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

Virainia 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

Virainia 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/

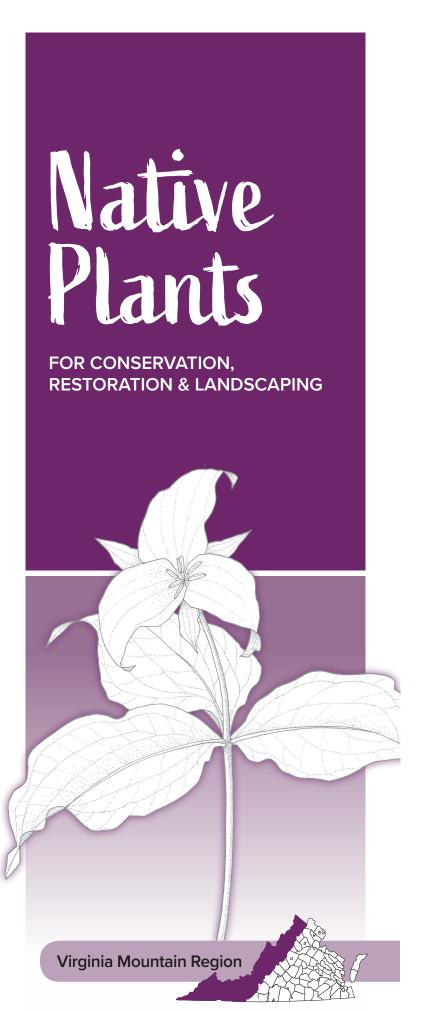
LEARN MORE ABOUT VIRGINIA'S NATIVE PLANTS

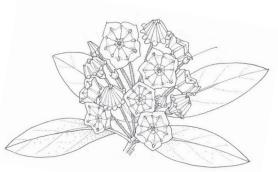
See the Flora of Virginia, available as a book or an app: www.floraofvirginia.org/











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

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
- 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. Use the interactive native plant finder on DCR's website.



Virginia Mountain Region

The Mountain region is comprised of three physiographic provinces: Blue Ridge, Ridge and Valley, and Appalachian Plateau. The Blue Ridge Mountains are a wedge of ancient rocks that were uplifted over younger rocks when the Appalachian Mountains were formed. Occurring as a narrow ridge of peaks in the north, the Blue Ridge widens south of Roanoke Gap into a broad plateau topped by the highest peak in Virginia, Mount Rogers, rising 5,728 feet above sea level. The Ridge and Valley Province is characterized by long, even-crested, parallel ridges rising above intervening valleys, including the Great Valley of Virginia. The Appalachian Plateau Province in southwestern Virginia is a high, dissected plateau of nearly horizontal rock layers. The rugged, mountainous topography was created by streams cutting deeply into the plateau, forming an intricate network of narrow, steep valleys. The diverse landscape of this region supports a rich array of natural communities, ranging from rocky barrens in the Blue Ridge to mixed woodlands and sinkhole ponds in the Ridge and Valley.

Recommended Uses

W = Wildlife

 \mathbf{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.

