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.

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

Virginia Master Naturalists

Virginia Native Plant Society

Virginia Nursery and Landscape Association

Virginia Tech Department of Horticulture

Virginia Department of Agriculture and Consumer Services

Virginia Department of Environmental Quality

Virginia Coastal Zone Management Program

Virginia Department of Forestry

Virginia Department of Wildlife Resources

Virginia Department of Transportation

Project partners share a commitment to protect native plant habitats that support rare, threatened or endangered species. The use of native plant species in land management, conservation, restoration and horticultural projects maintains the ecological integrity of natural areas and preserves native biodiversity.

FOR MORE INFORMATION AND THE DCR NATIVE PLANT FINDER

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

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

Virginia Native Plant Society 400 Blandy Farm Lane, Unit 2 Boyce, VA 22620 540-837-1600 | info@vnps.org www.vnps.org/



FOR COLORFUL GUIDEBOOKS ON VIRGINIA NATIVE PLANTS FOR GARDENING, VISIT:

www.plantvirginianatives.org/

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

The Virginia Nursery and Landscape Association 5101 Monument Avenue, Suite 203 Richmond, VA 23230 804-256-2700 | info@vnla.org

SEARCH FOR NURSERIES BY SPECIES USING THE VNLA GROWERS GUIDE:

www.vnla.org/growers-guide/

LEARN MORE ABOUT VIRGINIA'S NATIVE PLANTS

See the Flora of Virginia, available as a book or an app: www.floraofvirginia.org/







WHAT ARE NATIVE PLANTS?

Native species evolved within specific regions and dispersed throughout their range without known human involvement. Native plants 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.

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 human activity. Over the millennia, 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 had once been accomplished by the winds and tides or by luckily hitchhiking on, or inside, far-ranging animals, began to take place more frequently through human travel. Species have moved into new ranges in higher numbers and at faster rates as trade and transportation expanded in the last few centuries.

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 North America since European colonization. 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, approximately 5,000 have naturalized and become established

outside cultivation. About 1,000 naturalized plant species have become invasive pests that interfere with agriculture, forestry, transportation and utility infrastructure, lawn and garden maintenance, and natural ecosystem processes. Of the 3,200 plant species in Virginia, more than 600, or 19 percent of our flora, have been introduced since the founding of Jamestown. The Virginia Department of Conservation and Recreation currently lists 90 of these species as invasive, following a rigorous risk assessment.

IMPACTS OF INVASIVE SPECIES

Invasive species are a major threat, second only to habitat destruction, to native plants and wildlife. They can reduce habitat and population size of native species, alter habitat structure and change ecosystem properties. Fifty-seven percent of plant species listed as threatened or endangered by the U.S. Fish and Wildlife Service are directly threatened by invasive species.

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.

Examples:

- 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.
- The invasive plant autumn olive (*Elaeagnus umbellata*) has the ability to fix nitrogen, allowing it to invade sites with nutrient-poor soils and displace native species.
- Tree-of-heaven (Ailanthus altissima) also grows rapidly and releases a chemical compound that suppresses the growth of other plant 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.

BY PLANTING NATIVES, YOU CAN:

- save time and money native plants often require less water, fertilizer and pesticides
- help birds and pollinator species, including butterflies and bees – native gardens provide sanctuaries for migratory birds as they journey between summer and winter habitats
- attract desirable wildlife, such as natural predators of the pests that harm plants in our gardens
- reduce the likelihood of introducing new invasive species
- create an outdoor classroom for children of all ages

BUYING AND GROWING NATIVE PLANTS

Purchasing native plants from specialty growers and nurseries is preferable to taking them from wild places. The collection of wild plants threatens the existence of native species by causing net losses in population size and genetic diversity.

Use local growers and nurseries that offer nursery-propagated native species, especially plants propagated from local populations. One of the greatest benefits of landscaping 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.

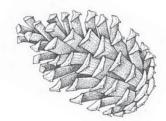
TIPS TO GET STARTED

- Use the list in this brochure to learn which plants grow in your region of Virginia.
- Study the minimum light and moisture requirements for each species, noting that some plants grow well under a variety of conditions.
- 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.
- For help in designing native plantings with combinations of species that would occur together naturally, 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. <u>Use the interactive native plant finder on DCR's website.</u>



Virginia Coastal Plain

Virginia's Coastal Plain extends from the sands of Virginia Beach west to the fall line, which marks its boundary with the Piedmont. Formed by marine sediments eroded from the Appalachian Highlands, the Coastal Plain varies in topography from north to south. In the north, the Northern Neck is somewhat hilly and well-drained. On the Middle Peninsula and Lower Peninsula, hills are less steep. South of the James River, the landscape levels off to about a 1-degree slope toward the ocean. In places, streams cut easily through the sands, gravels and clays to form well-developed ravine systems, and tidal rivers widen as the topography flattens. The Eastern Shore, separated from the mainland by the Chesapeake Bay, exhibits relatively little topography across the uplands extending from the Atlantic on the east to the bay on the west. From white sand beaches of the barrier islands, to tidal freshwater marshes, to blackwater swamps, to upland mixed hardwood and pine forests, the Coastal Plain has a diverse array of habitats for many native plant species.



