

ABOUT THE NATIVE PLANTS FOR CONSERVATION, RESTORATION AND LANDSCAPING PROJECT

This project is a collaboration between the Virginia Department of Conservation and Recreation and the Virginia Native Plant Society. VNPS chapters across the state helped to fund the 2011 update to this brochure.

The following partners have provided valuable assistance throughout the life of this project:

The Nature Conservancy – Virginia Chapter • Virginia Tech Department of Horticulture • Virginia Department of Agriculture and Consumer Services • Virginia Department of Environmental Quality, Coastal Zone Management Program • Virginia Department of Forestry • Virginia Department of Game and Inland Fisheries • Virginia Department of Transportation



FOR MORE INFORMATION

Virginia Department of Conservation and Recreation
Natural Heritage Program
804-786-7951
www.dcr.virginia.gov/natural_heritage/nativeplants.shtml

FOR A LIST OF NURSERIES THAT PROPAGATE NATIVE SPECIES, CONTACT:

Virginia Native Plant Society
400 Blandly Farm Lane, Unit 2
Boyce, VA 22620
540-837-1600 | vnpsoc@shentel.net
www.vnps.org



FOR A LIST OF NURSERIES IN A PARTICULAR REGION OF VIRGINIA, CONTACT:

The Virginia Nursery and Landscape Association
383 Coal Hollow Road
Christiansburg, VA 24073
540-382-0943 | vnla@verizon.net
To search for species in VNLA member catalogs, visit:
www.vnla.org/search.asp

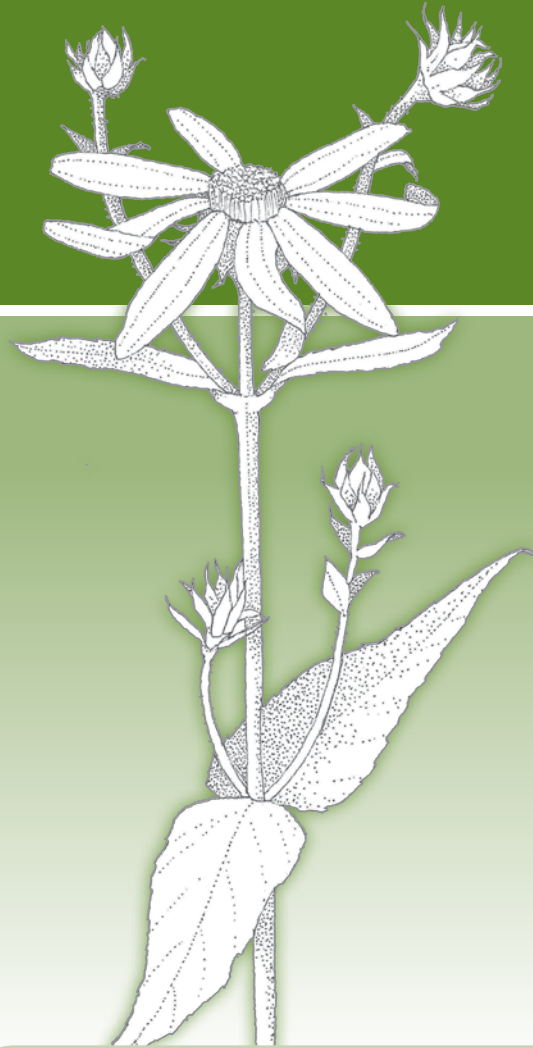
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Illustrators: Lara Gastinger, Roy Fuller and Michael Terry. To learn more, visit:
www.floraofvirginia.org



Native Plants

FOR CONSERVATION,
RESTORATION & LANDSCAPING



VIRGINIA GRASSLANDS

WHAT ARE NATIVES?

Native species evolved within specific regions and dispersed throughout their range without known human involvement. They form the primary component of the living landscape and provide food and shelter for native animal species. Native plants co-evolved with native animals over many thousands to millions of years and have formed complex and interdependent relationships. Our native fauna depend on native flora to provide food and cover. Many animals require specific plants for their survival.



