The Journal of the

South Carolina Native Plant Society



May 2015

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Name this native plant

I am usually a shrub, but can grow into a small tree. I am a leguminous plant. You can find me along country road edges in sunny spots. I have pretty rose-colored flowers. My twigs look pretty threatening, but don't hate me because I'm beautiful. I am easy to spot in May. My identity is embedded somewhere in the text.



South Carolina Native Plant Symposium June 12-14, 2015 • North Charleston, SC

The annual South Carolina Native Plant Society state symposium will be held in Park Circle, North Charleston on June 12-14. One of the Charleston area's older planned communities, North Charleston has recently been the center of a "green" revival. This makes it the perfect place to come and learn about relationships between people and plants, including the use of native plants as in medicine, as food, and for many other practical purposes. We have a diverse set of lectures, workshops, and field trips lined up and invite you to join us in discovering more about the wonderful native plants found right in our own backyards.

Friday Evening, 6:00 pm: Registration and an opening reception will be held at the Mixson Bath & Racquet Club. The Mixson neighborhood is an example of sustainable development in North Charleston's Park Circle area. A casual kickoff to the event, this is a great opportunity to meet and socialize with fellow native plant enthusiasts from across South Carolina.

Saturday Morning 8:00 am: Two great keynote talks covering the state from the mountains to the coast will be held at the Felix Davis Community Center in Park Circle. Author and biologist Ron Lance will share stories from

his experiences with researching and writing <u>Haws</u> — <u>A Guide to Hawthorns of the Southeastern United States</u>. Then the Lowcountry team of Richard Porcher and Joel Gramling will delve into their Botanical Potpourri, guaranteed to entertain!

Saturday Afternoon 1:30 pm: We'll get started after lunch with the SCNPS state business meeting and elections. Then the afternoon offers a variety of options...a mini-lecture series, workshops, and local field trips. All focused around the connection between People and Native Plants, amongst them are opportunities to:

- Learn about plant propagation from the Ladies at Roots and Shoots Nursery.
- Tour a new urban landscape with local landscape architect J.R. Kramer.
- Explore the use of indigo in batik with renowned textile artist Arianne King Comer.

SOUTH CAROLINA NATIVE PLANT SOCIETY
2015 STATE SYMPOSIUM
JUNE 12th-14th
PARK CIRCLE NORTH CHARLESTON

continued on back cover

Dealing with Deer

Adapted from an article by Ken Gohring in NATIVESCAPE, the newsletter of the Georgia Native Plant Society • July, 2012

Over the years, the population of white tail deer in our country has increased significantly. It is estimated that America's deer population has tripled since 1985. The increase is caused by the demise of many of the predators that control the deer naturally, as well as the growth of conservation programs funded mostly by game hunters.

Housing development in areas where deer are adapted has led to situations where deer herds co-exist with humans in suburban areas. In many cases, there are natural areas nearby where deer can survive and reproduce, insuring significant numbers of animals that have no reservations about consuming vegetation wherever they find it. Deer are mainly browsers, which means that they prefer young growing twigs of trees and shrubs. So deer readily browse on young trees and shrubs in our urban landscapes. In these areas the food that deer consume is in people's yards and gardens. While most of us appreciate the beauty of deer, we find it disturbing when they consume the plants that we invest money, effort and love into. How does one go about controlling (really only

minimizing) this problem? Essentially, there are four ways to minimize deer problems:

1. Restrict Access.

Fencing is the primary means of keeping deer away from our gardens and landscape areas. The method one uses is dependent upon such factors as how heavy the deer pressure is and how much money one is willing to spend. In areas of relatively low deer population, a single wire electric fence about three feet above the ground will suffice. The old master gardener trick

of wrapping aluminum foil coated with peanut butter or something sweet like honey or molasses on the electric wire in between the fence posts is usually effective in conditioning the deer to stay away. A "zap" or two creates a strong impression of danger identified with that site. I personally use a two-strand electric fence with steel posts and a battery-powered charger with a solar recharging capability. It is important to get an electric fence in place

while plants are starting to grow, as deer prefer plants with tender growth. Be sure to notify via hanging signs that the fence is electrified. Another approach is a woven wire fence seven or eight feet tall to prevent deer from jumping over or through the fence. A friend whose home is near the Kennesaw Mountain Battlefield Park uses a multiple strand wire fence about 6 feet high, as well as strands of electric fencing to keep deer out of the garden area. The Park has a rather large population of deer but this fence is quite effective.