Recommended Uses

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

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.
- ** May be subject to emerald ash borer infestation.

Zizania aquatica

Scientific Name	Common Name		Uses H C			ight P			isture M H
Herbs Achillea millefolium	common yarrow		•			•	•	•	
Actaea racemosa Ageratina altissima	black cohosh white snakeroot		•						•
Amsonia tabernaemontana Anemone quinquefolia	blue star wood anemone				•	•	•		
Aquilegia canadensis Arisaema triphyllum	wild columbine Jack-in-the-pulpit	•	•			•	•	•	•
Aruncus dioicus Asarum canadense+	goatsbeard wild ginger		•		•	•			•
Asclepias incarnata Asclepias syriaca+	swamp milkweed common milkweed	•				•	•		•
Asclepias tuberosa Baptisia tinctoria	butterfly weed yellow wild-indigo	•					•	•	
Bidens cernua+ Boltonia asteroides*	nodding beggar-ticks aster-like boltonia	•	•				•	•	•
Caltha palustris Chamaecrista fasciculata+	marsh marigold partridge pea		• •				•		
Chelone glabra Chrysogonum virginianum	white turtlehead green and gold				•	•			
Chrysopsis mariana Clitoria mariana	Maryland golden aster Maryland butterfly pea	•					•	•	
Conoclinium coelestinum Coreopsis tripteris	blue mistflower tall coreopsis	•					•		•
Coreopsis verticillata Desmodium paniculatum Equisetum hyemale	threadleaf coreopsis narrow-leaf tick trefoil horsetail		•			•	•	•	
Eupatorium perfoliatum Eutrochium fistulosum	common boneset hollow Joe-pye weed				•		•		
Helenium autumnale Helianthus angustifolius	common sneezeweed narrow-leaf sunflower						•		
Helianthus decapetalus Helianthus divaricatus	ten-petaled sunflower woodland sunflower						•		•
Heliopsis helianthoides Hepatica americana	oxeye sunflower round-lobed hepatica								
Heuchera americana Hibiscus moscheutos	alumroot Eastern rosemallow								•
Iris prismatica Iris virginica	slender blueflag Virginia blue flag								
Kosteletzkya pentacarpos Lespedeza capitata	seashore mallow round-head bush clover		•				•		•
Liatris pilosa var. pilosa Lilium superbum	grass-leaf blazing star Turk's cap lily	٠							
Lobelia cardinalis Lobelia siphilitica	cardinal flower						•		
Lupinus perennis Maianthemum racemosum	sundial lupine false Solomon's seal				•		•		•
Micranthes virginiensis Mimulus ringens	early saxifrage monkeyflower				•		•		
Monarda fistulosa Monarda punctata	wild bergamot horse-mint						•		•
Nymphaea odorata Oenothera fruticosa ssp. fruticosa	American water lily narrow-leaf sundrops	•					•		
Opuntia humifusa Packera aurea+	Eastern prickly-pear golden ragwort				•	•	•		
Peltandra virginica Penstemon laevigatus	arrow arum smooth beardtongue	•	•		•		•		
Phlox paniculata Podophyllum peltatum+	summer phlox mayapple	•					•		•
Polemonium reptans Polygonatum biflorum	Jacob's ladder Solomon's seal		•		•	•		•	•
Pontederia cordata Pycnanthemum incanum	pickerel weed hoary mountain mint	•	• •		•		•	•	•
Pycnanthemum tenuifolium Rhexia virginica	narrow-leaved mountain mint Virginia meadow-beauty	•	• •				•	•	•
