Teacher Training/Student Enrichment: Project Sea Oats

Reprint from
Proceedings America’s Sea - Keep It Shining!
The Gulf of Mexico Symposium,
December 10-12, 1992,

MISSISSIPPI-ALABAMA SEA GRANT CONSORTIUM
Project Number: E/O-28
Program Year: 1992
Grant Number: NA016RO0155-02

MASGP-92-020
This work is a result of research sponsored in part by the National Oceanic and Atmospheric Administration, U.S. Department of Commerce under Grant #NA016RGO155-02, the Mississippi-Alabama Sea Grant Consortium and Mobile County Public Schools. The U.S. Government and the Mississippi-Alabama Sea Grant Consortium are authorized to produce and distribute reprints notwithstanding any copyright notation that may appear hereon. The views expressed herein are those of the author(s) and do not necessarily reflect the views of NOAA or any of its subagencies.
Introduction

This presentation provided a brief overview of the SEA OATS educational project for teachers and students conducted cooperatively by the Mobile County Schools in Alabama and the Alabama Sea Grant Extension Program.
Teacher Training/Student Enrichment: Project Sea Oats

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Located on the north-central Gulf Coast, Mobile County is Alabama's second most populated area, with over 378,000 residents. The county's public school system is the largest in the state, having an average enrollment exceeding 67,000 students.

During the past decade, curriculum planners have recognized the vital importance of Alabama's coastal environment and sought to place greater emphasis on oceanography and marine biology as part of the system's course of study in science.

Project Sea Oats (Special Enrichment Activities in Oceanography for Area Teachers and Students) is an attempt to strengthen this initiative through a multi-faceted approach involving teacher inservice, field study, acquiring resource materials, establishing an aquarium, and coordinating a student seminar in marine biology.

The project features a unique cooperative effort utilizing the resources of the Mobile County Public School System's Environmental Studies Center (ESC), Auburn University's Sea Grant Extension Program, and the Marine Environmental Sciences Consortium (Dauphin Island Sea Lab). Project coordination and implementation is the responsibility of the ESC. Both Sea Grant and the Dauphin Island Sea Lab provide guidance in program development, instructional resources and assistance, and a funding mechanism for the project.

Project Objectives

The project seeks to increase the effectiveness of classroom teachers in the delivery of marine related concepts and content, strengthen student awareness and knowledge of the marine/estuarine environment and its link to the overall quality of life, provide greater access to marine related teaching materials, provide a saltwater teaching aquarium at the school system's Environmental Studies Center, and focus attention on marine and coastal issues through establishing an annual "Marine Science Seminar".

Methodology

The project is coordinated by the Mobile County Public School System's Environmental Studies Center, with cooperation from Auburn University's Sea Grant Advisory Service and the Dauphin Island Sea Lab. The focus is on designing and implementing marine science workshops for elementary and secondary teachers, planning and coordinating field study for high school marine biology students, identifying and acquiring marine-related educational materials, establishing and maintaining a saltwater teaching aquarium, and coordinating a seminar for high school marine biology students.

Results

A series of workshops, for both elementary and secondary school teachers, has been conducted at the Dauphin Island Sea Lab each year. The workshops helped participants identify key marine science concepts appropriate for their grade level, expanded the teachers' content base, revealed innovative teaching techniques, familiarized participants with the latest marine education teaching materials, and allowed preparation of representative specimens to include in a classroom teaching collection. Pre/post tests results indicate a 56% average increase in cognitive performance among randomly selected participants.

Project Sea Oats has coordinated field excursions for over 850 students enrolled in the school system's high school marine biology program. While at the Dauphin Island Sea Lab, students collect and identify local marine organisms, study the island's dune system and maritime forest, and undertake an interpretive walk through the salt marsh. Results from pre/post tests in this group indicate a 35% increase in cognitive development.

Other accomplishments include adding 55 new marine education titles to the ESC's resource materials collection, installing and maintaining a saltwater aquarium in the ESC's demonstration lab, and establishing an annual marine science seminar attended by 450 students, on average.

Conclusions

Project Sea Oats has enhanced and expanded marine education in Mobile County's public school system. Participation by teachers and students has led to increased awareness of the vital importance of marine/estuarine resources to the environmental quality of coastal Alabama. Moreover, the project has demonstrated that cooperation between area agencies can maximize the use of fiscal, natural, and human resources to provide meaningful experiences in marine science and promote emphasis on marine education as part of the curriculum.