

Landscaping with Native Plants in the Georgia Piedmont



NATIVE

Species naturally occurring in a region (indigenous)

EXOTIC

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



What are native plants?

Native plants are species that have grown naturally in an area, rather than being brought in by people from different regions and habitats. They are uniquely adapted to local conditions because they have evolved in accordance with the physical factors, such as climate (temperature and rainfall), soils and geology, specific to their region. They have also co-evolved over the millennia with other organisms of the region, such as other plants, animals (including pollinators and insects), fungi and soil biota. When restoring landscapes, it is best to plant only those natives that naturally occur in the particular habitat, because they are suited to both the physical and biological conditions of the site.

Cultivated varieties (cultivars) of native species are selections that people have propagated to encourage specific horticultural traits. These cultivated plants do not possess the genetic diversity that exists in wild native populations. So, while good for many native plant gardens, cultivars are not appropriate for restoring native habitats: they don't supply the genetic diversity that species require over time to survive in nature's ever-changing conditions of drought, flooding, freezing, insect infestation and disease.

Benefits of natives

- Require little maintenance after establishment if plants are properly matched with site conditions
- Withstand regional temperature and moisture extremes; less likely to be adversely affected by these extremes than many exotics
- Provide diverse sources of food and shelter for wildlife, and support native food chains
- Promote biodiversity
- Foster appreciation of our natural heritage and the beauty of our native landscapes

Basics about using natives

- Landscaping with native plants is art imitating nature. Visit natural areas and observe how plants occur in communities, and design accordingly; use plants that occur together in their natural habitats.
- The Piedmont is a mosaic of vegetation; different plant communities occur on dry, south and west facing slopes, for example, than appear on stream banks or cool, north facing slopes. So, when restoring landscapes or creating a native garden, match the right plants with the right site conditions; choose natives that grow in the same light levels, moisture levels, soil type (texture, pH, fertility), landscape position and aspect (the compass direction a hill-slope faces).

Native plants for wildlife

Native butterflies, insects, birds, mammals, reptiles and other species evolved with the native flora. Therefore, using native plants in the landscape supports and sustains these creatures year round. Native plants support insects that feed birds migrating or nesting in spring or summer. In fall, migrating birds depend on high-energy fruits produced by native shrubs, vines and trees. Nut-bearing trees, such as oaks, hickory and beech, provide food for a wide variety of animals. In winter, evergreen trees, like eastern red cedar, pines and American holly, provide important shelter and food.

What you can do to protect native plant communities

1. Learn about native plants and the plant communities in which they occur.
2. Buy only nursery-propagated plant material.
3. Don't dig from the wild unless participating in a legitimate and authorized "plant rescue" program from sites being developed.
4. Protect native plant and natural area habitats.
5. Plant locally native plant species wherever possible. Use this list as a guide.

Geology

Sandwiched between the rugged mountain provinces and the flatter Coastal Plain, the Piedmont is a region of broad rolling hills, punctuated by occasional granite outcrops, lone granite or gneiss mountains (monadnocks), long straight ridges, deep ravines and river bluffs. The rolling topography creates correspondingly gentle gradients of moisture and light. Where the topography is steeper, north-facing slopes are markedly cooler, while south-facing slopes and ridge tops are often hot and dry.

A hodgepodge of rock types underlies these contours, due to the Piedmont's dramatic geologic history: It is formed from the very different rocks of ancient limestone reefs, beaches, ocean crusts and islands that were pushed together hundreds of millions of years ago when a collision of tectonic plates raised the Appalachians, an immense mountain chain that resembled the Himalayas of today. Over millions of years, the great mountains eroded to form the land surface of the Blue Ridge and Piedmont we see now.

The pressure and heat of the mountain building metamorphosed (melted and recrystallized) the Piedmont's rocks into a mélange of metamorphic rocks, such as marble, gneiss, schist, quartzite and amphibolite. Large expanses are made up of gneisses and schists that contain only small amounts of potassium, calcium, nitrogen and phosphorus. Intense weathering of these rocks created the famous "Georgia red clay." These clay soils are mildly acidic and host oak-hickory and – where disturbed by fire or farming – pine forests. The Piedmont flora, extending from eastern Alabama to Virginia, mirrors the vast area of similar soil conditions. But ribbons and patches of richer bedrock, such as amphibolite and calcium-rich gneisses, weather to richer soils that foster more diverse hardwood communities, especially on moist north-facing slopes.

