Florida Native Plant Society

Native Plant Owners Manual

Tripsacum dactyloides - Eastern Gamagrass

Mark Hutchinson

Putting things in perspective

All seasonal references are applicable to the eastern panhandle of Hernando County where the plants portrayed in this presentation grow. This area happens to be a cold spot in central Florida due to the Brooksville Ridge and approximates a Hardiness Zone of 8a or 8b, average annual low temperatures ranging between 10 and 20 °F.

Any reference to medicinal or culinary use of plants or plant parts should in no way be considered an endorsement by the Florida Native Plant Society of any sort of experimentation or consumptive use.

Please do not attempt to rescue any native plants without first reviewing the FNPS Policy on Transplanting Native Plants

Special thanks to Lucille Lane, Shirley Denton, Kari Ruder and Brooke Martin

Eastern Gamagrass

Grass family


Tripsacum dactyloides

Navigation Links

(for use in open discussion)

'View/Full Screen Mode' recommended

Throughout this presentation, clicking this symbol will return you to this page.

Eastern Gamagrass, eastern gamma grass, fakahachee grass

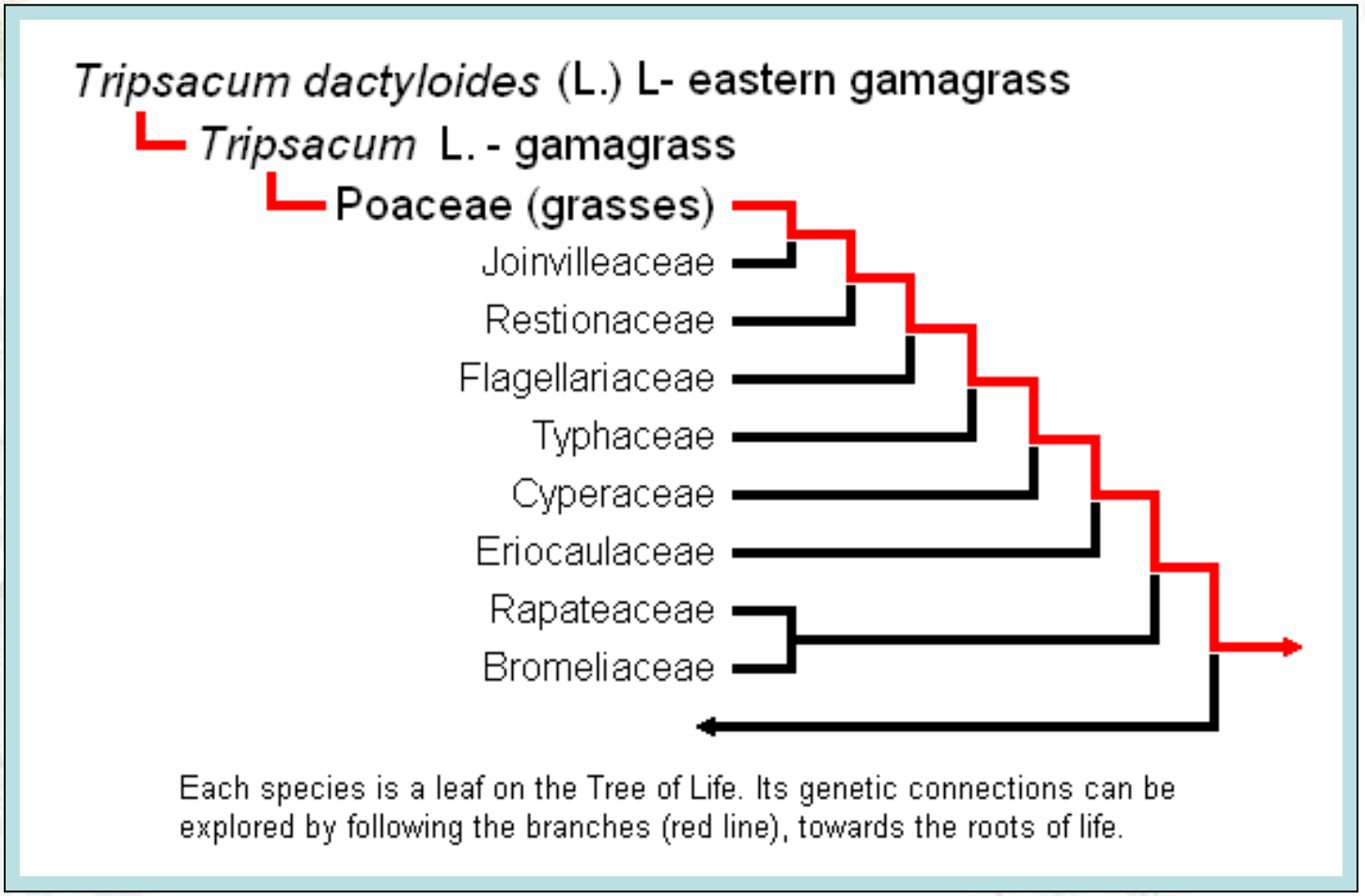
Tripsacum (TRIP - suh - kum)

