



CoastScapes

Georgia Coastal Plain Native Plants: Suggested Alternatives to Non-native Invasive Plants

Introduction

An invasive species is defined as “a species that is non-native to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health“ (National Invasive Species Council). Thus, they are introduced species that can thrive in areas beyond their natural range of dispersal. These plants are characteristically adaptable, aggressive, and have a high reproductive capacity. Their vigor, combined with a lack of natural enemies and plant competitors, often leads to outbreak populations. This, in turn, leads to taking over and displacing less aggressive native plants and eventual domination of a once diverse natural landscape. Wildlife, including pollinators, which are dependent on the native plant communities and ecosystems for food, nesting, and shelter, suffer greatly. Invasive plants are generally undesirable because they are difficult to control, can escape from cultivation, and can dominate whole areas. In short, invasive plant infestations can be extremely expensive to control, as well as be environmentally destructive.

Characteristics of Invasive Plants

Invasive plants are noted for their ability to grow and spread aggressively. Invasive plants can be trees, shrubs, vines, grasses, or non-woody plants, and they can reproduce rapidly by roots, seeds, shoots, or all three. Invasive plants tend to:

- not be native to the region;
- spread rapidly, reproducing by roots or shoots;
- mature quickly;
- if spread by seed, produce numerous seeds that disperse and sprout easily;
- be generalists that can grow in many different conditions;

- be exploiters and colonizers of disturbed ground;
- outcompete and shade out native plants.

The Impact of Invasive Plants

The primary reason to not landscape with invasive plants is that they are degrading our native environments. In fact, second only to habitat loss, invasives are a major factor in the decline of native plants. Plants such as kudzu, Japanese honeysuckle, Chinese wisteria, and mimosa are displacing native plants and degrading habitat for native insects, birds, and other animals. Endangered, rare, and threatened native species of plants and animals are especially at risk because they often occur in such small populations that make them particularly vulnerable.

Another good reason to avoid invasives is that invasive plants, even when grown in a cultivated yard, can spread, escape, and cause landscape maintenance weeding problems for years to come. In urban and suburban areas, there is a good chance that the worst weeds on your property are escaped plants, like Japanese honeysuckle, multiflora rose, and Japanese knotweed. In yards, gardens, fields, and parks, these plants are very expensive to control.

What Can I Do About Invasive Plants?

The best insurance against future problems with invasive plants on both your landscape and within your community is to implement the following:

- **Avoid the use of known invasive plants.** Knowing which plants are safe to buy and which are harmful is essential when planning and implementing your landscape. Make a conscientious choice NOT to purchase or plant invasives. Take the Georgia Exotic Pest Plant Council's (GAEPPC) invasive plant list with you when purchasing plants (see GAEPPC website below or check it out on the CoastScapes website: www.coastscapes.org). Make sure to check the common name to a scientific name to justify an appropriate plant purchase.
- **Protect healthy native plant communities.** Healthy native plant communities are a great defense against invasives. Maintain and protect any existing native plant communities. In addition, make a conscientious landscaping choice and go native! Native plants support Georgia's diverse and rich natural plant communities and ecosystems. Using native plants will turn your landscape into a diverse and thriving natural environment which will foster pollinators (i.e., hummingbirds, bees, butterflies,

moths, and other beneficial insects) and other wildlife. In addition, planting a native landscape will help restore habitat that is currently being lost due to land development such as urban growth and sprawl, forestry, and agricultural practices. Consider selecting a native plant alternative (see list provided below). However, when buying any native plant, make sure that it is appropriate for your landscape conditions.

Some of the benefits of planting a native landscape include:

- Native plants require less maintenance. A carefully chosen community of native plants that occur together in nature will create a self-regulating environment that requires less maintenance than if exotics were used. Due to their potential for volatile growth, exotics may need to be mechanically controlled much more frequently than native plants;
 - Native plants have evolved and are adapted to the particular insects and diseases in Georgia which harm plants, and therefore require little or no pesticide use once they are established. While some exotics grow unrestrained, many exotic plants are not adapted to the local environmental conditions and therefore may require pesticides to protect them against threats which they have no natural defense;
 - Native plants are well suited to the climate and soil conditions of Georgia. In comparison with exotics, the amount of water and fertilizer natives require is minimal. Planting exotics requires more water and fertilizer which is both expensive and harmful to the environment.
- **Minimize landscape disturbance.** Invasive plants thrive in areas where native plant communities have been disturbed by storms, soil disturbance, construction, or fire. For this reason, it is a good idea to plant any bare soil and disturbed ground with native plants before invasives can take hold.
 - **Use fertilizers wisely.** Proper site preparation begins with a soil test before applying fertilizer. High nitrogen levels sometimes give an advantage to invasive species that are better adapted to using plentiful nutrients for explosive growth. For soil fertility, try using organic, slow-decomposing compost and mulches.
 - **Scout your property annually for invasives.** Even healthy plant communities are susceptible to attack by invasives. Educate yourself on knowing some of the more harmful invasive plants so that you can look out for them. Performing periodic checks on your property can keep a small and manageable problem from becoming a large, unwieldy, and costly problem. The best way to control invasives is prevention, and prevention can only happen through vigilance.
 - **Remove invasives before they become a problem and when their densities are low.** Effective scouting or monitoring means that problems are found while they are still

small and easily controllable. Remove invasives as soon as they are found to eliminate the chance they will drop their seeds. Removing invasives when their densities are low gives the most immediate success because invasive plant control works best when there is a functioning native plant community still in place that can move right into the empty niche. Smaller infestations may be manually treated and controlled by being pulled out or dug up, while larger populations may need to be stopped chemically with spot applications of herbicide by trained individuals carefully following label instructions. When removing invasives, it is important to remove as much of the root mass as possible, and to minimize ground disturbance and native plants. Even small pieces left in the ground can cause new infestations.

- **Dispose of removed invasive plants wisely.** Proper disposal of pulled invasives is essential. However, invasive plant disposal poses a tricky problem. If not properly disposed of, some invasive plants will continue to grow and set seed despite being pulled out of the ground. It is important to know how tenacious your plant is in order to figure out how to make sure you do not spread the infestation through your disposal method. There are a few rules of thumb that will ensure that this will not happen:
 - Be sure the plant is dead before placing in a mulch or compost pile. Either dry it out in the sun (on a tarp or some impervious surface) so that there is no green whatsoever left on the plant, or bag it in a heavy duty black plastic bag (and be sure to seal it up) for a while until the plants inside have turned to mush. Sometimes you can clip the roots from the stem before drying it out to further limit the plant's resources for survival.
 - Pull the plant before it has flowered or gone to seed. On some plants, flowers can mature and set seed even after the plant has been pulled;
 - If you have flowers and/or seeds on the plant, bring your disposal bag to the weeding site and put the flowers and seed heads into the bag head first so that there is minimal risk in dispersing seed as you transport the weed to its final resting spot;
 - Burning is an optional method for disposal, especially with the woody stemmed invasives, but should only be done with a burn permit from the local fire department within the burning season;
 - Pile all of the invasive plants in one pile and cover with a tarp fastening it to the ground using rocks, wood, or stakes. Monitor the perimeter of the tarp for any escapees. This can be added to over time like a mulch pile or burned during the burning season.

- **Be “travel savvy” with invasives.** Travelling through areas where invasives are present may greatly facilitate their spread. Seeds can be transported by vehicle, hair, shoes, clothing, baggage and dirt. Responsibly remove potential invasive sources where possible.

Plant Choice Considerations

The native plants listed below have been reported by various sources to provide alternative native plant sources to recognized and documented invasive plants. Although these plants provide numerous benefits of being native plants (e.g., reduced water needs, reduced fertilizer and pesticide use, etc.), new plantings will require regular irrigation for six weeks to six months or more before they become established. Trees larger than two inches caliper width will take longer to establish. Although native plants have evolved to local conditions, plants of any species must be allowed time to become fully established in a landscape before all of its native plant features will be evident. All plants need water while establishing their root system and during periods of extended drought. Root establishment can take from months to one to several years, depending on the original size of the plant. Larger plants will take longer to establish.

Although the plants provided in the list below may be native to the coastal plain region of Georgia, individual plants may not grow everywhere in the region. In addition, the characteristics of any site will typically vary from place to place and some plants may do better than others at various places within a site. Putting plants in the right places is the key to ensuring they survive and remain healthy in your landscape. When selecting plants from this list, remember that many factors determine the suitability of a plant for a particular location. Consider light requirements, local climate, soil type, moisture, adaptability, hardiness, heat tolerance, and other factors. All plants listed are suited to the USDA Hardiness Zone 8. Please check to see if your zone falls within the 8a or 8b hardiness zone and then choose plants accordingly. Choose native plants that match and thrive under the conditions in your landscape and you will have a CoastScapes landscape! You will reduce the need for water, fertilizers, pesticides, and pruning while providing valuable wildlife habitat. Properly fit the plant to your site and local climate and you will have a beautiful CoastScapes landscape!

