



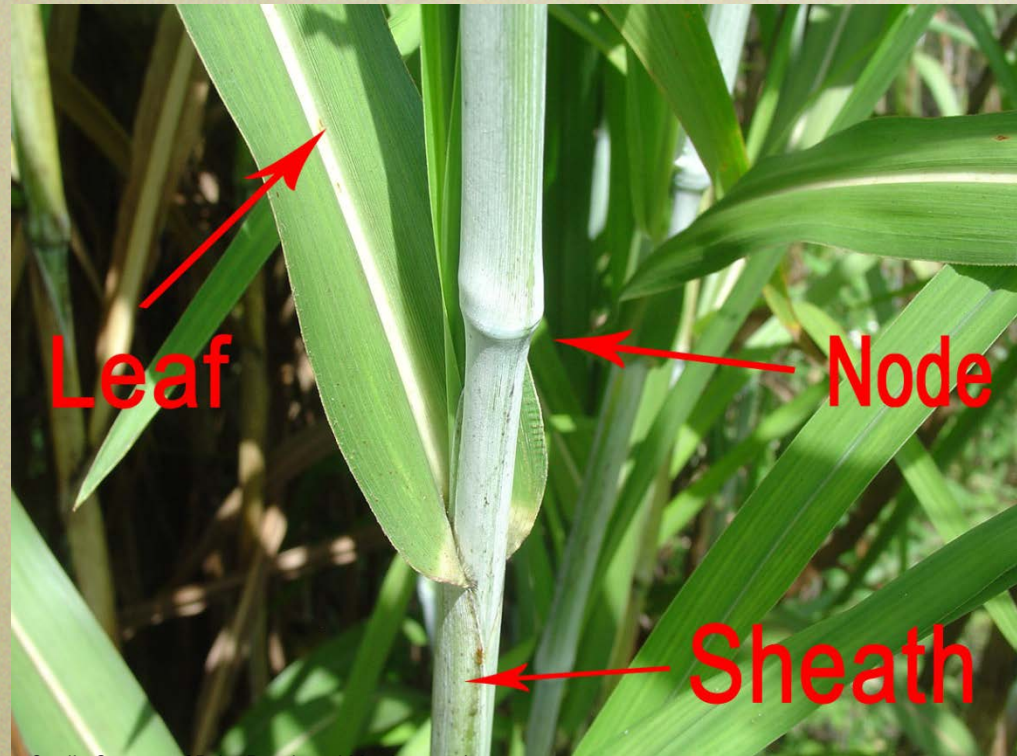
Non-native Grasses

What is a grass?

Any plant in the family Gramineae

General characteristics:

- Have jointed stems
- Sheathing leaves
- Seedlike grains

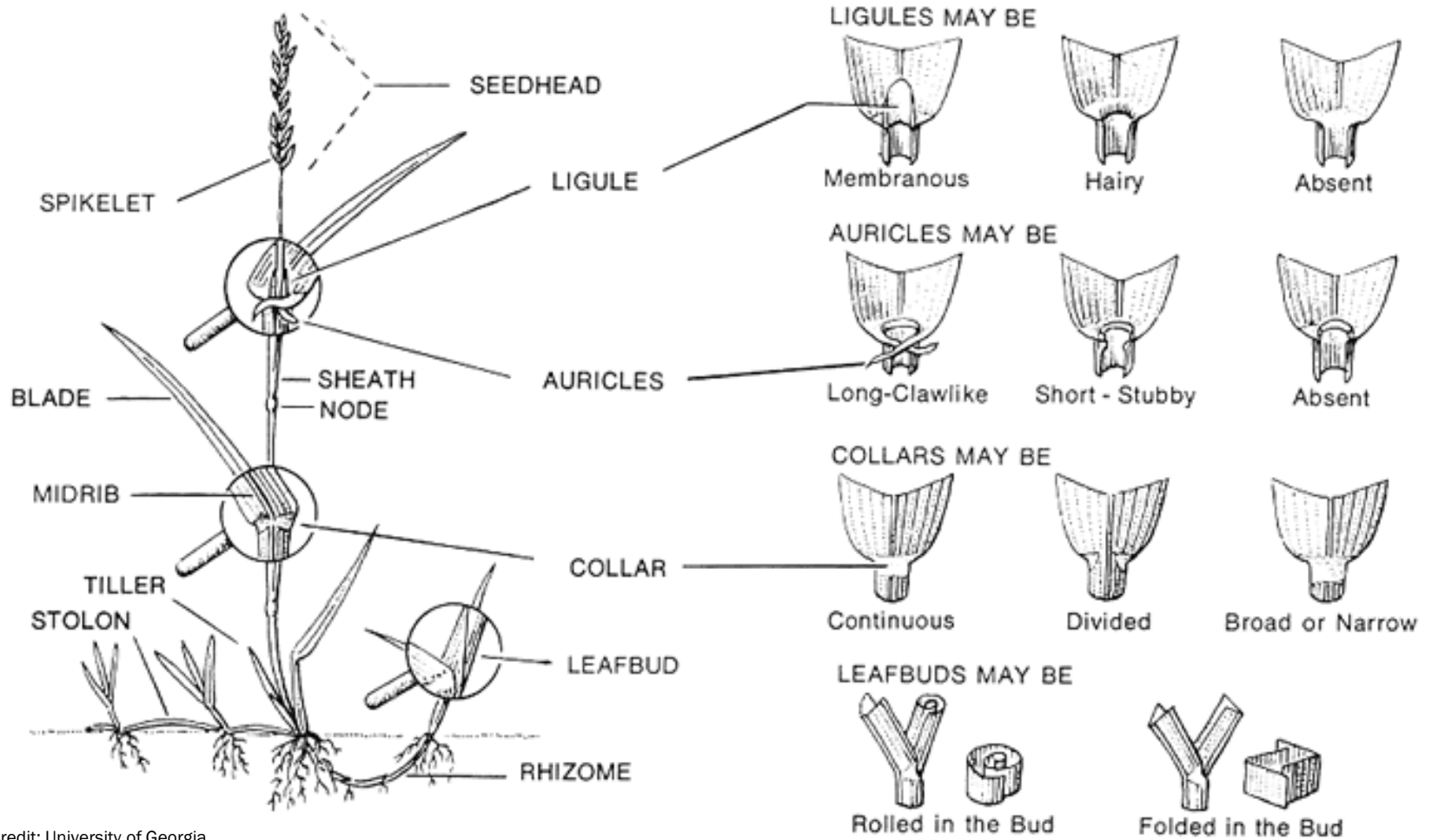


Credit: Grasses of Palm Beach and Martin counties

- Mostly herbaceous, but some woody plants including: cereals, bamboos, reeds, and sugarcane



Parts of a grass plant



Credit: University of Georgia



What is a grass?

Examples of seedheads



Panicle: Triangular in outline with seeding branches around the main stem. Examples: Bluegrass, Redtop.



Spike: Spikelets attached at the top of an unbranched stem. Examples: Timothy, Foxtail



Slender seeding spikes attached at the top of the main stem. Examples: Crabgrass, Goosegrass



Slender seeding spikes attached along the top of the main stem. Examples: Signalgrass, Dallisgrass

Examples of spikelets



Forming clusters of seeds. Examples: Bluegrass, Ryegrass



With long pointed awns. Examples: Nimblewill, Wild Oats



Born singly on short branches. Examples: Witchgrass, Fall Panicum



Containing several seeds. Examples: Sandbur, Buffalograss

Credit: University of Georgia



5 Non-native Grasses

- 3 - Common grasses found in Heartland CISMA
 - Torpedograss, West Indian Marshgrass, and Elephant grass
- 1 - Species type not yet found in Florida, but it is close
 - Eurasian type of the Common Reed
- 1 - Species found in Okeechobee County and no where else in the United States
 - Tropical American water grass



Torpedograss (*Panicum repens*)