Another friend also living near the park avoids fencing but uses wire cages that protect select plants from being reached by hungry deer, in conjunction with fright devices. More elaborate fencing methods are used. Generally the larger the number of deer near gardens, the more sophisticated the fence system needs to be.

2. Scare the deer. Deer are startled by noise, so devices that emit sharp sounds are sometimes effective in keeping deer away. I once considered purchasing a device that

would detect motion and then emit a high-pitched sound to scare animals. My concern was that the sound would bother neighbors, so I never tried the device. Deer are intelligent animals, and such soundemitting devices have to be moved frequently to maintain the intimidation value of the system. Another way to use fright to keep deer away is to get a dog willing to bark and chase. This is probably the most effective way to scare deer, but leash laws require dogs to be somewhat constrained, thus a dog-confining system is

necessary. My friend who makes extensive use of cages, uses a commercial device called Scarecrow. This device detects motion and starts emitting a stream of water of up to 30 feet —hopefully in the direction of the offending animal. It has proven to be quite successful, however, there is some concern that the deer will learn the system and cease to be scared.



- 3. Use deer repellents. Many homemade repellents have been tried to control deer. Perhaps the most frequently suggested materials are human hair and soap. Gardeners are advised to get the hair from barbershops or beauty parlors. The hair is placed in a bag and hung near the plants. The smell is said to ward off the deer. Soap is used in the same way and usually lasts longer. The hair has to be replaced about once a month while soap will last several months. These two methods alert the deer's sense of smell, which it uses to detect danger. Other repellents send alerts to deer by replicating predator odors. Many of these are sold commercially. These commercial repellents are frequently made of animal blood or urine. The base materials are treated chemically so that after application on plants and subsequent drying they become rain-proof and last for several months. A friend with a large native azalea garden near Dahlonega uses a product called Deer Scram. He says it keeps deer away for several months. The deer population in his area is at a moderate level, not as significant as the one near the Park discussed earlier. Other repellents have unpalatable tastes. Once the deer has sampled a plant with such a repellent applied, it tends to avoid the remainder of the plant. At times, certain plants such as herbs are used to repel deer. These plants include mint, thyme, chives and other culinary herbs. Some people use garlic. Some use rotten eggs as well as sewage, slaughterhouse tankage, and fish or blood-derived products. If these sound offensive, they are, and in some cases can cause problems that make them less than ideal repellents.
- 4. Use plants that deer do not like. If deer get hungry enough they will eat almost any plant. In other situations when deer are more selective, they will normally avoid certain plants. The University of Georgia has compiled an extensive list of plants and how well deer like them. That list can be found at http://www.caes.uga.edu/publications/pubDetail.cfm?pk_id=7872. This list includes a large number of native plants that native gardeners may want to consider for their gardens. Deer tend to avoid plants with bitter taste, strong smell or sharp pointed leaves or thorns. Some of the plants listed by UGA as "Rarely browsed" are (there are many more at the link provided):
 - * American Holly, *Ilex opaca*
 - * Smoketree, Cotinus obovatus
 - * Eastern redcedar, Juniperus virginiana
 - * Tuliptree, Liriodendron tulipifera
 - * Waxmyrtle, Morella cerifera
 - * Leucothoe, Leucothoe fontanesiana
 - * Bottlebrush buckeye, Aesculus parviflora
 - * Yucca, Yucca filamentosa
 - * Arrowwood Viburnum, Viburnum dentatum

- * Pawpaw, Asimina triloba
- * Fern species
- * Bleeding Heart, Dicentra spectabilis
- * Blue False Indigo, Baptisia australis
- * Meadow Rue, Thalictrum spp.
- * Foamflower, Tiarella cordifolia
- * Jack in the pulpit, Arisaema triphyllum
- * Ginger, Asarum canadense
- * White Snakeroot, Ageratina altissima
- * Little bluestem, Schizachyrium scoparium
- * Pink muhly grass, Muhlenbergia capillaris