Scientific Name	Common Name	W	H	es C D	S	<i>Igh</i> P	t F	L	M M	ire -
Herbs Achillea millefolium	common yarrow					•	•			
Actaea racemosa Ageratina altissima	black cohosh white snakeroot		•							
Anemone quinquefolia Antennaria neglecta	wood anemone field pussytoes				•	•	•			
Aquilegia canadensis Arisaema triphyllum	wild columbine Jack-in-the-pulpit					•	•	•		
Aruncus dioicus Asarum canadense+	goatsbeard wild ginger					•				
Asclepias incarnata Asclepias syriaca+	swamp milkweed					•				•
Asclepias tuberosa Baptisia australis*	butterfly weed blue wild indigo			•				•		
Baptisia dastralis Baptisia tinctoria Bidens cernua+	yellow wild-indigo nodding beggar-ticks									
Caltha palustris Chamaecrista fasciculata+	marsh marigold partridge pea		•			•				•
Chelone glabra Chrysogonum virginianum	white turtlehead green and gold			•		•			Ì	•
Chrysopsis mariana Clitoria mariana	Maryland golden aster Maryland butterfly pea	•	•			•	•			
Conoclinium coelestinum	blue mistflower	•		:		:	•	i		
Convallaria majuscula Coreopsis tripteris Coreopsis verticillata	American lily-of-the-valley tall coreopsis threadleaf coreopsis		•	•	٠	•	•		•	
Delphinium tricorne	dwarf larkspur			•	•		•	i	•	
Dicentra cucullaria Dicentra eximia	Dutchman's breeches wild bleeding heart				٠	•	•		i	
Dodecatheon meadia Equisetum hyemale	shooting star horsetail		•	•						•
Eupatorium perfoliatum Eurybia divaricata	common boneset white wood aster		•	•						•
Eutrochium fistulosum Geranium maculatum	hollow Joe-pye weed wild geranium			•						•
Gillenia trifoliata Helenium autumnale	bowman's root sneezeweed				٠					
Helianthus decapetalus Helianthus divaricatus	ten-petaled sunflower woodland sunflower									
Heliopsis helianthoides Heuchera americana	oxeye sunflower						٠			
Hibiscus moscheutos Iris cristata	Eastern rosemallow dwarf crested iris									
Lespedeza capitata	round-head bush clover									
Liatris pilosa var. pilosa Liatris spicata	grass-leaf blazing star spiked blazing star						•	•	•	
Lilium canadense Lilium philadelphicum	Canada lily wood lily					•			٠	•
Lilium superbum Lobelia cardinalis	Turk's cap lily cardinal flower					•	•		•	•
Lobelia siphilitica Lupinus perennis	great blue lobelia sundial lupine		•	•	•					•
Maianthemum racemosum Mertensia virginica	false Solomon's seal Virginia bluebells			•						
Mimulus ringens Monarda didyma	monkeyflower bee balm	١.					•			•
Monarda fistulosa Nymphaea odorata	wild bergamot American water lily					•			•	
Oenothera fruticosa	sundrops golden ragwort	•	•	•					•	
Packera aurea+ Penstemon canescens	gray beardtongue	·	•	•		•			•	•
Penstemon digitalis Penstemon laevigatus	foxglove beardtongue smooth beardtongue	·						٠		•
Phlox divaricata Phlox paniculata	woodland phlox summer phlox			•				٠		
Phlox stolonifera Phlox subulata	creeping phlox moss phlox			•	•	•			•	
Physostegia virginiana+ Polemonium reptans	obedient plant Jacob's ladder				•		•			
Polygonatum biflorum Pycnanthemum tenuifolium	Solomon's seal narrow-leaved mountain mint									
Rhexia virginica Rudbeckia hirta	Virginia meadow-beauty black eyed Susan	٠								
Rudbeckia triloba Sagittaria latifolia	three-lobed coneflower broadleaf arrowhead									
Salvia lyrata+ Sanguinaria canadensis	lyre-leaf sage bloodroot			•			•			
Saururus cernuus	lizard's tail	Г								
Sedum ternatum Senna marilandica	wild stonecrop Maryland wild senna	Г			٠					
Silene virginica Silphium perfoliatum	fire pink cup plant		•					•	•	
Solidago caesia Solidago odora	bluestem goldenrod sweet goldenrod				٠				•	
Solidago puberula Solidago rugosa+	downy goldenrod rough-stemmed goldenrod		•				•	•		
Symphyotrichum cordifolium Symphyotrichum laeve	heart-leaved aster smooth blue aster			•		•			•	
Symphyotrichum novae-angliae Thalictrum dioicum	New England aster early meadowrue			•		•	•	•		
Thalictrum thalictroides Tiarella cordifolia	rue anemone foamflower									
Tradescantia virginiana+ Trillium erectum	Virginia spiderwort wakerobin		•	•	•	•	•		•	
Trillium grandiflorum	white trillium									
Uvularia grandiflora Verbena hastata	bellwort blue vervain	•	•		٠	•	•			•
Vernonia noveboracensis Veronicastrum virginicum	New York ironweed Culver's root	·		•			•	•	•	
Viola pedata Viola pubescens	bird's foot violet yellow violet						•	•	•	
Yucca filamentosa Ferns & Fern Allies	common yucca					لبرا	•	٠		
Adiantum pedatum	maidenhair fern				٠					1
Athyrium asplenioides Botrypus virginianus	Southern ladyfern rattlesnake fern			•						•
Dennstaedtia punctilobula+ Dryopteris intermedia	hay-scented fern evergreen wood-fern						•			
Dryopteris marginalis Onoclea sensibilis+	marginal shield-fern sensitive fern				•					
Osmundastrum cinnamomeum Polystichum acrostichoides	cinnamon fern Christmas fern					•				
Thelypteris palustris	marsh fern					·	·			
Grasses, Sedges & R	ushes autumn bentgrass									
Agrosus perennans Andropogon gerardii Andropogon glomeratus	big bluestem bushy bluestem	٠						·		
Andropogon giomeratus Andropogon virginicus Arundinaria gigantea	broomsedge			:						
Calamagrostis canadensis	wild cane bluejoint reedgrass			•	•	•	•			
Carex crinita Carex lurida	long hair sedge sallow sedge		•	•		•	•		•	•
Carex pensylvanica Carex plantaginea	Pennsylvania sedge plantain-leaved sedge	•		•		•	•	•		
Carex stricta	tussock sedge river oats, spanglegrass	•		•						•
Chasmanthium latifolium+	silky oatgrass			•		•	•			
Danthonia sericea				•		•	•	1.5		
Danthonia sericea Danthonia spicata Dichanthelium clandestinum	poverty oatgrass deer-tongue	•				•	•	•	•	•
Danthonia sericea Danthonia spicata Dichanthelium clandestinum Dichanthelium commutatum Dulichium arundinaceum	poverty oatgrass deer-tongue variable panicgrass three-way sedge		•			•			•	
Danthonia sericea Danthonia spicata Dichanthelium clandestinum Dichanthelium commutatum	poverty oatgrass deer-tongue variable panicgrass					•	•	•		

