

Shoreline Erosion Education: A Hands On Approach

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Since the Gulf of Mexico Symposium in New Orleans in 1990, the authors have been concerned about involving both the public and educators in conservation activities. Recognizing that there is a lack of communication between the scientific community and the general public, the authors cooperated with the Galveston Bay Foundation to improve the link between some of the scientific community, federal and state agencies, industry, and private citizens.

The authors feel strongly that a "hands on" approach to teaching salt marsh ecology and coastal erosion problems is a high priority, and it has been an extremely successful technique that is well received. The authors train volunteers in wetland creation methods using smooth cordgrass, *Spartina alterniflora*.

The Galveston Bay Studies Program is a compendium of bay-related activities and courses offered by area groups and institutions. The program offers educational experiences in wetland creation as an environmentally sound method of shoreline erosion protection. A combination of classroom sessions and a field trip provide a valuable learning experience for teachers. Six hours of Advanced Academic Training credit is offered in the course. The authors have taught this course for the past two years.

An educational video detailing the problems of shoreline erosion and wetland loss was recently developed. The video, entitled "Texas Shores, Saving What's Left" was produced by Texas A&M Sea Grant, in cooperation with the Soil

Conservation Service, and the Texas State Soil and Water Conservation Board. The purposes of the video are to create an awareness of shoreline erosion problems in Texas and link the importance of the presence and health of wetlands to our local coastal economy. The authors coordinated the production of the video, including filming site determinations, interviews of erosion and wetlands experts and affected property owners. The video was funded by the Moody Foundation of Galveston, Texas. The video is made available to secondary and high school age students and teachers and is also utilized as a teaching resource in the Galveston Bay Studies Program.

Before participating in wetland creation efforts, volunteers are briefed on the planned activities and purposes of the project. Safety concerns, care in obtaining wetland plants for transplanting purposes, and site selection are discussed with the participants. A major portion of the orientation includes an overview of the concerns of wetland losses, the importance of estuaries to water quality improvement, shoreline erosion protection, and habitat for fish, shellfish, and coastal birds. A comprehensive orientation is important to give participants a thorough understanding of the purposes of the session.

A "hands on" approach to teaching marine ecology and wetland creation techniques is a valuable tool. Volunteers are encouraged to participate in transplant collection and care. Volunteers frequently participate in seining to see marsh productivity first-hand and learn to identify common estuarine fish and shellfish. Finally, volunteers are taught transplanting

techniques using hand implements.

Based on feedback from participants in wetland creation efforts, there is a positive impact of teaching marine ecological concepts combined with "hands on" approaches. Participants have indicated to the authors that the project provides

self-satisfaction and the opportunity to contribute positive action toward the improvement of Galveston Bay's habitat loss and water quality problems. Many participating corporations, groups and organizations have pledged their labor and financial resources toward efforts promoting the marsh creation concept.