



Seagrass Survey Field Guide



Survey Equipment Check-List

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| <ul style="list-style-type: none">☐ Seagrass Survey Field Guide☐ Assigned hexagon map(s)☐ Aquascope (if surveying from kayak/canoe/paddleboard)☐ Secchi Disc (if measuring water clarity in deeper water)☐ Measuring tape (for seagrass blade length [cm] & water depth [ft]) | <ul style="list-style-type: none">☐ Pens & Pencils☐ Clipboard☐ Zip-lock bag☐ GPS☐ Emergency Contacts☐ Safety equipment (PFD, dive flag)☐ Drinking water☐ Personal items |
|--|--|

Emergency Contacts 911

Phone:

Ashley Melton 941-650-1089
Rene Janneman 941-232-8445
FWC Law Enforcement (Southwest Region) 863-648-3100

VHF Radio:

International Distress, Safety & Calling Ch. 16 (156.8MHz)

Remember to have fun & check back in by Noon!

Survey Instructions

SAFETY TIP: If the water is too shallow to reach a point, move on to a deeper & safer area within your hexagon.

1. Getting to your assigned hexagon & survey point:

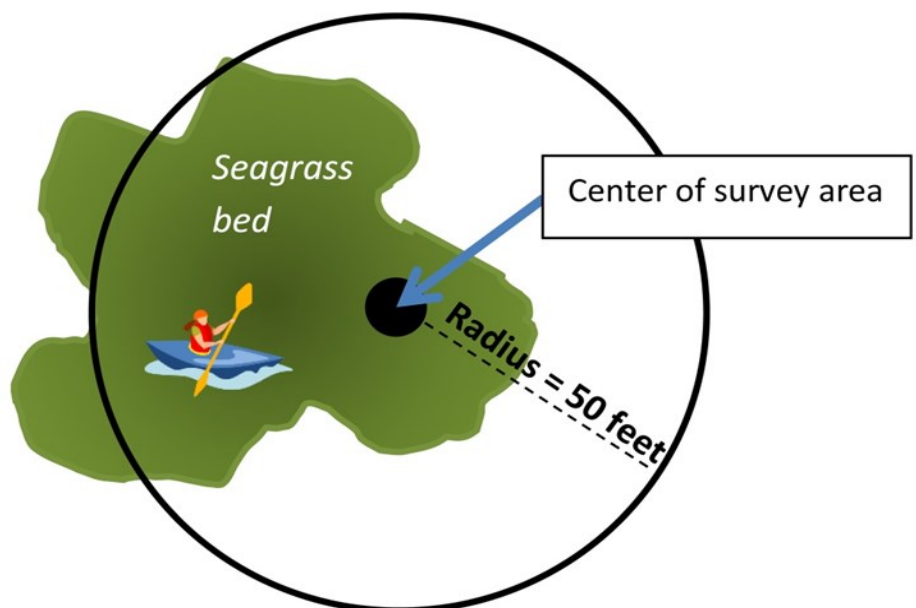
- Follow your GPS to the center point of your assigned hexagon, or, when you reach observable seagrass within your assigned hexagon.
- Once you reach the center of your survey area, record the Lat./Long. on your data sheet.



2. Surveying:

- Conduct the survey in a circle that is 50 feet in radius from the GPS point that you recorded.
- It should take about 5 minutes to completely survey an area.

Survey Area

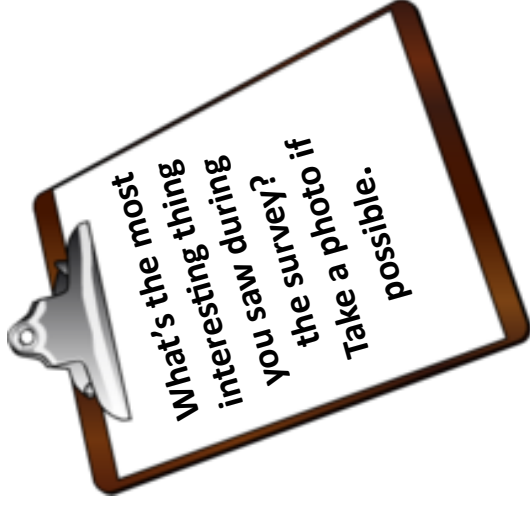


SAFETY TIP:

A dive flag must be visibly displayed while snorkelers are in the water.

3. Complete the field data sheet:

- If you aren't sure how to complete a section on the field sheet, or you can't positively identify a species, just leave it blank.
- Use the pages following to complete sections **A**, **B** & **C**, for seagrass species identification & assessment of seagrass/algae coverage for each survey point.



