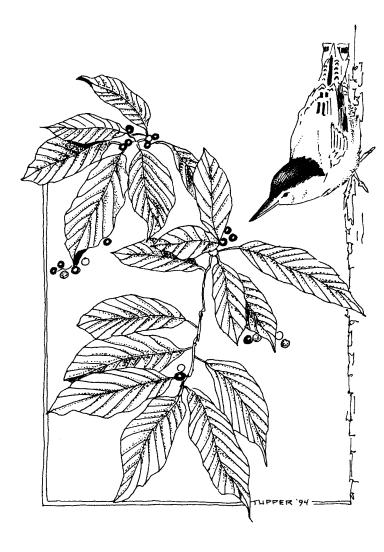
MIDDLE TENNESSEE

Central Basin and Highland Rim



LANDSCAPING WITH NATIVE PLANTS

PROMOTES BIODIVERSITY

and endorses a land ethic that celebrates our natural heritage

MIDDLE TENNESSEE

Central Basin and Highland Rim

The Central Basin and the Highland Rim are uniquely different physiographic provinces that make up Middle Tennessee. Site conditions for each respective province are determined by topography, soil pH, soil depth, aspect, availability of light, and hydrology. These site conditions support a mosaic of native plant communities.

- ➤ Dry upland sites support xeric oak-hickory forests.
- ➤ Beech, tulip poplar, basswood, and sugar maple (mixed mesophytic) forest communities occur on north-facing slopes.
- ➤ Floodplains and upland swamps support "wet feet" or hydric plants.
- ➤ Unique barrens occur in open grassy areas on the Highland Rim.
- ➤ Rare cedar glades occupy thin soil, poorly drained limestone outcrops (winter wet, summer dry habitat) in the Central Basin.



Soil pH is a distinguishing feature between the Basin and the Rim. The elliptically shaped Central Basin is underlain by Ordovician limestone and has alkaline soils, whereas much of the surrounding Highland Rim has acidic soils that are heavily leached and often occur in the resistant siliceous Fort Payne formation.

For landscaping purposes it is important to remember that plants growing in our region are specifically adapted to hydrology (moisture and dryness) and soil pH (acidity and alkalinity). Soil moisture, soil pH and light availability are important limiting factors. Matching plants to site conditions will yield the maximum benefits that natives provide.

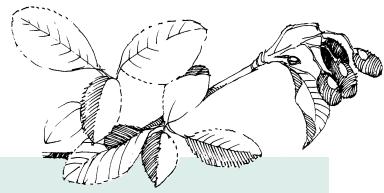
Our natural heritage

The use of native plants in landscaping is a celebration of our natural heritage and an awakening of a land ethic first expressed by Aldo Leopold more than 50 years ago.

The natural processes from which natives 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.



Native

species naturally occurring in a region (indigenous)

Exotic

species introduced by humans, either deliberately or accidentally (alien, non-native)

What are natives?

Natives are plants that evolved over geologic time and are distributed across the landscape largely in response to climatic episodes and adaptation to site conditions related to land formation.

Natives are generally defined as plants that occurred in North America before European settlement. This distinction is made because of the large-scale changes in the flora that have resulted since European settlement and the introduction of "exotic" plants.

Exotics are plants that are directly or indirectly, deliberately or accidentally introduced by human action. To be more precise, natives are natural elements of a regional landscape. While some species are native to North America, they may be exotic to Middle Tennessee.

Natives vs. exotics

While many exotics are harmless, others pose serious threats to biodiversity. Exotics that escape and naturalize change the floral composition of native plant communities. Exotics that invade native plant communities spread, out-compete, and displace natives. Other exotics are vectors for disease and exotic insects. Future introductions can be prevented by using native species.

Using natives also exhibits regional flora and promotes our natural heritage. Natives have often been overlooked and their aesthetic value ignored. Instead, many regions look the same because overuse of the same exotics has created a monotonous, predictable landscape.

Basics about using natives

When landscaping with natives match the right plants with the right site conditions. Consider using plants that occur together in their natural habitats. Do your homework before planting; study the plants and the site condition information in this brochure. Visit a natural area and observe how plants occur and design your landscape accordingly. Buy nursery propagated plants. Remember, landscaping with natives is art imitating nature.

Benefits of natives

- ➤ Adapted to regional conditions and 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 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.



- ➤ Don't dig plants from the wild.
- ➤ Buy nursery-propagated plant material.

