

# 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.

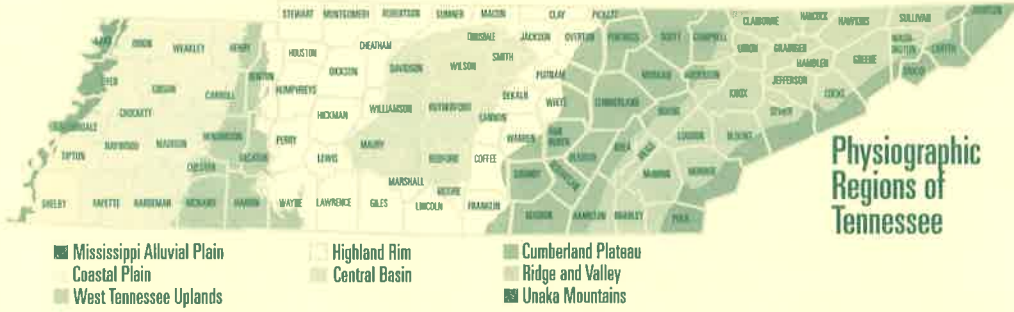
## Natives for wildlife



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.

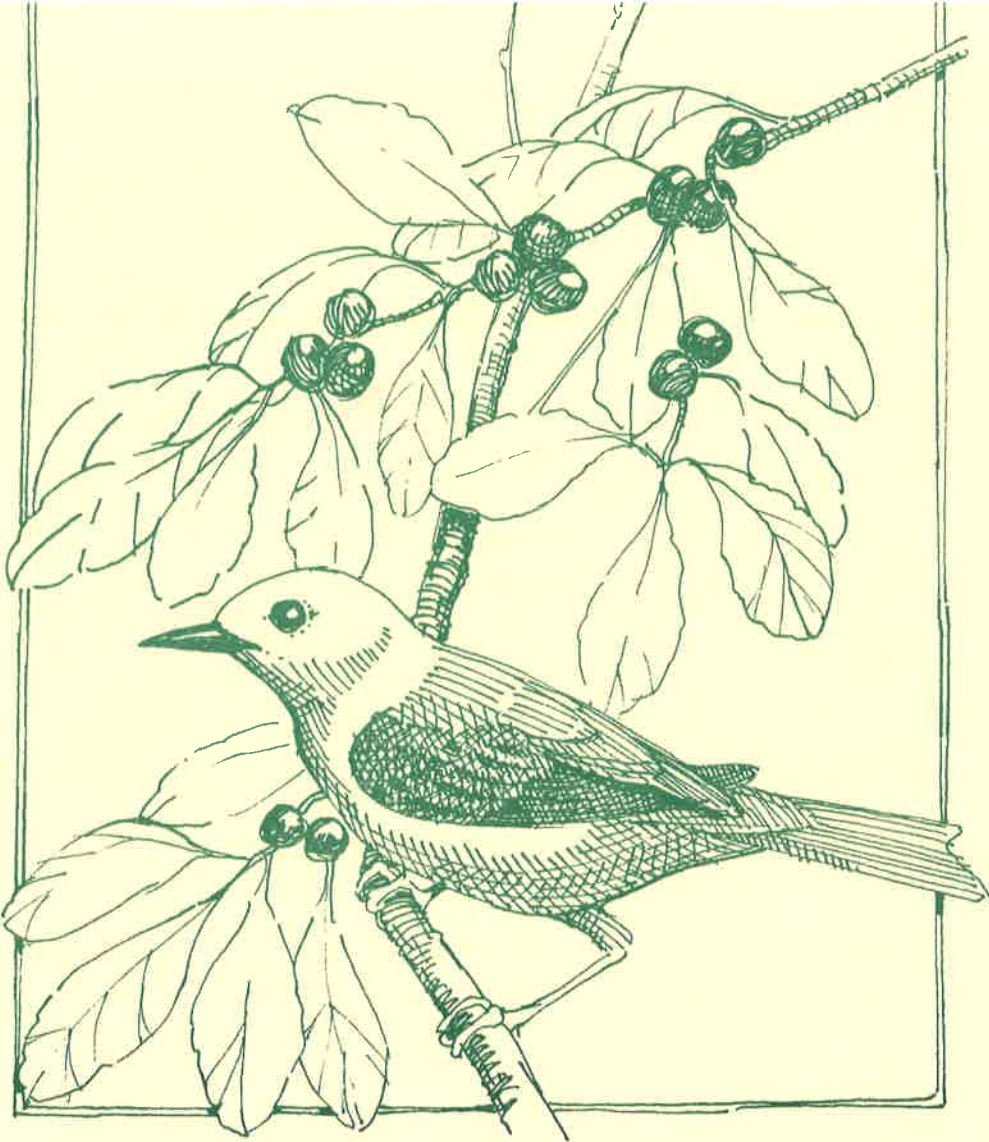


**MIDDLE TENNESSEE** includes the uniquely different Central Basin and the Highland Rim. The Central Basin has eroded down into limestone rock deposited 400 million years ago, and the soils are neutral to alkaline. Rare cedar glades occupy thin soil and poorly drained limestone outcrops that are wet 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)**  
Tennessee State Parks  
Tennessee Tower, 312 Rosa L. Parks Ave. 2nd Floor, Nashville, TN 37243-0447  
615/532-0431 • www.tn.gov/environment
- Tennessee Exotic Pest Plant Council (TN-EPPC)**  
P.O. Box 936, Fairview, TN 37062  
www.tneppc.org
- Tennessee Native Plant Society**  
P.O. Box 856, Sewanee, TN 37375  
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
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# Landscaping WITH Native Plants

# Tennessee

Promoting Biodiversity

Endorsing a Land Ethic that Celebrates Our Natural Heritage

# Recommendations for native plants

COMMON NAME      SCIENTIFIC NAME

## SMALL TREES

	RD	LIGHT			MOISTURE				SOIL pH		
		F	P	S	H	M	S	X	B	A	
Serviceberry		●	●	●					●	●	●
Hercules club		●	●						●	●	
Pawpaw			●	●			●				
Ironwood			●	●	●						
Redbud		●	●			●	●	●			
Fringe tree	E,M	●	●			●	●				●
Alternate leaf dogwood	E,M	●	●			●	●				●
Roughleaf dogwood	M,W	●	●					●	●	●	
Flowering dogwood		●	●	●		●	●				
Hawthorn		●	●			●	●	●			
Wahoo		●	●			●	●		●		
Carolina Silverbell	E	●	●			●	●				●