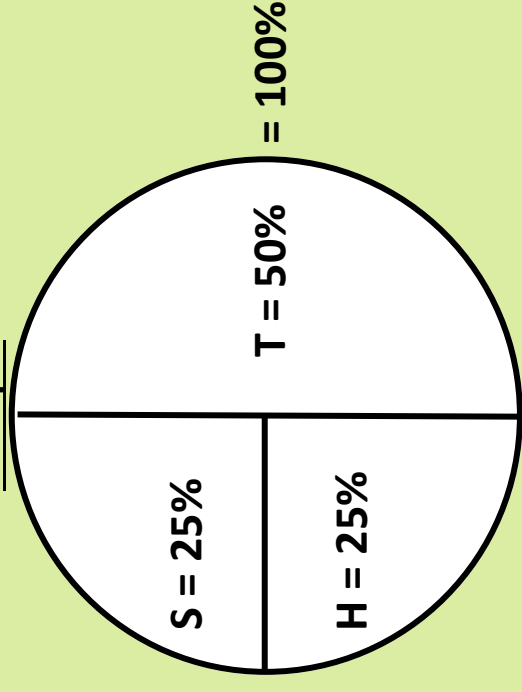
Example of Completed Field Sheet

Field Sheet:																
Hexagon #: 286		Date: 4/25/2015	Time: 10:34AM		Surveyor(s): ASHLEY MERRIN											
Latitude	Longitude	Seagrass: Presence/Absence	Water Depth (ft/in)	Seagrass Species (%)		Blade Length (cm)	Seagrass & Algae Coverage (1 - 5 Scale: Epiphytic Algae)									
				T	S	H	Seagrass	*Drift	Epiphytic							
				1	2	3	4	5	1	2	3	4	5			
27.28181	-82.54592	Ⓢ/A	5.5	100			24	2	3	4	5	1	2	3	4	5
If other biology is present, indicate amounts as: greater than 10 (>10) or greater than 100 (>100)										Comments & Other Biology: >10 sponges; >10 tunicates growing on seagrass blades; 1 live scallop that was about 30mm.						
				Method of Collection		Secchi Disc (m)	Sediment Type									
				A Ⓜ		>B	1 Ⓢ 3									

A. Seagrass Species & Percent (%)

- See pg. 4 to identify seagrass species
- Once you've identified the species of seagrass present, determine the % of each species in the survey area.

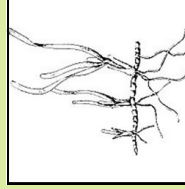
Example



A. Seagrass Species

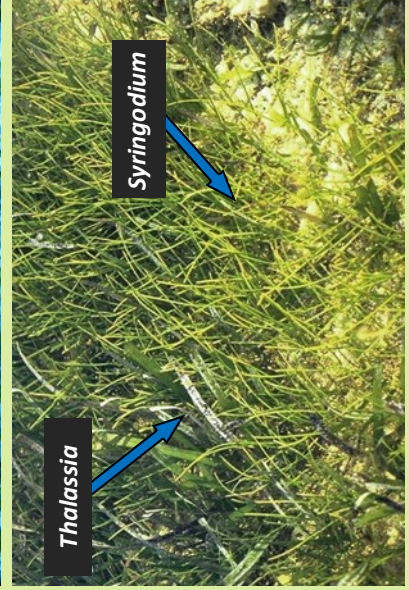
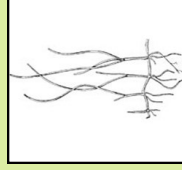
Turtle Grass (*Thalassia testudinum*)

- Flat, ribbon-like blades
- Blades are 10 - 12 mm long & 4.5 - 10 mm wide
- Commonly occurs in subtidal waters from low tide to 10 m deep; in clear water, found up to 30 m deep
- Prefers mud and/or muddy sediment in relatively sheltered locations



Manatee Grass (*Syringodium filiforme*)

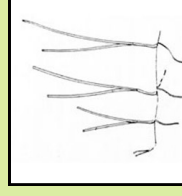
- Cylindrical blades
- Blades are 10 - 30 cm long & 0.8 - 2 mm wide
- Restricted to the subtidal zone & thrives at 0.7 - 0.5 m deep
- Often found in mixed meadows with *Thalassia*



