



MICRO & MACRO INVERTEBRATES OF THE FLORIDA KEYS

Level: Grades 9-12

Cost Per Student: \$150 per student (overnight and two meals included)

DAY	TIME	ACTIVITY
1	1:00 pm	Arrive, facility orientation
	2 – 3 PM	LAB: Water quality
	3 – 5 PM	BOAT TRIP: Mangrove ecology/boat tour with water quality sampling
	6 – 6:30 PM	Supper
	7 – 8 PM	LAB: Invertebrate Diversity
	8:15 – 9:15 PM	LAB: Microplastics
2	8 – 8:30 AM	Breakfast
	9 AM – 12 PM	BOAT TRIP: Phytoplankton Tow & Harmful Algae Bloom Identification Lab
	12:30 PM	Depart, no lunch included

On arrival, students will be given a brief orientation of the facility before a water quality lesson. Students will understand the meaning of 5 water quality parameters, gain experience using tools to collect these measurements, be able to make sense of the data and connect the importance of the abiotic with the biotic. These are important skills because students will board the boats for a field excursion to FL Bay to implement what they have learned. On the boats, students will be taught a mangrove ecology lesson and will be testing and discussing the water quality.

After supper, students will continue to make this connection with the invertebrate diversity lab; they will “shake” a live rock to find and identify invertebrates. Impacts on diversity and meaning of a healthy invertebrate community will be discussed. During the Microplastics lab, they will investigate a marine threat is not quite as visible. Students will analyze 1 L water samples collected during their trip to the Bay to determine the types and abundance of microplastics. The lab data is submitted to the Florida Microplastics Awareness Project.

The following morning, students will learn about the causes and impacts of harmful algae blooms via a classroom discussion. They will then go on the water to collect water samples that are brought back to the lab for analysis. Data collected is discussed and submitted to NOAA.

CUSTOMIZABLE: This program is customizable to replace a boat trip with a land-based marine debris component, or to replace the phytoplankton boat trip with a phytoplankton lab and additional lab.

AVAILABILITY: November, December, January and February

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