE MD NY PA VA WV		food for sparrow species; grows in clumps; controls erosion

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Saccharum giganteum (Erianthus giganteus) *giant plumegrass, sugar cane*  USDA NRCS	Height: 3.5-10' Flowers: Aug-Oct	Light: Moisture: M W Soil pH: 3.5-7 Soil type: L S	swamps, low woods, swales	Region: P C States: DC DE VA		
Schizachyrium scoparium (Andropogon scoparius) *little bluestem*   USFWS BES, USFWS BES	Height: 1.5-4' Flowers: Aug-Oct	Light: Moisture: D Soil pH: Soil type: L S	open woods, pinelands, clearings	Region: M P C States: DC DE MD NY PA VA WV		tolerates poor soil; clump grass; winter interest and wildlife cover; excellent forage grass
Sorghastrum nutans *Indiangrass*  RHW	Height: 2.5-8' Flowers: Aug-Sep	Light: Moisture: D M Soil pH: 4.8-8 Soil type: C L S	dry slopes, prairies, borders of woods	Region: M P C States: DC DE MD NY PA VA WV		tall clump grass with beautiful seed head; nutritious for livestock
Tridens flavus *redtop, purpletop*  UWI EJU	Height: 2-6.5' Flowers: Aug-Oct	Light: Moisture: D M Soil pH: 4.5-6.5 Soil type: C L S	dry fields, roadsides, openings, forest	Region: M P C States: DC DE VA WV		
Tripsacum dactyloides *gama grass*  CM NRCS	Height: 6-10' Flowers: Jun-Oct	Light: Moisture: M W Soil pH: 5.7-7.5 Soil type: C L	swales, fields, forest edges, shores	Region: M P C States: DC DE MD VA WV		excellent forage grass; often grows wild near corn fields; can hybridize with corn

See also:

In the *Herbaceous Plants* section:
Allium cernuum
Liatris pilosa v. pilosa (graminifolia), scariosa, spicata, squarrosa
Sisyrinchium angustifolium (graminoides), atlanticum

In the *Herbaceous Emergents* section:
Distichlis spicata
Dulichium arundinaceum
Iris prismatica, versicolor, virginica
Juncus canadensis, effusus
Schoenoplectus pungens v. pungens (Scirpus pungens, americanus), validus (Scirpus validus)
Scirpus atrovirens, cyperinus
Sparganium americanum
Spartina alterniflora, cynosuroides, patens, pectinata
Zizania aquatica

Andropogon virginicus provides a transition between the road and woods.


CM NRCS

Schizachyrium scoparium in a garden with **Liatris spicata** and **Asclepias tuberosa**.


USFWS BES


USFWS

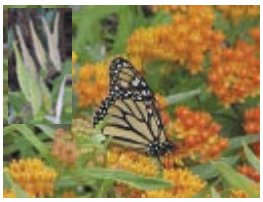
Schizachyrium scoparium in fall.


USFWS BES

Characteristic swirls of **Carex stricta**.

Herbaceous Plants

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Actaea pachypoda *doll's eyes*  RHW, RHW	Height: 1-3' Flowers: Apr-Jun, whitish Fruit: Jul-Oct, white or red, berry	Light: ◐ ● Moisture: M Soil pH: Soil type: C L S	rich open woods, thickets	Region: C States: DE NY PA VA WV		interesting berries; infrequent in Piedmont and mountain regions
Agalinis purpurea *purple false foxglove*  RHW	Height: 1-4' Flowers: Jul-Sep, rose-purple, white Fruit: capsule	Light: ○ Moisture: M W Soil pH: Soil type: S	moist fields, rocky shores, serpentine barrens	Region: P C States: DC DE MD NY VA WV		
Ageratina altissima var. altissima (Eupatorium rugosum) *white snakeroot*  UWI KJS, USFWS BES	Height: 1-5' Flowers: Jul-Oct, white Fruit: capsule	Light: ○ ◐ ● Moisture: D M Soil pH: Soil type: C L S	rich woods, thickets, clearings, meadows	Region: M P C States: DC DE MD NY PA VA WV		tough plant; cultivars available; prefers basic soils
Allium cernuum *nodding onion*  RHW	Height: 0.5-2.5' Flowers: Jun-Aug, pink, rose, white Fruit: capsule	Light: ○ ◐ Moisture: M Soil pH: Soil type: L S	ledges, gravels, rocky or wooded slopes	Region: M States: DC MD VA WV		
Anemone canadensis *round-leaved or Canadian anemone, thimbleweed*  RHW	Height: 0.5-3' Flowers: May-Jul, white Fruit:	Light: ○ ◐ Moisture: M Soil pH: Soil type: C L	damp thickets, meadows, gravelly shores	Region: P States: DC NY VA		
Anemone virginiana *thimbleweed, tall anemone*  RHW	Height: 1-2.5' Flowers: May-Aug, whitish Fruit:	Light: ○ ◐ Moisture: D M Soil pH: Soil type: C L S	dry rocky open woods, slopes, thickets	Region: M P States: DC DE MD NY PA VA WV		
Antennaria neglecta *field pussytoes*  UWI JRS	Height: 0.5-1.5' Flowers: Apr-Jul, white Fruit:	Light: ○ ◐ Moisture: D M Soil pH: 5.5-7.5 Soil type: C L	upland meadows, pastures, open woods	Region: M P States: DC DE MD NY PA VA WV		
Aquilegia canadensis *eastern or wild columbine*   RHW, USFWS BES	Height: 0.5-3' Flowers: Apr-Jul, red-yellow Fruit: capsule	Light: ○ ◐ Moisture: D M Soil pH: Soil type: L	rich rocky woods, slopes, cliffs, ledges, pastures, roadside banks	Region: M P C States: DC DE MD NY PA VA WV		commonly cultivated; spreads by seed GC

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Aralia nudicaulis *wild sarsaparilla*  RHW	Height: 0.5-1.5' Flowers: May-Jul, white or green Fruit: May-Jul, purple-black, berry	Light: ◐ ● Moisture: D M Soil pH: 5-7.2 Soil type: C L S	dry to moist woods	Region: M P C States: DC DE MD NY PA VA WV		aromatic; single-leaved; lacks an above-ground stem; not common in coastal plain
Aralia racemosa *spikenard*  RHW, RHW	Height: 1.5-6.5' Flowers: Jun-Aug, greenish-white Fruit: dark purple, berry	Light: ◐ ● Moisture: M Soil pH: Soil type: C L S	rich woods, thickets, wooded slopes and edges	Region: M P C States: DC DE MD PA VA WV		not common in coastal plain
Arisaema triphyllum *Jack-in-the-pulpit*  USFWS BES, RHW	Height: 1-3' Flowers: Mar-Jun, striped, purple or green Fruit: berry	Light: ◐ ● Moisture: M W Soil pH: 4.8-7 Soil type: L S	woods, bogs swamps	Region: M P C States: DC DE MD NY PA VA WV		red berry clusters appear late summer to fall; unusual flower; spreads rapidly from seed
Aruncus dioicus *goat's-beard*  USFWS BES	Height: 3.5-6.5' Flowers: May-Jul, white Fruit: pod	Light: ○ ◐ Moisture: M W Soil pH: Soil type: C L S	wooded roadsides, rich woods, ravines	Region: M States: DC VA WV		
Asarum canadense *wild ginger*  USFWS BES	Height: 0.5' Flowers: Apr-May, brownish-purple Fruit: brown, capsule	Light: ◐ ● Moisture: M Soil pH: Soil type: C L S	rich woods	Region: M P C States: DC DE MD NY PA VA WV		flower inconspicuous; attractive leaves; will spread; semi-evergreen GC ▲
Asclepias incarnata *swamp milkweed*  USFWS RL	Height: 4-6' Flowers: May-Jun, pink to reddish Fruit: Aug-Nov, pod	Light: ○ ◐ Moisture: M W Soil pH: 5-8 Soil type: C L	fresh tidal and nontidal marshes, meadows, shrub swamps, woods, shores, ditches	Region: M P C States: DC DE MD NY PA VA WV	 	can tolerate drought; interesting seed pod
Asclepias syriaca *common milkweed*  RHW, RHW	Height: 3.5-6.5' Flowers: May-Aug, pale purple Fruit: Aug-Nov, pod	Light: ○ Moisture: D Soil pH: Soil type: L S	thickets, roadsides, fields	Region: M P C States: DC DE MD NY PA VA WV	 	interesting seed pods; fragrant flower
Asclepias tuberosa *butterflyweed, butterfly milkweed, butterfly flower*  USFWS RL, USFWS BES	Height: 1-3' Flowers: May-Jul, orange Fruit: Aug-Nov, pod	Light: ○ ◐ Moisture: D M Soil pH: 4.8-6.8 Soil type: L S	dry fields, roadsides, shale barrens	Region: M P C States: DC DE MD NY PA VA WV	 	taproot does not transplant well but seedlings do; attractive seed pod

Herbaceous Plants

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Baptisia australis *wild blue indigo, false blue indigo* USFWS BES, USFWS BES 	Height: 3-5' Flowers: May-Jun, blue, purple Fruit:	Light: ☼ ◑ Moisture: D M Soil pH: Soil type: S	open woods, alluvial thickets, streambanks, floodplains	Region: M P States: DC MD VA WV		tolerates poor soils; flowers very showy; shrublike form
Baptisia tinctoria *yellow wild indigo* RHW 	Height: 1-3' Flowers: May-Sep, yellow Fruit:	Light: ☼ ◑ Moisture: D Soil pH: 5.8-7 Soil type: L S	open woods, clearings	Region: M P C States: DC DE MD PA VA WV		tolerates poor soils
Bidens cernua *nodding beggar-ticks, nodding bur marigold* RHW 	Height: 0.5-3' Flowers: Aug-Oct, yellow Fruit:	Light: ☼ ◑ Moisture: D M Soil pH: 5.1-7 Soil type: C L S	tidal marsh, sloughs, springs, pools, shore	Region: M P C States: DC DE MD NY PA VA WV		
Boltonia asteroides *star boltonia, white doll's daisy* USFWS BES 	Height: 0.5-2.5' Flowers: Jul-Sep, white Fruit:	Light: ☼ ◑ Moisture: D M W Soil pH: 5.3-7 Soil type: L S	gravelly shores, sandy thickets	Region: C States: DC DE VA WV		
Caltha palustris *marsh marigold* RHW 	Height: 1-2' Flowers: Apr-Jun, bright yellow Fruit:	Light: ☼ ◑ Moisture: W Soil pH: 4.9-6.8 Soil type: C L	forested wetlands, shrub swamps, streambanks, seeps, meadows	Region: M C States: DC DE MD NY VA WV		clump-forming; needs some periods of drier soil; tolerates flooding to 6 inches
Campanulastrum americanum (Campanula americana) *American or tall bellflower* RHW 	Height: 1.5-6.5' Flowers: Jun-Aug, light blue Fruit: capsule	Light: ◑ ● Moisture: M Soil pH: 5.5-7.5 Soil type: C L S	rich moist woods, rocky wooded slopes, streambanks	Region: M P States: DC MD NY VA WV		
Cardamine concatenata (Dentaria laciniata) *toothwort* RHW 	Height: 1-1.5' Flowers: Apr-Jun, white, purplish Fruit:	Light: ● Moisture: M Soil pH: Soil type: L S	rich woods, wooded bottoms, calcareous rocky banks	Region: M P States: DC DE MD NY VA WV		
Caulophyllum thalictroides *blue cohosh* RHW 	Height: 1-2.5' Flowers: Apr-Jun, green-yellow, green-purple Fruit: dark blue, berry	Light: ☼ ◑ Moisture: M Soil pH: 4.5-7 Soil type: L	rich woods	Region: M P C States: DC DE MD NY PA VA WV		

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Chamaecrista fasciculata (Cassia fasciculata) *partridge pea, prairie senna*  RHW	Height: 0.5-3' Flowers: Jul-Sep, yellow Fruit: pod	Light: ☼ Moisture: D Soil pH: Soil type: S	upland meadows, fields, streambanks	Region: M P C States: DC DE MD PA VA WV		pods coil after split open; spreads
Chamerion angustifolium spp. angustifolium (Epilobium angustifolium) *fireweed*  RHW, PLANTS GAM	Height: 3-10' Flowers: Jun-Sep, magenta, pink, rarely white Fruit: capsule	Light: ☼ Moisture: D M Soil pH: Soil type: C L S	recent clearings, burned woodlands, damp ravines, open sandy areas	Region: M States: DC DE MD PA VA WV		
Chelone glabra *white turtlehead, turtlehead*  RHW	Height: 1.5-6.5' Flowers: Jul-Oct, white Fruit: capsule	Light: ☼ ◑ Moisture: M W Soil pH: Soil type: C L S	woods, streambanks, swamps, thickets	Region: M P C States: DC DE MD NY PA VA WV		strong grower; herbal uses; host for Baltimore checkerspot butterfly
Chimaphila maculata *striped wintergreen, striped prince's pine*  RHW	Height: 0.5' Flowers: Jun-Aug, white Fruit: capsule	Light: ◑ ● Moisture: D Soil pH: Soil type: C L S	acidic woods, frequently under pines	Region: M P C States: DC MD NY PA VA WV		flowers fragrant GC
Chrysogonum virginianum *green-and-gold, golden knees*  USFWS BES	Height: 0.5-1' Flowers: Mar-Jun, yellow Fruit:	Light: ☼ ◑ ● Moisture: D M Soil pH: Soil type: L	open woods on limestone, rocky open woods	Region: M P C States: DC MD VA WV		will bloom longer if kept moist GC
Chrysopsis mariana *golden aster, Maryland golden aster*  RHW	Height: 0.5-2.5' Flowers: Jul-Oct, yellow Fruit:	Light: ☼ ◑ Moisture: D Soil pH: Soil type: S	woods, openings, roadsides, serpentine barrens	Region: P C States: DC DE MD VA		GC
Cimicifuga racemosa *black snakeroot, black cohosh, fairy candles*  RHW	Height: 2.5-8.5' Flowers: Jun-Sep, white Fruit: pod	Light: ◑ ● Moisture: M Soil pH: Soil type: C L S	rich woods, wooded slopes, ravines, thickets	Region: M P C States: DC DE MD NY PA VA WV		
Claytonia virginica *narrowleaf spring beauty, spring beauty*  RHW	Height: 0.5-1' Flowers: Mar-May, white with pink Fruit: capsule	Light: ● Moisture: M Soil pH: Soil type: L	rich woods, thickets, clearings	Region: M P C States: DC DE MD NY PA VA WV		

Herbaceous Plants

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Clitoria mariana *Maryland butterfly pea*  RHW	Height: 6' Flowers: Jun-Sep, pale blue or pinkish Fruit: pod	Light: ○ ◐ Moisture: D Soil pH: Soil type: S	open areas	Region: M P C States: DC DE VA WV		vine-like
Conoclinium coelestinum (Eupatorium coelestinum) *mistflower, wild ageratum*  RHW	Height: 1-3.5' Flowers: Jul-Oct, blue, violet or purple Fruit: capsule	Light: ◐ ● Moisture: D M W Soil pH: Soil type: C L	old fields, meadows; dry sandy woods and clearings, damp thickets, streambanks	Region: C States: DC DE VA WV		
Coreopsis tripteris *tall coreopsis, tall tickseed*  RHW	Height: 3.5-10' Flowers: May-Sep, yellow Fruit: capsule	Light: ○ ◐ Moisture: D M Soil pH: Soil type: L S	thickets, old fields, forest edges, roadsides	Region: M P C States: DC VA WV		flower has anise scent
Coreopsis verticillata *threadleaf coreopsis*  USFWS BES	Height: 0.5-3.5' Flowers: Jun-Oct, yellow Fruit: capsule	Light: ○ ◐ Moisture: D M Soil pH: Soil type: L	dry open woods, clearings, roadsides	Region: P States: DC MD VA WV		GC
Delphinium tricorne *dwarf larkspur*  RHW	Height: 0.5-3' Flowers: Apr-Jun, blue, violet, white, variegated Fruit: pod	Light: ◐ ● Moisture: M Soil pH: Soil type:	rich woods, calcareous slopes, thickets, river bluffs	Region: M P States: DC VA WV		
Desmodium paniculatum *panicled or narrow-leaf tick-trefoil*  RHW	Height: 1-3.5' Flowers: Jul-Sep, purplish or green Fruit: pod	Light: ○ ◐ Moisture: D Soil pH: 6-7 Soil type: C L	clearings, edges of moist or dry woods	Region: M P C States: DC DE MD NY VA WV		not found near coast
Dicentra canadensis *squirrel corn*  RHW	Height: 0.5-1' Flowers: Apr-May, greenish-white, rose tinge Fruit: capsule	Light: ◐ ● Moisture: M Soil pH: Soil type: L	rich woods	Region: M P States: DC MD NY PA VA WV		flowers hyacinth scented
Dicentra cucullaria *Dutchman's breeches*  RHW	Height: 0.5-1' Flowers: Apr-Jun, white to cream Fruit: capsule	Light: ◐ ● Moisture: M Soil pH: Soil type: L S	rich woods	Region: M P States: DC DE MD NY PA VA WV		leaves basal; dormant in summer

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Dicentra eximia *wild bleeding heart*  RHW	Height: 1.5-2' Flowers: Apr-Sep, pink/white Fruit: capsule	Light: ◐ ● Moisture: D M Soil pH: Soil type: L	rocky woods and cliffs, rich woods	Region: M P States: DC MD VA WV		sometimes cultivated
Dodecatheon meadia *shooting star*   RHW, RHW	Height: 0.5-2' Flowers: Apr-Jun, white with yellow, lilac Fruit: capsule	Light: ○ ◐ ● Moisture: M Soil pH: Soil type: L S	open woods, meadows, slopes, prairies	Region: M States: DC MD VA WV		
Doellingeria umbellata var. umbellata (Aster umbellatus) *flat-top white aster, parasol whitetop*  RHW	Height: 1-7.5' Flowers: Aug-Oct, white Fruit:	Light: ○ ◐ Moisture: M W Soil pH: Soil type: L S	open areas, woods	Region: M P States: DC DE MD NY PA VA WV		
Erigeron pulchellus *robin's plantain*  RHW	Height: 0.5-1.5' Flowers: Apr-Sep, blue, pink, white Fruit: capsule	Light: ◐ Moisture: D M Soil pH: Soil type: L S	open woods, meadows, wooded slopes, roadsides	Region: M P C States: DC DE MD NY PA VA WV		GC
Erythronium americanum *trout lily, yellow trout lily, dogtooth violet*  RHW	Height: 0.5-1' Flowers: Mar-Jun, yellow Fruit: capsule	Light: ◐ ● Moisture: M W Soil pH: Soil type: L S	woods, rich slopes, bottomlands, meadows	Region: M P States: DC DE MD NY PA VA WV		
Eupatorium dubium *Joe-Pye weed*  RHW	Height: 2-5' Flowers: Jul-Oct, purple, rarely white Fruit: capsule	Light: ○ ◐ Moisture: M W Soil pH: Soil type: S	swamps, bogs, marshes, swales	Region: M P C States: DC DE MD VA		
Eupatorium fistulosum *Joe-Pye weed, trumpet weed*  RHW	Height: 1.5-10' Flowers: Jul-Oct, pink-purple Fruit: capsule	Light: ○ ◐ Moisture: D M W Soil pH: 4.5-7 Soil type: C L	floodplains, meadows, thickets, roadsides	Region: M P C States: DC DE MD NY PA VA WV		herbal uses
Eupatorium hyssopifolium *hyssop-leaved thoroughwort, hyssop-leaved eupatorium*  RHW	Height: 1-4.5' Flowers: Jul-Oct, white Fruit: capsule	Light: ○ ◐ Moisture: D M Soil pH: Soil type: S	dry fields, roadsides, railroad right of ways, woods, fields, salt meadows	Region: C States: DC DE MD VA		

Herbaceous Plants

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Eupatorium maculatum *spotted Joe-Pye weed*  CAB	Height: 2-6.5' Flowers: Jul-Sep, purple to pale lavender Fruit: capsule	Light: ○ ◐ Moisture: M Soil pH: 5.5-7 Soil type: C L	floodplains, swamps, alluvial thickets, grasslands	Region: M P States: DC NY WV		
Eupatorium perfoliatum *common boneset*  RHW	Height: 1-5' Flowers: Jul-Oct, white Fruit: capsule	Light: ○ ◐ ● Moisture: M W Soil pH: Soil type: C L S	floodplains, swamps, bogs, streambanks, meadows	Region: M P C States: DC DE MD NY PA VA WV		
Eupatorium purpureum *green-stemmed Joe-Pye weed*  RHW	Height: 2-6.5' Flowers: Jul-Oct, pink, purple, cream Fruit: capsule	Light: ○ ◐ Moisture: D M Soil pH: Soil type: C L S	open woods, fields, floodplains	Region: M P C States: DC DE MD NY PA VA WV		occurs in drier, shadier habitats than other joe-pye-weeds; injured or dried plant has vanilla scent
Eurybia divaricata (Aster divaricatus) *white wood aster*  RHW, USFWS BES	Height: 0.5-3' Flowers: Jul-Oct, white Fruit:	Light: ◐ ● Moisture: D M Soil pH: Soil type:	dry woods, clearings	Region: M P States: DC DE MD NY PA VA WV		GC
Gentiana clausa *closed gentian, bottle gentian*  USFWS BES	Height: 1-3.5' Flowers: Aug-Oct, blue Fruit: capsule	Light: ◐ Moisture: M W Soil pH: 5.8-7.2 Soil type: L	moist open woods, streambanks, meadows	Region: M P C States: DC MD PA VA WV		
Geranium maculatum *wild geranium, wood geranium*  RHW	Height: 1-2' Flowers: Apr-Jul, lavender or pink Fruit: capsule	Light: ○ ◐ Moisture: D M Soil pH: Soil type: L	woods, roadsides, fields	Region: M P C States: DC DE MD NY PA VA WV		adaptable plant; long bloom time; spreader; herbal uses; explosive seed capsule GC
Goodyera pubescens *downy rattlesnake plantain*  USFWS BES	Height: 0.5-1.5' Flowers: Jun-Aug, whitish Fruit:	Light: ◐ Moisture: D M Soil pH: Soil type: C L S	dry to moist woods	Region: M P C States: DC DE MD NY VA WV		very handsome throughout winter
Helenium autumnale *yellow or common sneezeweed*  USFWS BES	Height: 1.5-6' Flowers: Jul-Nov, yellow Fruit: capsule	Light: ○ ◐ ● Moisture: M Soil pH: 4-7.5 Soil type: C L S	woods, swamps, riverbanks, alluvial thickets, meadows, marshes, ditches	Region: M P C States: DC DE MD NY PA VA WV		tolerates wet areas; showy flowers; herbal uses

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Helianthus angustifolius *swamp sunflower*  RHW	Height: 1.5-5.5' Flowers: Aug-Oct, yellow Fruit: capsule	Light: Moisture: M W Soil pH: 4-7 Soil type: L S	swamps, moist, sandy areas	Region: C States: DC DE MD VA		
Helianthus decapetalus *ten-petaled or thin-leaved sunflower*  BZ	Height: 1.5-5' Flowers: Jul-Oct, yellow Fruit: capsule	Light: Moisture: M Soil pH: Soil type: S	fields, bottomlands, stream banks, roadsides	Region: M P C States: DC DE NY PA VA WV		
Helianthus divaricatus *woodland sunflower, rough sunflower*  RHW	Height: 1.5-6.5' Flowers: Jul-Sep, yellow Fruit: capsule	Light: Moisture: D M Soil pH: Soil type: S	dry open woods, wooded slopes, shale barrens, roadsides	Region: M P C States: DC DE MD NY PA VA WV		
Heliopsis helianthoides *oxeye sunflower, oxeye*  RHW	Height: 1-5' Flowers: Jun-Sep, pale yellow Fruit: capsule	Light: Moisture: D M Soil pH: 5.6-6.8 Soil type: L S	fields, open woods, floodplains, thickets, streambanks	Region: P C States: DC DE MD PA VA WV		long bloom time
Hepatica nobilis var. acuta (H. acutiloba) *sharp-lobed hepatica*  UWI KJS, UWI KJS, UWI JRS	Height: 0.5-2' Flowers: Mar-Jun, bluish, white, pink Fruit: capsule	Light: Moisture: D M Soil pH: Soil type: L S	rich upland woods, rocky slopes	Region: M States: NY PA VA		may bloom throughout year (rarely) GC
Hepatica nobilis var. obtusa (H. americana) *round-lobed hepatica, liverleaf*  RHW	Height: 0.5-2' Flowers: Mar-Jun, white to lavender Fruit: capsule	Light: Moisture: D M Soil pH: Soil type: L S	dry or rocky woods, dry upland slopes	Region: M P C States: DC DE MD NY PA VA WV		GC
Heracleum maximum (H. lanatum) *cow parsnip*  RHW	Height: 3.5-10' Flowers: May-Aug, white to pink Fruit:	Light: Moisture: M W Soil pH: 5.4-7.3 Soil type: C L S	rich woods, wooded roadside banks, marshy flats, streambanks, ditches	Region: M P C States: DC DE MD NY PA VA WV		can cause a dermatitis (skin) reaction
Heuchera americana *alumroot*  MOBOT	Height: 1-3.5' Flowers: Apr-Jun, green, white, pink, purple Fruit: capsule	Light: Moisture: D M Soil pH: Soil type: L S	rich woods, rocky slopes, shale cliffs	Region: M P States: DC DE MD NY PA VA WV		long bloom time; many cultivars and hybrids; semi-evergreen GC