Native plant recommendations

KEY

LIGHT

F = full sunlight
P = partial shade
S = shade

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

SOIL pH

B = basic; prefers limestone

A = acidic; prefers acidic soils

R = restricted to either B or A

COMMON NAME	SCIENTIFIC NAME	L	IGH	T	N	1018	TUR	E	SC)IL p	Н
SHRUBS		F	Р	S	Н	M	S	Х	В	Α	R
Alder	Alnus serrulata	•	•		•	•					
Indigobush	Amorpha fruticosa	•	•			•	•	•			П
Black chokeberry	Aronia melanocarpa	•	•		•	•	•	•		•	
Sweetshrub	Calycanthus floridus		•		•		•			•	
American beautyberry	Callicarpa americana	•	•		•	•	•	•			
New Jersey tea	Ceanothus americanus		•	•		•	•	•		•	•
Buttonbush	Cephalanthus occidentalis	•	•		•						
Silky dogwood	Cornus amomum	•	•		•	•					
Hazelnut	Corylus americana	•	•	•		•	•				
Leatherwood	Dirca palustris	•	•	•		•					
Hearts-a-bustin	Euonymus americanus		•	•		•	•				
Swamp mallow	Hibiscus moscheutos	•	•		•						
Oakleaf hydrangea	Hydrangea quercifolia	•	•	•		•	•				
Wild hydrangea	Hydrangea arborescens		•	•		•		•			
Golden St. John's wort		•	•			•		•	•		
Shrubby St. John's wort	Hypericum prolificum	•	•		•	•	•	•			
Common winterberry	llex verticillata	•	•	•	•	•				•	
Virginia-willow	Itea virginica	•	•	•	•	•					
Mountain laurel	Kalmia latifolia	•	•				•	•		•	•
Spicebush	Lindera benzoin		•	•		•					
Ninebark	Physocarpus opulifolius	•	•		•	•		•			
Wild azalea	Rhododendron canescens		•	•		•	•			•	•
Fragrant sumac	Rhus aromatica	•	•				•	•	•		
Winged sumac	Rhus copallina	•	•			•	•				
Carolina rose	Rosa carolina	•	•			•	•		•		
Swamp rose	Rosa palustris	•	•		•	•					
Prairie rose	Rosa setigera	•	•			•	•	•	•		
Elderberry	Sambucus canadensis	•	•	•		•			•		
Bladdernut	Staphlea trifolia		•	•		•	•		•		
Bigleaf snowbell	Styrax grandifolia	•	•	•		•	•			•	
Coralberry, buckbrush	Symphoricarpus orbiculatus	•	•	•		•	•	•			
Farkleberry	Vaccinium arboreum	•	•				•	•		•	
Deerberry	Vaccinium stamineum	•	•			•	•	•		•	
Lowbush blueberry	Vaccinium vacillans	•	•				•	•		•	•
Mapleleaf viburnum	Viburnum acerifolium		•	•		•	•	•		•	

COMMON NAME	SCIENTIFIC NAME	LIGHT			Ν	MOISTURE			SOIL pt		
SMALL TREES (CONTINUED)		F	Р	S	Н	M	S	Х	В	Α	R
Staghorn sumac	Rhus typhina	•	•				•	•			
Southern rusty blackha	w Viburnum rufidulum	•	•	•		•	•	•	•		
Northern blackhaw	Viburnum prunifolium	•	•	•		•	•	•			

