



Georgia Coastal Plain Native Plants For Riparian Buffer Restorations

Water is the most critical resource issue of our lifetime and our children's lifetime. The health of our waters is the principal measure of how we live on the land." Luna Leopold

What Are Riparian Buffers and What Are Their Values?

Riparian buffers are vegetated lands adjacent to streams, rivers, wetlands, lakes, and freshwater and tidal marshes that protect these waterbodies from activities in upland areas. They are often the vegetated corridors containing trees, shrubs, non-woody plants, and native grasses that line the water's bank.

A healthy riparian area is evidence of wise land use management. Thus, preserving and restoring connectivity of riparian buffers is essential in protecting the water and habitat quality of our coastal streams, rivers, wetlands, and marshes. These coastal riparian buffers perform a wide range of ecological functions and services that have high environmental, economic, and social value.

Riparian buffer zones provide substantial benefits, including:

- Minimize activities that degrade, destroy, or otherwise negatively impact the value and function of our coast's waterways, including coastal marshlands;
- Maintains the watershed's hydrology (baseflow);
- Maintains stream and river water quality;
- Filters and traps sediment and other pollutants, such as pesticides and fertilizers, found in surface runoff;
- Transforms and removes nutrients, such as nitrogen and phosphorus;
- Promotes bank stabilization and reduces erosion;

- Provides a major source of energy and nutrients for stream communities through the riparian vegetation. They are especially important in small, headwater streams where up to 99% of the energy input may be from woody debris and leaf litter;
- Protects and maintains valuable terrestrial habitat for wildlife, including nesting, feeding, and sheltering habitat, as well as providing important corridors or travel ways for a variety of wildlife;
- Protects aquatic habitat including important nursery grounds for fisheries, which provide food and habitat to numerous species of fish and shellfish, including commercially important species;
- Additionally maintain aquatic habitat through:
 - moderation of water temperature, and
 - contribution of leaves and woody debris (provide food source and habitat);
- Riparian vegetation increases temporary floodwater storage and filtration areas, slows floodwaters, thereby helping to maintain stable streambanks and protect downstream property. By slowing down floodwaters and rainwater runoff, the riparian vegetation allows water to soak into the ground and recharge groundwater. Slowing floodwaters allows the riparian zone to function as a site of sediment deposition, trapping sediments that would otherwise degrade our streams and rivers while overall reducing the impacts of flooding;
- Enhances the marshlands' scenic value and recreational opportunities;
- Protects property values of individual landowners by reducing property damage from floods, high tides and storm surges;
- Protects and restores greenspace and the natural character of the region;
- Protects the coastal region's visual character and unique natural resources;
- Provides scenic and aesthetic benefits which provide enhancement of property = increased property values
- Reduces maintenance costs and time compared to turfgrass;
- Protects coastal fishing, recreation and tourism industries; and
- Provides recreational and educational opportunities.

Loss of Riparian Area

Degraded riparian buffers reduce water quality, reduce wildlife and fish populations, cause serious property damage (e.g., bank erosion) and loss of valuable lands. Removal of riparian vegetation results in increased water temperatures and decreased dissolved oxygen. The loss of shade exposes soils to drying by wind and sunlight and reduces the water storage capacity of the riparian area. Loss of riparian vegetation causes streambank erosion. Eroding banks contribute to sedimentation and

lead to a wide shallow stream with little habitat value. These factors result in significant reductions in aquatic stream life.

What Can We Do?

Riparian buffers are the invaluable link between land and water, and the trees and other native vegetation that make up the riparian buffers are vital components of a healthy stream ecosystem. We who live in coastal Georgia value the aesthetic beauty that is provided in our region. In order to keep our precious natural resources, we must conserve existing riparian buffers and restore degraded buffers within our coastal region's waterways.

