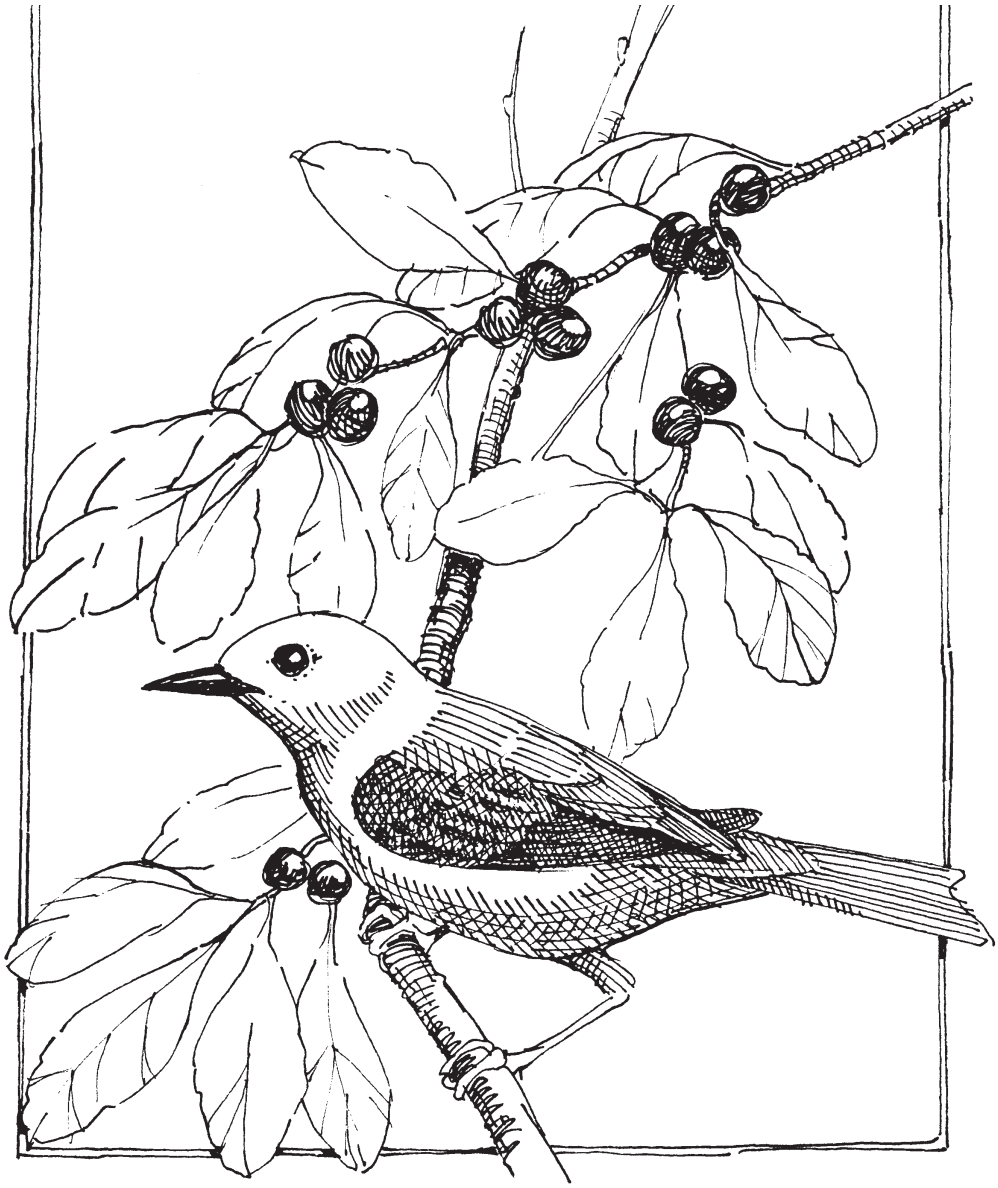


Landscaping WITH *Native Plants*

Tennessee

Promoting Biodiversity

Endorsing a Land Ethic that Celebrates Our Natural Heritage

Preserving our natural heritage

The natural processes from which native species evolve represent the cog and wheel of a healthy ecosystem sustained by a complex web of biological diversity. Native plants have many inherent qualities and adaptive traits that make them aesthetically pleasing, practical, and ecologically valuable for landscaping.