For more information regarding Georgia’s coastal plain native plants, to utilize the CoastScapes coastal plains native plant search engine, or to find out more about Georgia invasive plants, go to the CoastScapes website: www.coastscapes.org.



CoastScapes

Georgia Coastal Plain Native Plants: Suggested Alternatives to Non-native Invasive Plants

This list provides suggested Georgia coastal plain native plant alternatives to non-native invasive plants that either have been available or are currently available in the nursery trade. This list was adopted from a larger list developed by the Georgia Green Industry Association in cooperation with the Georgia Exotic Pest Plant Council (GEPPC) and includes the following GAEPPC invasive plant categories: Category 1 Plants, Category 1 Alert Plants and Category 2 Plants. The definitions of these particular categories are provided below. This particular CoastScapes list provides Georgia coastal plain native plant species that specifically fall within the 8a and 8b hardiness zones. For the complete list of suggested native and exotic non-native invasive plants for Georgia, or to obtain more information on invasive species, check out the following websites:

Georgia Exotic Pest Plant Council: www.gaeppc.org/

University of Georgia Center for Invasives and Ecosystem Health: www.invasives.org/

Key:

Category 1 Plants (1): Plants defined by the Georgia Exotic Pest Plant Council as those causing serious problems in Georgia's natural areas.

Category 1 Alert Plants (1 Alert): Alert plants are not yet a serious problem in Georgia natural areas, but have a significant potential to become a serious problem.

Category 2 Plants (2): Plants that are causing moderate problems in Georgia's natural areas.

Invasive Trees

Albizia julibrissin (1)

Melia azedarach (1)

Paulownia tomentosa (1)

Sapium sebiferum (1)

mimosa

Chinaberry

princess-tree

Chinese tallowtree

Suggested Native Tree Alternatives

Acer barbatum

Acer leucoderme

Acer rubrum

Acer saccharinum

Cercis canadensis

Chamaecyparis thyoides

Chionanthus virginicus

Cornus florida

Crataegus marshallii

Gleditsia traicanthos var. *inermis*

Haleisa carolina

Halesia dipteral

Ilex opaca

Magnolia macrophylla

Magnolia virginiana

Nyssa sylvatica

Oxydendrum aroboreum

Pinchneya bracteata (formerly *P. pubens*)

Quercus lyrata

Rhus glabra

Sassafras albidum

Ulmus alata

southern sugar maple

chalk maple

red maple

silver maple

eastern redbud

Atlantic white cedar

white fringetree

flowering dogwood

parsley hawthorn

honeylocust

Carolina silverbell

two-wing silverbell

American holly

bigleaf magnolia

sweetbay

blackgum

sourwood

fevertree

overcup oak

smooth sumac (shrub?)

sassafras

winged elm

Invasive Shrubs

Eleagnus pungens (2)

Eleagnus umbellata (1)

silverthorn

autumn-olive

<i>Ligustrum japonicum</i> (2)	Japanese privet
<i>Ligustrum sinense</i> (1)	Chinese privet
<i>Lonicera maackii</i> (2)	Amur honeysuckle
<i>Nandina domestica</i> (2)	nandina
<i>Rosa multiflora</i> (1)	multiflora rose
<i>Spiraea japonica</i> (2)	Japanese spirea

Suggested Native Shrub Alternatives

<i>Aesculus parviflora</i>	bottlebrush buckeye
<i>Aesculus pavia</i>	red buckeye
<i>Agarista populifolia</i>	Florida hobblebush
<i>Calycanthus floridus</i>	eastern sweetshrub
<i>Callicarpa americana</i>	American beautyberry
<i>Clethra alnifolia</i>	coastal sweetpepperbush
<i>Cyrilla racemiflora</i>	swamp titi
<i>Eubotrys racemosa</i> (formerly <i>Leucothoe racemosa</i>)	swamp doghobble
<i>Fothergilla gardenii</i> **	dwarf witchalder**
<i>Hammamelis virginiana</i>	American witchhazel
<i>Hydrangea arborescens</i>	wild hydrangea
<i>Hydrangea quercifolia</i>	oakleaf hydrangea
<i>Hypericum frondosum</i>	cedarglade St. Johnswort
<i>Ilex decidua</i>	possumhaw
<i>Ilex glabra</i>	inkberry
<i>Ilex verticillata</i>	common winterberry
<i>Illicium floridanum</i> **	Florida anisetree**

**** PLEASE NOTE!!** *Fothergilla gardenii* and *Illicium floridanum* are protected plants in Georgia. Before choosing either of these shrubs for planting, please take great care to assure that your conditions are appropriate for the necessary requirements and needs of these rare and protected plants.

