

Horseshoe crabs get a helping hand



Photo by: Maddy Lauria Broadkill Beach resident and volunteer Julie McCall, second from left, gets some help from volunteers (l-r) Milton resident George O'Shea, Manny Davis and Chris Boyd while gathering data about a horseshoe crab caught at Broadkill Beach.

Broadkill Beach — Vashica Meades grew up a city girl, but she wanted her son to have a close connection to nature.

Starting when he was small, she made it a point to take her little boy to Broadkill Beach so he could play in the calm surf along the bay's edge, watch the birds and other animals and experience nature at its finest.

Now her little boy is a preteen, and 12-year-old Chris Boyd is learning just how important the environment near his hometown is to people and to the creatures that live there.

“He loved it as a resort, and now he knows it as our home,” the Milton resident said as her son helped transport Broadkill Beach horseshoe crabs to safety. “Now he has hands-on experience of what it takes to keep our environment liveable.”

Chris is one of more than 50 volunteers who have visited Broadkill Beach since May to lend a hand moving thousands of horseshoe crabs that wash into an active project zone along the bay beach. The crabs and any eggs they lay are in danger of suffocation when New Jersey-based Weeks Marine replenishes the beach, sending nearly 2 million cubic yards of sand along a 15,000-foot long portion of the beach.

As the sun begins to set and high tide rolls in, volunteers and contractors gather at water's edge, wearing hard hats and reflective vests. They're looking for adult horseshoe crabs coming in with the tide. They try to catch them before the crabs have a chance to lay their eggs in the sand.

Nearing the end of the spawning season, Boyd stands ankle-deep in the bay, scanning the calm waves for the hard, brown shells of the crabs. He spots one, snatches it up and shows it off.

“I'm not afraid of crabs, but I don't usually touch them,” he said, firmly holding the massive female crab by her sides. “This is an adventure. It's great to be able to help living things.”

Thousands of crabs relocated

Just a few weeks ago, at the peak of the spawning season, Broadkill Beach resident Julie McCall couldn't recruit enough volunteers to move the hundreds of crabs swarming the bay beach.

The first high-volume night, on May 18, brought about 1,000 crabs to the work zone on Broadkill's shore, McCall said. Since then, she and about 50 volunteers – including Weeks Marine employees – have moved more than 5,000 spawning crabs.

When plans were set to pump sand from the dredging of the Delaware River Main Channel Deepening Project onto a stretch of Broadkill Beach during horseshoe crab spawning season, Weeks Marine's contract with the U.S. Army Corps of Engineers Philadelphia District

Nourishment project at a glance

When: April 2015 through April 15, 2016

What: 1.9 million cubic yards of dredged sand

Where: 15,000 feet of coastline, from Alaska Avenue south to Beach Plum Island Nature Preserve

Width: 150 feet from dune to waterline

specified workers would have to relocate crabs surfacing in active project areas. So, engineers turned to locals for some insight.

That's how McCall got involved, she said, being known as the local who handles annual horseshoe crab counts for the beach.

On the first night she reported to the beach, with about 1,000 crabs crawling in and only one volunteer on hand, McCall said she truly relied on the work crew. McCall said they got an ATV and started loading in the crabs, taking them on a short ride past heavy machinery to the safety of an already completed beach.

“We just didn't have any idea what we were going to do until that night,” she said. “We developed our plan as we went, but the plan has always involved the work crew there on the beach. Some of them had never seen crabs before, and as time went on, they were out there helping out.”

Work crews assist

After working a 12-hour shift in the summer heat, many employees would want to be anywhere but back on the job site.

But that hasn't been the case for some of the contractors working for Weeks Marine, McCall said. They are returning off the clock for one reason: To rescue and relocate spawning horseshoe crabs.

In rain and heat and even in darkness, McCall said, volunteers and contractors moved the barnacle-studded crabs. The workers learned what to look for, and they became mesmerized by the creatures, just as McCall and her volunteers did, she said.