Herbaceous Plants

		Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Heuchera villosa *hairy heuchera, hairy alumroot*	 PLANTS JSP	Height: 1-2.5' Flowers: Jun-Oct, white to greenish to pinkish Fruit: capsule	Light: ◐ ● Moisture: D M Soil pH: Soil type:	damp rocks, rich wooded slopes	Region: M States: DC MD VA		GC
Houstonia caerulea *bluet, innocence, Quaker-ladies*	 RHW	Height: 0.5-1' Flowers: Apr-Jun, blue, lilac, white Fruit: capsule	Light: ○ ◐ Moisture: M Soil pH: Soil type:	meadows, fields, and thickets, open woods, forest edges	Region: M P C States: DC DE MD VA WV		
Hydrophyllum virginianum *Virginia waterleaf*	 RHW	Height: 1-2.5' Flowers: May-Aug, lavender, white Fruit: capsule	Light: ◐ ● Moisture: M Soil pH: Soil type: C L S	woods, thickets, streambanks	Region: M P C States: DC DE MD NY PA VA WV		
Hylotelephium telephioides (Sedum telephioides) *Allegheny stonecrop*	 RHW	Height: 0.5-1.5' Flowers: Aug-Sep, pale pink Fruit: pod	Light: ○ ◐ ● Moisture: Soil pH: Soil type:	dry rocky places	Region: M States: DC MD NY VA WV		naturally occurs in bare rock outcrops, but does well in garden; rare in PA, threatened in NY GC
Impatiens capensis (I. biflora) *jewelweed, touch-me-not*	 USFWS BES	Height: 1.5-5' Flowers: May-Oct, orange, yellow, white Fruit: capsule	Light: ◐ ● Moisture: M W Soil pH: 5.4-7.4 Soil type: C L S	moist meadows, swamps, streambanks, open woods	Region: M P C States: DC DE MD NY PA VA WV		ripe seed pod explodes with contact; remedy for poison ivy itching
Ionactis linariifolius (Aster linariifolius) *stiff-leaf aster, flaxleaf whitetop aster*	 RHW	Height: 0.5-2' Flowers: Aug-Oct, blue, yellow eye Fruit:	Light: ○ Moisture: D M Soil pH: Soil type: S	grasslands, successional shrublands, oak-hickory forest, dry rocky woods and edges	Region: M P C States: DC DE MD NY VA WV		
Jeffersonia diphylla *twinleaf*	 RHW	Height: 0.5-1' Flowers: Apr-May, white Fruit: capsule	Light: ◐ ● Moisture: M Soil pH: Soil type: L	rich woods	Region: M P States: DC MD VA WV		
Lespedeza capitata *round-head bush clover*	 UWI KJS	Height: 2-6' Flowers: Jul-Sep, yellowish white Fruit:	Light: ○ Moisture: D Soil pH: Soil type: L S	fields, thin woods	Region: M P C States: DC DE NY PA VA WV		

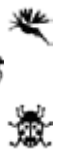
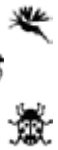
		Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Liatris pilosa var. pilosa (L. graminifolia) *grass-leaf blazingstar*	 RHW	Height: 1-3.5' Flowers: Aug-Oct, purple Fruit: capsule	Light: ☼ ◑ Moisture: D M Soil pH: Soil type: C L S	open woods, forest edge, salt marsh edges, dune hollows	Region: P C States: DC DE MD VA		
Liatris scariosa *eastern or northern blazing star, tall gayfeather*	 RHW	Height: 1-3.5' Flowers: Aug-Sep, lavender to rose-purple Fruit: capsule	Light: ☼ ◑ Moisture: D M Soil pH: Soil type: L S	dry upland woods	Region: M P C States: DC DE MD VA WV		
Liatris spicata *gayfeather, blazingstar, spiked blazing star*	 USFWS RL	Height: 1-6.5' Flowers: Jul-Aug, rose-purple or white Fruit: capsule	Light: ☼ ◑ Moisture: D M Soil pH: 5.6-7.5 Soil type: C L S	moist meadows, open areas	Region: P C States: DC DE VA WV		
Liatris squarrosa *plains blazing star*	 RHW	Height: 0.5-2.5' Flowers: Jul-Sep, rose Fruit: capsule	Light: ☼ ◑ Moisture: M Soil pH: Soil type: L S	dry open fields and banks	Region: P C States: DC DE VA		
Lilium canadense *Canada lily*	 RHW	Height: 1.5-6.5' Flowers: Jun-Aug, yellow, orange, red Fruit: capsule	Light: ☼ ◑ Moisture: M W Soil pH: Soil type: L	fields, thickets, woods	Region: M P States: DC DE MD NY PA VA WV		
Lilium philadelphicum *wood lily*	 RHW	Height: 1-3.5' Flowers: Jun-Aug, yellow, red-orange Fruit: capsule	Light: ☼ ◑ Moisture: D Soil pH: Soil type: L S	open woods, forest edges, thickets	Region: M P C States: DC DE NY PA VA WV		
Lilium superbum *Turk's cap lily*	 RS MNPS	Height: 4-8' Flowers: Jul-Aug, yellow-orange, orange-red Fruit: capsule	Light: ☼ ◑ Moisture: M W Soil pH: Soil type: L S	meadows, streamsides	Region: M P C States: DC DE MD NY PA VA WV		leaves in whorl around stem; takes several years to bloom
Limonium carolinianum *sea lavender*	 PLANTS LA	Height: 0.5-2' Flowers: Jul-Oct, lavender Fruit:	Light: ☼ Moisture: M W Soil pH: 6-8.5 Soil type: C L S	irregularly flooded high salt marshes	Region: C States: DE MD NY VA		tolerates salinity to 30 ppt

Herbaceous Plants

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Lobelia cardinalis *cardinal flower*  RHW	Height: 2-4' Flowers: Jul-Oct, red Fruit:	Light: ○ ◐ Moisture: M W Soil pH: 5.8-7.8 Soil type: C L	fresh tidal and nontidal marshes, wooded swamps, seeps, banks of ponds, rivers, streams	Region: M P C States: DC DE MD NY PA VA WV		long bloom time; biennial, must reseed
Lobelia siphilitica *great blue lobelia*  RHW, USFWS BES	Height: 1-5' Flowers: Aug-Oct, blue, violet Fruit: capsule	Light: ○ ◐ ● Moisture: M W Soil pH: Soil type: C L S	woodlands, meadows, swamps	Region: M P States: DC DE MD NY PA VA WV		long bloom time; white cultivars available
Lupinus perennis *lupine, sundial lupine*  RHW	Height: 1-2' Flowers: Apr-Jul, blue, rarely pink or white Fruit: pod	Light: ○ ◐ Moisture: D M Soil pH: Soil type: S	open woods, fields, roadsides, streambanks	Region: M P C States: DC DE NY VA WV		prefers acidic soil
Maianthemum canadense *Canada mayflower*  RHW	Height: 0.5' Flowers: May-Jul, white Fruit: pale red speckled, berry	Light: ◐ ● Moisture: M Soil pH: Soil type: C L S	woods	Region: M P C States: DC DE MD NY PA VA WV		fragrant flowers GC
Maianthemum racemosum ssp. racemosum (Smilacina racemosa) *false Solomon's seal*  PLANTS JA, PLANTS WSJ	Height: 1-3.5' Flowers: May-Jul, white Fruit: red, berry	Light: ◐ ● Moisture: M Soil pH: Soil type: C L S	dry to moist woods, clearings, bluffs	Region: M P C States: DC DE MD NY PA VA WV		flowers in plume-like clumps at tip of stem; herbal uses
Medeola virginiana *Indian cucumber*  RHW, RHW	Height: 1-3.5' Flowers: May-Jun, yellowish Fruit: dark purple or black, berry	Light: ○ ◐ Moisture: M Soil pH: Soil type: L S	woods	Region: M P C States: DC DE MD NY PA VA WV		rhizome is edible
Melanthium virginicum *Virginia bunchflower*  RHW	Height: 2.5-6.5' Flowers: Jun-Aug, greenish Fruit: capsule	Light: ○ ◐ Moisture: M Soil pH: Soil type: C L S	woods, seepages, clearings	Region: P C States: DC DE MD VA WV		
Mertensia virginica *Virginia bluebells*  RHW	Height: 1-2.5' Flowers: Mar-Jun, pink turning blue Fruit: Mar-May, nut/nut-like	Light: ◐ ● Moisture: M W Soil pH: 4.5-8 Soil type: C L	rich wooded slopes, floodplains	Region: M P C States: DC DE MD NY PA VA WV		dormant in summer; flower color blue, pink, or white according to soil acidity

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Mimulus ringens *monkeyflower, Allegheny monkeyflower*  RHW	Height: 1-3' Flowers: Jun-Oct, blue Fruit: capsule	Light: ◐ ◑ Moisture: W Soil pH: Soil type: L	open swamps, meadows, shores	Region: M P C States: DC DE NY PA VA WV		interesting flowers
Mitchella repens *partridgeberry*  USFWS, RHW	Height: 0.5' Flowers: May-Jul, white Fruit: July-Dec, scarlet, berry	Light: ◑ ● Moisture: D M Soil pH: Soil type: L S	dry acidic woods	Region: M P C States: DC DE MD NY PA VA WV		two flowers form one fruit; berry edible; slow creeper, forms mats under trees
Mitella diphylla *twoleaf miterwort, bishop's cap*  RHW, RHW	Height: 0.5-1.5' Flowers: Apr-Jun, white Fruit: capsule	Light: ◑ ● Moisture: M Soil pH: Soil type: C L S	rich, woods	Region: M P C States: DC DE MD NY PA VA WV		
Monarda bradburiana (M. fistulosa) *wild bergamot, horsemint*  RS MNPS	Height: 1.5-5' Flowers: Jun-Sep, pink to purple Fruit: nut/nut-like	Light: ◐ ◑ Moisture: D M Soil pH: 6-8 Soil type: C L	fields, thickets, roadsides, forest edges	Region: M P C States: DC DE MD NY PA VA WV		confused with bee-balm (M. didyma); aromatic; herbal uses
Monarda didyma *beebalm, Oswego tea*  USFWS BES	Height: 2-5' Flowers: Jul-Sep, red Fruit: nut/nut-like	Light: ◐ ◑ Moisture: M W Soil pH: Soil type: L	creek banks, floodplains, woods	Region: M States: DC MD NY PA VA WV		showy flowers; aromatic; herbal uses
Monarda punctata *horsemint, spotted bee-balm*  RHW	Height: 0.5-3.5' Flowers: Jun-Oct, yellow and purple Fruit: nut/nut-like	Light: ◐ Moisture: D Soil pH: Soil type: L S	open sandy fields	Region: M P C States: DC DE MD NY VA		
Nuttallanthus canadensis (Linaria canadensis) *blue, old-field, or Canada toadflax*  PLANTS WSJ	Height: 0.5-2.5' Flowers: Apr-Sep, light blue Fruit: capsule	Light: ◐ ◑ Moisture: D M Soil pH: Soil type: L S	maritime grasslands and shrublands, successional shrubland, woods, fields	Region: M P C States: MD NY VA WV		delicate flowers; prefers well-drained soil
Oenothera biennis *common evening primrose*  RHW	Height: 1.5-6.5' Flowers: Jun-Oct, yellow Fruit: capsule	Light: ◐ ◑ Moisture: D Soil pH: 5-7 Soil type: C L S	cultivated fields, waste ground, roadsides	Region: M P C States: DC DE MD NY PA VA WV		flowers open in evening; biennial

Herbaceous Plants

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Oenothera fruticosa *narrow-leaved sundrops*	 RHW	Height: 1-3' Flowers: May-Sep, yellow Fruit: capsule	Light: ○ ◐ Moisture: D M Soil pH: 4.5-7 Soil type: C L S	fields, meadows, roadsides	Region: M P C States: DC DE MD NY PA VA WV		
Oenothera perennis *sundrops*	 UWI RWF	Height: 0.5-3' Flowers: May-Aug, yellow Fruit: capsule	Light: ○ Moisture: D M Soil pH: Soil type: L S	fields, pastures, roadsides, shaly slopes	Region: M P States: DC DE MD NY PA VA WV		similar to evening primrose (O. biennis); long bloom time; spreader
Opuntia humifusa (O. compressa) *eastern prickly-pear cactus*	 RHW	Height: 0.5-1' Flowers: Jun-Jul, yellow Fruit: purplish to deep red, fleshy	Light: ○ Moisture: D Soil pH: Soil type: L S	sandy coastal dunes, shaly soils	Region: M C States: DC DE MD VA WV		fruit edible, used for jelly GC
Osmorhiza longistylis *sweet cicely, anise root*	 RHW	Height: 1.5-4' Flowers: May-Jun, white to green Fruit:	Light: ◐ ● Moisture: M Soil pH: Soil type: C L S	rich woods, wooded slopes, thickets	Region: M P C States: DC DE MD NY VA WV		all plant parts have anise scent
Oxalis violacea *violet wood sorrel*	 RHW	Height: 0.5' Flowers: Apr-Jul, violet Fruit: capsule	Light: ◐ ● Moisture: D M Soil pH: Soil type: L	woods	Region: M P States: DC DE MD PA WV		GC
Packera aurea (Senecio aureus) *golden ragwort, golden groundsel*	 RHW	Height: 0.5-2.5' Flowers: Apr-Aug, yellow Fruit: capsule	Light: ○ ◐ ● Moisture: M W Soil pH: Soil type: L	moist fields, woods, floodplains, roadsides	Region: M P C States: DC DE MD NY PA VA WV		wetland plant; long bloom time; aggressive spreader
Penstemon digitalis *beardtongue, tall white or foxglove beardtongue*	 USFWS BES, RHW	Height: 2-5' Flowers: Jun-Aug, white or faintly purple Fruit: capsule	Light: ○ ◐ Moisture: D M Soil pH: 5.5-7 Soil type: C L S	open woods, meadows	Region: M P C States: DC DE MD NY PA VA WV		tolerates poor drainage; variety of cultivars
Penstemon laevigatus *smooth or eastern beardtongue*	 UWI MRB	Height: 1-3.5' Flowers: May-Jul, purplish Fruit: capsule	Light: ○ ◐ ● Moisture: M Soil pH: Soil type:	rich woods, fields	Region: M States: DC MD VA WV		

		Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Phlox carolina *thick-leaved phlox*	 PLANTS WSJ	Height: 1-2.5' Flowers: May-Jun, pink to purple, rarely white Fruit: capsule	Light: Moisture: D M W Soil pH: Soil type: L S	open woods	Region: M States: DC VA		GC
Phlox divaricata *woodland or wild blue phlox, wild sweet William*	 RHW	Height: 1.5' Flowers: Apr-Jun, blue, lavender, white Fruit: capsule	Light: Moisture: M Soil pH: 5.5-7.2 Soil type: C L S	rich woods	Region: M P States: DC MD NY PA VA WV		aromatic; showy flower; dormant in summer (leaves disappear); frequently cultivated; evergreen
Phlox maculata *phlox, meadow phlox, wild sweet William*	 PLANTS WSJ	Height: 1-3' Flowers: May-Sep, rose, pink, purple, rarely white Fruit: capsule	Light: Moisture: M W Soil pH: 5.9-6.8 Soil type: C L	meadows, streambanks, thickets	Region: M P C States: DE PA VA WV		aromatic; showy flowers; a frequent escapee from cultivation
Phlox paniculata *summer phlox, garden phlox*	 RHW, USFWS BES	Height: 1.5-6.5' Flowers: Jul-Oct, pink, red-purple, white Fruit: capsule	Light: Moisture: M Soil pH: Soil type: L	rich, open woods, roadsides, streambanks, thickets	Region: M P C States: DC PA VA WV		aromatic; showy flowers frequently escapes from cultivation
Phlox stolonifera *creeping phlox*	 RHW, USFWS BES	Height: 0.5-1.5' Flowers: Apr-Jun, blue, red-purple, violet Fruit: capsule	Light: Moisture: D M Soil pH: Soil type: L S	rich woods	Region: M States: DC MD VA WV		GC
Phlox subulata *moss phlox, moss-pink*	 USFWS BES, USFWS BES, RHW	Height: 0.5' Flowers: Apr-Jun, rose, pink, white Fruit: capsule	Light: Moisture: D Soil pH: 5.7-7.5 Soil type: C L S	rock crevices, ledges	Region: M P States: DC MD NY VA WV		nice rock garden plant
Physostegia virginiana *obedient plant, false dragonhead*	 USFWS BES, USFWS BES	Height: 1.5-5' Flowers: Jun-Sep, pink to purple Fruit: nut/nut-like	Light: Moisture: D M Soil pH: Soil type: C L S	moist open areas, streambanks, shorelines	Region: M P States: DC MD PA VA WV		flowers showy; spreads rapidly by underground stems; best in full sun; can escape cultivation
Podophyllum peltatum *Mayapple*	 RHW	Height: 1-2' Flowers: Apr-May, white Fruit: yellow, berry	Light: Moisture: M Soil pH: Soil type: L	rich woods, open fields	Region: M P C States: DC DE MD NY PA VA WV		ripe fruit edible; woodland groundcover; mottled foliage GC

Herbaceous Plants

		Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Polemonium reptans *Jacob's ladder, Greek valerian*	 RHW	Height: 0.5-1.5' Flowers: Apr-Aug, blue Fruit: capsule	Light: ◑ ● Moisture: M Soil pH: Soil type: L S	rich or rocky woods, wooded floodplains	Region: M P States: DC DE MD PA VA WV		attractive flowers; slow spreader; herbal uses CC
Polygonatum biflorum *Solomon's seal, dwarf Solomon's seal*	 RHW	Height: 0.5-6.5' Flowers: Apr-Jun, white or green Fruit: blue to black, berry	Light: ◑ ● Moisture: D M Soil pH: Soil type: L	woods	Region: M P C States: DC DE MD NY PA VA WV		flowers dangle along stalk
Polygonatum pubescens *Solomon's seal, downy Solomon's seal*	 UWI KJS	Height: 1-3.5' Flowers: Apr-Jun, yellowish-green Fruit: blue to black, berry	Light: ○ ◑ ● Moisture: D M Soil pH: Soil type: C L S	dry to moist woods	Region: M P C States: DE NY PA VA WV		herbal uses; edible
Porteranthus trifoliatus (Gillenia trifoliata) *Bowman's root*	 RHW	Height: 1.5-4' Flowers: May-Jul, white Fruit: pod	Light: ○ ◑ Moisture: M Soil pH: Soil type: C L S	open upland woods, clearings, rocky slopes, roadsides	Region: M P States: DC DE MD PA VA WV		established plants drought tolerant; spreads to form tight clumps; seldom needs dividing; yellow fall color
Pycnanthemum incanum *hoary mountain mint*	 RHW	Height: 3' Flowers: Jul-Sep, white to lavender, purple spots Fruit: nut/nut-like	Light: ● Moisture: D Soil pH: Soil type: C L S	upland woods, fields, thickets, barrens	Region: M P C States: DC DE MD NY PA VA WV		
Pycnanthemum tenuifolium *narrow-leaved mountain mint*	 PLANTS RM89	Height: 1.5-2.5' Flowers: Jul-Sep, purple to white Fruit: nut/nut-like	Light: ○ ◑ Moisture: D M Soil pH: Soil type: S	streambanks, floodplains, moist fields	Region: M P C States: DC DE NY PA VA WV		
Rhexia virginica *Virginia meadow-beauty*	 RHW	Height: 1-3.5' Flowers: Jun-Sep, dark pink Fruit: capsule	Light: ○ Moisture: W Soil pH: Soil type: L	open areas	Region: M P C States: DC DE VA WV		also R. mariana for MD
Rudbeckia fulgida *early, eastern, or orange coneflower*	 USFWS RL	Height: 1.5-3.5' Flowers: Jul-Oct, yellow-orange, black eye Fruit: capsule	Light: ○ ◑ Moisture: D M Soil pH: Soil type: L	moist fields, meadows	Region: P States: DC DE MD VA		cultivars have nice foliage

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Rudbeckia hirta *black-eyed Susan*  USDA MG	Height: 1-3.5' Flowers: Jun-Oct, yellow, black eye Fruit: capsule	Light: ☼ ◑ Moisture: D M Soil pH: 6-7 Soil type: C L	fields, meadows, roadsides	Region: M P C States: DC DE MD NY PA VA WV		
Rudbeckia laciniata *tall, green-headed, or cutleaf coneflower*  RHW	Height: 1.5-10' Flowers: Jul-Sep, yellow Fruit: capsule	Light: ☼ ◑ Moisture: M W Soil pH: 4.5-7 Soil type: C L S	floodplains, streambanks, fields	Region: M P C States: DC DE MD NY PA VA WV		herbal uses
Rudbeckia triloba *three-lobed coneflower*  PLANTS WSJ	Height: 1.5-4.5' Flowers: Jun-Oct, yellow or orange Fruit: capsule	Light: ☼ ◑ Moisture: D M Soil pH: Soil type: L S	fields, open woods, rocky slopes	Region: M P States: DC MD NY PA VA WV		
Ruellia caroliniensis *Carolina wild petunia*  RHW	Height: 0.5-3' Flowers: May-Aug, lavender-blue Fruit: capsule	Light: ☼ ◑ Moisture: M Soil pH: Soil type: C L S	woods, roadsides, thickets, waste places	Region: C States: DC DE MD VA WV		actually in the nightshade family, flower fragile; a highly variable species
Sabatia angularis *rose pink, common marsh-pink*  RHW	Height: 1-3' Flowers: Jul-Oct, pink or white Fruit: capsule	Light: ☼ ◑ Moisture: M Soil pH: Soil type: C L S	moist open woods, fields, marshes, meadows; uplands, shores	Region: M P C States: DC DE MD VA WV		
Salvia lyrata *lyre-leaf sage*  RHW	Height: 1-2' Flowers: Apr-Jun, violet Fruit: nut/nut-like	Light: ☼ ◑ Moisture: D M Soil pH: Soil type: L S	moist pastures, upland woods, thickets, waste areas	Region: M P C States: DC DE VA WV		
Sanguinaria canadensis *bloodroot*  RHW	Height: 0.5' Flowers: Mar-May, white Fruit: capsule	Light: ● Moisture: M Soil pH: Soil type: L	rich woods, open roadsides	Region: M P C States: DC DE MD NY PA VA WV		showy flowers, but blooms fleetingly; herbal uses
Saxifraga pensylvanica *eastern swamp saxifrage*  RHW	Height: 1-3' Flowers: Apr-Jun, white to green Fruit: capsule	Light: ☼ ◑ Moisture: W Soil pH: Soil type: C L S	wet woods, bogs, swamps	Region: M P C States: DC DE MD NY PA VA		