<i>Illicium parviflorum</i>	yellow anisetree
<i>Itea virginica</i>	Virginia sweetspire
<i>Leucothoe axillaris</i>	coastal doghobble
<i>Lindera benzoin</i>	northern spicebush

<i>Myrica cerifera</i>	wax myrtle
<i>Pinckneya bracteata</i> (formerly <i>P. pubens</i>)	fevertree
<i>Rhododendron austrinum</i>	orange azalea
<i>Rhododendron canescens</i>	mountain azalea
<i>Rhododendron viscosum</i> (formerly <i>R. serrulatum</i>)	swamp azalea
<i>Vaccinium corymbosum</i>	highbush blueberry
<i>Vaccinium virgatum</i> (formerly <i>V. ashei</i>)	smallflower blueberry
<i>Viburnum acerifolium</i>	mapleleaf viburnum
<i>Viburnum dentatum</i>	southern arrowwood
<i>Viburnum nudum</i>	possumhaw

Invasive Vines

<i>Celastrus orbiculatus</i> (1 Alert)	oriental bittersweet
<i>Hedera helix</i> (1)	English ivy
<i>Lonicera japonica</i> (1)	Japanese honeysuckle
<i>Lygodium japonicum</i> (1)	Japanese climbing fern
<i>Pueraria montana</i> (1)	kudzu
<i>Wisteria sinensis</i> (1)	Chinese wisteria

Suggested Native Vine Alternatives

<i>Bignonia capreolata</i>	crossvine
<i>Campsis radicans</i>	trumpet creeper
<i>Clematis viorna</i>	vasevine
<i>Clematis virginiana</i>	devil's darning needles
<i>Decumaria barbara</i>	woodvamp
<i>Gelsemium sempervirens</i>	evening trumpetflower
<i>Lonicera sempervirens</i>	trumpet honeysuckle
<i>Parthenocissus quinquefolia</i>	Virginia creeper
<i>Passiflora incarnata</i>	purple passionflower
<i>Wisteria frutescens</i>	American wisteria

Invasive Groundcovers

Hedera helix (1)

Vinca major (2)

Vinca minor (2)

English ivy

bigleaf periwinkle

common periwinkle

Suggested Native Groundcover Alternatives

Chrysogonum virginianum

Mitchella repens

Onoclea sensibilis

Phlox divaricata

Polystichum acrostichoides

Woodwardia areolata

green and gold

partridgeberry

sensitive fern

wild blue phlox

Christmas fern

netted chainfern

Invasive Grasses

Miscanthus sinensis (2)

Phyllostachys aurea (2)

Imperata cylindrical 'Red Baron' (1 Alert)

Chinese silvergrass

golden bamboo

Japanese bloodgrass

Suggested Native Grass Alternatives

Eragrostis spectabilis

Juncus effuses

Muhlenbergia capillaris

Muhlenbergia filipes

Panicum virgatum

Schizachyrium scoparium

Sorghastrum nutans

Tripsacum dactyloides

purple lovegrass

common rush

hairawn muhly

gulfhairawn muhly

switchgrass

little bluestem

Indiangrass

eastern gamagrass

Invasive Herbaceous Perennials

Leucanthemum vulgare (2)

oxeye daisy

Polygonum cuspidatum (1 Alert)

Japanese knotweed

Suggested Native Herbaceous Perennials

Baptisia alba

white wild indigo

Baptisia laceolata

gopherweed

Baptisia lecontei

pineland wild indigo

Baptisia perfoliata

catbells

Baptisia tinctoria

horseflyweed

Chrysogonum virginianum

green and gold

Echinacea purpurea

eastern purple coneflower

Gaura filipes

slenderstalk beeblossom

Gaura sinuata

wavyleaf beeblossom

Phlox divaricata

wild blue phlox

Rudbeckia fulgida

orange coneflower

Stokesia levis

Stokes' aster