It is not likely that anyone is going to design their native garden by using a list of deer-resistant plants exclusively. However, the use of these plants may minimize damage. There are numerous tales of deer browsing habits. It is likely that deer eating habits vary by geographical area. Plants that deer like in one area may be ignored in another area. The friend who uses wire cages and the Scarecrow device has several plants that have escaped deer browsing for some time. These include honeycups (*Zenobia pulverulenta*), loblolly bay (*Gordonia lasianthus*), a large collection of ferns, and winterberry (*Ilex decidua*). Many sources list butterfly weed (*Asclepias tuberosa*) as a plant that deer avoid. That is not the case in this garden as the deer consume the blooms and part of the stems.

Beyond Browsing —Trunk damage

The term "rut" is used to describe the behaviors and activities of male deer associated with the breeding season. Male deer grow a new set of antlers each year. They rub their new antlers on shrubs and small trees to remove a material called velvet from the antler's surface. When the antlers are rubbed across the selected shrub or tree, the outer bark of the plant is removed in most cases. In addition, the deer rub their forehead on the "rutted" area to leave a scent to mark their territory. Another activity called "making scrapes" is part of the rutting activity. Usually a deer will select an aromatic shrub like a cedar or sassafras where it marks its territory by scraping the soil with its hooves and urinating on the site. At times, the deer will also graze on the shrub. Two types of rut guards are sold commercially. One is a vinyl wrap that is wound around the trunk of the plant to be protected, up to a height of 36 inches or more. Another is a vinyl cage that is installed around the plant's trunk.

To successfully maintain a garden in an area close to where deer live, one has to first measure the magnitude of the deer problem and then plan based on this assessment. For those who live near significant deer populations, it is a never-ending task. The strategies discussed here should be tried singly or in tandem, to find out what works for you.

Roadsides, Havens for Herbaceous Natives

Bill Stringer

Seeing native grasses and wildflowers in a natural setting is a wonderful experience for many "plant people". Reading the writings of Bartram, Michaux, Lawson and other early plant explorers in the Carolinas is exciting to us. These early nature writers had the luxury of large expanses of natural communities with very little introduced vegetation. These intrepid travelers traveled the backcountry on foot-trails long established by Native Americans. They saw the country while it was still altered considerably by fire, so they passed through largely open grasslands to savannas to deep forests. They saw the fauna in association with intact floral communities. To read their writings and view the wonderful art they created is to get some sense of how inspired they were by their experiences:

From John Lawson, <u>A New Voyage to Carolina</u>, published in 1709

"... Plantations in Carolina naturally enjoy a noble prospect of large and spacious rivers, pleasant savannas, and fine meadows, with their green liveries, interwoven with beautiful flowers of most glorious colours, which the several seasons afford; hedg'd in with pleasant groves of the ever-famous tulip tree, the stately laurel, and bays, equalizing the oak in bigness and growth; myrtles, jessamines, woodbines, honeysuckles, and several other fragrant vines and evergreens, whose aspiring branches shadow and interweave themselves with the tallest timbers, yielding a pleasant prospect, shade and smell, proper habitations for the sweet-singing birds, that melodiously entertain such as travel thro' the woods of Carolina."

Oh, to be able to experience our landscapes in such a fashion today!

We can get a hint of that experience by touring botanical gardens and state and national parks that have adopted the policy of emphasizing native species in their exhibits. We can come reasonably close by exploring our state and national forests, but timber production is usually a part of the plan there, so we will see a lot of monoculture forest. But let's think back to Bartram et al. and how they did it. They traveled across large areas of landscape, so they encountered large numbers of little habitats. We can mimic to some degree their strategy by exploring old country roads. This can be an interesting experience for several reasons: 1) because older roads tend to lie on top of old foot trail routes. Native American foot trails tended to be along watershed divides to avoid travelling long distances through floodplains, with their marshy areas and dense canebrakes. Bristly locust Robinia hispida. When Europeans began to construct roads, they followed the foot trails for the same reasons, and because they were

already known routes. So, as often as not when you travel an older secondary road, you are probably within a few yards of where our ancestors trod. And 2) these older roads tend to receive less intensive right-of-way (ROW) management. The ROWs tend to be mowed, but usually not very frequently; often enough to prevent large trees taking over the ROW. So, by preventing tree canopy development close to the road, thus simulating the effects of fire, ROW managers are promoting the survival of native herbaceous grasses and wildflowers on the roadsides.

