

# Seagrass Survey Program

**Grade Level:** High School or Above

**Summary:** The seagrass ecology program is a part of MarineLab's core curriculum. The seagrass survey program was created for more advanced students and for groups interested in service learning opportunities. Students will learn about the importance of this vital habitat, snorkel the seagrass beds, and conduct seagrass surveys following SeagrassWatch protocols using transects and quadrats. As disturbances to the habitat are prevalent, it is important that long term changes in the seagrass habitat are measured, documented and monitored. Student data will be entered into MarineLab's database, analyzed and discussed. Experimental design and the importance of baseline data is discussed. Students will be encouraged to further pursue citizen science opportunities outside MarineLab.

## Program Objectives:

- Students will snorkel a seagrass bed with an understanding of the importance of the habitat and the ability to identify various seagrass and algae species
- Students will participate in a long term seagrass monitoring study.
- Students will analyze their data and compare to long term staff data
- Students will know the impact of citizen science and understand that there are citizen science opportunities throughout the country they can get involved in

## Concepts Covered:

- ecology and the abiotic factors controlling the geographic distribution of seagrass
- function of the seagrass habitat in the overall keys ecosystem
- seagrass and algae identification
- threats to seagrasses and restoration efforts
- unique Florida Bay habitat
- common marine phyla, the characteristics of each phylum and examples of species of each phylum
- long term ecological monitoring
- ecological sampling
- importance of baseline data
- seagrass survey techniques
- replicate sites and experimental repeatability
- citizen science

**Vocabulary:** ecology, estuary, calcareous, substrate, vascular, obligate halophyte, autotroph, heterotroph, biotic, abiotic, sessile, prop scar, rhizome, salinity, evisceration, regeneration, seagrass monitoring, transect, quadrat, standard deviation, citizen science, systematic sampling, stratified sampling, random sampling

**Procedures:** The program begins with a classroom discussion covering the concepts and vocabulary listed above. The students are then taken snorkeling for students to gain experience in the water and view seagrass community. Seagrass and algae samples will be collected for students to ID and discuss on the boat.

**Extensions:** long term data collected by MarineLab staff and students is available for analysis before or after your MarineLab seagrass program

**Resources:** [www.seagrasswatch.org](http://www.seagrasswatch.org), <http://seagrass.fiu.edu/>, <http://floridakeys.noaa.gov/plants/seagrass.html>



© MarineLab Environmental Education  
A Marine Resources Development Foundation Program  
PO Box 787 Key Largo, FL 33037  
(800) 741-1139 Fax (305) 451-3909  
[www.marinelab.org](http://www.marinelab.org)  
Last Updated: 9/26/16



© MarineLab Environmental Education  
A Marine Resources Development Foundation Program  
PO Box 787 Key Largo, FL 33037  
(800) 741-1139 Fax (305) 451-3909  
[www.marinelab.org](http://www.marinelab.org)  
Last Updated: 9/26/16