Witch-hazel	E,M	●	●			●	●				●
American holly		●	●			●	●		●		●
Sweetbay magnolia	E,W		●	●	●	●	●				●
American, Chicksaw plum		●	●			●	●	●			
Hoptree	E,M	●	●	●		●	●	●			
Carolina buckthorn		●	●			●	●		●		●
Winged, Smooth, Staghorn sumac		●	●			●	●		●		●
Blackhaw, Rusty blackhaw		●	●	●		●	●				

## TREES

	RD	LIGHT			MOISTURE				SOIL pH		
		F	P	S	H	M	S	X	B	A	
Red maple		●	●	●	●	●	●				
Sugar maple			●	●		●	●				●
Yellow, Ohio buckeye	E,M	●	●			●	●				●
Sweet birch	E	●	●			●	●				●
River birch		●	●	●		●	●				●
Pecan	W	●	●			●	●				
Pignut, Shagbark, Mockernut hickory		●	●			●	●	●			
Northern catalpa	W	●	●		●	●					
Yellow wood		●	●	●		●	●				●
Persimmon		●	●			●	●				
American beech		●	●			●	●				●
White, Green ash		●	●	●		●	●				
Blue ash	E,M	●	●			●	●				
Kentucky coffeetree		●	●	●		●	●		●		
Black walnut		●	●			●	●		●		
Red cedar		●	●			●	●		●		
Sweetgum		●	●		●	●	●				●
Tulip poplar		●	●			●	●				
Cucumber tree	E,M	●	●			●	●				
Red mulberry		●	●			●	●				
Blackgum		●	●	●		●	●		●		
Hophornbeam		●	●			●	●		●		
Sourwood	E,M	●	●			●	●				●
Shortleaf, Virginia pine	E,M	●	●			●	●				
White pine	E	●	●			●	●				
Sycamore		●	●		●	●					●
Eastern cottonwood		●	●		●	●					
Black cherry		●	●			●	●				
White, Scarlet oak		●	●			●	●	●			
Southern red, Post, Black oak		●	●			●	●		●		
Swamp white, Shingle oak		●	●			●	●				
Overcup, Water, Pin oak		●	●		●	●					
Bur oak	M,W	●	●			●	●				●
Chestnut, Chinkapin oak		●	●			●	●				
Cherrybark oak	W	●	●		●	●					
Willow, Northern Red, Shumard oak		●	●			●	●				
Carolina, Black willow		●	●		●	●					●
Sassafras		●	●			●	●				●
Bald cypress	W	●	●		●	●					●
American basswood		●	●			●	●				●