BENEFITS OF NATIVE PLANTS

Using native species in landscaping reduces the expense of maintaining cultivated landscapes and minimizes the likelihood of introducing new invasive species. It may provide a few unexpected benefits as well.

Native plants often require less water, fertilizer and pesticide, thus adding fewer chemicals to the landscape and maintaining water quality in nearby rivers and streams. Fewer inputs mean time and money saved for the gardener.

Native plants increase the presence of desirable wildlife, such as birds and butterflies, and provide sanctuaries for these animals as they journey between summer and winter habitats. The natural habitat you create with native plants can become an outdoor classroom for children, or a place for you to find peace and quiet after a busy day.

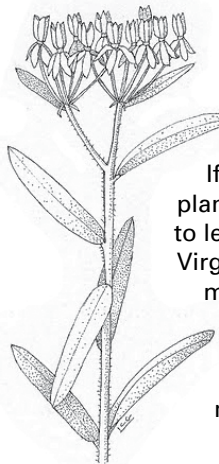
Native plants evoke a strong sense of place and regional character. For example, live oak and magnolia trees are strongly associated with the Deep South. Redwood trees characterize the Pacific Northwest. Saguaro cacti call to mind the deserts of the Southwest.

BUYING AND GROWING NATIVE PLANTS

More gardeners today are discovering the benefits of native plants and requesting them at their local garden centers. Because of this increased demand, retailers are offering an ever-widening selection of vigorous, nursery-propagated natives.

Once you've found a good vendor for native plants, the next step is choosing appropriate plants for a project. One of the greatest benefits of designing with native plants is their adaptation to local conditions. However, it is important to select plants with growth requirements that best match conditions in the area to be planted.

If you're planning a project using native plant species, use the list in this brochure to learn which plants grow in your region of Virginia. Next, study the minimum light and moisture requirements for each species, noting that some plants grow well under a variety of conditions. Many of the recommended species are well-suited to more than one of these categories.



For more information, refer to field guides and publications on local natural history for color, shape, height, bloom times and specific wildlife value of the plants that grow in your region. Visit a nearby park, natural area preserve, forest or wildlife management area to learn about common plant associations, spatial groupings and habitat conditions. For specific recommendations and advice about project design, consult a landscape or garden design specialist with experience in native plants.

WHAT ARE NON-NATIVE PLANTS?

Sometimes referred to as "exotic," "alien," or "non-indigenous," non-native plants are species introduced, intentionally or accidentally, into a new region by humans. Over time, many plants and animals have expanded their ranges slowly and without human assistance. As people began cultivating plants, they brought beneficial and favored species along when they moved into new regions or traded with people in distant lands. Humans thus became a new pathway, enabling many species to move into new locations.

WHAT ARE INVASIVE PLANTS?

Invasive plants are introduced species that cause health, economic or ecological damage in their new range. More than 30,000 species of plants have been introduced to the United States since the time of Columbus. Most were introduced intentionally, and many provide great benefits to society as agricultural crops and landscape ornamentals. Some were introduced accidentally, for example, in ship ballast, in packing material and as seed contaminants. Of these introduced species, fewer than 3,000 have naturalized and become established in the United States outside cultivation. Of the 3,500 plant species in Virginia, more than 800 have been introduced since the founding of Jamestown. The Virginia Department of Conservation and Recreation currently lists more than 100 of these species as invasive.

In the United States, invasive species cause an estimated \$120 billion in annual economic losses, including costs to manage their effects. Annual costs and damages arising from invasive plants alone are estimated at \$34 billion.

NATIVE PLANTS VS. INVASIVE PLANTS

Invasive plants have competitive advantages that allow them to disrupt native plant communities and the wildlife dependent on them. For example, kudzu (*Pueraria montana*) grows very rapidly and overtops forest canopy, thus shading other plant species from the sunlight necessary for their survival. A tall invasive wetland grass, common reed (*Phragmites australis ssp. australis*), invades and dominates marshes, reducing native plant diversity and sometimes eliminating virtually all other species.