So by cruising old secondary and smaller country roads, and parking carefully on wider shoulder areas, you can see native herbaceous and shrubby communities in a relatively natural setting. You won't get the diversity that the 18th century explorers saw, but you can potentially see twenty or more native species within a hundred yards of walking and looking. And of even more importance, this roadside diversity supports lots of butterflies, moths, bees and other pollinators. This article examines a small subset of the species that can commonly be found on "gently managed" road ROWs. There are hundreds of native species that could conceivably be spotted in an ROW, including native legumes and other forbs, as well as grasses. See Country Roadside Scenes on page 11.

Native legumes are interesting for many reasons, including their beautiful flowers, and their contribution of biologically fixed N to the community.

Tephrosia spicata, Spiked hoarypea

Perennial herbaceous leguminous plant; Stems sparse, 12-24 "long, ranging from decumbent to upright, stems few but spreading, densely hairy; Leaves pinnate, 9-17 densely hairy leaflets; flowers white turning to deep pink, sparsely borne on a long inflorescence; fruit a densely hairy flattened legume 1 to 2" long. Found statewide on road margins and utility ROWs. Sunny, medium to dry sites, statewide.





James H. Miller & Ted Bodner, Bugwood.org & Janie Marlow, www.namethatplant.net

Tephrosia virginiana, Goat's rue

Perennial herbaceous leguminous plant; Stems 8 - 30" tall, ascending to upright, densely borne from dense network of shallow roots; Leaves pinnate, 15 - 25 linear-oblong leaflets, densely hairy below; Inflorescences terminal, dense clusters of buff and pink pea-like flowers; Fruit a sparsely hairy, flattened legume 1 to 2" long. Found in full sun to shady, medium to dry sites, statewide.



Karan A. Rawlins, Bugwood.org & James H. Miller & Ted Bodner, Bugwood.org



Stylosanthes biflora, Pencil flower

Perennial herbaceous leguminous plant; Stems prostrate to upright, 4 to 12 inches long, from a taproot; Leaves trifoliate, leaflets with bristly edges; Flowers yellow to orange, to ¼ inch wide; Fruit a legume, short hairy, proximal segment undeveloped; Found on roadsides, road edges, mowed areas; Medium to dry sites, statewide.



Karan A. Rawlins, Bugwood.org

Chamaechrista fasciculata, Partridgepea

Annual herbaceous leguminous plant; Stems 8 to 36 inches tall from taproot; Leaves pinnate, 20 to 36 leaflets, sensitive to touch, small stalked gland on petioles; Flowers to 1 inch broad, in single inflorescences, bright yellow; Legume to 2.5" long, flattened, seeds square to rhomboid; Medium to dry, sunny sites where mowed or disturbed, statewide. (C. nictitans very similar, but flowers only ½ to ½ inch broad.) (photos top of next column)



James H. Miller, Bugwood.org.

Rhynchosia tomentosa, Twining snout-bean Perennial herbaceous leguminous plant; Upright stems to

18", from taproot, very pubescent stems, glandular hairs; Leaves trifoliate, glandular hairy leaflets to 1 inch long; pea-like flowers upper axillary and terminal, yellow, to ¼ inch long; Legume to 1 inch long, ¼ inch broad, densely glandular hair, almost greasy to touch; Medium to dry, sunny sites where woody vegetation controlled, piedmont to sandhills sites.



Bill Stringer, Clemson University, Bugwood.com

Lespedeza procumbens, Trailing lespedeza

Perennial herbaceous leguminous plant; Stems many, trailing, with upright pubescence, from taproot; Trifoliate leaves with ovate pubescent leaflets, ¼ to ¾ inch long, stipules, but no stipels; Flowers clustered on up-standing axillary branches, pea-like, rose to purple, to ¼ inch; Fruit a single-seeded, elliptical legume, reticulate and pubescent. Medium to dry, sunny sites on mowed rights-of-way, statewide.