Rudbeckia hirta Rudbeckia laciniata	black eyed Susan cut-leaved coneflower	•				•	•	•	•
Rudbeckia triloba Sagittaria latifolia	three-lobed coneflower broadleaf arrowhead	•					•		•
Salvia lyrata+ Sanguinaria canadensis	lyre-leaf sage bloodroot				•		•	•	•
Saururus cernuus Sedum ternatum Senna marilandica	lizard's tail wild stonecrop				•	•	•		
Selfila Manfandica Solidago caesia Solidago odora	Maryland wild senna bluestem goldenrod sweet goldenrod				•		•		•
Solidago odora Solidago pinetorum+ Solidago puberula	pineywoods goldenrod downy goldenrod	·	•			•	•	•	
Solidago rugosa+ Solidago sempervirens	rough-stemmed goldenrod seaside goldenrod					•		İ	
Symphyotrichum concolor Symphyotrichum cordifolium	Eastern silvery aster heart-leaved aster	•					•	•	
Symphyotrichum novi-belgii Symphyotrichum pilosum	New York aster frost aster	•				•	•		•
Thalictrum thalictroides Tradescantia virginiana+	rue anemone Virginia spiderwort						•		
Vernonia noveboracensis Viola cucullata	New York ironweed marsh blue violet						•		•
Viola pedata Yucca filamentosa	bird's foot violet common yucca	•	•			•	•		
Zephyranthes atamasco Ferns & Fern Allies	Atamasco lily					•	•		• •
Adiantum pedatum	northern maidenhair fern				•				
Asplenium platyneuron Athyrium asplenioides	ebony spleenwort Southern ladyfern		•		•	•			
Botrypus virginianus Dennstaedtia punctilobula+	rattlesnake fern hay-scented fern				•	•	•		•
Dryopteris intermedia Onoclea sensibilis+	evergreen wood-fern sensitive fern								
Osmundastrum cinnamomeum Osmunda spectabilis	cinnamon fern royal fern				•	•			
Polystichum acrostichoides Thelypteris palustris	Christmas fern marsh fern				•				
Woodwardia virginica+	Virginia chain fern		•		•				
Grasses, Sedges & Ro Agrostis perennans	ushes autumn bentgrass		•				•	•	
Andropogon glomeratus Andropogon virginicus	bushy bluestem broomsedge					•	•		
Arundinaria tecta Carex crinita	switch cane long hair sedge	•			•	•	•		
Carex lurida Carex pensylvanica	sallow sedge Pennsylvania sedge					•	•		
Carex pensylvanica Carex stricta Chasmanthium latifolium+	tussock sedge river oats, spanglegrass	•				•	•		•
Danthonia sericea	silky oatgrass	•	•			•	•	•	•
Danthonia spicata Dichanthelium clandestinum	poverty oatgrass deer-tongue	•	•	•	•	•	•	•	•
Dichanthelium commutatum Dulichium arundinaceum	variable panicgrass three-way sedge	•	• •	•	•		•	•	•
Elymus hystrix Elymus virginicus	bottlebrush grass Virginia wild rye	•	•		•	•	•	•	•
Erianthus giganteus Juncus canadensis	giant plumegrass Canada rush	•	• •				•		
Juncus effusus Leersia oryzoides	soft rush rice cutgrass		•				•		
Panicum amarum Panicum virgatum	beach panic grass switch grass					•			
Schizachyrium scoparium Scirpus cyperinus	little bluestem woolgrass bulrush						•		
Sorghastrum nutans Sparganium americanum	Indian grass American bur-reed						•		
Tridens flavus Tripsacum dactyloides	tall redtop						•		
Typha latifolia	broad-leaved cattail		•				•		

