<table>
<thead>
<tr>
<th>Cyperaceae (Sedges)</th>
<th>Poaceae (Grasses)</th>
<th>Juncaceae (Rushes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stems usually 3-angled (or round, 4-angled, lenticular)</td>
<td>Stems round (terete)</td>
<td>Stems round (terete)</td>
</tr>
<tr>
<td>Stems usually with solid pith</td>
<td>Stems with solid nodes and hollow internodes</td>
<td>Stems with solid pith</td>
</tr>
<tr>
<td>Leaf sheaths closed</td>
<td>Leaf sheaths open</td>
<td>Leaf sheaths open</td>
</tr>
<tr>
<td>Leaves 3-ranked or spiral</td>
<td>Leaves 2-ranked</td>
<td>Leaves 2-ranked</td>
</tr>
<tr>
<td>Fruit an achene with bristles, bracts, may have tubercle</td>
<td>Fruit a grain with papery palea, lemma, and glumes</td>
<td>Fruit a capsule with tiny dust-like seeds</td>
</tr>
</tbody>
</table>
Common Grasses in lake or fringe

- **Submersed/Floating**
  - *Luziola fluitans*

- **Emergent – Low**
  - *Leersia hexandra*
  - *Panicum repens*
  - *Paspalum repens*

- **Emergent - Mid**
  - *Panicum hemitomon*
  - *Sacciolepis striata*
  - *Paspalidium geminatum*
  - *Urochloa mutica* *
  - *Hymenachne amplexicaulis* *
  - *Luziola subintegra* *

- **Fringe**
  - *Amphicarpum muhlenbergi*
  - *Panicum dichotomiflorum*

*Invasive exotic*
Luziola fluitans – Water Grass

- Slender grass growing in shallow water
- Leaves float
Paspalum repens
Water Paspalum

- Fruits on winged rachis (leafy)
- Sprawling and floating
- Purple spots on sheaths
- Stems spongy, roots dark
**Leersia hexandra**
Southern Cut Grass

- Forms mats on water surface
- Even leaf heights, “hair cut” grass
- “stiffly ascending leaves < 9 mm wide”
- Leaf blades scabrous
- Fruits flattened, peach-colored (good photo in FL Wetland book)
- Ring of white hairs at nodes
Leersia hexandra with Panicum repens
**Panicum repens - Torpedograss**

- Floating mats
- Bluish-green color
- Flowers purple and orange
- Rhizome tip pointed and white (torpedo-like)
- Sits fairly low to the water, but not regular like *Leersia*
**Panicum repens**
Torpedogras

- Perennial, rhizomatous
- Stems rigid, decumbent at base, roots at lower nodes
- Nodes, internodes, sheaths glabrous or hairy
- Panicles open
- Leaves to 30 cm long and 8 mm wide
- Leaves flat to folded, tips sharp, linear, *grayish*
- Ligules membranous, ciliate, 1 mm long
**Panicum hemitomon**  
Maidencane

- Flowers/fruits appressed to stem, each seed has stalk
- Stems and nodes sometimes hairy
- Can create large stands of varying thickness
- Plants come higher out of the water than *P. repens*
- Ligule of long hairs, more obvious than in *Sacciolepis striata*
- Nodes may grow roots in water, but not typically in soil
**Panicum hemitomon**
Maidencane

- Perennial, rhizomatous
- Stems erect, may roots at nodes in water, but **not decumbent**
- Nodes, internodes, sheaths glabrous or hairy
- Panicles elongated and tight (not open)
- Leaves to 35 cm long and 15 mm wide
- Leaf margins scabrous
- **Ligules membranous, ciliate, to 1 mm long**
Panicum hemitomon – typical habit
Sacciolepis striata
American cupscale

- Can form dense stands
- Conspicuous nerves on leaves
- Short hairs on sheath
- Short ligule
- Spikelets not close against central axis of inflorescence
**Sacciolepis striata**
American cupscale

- Perennial, stoloniferous
- Stems **decumbent**, roots at nodes
- Nodes, internodes, sheaths glabrous or hairy
- Sheaths often purplish
- Flowers in dense appressed spikes
- Leaves to 23 cm long and 20 mm wide
- **Ligule hairs 2-3 mm long**
**Urochloa (Brachiaria) mutica**

Pará grass

- Sprawling, medium-height, mat-forming grass
- Swollen **nodes with dense hairs**
- Sheaths loose, overlapping
- Inflorescence an open panicle, 8-20 alternate branches
- Spikelets purplish
Urochloa mutica
Paragrass