Before European settlement, vast stretches of forest created deep, loamy topsoils. Poor farming practices washed these soils down to the stream valleys, leaving underlying, low-nutrient clays at or near the surface in many places. It will take centuries for the topsoils to rebuild, requiring gardeners to amend their soils and restorationists to carefully evaluate the soils as they work to rebuild natural plant communities.

Native Plants of the Georgia Piedmont

LIGHT

F = full sunlight
P = partial shade
S = shade

SOIL MOISTURE

H = hydric; wet, plants periodically or often inundated
M = mesic; moist, adequate soil moisture retention year round
S = sub-xeric to sub-mesic; dry to moist, periodically droughty
X = xeric; dry & frequently droughty,excessively well-drained

SCIENTIFIC NAME	COMMON NAME	LIGHT			MOISTURE			
		F	P	S	H	M	S	X
TREES								
<i>Acer barbatum</i>	Southern Sugar Maple		•	•		•		
<i>Acer rubrum</i>	Eastern Red Maple	•	•	•	•	•	•	
<i>Betula nigra</i>	River Birch	•	•		•	•		
<i>Carya alba</i>	Mockernut Hickory	•	•	•		•	•	
<i>Carya glabra</i>	Pignut Hickory	•	•	•		•	•	
<i>Carya ovalis</i>	Red Hickory	•	•	•		•	•	
<i>Carya pallida</i>	Sand Hickory	•	•	•			•	•
<i>Celtis laevigata</i>	Southern Hackberry	•	•		•	•		
<i>Diospyros virginiana</i>	Eastern Persimmon	•	•			•	•	
<i>Fagus grandifolia</i>	American Beech		•	•		•		
<i>Fraxinus americana</i>	White Ash	•	•			•		
<i>Fraxinus pennsylvanica</i>	Green Ash	•	•		•	•	•	
<i>Ilex opaca</i>	American Holly		•	•		•	•	
<i>Juglans nigra</i>	Black Walnut	•	•			•	•	
<i>Juniperus virginiana</i>	Eastern Red Cedar	•				•	•	•
<i>Liquidambar styraciflua</i>	Sweet Gum	•	•	•	•	•	•	
<i>Liriodendron tulipifera</i>	Tulip-tree	•	•			•	•	
<i>Magnolia acuminata</i>	Cucumber-tree		•	•		•		
<i>Nyssa sylvatica</i>	Sour Gum	•	•	•		•	•	
<i>Oxydendrum arboreum</i>	Sourwood		•	•		•	•	•
<i>Pinus echinata</i>	Shortleaf Pine	•				•	•	•
<i>Pinus taeda</i>	Loblolly Pine	•			•	•	•	•
<i>Platanus occidentalis</i>	Sycamore	•	•		•	•		
<i>Quercus alba</i>	White Oak	•	•	•		•	•	
<i>Quercus coccinea</i>	Scarlet Oak	•	•	•		•	•	•
<i>Quercus falcata</i>	Southern Red Oak	•	•	•		•	•	•
<i>Quercus marilandica</i>	Blackjack Oak	•	•	•			•	•
<i>Quercus michauxii</i>	Swamp Chestnut Oak	•	•	•	•	•		
<i>Quercus montana</i>	Rock Chestnut Oak	•	•	•			•	•
<i>Quercus nigra</i>	Water Oak	•	•	•	•	•	•	
<i>Quercus phellos</i>	Willow Oak	•	•	•	•	•		
<i>Quercus rubra</i>	Red Oak	•	•	•		•	•	
<i>Quercus shumardii</i>	Shumard Oak	•	•	•	•	•		
<i>Quercus stellata</i>	Post Oak	•	•	•			•	•
<i>Quercus velutina</i>	Black Oak	•	•	•		•	•	•
<i>Salix nigra</i>	Black Willow	•			•			
<i>Sassafras albidum</i>	Sassafras	•	•			•	•	•
<i>Tilia americana</i> var. <i>heterophylla</i>	White Basswood		•	•		•		
<i>Ulmus alata</i>	Winged Elm	•	•			•	•	•
VINES								
<i>Bignonia capreolata</i>	Cross-vine	•	•	•	•	•	•	•
<i>Campsis radicans</i>	Trumpet-creeper	•	•	•		•	•	•
<i>Clematis virginiana</i>	Virgin's-bower	•	•			•	•	
<i>Decumaria barbara</i>	Climbing Hydrangea		•	•		•		
<i>Dioscorea villosa</i>	Wild Yam		•	•		•		
<i>Gelsemium sempervirens</i>	Carolina Jessamine	•	•	•		•	•	•
<i>Lonicera sempervirens</i>	Coral Honeysuckle	•	•	•		•	•	
<i>Matelea carolinensis</i>	Carolina Spinyopod	•				•		
<i>Parthenocissus quinquefolia</i>	Virginia-creeper	•	•	•		•	•	•
<i>Passiflora incarnata</i>	Passion Flower	•				•	•	
<i>Smilax glauca</i>	Whiteleaf Greenbrier	•	•	•		•	•	•
<i>Vitis rotundifolia</i>	Muscadine	•	•	•		•	•	
<i>Wisteria frutescens</i>	American Wisteria	•	•		•	•		

