



July 20, 2010

## COASTAL BAYS Shorelines work best when they're alive

*By Carrie Samis*

If you've got short little legs like a diamondback terrapin or a horseshoe crab, you can't scale or shimmy up bulkhead or riprap. But you can crawl onto a sandy, natural beach to deposit your eggs.

Maryland's state reptile, the diamondback terrapin, lays its eggs along the sandy shorelines of local brackish waters. Horseshoe crabs do, too. The coastal bays, located behind Ocean City and Assateague Island, provide prime nesting habitat for these aquatic animals. However, these critical nesting areas are at risk.

"The conversion of natural shoreline to bulkheads and riprap has had a significant impact on wildlife and water quality in the coastal bays," says Dave Wilson, director of the Maryland Coastal Bays Program. "The projects we've done are critical to allowing nutrient uptake by shoreline plants and for preserving essential breeding habitat for horseshoe crabs and diamondback terrapins."

Sometimes bulkheads and riprap may be needed; however, a more natural shoreline, carefully engineered and planted with native plants, can provide benefits not afforded by other alternatives.

Natural shorelines, or "living shorelines," are rich with life. Plants are an essential component to a living shoreline and serve many functions. First, they help stabilize the shoreline. As plants take hold and root systems penetrate the ground, they help to prevent erosion. The plants also help to mitigate the impact of wind and tides. Additionally, the roots of the plants help to absorb nutrients and filter runoff before it reaches our bays, creating a buffer zone which helps to improve water quality. But wait -- there's more! Living shorelines also provide valuable habitat for local wildlife, providing both a source of food and cover for young fish, shellfish, waterfowl and other birds.

Another benefit of a living shoreline? Aesthetics. Living shorelines are beautiful, especially when one understands the ecological services they provide: stabilizing our shores, cleaning our waterways, feeding our birds, providing shelter for fish, crabs, and clams.

There are, of course, times when a living shoreline may look a bit weedy, at the height of the growing season, or a bit scraggly, in the fall and winter months. But once established, living shorelines require far less maintenance than some of the hard alternatives.

In recent years, the Maryland Coastal Bays Program has partnered with state and local officials and with a variety of business owners and residents to restore or create natural shorelines on properties that would otherwise be bulkheaded or riprapped. In coordination with Worcester County and the Department of Natural Resources, the Maryland Coastal Bays Program has held free workshops detailing preferable shore erosion control techniques using marsh vegetation and low impact

structures. One workshop was held exclusively for marine contractors who can incorporate these practices for their customers.

In addition to the workshops, Coastal Bays has provided technical guidance to the Montego Bay Homeowners Association who made significant progress in restoring the shoreline of Walkers Pond at Montego Bay, engaged the Glen Riddle Farm Homeowners Association, a new large scale shoreline development, in understanding the importance of buffers to protect area waters, and funded a scientific study to investigate the ecological consequences of constructing various shoreline features.

Maryland Coastal Bays Program staff members have provided technical assistance in designing living shorelines, funding assistance to offset the costs associated with installation, and have organized volunteers to help plant and maintain them.

Want to see a living shoreline? Visit Gum Point boat ramp in Berlin, Public Landing in Snow Hill, or Macky's Bayside Bar and Grill in Ocean City. When you explore a living shoreline, be sure to look closely to discover all the treasures it holds. Peek between the marsh grass to find fiddler crabs and mussels; listen for the sounds of marsh wrens and clapper rails; look for the telltale signs of horseshoe crabs and diamondback terrapins that have come ashore to lay their eggs.

And when you catch your next dozen crabs, or hook your next rockfish, or rake up a bucket of clams to share with friends and family, be grateful that there are still natural shorelines in our coastal bays which support the bounty we all enjoy.

For more information on living shorelines and how you can help to protect our coastal bays, please contact the Maryland Coastal Bays Program at [mcbp@mdcoastalbays.org](mailto:mcbp@mdcoastalbays.org) or visit [www.mdcoastalbays.org](http://www.mdcoastalbays.org).

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