Non-native Grasses
What is a grass?

Any plant in the family Gramineae

General characteristics:

- Have jointed stems
- Sheathing leaves
- Seedlike grains
- Mostly herbaceous, but some woody plants including: cereals, bamboos, reeds, and sugarcane

Credit: Grasses of Palm Beach and Martin counties
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 nowhere 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, Australia)

- Plants sturdy creeping; three feet or longer

- Name comes from the rigid sharp-pointed (torpedo-like) growing tips
Torpedogras (Panicum repens)
Torpedograss (*Panicum repens*)
Torpedograss (*Panicum repens*)
Torpedograss (*Panicum repens*)
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 Marshgrass
(*Hymenachne amplexicaulis*)
Savannah Panicum
(Phanopyrum gymnocaerpon)

Native

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/Napier Grass
(Pennisetum purpureum)
Elephant/Napier Grass

(Pennisetum purpureum)
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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*)
## Common Reed (*Phragmites australis*)

<table>
<thead>
<tr>
<th>Character</th>
<th>Gulf Coast</th>
<th>Eurasian</th>
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</thead>
<tbody>
<tr>
<td>Stem texture</td>
<td>Smooth, shiny</td>
<td>Ribbed, slightly dull</td>
</tr>
<tr>
<td>Panicle form</td>
<td>Open, often drooping</td>
<td>Compact, typically erect</td>
</tr>
<tr>
<td>Stem color</td>
<td>Red where exposed (green behind leaf sheath)</td>
<td>Green where exposed</td>
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Credit: University of Florida IFAS
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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*)
Tropical American water grass
(Luziola subintegra)

Pistillate Panicles (female)  Staminate Panicle (male)
Tropical American water grass

(*Luziola subintegra*)
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