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

## SHRUBS

	RD	LIGHT			MOISTURE				SOIL pH		
		F	P	S	H	M	S	X	B	A	
Indigobush		●	●			●	●				
Red, Black chokeberry	E,M	●	●			●	●				
American beautyberry		●	●			●	●				
Sweetshrub	E,M		●	●		●	●				
New Jersey tea			●	●		●	●				●
Buttonbush		●	●			●	●				
Sweet pepperbush	M	●	●			●	●				●
Cumberland rosemary	E	●				●	●				
Silky dogwood		●	●		●	●					
Hazelnut		●	●			●	●				
Northern, Southern bush honeysuckle	E,M	●	●			●	●				●
Leatherwood	E,M		●	●		●	●				
Hearts a bustin		●	●	●		●	●				
Fothergilla	E	●	●			●	●				●
Wild hydrangea	E,M	●	●			●	●				●
Oakleaf hydrangea		●	●	●		●	●				
Cedarglade, Shrubby St. John's Wort		●	●			●	●	●			
Possumhaw holly		●	●			●	●				
Common winterberry		●	●			●	●				●
Virginia sweetspire		●	●	●		●	●				
Mountain laurel	E,M	●	●			●	●				●
Spicebush			●	●		●	●				
Mock orange		●	●			●	●				●
Ninebark	E,M	●	●			●	●				
Sweet, Piedmont azalea		●	●	●		●	●				●
Cumberland azalea	E,M	●	●			●	●				●
Mountain rosebay	E		●	●		●	●				●
Fragrant sumac		●	●			●	●				●
Carolina, Prairie, Swamp rose		●	●			●	●				
Elderberry		●	●			●	●				
Bladdernut		●	●			●	●				
American snowbell		●	●			●	●				●
Coralberry	E,M	●	●			●	●				●
Highbush, Lowbush blueberry	E,M	●	●			●	●				●
Mapleleaf viburnum	E,M		●	●		●	●				●
Arrow wood, Possum haw	E,M	●	●	●		●	●				●

## VINES

	RD	LIGHT			MOISTURE				SOIL pH		
		F	P	S	H	M	S	X	B	A	
Dutchman's pipe	E,M		●			●	●				
Ratan vine		●	●			●	●				
Crossvine		●	●			●	●				
Trumpet creeper		●	●			●	●				
Vasevine, Virgin's bower		●	●			●	●				
Climbing hydrangea		●	●	●		●	●				●
Yellow jasmine	E	●	●			●	●				
Coral honeysuckle		●	●	●		●	●				
Virginia creeper		●	●	●		●	●				
Purple, Yellow passion flower		●	●			●	●				
American wisteria			●	●		●	●				

COMMON NAME      SCIENTIFIC NAME

## GRASSES AND SEDGES

Big bluestem	<i>Andropogon gerardii</i>
Splitbeard bluestem, Broomsedge	<i>Andropogon ternarius, A. virginicus</i>
Giant river cane	<i>Arundinaria gigantea ssp. gigantea</i>
Side oats grama	<i>Bouteloua curtipendula</i>
Sedges	<i>Carex</i> spp.
River oats	<i>Chasmanthium latifolium</i>
Bottlebrush grass, Virginia wild rye	<i>Elymus hystrix, E. virginicus</i>
Purple love grass	<i>Eragrostis spectabilis</i>
Pink Muhly grass	<i>Muhlenbergia capillaris</i>
Switchgrass	<i>Panicum virgatum</i>
Silver, Sugarcane plume grass	<i>Saccharum alopecuroidum, S. giganteum</i>
Little bluestem	<i>Schizachyrium scoparium</i>
Indian grass	<i>Sorghastrum nutans</i>

## GROUND COVER

Pussytoes	<i>Antennaria plantaginifolia</i>
Canadian wild ginger	<i>Asarum canadense</i>
Sedges	<i>Carex flaccosperma, C. plantaginea</i>
Rose verbena	<i>Glandularia canadensis</i>
Dwarf crested iris	<i>Iris cristata</i>
Partridge berry	<i>Mitchella repens</i>
Allegheny spurge	<i>Pachysandra procumbens</i>
Fernleaf phacelia	<i>Phacelia bipinnatifida</i>
Wild blue, Downy, Creeping phlox	<i>Phlox divaricata, P. pilosa, P. stononifera</i>
Golden ragwort	<i>Senecio aureus</i>
Blue-eyed grass	<i>Sisyrinchium albidum, S. angustifolium</i>
Foam flower	<i>Tiarella cordifolia</i>
Violet	<i>Viola</i> spp.

## FERNS

Maidenhair fern	<i>Adiantum pedatum</i>
Ebony spleenwort	<i>Asplenium platyneuron</i>
Ladyfern	<i>Athyrium filix-femina ssp. asplenioides</i>
Hayscented fern	<i>Dennstaedtia punctilobula</i>
Glade fern	<i>Diplazium pycnocarpon</i>
Wood Fern	<i>Dryopteris</i> spp.
Sensitive fern	<i>Onoclea sensibilis</i>
Cinnamon, Royal fern	<i>Osmunda cinnamomea, O. regalis</i>
Broad beech fern	<i>Phegopteris hexagonoptera</i>
Christmas fern	<i>Polystichum acrostichoides</i>
Chain fern	<i>Woodwardia areolata</i>

## HERBACEOUS PERENNIALS

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