Possibly from the Greek *'tripto,'* meaning rub, polish, and *'psakas,'* a grain or small piece broken off – referring to the shiny surface of the multi-section raceme, or seed head.

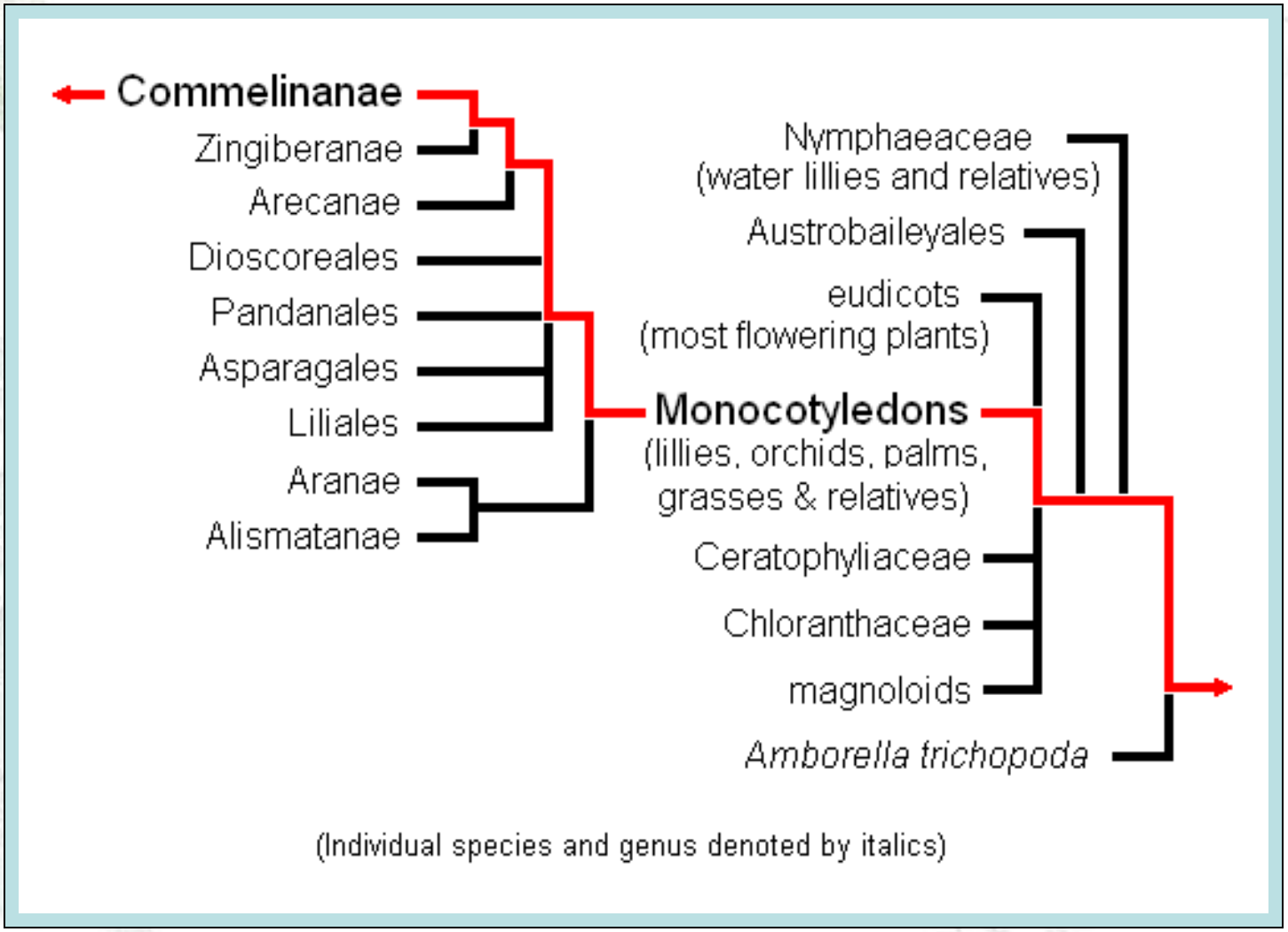
dactyloides (dak - ty - LO - id - eez)