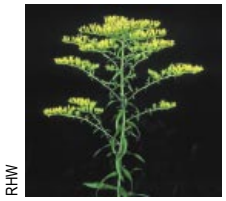
Herbaceous Plants

		Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Saxifraga virginiensis *early saxifrage*	 RHW	Height: 0.5-1' Flowers: Mar-May, white Fruit: capsule	Light: ○ ◑ ● Moisture: D M Soil pH: Soil type:	rock crevices, dry slopes, woods	Region: M P C States: DC DE MD NY PA VA WV		
Scutellaria integrifolia *rough or hyssop skullcap, helmet flower*	 RHW	Height: 1-2.5' Flowers: May-Jul, blue, pink, white Fruit: blackish, nut/nutlike	Light: ○ ◑ Moisture: D M W Soil pH: Soil type:	swamps, bogs, moist woods, fields	Region: M P C States: DC DE MD VA WV		
Sedum ternatum *mountain stonecrop, wild stonecrop*	 RHW	Height: 0.5' Flowers: Apr-Jun, greenish-white Fruit: pod	Light: ◑ ● Moisture: M Soil pH: Soil type:	damp rocks, rocky banks, cliffs, woods	Region: M P C States: DC DE MD NY PA VA WV		creeping stems; used in rock gardens GC ▲
Senna marilandica (Cassia marilandica) *Maryland or southern wild senna*	  USFWS BES, USFWS BES	Height: 3-6.5' Flowers: Jul-Aug, yellow Fruit: pod	Light: ○ ◑ Moisture: D M Soil pH: 4-7 Soil type: L S	dry roadsides, thickets, open woods	Region: M P C States: DC DE MD VA WV		pods important food for upland gamebirds
Silene caroliniana *wild pink*	 RHW	Height: 0.5-1' Flowers: Apr-Jun, white to pink Fruit: capsule	Light: ○ ◑ Moisture: D M Soil pH: Soil type: L	dry open woods, rocky slopes, roadside banks, shale barrens	Region: M C States: DC DE MD VA		semi-evergreen; native to limestone areas GC ▲
Silene stellata *starry campion, widow's frill*	 RHW	Height: 1-3.5' Flowers: Jun-Sep, white Fruit: capsule	Light: ○ ◑ Moisture: D M Soil pH: Soil type:	wooded slopes, roadside banks, barrens	Region: M P C States: DC DE MD NY PA VA WV		drought-tolerant; naturalizes in woods
Silene virginica *fire pink*	 RHW	Height: 1-3' Flowers: Apr-Jul, dark pink to red Fruit: capsule	Light: ○ ◑ Moisture: D M Soil pH: Soil type: L	upland woods, wooded slopes, streambanks, clearings	Region: M P States: DC DE VA WV		
Silphium perfoliatum *cup plant*	 PLANTS DL	Height: 3-8' Flowers: Jul-Oct, yellow Fruit: capsule	Light: ○ ◑ ● Moisture: D M Soil pH: Soil type: L	floodplains, fields, moist meadows, woods	Region: M P States: DC VA WV		

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Sisyrinchium angustifolium (S. graminoides) *blue-eyed grass*  CM NRCS	Height: 0.5-1.5' Flowers: Apr-Jun, blue-violet Fruit: brown, capsule	Light: ☼ ◐ Moisture: D M Soil pH: 5-7 Soil type: C L	grassy areas, damp woods	Region: M P C States: DC DE MD NY VA WV		grasslike leaves; also S. montanum in NY
Sisyrinchium atlanticum *coastal or eastern blue-eyed grass*  UWI JS	Height: 0.5-2.5' Flowers: May-Jul, blue-violet Fruit: capsule	Light: ☼ Moisture: M W Soil pH: Soil type:	marshes, meadows, low woods	Region: P C States: DC DE MD VA		leaves grasslike, more slender than S. angustifolium
Solidago caesia *bluestem goldenrod, wreath goldenrod*  RHW	Height: 1-3.5' Flowers: Aug-Oct, yellow Fruit: capsule	Light: ☼ ◐ ● Moisture: D M Soil pH: 5.5-7 Soil type: C L	rich deciduous woods	Region: M P C States: DC DE MD NY PA VA WV		stems bluish or purplish
Solidago canadensis var. scabra (S. altissima) *tall or late goldenrod*  UWI, RRK	Height: 3.5-6.5' Flowers: Jul-Nov, yellow Fruit: capsule	Light: ☼ ◐ Moisture: D M Soil pH: Soil type: L	woods, fields, riverbanks, roadsides	Region: M P C States: DC DE MD NY PA VA WV		
Solidago canadensis *Canada goldenrod*  UWI MRB	Height: 1-6.5' Flowers: Jul-Oct, yellow Fruit: capsule	Light: ☼ ◐ Moisture: D M Soil pH: 4.8-7.5 Soil type: C L S	fields, roadsides	Region: M P C States: DE NY VA WV		
Solidago flexicaulis *broad leaf or zig zag goldenrod*  RHW	Height: 1-3.5' Flowers: Jun-Oct, yellow Fruit: capsule	Light: ◐ ● Moisture: D M Soil pH: 5.3-7 Soil type: L	moist woods, rocky wooded slopes	Region: M P States: DC DE MD NY PA VA WV		
Solidago juncea *early goldenrod*  RHW	Height: 1-4' Flowers: Jun-Oct, yellow Fruit: capsule	Light: ☼ Moisture: D M Soil pH: Soil type: S	fields, meadows, rocky slopes, roadsides	Region: M P C States: DC DE MD NY PA VA WV		
Solidago nemoralis *gray, dwarf, old-field, or one-sided goldenrod*  RHW	Height: 0.5-3' Flowers: Jun-Nov, yellow Fruit: capsule	Light: ☼ ◐ Moisture: D Soil pH: 6.5-7.5 Soil type: L S	fields, open woods, roadsides	Region: M P C States: DC DE MD NY PA VA WV		tolerates poor soils

Herbaceous Plants

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Solidago odora *sweet goldenrod*	Height: 1.5-5' Flowers: Jul-Oct, yellow Fruit: capsule	Light: ○ ◐ Moisture: D M Soil pH: Soil type: C L S	dry open woods, barrens	Region: M P C States: DC DE NY VA WV		
Solidago rugosa *wrinkle-leaf or rough-stemmed goldenrod*	Height: 1-6.5' Flowers: Aug-Nov, Fruit: capsule	Light: ○ ◐ Moisture: M W Soil pH: 5-7.5 Soil type: L S	fields, woods, floodplains, roadsides, waste places	Region: M P C States: DC DE MD NY PA VA WV		tough plant; aggressive; strongly colonial
Solidago sempervirens *seaside goldenrod*	Height: 1-6.5' Flowers: Jul-Nov, yellow Fruit: capsule	Light: ○ ◐ Moisture: D M Soil pH: 5.5-7.5 Soil type: L S	coastal areas, dunes	Region: C States: DC DE MD VA		coastal plant, may occur where road salts are used
Solidago speciosa *showy or slender goldenrod*	Height: 2-6.5' Flowers: Jul-Oct, yellow Fruit: capsule	Light: ○ ◐ Moisture: D M Soil pH: Soil type: L S	dry to moist open woods and fields	Region: M P States: DC MD NY VA		
Spiranthes cernua *nodding ladies' tresses*	Height: 0.5-2' Flowers: Jul-Nov, white Fruit:	Light: ○ ◐ Moisture: M W Soil pH: 4.5-6.5 Soil type: C L S	meadows, open woods, roadsides, bogs	Region: M P C States: DC DE MD NY PA VA WV		orchid flowers; herbal uses
Stachys tenuifolia (S. hispida) *hedge nettle*	Height: 1.5-3.5' Flowers: Jun-Aug, white to pink Fruit: nut/nut-like	Light: ○ ◐ ● Moisture: M W Soil pH: 5.7-7.4 Soil type: C L S	wooded bottomlands, streambanks, meadows, fields	Region: P C States: DC DE MD VA WV		
Stellaria pubera *star chickweed, great chickweed*	Height: 0.5-1.5' Flowers: Mar-Jun, white Fruit: capsule	Light: ● Moisture: M Soil pH: Soil type:	woods, shaded rocky areas	Region: M P ? States: DC MD VA WV		
Symphyotrichum cordifolium (Aster cordifolius) *heart-leaved aster*	Height: 1-5' Flowers: Aug-Oct, blue-violet to rose Fruit:	Light: ◐ ● Moisture: D M Soil pH: Soil type: C L S	upland meadows, woods	Region: M P C States: DC NY PA VA WV		


RHW


RHW


RHW


PLANTS TGB


USFWS BES


RHW


RHW


RHW

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Symphyotrichum ericoides var. ericoides (Aster ericoides) *heath, white heath, or dense-flowered aster; frostweed*  RHW	Height: 0.5-6.5' Flowers: Jul-Nov, white, rarely blue, violet, rose Fruit:	Light: ○ ◐ Moisture: D M Soil pH: Soil type: L S	dry fields, forest edges, woods, thickets	Region: M P States: DC DE MD NY WV		forms dense mounds
Symphyotrichum laeve var. laeve (Aster laevis) *smooth blue aster*  MOBOT	Height: 1-5' Flowers: Aug-Oct, pale blue, violet, white Fruit:	Light: ○ ◐ Moisture: D Soil pH: Soil type: C L S	open areas, forest edges	Region: M P C States: DC DE MD NY PA VA WV		
Symphyotrichum novae-angliae (Aster novae-angliae) *New England aster*  USFWS	Height: 1-6' Flowers: Aug-Oct, violet capsule Fruit:	Light: ○ ◐ Moisture: M Soil pH: Soil type: L	open woods, seasonal wetlands, shores, meadows	Region: M P C States: DC DE MD NY PA VA WV		showy, frequently cultivated; tolerates drier soils and seasonal flooding GC
Symphyotrichum novi-belgii var. novi-belgii (Aster novi-belgii) *New York aster*  RHW	Height: 1-4.5' Flowers: Jul-Oct, blue-violet Fruit:	Light: ○ ◐ Moisture: M W Soil pH: Soil type: L	thickets, meadows, shores	Region: P C States: DC DE MD NY VA		
Symplocarpus foetidus *skunk cabbage*  RHW, USFWS BES	Height: 1-3' Flowers: Feb-May, green to purple-brown Fruit:	Light: ◐ ● Moisture: W Soil pH: 4-7 Soil type: C L S	fresh tidal and nontidal marshes and shrub swamps, forested wetlands, seeps	Region: M P C States: DC DE MD NY VA WV		flower inconspicuous, emerges before leaves; sap has skunk-like odor
Thalictrum dioicum *early meadow rue*  RHW	Height: 1-2.5' Flowers: Apr-May, green to purple Fruit: capsule	Light: ● Moisture: M Soil pH: Soil type: L	rich rocky woods, ravines, alluvial terraces	Region: M P C States: DC MD NY PA VA WV		
Thalictrum pubescens (T. polygamum) *tall meadow rue*  RHW	Height: 1.5-9' Flowers: Jun-Aug, white Fruit:	Light: ○ ◐ ● Moisture: M W Soil pH: Soil type:	rich woods, low thickets, swamps, meadows, streambanks	Region: M P C States: DC DE MD NY PA VA WV		foliage similar to columbines; clump-forming; delicate flowers; species very variable
Thalictrum thalictroides (Anemonella thalictroides) *rue anemone, windflower*  RHW	Height: 0.5-1' Flowers: Apr-Jun, white Fruit:	Light: ◐ ● Moisture: D M Soil pH: Soil type: C L S	wooded banks and thickets	Region: M P C States: DC DE MD NY PA VA WV		foliage similar to columbines

Herbaceous Plants

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Tiarella cordifolia *foamflower, false miterwort*  USFWS BES	Height: 0.5-1' Flowers: Apr-Jul, white Fruit: capsule	Light: ◌ ◑ ● Moisture: M Soil pH: Soil type: L	rich woods, moist rocky wooded slopes	Region: M P C States: DC MD NY PA VA WV		attractive, long-blooming; creeping, clump-forming; many cultivars GC
Tradescantia virginiana *Virginia spiderwort, widow's tears*  RHW	Height: 1-3' Flowers: Apr-Jul, deep blue-purple Fruit: capsule	Light: ◌ ◑ ● Moisture: M Soil pH: 4-8 Soil type: C L	wooded slopes, shale outcrops, fields, roadsides	Region: M P C States: DC DE MD VA WV		flowers showy
Trillium erectum *purple or red trillium, wakerobin*  RHW	Height: 1-1.5' Flowers: Apr-Jun, purple or greenish to white Fruit: dark red, berry	Light: ● Moisture: M Soil pH: Soil type: L	woods	Region: M P States: DC MD NY PA VA WV		flowers ill-scented
Trillium grandiflorum *white or large-flowered trillium*  RHW	Height: 0.5-1.5' Flowers: Apr-Jun, white then pink Fruit: black, berry	Light: ● Moisture: M Soil pH: Soil type: L	woods	Region: M P C States: DC MD NY PA VA WV		showy flowers; common, often in large colonies
Trillium sessile *toadshade*  RHW	Height: 0.5-1' Flowers: Apr-May, maroon, purple, green Fruit: berry	Light: ◑ ● Moisture: M Soil pH: Soil type: L	woods, floodplains	Region: M P States: DC MD VA WV		
Trillium undulatum *painted trillium*  RHW	Height: 1-1.5' Flowers: May-Jun, white with purple Fruit: bright red, berry	Light: ◌ ◑ ● Moisture: M Soil pH: Soil type: L	woods	Region: M P States: DC MD NY PA VA WV		
Uvularia grandiflora *large-flowered bellwort*  RHW	Height: 2.5' Flowers: Apr-Jun, orange-yellow Fruit: capsule	Light: ● Moisture: M Soil pH: Soil type: L	woods	Region: M States: DC NY VA WV		rhizome can be cooked and eaten; young shoots can be substituted for asparagus
Uvularia perfoliata *perfoliate bellwort, mealy bellwort*  RHW	Height: 0.5-2' Flowers: Apr-Jul, yellow Fruit: capsule	Light: ◌ ◑ Moisture: M Soil pH: Soil type: L	woods	Region: M P C States: DC DE MD NY PA VA WV		rhizome can be cooked and eaten; young shoots maybe substituted for asparagus

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Uvularia sessilifolia *straw lily*  RHW	Height: 0.5-1' Flowers: May-Jun, yellow Fruit: capsule	Light: ○ ◑ ● Moisture: D M Soil pH: Soil type: L S	dry to moist woodlands	Region: M P C States: DC DE MD NY PA VA WV		rhizomes may be cooked and eaten; young shoots may be substituted for asparagus GC
Veratrum viride *green false hellebore, white hellebore*  RHW	Height: 2-5' Flowers: May-Jul, yellow-green Fruit: capsule	Light: ○ ◑ ● Moisture: M W Soil pH: Soil type: C L S	swamps, woods	Region: M P C States: DC DE MD NY PA VA WV		leaf edges will brown if soil dries and plant is in windy area; does best in cooler temps; slugs like the foliage
Verbena hastata *blue vervain, simpler's joy*  RHW	Height: 1.5-5' Flowers: Jun-Oct, blue to purple Fruit: nut/nut-like	Light: ○ ◑ Moisture: M W Soil pH: Soil type: C L S	meadows, swamps, floodplains, ditches, roadsides	Region: M P C States: DC DE MD NY PA VA WV		bright flowers; herbal uses
Verbesina alternifolia *wingstem, yellow ironweed*  RHW	Height: 3.5-8' Flowers: Aug-Oct, yellow Fruit: capsule	Light: ○ Moisture: M Soil pH: Soil type:	wooded slopes, open woodlands, riverbanks, shaded lowlands, roadsides, fields	Region: M P C States: DC DE MD NY VA WV		threatened in NY
Vernonia noveboracensis *New York ironweed*  RHW	Height: 3.5-8' Flowers: Aug-Oct, purple Fruit: capsule	Light: ○ ◑ Moisture: M W Soil pH: Soil type: L	streambanks, fields, freshwater marshes	Region: M P C States: DC DE MD NY PA VA WV		brilliant flowers; tall upright form adds structure to garden; spreads
Veronicastrum virginicum (Veronica virginica) *Culver's root*  RHW	Height: 3-6.5' Flowers: Jun-Sep, white, pink Fruit: capsule	Light: ○ ◑ Moisture: M W Soil pH: Soil type: C L S	rich woods, meadows, thickets, swamps	Region: M P States: DC DE MD NY VA WV		
Viola conspersa *American dog violet*  UWI RWF	Height: 0.5-1' Flowers: Apr-Jul, pale blue, violet Fruit: green, capsule	Light: ○ ◑ ● Moisture: M W Soil pH: Soil type:	woods, fields, swamps	Region: M P C States: NY PA VA WV		delicate plant and flower; edible GC
Viola cucullata *marsh blue violet, blue marsh violet*  RHW	Height: 0-0.5' Flowers: Apr-Jul, pale purple Fruit: green, capsule	Light: ◑ ● Moisture: M W Soil pH: Soil type: C L S	bogs, meadows, swamps	Region: M P C States: DC DE PA VA WV		stemless; self-sows; can become a nuisance GC

Herbaceous Plants

		Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Viola hastata *halberdleaf yellow violet*	 RHW	Height: 0.5-1' Flowers: Apr-May, yellow w/ violet Fruit: green, capsule	Light: Moisture: D Soil pH: Soil type:	rich deciduous woods	Region: M States: DC MD VA WV		GC
Viola pedata *bird's foot violet*	 RHW	Height: 0-0.5' Flowers: Mar-Jun, pale blue or w/ purple-black tips Fruit: green, capsule	Light: Moisture: D M Soil pH: Soil type: L S	sandy or rocky barrens, dry forested slopes	Region: M P C States: DC DE MD VA WV		stemless GC
Viola pubescens var. pubescens (V. pennsylvanica) *yellow violet, downy violet*	 RHW	Height: 0.5-1.5' Flowers: May-Jun, yellow, purple veins Fruit: green, capsule	Light: Moisture: M Soil pH: 6-7 Soil type: L	moist or dry woods, swamps	Region: M P States: DC DE NY PA VA WV		
Viola sororia (V. papilionacea) *common blue violet*	 RHW	Height: 0.5' Flowers: Mar-Jun, dark blue, violet Fruit: green with purple, capsule	Light: Moisture: M Soil pH: 6-7.8 Soil type: C L	dry to moist woods, swamps, thickets	Region: M P C States: DC DE MD NY PA VA WV		delicate plant and flower; edible; spreader; stemless
Viola striata *striped cream violet, striped violet*	 MP	Height: 0.5-1' Flowers: Apr-Jun, ivory w/ purple Fruit: green, capsule	Light: Moisture: M W Soil pH: Soil type: L	alluvial woods, swamps, fields	Region: M P C States: DC DE MD NY PA VA WV		
Yucca filamentosa (Y. flaccida) *Adam's needle*	 RHW	Height: 2-2.5' Flowers: Jun-Sep, white Fruit:	Light: Moisture: D Soil pH: 5.5-7.5 Soil type: L S	coastal sand dunes, outcroppings on thin rocky soils	Region: C States: DC DE MD VA		flower stalk can rise 5-15 feet above foliage
Zizia aurea *golden-alexanders*	 RHW	Height: 1-2.5' Flowers: Apr-Jun, yellow Fruit:	Light: Moisture: D M Soil pH: Soil type: C L S	wooded bottomlands, streambanks, moist meadows, floodplains	Region: M P C States: DC DE NY PA VA WV		

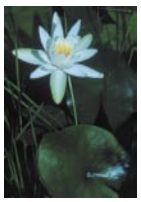
See also:

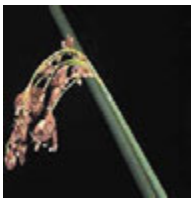
In the *Vines* section:
Smilax herbacea

In the *Herbaceous Emergents* section:
Iris prismatica, versicolor, virginica

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Distichlis spicata *saltgrass*  UWI EJJ	Height: 0.5-1.5' Flowers: Aug-Oct Fruit: pod	Light: Moisture: M W Soil pH: 6.4-10.5 Soil type: C L Flood Depth: Salinity: 0-50 ppt	tidal salt marshes, from Mean High tide above to spring tide level; high salinity; wet depressions	Region: C States: DC DE MD VA		often intermixed with Spartina patens, forms dense mats
Dulichium arundinaceum *three-sided sedge*  UWI AH	Height: 1-3.5' Flowers: Jul-Oct Fruit: brown, nut/nut-like	Light: Moisture: W Soil pH: 4.7-7.5 Soil type: C L S Flood Depth: 0-12"	fresh tidal and nontidal marshes, bogs, swamps, pond edges	Region: M P C States: DC DE NY PA VA WV		grows best where water rarely draws down
Hibiscus moscheutos (H. palustris) *rose mallow, eastern rosemallow*  CM NRCS	Height: 3-6' Flowers: Jul-Sep, cream, pink Fruit: Sep-Mar, brown, capsule	Light: Moisture: M W Soil pH: 4-7.5 Soil type: C L Flood Depth: 0-6" Salinity: 0-15 ppt	fresh to brackish tidal marshes, occasionally nontidal marshes	Region: C States: DC DE MD VA WV		common along coast; persists in winter; split seed capsules; use H. laevis in Piedmont
Iris prismatica *slender blueflag*  RHW	Height: 1-3' Flowers: May-Jun, blue Fruit: green to brown, capsule	Light: Moisture: M W Soil pH: Soil type: Flood Depth: 0-6" Salinity: 0-0.5 ppt	fresh to moderately brackish tidal marshes, meadows, shores, swamps, forested wetlands	Region: C States: DC DE VA		leaves 1/4-inch wide, narrower than Iris versicolor
Iris versicolor *blue flag*  RHW	Height: 3' Flowers: May-Jun, blue Fruit: green to brown, capsule	Light: Moisture: M W Soil pH: Soil type: L S Flood Depth: 0-6" Salinity 0-0.5 ppt	fresh to moderately brackish tidal marshes, meadows, shores, swamps, forested wetlands	Region: M P C States: DC DE MD NY PA VA		
Iris virginica *Virginia blue flag*  RHW	Height: 1-2' Flowers: May-Jul, blue Fruit: green to brown, capsule	Light: Moisture: W Soil pH: 4.8-7.3 Soil type: C L Flood Depth: 0-6" Salinity: 0-0.5 ppt	fresh to moderately brackish tidal marshes, meadows, shores, swamps, forested wetlands	Region: P C States: DC VA WV		
Juncus canadensis *Canada rush*  UWI AH	Height: 1-4' Flowers: Jul-Oct, greenish brown Fruit: brown, capsule	Light: Moisture: M W Soil pH: 4.5-5.9 Soil type: C L S Flood Depth: Salinity: 0-0.5 ppt	fresh to slightly brackish tidal and nontidal marshes, swamps, ponds and pond borders, shores, wet meadows, shallow water	Region: P C States: DC DE MD NY PA WV		
Juncus effusus *soft rush*   CM NRCS, USFWS BES	Height: 1-4' Flowers: Jun-Sep, greenish brown Fruit: brown, capsule	Light: Moisture: M W Soil pH: 5.5-7 Soil type: C L S Flood Depth: 0-12"	fresh tidal and nontidal marshes, shrub swamps, meadows, ditches	Region: M P C States: DC DE MD NY PA VA WV		often grows in clumps

Herbaceous Emergents

		Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Juncus roemerianus *black needlerush, needlegrass rush, needlegrass rush*	 PLANTS LA	Height: 1-4' Flowers: May-Oct, yellow-green Fruit: July-Nov, brown, capsule	Light: Moisture: M W Soil pH: 3.5-7 Soil type: C L Flood Depth: Salinity: 0-25 ppt	brackish and salt marshes, above Mean High tide to spring tide level	Region: C States: DE MD VA		some nitrogen fixing value
Justicia americana *American water-willow*	 RHW	Height: 1-3' Flowers: Jun-Oct, white with purple Fruit: achene (dry, flat seed)	Light: Moisture: W Soil pH: 5.4-7.6 Soil type: C L S Flood Depth:	muddy edges of shallow freshwater streams, lakes, ponds; shores	Region: M P States: DC MD PA VA WV		has underground stems and forms colonies
Kosteletzkya virginica *seashore mallow*	 RHW	Height: 1.5-4.5' Flowers: Jul-Sep, pink Fruit: brown, capsule	Light: Moisture: W Soil pH: Soil type: Flood Depth: Salinity: 0-10 ppt	irregularly flooded salt and brackish marshes, above Mean High tide to spring tide level	Region: C States: DC DE MD VA		common near the coast; looks similar to Hibiscus
Nuphar lutea (N. advena) *spatterdock, yellow water lily, cow-lily, American lotus*	 RHW	Height: 1-1.5' Flowers: May-Oct, yellow Fruit: green, berry	Light: Moisture: W Soil pH: Soil type: C L S Flood Depth: 12-36"	fresh tidal and nontidal marshes, swamps, ponds	Region: M P C States: DC DE MD NY VA WV		large leaves floating but rooted; fruit berry-like, many seeded, somewhat flattened, leathery
Nymphaea odorata *fragrant water lily, American water lily, white water lily*	 RHW	Height: 1-4' Flowers: Jun-Sep, white Fruit: green, berry	Light: Moisture: W Soil pH: Soil type: C L S Flood Depth: 12-48"	tidal and nontidal fresh waters, shallow lakes, ponds	Region: P C States: DC DE MD NY VA		large leaves floating but rooted; fruit berry-like, many seeded, somewhat flattened, leathery
Orontium aquaticum *golden club*	 RHW	Height: 1.5-2' Flowers: Apr-Jun, yellow Fruit: green, berry	Light: Moisture: W Soil pH: Soil type: C L S Flood Depth:	edges of regularly flooded tidal fresh marshes, inland shores, pond borders, on mud or in shallow water	Region: C States: DC DE MD VA WV		fruit is a thick fleshy spike covered with small dark green berry-like structures
Peltandra virginica *arrow arum*	  RHW, RHW	Height: 2' Flowers: Apr-Jul, green to white Fruit: green or black	Light: Moisture: W Soil pH: 5.2-9.5 Soil type: C L S Flood Depth: 0-12" Salinity: 0-2 ppt	fresh to moderately brackish tidal and nontidal marshes, swamps, shallow waters of lakes and ponds	Region: C States: DC DE MD NY VA WV		globular head of berries enclosed in green leathery case, curved downward
Pontederia cordata *pickerelweed*	 UWI MC	Height: 3.5' Flowers: Jun-Nov, purple Fruit:	Light: Moisture: W Soil pH: 6-8 Soil type: C L S Flood Depth: 0-18" Salinity: 0-3 ppt	fresh to moderately brackish, tidal and nontidal marshes, shallow water of ponds or lakes	Region: P C States: DC DE MD NY VA		spreads vigorously; a small bladder-like structure crested with toothed ridges holds one seed

		Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Sagittaria latifolia *duck potato, arrowhead, broadleaf arrowhead*	 RHW	Height: 0.5-4' Flowers: Jul-Sep, white Fruit: green, achene (dry, flat seed)	Light: Moisture: W Soil pH: 4.7-8.6 Soil type: C L Flood Depth: 0-24" Salinity:	fresh tidal and nontidal marshes, swamps; borders of lakes, streams and ponds	Region: P C States: DC DE MD NY PA VA WV		
Saururus cernuus *lizard's tail*	 RHW	Height: 1.5-4.5' Flowers: Jun-Sep, greenish white Fruit: capsule	Light: Moisture: W Soil pH: Soil type: C L S Flood Depth: 0-12"	fresh tidal and nontidal marshes, swamps, shallow water	Region: C States: DC DE MD VA WV		fragrant flower; often forms extensive colonies
Schoenoplectus pungens var. pungens (Scirpus pungens, Scirpus americanus) *common three-square*	 CM NRCS	Height: 4' Flowers: Jun-Sep, brown Fruit: Jun-Sep, brown, achene (dry, flat seed)	Light: Moisture: W Soil pH: Soil type: C L S Flood Depth: 0-6" Salinity: 0-15 ppt	fresh and brackish tidal and nontidal marshes, shores, shallow water	Region: M P C States: DC DE MD VA	high wildlife value	spike above flower is up to 5 inches tall
Schoenoplectus validus (Scirpus validus) *great bulrush, soft stem bulrush*	 PLANTS 1995	Height: 6-10' Flowers: Jun-Sep, brown Fruit: Jun-Sep, brown, achene (dry, flat seed)	Light: Moisture: W Soil pH: Soil type: C L S Flood Depth: 0-12" Salinity: 0-5 ppt	fresh to brackish tidal and nontidal marshes, pond edges, quiet waters, emergent marshes	Region: M P C States: MD NY PA VA	high wildlife value	spreads rapidly
Scirpus atrovirens *black or green bulrush, dark green bulrush*	 PLANTS JA	Height: 3-6' Flowers: Jun-Aug, brown Fruit: Jun-Aug, brown, achene (dry, flat seed)	Light: Moisture: W Soil pH: 4-8 Soil type: C L Flood Depth: Salinity:	shallow emergent marshes, shrub swamps, floodplain forests, wooded swamp, bogs, wet meadows, swales, ditches	Region: M P C States: MD NY PA VA WV	high wildlife value	grows in clumps or sod-forming
Scirpus cyperinus *woolgrass, woolgrass bulrush*	 USDA JK	Height: 4-5' Flowers: Aug-Sep, brown Fruit: Aug-Sep, brown, achene (dry, flat seed)	Light: Moisture: M W Soil pH: 4.8-7.2 Soil type: C L S Flood Depth: Salinity:	fresh tidal and nontidal marshes, swamps, forested wetlands, meadows, ditches, ponds, bogs	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	grows in large clumps, often extensive colonies
Sparganium americanum *American bur-reed*	 RHW	Height: 5' Flowers: May-Aug, greenish Fruit: green to brown, achene (dry, flat seed)	Light: Moisture: W Soil pH: 4.9-7.3 Soil type: C L S Flood Depth: 0-6"	fresh nontidal marshes, shallow waters, muddy shores	Region: M P C States: DC DE NY PA VA WV		good for sediment stabilization
Spartina alterniflora *salt marsh or smooth cordgrass*	 USFWS	Height: 2-7' Flowers: Jul-Sep Fruit:	Light: Moisture: M W Soil pH: 5.4-7 Soil type: C L S Flood Depth: Salinity: 0-35 ppt	salt and brackish tidal marshes (mid-tide up to Mean High tide level)	Region: C States: DC DE MD VA		good for shore stabilization; important in seaside habitats; short form (<1.5 ft) found in irregularly flooded high marsh, tall form in regularly flooded low marsh

Herbaceous Emergents

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Spartina cynosuroides *big cordgrass*  PLANTS LA	Height: 3.5-10' Flowers: Aug-Oct Fruit:	Light: Moisture: M W Soil pH: 5.8-7.5 Soil type: C L S Flood Depth: Salinity: 0-10 ppt	fresh and brackish tidal marshes, near Mean High tide and above to spring tide level	Region: C States: DC DE MD NY PA VA		soil stabilizer; not drought tolerant
Spartina patens *salt meadow hay*  CM NRCS	Height: 1-3' Flowers: Jul-Sep Fruit: achene (dry, flat seed)	Light: Moisture: M W Soil pH: 5.3-7.5 Soil type: C L S Flood Depth: Salinity: 0-35 ppt	coastal salt and brackish tidal marshes; irregularly flooded high marsh at or above Mean High tide line	Region: C States: DC DE MD VA		forms large mats; good for shore erosion control
Spartina pectinata *freshwater cordgrass, prairie cordgrass*  CM NRCS	Height: 4' Flowers: Jul-Sep Fruit: achene (dry, flat seed)	Light: Moisture: M W Soil pH: 6-8.5 Soil type: L Flood Depth: 0-6" Salinity: 0-3 ppt	brackish and fresh tidal and nontidal marshes, shores, wet meadows; upper half of intertidal zone and above to spring tide level	Region: M P C States: DC DE MD NY PA VA WV		shore stabilizer; low drought tolerance
Zizania aquatica *wild rice*  RHW	Height: 6-10' Flowers: Jun-Sep Fruit: achene (dry, flat seed)	Light: Moisture: M W Soil pH: 6.4-7.4 Soil type: C L S Flood Depth: 0-36" Salinity:	fresh tidal and nontidal marshes, streamsides, shallow waters	Region: C States: DC DE MD NY VA		annual; edible

See also:

In the *Ferns* section:
- **Dryopteris cristata**
- **Onoclea sensibilis**
- **Osmunda cinnamomea, regalis**
- **Thelypteris palustris**
- **Woodwardia areolata, virginica**

In the *Grasses & Grasslike Plants* section:
- **Andropogon glomeratus (virginicus var abbreviatus), virginicus**
- **Calamagrostis canadensis**
- **Carex crinita var. crinita, lurida, stricta, vulpinoidea**
- **Elymus virginicus**
- **Leersia oryzoides**
- **Panicum amarum, virgatum**

In the *Herbaceous Plants* section:
- **Asclepias incarnata**
- **Bidens cernua**
- **Caltha palustris**
- **Doellingeria umbellata var. umbellata (Aster umbellatus)**
- **Lobelia cardinalis**
- **Sabatia angularis**
- **Symphyotrichum novae-angliae (Aster novae-angliae)**
- **Symplocarpus foetidus**
- **Verbena hastata**
- **Vernonia noveboracensis**

Wetland plants (**Spartina alterniflora**, here) stabilize the shoreline without obstructing the homeowner's view.


USFWS

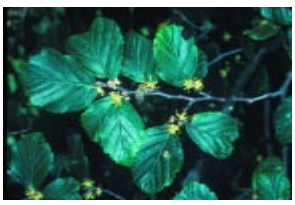
Wetlands of any size provide valuable habitat for wildlife.


USFWS BES


USFWS RM

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Alnus serrulata *smooth alder, hazel alder*  USFWS BES, PLANTS WSJ	Height: 12-20' Flowers: Mar-Apr, purple Fruit: Aug-Feb, brown, cone/cone-like Fall color: yellow, red	Light: Moisture: M W Soil pH: 5.5-7.5 Soil type: C L	fresh tidal and nontidal marshes, shrub swamps, forested wetlands	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	forms thickets along watercourses; nitrogen fixing; tolerates flooding to 3 inches
Aralia spinosa *Devil's walking stick*  RHW	Height: 20-30' Flowers: Jul-Aug, white Fruit: Aug-Sep, black, berry Fall color: yellow	Light: Moisture: D M Soil pH: 5.5-7.1 Soil type: C L S	moist woods, stream banks, roadsides	Region: M P C States: DC DE MD VA WV	high wildlife value	seeds are poisonous if chewed; low maintenance; spreads from new shoots; thorny, clublike stem
Baccharis halimifolia *high-tide bush, groundsel tree, sea myrtle*  USFWS BES	Height: 6-12' Flowers: Aug-Sep, white Fruit: Oct-Nov, silvery white, achene Fall color: purple	Light: Moisture: D M W Soil pH: 7-8.5 Soil type: C L S O	fresh to salt marshes, ditches, shores, dunes	Region: C States: DE MD VA		volunteers in disturbed places; shallow, lateral roots; tolerates flooding to 6 inches; tolerates salinity to 15 ppt
Callicarpa americana *American beautyberry, French mulberry*  USFWS BES	Height: 6' Flowers: Jun-Aug, lavender-pink Fruit: Sep-Mar, lavender, berry Fall color:	Light: Moisture: D M Soil pH: 4.8-7 Soil type: C L S		Region: C States: DC VA		flowers from new growth; if overgrown prune to 6-18 inches tall; will regain height in one season
Ceanothus americanus *New Jersey tea*  RHW	Height: 3' Flowers: May-Sep, white Fruit: Sep-Oct, black Fall color: yellow to tan	Light: Moisture: D Soil pH: 4.3-6.5 Soil type: C L S	meadows, fields, glades, open woods, borders, rocky areas, openings	Region: M P C States: DC DE MD NY PA VA WV		tough; tolerates moist soil if well drained; fixes nitrogen; tolerates dryness
Cephalanthus occidentalis *buttonbush*  RHW	Height: 6-12' Flowers: Jul-Aug, creamy white Fruit: Sep-Jan, green to brown Fall color: yellow-green	Light: Moisture: M W Soil pH: 6.1-8.5 Soil type: C L S O	fresh tidal and nontidal marshes, shrub swamps, forested wetlands; stream, lake and pond edges	Region: M P C States: DC DE MD NY PA VA WV		needs sun to flower; flowers fragrant; interesting fruit; tolerates drought; leaves may persist into winter; tolerates flooding to 36 inches
Clethra alnifolia *sweet pepperbush, summersweet*  USFWS	Height: 6-12' Flowers: Jul-Aug, white/pink Fruit: Sep-Feb, brown, capsule Fall color: yellow	Light: Moisture: M W Soil pH: 4.5-6.5 Soil type: C L S	tidal and nontidal forested wetlands, shrub swamps, bogs, woods, coastal river floodplains, lakeshores	Region: C States: DC DE MD NY VA		very fragrant; tolerates some flooding by partly salty water
Comptonia peregrina *sweetfern*  USFWS BES	Height: 3' Flowers: Apr-May, yellow-green Fruit: Aug-Oct, green to brown, cone/cone-like Fall color: brown	Light: Moisture: D Soil pH: 4-7 Soil type: L S O	hillsides, cliffs, woods openings, sand flats and barrens, fields, dunes	Region: M P C States: DC DE MD NY PA VA WV		fragrant; fixes nitrogen, leaves may persist into winter

Shrubs

		Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Cornus amomum *silky dogwood, red willow, silky cornel*	 RHW	Height: 6-12' Flowers: May-Jun, white Fruit: Aug, blue, berry Fall color: orange, red or purple	Light: ○ ◐ Moisture: M W Soil pH: 6.1-7.5 Soil type: C L S	forested wetlands, floodplains, shrub wetlands, stream and pond banks, clearings	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	
Cornus racemosa *red-panicled or gray dogwood*	 UWI KJS, UWI KJS	Height: 6-12' Flowers: May-Jun, white Fruit: Aug-Sep, white, red stems, berry Fall color: purple	Light: ○ ◐ ● Moisture: D M Soil pH: 6.1-8.5 Soil type: C L	open wooded floodplains, forested wetlands, shrub swamps, rocky woods or ledges, fencerows	Region: M P States: NY VA WV	high wildlife value	tolerates a variety of conditions; berries are food for many songbirds and small mammals
Corylus americana *American hazelnut or filbert*	 UCONN, UCONN, UCONN	Height: 10-15' Flowers: Mar-Apr, brown or red Fruit: Aug-Sep, light brown, nut/nut-like Fall color: yellow orange	Light: ◐ Moisture: D M Soil pH: 6.1-7.5 Soil type: C L	dry woodlands, forest edges, hillsides, fence rows, ravines, floodplain woods, brushy pastures	Region: M P States: DC DE MD NY PA VA WV		forms large thickets; edible nut; male catkins brown, female red
Gaultheria procumbens *wintergreen, checkerberry*	 RHW, RHW	Height: 0.5' Flowers: May-Aug, white to pink Fruit: Jul-Apr, red, berry Fall color: evergreen	Light: ◐ ● Moisture: D M Soil pH: 4-6.5 Soil type: L S O	clearings, steep rocky open slopes, sandy oak woods, hummocks in bogs	Region: M P C States: DC DE MD NY PA VA WV		dense, mat-like form; forms colonies; edible fruits, leaves; wintergreen taste and scent GC ▲
Gaultheria procumbens *black huckleberry*	 RHW	Height: 1.5-3' Flowers: May-Jun, white to pink Fruit: Jul-Sep, black, berry Fall color: reddish-purple	Light: ◐ ● Moisture: D M W Soil pH: 4.5-6.5 Soil type: C L S	woods, thickets	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	very common; fruits edible but many-seeded
Gaylussacia frondosa *dangleberry*	 CM NRCS	Height: 2-4' Flowers: Apr-Jun, greenish to purple Fruit: Jul-Oct, blue, berry Fall color: reddish-purple	Light: ○ ◐ ● Moisture: D M W Soil pH: 4.5-6.5 Soil type: S	woods and thickets	Region: M C States: DC DE MD NY VA	high wildlife value	berries borne on long, drooping stems
Hamamelis virginiana *witch hazel*	 RHW	Height: 15-30' Flowers: Sep-Dec, yellow Fruit: Oct-Nov, tan brown, capsule Fall color: yellow	Light: ◐ ● Moisture: D M Soil pH: 5.5-6.5 Soil type: C L S	woods or brushy fields, moist or dry	Region: M P C States: DC DE MD NY PA VA WV		noted for fall/winter bloom; medicinal uses, leaves may persist into winter
Hydrangea arborescens *wild or smooth hydrangea*	 RHW	Height: 3-6' Flowers: Jun-Aug, white Fruit: Oct-Jan, brown, capsule Fall color: yellow	Light: ◐ ● Moisture: M Soil pH: 6.1-8.5 Soil type: L S	rich upland or floodplain woods, streambanks	Region: M P States: DC MD PA VA WV		eaves poisonous to humans; does best on loamy soils

		Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Hypericum densiflorum *dense St. John's wort*	 RHW	Height: 1.5-6' Flowers: Jul-Sep, yellow Fruit: Oct-Apr, brown, capsule Fall color: yellow green	Light: Moisture: D M W Soil pH: 5.5-7 Soil type: C L S O	low boggy places, seepage slopes, pond and lake edges, wet meadows, streambanks, ditches, moist pinelands	Region: M P C States: DC DE MD VA		blooms small but form dense flat-topped clusters; can spread aggressively
Ilex glabra *inkberry*	 USFWS BES, USFWS BES	Height: 6-10' Flowers: May-Jun, greenish white Fruit: Sep-Mar, black, berry Fall color: evergreen	Light: Moisture: D M Soil pH: 4.5-6 Soil type: C L S O	forested wetlands, shrub swamps, sandy woods	Region: C States: DE NY VA	high wildlife value	berries persist through winter; male and female flowers on separate plants; tolerates some salt flooding; short cultivars (4-5') available
Ilex laevigata *smooth winterberry*	 RHW, RHW	Height: 10-12' Flowers: May-Jul, white to cream Fruit: Sep-Feb, red, scarlet, berry Fall color: yellow	Light: Moisture: M Soil pH: 4.5-6.5 Soil type: C L S O	wooded swamps	Region: C States: DC DE MD VA	high wildlife value	berries provide winter bird food; prefers soil with a calcareous layer
Ilex verticillata *winterberry, winterberry holly, black alder*	 USFWS BES	Height: 6-12' Flowers: Jun-Jul, greenish white Fruit: Aug-Feb, red, Fall color:yellow to brown	Light: Moisture: M W Soil pH: 4.5-6.5 Soil type: C L S O	fresh tidal swamps, shrub swamps, forested wetlands	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	berries provide winter bird food, poisonous to humans; berries on female plants, need male plant to pollinate
Itea virginica *tassel-white, Virginia sweetspire*	 USFWS BES	Height: 6-10' Flowers: Jun-Jul, white Fruit: Aug-Mar, brown, capsule Fall color: red to purple	Light: Moisture: M W Soil pH: 5.1-7.5 Soil type: C L S	forested wetlands, shrub swamps, streambanks, shallow water	Region: C States: DC DE MD VA		fruit capsules on stalk; plant will sucker, form thickets; tolerates flooding to 6 inches
Iva frutescens *marsh elder, high tide bush*	 PLANTS LA, RHW	Height: 2-10' Flowers: Aug-Oct, greenish white Fruit: not conspicuous, capsule Fall color:	Light: Moisture: D M Soil pH: 5-5.7 Soil type: C L S	tidal brackish and salt marshes	Region: C States: DE MD VA		similar to Baccharis halimifolia but with opposite leaves; tolerates salinity to 15 ppt
Kalmia angustifolia *sheep laurel, lambkill*	 CM NRCS	Height: 2-3' Flowers: May-Jul, white, pink, purple, red Fruit: Sep-Mar, brown, capsule Fall color: evergreen	Light: Moisture: M W Soil pH: 4.5-6 Soil type: C L S O	pastures, barrens, slow wooded streams, swamp borders, bogs, thickets	Region: C States: DC DE MD NY PA VA		foliage poisonous to hoofed browsers (not eaten by deer)
Kalmia latifolia *mountain laurel*	 USFWS BES	Height: 12-20' Flowers: May-Jul, white to pink/purple Fruit: May-Jun, brown, capsule Fall color: evergreen	Light: Moisture: D M W Soil pH: 4.5-6 Soil type: C L S O	woods, ridge tops, fields, swamps, mountain meadows and slopes	Region: M P C States: DC DE MD NY PA VA WV		foliage poisonous to hoofed browsers; PA state flower

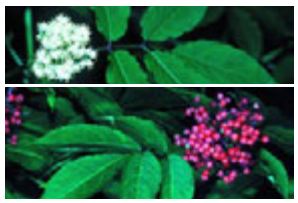
Shrubs

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Leucothoe racemosa *fetterbush, sweetbells* RHW, PLANTS WSJ 	Height: 13' Flowers: May-Jun, white, pinkish Fruit: brown, capsule Fall color:	Light: Moisture: M W Soil pH: 4.5-6 Soil type: C L	swamps, woods, thickets	Region: M P C States: DC DE MD NY PA VA		zig-zag twigs, reddish or greenish; tends to sucker, forming thickets
Lindera benzoin *spicebush* CM NRCS, RHW, CM NRCS 	Height: 6.5-16' Flowers: Mar-May, yellow Fruit: Sep-Oct, scarlet, berry Fall color: yellow	Light: Moisture: M W Soil pH: 4.5-6.5 Soil type: L S	woods, wooded slopes, dunes, floodplain forests	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	all parts edible and aromatic; herbal uses
Lyonia ligustrina *male-berry* RHW 	Height: 6-12' Flowers: May-Jul, white Fruit: Sep-Mar, brown, capsule Fall color: orange to red	Light: Moisture: M Soil pH: 4-6 Soil type: C L S O	open areas, swamps, woods	Region: M P C States: DC DE MD NY PA VA WV		berry-like capsules persist through winter
Lyonia mariana *stagger-bush* RHW, CM NRCS 	Height: 0.5-6.5' Flowers: May-Jun, white, pale pink Fruit: Sep-Feb, brown, capsule Fall color: red	Light: Moisture: D M Soil pH: 4-6 Soil type: S	swamps, moist or dry woods	Region: C States: DC DE MD VA		interesting woody capsules persist through winter
Morella caroliniensis (Myrica heterophylla) *southern or swamp bayberry* PLANTS 	Height: 8-12' Flowers: Apr-Jun, yellowish-green Fruit: Sep-Apr, bluish white, berry Fall color: evergreen	Light: Moisture: D M W Soil pH: 4.5-7 Soil type: C L S	dry or moist thickets, woods, bogs	Region: C States: DE VA		glossy dark green leaves, leaves larger than M. cerifera, plants fuller
Morella cerifera (Myrica cerifera) *wax myrtle, southern bayberry* USFWS BES, PLANTS 	Height: 6-15' Flowers: Mar-Jun, yellowish-green Fruit: Sep-Apr, bluish white, berry Fall color: evergreen in southern areas	Light: Moisture: D M W Soil pH: 5.5-7 Soil type: C L S	tidal and nontidal fresh and brackish marshes, swamps, sandy dune swales, upland woods	Region: C States: DE MD VA		fragrant; loses leaves north and west of Ches. Bay, MD north; may reach 30 feet; can be pruned as hedge; nitrogen fixer; tolerates salinity to 10 ppt
Morella pensylvanica (Myrica pensylvanica) *northern bayberry, candleberry* CM NRCS 	Height: 5-10' Flowers: Mar-Apr, yellowish-green Fruit: Sep-Apr, bluish white, berry Fall color:	Light: Moisture: D M W Soil pH: 5.1-6.5 Soil type: C L S	tidal and nontidal fresh and brackish marshes, swamps, sand flats, dunes	Region: C States: DC DE MD NY VA	high wildlife value	fragrant leaves; tends to sucker and form large colonies; waxy berries persist through winter; tolerates salinity to 20 ppt
Photinia melanocarpa (Aronia melanocarpa) *black chokeberry* USFWS BES 	Height: 3-6' Flowers: Apr-May, white or pink-tinged Fruit: Sep-Nov, black, berry Fall color: crimson red	Light: Moisture: D M W Soil pH: 5.1-6.5 Soil type: C L S O	bogs, swamps, springs, dunes, cliffs, fields, clearings, wet or dry thickets, creek banks, balds, rock outcroppings	Region: M P C States: DE MD NY PA VA WV		can be pruned as hedge