“It's just been a whole different experience than what I really expected,” she said. “I thought they were going to think I was crazy when I talked about moving crabs. But

Dune specs: 25 feet wide at crest, 16 feet above mean sea level or 8 feet higher than beach

How: Hopper dredge

Borrow site: 15 southernmost miles of Delaware River main channel

Contractor: Weeks Marine of New Jersey

Cost: \$63 million

Total Delaware River main channel deepening project cost: \$310 million

Funding sources: 75 percent federally funded, 25 percent funded by the Philadelphia Port Authority

Source: Army Corps of Engineers Philadelphia District

they're really interested in what's going on and what wildlife are out there.”

The spawning season for horseshoe crabs generally slows by July, although crabs will still be spotted along local beaches.

The replenishment project at Broadkill is about 20 percent completed, with a massive dune overwhelming what was once a much smaller strip of sand. It's quite a hike to the shore, now that Broadkill's beach has been extended by nearly 150 feet in some areas; fully replenished areas are now open to the public. Weeks Marine has until April 2016 to complete the project.

Volunteers from surrounding towns, MERR, Delaware Surf Fishing, League of Women Voters, a Coast Guard youth group and the Lower Sussex NAACP Youth Council, among others, all flocked to the beach during high tide to help McCall and Weeks Marine move the marine critters.

Repeat performances?

As the number of crabs declined toward the end of the spawning season, McCall found an opportunity to tag some horseshoe crabs to test a theory: Were they actually moving the same crabs?

That's still to be determined, she said, but at least they were saved, even if it did take a couple tries.

“There was no way that we were going to leave those crabs there,” she said. “I accept the fact that I'm really not going to know how successful we were right away. But clearly you believe it's having some impact, or you wouldn't be out there.”

Moving the crabs out of the active project area allowed crabs to safely lay eggs that would not be buried by new sand pumped from the channel. McCall said she's seen the relocated crabs using the new beach face to lay their eggs.

Perhaps just as important as saving the crabs, McCall said, moving the crabs presented a new opportunity to educate the public about how the crabs live and how important they

are to the bay ecology and the medical industry.

“More people are now aware of why the crabs are important to us and how we can help them and that's always a good thing, to have more of the public paying attention,” she said. “They've been around for millions of years and that's the reason that we have a responsibility to protect them. It was their planet for all those years.”



Julie McCall holds a horseshoe crab in front of the project area at Broadkill Beach.
(Photo by: Maddy Lauria)



Joe Pace, night safety supervisor at Weeks Marine's project area on Broadkill Beach, explains the replenishment process to some volunteers. *(Photo by: Maddy Lauria)*



Work is underway to replenish Broadkill Beach with nearly 2 million cubic yards of sand, which will create the largest beach face the bay beach has seen. *(Photo by: Maddy Lauria)*