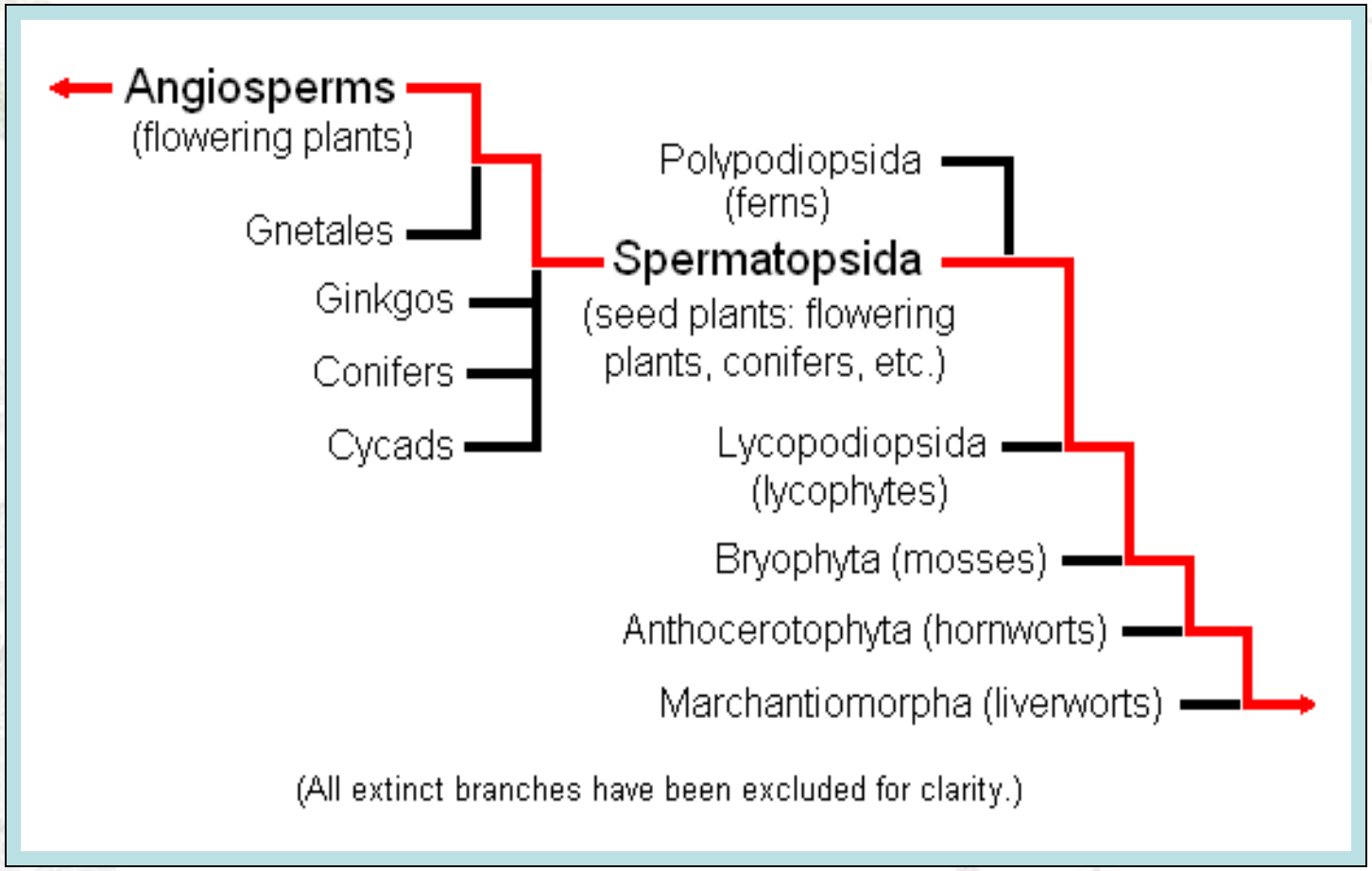
From the Greek '*dactyl*' meaning finger and '*oid,*' the Greek for resembling, like, or form. Possibly suggesting a resemblance to '*Dactylon*,' an ancient name of a grass.