Karan A. Rawlins, Bugwood.org

Lespedeza repens, Creeping lespedeza

Perennial herbaceous leguminous plant; Stems several, trailing, with appressed pubescence; from taproot; Leaves trifoliate, leaflets ¼ to ¾ inch long, elliptical, no stipels; Flowers sparse on axillary leaf-bearing branches, pea-like, pink, to ¼ inch; Fruit a single-seeded elliptical legume, reticulate. Medium to dry, often full-sun, bare soil sites, statewide.



Karan A. Rawlins, Bugwood.org

Lespedeza virginica, Slender lespedeza

Perennial herbaceous leguminous plant; Stems upright, several from a taproot, 1 to 3 ft tall, glabrous to sparse pubescent; Leaves trifoliate, linear to long oblong, with no stipels; Flowers borne tightly in short racemes, clustered on the top 1/3 of the plant, rose-colored. Fruit a single-seeded elliptical legume, reticulate. Medium to dry, mostly sunny sites on road and utility ROWs, statewide. (*Lespedeza cuneata*, exotic & invasive, similar but flowers are white to yellow).





James H. Miller & Ted Bodner, Bugwood.org & http://www.illinoiswildflowers

Clitoria mariana, Atlantic pigeonwings (butterfly pea) Perennial herbaceous leguminous plant; Stems trailing or twining, to 4 ft long from taproot; Leaves trifoliate, leaflets stipellate, lanceolate, longer than wide; Flower pea-like, to 1.5" broad, blue to purple, calyx is somewhat tubular; Fruit 1 to 2 inch long roundish legume with 3 to 6 very sticky seeds; Medium to dry, sunny to half shady sites state-wide. (photos top of next column)





James H. Miller & Ted Bodner, Bugwood.org

Centrosema virginianum, Spurred butterfly pea Perennial herbaceous leguminous plant; Stems trailing or climbing on other vegetation, to 5 ft long from taproot; Leaves trifoliate, leaflets stipellate, not much longer than wide; Flower pea-like, 1.5 in broad, blue to purple, calyx is short, with spurs; Fruit a long (3 to 6 inches), flattened legume with 8 to 10 seeds. Medium to dry, sunny sites state-wide.



James H. Miller & Ted Bodner, Bugwood.org

Amorpha herbacea, Cluster-spike indigobush Perennial woody leguminous shrub; Stems several, unbranched, 3 to 5 ft, arising from a woody taproot; Leaves pinnate, 10 to 30 leaflets, leaflets ovate to oblong, short pubescent; Flowers many, borne in cylindrical (1.5 inch) racemes, petals blue-violet to white, prominent orange anthers. Fruit a single-seeded legume, densely short-hairy. Medium to dry sites, open areas to open canopy forest, lower piedmont to sandhills. (photos top of next column)



NC Native Plant Society & Bill Stringer, Clemson University, Bugwood.org



Forbs

Coreopsis major, Greater tickseed

Perennial herbaceous plant; Roots long slender rhizomatous. Stems 2-3 ft, glabrous; Leaves two opposite, each comprising 3 lanceolate, scabrous, sessile leaflets; Phyllaries lanceolate, disk flowers yellow, drying to black, rays 2-4 cm long; Found all over the state, on mesic to dry sunny sites.





John Gwaltney www.southeasternflora.com

Asclepias tuberosa, Butterfly milkweed

Herbaceous perennial; Occurs as two closely related subspecies in South Carolina. *Asclepias tuberosa* ssp. *tuberosa* is found in every county in the State. The flowers range in color from orange to red. The leaves are scabrous and linear to lanceolate in shape. A. *tuberosa* ssp. *rolfsii* is found in the Sandhills counties, and has yellow flowers and arrowhead-shaped leaves. These species are the only milkweeds that **exude clear sap**. Both species have several stems (8 to 30 inches tall) arising each spring from a heavy taproot. Both prefer mesic to dry sites that are sunny to partly shaded. (*photos top of next column*)



John D. Byrd, Bugwood.org

Asclepias verticillata, Whorled milkweed Herbaceous perennial; Found mainly in the Piedmont and Sandhills counties. The flowers are greenish-white. The leaves are narrow-linear and occur in whorls on stems (12 to 30 inches tall) that arise each spring from rhizomes, forming open colonies. It exudes milky sap. It prefers dry sites in open woods or roadsides.





