

Terrapins Crossing through the Marsh: Translating The Wetlands Institute's Terrapin Tracking Data into an Educational Display

Diana Moczula, *Carleton University*

Embedding in-situ research findings into education programs is one aspect that makes public education programs at The Wetlands Institute (TWI) unique. We believe that without research the education realm seizes to grow, while without education the importance of research fails to reach the public. Therefore, there must be a balance between education and research for conservation initiatives to be successful. With constant threats facing terrapins, researchers at TWI diligently conduct research to better understand these threats and the species. Microchipping terrapins is critical to mark and recapture research, by providing researchers with information about terrapin nesting, behavior and the progress of rehabilitated terrapins. Unfortunately, as research remains largely unseen, many members of the public fail to realize its importance to terrapin conservation.

Each terrapin comes with a story; a story, which often does not leave the realm of the researchers who learn about it. However, if the public becomes aware of these stories it could generate a deeper connection between them and the terrapins. This can be accomplished by translating years of terrapin tracking research data into an educational terrapin tracking display located in TWI's Terrapin Station. The goals of this interactive display are to generate a connection between the public and terrapins, ignite a desire to conserve this species, learn about the importance of mark and recapture research, and ultimately understand the threats terrapins endure. These goals will be achieved by creating a display that consists of terrapin profiles (including the terrapin's biography) and an interactive microchipping and mapping activity.

An Inside Look at the Salt Marsh: Using Aquaria and Interactive Exhibits to Highlight the Importance of Salt Marsh Organisms to the Habitat and to People

Joseph Hernandez, *Stockton University*

Aquariums are a powerful tool for representing an aquatic habitat and bringing animals normally not accessible to people into view. Throughout the world, aquariums are successfully constructed to represent coral reefs, oceanic deserts, and even habitats nearing unbearable conditions for humans to dive. At The Wetlands Institute (TWI), aquariums showcase marine vertebrates and invertebrates found in the back bays and ocean. However, one habitat that few people think to replicate is the salt marsh channel; a murky, smelly, and often unsightly world hidden between the blades of *Spartina* grasses. Few people know that this estuarine habitat is filled with some of the most incredible and important organisms on the coast.

To bring the salt marsh to life, a 125-gallon brackish water tank, located in Wetlandia will house several salt marsh creatures, representing species caught from TWI's channel waters. The aquarium will be designed to not only cater to fully aquatic animals, such as the schooling fishes and shrimps, but also semi-aquatic animals like Diamondback Terrapins and fiddler crabs. Educational signage will highlight animal's basic facts and their importance to the ecosystem. There will also be information on how people benefit from the salt marsh and how human encroachment on the salt marsh threatens its survival. Additionally, visitors of all ages will be able to test their newly gained knowledge by matching pictures of local salt marsh wildlife with their biological descriptions. By making an interactive display of salt marsh animals, in a model of their habitat, I hope to unveil the beauty of the salt marsh and its creatures.

Dredging Up Dredged Materials: Creating a Science Feature to Educate the Public about Soils and their Importance

Greg Fischer, *Stockton University*

The Wetlands Institute (TWI) has long been a hub of coastal research, conservation, and education. Children, in particular, benefit greatly from the Institute's many educational programs, including Creature Features, Aquarium Feedings, Catch 'o the Day, and Salt Marsh Safaris. In the off-season, when more charismatic wildlife, like terrapins and horseshoe crabs, are difficult to find, Science Features offer older children and adults a guided look at interesting subjects related to coastal ecosystems. These programs typically involve an informative presentation followed by a hands-on activity to help visitors better grasp the subject material.

The goal of my project is to educate the public on soil science, dredging, and the use of dredged materials; topics which visitors and residents alike are curious about, but lack an education in. The program begins with an introduction to the basics of soil science before moving on to discuss dredging. Many questions, such as "Why do we dredge?" and "What are those hills in the marsh?" are answered as a TWI educator uses a PowerPoint presentation to give a general overview of dredging and the use of dredged materials. Also included in the presentation is a discussion of the beneficial use (of dredged materials) program. Following the presentation, participants can closely examine various local soils and their components, as well as other soil related learning materials. Following the presentation, they can walk down the salt marsh trail to the end of the dock to spot birds and site markers with binoculars on the beneficial use site on Ring Island.

Who Exactly Are We Catching?: Enhancing Various Boathouse Activities to Promote Environmental Education for All Ages

Samantha Najarian, *College of Charleston*

Reaching the end of The Wetlands Institute's (TWI) salt marsh trail provides an area for exploring and hands on learning. The trail leads to the Herd Building (boathouse), as well as access to the tidal channel via the dock and floating dock. These areas allow for the public to directly engage with local wildlife through the various education programs we run down at the dock, including Catch o' the Day, Hooked on Fishing, and Crabbing. By facilitating ways for the public to get involved in each of these programs, it allows for appreciation and motivation to preserve the salt marsh and encourages environmental stewardship in other aspects of their lives.

My project focuses on bolstering the learning components of these programs by creating new visual resources and complimentary activities. In order to enhance all boathouse-based programs, I have created a species chart to be displayed in the Herd Building that illustrates the common species we are catching at high and low tide. This species chart will help the public see what they will be catching or what they might be seeing in the waters surrounding TWI. To promote the involvement of younger members of the community, or those that may not be able to participate, I have created complimentary activities including sorting regulation blue claw crabs (for Crabbing), magnetic fishing game (for Hooked on Fishing), and mock seining (for Catch o' the Day). Lastly, I am updating the appearance of the Herd Building to create a more inviting place to perform each of these activities.