Biological and Genetic Relationships



Each species is a leaf on the Tree of Life. Its genetic connections can be explored by following the branches (red line), towards the roots of life.

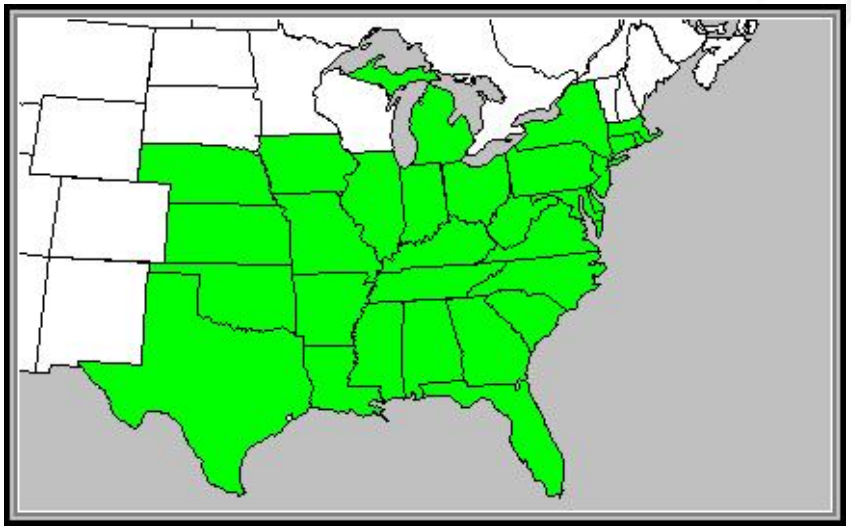

Commelinanae
Zingiberanae
Arecanae
Dioscoreales
Pandanales
Asparagales
Liliales
Aranae
Alismatanae
Nymphaeaceae
(water lillies and relatives)
Austrobaileyales
eudicots
(most flowering plants)
Monocotyledons
(lillies, orchids, palms,
grasses & relatives)
Ceratophyliaceae
Chloranthaceae
magnoloids
Amborella trichopoda
(Individual species and genus denoted by italics)



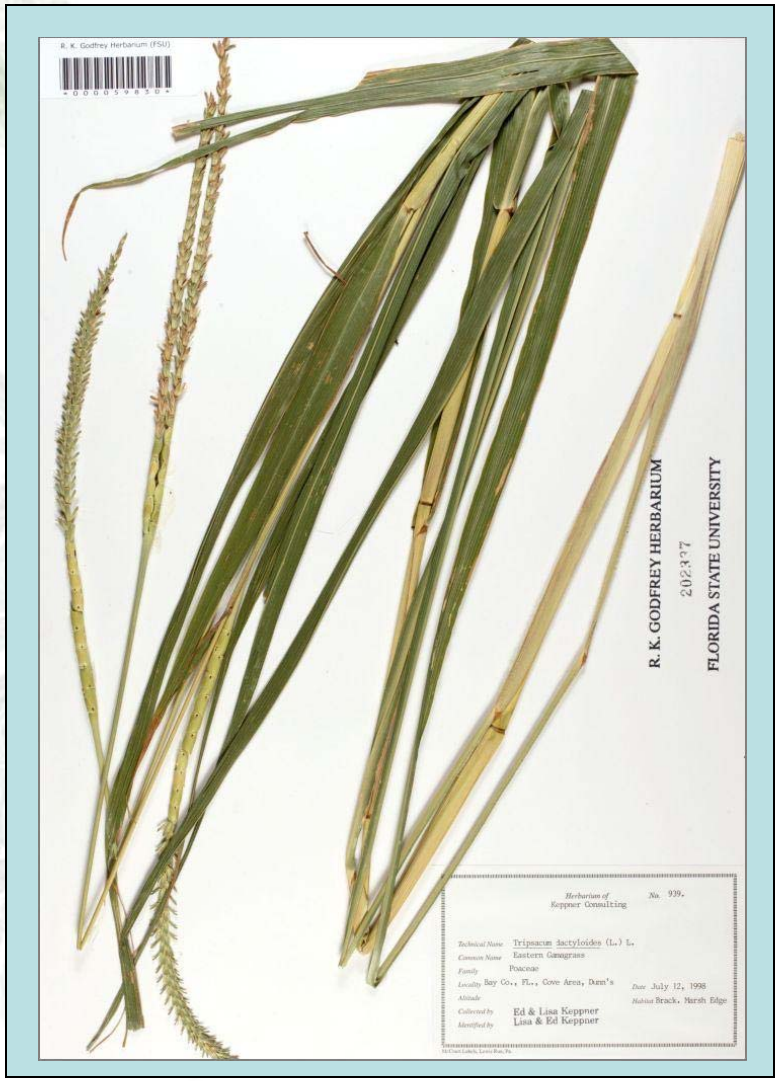
Link to the University of Arizona's Tree of Life.