Scientific Name	Common Name	\ \ \	Us ⊔	es C D	L	igh	t	Мо	istu N 4	ire
Vines		VV		CD	3	P	Г	L	IVI	
Bignonia capreolata Campsis radicans	crossvine trumpet creeper	•			•	•			•	•
Celastrus scandens	climbing bittersweet	•	•		•	•	•		•	
Clematis virginiana Decumaria barbara	virgin's bower climbing hydrangea		•	•	•	•	•		•	•
Gelsemium sempervirens Lonicera sempervirens	Carolina jasmine trumpet honeysuckle	•	•	•	•	•	•	•	•	•
Parthenocissus quinquefolia Passiflora incarnata	Virginia creeper purple passionflower	•	•	•		•	•	•	•	
Wisteria frutescens Shrub & Small Trees	Atlantic wisteria		•			•	•		•	•
Alnus serrulata	hazel alder	•		•	•	•				•
Aronia arbutifolia Aronia melanocarpa	red chokeberry black chokeberry		•	•	•	•		•	•	•
Baccharis halimifolia Callicarpa americana	high tide bush American beautyberry		•	•			•	•	•	•
Castanea pumila Ceanothus americanus	Allegheny chinkapin New Jersey tea	•	•		•		•	•		
Cephalanthus occidentalis Clethra alnifolia	buttonbush sweet pepper-bush					•	•			•
Cornus amomum	silky dogwood cockspur hawthorn	•		•	•	•			•	•
Crataegus crus-galli Eubotrys racemosus	fetterbush	•	•	•		•	•	•	•	
Euonymus americanus Gaultheria procumbens	American strawberry-bush wintergreen	•	•		•	•		•	•	
Gaylussacia baccata Gaylussacia frondosa	black huckleberry dangleberry	•	•	•	•	•	•	•	•	
Hamamelis virginiana Hydrangea arborescens	witch hazel wild hydrangea		•	•	•	•		•	•	
llex decidua llex glabra	deciduous holly inkberry							•		
llex verticillata llex vomitoria	winterberry yaupon holly							•	•	•
Itea virginica Iva frutescens	Virginia willow marsh elder		•		•		•			•
Kalmia latifolia	mountain laurel	•	•	•	•		•	•	•	
Leucothoe axillaris Lindera benzoin	coastal dog-hobble spicebush	•	•		•					
Lyonia lucida Morella caroliniensis	shining fetterbush Southern bayberry		•	•	•	•			•	
Morella cerifera Morella pensylvanica	Southern wax myrtle Northern bayberry	•	•	•	•	•		•	•	•
Rhododendron atlanticum Rhododendron periclymenoides	dwarf azalea pinxter flower	•	•		•	•			•	
Rhododendron viscosum Rhus copallinum	swamp azalea winged sumac		•	•	•	•	•		•	•
Rosa carolina Salix humilis	pasture rose prairie willow	•		•		•	•	•	•	
Salix sericea	silky willow		•	•		•	•		•	
Sambucus canadensis Stewartia malacodendron*	common elderberry silky camelia	•	•	•	•	•	•		•	•
Vaccinium corymbosum Vaccinium stamineum	highbush blueberry deerberry	•	•	•	•	•	•	•	•	•
Viburnum dentatum Viburnum nudum	Southern arrow-wood viburnum possum-haw viburnum	٠	•	•	•	•	•	•	•	•
Viburnum prunifolium Medium Trees	black-haw viburnum	•	•	•		•	•		•	
Amelanchier arborea	downy serviceberry	•		•						
Amelanchier canadensis Aralia spinosa	Canada serviceberry devil's walkingstick	•	•	•			•		•	•
Asimina triloba Carpinus caroliniana	paw paw American hornbeam	•	•	•	•	•			•	
Cercis canadensis Chionanthus virginicus**	Eastern redbud fringetree			•	•					
Cornus florida Crataegus viridis	flowering dogwood green hawthorn	•			•			•		
llex opaca	American holly		•	•	•		i		•	
Magnolia virginiana Morus rubra	sweetbay magnolia red mulberry	•	•	•	•	•			•	•
Ostrya virginiana Persea palustris	Eastern hop-hornbeam redbay			•	•	•				•
Prunus americana Rhus glabra	American wild plum smooth sumac	•		•		•	•	•		
Rhus typhina Salix nigra	staghorn sumac black willow	•	•	•		•		•	•	•
Viburnum rufidulum	rusty blackhaw	•	•			•			•	
Large Trees Acer negundo	Eastern boxelder	•								
Acer rubrum Betula nigra	red maple river birch			•					•	•
Carya cordiformis Carya glabra	bitternut hickory pignut hickory				•		•		•	•
Carya ovata Carya tomentosa	shagbark hickory mockernut hickory						•			
Chamaecyparis thyoides*	Atlantic white cedar	•	•		•	•			•	•
Diospyros virginiana Fagus grandifolia Fravirus americana**	persimmon American beech	•	•	•	•	•	•	•	•	
Fraxinus americana** Fraxinus pensylvanica**	white ash green ash	•	•	•		•	•		•	
Juglans nigra Juniperus virginiana	black walnut Eastern red cedar	•	•	•		•	•	•	•	
Liquidambar styraciflua Liriodendron tulipifera	sweetgum tulip poplar	•		•		•			•	•
Nyssa aquatica Nyssa sylvatica	water tupelo black gum									•
Oxydendrum arboreum Pinus echinata	sourwood shortleaf pine							•		
Pinus serotina Pinus strobus	pond pine white pine	•								•
Pinus taeda	loblolly pine							•		
Pinus virginiana Platanus occidentalis	Virginia pine sycamore			•				•		
Prunus serotina Quercus alba	wild black cherry white oak	•		•		•	•	•		
Quercus bicolor Quercus coccinea	swamp white oak scarlet oak	•		•	•	•		•		•
Quercus falcata Quercus laurifolia	Southern red oak swamp laurel oak	•	•	•	•	•		•	•	•
Quercus michauxii Quercus montana	swamp chestnut oak chestnut oak	•	•				•	•		•
Quercus muehlenbergii Quercus nigra	chinkapin oak water oak					•	•	•		
Quercus palustris	pin oak	•	•	•	•	•			•	•
Quercus phellos Quercus rubra	Willow oak Northern red oak	•	•	•		•	•	•	•	•
Quercus stellata Quercus velutina	post oak black oak	•	•	•	•	•	•	•		
Quercus virginiana Robinia pseudoacacia	live oak black locust	•	•	•		•	•		•	
Sassafras albidum Taxodium distichum	sassafras bald cypress		•	•		•	•	•	•	•
Tilia americana	American basswood		_	•		•	_		•	