Using native plants contributes to the health and often the restoration of an ecosystem. Landscaping with natives in an urban setting helps restore regional character and places fewer demands on resources.

What are natives and exotics?

Natives are species that naturally occur in a region, are indigenous, and have evolved over geologic time. They are distributed across the landscape largely in response to climatic episodes and adaptation to site conditions related to land formation. Native plants are generally defined as plants that occurred in North America before European settlement.

Exotics are species that are directly or indirectly, deliberately or accidentally, introduced by human action. Exotic plants are also referred to as alien or non-native to a region.

Natives vs. exotics

While many exotics are harmless, others pose serious threats to biodiversity. Invasive exotics that escape, invade and naturalize can change the composition of native plant communities. Invasive exotics out-compete and displace natives. They can be vectors for damaging diseases and exotic insects.

Basics about using natives

When landscaping with natives, match the right plants with the right site conditions in your region of the state. Many resources are available for further research to provide more specific information on culture requirements. Consider using plants that occur together in their natural habitats. Visit a natural area and observe where plants grow best and design your landscape accordingly.

Don't dig plants from the wild.

Buy nursery-propagated plant material.

Benefits of natives

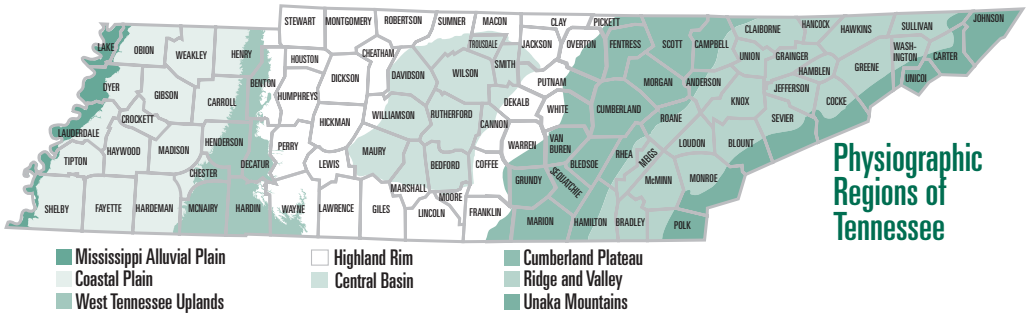
- Adapted to regional conditions, may require less maintenance and are cost-effective.
- Hardy, withstand extreme winter cold, do not suffer from die back.
- Environmentally friendly, require fewer pesticides and fertilizers because of natural adaptations.
- Promote biodiversity and stewardship.
- Provide food and shelter for native wildlife.
- Restore regional landscapes.
- Prevent future invasive exotic introductions.

Natives for wildlife

Using natives in landscaping helps sustain native butterflies, moths and other beneficial insects, native birds, reptiles, mammals, and other fauna. Fall migrating birds depend on high-energy fruits from flowering dogwood and spicebush. Spring migrants feed on insects that occur on oak trees. Beech and other native trees provide nesting habitat, while Eastern red cedar, Virginia pine, and American holly provide winter cover and food.

Physiographic regions of Tennessee

WEST TENNESSEE comprises the Mississippi Alluvial Plain, Coastal Plain and West Tennessee Uplands. The majority of this region is Coastal Plain with soils that are derived from late seabed deposits of the Mississippi Embayment, fine glacial rock dust (loess), and river depositions of eroded materials. The largely flat to rolling topography lies between the Western uplands to the east and the Chickasaw Bluffs above the Mississippi River floodplain. Tupelo and bald cypress swamps, oak dominated bottomland hardwood forests, open forests with grasses, richly diverse forests in protected ravines, and upland oak-hickory forests or heath-shrub plant communities are common. Soils vary from basic to acidic and from sandy to clayey.



MIDDLE TENNESSEE includes the uniquely different Central Basin and the Highland Rim. The Central Basin has eroded down into limestone rock deposited 400 million years ago, and the soils are neutral to alkaline. Rare cedar glades occupy thin soil and poorly drained limestone outcrops that are wet in the winter and dry in the summer creating harsh habitat conditions. The Highland Rim is still in the process of eroding and the hills are well-drained and more acidic. Unique barren communities occur in open grassy areas. Diverse rich, mesic forests occur on north facing slopes, dry upland sites support oak/hickory forests, and floodplains and swampy areas support plants that can tolerate "wet feet."