Species Distribution in the United States

Tripsacum dactyloides, native to North and Central America, is endemic to the eastern two-thirds of the United States. Its growing range extends from Texas north to Nebraska then eastward to the Atlantic seaboard, extending as far north as Michigan, and as far south as Florida.



(For specific distribution within any of the shaded areas go to the USDA link provided on the reference page, and click the shaded area of interest.)

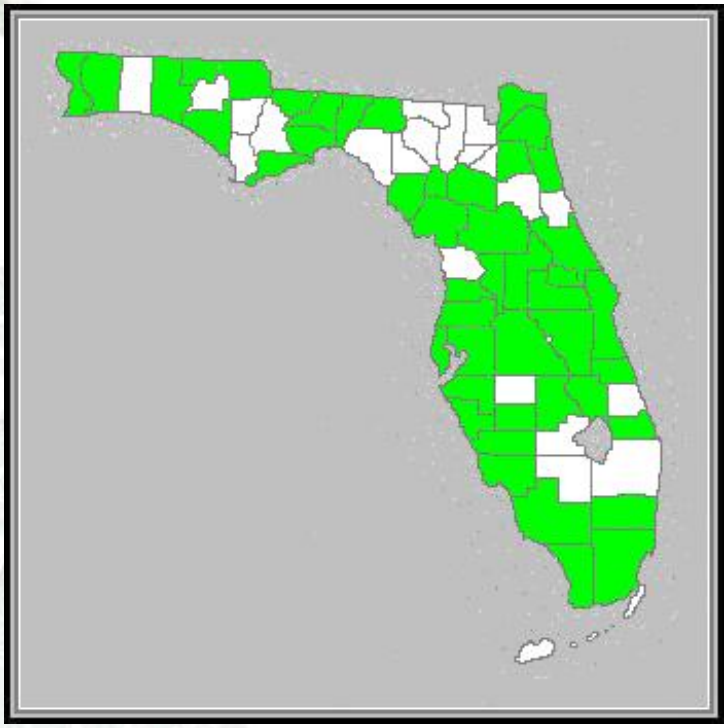


- The USDA, NRCS, lists a total of six species of the genus *Tripsacum* L. throughout North America.

- The Atlas of Florida Vascular Plants lists two species of this genus occurring in the state of Florida, both native.

Robert K. Godfrey Herbarium FSU #202337 Bay County, 7/12/1998

Species Distribution within Florida



(*vouchered – indicates that a fully documented dried specimen has been deposited in an approved herbarium)