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Photinia pyrifolia (Aronia arbutifolia) *red chokeberry* USFWS BES, VT 	Height: 1.5-13' Flowers: Mar-May, white, purple-tinged Fruit: Sep-Dec, red, berry Fall color: orange to red	Light: ◐ ◑ Moisture: D M W Soil pH: 5.1-6.5 Soil type: C L S	forested wetlands, shrub bogs, upland forests, fields, dunes	Region: M P C States: DC DE MD NY PA VA WV		tolerates infrequent flooding by water with some salt; can be pruned as hedge
Physocarpus opulifolius *ninebark* USFWS BES 	Height: 5-12' Flowers: May-Jul, white, pink Fruit: Jul-Mar, orange to red, capsule Fall color:yellow to purple	Light: ◐ ◑ Moisture: M W Soil pH: 6.1-8.5 Soil type: C L	thickets, along streams in sand or gravel bars, rocky slopes	Region: M P States: DC NY PA VA WV		papery bark continually molts in thin strips; very drought tolerant; adaptable
Prunus maritima *beach plum* CM NRCS 	Height: 1-8' Flowers: Apr-May, white Fruit: Aug, blue-purple, fleshy Fall color:	Light: ◐ ◑ Moisture: D M Soil pH: 5.8-7.7 Soil type: L S	ocean dunes, roadsides, hedgerows	Region: C States: DE MD	high wildlife value	edible fruit, prized for jams and jellies; salt tolerant
Rhododendron atlanticum *dwarf or coast azalea* GM ARS, USFWS BES 	Height: 1-2.5' Flowers: Apr-May, white, purple-tinged Fruit: brown, capsule Fall color:	Light: ◑ ● Moisture: M Soil pH: 4.2-5.7 Soil type: S	coastal, sandy soils	Region: C States: DE MD VA		flowers very fragrant; colonial, arising from spreading underground stems;
Rhododendron calendulaceum *flame azalea* RHW 	Height: 5-9' Flowers: May-Jun, yellow, orange, red Fruit: Aug-Feb, brown, capsule Fall color: yellow green	Light: ◑ Moisture: D M Soil pH: 5.1-6 Soil type: C L	open oak woods, dry rocky woodlands, damp slopes, mountain streambanks, heath balds	Region: M States: VA WV		
Rhododendron canescens *sweet azalea* PLANTS, PLANTS 	Height: 3-10' Flowers: Apr-May, white or pink Fruit: brown, capsule Fall color:	Light: ◑ Moisture: M Soil pH: 4.2-5.7 Soil type: S	woods	Region: C States: DC DE MD		
Rhododendron maximum *great laurel, rosebay rhododendron* RHW, USFWS BES 	Height: 15-20' Flowers: May-Aug, white, pink Fruit: Sep-Nov, tan to red, capsule Fall color: evergreen	Light: ◑ ● Moisture: M W Soil pH: 4.5-6 Soil type: L	mountain slopes, woods, sheltered coves, ravines, streamsides	Region: M P States: DC MD NY PA VA WV		needs space; may form dense thicket
Rhododendron periclymenoides *pinxterbloom, pink azalea, pinxter flower* RHW 	Height: 3-10' Flowers: Apr-May, pink, purple, white Fruit: Aug-Mar, brown, capsule Fall color: dull yellow	Light: ◐ ◑ ● Moisture: D M W Soil pH: 4.5-5.5 Soil type: L	woods, low swampy areas, limestone cliffs	Region: M P C States: DC DE MD NY PA VA WV		will tolerate thin soils over bedrock; open, airy quality; susceptible to disease and insects

Shrubs

		Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Rhododendron prinophyllum *rose, roseshell, mountain or early azalea*	 PLANTS	Height: 2-8' Flowers: May-Jun, pink Fruit: May-Sep Fall color:	Light: ◐ ◑ ● Moisture: D M Soil pH: Soil type: O	rocky or rich woods	Region: M States: PA VA WV		may reach 15 feet tall, but rarely; flowers have clove-like scent
Rhododendron viscosum *swamp azalea*	 RHW	Height: 6.5-10' Flowers: May-Aug, white, pink Fruit: Aug-Mar, brown, capsule Fall color: yellow, orange, to purple	Light: ◐ ◑ Moisture: M W Soil pH: 4-6 Soil type: C L S O	wet floodplain woods, streambanks, swamp edges, hillside bogs, ditch banks, clearings	Region: M P C States: DC DE MD NY VA		attractive spreading, loose-branched habit; demands acid soil; susceptible to disease and insects
Rhus aromatica *fragrant sumac*	 RHW, RHW	Height: 6' Flowers: Mar-May, greenish yellow Fruit: Jul-Mar, dark wine red, berry Fall color: red	Light: ◐ ◑ Moisture: D Soil pH: 6.1-8.5 Soil type: L S	limestone cliffs, open upland woods, rocky bluffs, oak barrens, foredunes, barren rock	Region: M P States: DC MD NY VA WV	high wildlife value	fuzzy edible berry clusters; aromatic leaves; shorter cultivars available; male and female separate plants
Rhus copallina *shining, winged, flameleaf, or dwarf sumac*	 RHW, CM NRCS	Height: 20-35' Flowers: Jul-Sep, greenish yellow Fruit: Oct-Nov, red, berry Fall color: rich red	Light: ◐ ◑ Moisture: D Soil pH: 5.3-7.5 Soil type: C L S	thickets, fields, open woods, roadsides, fencerows	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	forms large colonies; winter food for wildlife
Rhus glabra *sweet or smooth sumac*	 CM NRCS	Height: 2-20' Flowers: Jun-Jul, greenish Fruit: Aug-Oct, red, berry Fall color: red	Light: ◐ Moisture: D M Soil pH: 5.3-7.5 Soil type: L S	dry or moist open areas, shale barrens, fields, dry open slopes, roadsides, fencerows	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	fuzzy berry clusters; male and female may be on separate plants; extremely drought resistant
Rhus hirta (R. typhina) *staghorn sumac*	 RHW	Height: 35-50' Flowers: Jun-Jul, yellow-green Fruit: Jul-Feb, red, berry Fall color: orange-red	Light: ◐ Moisture: D M Soil pH: 4.5-7.2 Soil type: C L S	fields, roadsides, forest edges	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	spreads by lateral roots to form colonies; female plants produce seed; winter food for wildlife
Ribes rotundifolium *Appalachian or eastern gooseberry*	 USFWS BES	Height: 3-6' Flowers: May-Jul, greenish purple Fruit: Jul-Aug, purple or greenish, berry Fall color: red	Light: ◑ Moisture: D Soil pH: 6.1-8.5 Soil type: C L S	rocky upland woods	Region: M P States: DC MD NY VA WV		do not use near apple orchards; may spread cedar apple rust
Rosa carolina *pasture rose*	 RHW, RS MNPS	Height: 0.5-3' Flowers: May-Jun, pale pink Fruit: Aug-Mar, red, berry Fall color: yellowish to orange	Light: ◐ ◑ Moisture: D M Soil pH: 6.1-8.5 Soil type: C L S	dry fields, open woods; rocky banks, shale barrens	Region: M P C States: DC DE MD NY VA WV	high wildlife value	edible fruit is a berry-like hip; thorns

		Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Rosa palustris *swamp rose*	 PLANTS WSJ	Height: 8' Flowers: Jun-Aug, pink Fruit: Jul-Mar, red, berry Fall color:	Light: ○ ◑ ● Moisture: M W Soil pH: 4-7 Soil type: C L	fresh tidal and nontidal marshes, forested wetlands, shrub swamps, streambanks	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	edible fruit is a berry-like hip; thorns; tolerates flooding to 3 inches
Rubus allegheniensis *Allegheny blackberry*	 USFWS BES, RHW	Height: 3-9' Flowers: May-Jun, white Fruit: Jul-Sep, black, berry Fall color: orange, red, to purple	Light: ○ ◑ Moisture: D M Soil pH: 4.5-7.5 Soil type: C L	roadsides, fence rows, fields, thickets, open woods, clearings	Region: M P States: DC DE MD NY PA VA WV	high wildlife value	prickly; juicy edible fruit used by people and wildlife
Rubus odoratus *purple flowering raspberry, fragrant thimbleberry*	 PLANTS WSJ	Height: 3-6' Flowers: Jun-Sep, rose purple Fruit: Jul-Sep, dull red, berry Fall color: pale yellow	Light: ◑ ● Moisture: M Soil pH: 5.1-6 Soil type: C L S	forest edges, rocky ledges, rocky wooded slopes	Region: M P States: DC DE MD NY PA VA WV	high wildlife value	feels sticky; fruit edible; spreads by suckers
Salix humilis *prairie willow*	 PLANTS 1997	Height: 6-12' Flowers: Apr-May, greenish yellow Fruit: May-Jun, brown, capsule Fall color: dull yellow	Light: ○ Moisture: D M W Soil pH: 6.1-7.5 Soil type: C L S O	dry thickets, openings, boggy swales; mountain ridges, barrens, meadows, roadsides	Region: M P C States: DC DE PA VA WV	high wildlife value	typically spreads up to twice it's height; flowers are catkins
Sambucus nigra ssp. canadensis (S. canadensis) *common elderberry, American elder*	 RS MNPS, USFWS	Height: 6-12' Flowers: Jun-Jul, white Fruit: Aug-Sep, purple to black, berry Fall color: yellow green	Light: ○ ◑ ● Moisture: D M W Soil pH: 6.1-7.5 Soil type: C L S O	fresh tidal and nontidal marshes, swamps, wet meadows, moist woods, fields	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	berries eaten by 48 species of birds
Sambucus racemosa var. racemosa (S. pubens) *red elderberry, scarlet elder*	 RHW, RHW	Height: 6-12' Flowers: May, white Fruit: Jun-Jul, red, berry Fall color: yellow green	Light: ● Moisture: D M Soil pH: 6.1-8.5 Soil type: L	rich woods, dry rocky woods, along creeks, rock crevices, sheltered coves, ravines	Region: M States: PA VA WV	high wildlife value	important summer wildlife food; one of earliest blooming shrubs; fragrant
Spiraea alba var. latifolia (Spiraea latifolia) *broad-leaved meadow-sweet*	 RHW	Height: 3-6' Flowers: Jun-Sep, white or pinkish Fruit: Sep-Mar, brown, capsule Fall color: yellow	Light: ○ Moisture: M Soil pH: Soil type: L S	bogs, woods, barrens, swamps	Region: M States: DC DE MD NY VA WV		similar to S. alba but twigs more purplish or red
Spiraea alba *narrow-leaved meadow-sweet*	 RHW	Height: 3-6' Flowers: Jun-Sep, white Fruit: Sep-Mar, brown to red brown, capsule Fall color: yellow	Light: ○ Moisture: M Soil pH: 6.6-7.5 Soil type: C L S O	bogs, swamps, meadows	Region: M States: DC DE MD NY VA WV		bark may be shaggy, orange-brown

Shrubs

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Spiraea tomentosa *steeplebush, hardback spirea*	 RHW	Height: 3-6' Flowers: Jul-Sep, pink to purple Fruit: Sep-Mar, brown, capsule Fall color: yellow green	Light: ☼ Moisture: M W Soil pH: 5.1-6 Soil type: C L S O	meadows, fields, bogs, swamps, lake edges, marshes, dunes, swales	Region: M P C States: DC DE MD NY VA WV		cultivars available with white or red flowers
Staphylea trifolia *American bladdernut*	 RHW	Height: 3-15' Flowers: May, greenish white Fruit: Aug-Dec, red-brown, capsule Fall color: yellow	Light: ● Moisture: M Soil pH: 6.1-8 Soil type: L	rich woods, floodplain woods, ravines, shores of lakes and ponds, rocky wooded streambanks, shaded dunes	Region: M P States: DC MD PA VA WV		fruit is 3-lobed, papery, balloon-like capsule; branches green-white striped
Vaccinium angustifolium *lowbush blueberry*	 BES	Height: 1-2' Flowers: May-Jun, white or pink-tinged Fruit: Jul-Aug, blue to black, berry Fall color: red	Light: ☼ ◑ Moisture: D M Soil pH: 4-6 Soil type: C L S	dry woods, barrens, rock outcroppings	Region: M P States: DC MD NY PA VA WV	high wildlife value	edible berries often harvested, makes a nice ground layer GC
Vaccinium corymbosum *highbush blueberry*	 USFWS BES, USFWS BES	Height: 6-12' Flowers: Apr-Jun, white or pink-tinged Fruit: Jul-Aug, blue to black, berry Fall color: yellow to red	Light: ☼ ◑ ● Moisture: D M W Soil pH: 4-6.5 Soil type: L S O	forested wetlands, shrub swamps, bogs, dry to wet woods, thickets, streambanks, rock outcroppings	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	edible berries commonly cultivated
Vaccinium macrocarpon *cranberry*	 RHW	Height: 0.5-1' Flowers: Jun-Jul, white to pink Fruit: Sep-Nov, red, berry Fall color: dark green to purple to red	Light: ☼ ◑ Moisture: W Soil pH: 4-6 Soil type: L S O	sphagnum bogs, cool swampy areas	Region: M C States: DC DE MD NY PA WV		low mat form, can spread indefinitely; edible cranberries GC ▲
Vaccinium pallidum (V. vacillans) *early lowbush blueberry*	 RHW	Height: 1.5-2' Flowers: Apr-May, white, reddish Fruit: Jul-Aug, blue, berry Fall color:	Light: ☼ ◑ Moisture: D M Soil pH: Soil type: L S	dry woods and barrens	Region: M P C States: DC DE MD PA VA WV	high wildlife value	sweet berries GC
Vaccinium stamineum *deerberry*	 RHW	Height: 6-12' Flowers: Apr-Jun, white or purple Fruit: Sep-Oct, bluish black, berry Fall color: red	Light: ☼ ◑ Moisture: D M Soil pH: 4-6.5 Soil type: C L S	dry woods, openings, barrens; uplands, floodplain forests, clearings, thickets, rock outcroppings	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	berries edible but sour
Viburnum acerifolium *maple-leaved arrowwood*	 RHW, RHW	Height: 3-6' Flowers: Jun, creamy-white, pink Fruit: Aug-Dec, blue to black, berry Fall color: orange, red, purple	Light: ☼ ◑ ● Moisture: D M Soil pH: 5.1-6 Soil type: C L	floodplain forests, dry wooded slopes, woods,rocky slopes, rock outcrops, wooded ravines	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	dry, edible berries

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Viburnum dentatum (V. recognitum) *southern arrowwood* USFWS BES, RS MNPS 	Height: 10-15' Flowers: May-Jun, white Fruit: Sep-Nov, blue to black, berry Fall color: reddish-purple	Light: ○ ◑ ● Moisture: D M W Soil pH: 5.1-6.5 Soil type: L S O	swamps, wet woods, bogs, floodplain forests, streambanks, low, wet acid-sand habitats	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	stems very straight, nice structure in winter
Viburnum nudum var. cassinoides (V. cassinoides) *witherod* USFWS BES 	Height: 6-12' Flowers: May-Jun, creamy white Fruit: Aug-Sep, pink to blue-black, berry Fall color: orange-red to purple	Light: ○ ◑ Moisture: D M W Soil pH: 5.1-6.5 Soil type: L O	swamps, bogs, moist woods, barrens	Region: M P C States: MD PA		handsome stature; multiple fruit colors at once
Viburnum nudum *naked witherod, possum-haw viburnum* RHW 	Height: 6.5-20' Flowers: Jun-Jul, white to cream Fruit: Sep-Oct, red to blue, then black, berry Fall color: red to purple	Light: ○ ◑ ● Moisture: M W Soil pH: 5.1-6 Soil type: L S	wet woods, rich upland woods, swamps, margins of vernal ponds, heath bogs	Region: M P C States: DC DE MD VA	high wildlife value	edible fruit but very acidic; shallow fibrous roots, transplants well
Viburnum prunifolium *black haw* RHW 	Height: 12-24' Flowers: Apr-May, white Fruit: Jul-Nov, pink to bluish-black, berry Fall color: reddish purple	Light: ○ ◑ ● Moisture: D M W Soil pH: 4.8-7.5 Soil type: C L	woods, thickets, fields, roadsides	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	fruits edible, used for preserves

See also:

In the *Trees* section:
- **Castanea pumila**
- **Cornus alternifolia**
- **Juniperus virginiana**
- **Magnolia virginiana**
- **Malus (Pyrus) coronaria**
- **Quercus ilicifolia**
- **Salix sericea**

Rhus copallina
CM NRCS 

Rosa palustris
CM NRCS 

Itea virginica
USFWS BES 

Vaccinium corymbosum in fall.
USFWS BES 

Kalmia angustifolia
RHW 

Kalmia latifolia
RHW 

Trees

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Acer negundo *box elder, ash leaf maple, Manitoba maple*  USFWS BES, RHW	Height: 30-60' Spread: 30-60' Flowers: Apr-May, yellow-green Fruit: Jul-Sep, tan brown, winged Fall color: yellow, red	Light: ○ ◑ Moisture: M W Soil pH: 5.2-7 Soil type: C L S	along rivers, streams, ponds, and seasonally flooded areas	Region: M P C States: DC DE MD NY PA VA WV		brittle wood; thicket-forming
Acer rubrum *red, scarlet, swamp, or soft maple*  USFWS BES, RHW	Height: 40-100' Spread: 30-75' Flowers: Mar-Apr, (inconspicuous) Fruit: Apr-Jun, red-brown or yellow, winged Fall color: red, orange, yellow	Light: ○ ◑ Moisture: M W Soil pH: 5.4-7.1 Soil type: C L S	swamps, uplands, rocky hillsides, dunes	Region: M P C States: DC DE MD NY PA VA WV		earliest spring bloomer; adaptable
Acer saccharinum *silver, white, river, or soft maple*  PLANTS DEH	Height: 50-100' Spread: 75-100' Flowers: Feb-Mar, greenish yellow Fruit: Apr-May, tan brown, winged Fall color: yellow	Light: ○ ◑ Moisture: M W Soil pH: 5.2-7.1 Soil type: C L S	floodplains, streamsides, river bottoms, pond and lake edges	Region: M P States: DC DE MD NY PA VA WV		
Acer saccharum *sugar maple*  USDA JE	Height: 60-100' Spread: 50-75' Flowers: Apr-May, yellow-green Fruit: Sep-Oct, green, tan at maturity, winged Fall color: yellow, orange, red	Light: ○ ◑ ● Moisture: M Soil pH: 4-7.3 Soil type: L S	upland woods, mountain coves and slopes	Region: M P States: DC DE NY PA VA WV	high wildlife value	fall color; maple syrup; state tree of New York and West Virginia
Acer spicatum *mountain maple*  RHW	Height: 20-35' Spread: 20-35' Flowers: May-Jun, yellow green Fruit: Jul-Sep, red or yellow, winged Fall color: orange to red	Light: ◑ ● Moisture: M Soil pH: 5.5-7 Soil type: L	cool rich woods, moist rocky slopes and flats, along small streams	Region: M States: MD NY PA VA WV	high wildlife value	short-lived, strong acid preference
Amelanchier arborea *downy serviceberry, shadbush*  RHW	Height: 15-25' Spread: Flowers: Mar-May, white Fruit: red to dark purple, fleshy Fall color: yellow, red	Light: ◑ ● Moisture: D M Soil pH: 5.5-7.5 Soil type: L S	wooded river banks, swamps, rocky slopes	Region: M States: DC DE MD NY PA VA WV		used by 58 wildlife species; 35 bird species; important early summer food; berries edible to people
Amelanchier canadensis *serviceberry, shadbush, shadblow*  CM NRCS	Height: 35-50' Spread: 35-50' Flowers: Apr-May, white Fruit: Jun-Jul, red to purple, fleshy Fall color: orange to red	Light: ◑ ● Moisture: M W Soil pH: 5.6-7.5 Soil type: C L S	swamps, low ground, woods, thickets	Region: M P C States: DC DE MD NY VA		
Asimina triloba *paw-paw*  PLANTS JSP, USFWS BES	Height: 20-35' Spread: 20-35' Flowers: Apr-Jun, purple Fruit: Aug-Sep, yellow, berry Fall color: yellow/ copper-red	Light: ○ Moisture: M Soil pH: 5.2-7.2 Soil type: L S	river valleys, bottomlands, understory of woods	Region: C States: DC DE MD PA VA WV		

		Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Betula alleghaniensis *yellow birch*	 PLANTS RM	Height: 60-80' Spread: 35-50' Flowers: Apr-May, yellow green Fruit: Jul-Oct, green to tan, cone/cone-like Fall color: golden yellow	Light: Moisture: M W Soil pH: 4.6-8 Soil type: L S	rich uplands, low swamps, streamsides, elevated floodplain terraces and knobs	Region: M States: MD NY PA VA WV	high wildlife value	fall color; attractive winter texture and color; prefers cool, moist conditions, common on calcareous
Betula lenta *sweet birch, black birch, cherry birch*	  USFWS BES, RHW	Height: 50-75' Spread: 35-50' Flowers: Apr-May, yellow green Fruit: Aug-Nov, green to tan, cone/cone-like Fall color: golden yellow	Light: Moisture: D M Soil pH: 4.8-6.8 Soil type: L S	steep rocky land and lower	Region: M P States: DE MD NY PA VA WV	high wildlife value	excellent fall color; prefers moist sites, tolerates dry; colonizes open or disturbed areas
Betula nigra *river birch, red birch, black birch*	  USFWS BES, USFWS BES	Height: 50-75' Spread: 35-50' Flowers: Apr-May, dark brown Fruit: Jun-Aug, tan brown, cone/cone-like Fall color: yellow	Light: Moisture: M W Soil pH: 4-6 Soil type: C L	along streams, rivers, ponds and swamps	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	attractive peeling bark;
Carpinus caroliniana *American hornbeam, musclewood, ironwood*	 USFWS BES	Height: 13-40' Spread: 35-50' Flowers: Apr-May, red or reddish-green Fruit: Jun-Oct, nut/nut-like Fall color: orange, red	Light: Moisture: M Soil pH: 4-7.4 Soil type: L S	river margins, bottomlands, swamps	Region: M P States: DC DE MD NY PA VA WV		slow growing and short lived
Carya alba (C. tomentosa) *mockernut hickory*	 USDA NRCS	Height: 60-100' Spread: 35-50' Flowers: May-Jun, light green Fruit: Sep-Oct, light reddish brown, nut/nut-like Fall color: yellow	Light: Moisture: D M Soil pH: 6.5-7.4 Soil type: L S	ridges, dry hills, hillsides	Region: M P C States: DC DE MD NY PA VA WV		good fall color
Carya cordiformis *bitternut or swamp hickory, pignut*	 PLANTS	Height: 60-100' Spread: 60-100' Flowers: Apr-May, yellow-green Fruit: Aug-Oct, yellowish green, nut/nut-like Fall color: yellow	Light: Moisture: M W Soil pH: 6.5-7.4 Soil type: C L S	rich bottomlands, swamps, frequently flooded areas, dry hillsides	Region: M P C States: DC DE MD NY PA VA WV		
Carya glabra *pignut, sweet pignut, or smooth bark hickory*	 CM NRCS	Height: 60-100' Spread: 35-50' Flowers: Apr-May, yellow-green Fruit: Sep-Oct, dark brown, nut/nut-like Fall color: yellow	Light: Moisture: D M W Soil pH: 6.5-7.4 Soil type: L	dry woods on hillsides and ridges	Region: M P C States: DC DE MD NY PA VA WV		
Carya ovata *shagbark, scalybark, or shellbark hickory*	 USDA NRCS	Height: 70-100' Spread: 35-50' Flowers: May-Jun, yellow-green Fruit: Sep-Oct, dark or reddish brown, nut/nut-like Fall color: brown	Light: Moisture: M Soil pH: 4-6.7 Soil type: L S	dry upland slopes, lowlands, valleys	Region: M P C States: DC DE MD NY PA VA WV		attractive peeling bark

Trees

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Castanea pumila *chinquapin, eastern or Allegany chinkapin*  RHW	Height: 12-20' Spread: 12-20' Flowers: Jun, pale yellow Fruit: Sep-Oct, dark brown, nut/nut-like Fall color: yellow or purple	Light: ○ ◐ Moisture: D Soil pH: 4.5-7.5 Soil type: L S	rocky slopes, steep rocky land, rocky streambanks, sandy ridges, swamp edges, open woods	Region: M P C States: DC DE MD VA WV		sweet, edible fruit
Celtis occidentalis *common hackberry, sugarberry, nettletree*  UWI KK	Height: 40-100' Spread: 40-100' Flowers: Apr-May, yellow green, brown tint Fruit: Sep-Dec, purple brown, berry Fall color: yellow	Light: ○ ◐ ● Moisture: D M W Soil pH: 6-7.8 Soil type: C L S	drainage basins, floodplains, wooded slopes, high rocky limestone bluffs bordering streams, windbreaks	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	butterfly larval host; drought tolerant; tolerates occasional flooding; saplings can sprout in deep shade, common on limestone soils
Cercis canadensis *eastern redbud*   USFWS BES, USFWS BES	Height: 20-35' Spread: 20-35' Flowers: Apr-May, pink to lavender Fruit: Jul-Dec, black, pod Fall color: golden yellow	Light: ◐ ● Moisture: D M Soil pH: 4.5-7.5 Soil type: L S	river bottoms and streambanks	Region: M P C States: DC DE MD PA VA WV		fixes nitrogen
Chamaecyparis thyoides *Atlantic white cedar*   PLANTS 1997, PLANTS GFR	Height: 75' Spread: Flowers: Mar-Apr, greenish brown Fruit: bluish, cone/cone-like Fall color: evergreen	Light: ◐ ● Moisture: M W Soil pH: 4.5-5.5 Soil type: C L S	freshwater swamps, woods	Region: C States: DE MD VA		
Chionanthus virginicus *white fringetree*   USFWS RS, RHW	Height: 20-35' Spread: 20-35' Flowers: May-Jun, white Fruit: Sep-Oct, bluish black, berry Fall color: yellow	Light: ○ ◐ ● Moisture: D M Soil pH: 4.5-6.5 Soil type: L S	moist streambanks, ridges, hillsides in sandy to deep-rich soils	Region: M P C States: DC DE MD VA WV		
Cornus alternifolia *alternate-leaf or pagoda dogwood*  CM NRCS	Height: 15-25' Spread: 15-35' Flowers: May-Jun, creamy white Fruit: Jul-Aug, bluish black, berry Fall color: maroon	Light: ◐ ● Moisture: M Soil pH: 5.8-7.5 Soil type: L	dry woods, forest edges, rocky slopes	Region: M States: DE MD NY PA VA WV	high wildlife value	used by 64 wildlife species; 43 bird species; keep root zone moist and acidic; tolerates full sun; young stems often purple
Cornus florida *flowering dogwood*   RHW, USFWS RM	Height: 20-50' Spread: 20-50' Flowers: Apr-May, white Fruit: Sep-Dec, red to orange, berry Fall color: scarlet red	Light: ◐ Moisture: D M Soil pH: 5-7 Soil type: L	woods, woodland edges and openings, mountain slopes, coves	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	fall migrant birds eat berries; tolerates sun, best in moist, well-drained, acidic soil with organic matter, VA state tree
Crataegus crus-galli *cockspur hawthorn*  USDA JE	Height: 20-35' Spread: 20-35' Flowers: May-Jun, white Fruit: Aug-Jan, dull red or green, fleshy Fall color: orange to red	Light: ○ ◐ Moisture: D M Soil pH: 4.5-7.2 Soil type: C L S	thickets, open areas, especially in dry or rocky places, low rich slopes	Region: M P C States: DC DE MD NY PA VA WV		