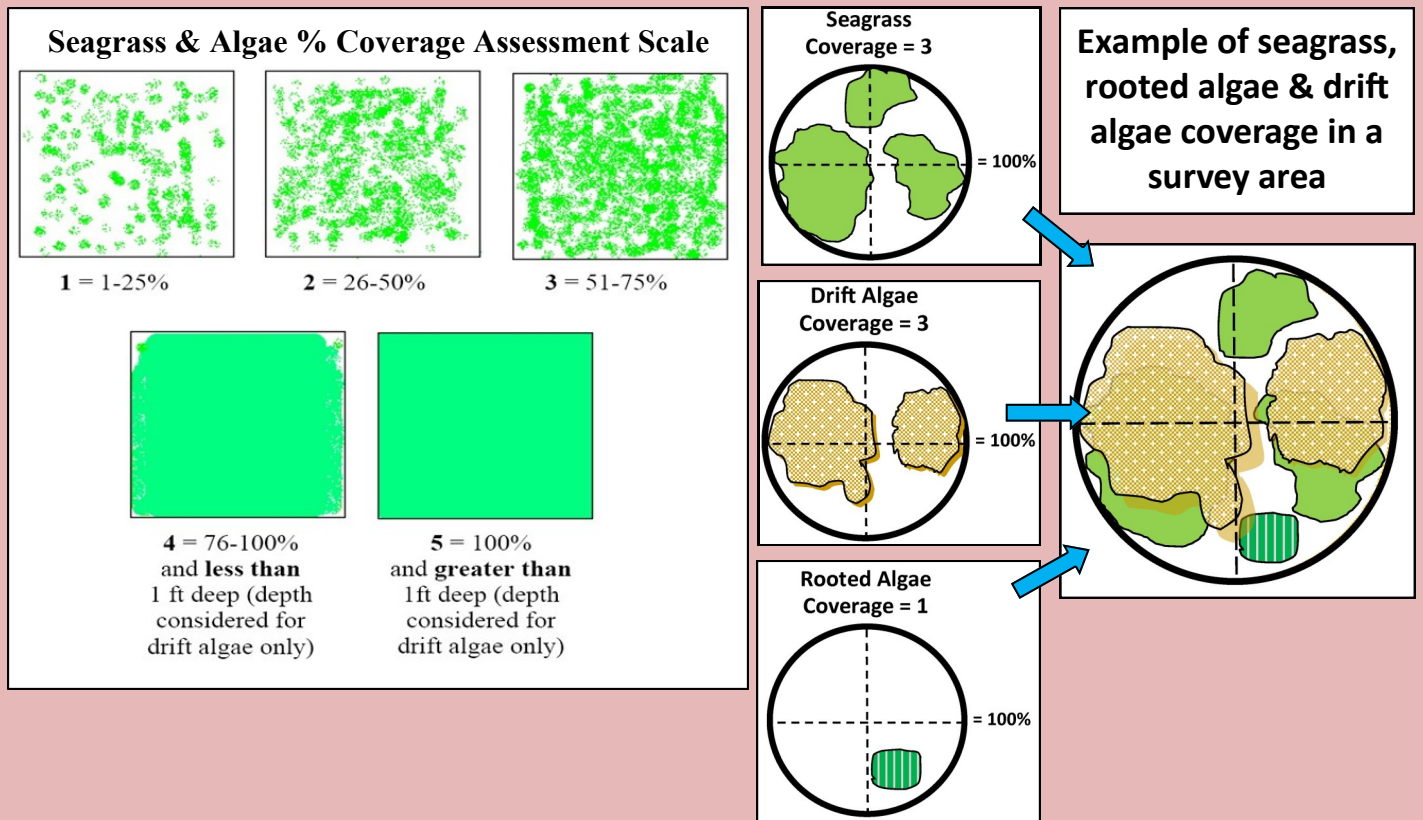
Shoal Grass

(*Halodule wrightii*)

- Flat, narrow blades
- Blades are 3.5 - 32 cm long & 0.3 - 2.2 mm wide
- Grows in the lower subtidal & upper subtidal zones on sandy & muddy sediment
- Found in water 8 - 12 m deep



B. Seagrass & Algae (rooted & drift) Coverage



Common Rooted & Drift Algae:

Rooted Algae



There are four similar-looking *Caulerpa* species in Florida; three are native & one is an exotic invasive from the Mediterranean. The one most common to Sarasota is the green feather algae, pictured above.

Drift Algae



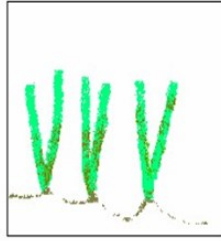
The photo above depicts an example of unattached algae, which can be swept out of the way to see underneath. Seagrass may trap drift algae, which will block light from reaching the blades. Drift algae can also found in bare bottom “sinks”.