EAST TENNESSEE includes the Unaka Mountains, the Ridge and Valley, and the Cumberland Plateau and Mountains. This region shows the profound influence of continental collisions. The varied landscape supports a mosaic of native plant communities. Drier, high elevations in the Unaka Mountains (Blue Ridge) and Cumberland Mountains and Cumberland Plateau have very acidic soils that support pines, mountain laurel, blueberries, and hickories. The Ridge and Valley is less acidic with some areas of limestone. Diverse rich, mesic forests are found on northern slopes with hemlock, sugar maple, and tulip poplar. Flood tolerant species like sycamore, birches and ironwood occupy drainages, floodplains, and upland swamps.

For more information

Tennessee Dept. of Environment and Conservation (TDEC)
Bureau of State Parks, Resource Management Division
401 Church Street, 7th Floor L&C Annex, Nashville TN 37243-0447
615/532-0431 • www.tn.gov/environment

Tennessee Exotic Pest Plant Council (TN-EPPC)
P.O. Box 936, Fairview TN 37052
www.tneppc.org

Tennessee Native Plant Society
P.O. Box 159274, Nashville TN 37215
www.tnps.org

University of Tennessee Herbarium
www.tenn.bio.utk.edu
(Nomenclature source)

Original text by Warner Park Nature Center and TDEC/Division of Natural Heritage; 2009 revisions by TDEC and TN-EPPC

Brochure made possible by TN-EPPC and State of Tennessee

Design by Armour&Armour Environmental Marketing

Tennessee Department of Environment and Conservation, Authorization No. 327223 @.09 per copy, February 2010.

0210

Recommendations for native plants

KEY

SOIL MOISTURE
H = hydric; wet, plants periodically or often inundated by water
M = mesic; moist, adequate soil moisture retention year-round
S = sub-xeric; moist to dry, seasonally moist, periodically dry
X = xeric; dry & drought resistant, little moisture retention, excessively drained

LIGHT
F = full sunlight
P = partial shade
S = shade

SOIL pH
B = basic; prefers limestone
A = acidic; prefers acidic soils

RD = Regional Distribution
East, Middle, West
Statewide unless indicated
spp. = More than one species

COMMON NAME	SCIENTIFIC NAME	RD	LIGHT			MOISTURE				SOIL pH	
SMALL TREES			F	P	S	H	M	S	X	B	A
Serviceberry	*Amelanchier arborea, A. laevis*		●	●	●			●	●		●
Hercules club	*Aralia spinosa*		●	●				●	●		
Pawpaw	*Asimina triloba*			●	●		●				
Ironwood	*Carpinus caroliniana*			●	●	●	●				
Redbud	*Cercis canadensis*		●	●			●	●	●		
Fringe tree	*Chionanthus virginicus*	E,M		●	●		●	●			●
Alternate leaf dogwood	*Cornus alternifolia*	E,M		●	●		●	●			●
Roughleaf dogwood	*Cornus drummondii*	M,W	●	●				●	●	●	
Flowering dogwood	*Cornus florida*		●	●	●		●	●			
Hawthorn	*Crataegus* spp.		●	●			●	●	●		
Wahoo	*Euonymus atropurpureus*		●	●			●	●		●	
Carolina Silverbell	*Halesia tetraptera*	E		●	●		●	●			●
Witch-hazel	*Hamamelis virginiana*	E,M		●	●		●	●			●
American holly	*Ilex opaca*			●	●		●	●	●		●
Sweetbay magnolia	*Magnolia virginiana*	E,W		●	●	●	●	●			●
American, Chicksaw plum	*Prunus americana, P. angustifolia*		●	●			●	●	●		
Hoptree	*Ptelea trifoliata*	E,M	●	●	●		●	●	●		
Carolina buckthorn	*Rhamnus caroliniana*			●	●			●	●	●	
Winged, Smooth, Staghorn sumac	*Rhus copallinum, R. glabra, R. typhina*		●	●				●	●		
Blackhaw, Rusty blackhaw	*Viburnum prunifolium, V. rufidulum*		●	●	●		●	●	●		

