

Marine Ecology 2021



Your son or daughter has the opportunity to be a part of this year's Florida trip as part of the Marine Ecology class. The class has two portions: class at TRHS from June 11th-17th and Marine Lab in Key Largo, Florida from June 18th-23rd. This successful course has been running since 1992 at Two Rivers with over 275 students experiencing the ecology of southern Florida. Students love the experience and talk about it years later. One half of a high school science credit is earned through the instruction both here at TRHS and in Florida, but the experience is far more valuable.

Total cost of the class/trip is about \$1750. This includes the Marine Lab fee (almost all meals, room, boat trips and instruction) and transportation. Three fast food meals and souvenirs are not included. There is a deposit of \$500.00 to be paid immediately. This deposit is the commitment to the program and reserves their spot. Once everyone's deposit is collected, airline and travel arrangements will be made and exact costs calculated. Payment plans are available.

Included is a course outline for the material that will be covered in class before we leave for Florida along with an expected itinerary of the trip. If you have any questions, please call: 793-4325 ext 5213 or jeff.schmid@trschoools.k12.wi.us Check out their website at marinelab.org.

I am really excited about taking another group of students down to Key Largo this next summer. I can personally say that they have top quality instructors, programs, and field trips. I'm sure the students will feel the same way I do.



Marine Ecology Outline

- I. Animal Phyla
 - A. Characteristics
 - B. Examples
 - II. Ecosystem – Ocean and Freshwater
 - A. Terms – physical and biological features
 - B. Habitat Description
 1. Coral reef
 2. Sea Grasses
 3. Mangroves
 4. Inter Tidal Zone
 5. Hard bottom
 6. The deep 'blue'
 - C. Food Webs
 - D. Ocean Currents
 - III. Fish ID
 - A. Fish anatomy
 - B. Family characteristics
 - IV. Snorkeling Technique
 - V. Environmental threats
 - A. Hurricanes
 - B. Eutrophication (Nutrients)
 1. Natural
 2. Man-made
 - C. Warming
 - VI. Threatened and Endangered Marine Species
 - A. Over harvest
 - B. Whales and seals
 - C. Sea otters.
 - D. Destruction of habitat
 - E. Sea turtles
 - F. Manatees
 - G. Invertebrates
 - VII. How Florida ecology (or Hydrology) relates to the rest of our planet's water systems.
- Each student will be responsible for a 750-word paper on some aspect of Marine Ecology, an internet search, 3 fish life histories, a fish id quiz, and 2 tests.



Covid Precautions - Depending on the size of our group, at most there will be one other group that will be on the other side of the building with different meal times. Disinfection between groups and cleaning regularly. Issued your own snorkel. Masks/Bufs at all times not snorkeling. Marine Lab fee is refundable if COVID causes our cancellation.

General Itinerary (changes based on travel arrangements and weather)

Day	Time	Activity
Friday	3:00AM	Leave High School for MKE
6/18/21	6:15AM	Board Flight
	12:00PM	Arrive in Ft Lauderdale, Gather Luggage, Get in Vehicles, Quick Eat
	2:00PM	Arrive at Everglades National Park
	5:00PM	Supper at Fast Food Restaurants in Florida City
	5:30PM	Leave Florida City for Key Largo
	6:00PM	Arrive, orientation
	7:15PM	Discussion: Introduction to the Keys
	8:15PM	Lab: Cassiopeia
Saturday	8:00AM	Breakfast
6/19/21	9:00AM	Lab: Water Quality
	10:00AM	Gear orientation, swim test
	11:00AM	Lagoon snorkel
	12:30PM	Lunch
	2:00PM	Discussion: Seagrass Ecology
	3:00PM	Field Trip: Seagrass Ecology
	6:00PM	Supper
	7:00PM	Discussion: Coral Reef Ecology
	8:15PM	Lab: Invertebrate Behavior and Morphology Lab
Sunday	9:00AM	Field Trip: Mangrove Ecology
6/20/21	2:00PM	Field Trip: Coral Reef Ecology #1
	7:00PM	Discussion: R.E.E.F. Fish ID & Survey prep
	8:15PM	Lab: Zooplankton identification
Monday	9:00AM	Field Trip: Rodriguez Key
6/21/21	2:00PM	Field Trip: Coral Reef Ecology #2
	7:00PM	Lab: Invertebrate diversity followed by fish test
	8:15PM	Lab: Microplastics
Tuesday	9:00AM	Field Trip: Hardbottom
6/22/21	2:00PM	Field Trip: Coral Reef Ecology #3 with Fish Survey
	7:00PM	Data Summary
	8:15PM	Summary Test
Wed.	8:00AM	Breakfast, then leave for airport
6/23/21	12:40PM	Board flight at FLL
	4:30PM	Arrive at MKE, gather luggage, head to vehicles to Two Rivers.

Your son or daughter may be a part of this year's Florida trip as part of the Marine Ecology class. The class has two portions: class at TRHS from June 11th-17th and Marine Lab in Key Largo, Florida from June 18th-23rd. There is a non-refundable deposit of \$500.00 due. The check should be made payable to "TRHS Marine Ecology Travel Group". This deposit is their commitment to the program. If there is a non-COVID change in the ability to attend, another student will need to buy out the deposit before deposit money can be returned. Once I have everyone's deposit, I will make our airline and travel arrangements. The maximum size of the group is eighteen students. The size of the group needs to be below 9 or above 14 to keep the costs low for everyone. When returning this form, students will be put on a list in order. Students numbered 10-13 will have their deposit returned if the group does not reach 14 students.

I have outlined payment options below, please choose and mark which will work well for you and have your student return it along with the down payment. If you have any questions, please email or call: 793-4325 ext 5213 jeff.schmid@trschoools.k12.wi.us
Please return at least this portion of the sheet and the non-refundable deposit of \$500 now. Credit/debit card payments can be made on Revtrak.

Choose a payment option.

<u>Lump Option</u>	<u>Scheduled Bimonthly</u>	<u>Scheduled Monthly</u>
\$500.00 Deposit (ASAP)	\$500.00 Deposit (ASAP)	\$500.00 Deposit (ASAP)
\$600 Due January 16th	\$300 Due December 16th	\$200 Due Dec 16th
~\$600.00 Balance (Due May 1st)	\$300 Due February 16th	\$200 Due Jan 16th
	\$300 Due April 16th	\$200 Due Feb 16th
	~\$300.00 Balance (Due May 1st)	\$200 Due Mar 16th
		\$200 Due April 16th
		~\$200.00 Balance (Due May 1st)
<input type="checkbox"/> Check for this option	<input type="checkbox"/> Check for this option	<input type="checkbox"/> Check for this option

Student Name _____

Parental Signature _____