A Georgia coastal plain native plant list is provided below for use as a tool when planning a coastal riparian buffer restoration effort. In addition, there are several other coastal Georgia riparian buffer tools available:

Guidelines for Coastal Georgia Riparian Buffer Restoration. UGA MAREX CoastScapes Conservation Landscaping Program: www.coastscapes.org

Protecting Riparian Buffers in Coastal Georgia: Management Options. UGA River Basin Center and UGA School of Law. Includes Model Coastal Riparian Buffer Ordinance: <http://www.rivercenter.uga.edu/research/coastal.htm>

Coastal Riparian Buffer Guidance Manual: A Companion to the Model Coastal Buffer Ordinance. UGA River Basin Center: <http://www.rivercenter.uga.edu/research/coastal.htm>

Plant Choice Considerations

This Georgia coastal plain native plant riparian buffer list consists of native plants that have been reported by various sources to provide valuable riparian buffer native plant vegetation. 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 riparian buffer 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 riparian buffer landscape!

For more information regarding Georgia's coastal plain native plants, to utilize the University of Georgia Marine Extension Service/Bugwood CoastScapes Coastal Plains Native Plant search engine, or how to further protect water quality and wildlife habitat, go to the CoastScapes website: www.coastscapes.org.



CoastScapes

Georgia Coastal Plain Native Plants For Riparian Buffer Restoration

Trees

<i>Acer barbatum</i>	southern sugar maple
<i>Acer rubrum</i>	red maple
<i>Aesculus pavia</i>	red buckeye
<i>Betula nigra</i>	river birch
<i>Carya alba</i>	mockernut hickory
<i>Carya aquatica</i>	water hickory
<i>Carya cordiformis</i>	bitternut hickory
<i>Carya glabra</i>	pignut hickory
<i>Carya ovata</i>	shagbark hickory
<i>Castanea pumila</i>	chinkapin
<i>Catalpa bignonioides</i>	southern catalpa
<i>Celtis laevigata</i>	sugarberry
<i>Celtis occidentalis</i>	common hackberry
<i>Chamaecyparis thyoides</i>	Atlantic white cedar
<i>Diospyros virginiana</i>	common persimmon
<i>Fagus grandifolia</i>	American beech
<i>Gleditsia triacanthos</i>	honeylocust
<i>Ilex opaca</i>	American holly
<i>Juglans nigra</i>	black walnut
<i>Liquidambar styraciflua</i>	sweetgum
<i>Liriodendron tulipifera</i>	tuliptree
<i>Magnolia grandiflora</i>	southern magnolia
<i>Nyssa aquatica</i>	water tupelo
<i>Nyssa biflora</i>	swamp tupelo
<i>Nyssa ogeche</i>	Ogeechee tupelo
<i>Nyssa sylvatica</i>	blackgum

<i>Oxydendron arboreum</i>	sourwood
<i>Pinus clausa</i>	sand pine
<i>Pinus echinata</i>	shortleaf pine
<i>Pinus elliotii</i>	slash pine
<i>Pinus glabra</i>	spruce pine
<i>Pinus serotina</i>	pond pine
<i>Pinus taeda</i>	loblolly pine
<i>Platanus occidentalis</i>	American sycamore
<i>Populus deltoides</i>	eastern cottonwood
<i>Populus heterophylla</i>	swamp cottonwood
<i>Prunus americana</i>	American plum
<i>Quercus alba</i>	white oak
<i>Quercus falcata</i>	southern red oak
<i>Quercus incana</i>	bluejack oak
<i>Quercus laevis</i>	turkey oak
<i>Quercus laurifolia</i>	laurel oak
<i>Quercus lyrata</i>	overcup oak
<i>Quercus margarettae</i>	runner oak
<i>Quercus marilandica</i>	blackjack oak
<i>Quercus michauxii</i>	swamp chestnut oak
<i>Quercus nigra</i>	water oak
<i>Quercus pagoda</i>	cherrybark oak
<i>Quercus phellos</i>	willow oak
<i>Quercus shumardii</i>	Shumard's oak
<i>Quercus stellata</i>	post oak
<i>Quercus velutina</i>	blackoak
<i>Quercus virginiana</i>	live oak
<i>Robinia pseudoacacia</i>	black locust
<i>Sabal palmetto</i>	cabbage palm
<i>Taxodium ascendens</i>	pond cypress
<i>Taxodium distichum</i>	bald cypress
<i>Tilia americana</i>	American basswood
<i>Ulmus alata</i>	winged elm
<i>Ulmus americana</i>	American elm