Schizachyrium scoparium	Common Name little bluestem	W •	H	c C	D •		igh P	F	L	oistu M •	
Scirpus cyperinus Sorghastrum nutans	woolgrass bulrush Indian grass										•
Tridens flavus Tripsacum dactyloides	redtop gama grass								٠		
Typha latifolia Vines	broad-leaved cattail	٠								•	
Bignonia capreolata	crossvine	ŀ				٠				·	
Celastrus scandens Clematis virginiana	climbing bittersweet virgin's bower	•	•			٠	•	•		•	
Lonicera sempervirens Parthenocissus quinquefolia	trumpet honeysuckle Virginia creeper		•	•			•			•	
Shrubs & Small Tree											
Acer pensylvanicum Alnus serrulata	striped maple hazel alder	•	•	•		•	•	•		•	•
Aronia arbutifolia Aronia melanocarpa	red chokeberry black chokeberry		•	•		٠	•	•	•	•	
Castanea pumila Ceanothus americanus	Allegheny chinkapin New Jersey tea	•	•	•		٠	•	•	•		
Cephalanthus occidentalis Comptonia peregrina	buttonbush sweet fern	•	•	•				·	•		•
Cornus amomum Crataegus crus-galli	silky dogwood cockspur hawthorn	•	•	•		٠	•	•	•	•	•
Eubotrys racemosa Euonymus americanus	fetterbush American strawberry-bush	•	•	•			•	•			
Gaultheria procumbens Gaylussacia baccata	wintergreen black huckleberry	•	•	•		•			•	•	
Gaylussacia frondosa Hamamelis virginiana	dangleberry witch hazel	·	•	•				•			
Hydrangea arborescens Hypericum prolificum	wild hydrangea shrubby St. Johnswort	•	•								
llex verticillata Kalmia latifolia	winterberry mountain laurel	•	•	•		•		•			•
Lindera benzoin Physocarpus opulifolius	spicebush ninebark		•	•			•		•	•	•
Pieris floribunda Ptelea trifoliata	evergreen mountain fetterbush hop tree			٠			•		•		•
Rhododendron calendulaceum Rhododendron catawbiense	flame azalea Catawba rhododendron		•	•				•			
Rhododendron cumberlandense Rhododendron maximum	Cumberland flame azalea great rhododendron		•	•		•					•
Rhododendron periclymenoides Rhododendron prinophyllum	pinxter flower rose azalea			٠							٠
Rhododendron viscosum Rhus aromatica	swamp azalea fragrant sumac			•						٠	
Rhus copallinum Ribes rotundifolium	winged sumac Appalachian gooseberry			٠		٠					
Rosa carolina Rubus allegheniensis	pasture rose Alleghany blackberry		•				•			•	
Rubus odoratus Salix humilis	purple flowering raspberry prairie willow						٠			٠	
Salix sericea Sambucus canadensis	silky willow common elderberry						٠				
Spiraea alba Spiraea latifolia	narrow-leaved meadowsweet broad-leaved meadowsweet										
Staphylea trifolia Vaccinium angustifolium	bladdernut Northern lowbush blueberry					٠				٠	
Vaccinium corymbosum Viburnum dentatum	highbush blueberry Southern arrow-wood viburnum					٠					٠
Viburnum nudum Viburnum prunifolium	possum-haw viburnum black-haw viburnum					٠					٠
Medium Trees	Didet Haw Visamani										
Amelanchier arborea Amelanchier canadensis	downy serviceberry Canada serviceberry		•	•			•				
Amelanchier laevis Asimina triloba	smooth serviceberry paw paw		•	•				•	•		
Carpinus caroliniana Cercis canadensis	American hornbeam Eastern redbud	•	•					•			
Chionanthus virginicus ** Cornus alternifolia	fringetree alternate-leaf dogwood	١.						•			
Cornus florida Crataegus viridis	flowering dogwood green hawthorn					•			•		