Invasive species can marginalize or even cause the loss of native species. With their natural host plants gone, many insects disappear. And since insects are an essential part of the diet of many birds, the effects on the food web become far reaching. Habitats with a high occurrence of invasive plants become a kind of "green desert." Although green and healthy in appearance, far fewer native species of plants and animals are found in such radically altered places.

Virginia Grasslands

Grasslands are natural communities dominated by grasses, sedges and forbs. From barrier island dunes to mountain balds, grasslands occupy wide-ranging and unusual places in Virginia's landscape. Some are unique because of harsh or extreme environmental conditions. Examples include tidal saltwater areas behind the barrier islands where extensive saltmarsh and saltmeadow cordgrass communities thrive; dry, sunbaked southwestern slopes of mountains; and diabase glades, which have very shallow soils. These conditions thwart woody species and allow sun-loving grasses and other herbs to flourish. Grasslands also arise where disturbance, such as drought, flood or fire, has removed woody species. The moist climate of the East favors the development of forests. Without disturbance, grasslands in this area are inevitably replaced by shrubs and trees. Disturbance-dependant grasslands are sometimes called successional grasslands.

Successional grasslands and closely related savannas once were common in Virginia. Savannas are open-canopy woodlands with a grass-dominated herb layer. Natural grasslands and savannas were maintained by both lightning- and human-set fires. Native Americans routinely used fire to clear land for agriculture and to enhance habitat for game. Fires also were used to drive deer toward waiting hunters. Early European settlers adopted the practice of clearing land with fire. In the last 100 years, fire suppression became policy and practice. Technical and organizational advances increased the success of suppression efforts. During the 20th century, fire-dependant natural communities (grasslands, savannas, seepage bogs, pocosins and longleaf pine forests) have decreased, dramatically threatening the existence of many rare plant and animal species associated with these areas. Examples include Michaux's sumac, a federally endangered shrub found only in fire-maintained savannas, and Henslow's sparrow, a Virginia state-threatened bird that depends on grassland and savanna habitats for survival.

Today, the most extensive occurrences of successional grasslands and savannas in Virginia are found in and around artillery-impact areas on three military bases: Quantico, Fort A.P. Hill and Fort Pickett. The regular fires ignited by artillery maintain the grasslands and savannas. Grasslands and bogs also have become established in power-line rights-of-way, where mowing and the use of herbicides to control woody plant growth have favored sun-loving grasses and bog species. Many rare species and several rare plant communities are found in power-line rights-of-way.

GRASSLAND PLANT SPECIES

Six species of grass dominate most of our upland successional grasslands: big bluestem, little bluestem, bushy bluestem, broomsedge, Indian grass and switchgrass. These are warm-season grasses that grow in summer months. These grasses are referred to as bunch grasses because they have an upright growth habit and grow in distinct clumps, unlike sod-forming grasses such as fescue and Bermuda grass. Many alien grass species — such as tall fescue — introduced by European settlers for livestock are sod-forming, cool-season grasses and do not provide habitat for native wildlife.

Along with grasses, many wildflower species are part of the grassland community, including a variety of species in the aster, pea and rose families. Common grassland wildflowers include black-eyed Susan, evening primrose and butterfly weed. Rare plant species found in and adjacent to grasslands include prairie white-fringed orchid, sun-facing coneflower, smooth coneflowers and running glade clover.

In wet areas (seepage, pond edges and stream banks), hydric plant species dominate upland species because they are adapted to higher levels of soil moisture. Sedges and rushes are more prevalent than grasses in these wetter areas. Soft rush, tussock sedge, gamagrass, cattail, blue flag and swamp milkweed are a few species that may be found in hydric soils that receive full sun. For more information on wetland species, see the DCR brochure *Native Plants for Conservation, Restoration and Landscaping -- Riparian Forest Buffers*.