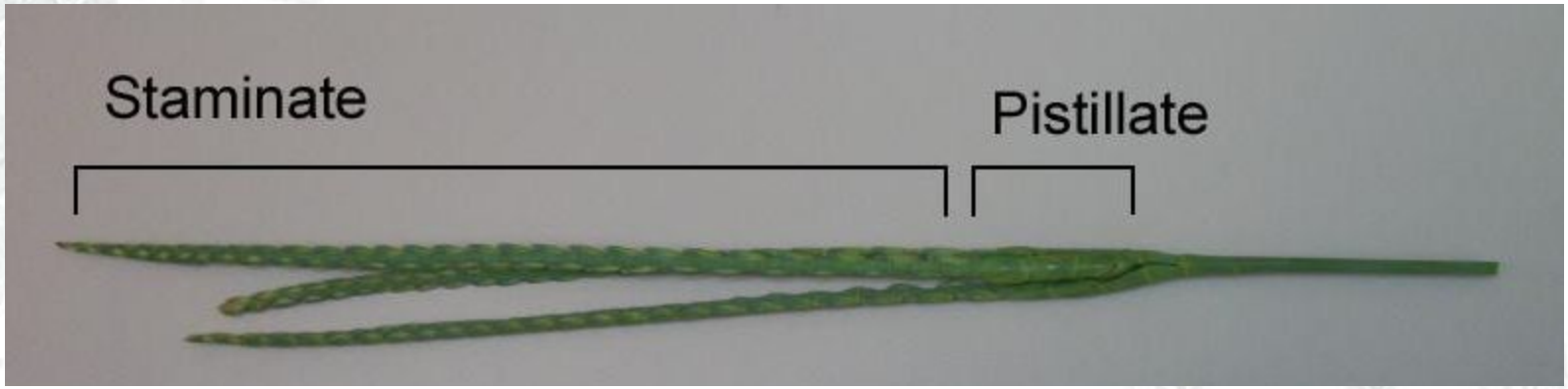
- Eastern Gamagrass, a perennial grass, is *vouchered in approximately 45 counties in Florida, not favoring any one part of the state.
- *Tripsacum dactyloides* native habitats vary widely, from borders of salt marsh and streams to tall grass prairies, to uplands.

Plant Structure and Life Cycle

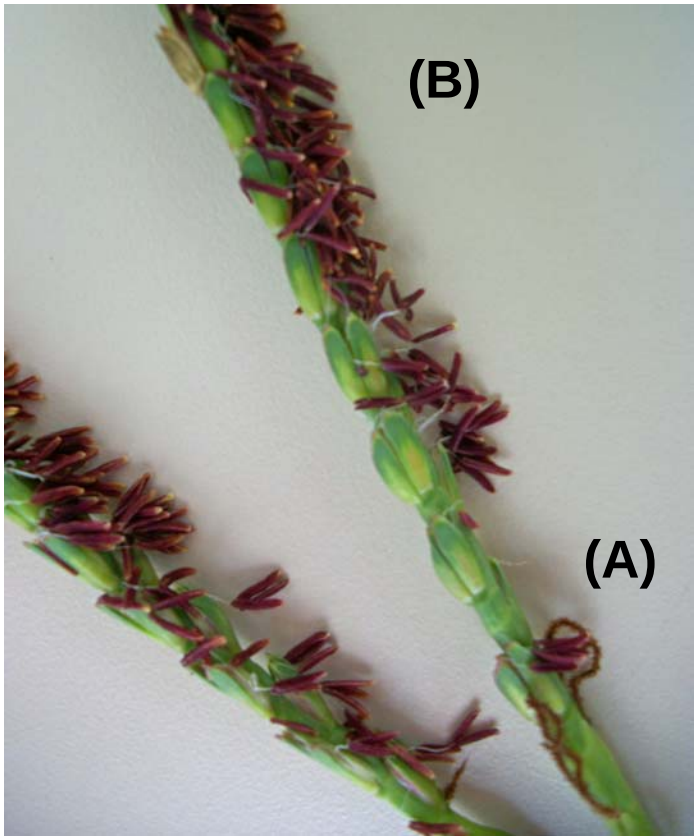
Tripsacum dactyloides is a robust, clump-forming, perennial grass, with simple, linear leaf-blades that are lanceolate with a broad acuminate tip. Being evergreen, Eastern Gamagrass is near dormant in the winter, but is one of the first plants to start regeneration come the first hints of springtime.

Tripsacum dactyloides has a short, fibrous, woody, rhizome root system, with a single ring of purple or mauve roots at the node of leaf-sheaths overlapping at the base.

Tripsacum dactyloides has two aboveground elements, or shoots. The vegetative shoots are simple blades with a midrib centered on the blade. The reproductive shoots terminate with a spikelet divided between the male and female, or staminate and pistillate parts. The staminate only produce pollen whereas the pistillate will produce seeds following pollination. The division of the spikelet can vary from the normal configuration shown, to a seed head dominated by the pistillate.