TREES

IKEE2											
Red maple	Acer rubrum	•	•	•	•		•	•		•	
Silver maple	Acer saccharinum	•	•		•						
Sugar maple	Acer saccharum	•	•	•		•	•		•		
Buckeye	Aesculus glabra		•	•		•	•				
Yellow buckeye	Aesculus octandra		•	•		•	•				
River birch	Betula nigra	•	•	•	•	•				•	
Bitternut hickory	Carya cordiformis	•	•	•		•			•		
Pignut hickory	Carya glabra	•	•	•			•	•			
Shagbark	Carya ovata	•	•	•		•	•	•			
Mockernut	Carya tomentosa	•	•	•		•	•	•			
Yellow-wood	Cladrastis lutea	•	•	•		•	•		•		
Persimmon	Diospyros virginiana	•	•			•	•				
American beech	Fagus grandifolia	•	•	•		•	•				
White ash	Fraxinus americana	•	•	•		•	•				
Green ash	Fraxinus pennsylvanica	•	•	•	•	•	•	•			
Blue ash	Fraxinus quadrangulata	•	•	•	•	•	•	•	•		
Kentucky coffeetree	Gymnocladus dioicus	•	•	•		•	•		•		
Black walnut	Juglans nigra	•	•	•		•	•		•		
Red cedar	Juniperus virginiana	•	•				•	•	•		
Sweetgum	Liquidambar styraciflua	•	•	•	•	•	•	•		•	
Tulip poplar	Liriodendron tulipifera	•	•			•	•				
Blackgum	Nyssa sylvatica	•	•	•			•	•		•	
Red mulberrry	Morus rubra	•	•	•		•	•	•			
Virginia pine	Pinus virginiana	•					•	•		•	
Shortleaf pine	Pinus echinata	•					•	•		•	
Sycamore	Platanus occidentalis	•	•		•	•			•		
Black cherry	Prunus serotina	•	•			•	•	•			
White oak	Quercus alba	•	•			•	•	•			
Chinkapin oak	Quercus muhlenbergii	•	•			•	•	•	•		•
Chestnut oak	Quercus prinus	•	•				•	•		•	•
Bur oak	Quercus macrocarpa	•	•		•	•	•				
Northern red oak	Quercus rubra	•	•		•	•	•				
Black oak	Quercus velutina	•	•			•	•	•			
Pin oak	Quercus palustris	•	•		•	•	•	•			
Post oak	Quercus stellata	•	•				•	•			
Shumard oak	Quercus shumardii	•	•		•	•	•	•	•		•
Scarlet oak	Quercus coccinia	•	•				•	•		•	•
Swamp white oak	Quercus michauxii	•	•		•	•					
Water oak	Quercus nigra	•	•		•	•					
Willow oak	Quercus phellos	•	•		•	•	•	•			
Southern red oak	Quercus falcata	•	•				•	•		•	
Black willow	Salix nigra	•	•		•				•		
Sassafras	Sassafras albidum	•	•			•	•				
	oucoundo dibidaini	_	_			_	_				

SMALL TREES

Serviceberry	Amelanchier arborea	•	•	•			•	•		•	
Hercules club	Aralia spinosa	•	•				•	•			
Paw paw	Asimina triloba		•	•		•			•		
Buckthorn bumelia	Bumelia lycioides	•	•	•		•	•	•	•		•
Ironwood	Carpinus caroliniana		•	•	•	•					
Redbud	Cercis canadensis	•	•	•		•	•	•	•		
Fringe tree	Chionanthus virginicus		•	•		•	•			•	
Flowering dogwood	Cornus florida		•	•		•	•				
Roughleaf dogwood	Cornus drummondii	•	•				•	•	•		•
Washington hawthorn	Crataegus phaenopyrum	•	•				•	•	•		
Hawthorn	Crataegus mollis	•	•				•	•	•		
Wahoo	Euonymous atropurpureus	•	•	•		•	•		•		
Witch-hazel	Hamamelis virginiana		•	•		•	•			•	•
American holly	llex opaca	•	•	•		•	•			•	
Cucumbertree	Magnolia acuminata		•	•		•					
Hop-hornbeam	Ostrya virginiana		•	•		•	•		•		
Sourwood	Oxydendrum arboreum		•	•			•	•		•	•
American plum	Prunus americana	•	•				•	•	•		
Chicasaw plum	Prunus angustifolia	•	•			•	•	•			
Hop tree	Ptelea trifoliata	•	•	•			•	•	•		
Carolina buckthorn	Rhamnus caroliniana	•	•	•			•	•	•		

VINES

VINES										
Crossvine	Bignonia capreolata	•	•		•	•	•			
Trumpet creeper	Campsis radicans	•	•				•	•		
Leatherflower	Clematis versicolor	•	•	•		•	•	•		
Virgin's bower	Clematis virginiana	•	•	•		•	•	•		
Coral honeysuckle	Lonicera sempervirens	•	•	•		•	•	•		
Virginia creeper	Parthenocissus quinquefolia	•	•	•		•	•	•		
Passion flower	Passiflora incarnata	•	•				•	•		



GRASSES Big bluestem Little bluestem broomsedge

river cane river oats, Spangle grass Canada wild rye Bottle brush Switch-grass Indian grass

Andropogon gerardii Andropogon scoparius Andropogon virginicus Arundinăria gigăntea Chasmanthium latifolium Elymus canadensis Hystrix patula Panicum virgatum Sorghastrum nutans