Halesia tetraptera Ilex opaca	common silverbell American holly	١.					•	•			
Morus rubra Ostrya virginiana	red mulberry Eastern hop-hornbeam	•	•	•							
Prunus americana Prunus virginiana	American wild plum choke cherry	١.	•								
Rhus glabra Rhus typhina	smooth sumac staghorn sumac						i				
Salix nigra Viburnum lentago	black willow nannyberry	ļ.						•	i	•	•
Large Trees	namyberry		Ì				Ì	Ì		İ	
Acer negundo Acer rubrum	Eastern boxelder red maple	ŀ	·					•		·	
Acer saccharum Aesculus flava	sugar maple yellow buckeye			•							
Betula alleghaniensis Betula lenta	yellow birch sweet birch	·									
Betula nigra Carya cordiformis	river birch bitternut hickory						•				
Carya glabra Diospyros virginiana	pignut hickory persimmon										
Fagus grandifolia Fraxinus americana **	American beech white ash		•	·							
Fraxinus pensylvanica **	green ash black walnut		:								
Juglans nigra Juniperus virginiana	Eastern red cedar			•							
Liquidambar styraciflua Liriodendron tulipifera	sweetgum tulip poplar					٠	•				٠
Magnolia acuminata Nyssa sylvatica	cucumber magnolia black gum										
Oxydendrum arboreum Picea rubens	sourwood red spruce		•				:				
Pinus echinata Pinus rigida	shortleaf pine pitch pine		•				•				
Pinus strobus Platanus occidentalis	white pine sycamore		•	•					٠		
	pin cherry wild black cherry			•			•	•	•		
Prunus pensylvanica			•					•	•		
Prunus pensylvanica Prunus serotina Quercus alba Quercus bicolor	white oak swamp white oak	_							•		
Prunus pensylvanica Prunus serotina Quercus alba Quercus bicolor Quercus coccinea Quercus falcata	swamp white oak scarlet oak Southern red oak		•						٠		
Prunus pensylvanica Prunus serotina Quercus alba Quercus bicolor Quercus coccinea Quercus falcata Quercus ilicifolia	swamp white oak scarlet oak							•			
Prunus pensylvanica Prunus serotina Quercus alba Quercus bicolor Quercus coccinea Quercus falcata Quercus ilicifolia Quercus montana Quercus muehlenbergii	swamp white oak scarlet oak Southern red oak bear oak			•							
Prunus pensylvanica Prunus serotina Quercus alba Quercus bicolor Quercus coccinea Quercus falcata Quercus ilicifolia Quercus montana Quercus muehlenbergii Quercus palustris Quercus rubra	swamp white oak scarlet oak Southern red oak bear oak chestnut oak chinkapin oak		•	•				•		•	
Prunus pensylvanica Prunus serotina Quercus alba Quercus bicolor Quercus coccinea Quercus falcata Quercus ilicifolia Quercus montana Quercus muehlenbergii Quercus palustris Quercus rubra Quercus stellata Quercus velutina	swamp white oak scarlet oak Southern red oak bear oak chestnut oak chinkapin oak pin oak Northern red oak post oak black oak									•	
Prunus pensylvanica Prunus pensylvanica Prunus serotina Quercus alba Quercus bicolor Quercus coccinea Quercus falcata Quercus ilicifolia Quercus montana Quercus muehlenbergii Quercus palustris Quercus rubra Quercus stellata Quercus velutina Robinia pseudoacacia Sassafras albidum Thuja occidentalis	swamp white oak scarlet oak Southern red oak bear oak chestnut oak chinkapin oak pin oak Northern red oak post oak										