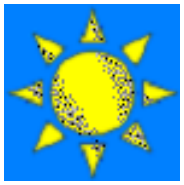


The staminate and pistillate sections of the spikelet both flower. The female pistillate flowers (A), are purple (also see the preceding picture), while the staminate, pollen producing flowers are a deep orange to maroon color. The order in which these two different flowers emerge seems random, one before the other or both blooming simultaneously.



Eventually, the staminate flowers stop production of pollen and dry up. If pollination has been successful, the seeds are developing in the lower pistillate section of the seed head. When fully developed, the seeds will also separate from the shoot and fall to the ground. This is why Gamagrass oftentimes reproduces with a multi-shoot bunch of grass appearing alongside an existing grass cluster.

Growing Conditions

 to 

• *Tripsacum dactyloides* prefers direct sun to slight shade

• Gamagrass tolerates a wide range of soil conditions and is salt tolerant

• Acidic to slightly alkaline soil - 5.1 to 7.5 pH

• Good drought tolerance, also somewhat wet tolerant

• Hardiness: USDA Zone 7b: to -14.9 °C (5 °F)
to USDA Zone 10b: above 1.7 °C (35 °F)

• Flowering and seed production occur from spring into late fall

• Height: 36 - 48 inches (90 - 120 cm.)

Pollinators and Wildlife

The colorful, sequin-like flower petals of Eastern Gamagrass attract many pollinators, including bees and butterflies.

Tripsacum dactyloides is the host plant for the larva of both the clouded (*Lerema accius)*, and byssus (*Problema byssus)*, skippers.

Deer eat the hard, yellow, corn-like seed produced by this grass. Incidentally, both corn and Gama Grass belong to the *Poaceae* or Grass Family.

Even when trimmed occasionally, Gama Grass will return to the tent-like bunch which is excellent cover for small mammals, birds, and reptiles.

Seed Collection and Propagation

Eastern Gamagrass is a prolific self-seeder and the seeds are easy to collect. Once pollination has occurred, the flowers will fall from the spikelet. This is the time to place a mesh bag (like the kind you buy garlic in), over the seed head. As the yellow corn-like seeds dry up, they will fall into the bag, and can be planted immediately.*Tripsacum dactyloides* also spreads by creeping rhizomes. This process can be accelerated by dividing the root ball. Tie the shoots up into a pony tail, then loosen the root ball by shoveling all the way around. Remove from the ground and using a bow saw, cut the bunch into as many six smaller bunches and replant.

Maintenance and Care

Gamagrass is a native bunch grass, so theoretically there is no need to ‘mow’ it as there is with turf grasses. In time, a significant amount of dead foliage will accumulate and growth in the middle of the bunch may stall. If the landscape is managed, doing a bit of trimming in the spring is desirable. Using electric hedge trimmers, the bunch can be trimmed back to form a ball.

Presentation References

- Biological and genetic relationships

  University of Arizona Tree of Life

- United States distribution

  USDA - Natural Resource Conservation Service

- Florida distribution

  Atlas of Florida Vascular Plants

- Herbarium specimen

  Robert K. Godfrey Herbarium FSU

Presentation References (cont.)

- Growing conditions and general information

  U.N. Food and Agricultural Organization

  Ecological Society of America

  Wildflower Center UTA

- Larval Food Source – Host Plants

  Biospherenursery.com

- FNPS – Natives for Landscaping

FNPS.org This Link will take you to the profile for this plant on the FNPS website

- For more in-depth study:

Best Native Plants for Southern Gardens: A Handbook for Gardeners, Homeowners, and Professionals. 2010. Gil Nelson. Gainesville: University Press of Florida. ISBN 978-0-8130-3458-4

Florida Butterfly Caterpillars and Their Host Plants. Marc C. Minno, Jerry F. Butler, and Donald W. Hall. 2005. Gainesville: University Press of Florida. ISBN 0813027896.

The Right Plants for Dry Places: Native Plant Landcaping in Central Florida. Suncoast Native Plant Society. 2005 (2nd edition). St. Petersburg: Great Outdoors Publ. Co. ISBN 0820004235.