Small Trees

<i>Amelanchier arborea</i>	common serviceberry
<i>Amelanchier canadensis</i>	Canadian serviceberry
<i>Asimina triloba</i>	pawpaw
<i>Carpinus caroliniana</i>	American hornbeam
<i>Cercis canadensis</i>	eastern redbud
<i>Chionanthus virginicus</i>	white fringetree
<i>Cornus amomum</i>	silky dogwood
<i>Cornus florida</i>	flowering dogwood
<i>Cornus foemina</i>	stiff dogwood
<i>Crataegus crus-galli</i>	cockspur hawthorn
<i>Crataegus flava</i>	yellow hawthorn
<i>Cyrilla racemiflora</i>	swamp titi
<i>Fraxinus americana</i>	white ash
<i>Fraxinus caroliniana</i>	Carolina ash
<i>Fraxinus pennsylvanica</i>	green ash
<i>Fraxinus profunda</i>	pumpkin ash
<i>Gordonia lasianthus</i>	loblolly bay
<i>Halesia carolina</i>	Carolina silverbell
<i>Ilex coriacea</i>	large gallberry
<i>Ilex decidua</i>	possumhaw
<i>Ilex verticillata</i>	common winterberry
<i>Ilex vomitoria</i>	yaupon holly
<i>Juniperus virginiana</i>	eastern redcedar
<i>Magnolia virginiana</i>	sweetbay
<i>Morus rubra</i>	red mulberry
<i>Ostrya virginiana</i>	hophornbeam
<i>Persea borbonia</i>	redbay
<i>Persea palustris</i>	swamp bay
<i>Prunus angustifolia</i>	Chickasaw plum
<i>Prunus caroliniana</i>	Carolina laurelcherry
<i>Prunus serotina</i>	black cherry
<i>Salix caroliniana</i>	coastal plain willow
<i>Salix nigra</i>	black willow
<i>Sassafras albidum</i>	sassafras
<i>Ulmus rubra</i>	red elm

Shrubs

<i>Alnus serrulata</i>	hazel alder
<i>Amorpha fruticosa</i>	desert false indigo
<i>Baccharis halimifolia</i>	eastern baccharis
<i>Callicarpa americana</i>	American beautyberry
<i>Ceanothus americanus</i>	New Jersey tea
<i>Cephalanthus occidentalis</i>	common buttonbush
<i>Clethra alnifolia</i>	coastal sweetpepperbush
<i>Cornus amomum</i>	silky dogwood
<i>Cyrilla racemiflora</i>	swamp titi
<i>Erythrina herbacea</i>	redcardinal
<i>Eubotrys racemosa</i>	swamp doghobble
<i>Eunonymus americanus</i>	bursting-heart
<i>Fothergilla gardenii</i> **	dwarf witch alder**
<i>Gaylussacia frondosa</i>	blue huckleberry
<i>Hamamelis virginiana</i>	America witchhazel
<i>Ilex cassine</i>	dahoon holly
<i>Ilex glabra</i>	inkberry
<i>Ilex vomitoria</i>	yaupon holly
<i>Illicium floridanum</i> **	Florida anisetree**
<i>Itea virginica</i>	Virginia sweetspire
<i>Iva frutescens</i>	Jesuit's bark
<i>Leucothoe axillaris</i>	coastal doghobble
<i>Lindera benzoin</i>	northern spicebush
<i>Lyonia ferruginea</i>	rusty staggerbush
<i>Lyonia ligustrina</i>	maleberry
<i>Lyonia lucida</i>	fetterbush lyonia
<i>Morella caroliniensis</i>	southern bayberry
<i>Morella cerifera</i>	wax myrtle
<i>Osmanthus americanus</i>	devilwood
<i>Photinia pyrifolia</i>	red chokeberry