Chris Evans, Bugwood.org & http://www.jeffpippen.com/plants/asclepias.htm

Asclepias amplexicaulis, Clasping milkweed Herbaceous perennial; Found in every part of the State. It has rose to purple flowers and broad, ripple-edged leaves. It has deep taproots, but unlike most milkweeds, it also has rhizomes. So it can be found in thin colonies of stems (20 to 40 inches tall). It has milky sap. It prefers mesic to dry soil sites, and is usually in open to partially shaded sites



such as roadsides.



Karan A. Rawlins, Bugwood.org & http://www.jeffpippen.com/plants/asclepias.htm

Eupatorium hyssopifolium, Hyssop-leafed boneset Herbaceous perennial; Stems 1.5 to 3 ft (from short caudices or rhizomes) single, sparsely branched, pubescent throughout. Leaves usually opposite or whorled, simple, sessile; blades narrow linear, Heads in corymbiform arrays. Phyllaries 8-10 in 2-3 series, Disk flowers 5, white; 3-3.5 mm across. Flowers in flat-topped corymbs. Roadsides, old fields, sunny, soils medium to dry. Statewide.



Courtesy of Choess in Wikipedia.com

Helianthus divaricatus, Woodland sunflower Herbaceous perennial; Stems 2.5 - 4 ft, glabrous; Leaves opposite, lanceolate, scabrous, sessile; Phyllaries lanceolate, disk yellow, rays yellow, 3 - 4 cm; Roots long rhizomatous. Found mainly in the Piedmont with a scattering in the Sandhills and Coastal plains, on mesic to dry sites.





John Gwaltney, southeasternflora.com

Chrysopsis (formerly Heterotheca) mariana, Maryland goldenaster

Biennial or short-lived perennial, stems 1 to 3 ft tall; fibrous-rooted or with short lateral rhizomes (new rosettes borne at ends of short rhizomes). Stems erect or ascending (often purplish), usually simple, sparsely to densely long pubescent. Flowers 5-20, usually in crowded umbel arrays. Involucres bell-shaped, 7-10 mm wide. Phyllaries in 4-5 series, erect, linear, ray florets 8-11 × 2-3 mm. Disc florets 25-40, yellow. Flowering Sept. - Oct. Open to partially shaded, disturbed sandy and clay soils, open areas in pine and oak woods, scrub, natural rock outcrops, fields, road-side embankments. Statewide. (photos top of next column)





John Gwaltney,
Southeasternflora.com

Symphyotrichum patens, Fall purple aster

Herbaceous perennial, stems 1 to 3 ft., clumpy from woody caudex and long rhizomes, scabrous. Leaves thick, stiff, blades spatulate, winged petioles, bases cordate. Involucres bell-shaped; Phyllaries 4 to 7 series, appressed, lanceolate to linear. Rays 12 to 24, lavender to purple, 1.0 to 2.0 cm; Disk yellow turning to purple. Piedmont and upper coastal plain, mesic soils at woodland borders, old fields.





John Gwaltney, Southeasternflora.com

Symphyotrichum concolor, Eastern silvery aster Herbaceous perennial, stems 1 to 3 ft.; several arising from a woody, corm-like crown. Leaves greenish gray, sessile, silky hairy, upper leaves appressed to stem. Involucres narrowly bell-shaped, Phyllaries in 3 to 5 series; lanceolate oblong, appressed. Rays 8 to 12, rose-purple, 1.0 to 2.0 cm; Disk pink turning to purple. Distributed throughout the State, mesic to dry soils; roadsides and old fields.





John Gwaltney Southeasternflora.com

Grasses

Danthonia sericea, Silky oatgrass

Perennial cool-season native grass. Plants vegetative from June to early April. Leaf sheaths and blades densely hairy. Flowering culms (2-3 ft) arise in April, seeds mature by mid-June. Flowers silver-green, maturing to champagne-colored as seeds mature. Seed have short awns, fall free of seed heads easily at maturity. Found statewide on infrequently mowed roadsides and pastures. Prefers part-day sun to full sun on mesic to dry sites.