SCIENTIFIC NAME	COMMON NAME	LIGHT			MOISTURE			
		F	P	S	H	M	S	X
SMALL TREES								
<i>Acer leucoderme</i>	Chalk Maple		•	•		•	•	
<i>Amelanchier arborea</i>	Downy Serviceberry	•	•	•		•	•	
<i>Asimina triloba</i>	Common Pawpaw		•	•		•		
<i>Carpinus caroliniana</i>	American Hornbeam		•	•	•	•		
<i>Castanea pumila</i>	Common Chinquapin		•	•		•	•	
<i>Celtis tenuifolia</i>	Dwarf Hackberry		•	•			•	•
<i>Cercis canadensis</i>	Eastern Redbud	•	•	•		•	•	
<i>Chionanthus virginicus</i>	Fringe-tree	•	•	•		•	•	
<i>Cornus florida</i>	Flowering Dogwood	•	•	•		•	•	
<i>Frangula caroliniana</i>	Carolina Buckthorn		•	•		•	•	
<i>Halesia tetraptera</i>	Carolina Silverbell		•	•		•		
<i>Magnolia tripetala</i>	Umbrella Magnolia		•	•		•		
<i>Magnolia virginiana</i>	Sweetbay	•	•	•	•	•		
<i>Malus angustifolia</i>	Wild Crab Apple	•	•			•	•	
<i>Morus rubra</i>	Red Mulberry		•	•		•	•	
<i>Ostrya virginiana</i>	American Hop-Hornbeam		•	•		•	•	
<i>Prunus umbellata</i>	Hog Plum	•	•			•	•	
<i>Rhus copallinum</i>	Winged Sumac	•	•			•	•	•
<i>Rhus glabra</i>	Smooth Sumac	•	•			•	•	•
<i>Symplocos tinctoria</i>	Sweetleaf	•	•			•		
<i>Viburnum nudum</i>	Southern Wild Raisin	•	•		•	•		
<i>Viburnum prunifolium</i>	Black Haw		•	•		•	•	
SHRUBS								
<i>Aesculus sylvatica</i>	Painted Buckeye		•	•		•	•	
<i>Alnus serrulata</i>	Tag Alder	•	•		•			
<i>Aralia spinosa</i>	Devil's-Walking-stick	•	•	•		•	•	
<i>Aronia arbutifolia</i>	Red Chokeberry		•	•		•	•	
<i>Asimina parviflora</i>	Dwarf Pawpaw		•	•		•	•	
<i>Callicarpa americana</i>	Beautyberry	•	•	•		•	•	•
<i>Calycanthus floridus</i>	Eastern Sweetshrub	•	•	•		•	•	
<i>Ceanothus americana</i>	New Jersey Tea	•	•			•	•	•
<i>Cephalanthus americanus</i>	Buttonbush	•	•		•	•		
<i>Cornus amomum</i>	Silky Dogwood	•	•	•		•	•	
<i>Crataegus uniflora</i>	One-flowered Haw	•	•				•	•
<i>Crataegus marshallii</i>	Parsley Hawthorn		•	•		•	•	
<i>Crataegus spathulata</i>	Littlehip Hawthorn	•	•	•		•	•	•
<i>Euonymus americanus</i>	Strawberry Bush		•	•		•	•	
<i>Hamamelis virginiana</i>	Witch-hazel		•	•		•		
<i>Hydrangea arborescens</i>	Smooth Hydrangea		•	•		•		
<i>Hypericum hypericoides</i>	St. Andrew's Cross	•	•				•	•
<i>Ilex decidua</i>	Poosum-haw Holly	•	•	•		•	•	•
<i>Ilex verticillata</i>	Winterberry	•	•	•		•	•	
<i>Itea virginica</i>	Virginia-willow	•	•	•		•	•	
<i>Kalmia latifolia</i>	Mountain Laurel		•	•		•		
<i>Lindera benzoin</i> var. <i>pubescens</i>	Hairy Northern Spicebush	•	•		•	•		
<i>Rhododendron canescens</i>	Piedmont Azalea		•	•		•		
<i>Rhododendron flammeum</i>	Oconee Azalea		•	•		•	•	
<i>Sambucus canadensis</i>	Common Elderberry	•	•			•	•	
<i>Styrax americanus</i>	American Snowbell	•	•			•	•	
<i>Styrax grandifolius</i>	Big-leaf Snowbell		•	•		•	•	
<i>Vaccinium arboreum</i>	Sparkleberry		•	•		•	•	•
<i>Vaccinium elliotii</i>	Mayberry	•	•	•		•	•	•
<i>Vaccinium pallidum</i>	Hillside Blueberry	•	•	•		•	•	•
<i>Vaccinium stamineum</i>	Deerberry	•	•			•	•	
<i>Viburnum acerfolium</i>	Mapleleaf Viburnum		•	•		•	•	
<i>Viburnum rufidulum</i>	Southern Black Haw		•	•		•	•	
<i>Xanthorhiza simplicissima</i>	Yellowroot		•	•		•	•	