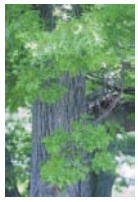
		Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Crataegus viridis *southern thorn, green hawthorn*	 PLANTS	Height: 20-35' Spread: Flowers: Apr, white Fruit: bright red to orange, fleshy Fall color: purple, scarlet	Light: Moisture: M W Soil pH: 6-7.3 Soil type: C L	lowlands and valleys	Region: C States: DE MD NY VA		
Diospyros virginiana *common persimmon*	 PLANTS 1997, PLANTS 1997	Height: 50-75' Spread: 35-50' Flowers: Jun, greenish yellow to cream Fruit: Sep-Nov, orange purple, berry Fall color: yellow or purple	Light: Moisture: D M Soil pH: 5-7 Soil type: C L	open, disturbed areas, deciduous woods	Region: M P C States: DC DE MD PA VA WV	high wildlife value	edible fruits
Fagus grandifolia *American beech*	 CM NRCS, CM NRCS	Height: 50-100' Spread: 50-75' Flowers: Apr-May, yellow-green Fruit: Sep-Nov, orange-green, nut/nut-like Fall color: yellow/ tan; retains leaves till spring	Light: Moisture: M Soil pH: 4.1-6.5 Soil type: L S	rich uplands and lowlands	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	edible nuts; attractive bark; leaves may persist into winter
Fraxinus americana *white ash*	 UWI KJS	Height: 50-100' Spread: 50-75' Flowers: Apr-May, deep purple Fruit: Aug-Feb, tan brown, winged Fall color: yellow, maroon	Light: Moisture: M Soil pH: 5-7.5 Soil type: C L S	upland slopes, valleys, coves, bottomlands	Region: M P C States: DC DE MD NY PA VA WV		fast growth; fall color
Fraxinus pennsylvanica *green ash, red ash, swamp ash*	 UWI KK	Height: 50-75' Spread: 35-50' Flowers: Apr-May, purple Fruit: Aug-Dec, tan brown, winged Fall color: yellow to orange	Light: Moisture: D M W Soil pH: 5-8 Soil type: C L S	tidal and nontidal freshwater forested wetlands; seasonally to regularly flooded or saturated	Region: M P C States: DC DE MD NY PA VA WV		tolerates drought; tolerates infrequent flooding and some salt; male and female flowers on separate plants
Ilex opaca *American holly*	 USFWS BES	Height: 15-50' Spread: 18-40' Flowers: May-Jun, white or cream Fruit: red, fleshy Fall color: evergreen	Light: Moisture: M Soil pH: 4-7.5 Soil type: C L	sandy woods	Region: M P C States: DC DE MD VA		birds eat berries; state tree of Delaware
Juglans nigra *black walnut, American walnut*	 PLANTS DEH	Height: 70-90' Spread: 75-100' Flowers: May-Jun, yellow-green Fruit: Aug-Sep, yellow-green, nut/nut-like Fall color: yellow	Light: Moisture: M Soil pH: 5.5-8 Soil type: L	woods, slopes, streamsides	Region: M P C States: DC DE MD NY PA VA WV		may stunt growth of nearby planst
Juniperus virginiana *eastern red cedar*	 RHW, CM NRCS	Height: 50-75' Spread: 35-50' Flowers: Mar-Apr, red purple Fruit: Jul-Mar, pale green to dark blue, cone/cone-like Fall color: evergreen	Light: Moisture: D M Soil pH: 5-8 Soil type: C L S	broad range of habitats	Region: M P C States: DC DE MD NY PA VA WV		berries consumed by over 50 species of birds; berries have culinary use

Trees

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Liquidambar styraciflua *sweet gum, red gum, sap gum*  CM NRCS	Height: 60-100' Spread: 50-75' Flowers: Apr-May, yellow-green Fruit: Jul-Jan, brown, capsule Fall color: yellow, red	Light: ○ ◑ Moisture: M W Soil pH: 4.5-7 Soil type: C L S	upland woods, slopes, ravines, floodplains, streambanks	Region: M P C States: DC DE MD NY VA		
Liriodendron tulipifera *tulip tree, tulip poplar, yellow poplar*  RHW	Height: 70-100' Spread: 35-50' Flowers: Jun, greenish yellow Fruit: Aug-Nov, brown, winged Fall color: yellow	Light: ○ ◑ Moisture: M Soil pH: 4.5-6.5 Soil type: L S	bottomland woods, mountain coves, lower slopes	Region: M P C States: DC DE MD NY PA VA WV		fast growth
Magnolia acuminata *cucumber magnolia*  DFT DL, DFT HW, DFT HW	Height: 70-100' Spread: 35-50' Flowers: May-Jun, greenish-yellow Fruit: Sep-Nov, brown cone w/ scarlet seed, pod Fall color: ashy brown	Light: ○ Moisture: M Soil pH: 5.2-7 Soil type: C L S	slopes, ravines, valleys, streamsides	Region: M States: MD NY VA WV		
Magnolia virginiana *sweetbay magnolia*  RHW, USFWS BES	Height: 12-30' Spread: 12-30' Flowers: May-Jul, white to cream Fruit: Sep-Oct, red, berry Fall color: semi-evergreen	Light: ○ ◑ ● Moisture: M W Soil pH: 5-6.5 Soil type: C L S	forested wetlands, seeps, stream and pond edges, sandy woods	Region: P C States: DC DE MD VA		semi-evergreen; fragrant flowers; tolerates occasional flooding, some salt
Malus coronaria (Pyrus coronaria) *sweet crabapple, American crabapple*  PLANTS WSJ	Height: 10-30' Spread: 20-30' Flowers: Apr-May, pink to white Fruit: Sep-Oct, greenish, fleshy Fall color:	Light: ○ Moisture: M Soil pH: Soil type: C L S	forest edges, rocky streams, fields	Region: M P C States: DC DE MD PA VA WV	high wildlife value	flowers fragrant; susceptible to insects and diseases; plant at least 500 feet from cedars; attracts bees and wasps; fruit sour;
Morus rubra *red mulberry, moral*  UWI KK	Height: 35-60' Spread: 35-60' Flowers: May-Jun, greenish Fruit: Jun-Jul, red, berry Fall color: yellow	Light: ○ ◑ Moisture: M Soil pH: 5-7 Soil type: C L S	floodplains, river valleys, hillsides	Region: M P C States: DC DE MD PA VA WV		fruit sweet
Nyssa sylvatica *black gum, sourgum, black or swamp tupelo*  CM NRCS, RHW	Height: 30-75' Spread: 20-50' Flowers: Apr-Jun, greenish white Fruit: Sep-Oct, blue-black, fleshy Fall color: red	Light: ○ ◑ Moisture: D M W Soil pH: 4.5-6 Soil type: L S	forested seasonal wetlands, swamp borders, upland woods, dry slopes; seasonally flooded or saturated	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	outstanding fall color
Ostrya virginiana *eastern hop-hornbeam, ironwood*  PLANTS WSJ	Height: 25-50' Spread: 20-35' Flowers: May, red-brown Fruit: Jun-Oct, green turning brown, nut/nut-like Fall color: yellow	Light: ◑ ● Moisture: M Soil pH: 4.2-7.6 Soil type: C L S	slopes and ridges	Region: M P C States: DC DE MD NY PA VA WV		leaves may persist into winter

		Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Pinus echinata *shortleaf pine, shortstraw pine, southern yellow pine*	 BUG RFW	Height: 100' Spread: Flowers: Fruit: reddish brown, cone/cone-like Fall color: evergreen	Light: Moisture: D M Soil pH: 4.6-6 Soil type: C L S	dry mountain ridges, fields, floodplains	Region: M P C States: DC DE MD VA WV		best used for naturalizing
Pinus rigida *pitch pine*	 CM NRCS	Height: 50-75' Spread: 50-75' Flowers: May, red- purple Fruit: light brown, cone/ cone-like Fall color: evergreen	Light: Moisture: D Soil pH: 3.5-5.1 Soil type: L S	slopes and ridges of mountains, river valleys, and swamps	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	many birds feed on the seeds; provides winter cover; old trees are fire resistant due to thick bark
Pinus serotina *pond pine, marsh pine, pocosin pine*	 VT	Height: 50-60' Spread: Flowers: Fruit: yellowish brown, cone/cone-like Fall color: evergreen	Light: Moisture: M W Soil pH: 4.8-6.8 Soil type: L S	swamps, pocosins, bays, pond margins, flatwoods	Region: C States: DE PA VA	high wildlife value	many birds feed on the seeds; provides winter cover
Pinus strobus *white pine, Eastern white pine*	 USDA NRCS	Height: 75-100' Spread: 50-75' Flowers: May-Jul, red to purplish Fruit: Aug-Oct, green to light brown, cone/cone-like Fall color: evergreen	Light: Moisture: D M Soil pH: 4-6.5 Soil type: L	variety of habitats; does best on moist, well drained, sandy loam soils of ridges	Region: M P States: DC MD NY PA VA WV	high wildlife value	many birds feed on the seeds; provides winter cover
Pinus taeda *loblolly, old field, or North Carolina pine*	 USFWS BES	Height: 70-90' Spread: Flowers: Fruit: yellowish, cone/ cone-like Fall color: evergreen	Light: Moisture: D M W Soil pH: 4.5-7 Soil type: C L S	floodplains fields, slopes	Region: C States: DE MD VA	high wildlife value	many birds feed on the seeds; provides winter cover
Pinus virginiana *Virginia pine, scrub pine, Jersey pine*	 USDA NRCS	Height: 50-80' Spread: Flowers: Fruit: reddish brown, cone/cone-like Fall color: evergreen	Light: Moisture: D M Soil pH: 4.5-7.5 Soil type: C L S	well drained sites; often a pioneer species	Region: M P C States: DC DE MD PA VA WV	high wildlife value	many birds feed on the seeds; provides winter cover
Platanus occidentalis *American sycamore, American planetree*	 PLANTS LA, USDA NRCS	Height: 75-100' Spread: 75-100' Flowers: Apr-Jun, yellow-green Fruit: Aug-Dec, brown, achene (dry, flat seed) Fall color: yellow	Light: Moisture: M W Soil pH: 4.9-6.5 Soil type: L S	river bottoms, lake shores	Region: M P C States: DC DE MD NY PA VA WV		leafs out late spring; showy bark; leaves may persist into winter
Populus deltoides *eastern or southern cottonwood, Carolina poplar*	 UWI JK	Height: 75-100' Spread: 50-100' Flowers: Mar-Apr, red Fruit: May-Jul, yellow-green, capsule Fall color: yellow	Light: Moisture: M W Soil pH: 5.2-7.3 Soil type: C L S	along waterways	Region: P States: DC DE MD NY VA WV	high wildlife value	best used for naturalizing; grows fast but short lived

Trees

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Populus heterophylla *swamp cottonwood, swamp poplar, black cottonwood, downy poplar*  VT, PLANTS 1997	Height: 80' Spread: Flowers: Mar Fruit: Apr-May, , capsule Fall color: yellow	Light: Moisture: W Soil pH: 4.6-5.9 Soil type: C L	swamps and bottomlands	Region: P States: DE MD VA		
Prunus americana *American wild plum*  RHW	Height: 20-35' Spread: 20-35' Flowers: Apr-May, white Fruit: Aug-Sep, orange to red, fleshy Fall color: pale yellow	Light: Moisture: D M Soil pH: 5-7 Soil type: L S	woods, pastures, fencerows, streamsides	Region: M P States: DC DE MD NY PA VA WV	high wildlife value	edible fruit, used for making pies and jellies
Prunus pensylvanica *pin cherry, fire cherry*  RHW	Height: 20-35' Spread: 20-35' Flowers: May, white Fruit: Jul-Sep, bright red, fleshy Fall color: yellow	Light: Moisture: D Soil pH: 4.3-6.6 Soil type: C L S	woods	Region: M States: MD NY PA VA WV	high wildlife value	
Prunus serotina *black or wild cherry, black chokecherry*  CM NRCS, RHW	Height: 40-75' Spread: 20-35' Flowers: May-Jun, white Fruit: Aug-Sep, black, fleshy Fall color: yellow/ red	Light: Moisture: D M Soil pH: 5-7.5 Soil type: L	forests, fence rows, fields, forest edges	Region: M P C States: DC DE NY VA WV	high wildlife value	birds eat fruit
Prunus virginiana *choke cherry*  RHW	Height: 25-50' Spread: 20-35' Flowers: May-Jun, white Fruit: Aug-Sep, red, black, or yellow, fleshy Fall color: dark red-purple	Light: Moisture: M Soil pH: 5.2-8.4 Soil type: C L S	open moist sites; pioneer species after fires	Region: M States: DC DE MD NY PA VA WV		fast growing, short lived; fruit sometimes used for making jelly
Quercus alba *white oak, stave oak*  CM NRCS	Height: 75-100' Spread: 75-100' Flowers: Mar-May, yellow-green Fruit: Sep-Oct, brown, nut/nut-like Fall color: red	Light: Moisture: D M Soil pH: 4.5-6.8 Soil type: L S	dry to moist woods	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	acorns food for wildlife; majestic; MD state tree; leaves may persist into winter
Quercus bicolor *swamp white oak, swamp oak*  PLANTS RM89, OSU	Height: 60-100' Spread: 50-75' Flowers: May, yellow-green Fruit: Sep-Oct, tan brown, nut/nut-like Fall color: red/brown	Light: Moisture: W Soil pH: 4.3-6.5 Soil type: C L S	bottomlands, swamp and stream edges	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	acorns food for wildlife
Quercus coccinea *scarlet oak, red oak, black oak*  CM NRCS	Height: 40-75' Spread: 50-75' Flowers: May-Jun, yellow-green Fruit: Sep-Oct, reddish brown, nut/nut-like Fall color: scarlet	Light: Moisture: D M Soil pH: 4.5-6.9 Soil type: L S	dry uplands and slopes	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	acorns food for wildlife

		Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Quercus falcata *southern or swamp red oak, Spanish oak*	 DFT HW	Height: 70-80' Spread: Flowers: Apr-May Fruit: Oct, orange brown, nut/nut-like Fall color: brown	Light: Moisture: D M Soil pH: 4.8-7 Soil type: C L S	uplands	Region: C States: DC DE MD VA		acorns food for wildlife
Quercus ilicifolia *bear oak, scrub oak*	 CM NRCS	Height: 12-20' Spread: 12-20' Flowers: May-Jun, yellow-green or reddish Fruit: Sep-Jan, light brown, nut/nut-like Fall color: yellow, scarlet red to purplish	Light: Moisture: D Soil pH: 4-7.5 Soil type: C L S	barrens, balds, woods, dunes, fields	Region: M P States: PA VA WV	high wildlife value	leaves may persist into winter
Quercus marilandica *blackjack oak, Jack oak*	 CM NRCS	Height: 35-50' Spread: 35-50' Flowers: Apr-Jun, yellow-green Fruit: Sep-Oct, tan brown, nut/nut-like Fall color: yellow/brown	Light: Moisture: D Soil pH: 4.6-5.6 Soil type: L S	woods, ridges, slopes, sandy flatwoods	Region: P C States: DC DE MD VA WV	high wildlife value	acorns food for wildlife, leaves may persist into winter
Quercus michauxii (Q. montana) *swamp chestnut oak, basket oak, cow oak*	 PLANTS 1995	Height: 50-80' Spread: 75-100' Flowers: May, yellow-green Fruit: Sep-Oct, tan brown, nut/nut-like Fall color: red/ brown	Light: Moisture: M W Soil pH: 4.5-6.5 Soil type: L	bottomlands, ravine slopes, flatwoods over limestone	Region: M P C States: DE MD NY VA WV	high wildlife value	acorns food for wildlife
Quercus muehlenbergii *Chinquapin or chinkapin oak, yellow oak, chestnut oak*	 UWI KJS	Height: 35-50' Spread: 35-50' Flowers: May-Jun, yellow-green Fruit: Sep-Oct, light brown, nut/nut-like Fall color: yellow-brown	Light: Moisture: D M Soil pH: 6.5-8 Soil type: L	rich, woods, uplands, outcrops, dry bluffs, slopes	Region: M P C States: DC MD NY VA WV	high wildlife value	
Quercus nigra *water oak*	 PLANTS LA	Height: 50-80' Spread: Flowers: Apr-May Fruit: Oct, black, nut/nut-like Fall color: green persists late	Light: Moisture: M W Soil pH: 4.8-5.8 Soil type: C L	upland woods, bottomlands, hammocks, fields	Region: C States: DC DE MD VA		acorns food for wildlife
Quercus palustris *pin oak, swamp oak, Spanish oak*	 PLANTS RM91	Height: 50-80' Spread: 50-75' Flowers: Apr-May, yellow-green Fruit: Sep-Oct, light brown, nut/nut-like Fall color: red	Light: Moisture: M W Soil pH: 4.5-6.5 Soil type: C L	bottomlands or upland flats	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	popular shade tree; fall color; acorns food for wildlife; leaves may persist into winter
Quercus phellos *willow oak, pin oak, peach oak*	 USFWS BES	Height: 80-100' Spread: Flowers: Feb-May Fruit: light yellow or greenish brown, nut/nut-like Fall color: red	Light: Moisture: M W Soil pH: 4.5-5.5 Soil type: C L	bottomlands, low flatwoods, upland fields	Region: P C States: DC DE MD VA WV		acorns food for wildlife

Trees

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Quercus prinus (Q. montana) *chestnut oak, rock oak*  PLANTS 1997	Height: 40-80' Spread: Flowers: May-Jun, yellowish Fruit: Sep-Oct, brown, nut/nut-like Fall color: yellow/orange	Light: ○ ◑ ● Moisture: D Soil pH: 4.5-7 Soil type: L S	rocky ridges and slopes	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	acorns food for wildlife; fall color
Quercus rubra *northern red oak*  UWI KJS	Height: 90' Spread: Flowers: Apr-May Fruit: scales reddish-brown, nut/nut-like Fall color: red or yellow	Light: ○ ◑ Moisture: D M Soil pH: 4.3-6.5 Soil type: C L	slopes, coves, and drier ridges	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	acorns food for wildlife; hardy and long-lived; fall color
Quercus stellata *post oak, iron oak*  CM NRCS	Height: 35-50' Spread: 35-50' Flowers: Apr-Jun, yellow-green Fruit: Sep-Oct, light brown to almost black, nut/nut-like Fall color: brown	Light: ○ Moisture: D M Soil pH: 4.8-7 Soil type: C L S	upland dry ridges to moist flatwoods	Region: M P C States: DC DE MD VA WV	high wildlife value	acorns food
Quercus velutina *black oak, yellow bark oak, quercitron oak*  BUG DJM	Height: 75-100' Spread: 75-100' Flowers: Apr-May, yellow-green Fruit: Sep-Oct, light red-brown, nut/nut-like Fall color: red/brown	Light: ○ Moisture: D M Soil pH: 4.5-6 Soil type: C L S	dry upland ridges and slopes, flatwoods	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	acorns food for wildlife; leaves may persist into winter
Salix nigra *black willow, swamp willow*  CM NRCS	Height: 35-50' Spread: 20-35' Flowers: Mar-Apr, yellow green Fruit: Apr-May, green yellow, cone/cone-like Fall color: yellow green	Light: ○ ◑ Moisture: M W Soil pH: 6-8 Soil type: C L S	fresh tidal marshes and swamps, forested wetlands, floodplains, wet meadows; seasonally to regularly flooded or saturated	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	streambank stabilizer; spreads by suckers; preferred food of ruffed grouse and pine grosbeak; tolerates flooding; tolerates salinity to 0.5 ppt
Salix sericea *silky willow*  CM NRCS	Height: 12' Spread: Flowers: Jun-Jul Fruit: Fall color: yellow	Light: ○ ◑ ● Moisture: M W Soil pH: 5.2-7 Soil type: C L S	marshes, ditches, low woods	Region: M P States: DC DE MD NY PA VA WV	high wildlife value	
Sassafras albidum *sassafras*  USFWS BES, RHW	Height: 35-50' Spread: 35-50' Flowers: Apr, yellow-green Fruit: Sep-Oct, dark blue, fleshy Fall color: yellow, orange, purple	Light: ○ ◑ Moisture: D M Soil pH: 4.5-7.2 Soil type: L S	moist, open woods	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	edible and medicinal uses; provides spring and fall color
Sorbus americana (Pyrus americana) *American mountain ash*  RHW, RHW	Height: 30-40' Spread: Flowers: May-Jul, white Fruit: Aug-Dec, orange, fleshy Fall color: orange, purple	Light: ○ Moisture: M Soil pH: 5.3-6.8 Soil type: C L S	areas from borders of swamps to rocky hillsides; openings, uplands along forest edges, roadsides	Region: M States: MD VA WV	high wildlife value	slow-growing, short-lived; not drought or heat tolerant; plant at least 500 feet from cedars

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Taxodium distichum *bald cypress, cypress, swamp cypress*	Height: 50-100' Spread: 20-35' Flowers: Mar-Apr, deep purple Fruit: Oct-Dec, brown, cone/cone-like Fall color: purple to brown	Light: ☼ ◑ Moisture: W Soil pH: 4.5-6 Soil type: C L S	rivers, lake and pond margins, swamps, coastal marshes, pocosins, river bottoms	Region: C States: DE MD VA		deciduous conifer
Thuja occidentalis *arborvitae, northern white cedar*	Height: 50-75' Spread: 35-50' Flowers: May, red brown Fruit: Aug-Dec, reddish-brown, cone/cone-like Fall color: evergreen	Light: ☼ Moisture: M W Soil pH: 5.2-7 Soil type: C L S	calcareous areas	Region: M States: NY VA		prefers wet calcareous areas
Tilia americana *American basswood, linden*	Height: 70-100' Spread: 50-75' Flowers: Jun-Jul, yellow Fruit: Sep-Oct, tan brown, winged Fall color: yellow or brown	Light: ◑ ● Moisture: M Soil pH: 4.5-7.5 Soil type: L S	woods, slopes	Region: M States: DC DE MD NY PA VA WV		fragrant flowers; important pollen source for honey
Tsuga canadensis *eastern hemlock*	Height: 75-100' Spread: 35-50' Flowers: May-Jun, tan brown Fruit: Sep-Jan, light brown, cone/cone-like Fall color: evergreen	Light: ◑ Moisture: M Soil pH: 4.2-5.7 Soil type: L S	cool valleys	Region: M P States: DE MD NY PA VA WV	high wildlife value	susceptible to wooly adelgid and red spider mite; also T. caroliniana for VA
Ulmus americana *American elm, white elm, soft elm*	Height: 75-100' Spread: 75-100' Flowers: Mar-Apr, red brown Fruit: May, tan brown, winged Fall color: bright yellow	Light: ☼ ◑ Moisture: M W Soil pH: 5.5-8 Soil type: C L S	river bottoms, swamps, disturbed fields, road sides, cutover forests	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	Dutch elm disease caused decline; distinctive vase shape; favorite nesting site of Baltimore oriole
Ulmus rubra *slippery elm, red elm, soft elm*	Height: 70' Spread: Flowers: Mar-May Fruit: winged Fall color: yellow	Light: ◑ ● Moisture: D M Soil pH: 5.5-7 Soil type: C L S	moist slopes and bottomlands, drier sites on calcareous soils	Region: P States: DC DE MD NY PA VA WV	high wildlife value	

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See also:

In the *Shrubs* section:
- **Hamamelis virginiana**
- **Morella (Myrica) cerifera**
- **Rhododendron maximum**
- **Rhus copallina, hirta (typhina)**
- **Viburnum prunifolium**

Cornus florida

USFWS BES

A diverse forest offers food and cover throughout all seasons.