James H. Miller & Ted Bodner, Bugwood.org

Andropogon ternarius, Splitbeard bluestem

Perennial warm season native grass, clumpy, stems 2 - 4 ft., 5 - 15 per clump. Flowering starts in July, when stems elongate. Stems go from pale green to blue-green to red. Flowers (fluffy-white) borne on peduncles from nodes on culm. Flowers borne on two racemes per peduncle (hence split beard).





Janie Marlow, namethatplant.net & John Gwaltney Southeasternflora.com

Andropogon glomeratus, Bushy bluestem

Perennial warm-season native grass, clumpy, stems 2 - 5 ft, 10 to 20 per clump. Flowers in Aug - Sept, borne in dense clusters on the terminal ¼ of each culm. Silver green at flowering, turning to red-brown with seed maturity. Prefers moist, low-lying full sun sites in lower piedmont and coastal plains. Common in roadside ditches. Flowers and maturing seed heads persistent, has excellent ornamental potential. (photos top of next column)





John Gwaltney, Southeasternflora.com

Schizachyrium scoparium, Little bluestem

Perennial warm-season native grass, clumpy with 2 - 3 ft. slender flowering stems; flowers (scarcely fluffy, beige) borne on peduncles on the top ½ of the stem. Stems turn from pale green to blue to red as flowers develop and seed forms. Goes to red-brown with seed maturity. Prefers mesic to dry sunny to part shade sites. Statewide.





John Gwaltney, Southeasternflora.com

Definitions

Proximal vs distal – Proximal relates to the end closest the point of origin, while distal is the end away from the point of origin.

Culm – the <u>flowering stem</u> of a grass plant. It is usually tall. By comparison the <u>vegetative stem</u> of a grass plant is very short and close to the ground.

Vegetative stage of a grass plant – Stage prior to the onset of reproductive growth http://passel.unl.edu/ Image/KohmetscherAmy1129928556/Vegetative%20 Tiller%20w%20shoot%20apex.png

Reproductive (or flowering) stage of a grass plant – A vegetative grass plants becomes reproductive with the onset of flower production.

Grass flowers? Yes, see https://www.minnesotawildflowers.info/grass-sedge-rush/indian-grass

Sorghastrum nutans, Yellow indiangrass

Perennial warm-season native grass. Flowering culms from short rhizomes, 3 – 6 ft in late summer. Leaf blades 10 – 18 inches long, gunsight-shaped auricles at the base of blades. Stems green to blue-green to red as flowering proceeds. Flowers bright yellow to golden, mature seed heads light brown. Important in tall-grass prairies. Found along roadsides, right-of-ways in sunny mesic to dry sites. South Carolina's official state grass.





Karan A. Rawlins, Bugwood.org & Janie Marlow, namethatplant.net

Saccharum brevibarbe, Shortbeard plumegrass Perennial warm-season native grass. Clumpy from short rhizomes. Flowering culms (4 - 7 ft) arise in July. Culm nodes hairy. New flower panicles purplish, panicles open wide upon flowering, close back up after pollination. Panicles mature to beige color with seed maturity. Found statewide on roadsides, open fields near the edge of forest communities. Prefers mesic to dry soil sites.





John D. Byrd, Bugwood.org & Janie Marlow www.namethatplant.net

Tripsacum dactyloides, Eastern gamagrass

Perennial warm-season native grass. Wide clumpy, shoots arise from thick, slow-growing stolons. Heavy flowering culms arise from shoots in June-August. Male (distal) and female (proximal) flowers borne on the same raceme, female flowers with long hairy red to purple stigmas. Seeds mature over time from tip of racemes. Culms flop upon maturation of seeds on the culm. Found along roadsides in moist to dry sunny sites statewide.



Bob Harms, Univ. of Texas

Tridens flavus, Purpletop (aka greasy-grass)

Perennial warm-season native grass. Flowering culms (2 – 4 ft) arise in July from short rhizomes. Flowers borne in open panicles. Panicles are deep purple in color, maturing to beige with seed maturity. Panicle branches covered in dark greasy substance during flowering, which dissipates as seeds mature. Common in pastures, roadsides. Gives a field a distinct purple cast during flowering. Common statewide on mesic to dry sunny sites.







