

Seagrass Ecology Program

Grade Level: All

Summary: The seagrass ecology program is a part of MarineLab's core curriculum. Seagrass beds make up the largest benthic habitat in the waters surrounding the Florida Keys. The seagrasses provide a vital habitat and are a key component to the overall Florida Keys marine ecosystem. There is both a classroom and snorkel portion to this program. Level 1(grades 5-8) and Level 2 (grades 9-12) curriculum used accordingly (same concepts; varied classroom teaching methodology).

**** service learning option available (This option includes data collection and analysis. Suited for advanced students.)**

**** advanced option available using research techniques**

Program Objectives:

- Students will discuss seagrass ecology, the interconnection of Key Largo's marine habitats, and the organisms students can look for while snorkeling the seagrass bed with a MarineLab instructor
- Students will snorkel a seagrass bed and be able to identify seagrass, algae, common invertebrates
- Students will have an appreciation for an often overlooked habitat

Concepts Covered:

- ecology and the abiotic factors controlling the geographic distribution of seagrass
- function of the seagrass habitat in the overall keys ecosystem
- distinguishing characteristics of algae and grass
- 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

Vocabulary: ecology, estuary, calcareous, substrate, vascular, obligate halophyte, autotroph, heterotroph, biotic, abiotic, sessile, prop scar, rhizome, salinity, evisceration, regeneration

Procedures: The program begins with a classroom discussion covering the concepts and vocabulary listed above. **Level 1 students will be given pictures of species of invertebrates commonly found and will work with the group to use common characteristics of each phyla to categorize the species.** The students are then taken snorkeling to gain experience in the water and view seagrass community. Depending on the length of the school program, the snorkel portion of this program is done as a 2 hour seagrass snorkel, concentrating solely on seagrass ecology, or the seagrass snorkel is in combination with the mangrove ecology program snorkel. Regardless, during the snorkel, 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://seagrass.fiu.edu/>, <http://floridakeys.noaa.gov/plants/seagrass.html>



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