USFWS RM

Ilex opaca

CM NRCS

Vines

		Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Aristolochia macrophylla (A. durior) *pipevine, Dutchman's pipe*	 RHW	Spread: Flowers: May-Jun, yellowish to purplish Fruit: green to brown, pod Fall color: yellow green	Light: Moisture: M Soil pH: 6.1-8.5 Soil type: L O	rich woods, streambanks	Region: M States: VA WV		occasionally escapes from cultivation; host for pipevine swallowtail butterfly
Bignonia capreolata *crossvine*	 USFWS BES	Spread: 20-35' Flowers: May-Jun, orange with red Fruit: Aug-Oct, brown, pod Fall color: semi-evergreen; reddish-purple	Light: Moisture: D M W Soil pH: 6.1-8.5 Soil type: C L S	swampy forests, calcareous river banks, cliffs, dry open woods, bogs, fence rows, rock outcrops	Region: C States: MD VA		spreads across ground and climbs any structure it meets (control by cutting); semi-evergreen GC
Campsis radicans *trumpet vine, trumpet creeper*	 USFWS BES	Spread: 20-35' Flowers: Jul-Sep, orange Fruit: Aug-Mar, brown, pod Fall color: yellow green	Light: Moisture: D M Soil pH: 6.1-7.5 Soil type: C L S	moist woods, fence rows, roadside thickets, floodplain forests, rocky hillsides, open woods, streambanks, fields	Region: M P C States: DC DE MD PA VA		thick, twisted, aged woody vines; leaves/flowers may cause dermatitis (skin irritation) GC
Celastrus scandens *American bittersweet*	 PLANTS TGB, UWI DK	Spread: 6-20' Flowers: May-Jun, greenish Fruit: Sep-Dec, orange and red, capsule Fall color: yellow	Light: Moisture: D M Soil pH: 6.1-7.5 Soil type: C L S	roadsides, forest edges, fence rows, pastures, hedges, bluffs, rocky slopes, dunes, sandy oak woods	Region: M P C States: DC DE MD NY PA VA WV		distinguished from nonnative invasive Oriental bittersweet by flowers/fruits in clusters at ends of twigs GC
Clematis viorna *leather flower, vasevine*	 RHW	Spread: Flowers: May-Aug, purple Fruit: Aug-Nov, dark brown, achene (dry, flat seed) Fall color:	Light: Moisture: D M Soil pH: Soil type:	rich wooded banks, thickets	Region: P States: DC DE MD VA WV		feathery seeds
Clematis virginiana *virgin's bower*	 USFWS BES	Spread: 6-12' Flowers: Jul-Sep, white Fruit: Aug-Nov, brown, achene (dry, flat seed) Fall color: yellow, green or purplish	Light: Moisture: D M Soil pH: 6.1-8.5 Soil type: C L S O	fencerows, riverbanks, thickets, woods edge, roadside swales, swamps, overhanging cliffs	Region: M P C States: DC DE MD NY PA VA WV		fragrant flowers; feathery seeds; young plants can be transplanted; yellow, green or purplish fall color
Lonicera sempervirens *trumpet or coral honeysuckle*	 RHW, USFWS BES	Spread: 6-12' Flowers: Apr-Oct, coral to red with yellow Fruit: Aug-Mar, red, berry Fall color: semi-evergreen	Light: Moisture: D M Soil pH: 6.1-7.5 Soil type: C L S	thickets, fence rows, open woods, dry stony woods, forest edges, cliffs	Region: M P C States: DC DE MD NY VA		flowers intermittently until frost; flowers/fruits present together; transplants well; may have aphids - hose off, snip new growth and damaged buds; semi-evergreen
Mikania scandens *climbing hempvine*	 RHW	Spread: Flowers: Jun-Oct, pink or whitish Fruit: blue Fall color:	Light: Moisture: M W Soil pH: 5.7-7.5 Soil type: C L	swamps, thickets	Region: M P C States: DC DE MD NY VA		vines herbaceous, not woody

	Characteristics	Conditions	Habitat	Native to	Wildlife	Notes
Parthenocissus quinquefolia *Virginia creeper*  RHW, USFWS BES	Spread: 25-35' Flowers: Jun-Aug, greenish white Fruit: Sep-Feb, bluish black, berry Fall color: purple to crimson	Light: ○ ◐ ● Moisture: D M W Soil pH: 5.1-7.5 Soil type: C L S	fence rows, forest edges, open woods, ravines, bluffs, cliffs	Region: M P C States: DC DE MD NY PA VA WV	high wildlife value	bank stabilizer; control by trimming; fruits eaten by variety of wildlife; purple to crimson fall color GC
Passiflora incarnata *passionflower, Maypops*  RHW	Spread: Flowers: Jun-Sep, purple and white Fruit: Sep-Oct, yellow, fleshy Fall color:	Light: ○ Moisture: D M Soil pH: Soil type: C L S	fields, rocky slopes, thin woods, roadsides, fencerows, thickets	Region: C States: MD VA		herbaceous vine; large fleshy berry edible; fragrant
Smilax herbacea *smooth carrion flower*  RHW, RHW	Spread: Flowers: Apr-Jun, greenish-yellow Fruit: Jul-Nov, blue-black, berry Fall color:	Light: ◐ Moisture: M Soil pH: Soil type: C L S	thickets, woods, floodplains	Region: M P C States: DC DE MD NY WV		herbaceous, climbing vine, not prickly; flower malodorous; male and female plants separate
Wisteria frutescens *Atlantic wisteria, American wisteria*  SMSU, SMSU	Spread: Flowers: Apr-Aug, lilac Fruit: brown, pod Fall color:	Light: ○ ◐ Moisture: M W Soil pH: 4-7 Soil type: C L S	forest and forested swamp edges, streambanks, thickets	Region: C States: DE VA		

See also:

In the *Herbaceous Plants* section:
Clitoria mariana

Characteristic pipe-shaped flower of **Aristolochia macrophylla.**


RHW

Lonicera sempervirens may bloom year-round.


USFWS BES

Bignonia capreolata in bloom adorns a porch.


USFWS BES

Parthenocissus quinquefolia used as a groundcover.


USFWS BES

Plants With a Purpose

This section includes lists of plant combinations that can be used to mimic the natural communities of plants found in wetlands, meadows, forests, etc. They can be used to create, restore or enhance existing habitat for wildlife. Also included are plants that can be used in solving problems such as stabilizing soils, or for specific landscaping uses. No matter what the purpose, it is imperative that species are chosen to suit planting site conditions and the physiographic location of the site. None of these lists are complete – there are additional suitable plants in this guide (and even more native species not included in this publication) that would suit these purposes. This document is intended to give project planners guidance in choosing appropriate plants for various projects, and additional learning is encouraged. For the most ecologically "correct" habitat restoration projects, consultation with professionals is recommended, as there are other factors to consider that are not addressed here.

Plants For Coastal Dunes

Note: the shrubs and trees listed would occur on the inner or secondary dunes and/or on interdunal swales.

Grasses and Grasslike Plants
Ammophila breviligulata
Panicum amarum (and var. amarulum)
Spartina patens
Panicum virgatum

Herbaceous Plants
Baptisia tinctoria
Liatris pilosa v. pilosa (graminifolia)
Nuttallanthus canadensis (Linaria canadensis)
Opuntia humifusa (compressa)
Oenothera biennis
Solidago sempervirens
Yucca filamentosa (flaccida)

Shrubs
Baccharis halimifolia
Morella (Myrica) cerifera, pensylvanica
Prunus maritima
Rhus copallina
Rosa carolina

Trees
Acer rubrum
Amelanchier arborea
Diospyros virginiana
Juniperus virginiana
Pinus rigida
Prunus pensylvanica, serotina

Vines
Celastrus scandens
Parthenocissus quinquefolia

Plants For Saltwater or Brackish Water Marshes

Plants in this list can be used for marsh plantings or to stabilize tidal fresh, brackish or saltwater shorelines based on salinity and wetness tolerances. Check the salinity and moisture requirements given in this publication for each plant, so they will be planted in the appropriate conditions. Those species for use in salinity greater than 15 ppt are marked (*).

Grasses and Grasslike Plants
Ammophila breviligulata *
Distichlis spicata *
Juncus canadensis
Juncus roemerianus *
Panicum amarum (and var. amarulum) *
Panicum virgatum
Schoenoplectus pungens v. pungens (Scirpus pungens, americanus)
Schoenoplectus (Scirpus) validus
Spartina alterniflora *
Spartina cynosuroides
Spartina patens *
Spartina pectinata

Note: Although grasslike, *Distichlis, Juncus, Schoenoplectus,* and *Spartina* species information can be found in the Herbaceous Emergents section of the guide.

Herbaceous Plants
Agalinus purpurea
Limonium carolinianum
Solidago sempervirens *

Herbaceous Emergents
Hibiscus moscheutos (palustris)
Iris prismatica, versicolor, virginica
Kosteletzkya virginica
Peltandra virginica
Pontederia cordata

Shrubs
Baccharis halimifolia *
Iva frutescens *
Morella (Myrica) cerifera *, *pensylvanica* *

Plants for Freshwater Wetlands and Other Wet Sites

The following plants may be used to create or enhance freshwater marshes or swamps or to stabilize and enhance streambanks, riverbanks or pond edges.

Remember to match the plants' growth requirements with the site conditions. Wetness tolerated by these plants is provided in this guide in terms of frequency and duration of soil saturation or inundation (flooding), and depth of standing water.

Ferns

Athyrium filix-femina
Dryopteris carthusiana (spinulosa), cristata, intermedia
Onoclea sensibilis
Osmunda cinnamomea, regalis
Pteridium aquilinum
Thelypteris noveboracensis, palustris
Woodwardia areolata, virginica

Grasses and Grasslike Plants

Agrostis perennans
Andropogon gerardii, glomeratus, virginicus
Calamagrostis canadensis
Carex crinita var. crinita, lurida, stricta, vulpinoidea
Dichanthelium clandestinum
Elymus riparius
Festuca rubra
Leersia oryzoides
Panicum virgatum
Saccharum giganteum (Erianthus giganteus)
Tripsacum dactyloides

Herbaceous Plants

Arisaema triphyllum
Asclepias incarnata
Caltha palustris
Chelone glabra
Conoclinium (Eupatorium) coelestinum
Doellingeria umbellata var. umbellata (Aster umbellatus)
Eupatorium dubium, perfoliatum
Gentiana clausa
Helianthus angustifolius
Heracleum maximum (lanatum)
Impatiens capensis (biflora)
Lobelia cardinalis, siphilitica
Mertensia virginica
Mimulus ringens
Monarda didyma
Packera aurea (Senecio aureus)
Phlox maculata
Rudbeckia laciniata
Saxifraga pensylvanica
Scutellaria integrifolia
Sisyrinchium atlanticum
Spiranthes cernua
Stachys tenuifolia (hispida)
Symphyotrichum (Aster) novae-angliae, novi-belgii
Symplocarpus foetidus
Thalictrum pubescens (polygamum)
Veratrum viride
Verbena hastata
Vernonia noveboracensis
Veronicastrum virginicum (Veronica virginica)
Viola conspersa, cucullata, striata

Herbaceous Emergents

Dulichium arundinaceum
Hibiscus moscheutos (palustris)
Iris prismatica, versicolor, virginica
Juncus effusus
Justicia americana
Nuphar lutea (advena)
Nymphaea odorata
Orontium aquaticum
Peltandra virginica
Pontederia cordata
Sagittaria latifolia
Saururus cernuus
Schoenoplectus (Scirpus) validus
Scirpus atrovirens, cyperinus
Sparganium americanum
Spartina pectinata
Zizania aquatica

Shrubs

Alnus serrulata
Cephalanthus occidentalis
Clethra alnifolia
Cornus amomum
Gaylussacia baccata, frondosa
Hypericum densiflorum
Ilex verticillata
Itea virginica
Kalmia angustifolia, latifolia
Leucothoe racemosa
Lindera benzoin
Lyonia ligustrina
Morella (Myrica) caroliniensis (heterophylla), cerifera, pensylvanica
Photinia (Aronia) melanocarpa, pyrifolia (arbutifolia)
Physocarpus opulifolius
Rhododendron maximum, periclymenoides, viscosum
Rosa palustris
Rubus allegheniensis
Salix humilis
Sambucus nigra ssp. canadensis (S. canadensis)
Spiraea alba v. latifolia (latifolia), tomentosa
Vaccinium corymbosum, macrocarpon
Viburnum dentatum (recognitum), nudum, nudum v. cassinoides (cassinoides), prunifolium

Trees

Acer negundo, rubrum, saccharinum
Amelanchier canadensis
Betula alleghaniensis, nigra
Carpinus caroliniana
Carya cordiformis, glabra
Celtis occidentalis
Chamaecyparis thyoides
Crataegus viridis
Fraxinus pennsylvanica
Liquidambar styraciflua
Magnolia virginiana
Nyssa sylvatica
Pinus serotina, strobus, taeda
Platanus occidentalis
Populus deltoides, heterophylla
Quercus bicolor, michauxii (montana), nigra, palustris, phellos
Salix nigra, sericea
Taxodium distichum
Thuja occidentalis
Tsuga canadensis
Ulmus americana

Vines

Bignonia capreolata
Mikania scandens
Parthenocissus quinquefolia
Wisteria frutescens

Plants Appropriate for Bogs or Bog Gardens

Ferns
Athyrium filix-femina
Onoclea sensibilis
Osmunda cinnamomea
Thelypteris noveboracensis , palustris
Woodwardia areolata

Grasses and Grasslike Plants
Calamagrostis canadensis
Carex stricta
Leersia oryzoides

Herbaceous Plants
Arisaema triphyllum
Caltha palustris
Chelone glabra
Doellingeria umbellata var. umbellate (Aster umbellatus)
Eupatorium dubium, perfoliatum
Gentiana clausa
Saxifraga pensylvanica
Scutellaria integrifolia
Spiranthes cernua
Symplocarpus foetidus
Veratrum viride
Viola cucullata

Herbaceous Emergents
Dulichium arundinaceum
Juncus effusus
Orontium aquaticum
Sagittaria latifolia
Scirpus atrovirens, cyperinus
Sparganium americanum

Shrubs
Clethra alnifolia
Gaultheria procumbens
Hypericum densiflorum
Kalmia angustifolia
Morella caroliniensis (Myrica heterophylla)
Photinia (Aronia) melanocarpa, pyrifolia (arbutifolia)
Rhododendron viscosum
Salix humilis
Spiraea alba, alba v. latifolia (latifolia)
Spiraea tomentosa
Vaccinium corymbosum, macrocarpon
Viburnum dentatum (recognitum), nudum, nudum v. cassinoides (cassinoides)

Trees
Acer rubrum
Chamaecyparis thyoides
Nyssa sylvatica

Vines
Bignonia capreolata

Plants for Dry Meadows

Grasses and Grasslike Plants
Andropogon gerardii
Danthonia spicata
Elymus canadensis, riparius, virginicus
Schizachyrium scoparium (Andropogon scoparius)
Sorghastrum nutans
Tridens flavus

Herbaceous Plants
Ageratina altissima v. altissima (Eupatorium rugosum)
Antennaria neglecta
Asclepias syriaca, tuberosa
Chamaecrista (Cassia) fasciculata
Conoclinum (Eupatorium) coelestinum
Coreopsis tripteris, verticillata
Desmodium paniculatum
Dodecatheon meadia
Erigeron pulchellus
Eupatorium hyssopifolium, purpureum
Heliopsis helianthoides
Ionactis (Aster) linariifolius
Lespedeza capitata
Liatris spicata, squarrosa
Lupinus perennis
Monarda bradburiana (fistulosa), punctata
Nuttallanthus (Linaria)canadensis
Oenothera biennis, fruticosa, perennis
Penstemon digitalis
Pycnanthemum incanum
Rudbeckia fulgida, hirta, triloba
Solidago canadensis, canadensis v. scabra (altissima), juncea, nemoralis, speciosa
Symphyotrichum (Aster) cordifolius, ericoides var. ericoides, laeve var. laeve (laevis), novae-angliae

Shrubs
Note: Listed are a few of the shorter shrubs that may appear in or at the edges of meadows. Using shrubs in a planting that is to remain as a meadow is not recommended, as they provide perching spots for birds, whose droppings will seed in unwanted plants, including trees. If the meadow is to be allowed to succeed eventually to forest, then adding shrubs is one prescribed method.

Ceanothus americanus
Comptonia peregrina
Rhus glabra
Rosa carolina
Rubus allegheniensis

Plants for Wet Meadows

Ferns
Onoclea sensibilis
Osmunda cinnamomea
Thelypteris palustris

Grasses and Grasslike Plants
Andropogon gerardii, virginicus
Calamagrostis canadensis
Carex glaucodea, stricta
Elymus riparius
Leersia oryzoides
Panicum virgatum
Tripsacum dactyloides

Herbaceous Plants
Agalinis purpurea
Asclepias incarnata
Caltha palustris
Doellingeria umbellata var. umbellata (Aster umbellatus)
Gentiana clausa
Eupatorium fistulosum, maculatum, perfoliatum
Helenium autumnale
Impatiens capensis (I. biflora)
Lilium canadense, superbum
Lobelia cardinalis, siphilitica
Mimulus ringens
Packera aurea (Senecio aureus)
Phlox maculata
Rudbeckia laciniata
Sabatia angularis
Scutellaria integrifolia
Silphium perfoliatum
Sisyrinchium atlanticum
Solidago rugosa
Spiranthes cernua
Stachys tenuifolia (hispida)
Symphyotrichum (Aster) novi-belgii
Thalictrum pubescens (polygamum)
Verbena hastata
Viola conspersa
Viola striata

Herbaceous Emergents
Iris prismatica, versicolor, virginica
Juncus effusus
Scirpus atrovirens, cyperinus
Spartina pectinata

Shrubs
Note: Listed are a few of the shorter shrubs that may appear in or at the edges of meadows. Using shrubs in a planting that is to remain as a meadow is not recommended, as they provide perching spots for birds, whose droppings will seed in unwanted plants, including trees. If the meadow is to be allowed to succeed eventually to forest, then adding shrubs is one prescribed method.

Cephalanthus occidentalis
Ilex verticillata
Rhododendron viscosum
Rosa palustris
Spiraea tomentosa

Plants for Forest or Woodland Plantings

Forests contain a diversity of plant types arranged in vertical layers, from the tallest (canopy or overstory) trees, through the understory of shorter trees and shrubs, to the forest floor or ground layer of low shrubs and herbaceous plants. Forest types are classified by the dominant trees present (e.g., oak-hickory-pine forest). Plant species occurring together in these different forest types are a function of the climate, altitude, geology and physiographic location, soil type, moisture, sunlight, and other conditions. So many combinations of plants occur in these different forests that space limitations prevent listing them all. Instead, the following represent plants found in a few of the more common forest types in the Chesapeake Bay watershed. These lists provide the basis for a viable forest or woodland project. Common ferns, grasses and herbaceous plants for the ground layer are listed separately, as they may occur in many of the forest types in various combinations. Remember to match the plants' growth requirements with the site conditions.

For new projects at open sites, it may take years for young trees to provide adequate shade. Consult other restoration resources and/or professionals for alternative methods of developing the ground layer, and for more comprehensive forest community information.

Forest Types, Basic Structure

Oak-Mixed Forest (Coastal Plain)
Canopy trees for well-drained sites
Carya cordiformis, tomentosa
Quercus alba, falcata, marilandica, phellos, prinus, stellata, velutina
Pinus species, occasional intermixed with the above

Canopy trees for moist sites
Acer rubrum
Fagus grandifolia
Quercus bicolor, michauxii, nigra, palustris, phellos
Liquidambar styraciflua
Liriodendron tulipifera
Nyssa sylvatica

Understory trees
Asimina triloba
Cercis canadensis
Cornus florida
Ilex opaca
Magnolia virginiana

Understory shrubs
Comptonia peregrina
Gaylussacia frondosa
Ilex glabra
Kalmia angustifolia, latifolia
Morella (Myrica) cerifera, pensylvanica
Vaccinium pallidum (vacillans), stamineum
Viburnum dentatum (recognitum), prunifolium

Pine Forest (Coastal Plain)
Overstory trees
Pinus taeda, virginiana, rigida (occasional)

Understory trees
Ilex opaca
Sassafras albidum

Understory shrubs
Clethra alnifolia
Morella (Myrica) cerifera, pensylvanica
Rhus copallina

Oak-Hickory Forest (Piedmont and Mountain, occasional on Coastal Plain)

Dominant overstory trees

Carya cordiformis, ovata
Quercus alba, prinus, rubra, velutina

Other trees

Amelanchier arborea, canadensis
Carya alba, glabra, tomentosa
Celtis occidentalis
Cercis canadensis
Cornus florida
Crataegus viridis
Fraxinus Americana
Juglans nigra
Prunus serotina
Quercus coccinea, falcata, lyrata, marilandica, muhlenbergii, stellata
Sassafras albidum
Tilia americana
Ulmus Americana

Additional trees for more moist sites

Acer rubrum
Liquidambar styraciflua
Liriodendron tulipifera
Ulmus americana

Shrubs

Kalmia latifolia
Vaccinium angustifolium, corymbosum, pallidum (vacillans), stamineum
Viburnum acerifolium

Red Oak - Mixed Hardwood Forest (Piedmont)

Dominant overstory trees

Acer rubrum
Carya ovata, tomentosa
Betula alleghaniensis (lutea), lenta
Fraxinus americana
Fagus grandifolia
Liriodendron tulipifera
Quercus alba, rubra, velutina
*Pinus strobus**
*Tsuga canadensis**

* These would be in the Hemlock-White Pine-Red Oak-Mixed Hardwood Forest (Piedmont and Mountain regions).

Understory trees and shrubs

Amelanchier species
Carpinus caroliniana
Hamamelis virginiana
Lindera benzoin
Viburnum acerifolium, dentatum (recognitum)

Hemlock-White Pine Forest (Mountain)

Dominant overstory trees

Acer saccharum
Betula alleghaniensis (lutea)
Fagus grandifolia
Pinus strobus
Tilia americana
Tsuga canadensis
also *Picea* rubens (red spruce, not included in this guide, but native in the Bay watershed in mountain region)

Other trees

Acer rubrum
Betula lenta
Liriodendron tulipifera
Quercus rubra, velutina

Shrubs

Hamamelis virginiana
Rhododendron maximum
Viburnum acerifolium

Mixed Mesophytic Forest (Mountain)

These forests are relicts of ancient mesic (moist) broadleaf deciduous forests. They can be very diverse.

Dominant overstory trees

Acer saccharum
Betula lenta
Carya ovata
Carpinus caroliniana
Fagus grandifolia
Fraxinus americana
Juglans nigra
Liriodendron tulipifera
Magnolia acuminata
Prunus serotina
Quercus rubra
Tilia americana

Understory trees and shrubs

Cercis canadensis
Hamamelis virginiana
Hydrangea arborescens
Lindera benzoin
Rhododendron maximum
Staphylea trifolia

Woodland Floor or Ground Layer Plants

These plants can also be used for gardens in or adjacent to wooded areas. Refer to specific habitat and growing conditions to match plants in appropriate groupings.

Ferns

All species included in this guide occur in woodlands.