Recommendations for native plants

KEY

SOIL MOISTURE
H = hydric; wet, plants periodically or often inundated by water
M = mesic; moist, adequate soil moisture retention year-round
S = sub-xeric; moist to dry, seasonally moist, periodically dry
X = xeric; dry & drought resistant, little moisture retention, excessively drained

LIGHT
F = full sunlight
P = partial shade
S = shade

SOIL pH
B = basic; prefers limestone
A = acidic; prefers acidic soils

RD = Regional Distribution
East, Middle, West
Statewide unless indicated
spp. = More than one species

COMMON NAME	SCIENTIFIC NAME	RD	LIGHT			MOISTURE				SOIL pH	
TREES			F	P	S	H	M	S	X	B	A
Red maple	*Acer rubrum*		●	●		●	●	●			
Sugar maple	*Acer saccharum*			●	●		●	●			●
Yellow, Ohio buckeye	*Aesculus flava, A. glabra*	E,M		●	●		●	●			●
Sweet birch	*Betula lenta*	E	●	●			●	●			●
River birch	*Betula nigra*		●	●		●	●				●
Pecan	*Carya illinoinensis*	W	●	●			●	●			
Pignut, Shagbark, Mockernut hickory	*Carya glabra, C. ovata, C. tomentosa*		●	●			●	●	●		
Northern catalpa	*Catalpa speciosa*	W	●	●		●	●	●			
Yellow wood	*Cladrastis kentukea*		●	●	●		●	●		●	
Persimmon	*Diospyros virginiana*		●	●			●	●			
American beech	*Fagus grandifolia*			●	●		●	●			●
White, Green ash	*Fraxinus americana, F. pennsylvanica*		●	●	●		●	●			
Blue ash	*Fraxinus quadrangulata*	E,M	●	●	●		●	●			
Kentucky coffeetree	*Gymnocladus dioicus*		●	●	●		●	●		●	
Black walnut	*Juglans nigra*		●	●			●	●		●	
Red cedar	*Juniperus virginiana*		●	●				●	●		
Sweetgum	*Liquidambar styraciflua*		●	●		●	●	●	●		●
Tulip poplar	*Liriodendron tulipifera*		●	●			●	●			
Cucumbertree	*Magnolia acuminata*	E,M	●	●			●	●			
Red mulberrry	*Morus rubra*		●	●			●	●	●		
Blackgum	*Nyssa sylvatica*		●	●	●		●	●	●		●
Hophornbeam	*Ostrya virginiana*			●	●		●	●		●	
Sourwood	*Oxydendrum arboreum*	E,M	●	●				●	●		●
Shortleaf, Virginia pine	*Pinus echinata, P. virginiana*	E,M	●	●				●	●		
White pine	*Pinus strobus*	E	●				●	●			
Sycamore	*Platanus occidentalis*		●	●		●	●			●	
Eastern cottonwood	*Populus deltoides*		●	●		●	●				
Black cherry	*Prunus serotina*		●	●			●	●			
White, Scarlet oak	*Quercus alba, Q. coccinea*		●	●			●	●	●		
Southern red, Post, Black oak	*Quercus falcata, Q. stellata, Q. velutina*		●					●	●		
Swamp white, Shingle oak	*Quercus bicolor, Q. imbricaria*		●	●			●	●			
Overcup, Water, Pin oak	*Quercus lyrata, Q. nigra, Q. palustris*		●			●	●	●			
Bur oak	*Quercus macrocarpa*	M,W	●					●	●	●	
Chestnut, Chinkapin oak	*Quercus montana, Q. muhlenbergii*		●	●			●	●	●		
Cherrybark oak	*Quercus pagoda*	W	●	●		●	●				
Willow, Northern Red, Shumard oak	*Quercus phellos, Q. rubra, Q. shumardii*		●	●			●	●			
Carolina, Black willow	*Salix caroliniana, S. nigra*		●	●		●				●	
Sassafras	*Sassafras albidum*		●	●			●	●	●		●
Bald cypress	*Taxodium distichum*	W	●	●		●	●				●
American basswood	*Tilia americana*		●	●			●	●		●	

Recommendations for native plants

KEY

SOIL MOISTURE
H = hydric; wet, plants periodically or often inundated by water
M = mesic; moist, adequate soil moisture retention year-round
S = sub-xeric; moist to dry, seasonally moist, periodically dry
X = xeric; dry & drought resistant, little moisture retention, excessively drained