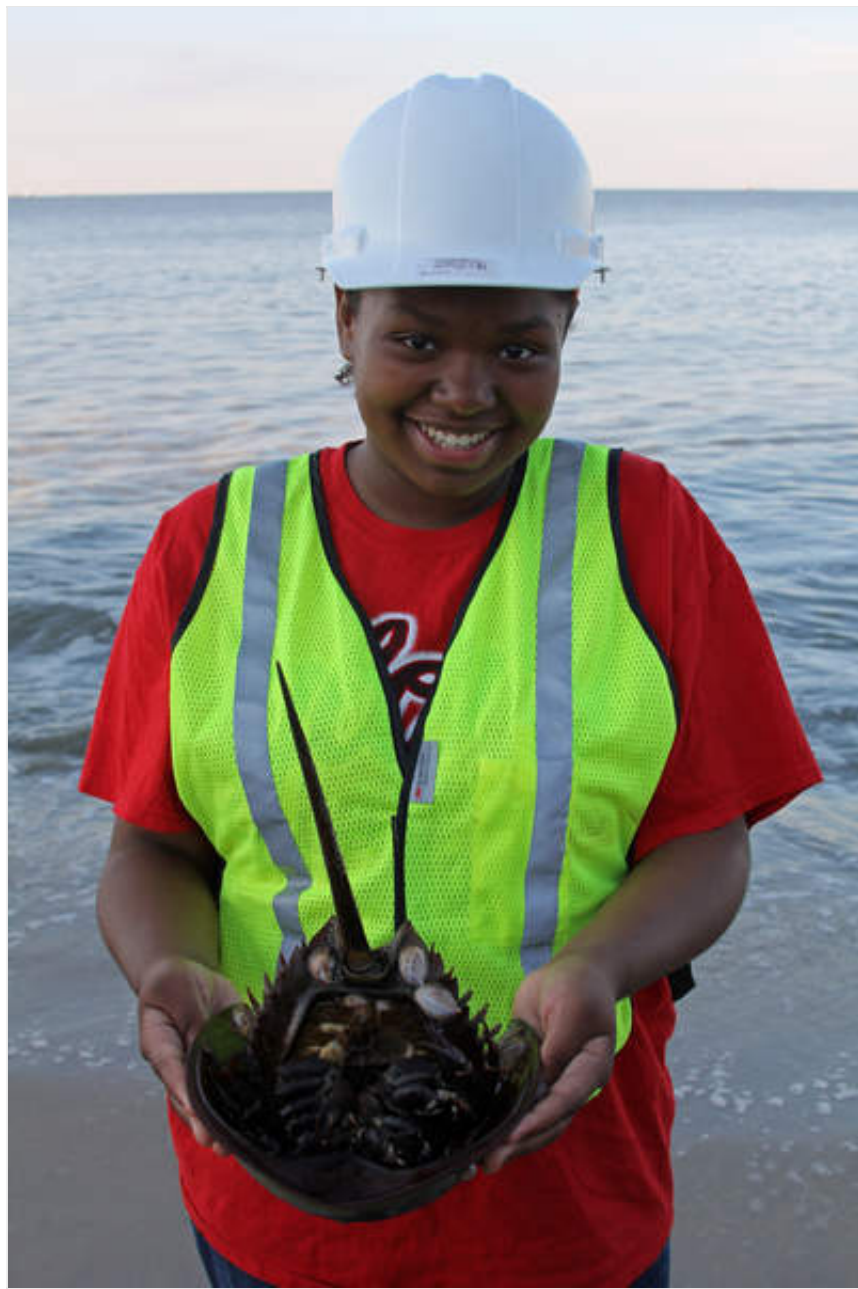
At the edge of the project area, it's clear how much Broadkill Beach will be widened. The mounds of sand were under bay water before the project started in April. *(Photo by: Maddy Lauria)*



Julie McCall, center, with the help of 14-year-old Victoria Diaz-Hanzer, left, and 12-year-old Chris Boyd, volunteers from the Lower Sussex NAACP Youth Council, measures a horseshoe crab. *(Photo by: Maddy Lauria)*



Three horseshoe crabs are on standby before getting a quick ride in an ATV to a safer area of Broadkill Beach. *(Photo by: Maddy Lauria)*



Georgetown resident Kimberly Diaz-Hanzer, 13, holds a horseshoe crab that she plucked from the water so it could be moved down the beach to a safe and already replenished area. *(Photo by: Maddy Lauria)*



As numbers dwindle, it's easier for Julie McCall to record some information about the crabs coming to spawn at Broadkill. She recently tagged 25 crabs to see if they return to the same area they were moved from. *(Photo by: Maddy Lauria)*



This tagged horseshoe crab may provide information in the future about these Broadkill-bound crabs, such as whether volunteers were moving the same crabs more than once.

(Photo by: Maddy Lauria)



Horseshoe crabs return to the bay, after being relocated from an active project zone on Broadkill Beach. *(Photo by: Maddy Lauria)*



Milton resident Chris Boyd, 12, poses with a horseshoe crab before setting it free. *(Photo by: Maddy Lauria)*



Georgetown resident Liberty Hanzer, 11, returns a crab to the water. (*Photo by: Maddy Lauria*)