Grasses and Grasslike Plants

Agrostis perennans
Andropogon gerardii
Carex crinita var. crinita, glaucodea, lurida, pensylvanica, vulpinoidea
Chasmanthium latifolium
Danthonia spicata
Dichanthelium clandestinum, commutatum
Elymus hystrix (Hystrix patula)
Festuca rubra
Panicum virgatum
Saccharum giganteum (Erianthus giganteus)
Schizachyrium scoparium (Andropogon scoparius)
Sorghastrum nutans
Tridens flavus
Tripsacum dactyloides

Herbaceous Plants

Actaea pachypoda
Ageratina altissima v. altissima (Eupatorium rugosum)
Aquilegia canadensis
Aralia nudicaulis, racemosa
Arisaema triphyllum
Aruncus dioicus
Asarum canadense
Campanulastrum americanum (Campanula americana)
Cardamine concatenata (Dentaria laciniata)
Caulophyllum thalictroides
Chelone glabra
Chimaphila maculata
Chrysogonum virginianum
Cimicifuga racemosa
Claytonia virginica
Delphinium tricorne
Dicentra canadensis, cucullaria, eximia
Erythronium americanum
Eurybia divaricata (Aster divaricatus)
Geranium maculatum
Helenium autumnale
Helianthus divaricatus
Heliopsis helianthoides
Hepatica nobilis var. acuta (acutiloba), var. obtusa (americana)
Heracleum maximum (lanatum)
Heuchera americana, villosa

(continued)

Hydrophyllum virginianum
Impatiens capensis (biflora)
Ionactis (Aster) linariifolius
Jeffersonia diphylla
Liatris scariosa
Lilium canadense, philadelphicum
Maianthemum canadense, racemosum (Smilacina racemosa)
Medeola virginiana
Melanthium virginicum
Mertensia virginica
Mitchella repens
Mitella diphylla
Monarda didyma
Osmorhiza longistylis
Oxalis violacea
Packera aurea (Senecio aureus)
Penstemon laevigatus
Phlox carolina, divaricata, stolonifera
Podophyllum peltatum
Polemonium reptans
Polygonatum biflorum, pubescens
Sanguinaria canadensis
Saxifraga pensylvanica, virginiensis
Scutellaria integrifolia
Sedum ternatum
Silene caroliniana, stellata, virginica
Solidago caesia, flexicaulis, rugosa
Stachys tenuifolia (hispida)
Stellaria pubera
Thalictrum dioicum, pubescens (polygamum), thalictroides (Anemonella t.)
Tiarella cordifolia
Tradescantia virginiana
Trillium erectum, grandiflorum, sessile, undulatum
Uvularia grandiflora, perfoliata, sessilifolia
Veratrum viride
Viola conspersa, hastata, pubescens (pennsylvanica), sororia (papilionacea), striata
Zizia aurea

Vines
Any of the vines included in this guide may be found in woodlands, occupying various vegetative layers, from the ground up.

Solutions for Slopes

Slopes of any kind are prone to erosion from rain, runoff; wave action, stream or river currents, and foot or lawnmower traffic. Plants with deep, spreading root systems help prevent erosion by holding soil in place. Some plants that are particularly well suited to and recommended for holding or stabilizing soils on a dry upland slope or hillsides such as a sloping yard or road embankment are listed below.

However, any plant suited to the site's sun, soil, and moisture conditions that could be planted on a flat surface could be planted on a slope, as long as the slope is accessible. Plants that naturally occur on slopes or hillsides can be found by searching the "habitat" notes provided with each plant in this guide.

For plants to use on a tidal shoreline, see the list of saltmarsh or freshwater marsh plants. For plants to use on a stream, pond or riverbank, see the list of freshwater marsh plants.

Plants That Provide Stabilization on Dry, Sunny Slopes or Hillsides

Grasses & Grasslike Plants
Ammophila breviligulata
Andropogon gerardii
Dichanthelium clandestinum
Elymus canadensis
Panicum virgatum
Panicum amarum
Schizachyrium scoparium

Herbaceous Plants
Any of the herbaceous plants that thrive in a sunny, dry site tend to be deep-rooted and would provide good slope stabilization. See the dry meadow plants list on for additional choices.

Baptisia tinctoria
Lespedeza capitata
Chamaecrista (Cassia) fasciculata

Shrubs
Comptonia peregrina
Ceanothus americanus
Clethra alnifolia
Cornus racemosa
Gaylussacia baccata, frondosa
Hypericum densiflorum
Kalmia latifolia
Morella pensylvanica
Physocarpus opulifolius
Rhus aromatica
Rhus copallina
Rhus glabra
Rosa carolina
Rubus allegheniensis
Vaccinium angustifolium
Viburnum acerifolium

Trees
The following are some of the tree species that may occur on slopes. However, for stabilization purposes, practitioners recommend planting herbaceous plants and shrubs, as trees will appear in time through succession.

Acer rubrum, saccharum, spicatum
Amelanchier arborea
Betula lenta
Carya alba (tomentosa), cordiformis, glabra, ovata
Castanea pumila
Celtis occidentalis
Chionanthus virginicus
Cornus alternifolia, florida
Crataegus crus-galli
Fraxinus americana
Juglans nigra
Liquidambar styraciflua
Liriodendron tulipifera
Magnolia acuminata
Morus rubra
Nyssa sylvatica
Ostrya virginiana
Pinus rigida, taeda
Quercus coccinea
Quercus marilandica, michauxii, muehlenbergii, prinus, rubra, velutina
Sorbus (Pyrus) americana
Ulmus rubra

Vines
Campsis radicans
Celastrus scandens
Passiflora incarnata
Parthenocissus quinquefolia

Evergreens

Ferns
Asplenium platyneuron
Dryopteris carthusiana (spinulosa), cristata, intermedia, marginalis
Polystichum acrostichoides

Herbaceous Plants
Asarum canadense
Goodyera pubescens
Heuchera americana
Mitchella repens
Phlox carolina, stolonifera, subulata
Sedum ternatum
Silene caroliniana
Solidago sempervirens
Yucca filamentosa (flaccida)

Shrubs
Gaultheria procumbens
Ilex glabra
Kalmia angustifolia, latifolia
Morella (Myrica) caroliniensis (heterophylla), cerifera
Rhododendron maximum
Vaccinium macrocarpon

Trees
Chamaecyparis thyoides
Ilex opaca
Juniperus virginiana
Magnolia virginiana
Pinus any species in this guide
Thuja occidentalis
Tsuga canadensis

Vines
B*ignonia capreolata*
Lonicera sempervirens

Plants to use as Groundcovers

Ferns
Any species in this guide

Grasses and Grasslike Plants
Carex glaucodea, pensylvanica
Danthonia spicata
Festuca rubra

Herbaceous Plants
Aquilegia canadensis
Asarum canadense
Chimaphila maculata
Chrysogonum virginianum
Chrysopsis mariana
Coreopsis verticillata
Erigeron pulchellus
Eurybia divaricata (Aster divaricatus)
Geranium maculatum
Hepatica nobilis var. acuta (acutiloba), nobilis var. obtusa (americana)
Heuchera americana, villosa
Hylotelephium (Sedum) telephioides
Maianthemum canadense
Mitchella repens
Opuntia humifusa (compressa)
Oxalis violacea
Phlox carolina, stolonifera, subulata
Podophyllum peltatum
Polemonium reptans
Sedum ternatum
Silene caroliniana
Tiarella cordifolia
Uvularia sessilifolia
Viola conspersa, cucullata, hastata, pedata

Shrubs
Gaultheria procumbens
Vaccinium angustifolium, macrocarpon
Vaccinium pallidum (vacillans)

Vines
Bignonia capreolata
Campsis radicans
Celastrus scandens
Parthenocissus quinquefolia

Plants for Spring and Fall Color

A search through this guide will reveal literally hundreds of plants of all types that will flower or fruit in spring or fall, providing a wide variety of choices to color a native landscaping project and to offer a diversity of food for wildlife. Remember to consider trees, shrubs and vines when choosing plants for their flower color; and to include fruit color in the palette. The fall color of many plants, particularly grasses, trees, shrubs and vines adds interest to the landscape. A landscape planned for seasonal color, throughout *all* seasons of the year, can also provide year-round food, cover and nesting structure for wildlife.

Deer Resistant Plants

Gardeners challenged by browsing deer often look for a definitive list of plants that deer will leave alone. Unfortunately, deer are not quite that predictable. In areas where high populations of deer have over-browsed the woodland understory, they are likely to eat any plant they can find to survive. Gardeners and habitat restorationists are strongly encouraged to use other appropriate barriers to exclude deer, in consultation with a local wildlife agency. Plants marked with an asterisk (*) may be browsed occasionally.

The list below was compiled from Bowman's Hill Wildflower Preserve and Deer Proofing Your Yard (Hart), see references.

Grasses and Grasslike Plants
Andropogon gerardii
Panicum virgatum

Herbaceous Plants
Actaea pachypoda
Allium cernuum
Aquilegia canadensis
Arisaema triphyllum
Aruncus dioicus
*Asarum canadense **
Asclepias tuberose
Baptisia australis
Campanulastrum americanum (Campanula americana)
Coreopsis tripteris
Dicentra eximia
Geranium maculatum
Helenium autumnale
Hibiscus moscheutos (H. palustris)
Jeffersonia diphylla
*Lobelia cardinalis *, siphilitica **
Lupinus perennis
Monarda didyma
Phlox divaricata, stolonifera
*Podophyllum peltatum **
Polemonium reptans
Rudbeckia fulgida, hirta
Solidago species
Symphyotrichum (Aster) novae-angliae
Veronicastrum virginicum (Veronica virginica)

Herbaceous Emergents
Iris prismatica, versicolor, virginica

Shrubs
Aralia spinosa
Clethra alnifolia
Cornus amomum
Hamamelis virginiana
Hypericum densiflorum
Ilex glabra, laevigata, verticillata
Kalmia latifolia
Leucothoe racemosa
Lindera benzoin
Morella (Myrica) cerifera, pensylvanica
Ribes rotundifolium
Spiraea alba, alba v. latifolia (latifolia), tomentosa
Viburnum acerifolium, dentatum (recognitum), prunifolium

Trees
Acer negundo, rubrum
Amelanchier canadensis
Betula nigra
Carpinus caroliniana
Cercis canadensis
Cornus alternifolia
*Cornus florida **
Diospyros virginiana
Fagus grandifolia
Fraxinus americana, pennsylvanica
Ilex opaca
Juniperus virginiana
Magnolia acuminata, virginiana
Nyssa sylvatica
Pinus — any species in this guide
Quercus — any species in this guide
Sambucus racemosa v. racemosa (S. pubens)

Vines
Celastrus scandens
*Clematis virginiana **
Lonicera sempervirens
*Wisteria frutescens **

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Each photograph is marked with an abbreviated form for the corresponding photographer, due to space limitations. Those abbreviations are listed here in alphabetical order, followed by the full credit information.

The Bugwood Network and Forestry Images Image Archive and Database Systems, The University of Georgia-Warnell School of Forest Resources and College of Agricultural and Environmental Sciences-Department of Entomology. www.bugwood.org

BUG DJM David J. Moorhead
BUG RFW Robert F. Wittwer

BZ Bob Zuberbuhler, www.westernpawildflowers.com

CAB Carole Ann Barth, Heal Earth Gardens, Silver Spring, Maryland.

CM NRCS Christopher F. Miller, Regional Plant Materials Specialist, U.S. Department of Agriculture, Natural Resources Conservation Service, Somerset, New Jersey.

Digital Flora of Texas Vascular Plant Image Library. www.csdl.tamu.edu/FLORA/galfolks.htm, or www.texasflora.org

DFT DL David Lemke, The State University-San Marcos, Department of Biology Herbarium.
DFT HW Hugh Wilson, TAMU Herbarium, Texas A&M University.

GM ARS George McLellan, Species Study Group of the Middle Atlantic Chapter, American Rhododendron Society. tjhsst.edu/~dhyatt/azaleas/atlanticum.html

MOBOT Missouri Botanical Garden. www.mobot.org/gardeninghelp/plantfinder/service.shtml. Digital images in this database were contributed by Martha Hill, Glenn Kopp and Alan Stentz.

MP Dan Tanaglia, Missouriplants. www.missouriplants.com

NYNHP Stephen M. Young, New York Natural Heritage Program. www.dec.state.ny.us/website/dfwmr/heritage

OSU Scott Biggs, Ohio State University. http://PlantFacts.osu.edu

PLANTS **USDA-NRCS. 2003. The PLANTS Database,** plants.usda.gov/plants. National Plant Data Center. Baton Rouge, LA 70874-4490 USA. PLANTS Database images that were used in this guide were contributed by the following:
PLANTS 1995 U.S. Department of Agriculture Natural Resources Conservation Service. 1995 Midwestern Wetlands Flora.
PLANTS 1997 U.S. Department of Agriculture Natural Resources Conservation Service. 1997 Northeastern Wetlands Flora.
PLANTS DEH Herman, D.E. et.al. 1996 North Dakota Tree Handbook. USDA NRCS. ND State Soil Conservation Committee. NDSU Extension and Western Area Power Administration. Bismark, ND.
PLANTS DL Douglas Ladd. U.S. Department of Agriculture Soil Conservation Service. 1989 Midwest Wetland Flora: Field Office Illustrated Guide to Plant Species. Midwest National Technical Center, Lincoln, NE.
PLANTS GAM Gary A. Monroe
PLANTS GFR George F. Russell
PLANTS JA Jennifer Anderson
PLANTS JS Jim Stasz
PLANTS JSP J.S. Peterson
PLANTS LA Larry Allain
PLANTS RM89 Robert H. Mohlenbrock. U.S. Department of Agriculture, Soil Conservation Service. 1989 Midwest Wetland Flora: Field Office Illustrated Guide to Plant Species. Midwest National Technical Center, Lincoln, NE.
PLANTS RM91 Robert H. Mohlenbrock. U.S. Department of Agriculture, Soil Conservation Service. 1991 Southern Wetland Flora: Field Office Guide to Plant Species. South National Technical Center, Fort Worth, TX.
PLANTS RM95 Robert H. Mohlenbrock. U.S. Department of Agriculture,Natural Resources Conservation Service. 1995 Northeast Wetland Flora: Field Guide to Plant Species. Northeast Technical Center, Chester, PA.
PLANTS TGB Thomas G. Barnes
PLANTS WSJ William S. Justice

RHW R. Harrison Wiegand, Maryland Department of Natural Resources, Wildlife and Heritage Service. www.dnr.state.md.us

RS MNPS Rod Simmons, Maryland Native Plant Society. www.mdflora.org

SMSU Paul Redfearn, Ozarks Regional Herbarium, Southwest Missouri State University. biology.smsu.edu/Herbarium

UCONN Mark Brand, UConn Plant Database, University of Connecticut. www.hort.uconn.edu/plants/about.html

USDA NRCS **U.S. Department of Agriculture, Natural Resources Conservation Service,** National Plant Materials Center, Beltsville, MD. www.plantmaterials.nrcs.usda.gov/mdpmc
USDA JE John Englert
USDA JK Jennifer Kujawski
USDA MG Martin van der Grinten

USFWS **U.S. Fish and Wildlife Service Chesapeake Bay Field Office,** Annapolis, MD 21401. www.fws.gov/r5cbfo
USFWS BES Britt Slattery
USFWS RL Randy Loftus
USFWS RM Rich Mason
USFWS RS Rich Starr

University of Wisconsin, Wisconsin State Herbarium, Madison, WI 53706-1381. www.botany.wisc.edu/herbarium
UWI AH Andrew Hipp, University of Wisconsin-Madison.
UWI DK Darrin Kimbler, University of Wisconsin-Madison.
UWI DWW Dennis W. Woodland, Andrews University.
UWI EJJ Emmet J. Judziewicz University of Wisconsin-Stevens Point and Madison.
UWI JK John Kohout, donated to Wisconsin Department of Natural Resources.
UWI JRS James R. Sime, Middleton, Wisconsin.
UWI JS Janice Stiefel, Bailey's Harbor, Wisconsin.
UWI KJS Kenneth J. Sytsma, University of Wisconsin-Madison.
UWI KK Kitty Kohout, donated to Wisconsin Department of Natural Resources.
UWI MC Michael Clayton, University of Wisconsin-Madison.
UWI MRB Merel R. Black, University of Wisconsin-Madison.
UWI RRK Robert R. Kowal, University of Wisconsin-Madison.
UWI RWF Robert W. Freckmann, University of Wisconsin-Stevens Point.
UWI TK Tim Kessenich, Wisconsin Department of Natural Resources.

VT Virginia Tech (Virginia Polytechnic Institute and State University), College of Natural Resources, Forest Biology and Dendrology Educational Sites. www.cnr.vt.edu/dendro/wwwmain.html

References

Bowman's Hill Wildflower Preserve. *Deer Tolerant/Resistant Native Plants* (information sheet). New Hope, PA. 2002.

Brown, Russel G. and Melvin L. Brown. *Herbaceous Plants of Maryland*. Port City Press, Baltimore, MD. 1984.

Brown, Russel G. and Melvin L. Brown. *Woody Plants of Maryland*. Port City Press, Baltimore, MD. 1972.

Burrell, C. Colston. *A Gardener's Encyclopedia of Wildflowers: An Organic Guide to Choosing and Growing over 150 Beautiful Wildflowers*. Rodale Press, Inc., Emmaus, PA. 1997.

Dirr, Michael A. *Manual of Woody Landscape Plants*. Fifth Edition. Stipes Publishing LLC, Champaign, IL. 1998.

Elias, Thomas S. *The Complete Trees of North America*. Gramercy Publishing Company, New York, NY. 1987.

Flora of North America Editorial Committee. *Flora of North America North of Mexico. Volume 2: Pteridophytes and Gymnosperms*. Oxford University Press, New York, NY. 1993.

Fernald, Merritt L. *Gray's Manual of Botany*. Eighth Edition. D. Van Nostrand Company, New York, NY. 1970.

Fike, Jean. *Terrestrial and Palustrine Plant Communities of Pennsylvania*. Pennsylvania Bureau of Forestry, Harrisburg, PA, The Nature Conservancy, Middletown, PA and Western Pennsylvania Conservancy, Pittsburgh, PA. 1999.

Gleason, Henry A. and Arthur Cronquist. *Manual of Vascular Plants of Northeastern United States and Adjacent Canada*. Willard Grant Press, Boston, MA 1963.

Harlow, William M., Ellwood S. Harrar, James W. Hardin, and Fred M. White. *Textbook of Dendrology* Eighth Edition. McGraw-Hill, Inc., New York, NY. 1996.

Hart, Rhonda Massingham. *Deer-Proofing Your Yard & Garden*. Storey Books, Pownal, VT. 1997.

Hightshoe, Gary L. *Native Trees, Shrubs, and Vines for Urban and Rural America*. Van Nostrand Reinhold, New York, NY. 1988.

Johnson, Lorraine. *100 Easy-To-Grow Native Plants For American Gardens in Temperate Zones*. Firefly Books Ltd., Buffalo, NY. 1999.

Jones, Samuel B. Jr. and Arlen E. Luchsinger. *Plant Systematics*. Second Edition. McGraw-Hill Book Company, New York, NY. 1986.

Kricher, John C. *The Peterson Field Guide Series. A Field Guide to Eastern Forests: North America*. Houghton Mifflin Company, Boston, MA. 1988.

Little, Elbert L. *The Audubon Society Field Guide to North American Trees: Eastern Region*. Alfred A. Knopf, Inc., New York, NY. 1980.

Luttenberg, Danielle, Deborah Lev and Michael Feller. *Native Species Planting Guide for New York City and Vicinity*. City of New York Parks and Recreation, New York, NY. 1993.

Magee, Dennis W. Freshwater Wetlands: *A Guide to Common Indicator Plants of the Northeast*. University of Massachusetts Press, Amherst, MA. 1981.

Martin, Alexander C. and A. L. Nelson. *American Wildlife and Plants: A Guide to Wildlife Food*. Dover Publications, Minneola, NY. 1985.

Newcomb, Lawrence. *Newcomb's Wildflower Guide*. Little, Brown and Company, Boston, MA. 1977.

Niering, William A. *The Audubon Society Nature Guides: Wetlands*. Alfred A. Knopf, Inc., New York, NY. 1985.

Phillips, Ellen and C. Colston Burrell. *Rodale's Illustrated Encyclopedia of Perennials*. Rodale Press, Inc., Emmaus, PA. 1993.

Redington, Charles B., Ph.D. *Plants in Wetlands*. Kendall/Hunt Publishing Company, Dubuque, IA. 1994.

Reed, Clyde F. *The Ferns and Fern Allies of Maryland and Delaware including District of Columbia*. The Science Press, Lancaster, PA. 1953.

Rhoads, Ann F. and Timothy A. Block. *The Plants of Pennsylvania: An Illustrated Manual.* University of Pennsylvania Press, Philadelphia, PA. 2000.

Still, Steven M. *Manual of Herbaceous Ornamental Plants*. Fourth Edition. Stipes Publishing Company, Champaign, IL. 1994.

Swearingen, J., K. Reshetiloff, B. Slattery, and S. Zwicker. 2002. *Plant Invaders of Mid-Atlantic Natural Areas*. National Park Service and U.S. Fish & Wildlife Service, 82 pp.

Thurnhorst, Gwendolyn *A. Wetland Planting Guide for the Northeastern United States*. Environmental Concern, Inc., St. Michaels, MD. 1993.

Tiner, Ralph W. *A Field Guide to Coastal Wetland Plants of the Northeastern United States*. University of Massachusetts Press, Amherst, MA. 1987.

Tiner, Ralph W. *Field Guide to Nontidal Wetland Identification*. Maryland Department of Natural Resources, Annapolis, MD and U.S. Fish and Wildlife Service, Newton Corner, MA. 1988.

Tyning, Thomas F. *A Guide to Amphibians and Reptiles*. Stokes Nature Guides. Little, Brown and Company, Boston, MA. 1990.

Water and Ecosystems Team. *Roadside Use of Native Plants*. Federal Highway Administration. Washington D.C. 1999.

Internet References

American Forests (www.americanforest.org/resources/bigtrees/register.php).

Bowman's Hill Wildflower Preserve (www.bhwp.org).

Brooklyn Botanic Garden (www.bbg.org).

Connecticut Botanical Society (www.ct-botanical-society.org).

Harvard University Herbaria (www.huh.harvard.edu).

Horticopia (www.horticopia.com).

Horticopia Plant Information (www.hortpix.com).

Kentucky Native Plant Society (www.knps.org).

Missouri Botanical Garden (www.mobot.org).

NatureServe (www.natureserve.org).

Nearctica (www.nearctica.com/nathist/nathist.htm).

Ohio State University (ohioline.osu.edu).

Plant America (www.plantamerica.com).

Plant File (www.plantfile.com).

Plants For a Future (www.pfaf.org).

Saw Mill River Audubon, Pruyn Sanctuary Butterfly and Hummingbird Garden 2001 Plant List (www.sawmillriveraudubon.org/downloads/GardenList.doc).

South Carolina Forestry Commission (www.state.sc.us/forest/tidtsim.htm).

Sustainable Urban Landscape Information Series (www.sustland.umn.edu).

Toadshade (www.toadshade.com).

USDA Silvics of North America (www.na.fs.fed.us/spfo/pubs/silvics_manual/table_of_contents.htm) Burns, Russell M., and Barbara H. Honkala, tech. coords. Silvics of North America: 1. Conifers; 2. Hardwoods. Agriculture Handbook 654. U.S. Department of Agriculture, Forest Service, Washington, DC. 1990.

USDA, NRCS. 2001 The PLANTS Database, version 3.1 (plants.usda.gov/plants). National Plant Data Center, Baton Rouge, LA 70874-4490 USA.

University of Minnesota, Sustainable Urban Landscape Information Series (www.sustland.umn.edu).

University of Wisconsin Botanical Garden (www.botany.wisc.edu/Garden).

Washington State Department of Ecology (www.ecy.wa.gov/programs/wq/plants/native/brasenia.html).

The Xerces Society (www.xerces.org).

Catalogs

Adkins Arboretum. Fall 2001 Native Plant Sale: Plant Sale List. Ridgely, MD (www.adkinsarboretum.org).

Bluemount Nuseries, Inc. Catalog 2001. Monkton, MD (www.bluemount.com).

Carroll Gardens. America's Selection of Rare and Unusual Plants 1997. Westminster, MD (www.carrollgardens.com).

Environmental Concern. 2001 Nursery Catalog. St. Michaels, MD (www.wetland.org).

Environmental Concern, Inc. 1996 Nursey Catalog. St. Michaels, MD. 1996 (www.wetland.org).

Ernst Conservation Seeds. Wholesale Price List – Spring/Summer 2003. Meadville, PA (www.ersntseed.com).

Ernst Conservation Seeds. Wholesale 2002 Catalog and Information Guide. Meadville, PA (www.ersntseed.com).

Ernst Conservation Seeds. 1999 Information Guide. Meadville, PA (www.ersntseed.com).

Lower Marlboro Nursery. Spring 1999. Dunkirk, MD (www.lowermarlboronursery.com).

Maryland Natives Nursery, Inc. 2002 Catalog. Baltimore, MD (www.marylandnativesnursery.com).

North Creek Nurseries, Inc. 2001 Wholesale Catalog. Landenberg, PA (www.northcreeknurseries.com).

North Creek Nurseries, Inc. 1999 Wholesale Starters. Landenberg, PA (www.northcreeknurseries.com).

Octoraro Native Plant Nursery. 2002 Wholesale Nursery Catalog. Kirkwood, PA (www.octoraro.com).

Talmage Farm. Native Plants Naturally 2000 Wholesale Catalog. Riverhead, NY (www.talmagefarm.com).

Virginia Natives. 2001 Catalog. Hume, VA. (www.vnps.org).

Wild Earth Native Plant Nursery. 1999 Catalog. Freehold, NJ.

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Latin name

Common Name

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