- Introduced to the Gulf Coast as a forage crop before 1876; Florida in 1920's
- By 1950, planted in nearly every southern county and some central and northern counties
- Currently found in AL, CA, FL, GA, HI, LA, MS, NC, SC, & TX
- Native range is not clear (Africa, Asia, Europe, Australlia)
- Plants sturdy creeping; three feet or longer
- Name comes from the rigid sharp-pointed (torpedo-like) growing tips



Torpedograss (*Panicum repens*)



Torpedograss (*Panicum repens*)



Torpedograss
Panicum repens
Photo by Vic Ramey
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Torpedograss
Panicum repens
Photo by Vic Ramey
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Torpedograss (*Panicum repens*)



Credit: Wikipedia



Credit: Plantwise



West Indian Marshgrass

(*Hymenachne amplexicaulis*)

- Currently found only in Florida and Puerto Rico
- First herbarium specimen from Palm Beach County pond 1957
- Native to South America and the West Indies
- Stems floating, creeping, and ascending; three feet or longer
- Stems have a white pith; NOT hollow like most grasses



West Indian Marshgrass (*Hymenachne amplexicaulis*)



Credit: Wikipedia



West Indian Marshgrass (*Hymenachne amplexicaulis*)



West Indian marsh grass
Hymenachne amplexicaulis
Photo by Ann Murray
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West Indian Marshgrass (*Hymenachne amplexicaulis*)



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West Indian marsh grass
Hymenachne amplexicaulis
Photo by Ann Murray
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Savannah Panicum

(*Phanopyrum gymnocarpon*)

Native



Credit: USDA



West Indian marsh grass
Hymenachne amplexicaulis
Photo by Ann Murray
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Different inflorescence and hollow stems

Elephant/Napier Grass

(Pennisetum purpureum)

- Introduced to United States as a forage crop in 1913; Florida in 1915
- Currently found in CA, FL, HI, and TX
- Native to the grasslands of Africa
- Usually 6-15 feet tall, rarely 25 feet
- A favorite food of elephants



Elephant/Napier Grass

(*Pennisetum purpureum*)



Elephant grass
Pennisetum purpureum
Photo by Ann Murray
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Elephant/Napier Grass

(*Pennisetum purpureum*)



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Elephant/Napier Grass

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Common Reed (*Phragmites australis*)