LIGHT
F = full sunlight
P = partial shade
S = shade

SOIL pH
B = basic; prefers limestone
A = acidic; prefers acidic soils

RD = Regional Distribution
East, Middle, West
Statewide unless indicated
spp. = More than one species

COMMON NAME	SCIENTIFIC NAME	RD	LIGHT			MOISTURE				SOIL pH	
SHRUBS			F	P	S	H	M	S	X	B	A
Indigobush	*Amorpha fruticosa*		●	●			●	●	●		
Red, Black chokeberry	*Aronia arbutifolia, A. melanocarpa*	E,M	●	●		●	●	●			
American beautyberry	*Callicarpa americana*		●	●		●	●	●	●		
Sweetshrub	*Calycanthus floridus*	E,M		●	●		●	●			
New Jersey tea	*Ceanothus americanus*			●	●		●	●	●		●
Buttonbush	*Cephalanthus occidentalis*		●	●		●	●				
Sweet pepperbush	*Clethra alnifolia*	M	●	●			●	●	●		●
Cumberland rosemary	*Conradina verticillata*	E	●				●	●	●		
Silky dogwood	*Cornus amomum*		●	●		●	●				
Hazelnut	*Corylus americana*		●	●			●	●			
Northern, Southern bush honeysuckle	*Diervilla lonicera, D. sessilifolia*	E,M	●	●			●	●	●		●
Leatherwood	*Dirca palustris*	E,M		●	●		●				
Hearts a bustin	*Euonymus americanus*		●	●	●		●	●			
Fothergilla	*Fothergilla major*	E	●	●			●				●
Wild hydrangea	*Hydrangea arborescens*	E,M		●	●		●	●		●	
Oakleaf hydrangea	*Hydrangea quercifolia*		●	●	●		●	●			
Cedarglade, Shrubby St. John's Wort	*Hypericum frondosum, H. prolificum*		●	●			●	●	●		
Possumhaw holly	*Ilex decidua*		●	●		●	●				
Common winterberry	*Ilex verticillata*		●	●	●	●	●				●
Virginia sweetspire	*Itea virginica*		●	●	●	●	●	●			
Mountain laurel	*Kalmia latifolia*	E,M	●	●			●	●	●		●
Spicebush	*Lindera benzoin*			●	●		●				
Mock orange	*Philadelphus hirsutus, P. inodorus*		●	●			●	●		●	
Ninebark	*Physocarpus opulifolius*	E,M	●	●		●	●	●	●		
Sweet, Piedmont azalea	*Rhododendron arborescens, R. canescens*			●	●	●	●	●			●
Cumberland azalea	*Rhododendron cumberlandense*	E,M	●	●			●	●			●
Mountain rosebay	*Rhododendron catawbiense*	E		●	●		●	●			●
Fragrant sumac	*Rhus aromatica*		●	●				●	●		
Carolina, Prairie, Swamp rose	*Rosa carolina, R. setigera, R. palustris*		●	●			●	●			
Elderberry	*Sambucus canadensis*		●	●			●	●			
Bladdernut	*Staphylea trifolia*			●	●		●	●			
American snowbell	*Styrax americana*			●	●	●	●				●
Coralberry	*Symphoricarpos orbiculatus*	E,M	●	●	●		●	●	●		
Highbush, Lowbush blueberry	*Vaccinium corymbosum, V. pallidum*	E,M	●	●			●	●	●		●
Mapleleaf viburnum	*Viburnum acerifolium*	E,M		●	●		●	●			●
Arrow wood, Possum haw	*Viburnum dentatum, V. nudum*	E,M	●	●	●	●	●	●			●
VINES											
Dutchman's pipe	*Aristolochia macrophylla, A. tomentosa*	E,M		●			●	●			
Ratan vine	*Berchemia scandens*		●	●	●	●	●	●			
Crossvine	*Bignonia capreolata*		●	●		●	●	●			
Trumpet creeper	*Campsis radicans*		●	●			●	●	●		
Vasevine, Virgin's bower	*Clematis viorna, C. virginiana*		●	●			●	●	●		
Climbing hydrangea	*Decumaria barbara*		●	●	●	●	●				●
Yellow jasmine	*Gelsemium sempervirens*	E	●	●			●	●			
Coral honeysuckle	*Lonicera sempervirens*		●	●	●		●	●	●		
Virginia creeper	*Parthenocissus quinquefolia*		●	●	●		●	●	●		
Purple, Yellow passion flower	*Passiflora incarnata, P. lutea*		●	●				●	●		
American wisteria	*Wisteria frutescens*			●	●	●	●	●			