FORBS FOR SHADE/PART SHADE

Amianthium muscitoxicum.....Fly-poison
Anemone thalictroidesRue-anemone
Antennaria plantaginifoliaPlantain Pussytoes GC
Arisaema triphyllum.....Jack-in-the-pulpit
Cardamine diphylla.....Toothwort
Chamaelirium luteum.....Fairy Wand
Chimaphila maculata.....Pipsissewa
Chrysogonum virginianum...Green-and-gold GC
Cimicifuga racemosa.....Black Cohosh
Collinsonia anisataSouthern Horsebalm
Dodecatheon meadiaEastern Shooting Star
Elephantopus carolinianus ..Leafy Elephant's-foot GCS
Erythronium umbilicatum.....Dimpled Trout Lily
Eurybia divaricata.....White Wood Aster
Galax urceolataGalax GC
Gentiana saponariaSoapwort Gentian
Geranium maculatumWild Geranium
Goodyera pubescensDowny Rattlesnake-orchid
Hepatica americana.....Round-lobed Hepatica
Heuchera americanaAlumroot
Hexastylis arifolia.....Little Brown Jug
Impatiens capensis.....Orange Jewelweed
Iris cristataDwarf Crested Iris GCS
Lilium michauxiiCarolina Lily
Lobelia cardinalis.....Cardinal Flower
Lobelia puberula.....Downey Blue Lobelia
Maianthemum racemosum ..False Solomon's-seal
Medeola virginianaIndian Cucumber-root
Mimulus ringensAllegheny Monkeyflower
Mitchella repensPartridge-berry GC
Osmorhiza claytonii.....Sweet Cicely
Phlox divaricataEastern Blue Phlox GC
Podophyllum peltatum.....May-apple
Polygonatum biflorum.....Solomon's-seal
Potentilla canadensis.....Dwarf Cinquefoil
Sanguinaria canadensis.....Bloodroot
Sanicula canadensis.....Black Snakeroot
Saururus cernuusLizard's-tail
Silene stellataStarry Champion
Silene virginicaFire-pink
Sisyrinchium angustifolium ..Blue-eyed-grass
Solidago caesiaAxillary Goldenrod
Spigelia marilandicaIndian-pink
Stellaria puberaStar Chickweed
Tiarella cordifoliaFoamflower GC
Tipularia discolorCranefly Orchid
Trillium catesbaei.....Catesby's Trillium
Trillium cuneatumSweet Betsy
Trillium rugelliiSouthern Nodding Tuillium
Uvularia perfoliata.....Perfoliate Bellwort

FORBS FOR SUN/PART SUN

Ageratina altissimaCommon White Snakeroot
Amsonia tabernaemontana ..Wideleaf Blue-stars
Anemone virginiana.....Thimbleweed
Angelica venenosaHairy Angelica
Aquilegia canadensis.....Eastern Columbine
Asclepias tuberosaButterfly-weed
Asclepias variegataWhite Milkweed
Centrosema virginianum.....Butterfly Pea