- Not native, Perennial, stoloniferous
- Stems erect or decumbent, roots at nodes
- **Nodes densely haired**, internodes glabrous
- Lower leaf sheaths densely hairy, may be purplish
- Flowers in terminal open branches
- Leaves to 35 cm long and 20 mm wide
- Ligule membranous with hairs, to 2 mm long
Urochloa mutica

Photos from Curtis Porterfield
*Paspalidium geminatum*

Egyptian paspalidium, Kissimmeegrass

- Leaf blades can be involute or folded, appearing thin
- Tufted stems, long leaves
- Seeds on one side of rachis
- Sheaths longer than internodes
- Ligule a fringe of short hairs
**Hymenachne amplexicaulis**

West Indian Marsh Grass

*Trompetilla*  
Exotic

- 1-2.5 m high
- Perennial, stoloniferous
- Leaf blades up to 4 cm wide, cordate at the base
- Stems glabrous, white pith
- Panicles narrow, pressed against axis, VERY DENSE
Hymenachne amplexicaulis
Trompetilla or West Indian Marsh Grass

• Not native, Perennial, stoloniferous
• Stems decumbent, roots at nodes
• Leaf blade margins at the base with long hairs
• Leaves **cordate clumping**
• Flowers in dense cylindric spikes
• Leaves to 33 cm long and **25 mm wide**
• **Ligule a brownish membrane**, to 2.5 mm long
Luziola subintegra

- New aggressive exotic
- Robust emergent grass
- Thick spongy leaf sheaths
- Leaves > 7 mm wide, ligules 1-4 cm long
- Occurs in Fisheating Bay

From Kunzer & Bodle, 2008
J. Bot. Res. Inst. Texas 2(1)
Panicum dichotomiflorum
Fall Panicum

- Annual or short lived perennial, clumped
- Stems erect or decumbent, roots at nodes
- Nodes and internodes glabrous (not hairy), sheaths may be hairy
- Flowers in open panicle
- Leaves to 50 cm long and 25 mm wide
- Leaf midrib whitish, margins scabrous
- Ligules membranous, densely ciliated, to 2.5 mm long
**Amphicarpum muhlenbergianum**

Blue Maidencane

- Leaves bluish-green, *evenly spaced on stem*
- Leaf margins with *white hyaline margin*
- Flowers in panicle
Echinochloa

- 6 species in Florida
  - 3 non-native (*colona, crusgalli, cruspavonis*)
  - 3 native (*walteri, muricata, paludigena*)
- No ligule
- Awns are variable
  - Long awns (*walteri*)
  - No awns (*colona*)
  - Either *with or without* awns (*crusgalli, muricata, paludigena*)
- Leaf sheaths compressed
Echinochloa wateri

- No ligule
- Nodes hairy
- Leaf midveins white, margins scabrous
- 2 awns/spikelet, awns to 4 cm
- Bases and plant parts often purple
Echinochloa crusgalli

- No ligule
- Nodes not hairy
- 1 awn/spikelet, awns usually present and to 2 cm
- Edges of leaves scabrous, hairs on edges of sheath
Echinochloa crusgalli
Barnyard Grass
**Saccharum giganteum**  
*(Erianthus giganteus)*  
**Sugarcane plumegrass**

- Common grass, occurs in range of habitats
- Large silky inflorescence
- Leaves to 50 cm long and 20 mm wide; may be pubescent; scabrous margins
- Leaf sheaths glabrous, longer than internodes
- Ligules membranous, ciliate, to 6 mm long
Big Grasses

Saccharum (Erianthus) giganteus
Sugarcane Plume grass

Andropogon glomeratus
Bushy Broom Grass

Echinochloa walteri
Coast Cockspur-grass
Phragmites australis
Common reed

• Large grass of fresh and brackish water
• Large silky inflorescence
• Leaves alternate along stem
• Fringe-like ligule of short bristles
**Zizania aquatica**  
Wild rice

- Large clumping grass
- Basal leaves to 1.5 m long or more and 5.5 cm wide
- Blades & sheaths glabrous, margins sharply scabrous
- Male and female clearly separate on inflorescence
- Stem of inflorescence round and spongy
- Ligules membranous, 15 mm
Zizaniopsis miliacea
Giant cutgrass

- Basal leaves only
- Leaves to 1 m long and 4 cm wide
- Leaves & sheaths smooth, sharp margins
- Large inflorescence, all drooping
- Base of inflorescence stem flat
- Ligules membranous, with tips frayed, to 2 cm
Dichanthelium vs. Panicum

- Until recently, *Dichanthelium* was a genus within *Panicum*
- Most species of *Dichanthelium* have short shoots from leaf axes (spring and summer)