SEAGRASSES OF SOUTHWEST FLORIDA

Katherine Rose, UF/IFAS Extension Florida Sea Grant Charlotte County
Betty Staugler, NOAA Harmful Algal Bloom Liaison

TURTLE GRASS *Thalassia testudinum*
- Broad, flat leaf blades
- Rounded blade tip
- 2-5 blades per shoot
- Low tolerance for freshwater
- Blades often covered with algae/barnacles
- Tends forms extensive meadows

SHOAL GRASS *Halodule wrightii*
- Leaf tip is notched or "dentate"
- Very fine, thin and flat leaf blades
- Often found close to shore or in deeper water
- High tolerance for freshwater
- May be exposed to air at low tides

MANATEE GRASS *Syringodium filiforme*
- Round or cylindrical leaf blade (rolls through finger tips to check)
- Prefer saltier water and deeper habitat (>1 meter/3 ft)
- Blade length can reach 50cm/20 inches
**SEAGRASS SPECIES LESS COMMONLY FOUND IN SOUTHWEST FLORIDA**

### WIDGEON GRASS
*Ruppia maritima*
- Similar appearance to Shoal Grass
  - Except it’s found exclusively in freshwater
- Long, ribbon like blades that sometimes reach the surface
- Rounded leaf tips
- May have white flowers present on tall stalks

### PADDLE GRASS
*Halophila decipiens*
- **Leaf tip**
- Oval shaped leaves that grow in pairs
- Leaf tip is rounded
- Finely serrated edge
- Often found in deeper and darker waters

### STAR GRASS
*Halophila engelmannii*
- **Flower-like clusters of leaves**
  - (4-8 per cluster)
- Small, flat leaves with saw-like edges
- Often found in deeper and darker waters

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**TAPe or EEL GRASS**
*Vallisneria americana*
- Similar appearance to Turtle Grass
  - Except it’s found exclusively in freshwater
- Long, ribbon like blades that sometimes reach the surface
- Rounded leaf tips
- May have white flowers present on tall stalks
- **Leaf tip**

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**Graphics:** Shannon Alexander

**SFWMD**

**Government of Bermuda**

**R.C. Philips**

**Florida Plant Atlas**

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COMMON SEAWEEDS OF SOUTHWEST FLORIDA

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GREEN ALGAE Chlorophyta
• Green unless bleached by the sun

Even closely related algae species can look drastically different. Note the differences between species in the genus Ulva or Caluerpa!

GREEN ALGAE Chlorophyta

- Ulva sp.
- Calderpa sp.
- Codium sp.

BROWN ALGAE Phaeophyta
• Brown in color
• Often possess large leafy looking fronds & gas bubbles

BROWN ALGAE Phaeophyta

- Sargassum sp.
- Rosenvingea sp.

Cyanobacteria Images in this section are from Berthold et al 2020
• Single-celled organisms that form mucus-like mats which can float or cover a variety of aquatic surfaces
• Wide range of colors: brown, grey, blue-green, emerald

Cyanobacteria

- Floating Cyanobacteria mats
- Covering mangrove roots
Tunicates are soft and fleshy. The fuzzy appearance of the grass is caused by small plants.

Wide range of colors: Yellow-green, red, maroon, brown, or black.

Most species are branching without noticeable fronds.

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**RED ALGAE** Rhodophyta

- Wide range of colors: Yellow-green, red, maroon, brown, or black
- Most species are branching without noticeable fronds

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**EPIBIOTA**

The prefix "epi-" means "upon". So, an epibiote is something that lives on another living thing. There is such thing as epi-PHYTES, which are plants that live on other living things and epi-FAUNA, which are animals that live on other living things. Since it can be hard to tell the difference in aquatic environments, epibiotes are often categorized as "fleshy" or "encrusting".

**FLESHY**

The fuzzy appearance of the grass is caused by small plants.

Tunicates are soft and fleshy.

**ENCRUNSTING**

Snails stick to seagrass blades.

You would have to scrape off the plants growing the grass blades above, or barnacles!

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Unless otherwise noted, images in this document were provided by Betty Staugler (NOAA Harmful Algal Bloom Liaison), Eric Millbrandt (Sanibel Captiva Conservation Foundation), and the Florida Department of Environmental Protection.

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**ESTIMATING PERCENT COVER**

Katherine Rose, UF/IFAS Extension Florida Sea Grant Charlotte County  
Betty Staugler, NOAA Harmful Algal Bloom Liaison

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### PERCENT COVER

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Estimating Percent Cover is, by nature, subjective. Have each member of your team estimate percent cover and come to a consensus. A 5% difference among team-mates is small. Talk it through if your estimates are more than 20% different.

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According to Seagrass Biologists...

- 25% algae
- 5% seagrass
- 5% algae
- 45% seagrass
- 0-5% algae
- 60-70% seagrass*
- 0-5% algae
- 60-70% seagrass*

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*Some might estimate higher percent cover in these quadrats. Note that sand is still visible through the seagrass.

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Roger Williams, 2010.  
Simply Science: Biomass Survey.

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SEAGRASS REPRODUCTIVE STRUCTURES
Katherine Rose, UF/IFAS Extension Florida Sea Grant Charlotte County
Betty Staugler, NOAA Harmful Algal Bloom Liaison

RHIZOMES
- Root like structures that connect seagrass shoots beneath the ground
- Brown or white depending on species
- Grow horizontally and sprout new seagrass shoots
- Integral to seagrass meadow expansion and recovery
- Often damaged by propeller scars
- Don’t absorb nutrients like roots

Star Grass

Turtle Grass

Fruits & Flowers
- Seagrasses are flowering plants
- Currents and wave movement help transport "pollen"
- Most common in spring time

Pictures in this section provided by Arielle Taylor-Manges, FDEP/CHAP
Graphics in this section are by Shannon Alexander