

# REEF Fish Survey Program

**Grade Level:** High School or above

**Summary:** The REEF Fish Survey Program is an extension of our Fish ID program, using the citizen science opportunity created by Reef Environmental Education Foundation. 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. Additionally, students will learn the "roving diver" technique employed by REEF survey volunteers. Once in the water, the students will be equipped with underwater slates and REEF fish survey sheets in order to record all fish they can identify and count. Students can take his/her data sheet home, register at reef.org and enter his/her data. An additional option is to have students take a REEF fish ID quiz during their stay at MarineLab. As MarineLab is an official REEF base, if students pass the quiz they can enter data into the REEF database as Level 2 surveyors.

## Program Objectives:

- Students will be able to identify some of the more common coral reef fish species in the Florida Keys.
- Students will be able to use the proper field marks to discuss fish with marine biologist staff or look up fish species using ID cards kept on the boat.
- Students will have the opportunity to actively collect fish abundance data during their snorkel/dive at the coral reef and enter that data into an international database

## Concepts covered:

- Identification of fish by field marks
- Basic external anatomy of a fish
- Associating behaviors and habitats with body shapes
- Distinguishing shape and behavior of common fish families
- Identifying characteristics and adaptations of specific families and/or species
- Value of fish surveys to the scientific community and marine conservation efforts
- REEF survey protocol
- Identification of fish families and species commonly found on the reefs of the Florida Keys
- Background on REEF (Reef Environmental Education Foundation) and the volunteer fish monitoring program
- citizen science

**Vocabulary:** field mark, caudal fin, dorsal, ventral, operculum, lateral line, anal fin, square/lunate/forked caudal fins, carnivore/omnivore/herbivore, ambush predator, opportunistic feeder, hydrodynamic, territoriality, mimicry, sexual dimorphism, fish survey, roving diver, abundance

**Procedures:** Students have a one hour long discussion with MarineLab staff which includes methods to ID fish, characteristics and behaviors to look for, a slideshow with pictures and videos to help students ID fish when in the field and protocols for conducting a REEF fish survey. Students are given slates to take in the water at two snorkel sites to conduct fish surveys. Students are instructed on how to enter data into REEF's international database.

**Extensions:** MarineLab is a REEF station and can certify students as Level 2 REEF surveyors. Students have to pass a fish ID quiz while they are at MarineLab and register as a REEF member at [www.reef.org](http://www.reef.org).

**Resources:** [www.reef.org](http://www.reef.org), <http://www.fishid.com/>, <http://www.fishbase.org/search.php>



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