

Coral Reef Ecology Program

Grade Level: All

Summary: The coral reef ecology program is a part of MarineLab's core curriculum. Corals are the key component to the Florida Keys' ecology and economy. Students discuss coral reef ecology with a MarineLab instructor before boarding the boats to snorkel one of the coral reefs off of Key Largo. Usually, students have the opportunity to snorkel two different sites per boat trip. MarineLab staff will be in the water and on the boat to lifeguard, point out marine life, and discuss observations. 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 using research techniques and "second year" option available**

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 using research techniques are available**

Invertebrate Diversity Lab

Grade Level: All

Summary: This lab is a part of our core curriculum and appropriate for all grade levels. Students will briefly be introduced to the concept of diversity and how stable diversity corresponds to a stable, healthy habitat. Students will identify and count the number of invertebrates they find on the live rock staff collected from Largo Sound. The lab concludes by staff projecting a sample of every species found for all to see and discuss.

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

**** advanced option available**

Mangrove Ecology Program

Grade Level: All

Summary: The mangrove ecology is a component of our core program and allows the staff to truly use the outdoors as a classroom. Mangrove forests make up the majority of the natural coastal habitat in the Florida Keys. Mangroves provide an important habitat and play a vital role in the ecological functioning of other associated habitats in the keys. Students will learn about mangrove ecology during a discussion on the boat on the way to the mangrove snorkel site. Boat will stop at various locations en route so instructors can point out any animals to identify (birds!), examples of mangrove adaptations, the identifying characteristics of the three species of mangroves and unique habitats created by the mangroves. Students will snorkel and get a hands on lesson with marine invertebrates collected by the instructor.

**** service learning option available ** (all ages; marine debris removal)**

**** advanced option available** (high school or above; sediment core field techniques and analysis lab)**

Fish Identification Program

Grade Level: All

Summary: The fish identification program is a part of MarineLab's core curriculum. Students will learn the best field marks to use to identify a fish, behavioral characteristics of specific family, and learn how to identify fish species that we commonly see on Key Largo's reefs. Level 1(grades 5-8) and Level 2 (grades 9-12) curriculum used accordingly (same concepts, varied classroom teaching methodology). The students are then taken out into the water to put what they learned into practice! All boats are equipped with fish identification cards.

**** two service learning options available ** (Both options includes data collection and are best suited for advanced students.)**

**** advanced options utilizing citizen science and research techniques available**

Zooplankton Lab

Grade Level: All

Summary: Students will be introduced to plankton, with a focus on zooplankton, and the overall role of plankton in the ecosystem. Students will use stereoscopes to observe and identify zooplankton collected from Largo Sound.