FLOWERS

Doll's-eye baneberry Thimbleweed Wild columbine Wild ginger Butterfly weed Swamp milkweed New England aster Bushy aster Fall blue aster Blue false indigo Tall bellflower Coreopsis Shooting star Joe-Pye weed Mist flower Wild geranium
Woods sunflower
Small headed sunflower
Liverleaf
Alumroot Jewelweed Spotted jewelweed Dwarf crested iris Cardinal flower Great blue lobelia Virginia bluebells Partridge-berry Partitige-berry
Bergamot
Prickly pear
Appalachian pachysandra
Wild blue phlox
Beard-tongue
Jacob's ladder Poke weed Solomon's seal Wild Petunia Fire Pink

Actaea alba Anemone virginiana Aquilegia cañadensis Asarum canadense Asclepias tuberosa Asclepias Invertosa Asclepias incarnata Aster novae-angliae Aster dumosus Aster patens Baptisia australis Campanula americana Coreopsis major Dodecatheon meadia Eupatorium fistulosum Euportium coelestinum Geranium maculatum
Helianthus divaricatus
Helianthus microcephalus
Hepatica acutiloba
Heuchera americana
Impatiens capensis Iris cristata Lobelia cardinalis Lobelia syphilitica Mertensia virginica Mitchella repens Monarda fistulosa Opuntia humifusa

Pachysandra procumbens
Phlox divaricata
Pentstemonium reptans
Phytologog america Phytolacca americana Polygonatum biflorum Ruellia humilis Silene virginica Spigelia marilandica **FERNS**



MOSAIC FOR FULL SUN

Little blue stem
Big blue stem
Indian grass
Canada rye grass
Grey headed coneflower Blackeyed susan New England aster Bushy aster Butterfly weed Blue false indigo Rose vervain Joe Pye weed Wild bergamot Ironweed Shooting star



Lady-fern Sensitive fern Cinnamon fern Chain fern Maidenhair fern Ebony spleenwort Christmas fern Common grape fern Broad beech fern Common woodsia

Athyrium felix-femina Onoclea sensibilis Osmunda cinnamomea Woodwardia areolata Adiantum pedatum Asplenium platyneuron Polystichum acrostichoides Botrychium dissectum Phegopteris hexagonaptera Woodsia obtusa

Andropogon scoparius Andropogon gerardii Sorghastum nutans Elymus canadensis Ratibida pinnata Rudbeckia hirta & triloba Aster novae-anglie Aster dumosus Asclepias tuberosa Baptisia australis Verbena canadensis Eupatorium fistulosum Monarda fistulosa Vernonia altissima Dodecatheon meadia







Thimbleweed
Wild Ginger
Ebony Spleenwort
Shooting Star
Alumroot Pachysandra Christmas Fern Broad Beech Fern Golden Ragwort Foam-flower Spiderwort Violets Woodsia

Anemone virginiana Asarum canadense Asplenium platyneuron Dodecatheon meadia Heuchera americana Pachysandra procumbens Polystichum acrostichoides Phégopteris hexagonaptera Senecio glabellus Tiarella čordifolia Tradescantia virginiana Violet spp. Woodisa obtusa

Celebrate our natural heritage and protect native plant communities

- **1.** Learn more about native plants.
- 2. Buy nursery propagated plant material.
- **3.** Don't dig plants from the wild.
- 4. Protect native plant and natural area habitat.
- **5.** Promote responsible landscaping practices.
- **6.** Plant native and not exotic plant species.

For more information

Warner Park Nature Center

7311 Highway 100 Nashville TN 37221 615/352-6299

Tennessee Dept. of Environment and Conservation (TDEC)

Division of Natural Heritage 401 Church Street, 8th Floor Nashville TN 37243-0447 615/532-0436

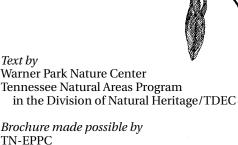
Tennessee Exotic Pest Plant Council (TN EPPC)

P.O. Box 936 Fairview TN 37062 www.tneppc.org

Tennessee Native Plant Society Department of Botany University of Tennessee Knoxville TN 37996-1100

615/532-0439

Text by



Brochure made possible by TN-EPPC

Co-sponsored by BASF Corporation Growild, Înc. Nashville Natives, LLC Tennessee Native Plant Society Tennessee State Parks Invasive Plant Control Friends of Beaman Park USDA Forest Service, Southern Region, Forest Health Protection Program U.S. Fish and Wildlife Service

Southern Appalachian Man and Biosphere Foundation