



# MarineLab

Marine Resources Development Foundation

*Marine Science education in the Florida Keys*

## Florida Bay Survey Program

The Florida Bay survey program is a citizen science based field trip that builds on the snorkeling expertise gained during the seagrass/mangrove ecology core programs. This is a 3 hour program where students will collect water quality data and work in buddy pairs to conduct underwater surveys. Students will record the abundance of seagrass, macroalgae and Florida Bay animals they learned to identify during the seagrass/mangrove ecology programs. Once back on the boat, data is discussed. All data is entered into MarineLab's long term database. **All students must have already participated in our seagrass and mangrove ecology core programs.**

**Grade Level:** All

**Timing:** 2 – 3 hours \*\* we can shorten this program to 2 hours if you are interested in incorporating another lab/discussion \*\*

### Concepts Covered:

- distinguishing characteristics of algae and grass
- unique Florida Bay habitat
- common marine phyla, the characteristics of each phylum and examples of species of each phylum
- water quality
- underwater survey techniques

**Vocabulary:** ecology, estuary, biotic, abiotic, salinity, dissolved oxygen, temperature, ammonia

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

**Resources:** [www.seagrasswatch.org](http://www.seagrasswatch.org), <http://seagrass.fiu.edu/>, <http://floridakeys.noaa.gov/plants/seagrass.html>, <http://floridakeys.noaa.gov/plants/mangroves.html>, <http://mangroveactionproject.org/>, <https://marinelabresearch.wordpress.com/2012/10/15/mangrove-restoration-update/>

## Standards Addressed:

### **Next Generation Sunshine State Standards**

**SC.6.L.15.1:** Analyze and describe how and why organisms are classified according to shared characteristics with emphasis on the Linnaean system combined with the concept of Domains.

© Marine Resources Development Foundation 2024

All Rights Reserved

MarineLab is a program of the Marine Resources Development Foundation

[www.marinelab.org](http://www.marinelab.org)



# MarineLab

Marine Resources Development Foundation

*Marine Science education in the Florida Keys*

SC.912.L.17.2: Explain the general distribution of life in aquatic systems as a function of chemistry, geography, light, depth, salinity, and temperature.

## ***Ocean Literacy Principles***

### Principle 5. The ocean supports a great diversity of life and ecosystems

f. Ocean ecosystems are defined by environmental factors and the community of organisms living there. Ocean life is not evenly distributed through time or space due to differences in abiotic factors such as oxygen, salinity, temperature, pH, light, nutrients, pressure, substrate and circulation. A few regions of the ocean support the most abundant life on Earth, while most of the ocean does not support much life.

© Marine Resources Development Foundation 2024

All Rights Reserved

MarineLab is a program of the Marine Resources Development Foundation

[www.marinelab.org](http://www.marinelab.org)