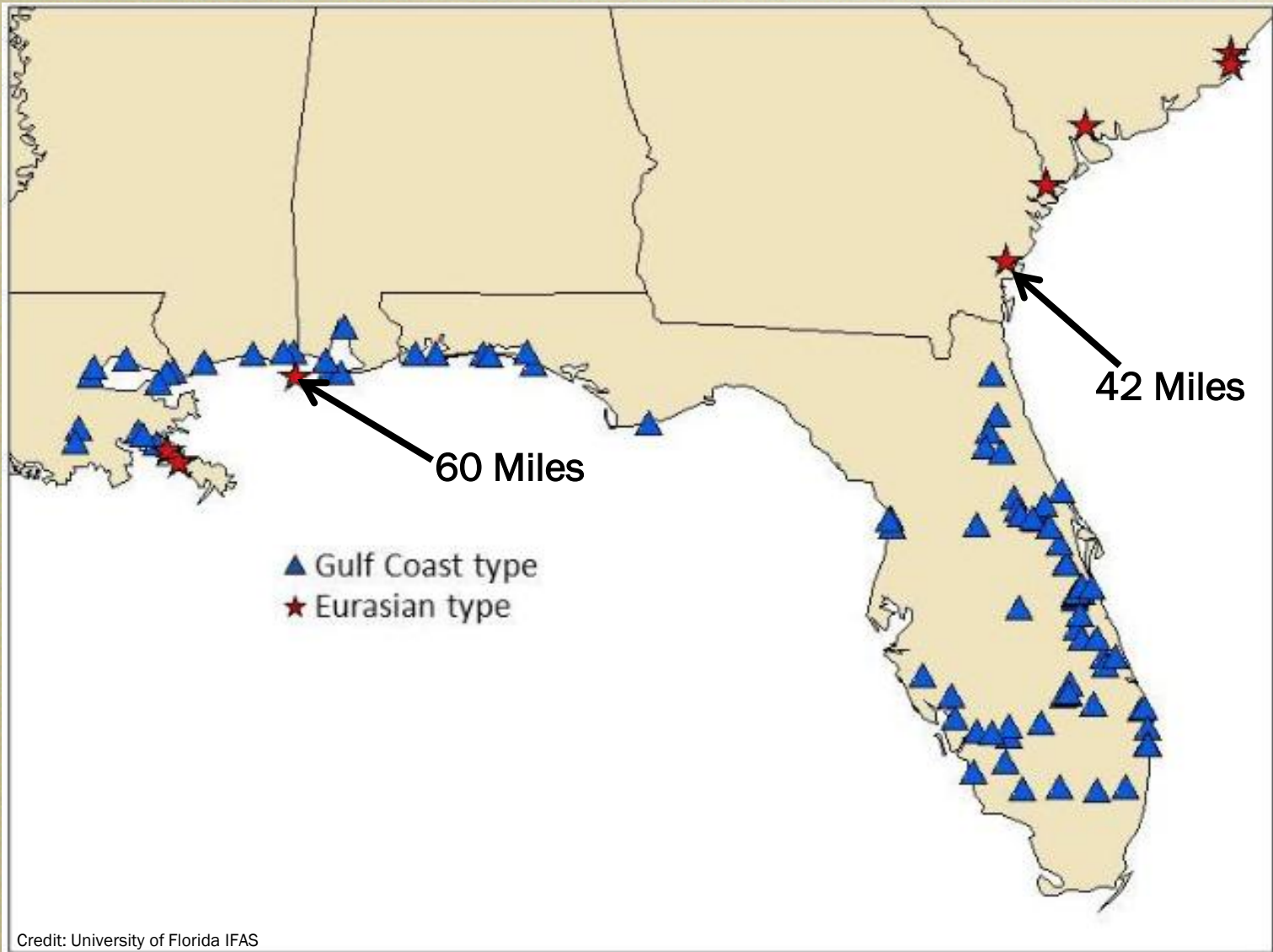
- Three genetic lineages: native North American, Gulf Coast, and Eurasian type (only Gulf Coast Type currently in FL)
- Native and Eurasian types are considered the same species; Gulf Coast type may be *Phragmites karka*
- Eurasian type introduced to Philadelphia, PA with ship ballast in 1800's; not currently in Florida, but close
- Widespread in North America; dominant type along Atlantic coast from Georgia north and has moved into the Midwest, Mississippi River Delta and western states
- Up to 10-11 feet tall



Common Reed (*Phragmites australis*)









Common Reed (*Phragmites australis*)



Credit: University of Florida IFAS



Common Reed (*Phragmites australis*)

Character	Gulf Coast	Eurasian
Stem texture	Smooth, shiny 	Ribbed, slightly dull 
Panicle form	Open, often drooping 	Compact, typically erect 
Stem color	Red where exposed (green behind leaf sheath) 	Green where exposed 

Credit: University of Florida IFAS



5 Non-native Grasses

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 - **Tropical American water grass**



Tropical American water grass (*Luziola subintegra*)

- First found in Lake Okeechobee in 2007; represents first known United States occurrence
- Over 2,000 acres were treated between 2007-2009
- Native to Mexico south through Central and South America to Argentina and the Caribbean basin
- Emergent, floating, mat-forming aquatic and prostrate-creeping terrestrial; over three feet long
- Unlike any other *Luziola* known to the United States



Tropical American water grass (*Luziola subintegra*)



Luziola subintegra
Photo by Jeff Schardt
© 2008 Florida FWCC



Tropical American water grass (*Luziola subintegra*)



Luziola subintegra
Photo by Mike Bodle 2009
© South Florida Water Management District



Luziola subintegra
Photo by Mike Bodle 2009
© South Florida Water Management District

Pistillate Panicles (female)

Staminate Panicle (male)



Tropical American water grass (*Luziola subintegra*)

Luziola subintegra crowding out a small stand of *Pontederia cordata*.

Luziola subintegra

Photo by Jeff Schardt

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