Chamaecrista fasciculataPartridge Pea
Chelone glabraWhite Turtlehead
Chrysopsis mariana.....Golden Aster
Conoclinium coelestinumMistflower
Coreopsis auriculata.....Lobed Coreopsis GC
Coreopsis grandifloraLargeflowered Coreopsis
Coreopsis majorWoodland Coreopsis
Delphinium carolinianumCarolina Larkspur
Erigeron pulchellus.....Robin's-plantain
Eryngium yuccifolium.....Rattlesnake-master
Eupatorium fistulosum.....Joe-pye-weed
Eupatorium perfoliatumBoneset
Helianthus angustifolius.....Narrowleaf Sunflower
Helianthus divaricatusSpreading Sunflower
Helianthus microcephalusSmall-headed Sunflower
Hibiscus moscheutos.....Eastern Rose-mallow
Liatris graminifolia.....Blazing Star
Monarda fistulosaAppalachian Bergamot
Monarda punctata.....Spotted Horse-mint
Penstemon australis.....Southern Beard-tongue
Phlox amoena.....Hairy Phlox
Phlox carolinaThick-leaf Phlox
Pityopsis graminifolia.....Grass-leaved Goldenaster GC
Pycnanthemum incanum.....Mountain Mint
Pycnanthemum pycnanthemoides Southern Mountain Mint
Pycnanthemum tenuifolium ..Narrowleaf Mountain-mint GCSu
Rudbeckia hirta.....Black-eyed Susan
Rudbeckia laciniataCutleaf Coneflower
Salvia lyrataLyre-leaf Sage GC
Scutellaria integrifoliaSkullcap
Silphium asteriscus.....Starry Rosinweed
Silphium compositumRosinweed
Solidago nemoralis.....Gray Goldenrod
Solidago odoraLicorice Goldenrod
Solidago rugosa.....Wrinkle-leaf Goldenrod
Symphotrichum concolorEastern Silvery Aster
Symphotrichum lateriflorum Calico Aster
Symphotrichum patens.....Common Clasping Aster
Vernonia noveboracensis.....Ironweed
Viola pedata.....Bird's-foot Violet
Yucca filamentosaCurlyleaf Yucca

FERNS

Asplenium platyneuron.....Ebony Spleenwort
Athyrium asplenioidesSouthern Lady Fern
Botrychium bitematum.....Southern Grapefern
Botrychium virginianumRattlesnake Fern
Diphasiastrum digitatumRunning-cedar GCS
Onoclea sensibilis.....Sensitive Fern
Osmunda cinnamomeaCinnamon Fern
Osmunda regalis var. *spectabilis* Royal Fern
Phegopteris hexagonoptera .Broad Beech Fern
Pleopeltis polypodioides.....Resurrection Fern
Polystichum acrostichoides ..Christmas Fern
Pteridium aquilinum.....Southern Bracken Fern GC
Thelypteris noveboracensis..New York Fern GCS
Woodwardia areolata.....Netted Chain Fern GCS

GRASSES

Andropogon glomeratusBushy Bluestem
Andropogon ternarius.....Splitbeard Bluestem
Andropogon virginicus.....Broomsedge
Arundinaria giganteaRiver Cane
Carex cephalophoraOval-leaf Sedge
Carex nigromarginataBlack-edged Sedge
Chasmanthium latifoliumRiver Oats
Chasmanthium sessiliflorum..Longleaf Spikegrass GCS
Danthonia sericea.....Silky Oat-grass
Danthonia spicata.....Poverty Oat-grass GCS
Elymus virginicus.....Virginia Wild-rye Grass
Eragrostis spectabilis.....Purple Lovegrass
Juncus effusus.....Common Rush
Luzula acuminataWood-rush
Muhlenbergia capillaris.....Hairgrass
Muhlenbergia schreberi.....Nimbleweed GCS
Panicum anceps.....Beaked Panic Grass
Piptochaetium avenaceum ..Eastern Needlegrass
Saccharum alopecuroideum..Silver Plume Grass
Schizachyrium scoparium.....Little Bluestem GCSu
Scirpus cyperinusWoolgrass Bulrush
Sorghastrum nutansYellow Indiangrass
Tridens flavusPurpletop Tridens
Tripsacum dactyloides.....Gamma Grass

GC = Groundcover for sun or shade

GCS=Groundcover/shade

GCSu=Groundcover/sun

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For more information:

[Georgia Native Plant Society](#)

P O Box 422085

Atlanta, Georgia 30342-2085

www.gnps.org

[Georgia Exotic Pest Plant Council](#)

www.gaepcc.org

[Georgia Botanical Society](#)

www.gabotsoc.org

[Georgia Natural Heritage Program](#)

2117 US Hwy 278 SE

Social Circle, Georgia 30025

<http://georgiawildlife.dnr.state.ga.us>

Useful Websites:

[Plants Database](#)—<http://plants.usda.gov>

[Nature Serve](#)—www.natureserve.org

[United States Geologic Survey-Southeast](#)

<http://biology.USGS.gov/s+t/SNT/noframe/se130.htm#61965>

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