I have presented only a brief list of native species that can be found along our roadsides. Take some time occasionally to slow down, pull over (safely), and investigate some roadsides. It won't be a primeval experience, but you may make a few discoveries to call your own. And when the opportunity arises, make a plea to roadside managers for wiser management. Roadsides don't need to be mowed more than once per year, and that can be in winter. Mowing during the blooming season destroys a vital food source for butterflies and other pollinators. Country roadsides are a treasure that needs to be cared for.

~Bill Stringer

Country Roadside Scenes



Goat's rue (*Tephrosia virginiana*) on SC 283 in McCormack County. Photo by author.



White false indigo (Baptisia albescens) in Edgefield County. Photo by author.



Smooth beardtongue (*Penstemon smallii*) and Small's ragwort (*Packera anonyma*). Photo by author.



Longbract false indigo on road/utility ROW. Photo by author, inset by John Gwaltney Southeasternflora.com



Clusterspike false indigo (*Amorpha herbacea*) in flower bud stage. Photo by author

(Symposium from page 1)

- Educate yourself on the importance of water conservation and rainwater harvesting with the team of Kim Counts and Marty Morganello.
- And much MUCH more!

Saturday Evening 5:00 pm: We'll head back to Mixson for an evening of Lowcountry food and fun under the stars at The Mixson Barn.

Sunday Morning 10:00 am: Those interested can sign up for field trips to sites across the Charleston area led by talented and knowledgeable professionals.

Explore the lowcountry's coastal marshes and barrier islands on either a boat trip to Capers Island or a walkabout on the accreted lands of Sullivan's Island.

- Visit Francis Marion National Forest, a local treasure. Three different walks are planned focusing on 1) wildflowers, 2) butterflies, and 3) edible natives.
- Or, enjoy a unique look at popular area destinations by signing up for 1) the Magnolia Plantation and Gardens, 2) Charleston County Parks, or 3) Cypress Gardens trip.

Online registration will be available shortly if not already...check your mail and our website - www. SCNPS.org – for more information. See you in Park Circle!

~The Lowcountry Chapter Folks

The Journal of the South Carolina **Native Plant Society**

Published quarterly Editor: Bill Stringer Design Editor: Charlene Mayfield **Upstate Chapter** - Greenville Lowcountry Chapter -Charleston Midlands Chapter - Columbia Piedmont Chapter - Rock Hill

South Coast Chapter - Beaufort www.scnps.org

Shoals spider lilies at Stevens Creek in McCormick County.

There is a remarkable creek (more like a small river) in Edgefield and McCormick Counties. It is the product of a largely forested watershed. It is home to the widely known Stevens Creek Heritage Preserve managed by SC

Department of Natural Resources. However, there is a much less widely known but even more beautiful botanical treasure on Stevens Creek. There is a stretch of shoals that is home to a magnificent population of the spectacular rocky shoals spider lily (Hymenocallis coronaria). William Bartram wrote in his Travels of his sighting of this species in the

rapids of the Savannah River at Augusta, "Nothing in vegetable nature was more pleasing than the odoriferous Pancratium fluitans". The taxonomy has been changed since Bartram's time, but it is still a show-stopper today.

This site is about 1.5 football fields long. Tom Poland wrote "There's a magnificent colony on a creek in McCormick County, South Carolina." (Exquisite, Ephemeral, & Endangered – The Rocky Shoals Spider Lily, MidlandsBiz, June 6, 2014). I think you will agree.



Huge (4 to 5 inch diameter) blossoms of the spider lily. Courtesy of Rick Huffman

On a recent visit to the site, we were treated to the sight of 2-foot long male and female long-nose gar (Lepisosteus osseus) spawning among the lily outcrops.

A wonderful site, worthy of preservation for future generations! It is a part of a 12-acre land parcel. The owners have approached the SC Native Plant Society for help in protecting the site. I hope you agree that the Society's reputation would acquire an additional luster from helping to protect forever such a wonderful piece of nature.



Creek. Courtesy of Bill Sharpton



Long-nose gar spawning in the lilies site on Stevens Creek. Courtesy of Jeff Beacham.