Program-Title **Student Monitoring Programs** **STEM Inventory**

Amy Dean, Education Manager

Entry# 103

Non-Profit-based Org-Type

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(FMSA)

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Address

URL

Service-Region Bay Area

Professional Development for Teachers | Student Program | Lesson Plan | Resources

Subjects Environmental Science

High School (9-12th grade) | Undergraduate Level

Other-Objectives

Demographics Served-per-Year 3500

Content

There are two monitoring projects that are offered, the Rocky Intertidal Monitoring Project and the Sandy Beach Monitoring Project. Participants of the program walk along the coast of California and are involved with the collection of environmental data. More about the two projects is listed below. Rocky Intertidal Monitoring Project The rocky intertidal on the west coast of North America is one of the richest and most diverse habitats in the world. The plants and animals living in the rocky intertidal are well adapted to the waves, tides, and other harsh conditions that make this environment unique. Unfortunately, these intertidal creatures are often threatened by the impacts of human behavior. Threats such as harvesting, trampling, and global warming can cause changes in the distribution, abundance, and diversity of the biota at the rocky shore. Students taking part in the Rocky Intertial Monitoring Project survey key invertebrate and algae species at one of the Sanctuary's established monitoring sites: Duxbury Reef, Marin County or Pigeon Point, Sar Mateo County. By monitoring, students contribute to a long-term data set used to identify changes in the abundance and distribution of species over time. Sandy Beach Monitoring Project Students have fun getting sandy and wet while monitoring the distribution and abundance of the Pacific mole crab (Emerita analoga). We monitor mole crabs at Sanctuary beaches because they are an important lin in the food web. Teachers and FMSA staff work together to locate a safe monitoring site that is close to the participating school or facility. FMSA supports teachers interested in monitoring at beaches in Sonoma, Marin, San Francisco, and San Mateo counties. The data collected are meant to provide baseline data for the Sanctuary in the event of an oil spill or other disaster. Students are encouraged to use the data to answer their own research questions.

Outcomes

Through research-based monitoring, students develop their problem solving skills, gain experience using tools and methods employed by field scientists, and learn to analyze data.

Funded-Through Started

Length Ongoing Cost

Primary-Funding Primary-\$

Materials

Other-Funding

How-Assessed

Best-Practice-Why

Promising-Practice

Sponsor-Org Sponsor Sponsor-Phone Sponsor-Email

Other-Orgs