**** 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>Rhododendron atlanticum</i>	dwarf azalea
<i>Rhododendron canescens</i>	mountain azalea
<i>Rhododendron periclymenoides</i>	pink azalea
<i>Rhododendron viscosum</i>	swamp azalea
<i>Rhus copallinum</i>	winged sumac
<i>Rosa carolina</i>	Carolina rose
<i>Rosa palustris</i>	swamp rose (subshrub)
<i>Rubus cuneifolius</i>	sand blackberry (subshrub)
<i>Sabal minor</i>	dwarf palmetto
<i>Sambucus nigra ssp. canadensis</i>	American black elderberry
<i>Serenoa repens</i>	saw palmetto
<i>Stewartia malachodendron**</i>	silky camellia**

**** PLEASE NOTE!!** *Stewartia malachodendron* is a protected plant in Georgia. Before choosing this shrub for planting, please take great care to assure that your conditions are appropriate for the necessary requirements and needs of this rare and protected plant.

<i>Styrax grandifolius</i>	bigleaf snowbell
<i>Symplocos tinctoria</i>	common sweetleaf
<i>Vaccinium arboreum</i>	farkleberry
<i>Vaccinium corymbosum</i>	highbush blueberry
<i>Vaccinium crassifolium</i>	creeping blueberry
<i>Vaccinium elliotii</i>	Elliott's blueberry
<i>Vaccinium stamineum</i>	deerberry
<i>Viburnum dentatum</i>	southern arrowwood
<i>Viburnum nudum</i>	possumhaw
<i>Viburnum prunifolium</i>	blackhaw
<i>Viburnum rufidulum</i>	rusty blackhaw
<i>Xanthorhiza simplicissima</i>	yellowroot

Cactus and Succulents

<i>Yucca aloifolia</i>	aloe yucca
<i>Yucca filamentosa</i>	Adam's needle

Perennials

<i>Asclepias tuberosa</i>	butterfly milkweed
<i>Coreopsis gladiata</i>	coastal plain tickseed
<i>Coreopsis lanceolata</i>	lanceleaf tickseed
<i>Glandularia canadensis</i>	rose mock vervain
<i>Helianthus angustifolius</i>	swamp sunflower
<i>Hibiscus moscheutos</i>	crimson-eyed rosemallow
<i>Iris virginica</i>	Virginia iris
<i>Kosteletzkya virginica</i>	Virginia saltmarsh mallow
<i>Liatris spicata</i>	dense blazing star
<i>Oenothera drummondii</i>	beach evening primrose
<i>Oenothera speciosa</i>	pinkladies
<i>Phlox carolina</i>	thickleaf phlox
<i>Rudbeckia hirta</i>	black-eyed Susan
<i>Rudbeckia fulgida</i>	orange coneflower
<i>Salvia coccinea</i>	blood sage
<i>Salvia lyrata</i>	lyreleaf sage
<i>Solidago sempervirens</i>	seaside goldenrod

Grasses and Sedges

<i>Andropogon gerardii</i>	big bluestem
<i>Andropogon glomeratus</i>	bushy bluestem
<i>Andropogon virginicus</i>	broomsedge bluestem
<i>Arundinaria gigantea</i>	giant cane
<i>Chasmanthium latifolium</i>	Indian woodoats
<i>Chasmanthium laxum</i>	slender woodoats
<i>Chasmanthium sessiliflorum</i>	longleaf woodoats
<i>Eragrostis spectabilis</i>	purple lovegrass
<i>Muhlenbergia filipes</i>	gulfhairawn muhly
<i>Panicum amarum</i>	bitter panicgrass
<i>Panicum anceps</i>	beaked panicgrass
<i>Panicum virgatum</i>	switchgrass
<i>Rhynchospora colorata</i>	starrush whitetop
<i>Rhynchospora latifolia</i>	sandswamp whitetop

Schizachyrium scoparium

little bluestem

Sorghastrum nutans

Indiangrass

Tridens flavus

purpletop tridens

Tripsacum dactyloides

eastern gamagrass

*Uniola paniculata***

seaoats**

****PLEASE NOTE!!** *Uniola paniculata* is a protected plant in Georgia for its important role in beach ecosystems and shoreline stabilization. It is against Georgia law to collect the plant or its seeds from the wild.

Vines

Bignonia capreolata

crossvine

Gelsemium sempervirens

evening trumpetflower

Parthenocissus quinquefolia

Virginia creeper

Ground Covers

Mitchella repens

partridgeberry