Recommendations for native plants

COMMON NAME	SCIENTIFIC NAME
GRASSES AND SEDGES	
Big bluestem	*Andropogon gerardii*
Splitbeard bluestem, Broomsedge	*Andropogon ternarius, A. virginicus*
Giant river cane	*Arundinaria gigantea* ssp. *gigantea*
Side oats grama	*Bouteloua curtipendula*
Sedges	*Carex* spp.
River oats	*Chasmanthium latifolium*
Bottlebrush grass, Virginia wild rye	*Elymus hystrix, E. virginicus*
Purple love grass	*Eragrostis spectabilis*
Pink muhly grass	*Muhlenbergia capillaris*
Switchgrass	*Panicum virgatum*
Silver, Sugarcane plume grass	*Saccharum alopecuroidum, S. giganteum*
Little bluestem	*Schizachyrium scoparium*
Indian grass	*Sorghastrum nutans*
GROUND COVER	
Pussytoes	*Antennaria plantaginifolia*
Canadian wild ginger	*Asarum canadense*
Sedges	*Carex flaccosperma, C. plantaginea*
Rose verbena	*Glandularia canadensis*
Dwarf crested iris	*Iris cristata*
Partridge berry	*Mitchella repens*
Allegheny spurge	*Pachysandra procumbens*
Fernleaf phacelia	*Phacelia bipinnatifida*
Wild blue, Downy, Creeping phlox	*Phlox divaricata, P. pilosa, P. stononifera*
Golden ragwort	*Senecio aureus*
Blue-eyed grass	*Sisyrinchium albidum, S. angustifolium*
Foam flower	*Tiarella cordifolia*
Violet	*Viola* spp.
FERNS	
Maidenhair fern	*Adiantum pedatum*
Ebony spleenwort	*Asplenium platyneuron*
Ladyfern	*Athyrium filix-femina* ssp.*asplenioides*
Hayscented fern	*Dennstaedtia punctilobula*
Glade fern	*Diplazium pycnocarpon*
Wood Fern	*Dryopteris* spp.
Sensitive fern	*Onoclea sensibilis*
Cinnamon, Royal fern	*Osmunda cinnamomea, O. regalis*
Broad beech fern	*Phegopteris hexagonoptera*
Christmas fern	*Polystichum acrostichoides*
Chain fern	*Woodwardia areolata*

COMMON NAME	SCIENTIFIC NAME
HERBACEOUS PERENNIALS	
Doll's eyes	*Actaea pachypoda*
Wild columbine	*Aquilegia canadensis*
Jack-in-the-pulpit	*Arisaema triphyllum*
Butterfly-weed	*Asclepias tuberosa*
New England, Aromatic aster	*Aster novae-angliae, A. oblongifolius*
Wild indigo	*Baptisia* spp.
False aster	*Boltonia asteroides*
Black cohosh	*Cimicifuga racemosa*
Wild bleeding heart	*Dicentra eximia*
Purple coneflower	*Echinacea purpurea*
Joe Pye-weed	*Eupatorium* spp.
Wild geranium	*Geranium maculatum*
Purplehead sneezeweed	*Helenium flexuosum*
Sunflowers	*Helianthus* spp.
Alumroot	*Heuchera americana*
Blazing star	*Liatris* spp.
Cardinal flower, Great blue lobelia	*Lobelia cardinalis, L. siphilitica*
Virginia bluebells	*Mertensia virginica*
Bee balm	*Monarda* spp.
Sundrops	*Oenothera fruticosa*
Beard-tongue	*Penstemon* spp.
Jacob's ladder	*Polemonium reptans*
Solomon's seal, False Solomon's seal	*Polygonatum biflorum; Smilacina racemosa*
Prairie coneflower, Blackeyed Susan	*Ratibida pinnata, Rudbeckia* spp.
Wreath, Wrinkleleaf goldenrod	*Solidago caesia, S. rugosa*