Recommended Uses

- W** = Wildlife
- H** = Horticulture & landscaping
- C** = Conservation & restoration
- D** = Domestic livestock forage

Region

- M** = Mountain
- P** = Piedmont
- C** = Coastal Plain

Minimum Light Requirements

- S** = Shade
- P** = Partial sun
- F** = Full sun

Moisture Requirements

- L** = Low moisture
- M** = Moderate moisture
- H** = High moisture

Some species are marked with the following footnote symbols:

- + May be aggressive in a garden setting
- * Due to the rarity and sensitivity of habitat in Virginia, these species are recommended for horticultural use only. Planting these species in natural areas could be detrimental to the survival of native populations.

Scientific Name	Common Name	Uses				Region			Light			Moisture		
		W	H	C	D	M	P	C	S	P	F	L	M	H
Herbs														
<i>Antennaria neglecta</i>	field pussytoes	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Asclepias incarnata</i>	swamp milkweed	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Asclepias syriaca+</i>	common milkweed	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Asclepias tuberosa</i>	butterfly weed	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Baptisia tinctoria</i>	yellow wild-indigo	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Caltha palustris</i>	marsh marigold	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Chamaecrista fasciculata+</i>	partridge pea	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Chrysogonum virginianum</i>	green and gold	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Chrysopsis mariana</i>	Maryland golden aster	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Clitoria mariana</i>	Maryland butterfly pea	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Conoclinium coelestinum</i>	blue mistflower	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Coreopsis tripteris</i>	tall coreopsis	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Coreopsis verticillata</i>	threadleaf coreopsis	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Desmodium paniculatum</i>	narrow-leaf tick trefoil	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Doellingeria umbellata</i>	flat-top white aster	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Eupatoriadelphus fistulosus</i>	Joe-pye weed	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Eupatorium perfoliatum</i>	common boneset	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Helenium autumnale</i>	sneezeweed	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Helianthus angustifolius</i>	narrow-leaf sunflower	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Helianthus divaricatus</i>	woodland sunflower	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Heliopsis helianthoides</i>	oxeye sunflower	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Iris prismatica</i>	slender blueflag	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Iris virginica</i>	Virginia blue flag	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Kosteletskya virginica</i>	seashore mallow	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Lespedeza capitata</i>	round-head bush clover	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Liatris pilosa var. pilosa</i>	grass-leaf blazing star	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Liatris spicata</i>	spiked blazing star	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Liatris squarrosa</i>	plains blazing star	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Lilium canadense</i>	Canada lily	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Lilium philadelphicum</i>	wood lily	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Lilium superbum</i>	Turk's cap lily	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Lobelia cardinalis</i>	cardinal flower	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Lobelia siphilitica</i>	great blue lobelia	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Lupinus perennis</i>	lupine	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Mimulus ringens</i>	monkeyflower	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Monarda didyma</i>	bee balm	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Monarda fistulosa</i>	wild bergamot	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Oenothera fruticosa</i>	sundrops	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Opuntia humifusa</i>	Eastern prickly-pear	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Packera aurea+</i>	golden ragwort	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Penstemon laevigatus</i>	smooth beardtongue	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Physostegia virginiana+</i>	obedient plant	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Pycnanthemum incanum</i>	hoary mountain mint	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Pycnanthemum tenuifolium</i>	narrow-leaved mountain mint	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Rhexia virginica</i>	Virginia meadow-beauty	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Rudbeckia fulgida</i>	early coneflower	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Rudbeckia hirta</i>	black eyed Susan	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Rudbeckia laciniata</i>	cut-leaved coneflower	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Rudbeckia triloba</i>	three-lobed coneflower	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Sagittaria latifolia</i>	broadleaf arrowhead	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Salvia lyrata+</i>	lyre-leaf sage	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Saururus cernuus</i>	lizard's tail	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Senna marilandica</i>	Maryland wild senna	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Silphium perfoliatum</i>	cup plant	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Solidago caesia</i>	bluestem goldenrod	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Solidago rugosa+</i>	rough-stemmed goldenrod	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Solidago sempervirens</i>	seaside goldenrod	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Symphotrichum laeve</i>	smooth blue aster	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Symphotrichum novae-angliae</i>	New England aster	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Symphotrichum novi-belgii</i>	New York aster	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Symphotrichum pilosum</i>	frost aster	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Tradescantia virginiana+</i>	Virginia spiderwort	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Viola pedata</i>	bird's foot violet	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Yucca filamentosa</i>	common yucca	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Zephyranthes atamasco</i>	Atamasco lily	.	.	.	.	.	.	.	.	.	.	.	.	.
Ferns & Fern Allies														
<i>Onoclea sensibilis+</i>	sensitive fern	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Osmunda cinnamomea</i>	cinnamon fern	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Woodwardia virginica+</i>	Virginia chain fern	.	.	.	.	.	.	.	.	.	.	.	.	.