C. Epiphytic Algae Coverage

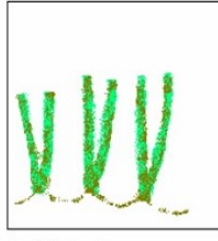
Epiphytic Algae % Coverage Assessment Scale



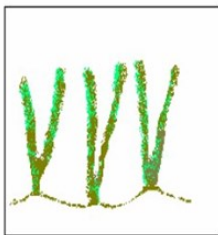
1 = Clean



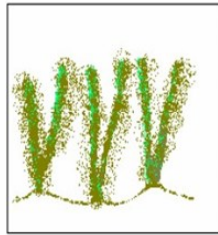
2 = Light



3 = Moderate



4 = Heavy



5 = Extreme
Very heavy coverage with "Beard"

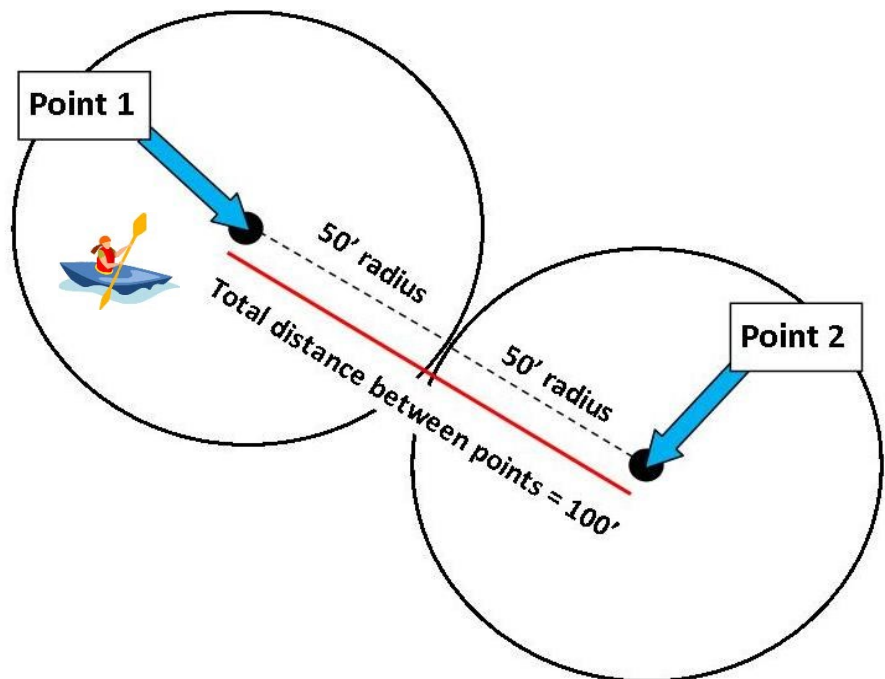
Epiphytic Algae



Algae attached to the blades of the seagrass, particularly *Thalassia*; harmful to the seagrass because it blocks light from reaching the blades.

4. Repeat the steps:

- Once you have fully surveyed & documented the survey area, repeat the previous steps.
- Each point that you survey should be at least 100 feet from all other points.
- Do as many additional points as you can in the time remaining.



Remember to have fun & check back in by Noon!

Instructions & Definitions:																		
Record the coordinates as they appear on your GPS.		Circle one: P = Presence of seagrass; A = Absence of seagrass	Provide the % composition of each seagrass species present: T = <i>Thalassia</i> S = <i>Syringodium</i> H = <i>Halodule</i> Total for each survey point must = 100%	Representative seagrass blade length = from tip of seagrass blade to sediment. One measurement per species. Round to nearest 0.5cm			For % coverage of seagrass, rooted algae & drift algae, choose the number most representative using the following scale: 1 = 1 - 25% 2 = 26 - 50% 3 = 51 - 75% 4 = 76 - 100% *5 (drift algae only) = 100% & vertical thickness > 1 foot			For % coverage of epiphytic grown on seagrass, choose the number most representative: 1 = Clean 2 = Light 3 = Moderate 4 = Heavy 5 = Extreme	Indicate if you used a(n): A = Aquascope or M = Mask to conduct the survey	Used to measure water clarity. If you can see the bottom, write "> B". Round to the nearest 0.1 m	For sediment type, choose the number most representative: 1 = Sand (grainy) 2 = Muck (dark color, may smell like rotten eggs) 3 = Combo (shell/sand mix)					
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