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Public/private partnership seeks to protect Bavon shoreline

by Sherry Hamilton - Posted on May 04, 2011 - 12:43 PM

Residents of Bavon Beach met with local, state and federal officials recently to discuss an ongoing effort to protect shoreline for subdivision residents and habitat for the tiger beetle through a public/private partnership. Gathered at the home of Bavon Beach resident Bill Powell, left, are Tylan Dean and Mike Drummond of the Gloucester office of the U.S. Fish and Wildlife Service, Mathews County Planning and Zoning director John Shaw, Scott Hardaway of the Shoreline Studies Program at the Virginia Institute of Marine Science, and Bavon Beach resident Dennis Baker. Photo by Sherry Hamilton.

A public/private partnership is brewing in Bavon that could result in the preservation of shoreline for residents and habitat for the endangered Northeastern Beach Tiger Beetle.

Mike Drummond and Tylan Dean of the Gloucester office of the U.S. Fish and Wildlife Service have been working with residents of Bavon Beach, located at the lower end of Mathews County, to develop a plan for and to fund a series of offshore breakwaters to cut down on erosion, which threatens the homes of both humans and tiger beetles. Much of the shoreline has been lost over the past few years to hurricanes and other storms.

The partnership also includes the Army Corps of Engineers, Virginia Institute of Marine Science, Virginia Department of Conservation and Recreation, the Nature Conservancy (which owns the beach that lies between neighborhood homes and the water), and Luck Stone, a Virginia business that’s interested in shoreline preservation.

Drummond explained recently during a meeting at the home of Bavon Beach resident Bill Powell that the Northeastern Beach Tiger Beetle, which has been on the federal list of threatened species since 1990, is now in even greater peril of

extinction and has been added to the list of endangered animals.

While the tiger beetle's habitat has historically ranged from New England to Virginia, there are now only a few sites left where the creature continues to live and breed—two in Massachusetts, four in Maryland, and the remainder—and largest numbers—in Virginia, with Bavon Beach considered one of the healthiest sites left.

Waterfront property owners have long thought of the tiger beetle as a nuisance, said Drummond, because its protection by the federal government means that shoreline projects affecting its habitat require a permit and, possibly, a delay in implementation.

"There's (also) the perception that because the beetle's there, we can stop projects from going forward," said Drummond. "But that has never happened; we make adjustments."

Drummond said that people who own waterfront struggle with the problem of stabilizing the shoreline to protect their home and property. The easiest way to do that, he said, is to armor the shoreline with riprap. But the trade-off is that the sand in front of the riprap erodes.

"They may protect their home, but they lose their beach," he said, and along with it, habitat for creatures such as the tiger beetle.

The best solution is to install an offshore breakwater system, said Drummond, pointing out that offshore breakwaters installed on the Eastern Shore have attracted oysters, juvenile fish, and other creatures and have led to the regrowth of submerged aquatic vegetation. While Bavon Beach residents have gotten approval for an armored structure on their shoreline, he said, they have chosen to hold off on the project in the hope that grant funding will make the offshore breakwater system a possibility.

The problem is that breakwaters are expensive. That's where a partnership can make a difference.

"A partnership driven and created by a grassroots party," said Bavon Beach resident Dennis Baker.

Baker explained that beach residents want a "whole beach habitat" that supports not only the tiger beetle but shorebirds, horseshoe crabs, and other animals that live along the shoreline, as well.

"The whole system is at risk," he said. "The tiger beetle is driving this, but from our perspective, we want habitat."

Bill Powell, whose family has owned land and vacationed at Bavon Beach for several generations, said that the homeowners anticipate paying their share for breakwaters, but they hope that grants will be available to help out and that some of the materials will be donated.

Dean said he hopes the partnership will serve as a prototype for similar projects.

"For the first time, all of these people together are trying to do something to protect the land," said Drummond. "It's a complete win-win for everybody."

Tiger Beetle facts

The Northeastern Beach Tiger Beetle is a "large, attractive, cream-colored insect," according to the website of the Virginia Department of Conservation and Recreation. It is the fastest land animal of its size, flitting rapidly across the beach as an adult and, as a larva, reaching speeds of up to three meters per second as it rolls along the sand.

The beetle spends most of its two years of life as a larva, burrowing in moist, medium-coarse sand in the area between mean low water and six feet above mean high water.

Sometime between June and August, tiger beetles begin to emerge from the sand as flying insects. As adults, they live only one summer, during which they mate, lay their eggs, and die.

The tiger beetle is not a primary food source for any other creature, said Drummond, but it does have a certain value beyond the intrinsic value that all creatures have. Only pristine beaches with little environmental pressure can sustain a tiger beetle population, he said, and the creature's demise warns of an impending imbalance in the habitat. In addition, tiger beetle larvae prey on sand fleas, lice, flies and ants.

According to the DCR website, storms and beach erosion can eliminate local populations of tiger beetles, but the greatest threat is human activity, particularly vehicular traffic that kills larvae in their burrows. Heavy foot traffic is detrimental to larvae, as well, says DCR, and development on beaches harms the beetle's habitat.

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