Scientific Name	Common Name	Uses				Region			Light			Moisture		
		W	H	C	D	M	P	C	S	P	F	L	M	H
Grasses, Sedges & Rushes														
<i>Agrostis perennans</i>	autumn bentgrass	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Andropogon gerardii</i>	big bluestem	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Andropogon glomeratus</i>	bushy bluestem	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Andropogon virginicus</i>	broomsedge	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Arundinaria gigantea</i>	wild cane	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Arundinaria tecta</i>	switch cane	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Calamagrostis canadensis</i>	bluejoint reedgrass	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Carex crinita</i>	long hair sedge	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Carex lurida</i>	sallow sedge	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Carex stricta</i>	tussock sedge	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Danthonia sericea</i>	silky oatgrass	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Danthonia spicata</i>	poverty oatgrass	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Dichanthelium clandestinum</i>	deer-tongue	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Dulichium arundinaceum</i>	dwarf bamboo	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Elymus hystrix</i>	bottlebrush grass	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Juncus canadensis</i>	Canada rush	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Juncus effusus</i>	rice rush	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Leersia oryzoides</i>	rice cutgrass	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Panicum virgatum</i>	switch grass	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Saccharum giganteum</i>	giant plume grass	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Schizachyrium scoparium</i>	little bluestem	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Scirpus cyperinus</i>	woolgrass bulrush	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Sorghastrum nutans</i>	Indian grass	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Tridens flavus</i>	redtop	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Tripsacum dactyloides</i>	gama grass	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Zizania aquatica</i>	wild rice	.	.	.	.	.	.	.	.	.	.	.	.	.
Shrubs & Small Trees														
<i>Aronia arbutifolia</i>	red chokeberry	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Aronia melanocarpa</i>	black chokeberry	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Baccharis halimifolia</i>	high tide bush	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Ceanothus americanus</i>	New Jersey tea	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Cornus amomum</i>	silky dogwood	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Morella carolinensis</i>	Southern bayberry	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Morella pensylvanica</i>	Northern bayberry	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Myrica cerifera</i>	Southern wax myrtle	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Rhododendron catawbiense</i>	Catawba rhododendron	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Rhododendron prinophyllum</i>	rose azalea	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Rhododendron viscosum</i>	swamp azalea	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Rubus allegheniensis</i>	Alleghany blackberry	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Salix humilis</i>	prairie willow	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Salix sericea</i>	silky willow	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Sambucus canadensis</i>	common elderberry	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Spiraea alba</i>	narrow-leaved meadowsweet	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Spiraea latifolia</i>	broad-leaved meadowsweet	.	.	.	.	.	.	.	.	.	.	.	.	.
Medium Trees														
<i>Amelanchier arborea</i>	downy serviceberry	.	.	.	.	.	.	.	.	.	.	.	.	.
<i>Amelanchier canadensis</i>	Canada serviceberry	.</												