

## Primeval species crowds Delaware Bay beaches

Written by David Benson Tuesday, May 20, 2014 10:17 am

KIMBLES BEACH – About 100 people gathered on the shore of Kimbles Beach in Middle Township on Thursday, May 15, and Heidi Hanlon had to raise her voice to be heard over children’s squeals and the low conversations of adults.



“Who wants to go and pick up one of the male horseshoe crabs for tagging?” asked Hanlon, a biologist with the U.S. Fish and Wildlife Service at the Cape May National Wildlife Refuge.



The once-boisterous crowd went silent, and all eyes were on Hanlon. Behind the crowd, the murmur of the surf seemed muffled by the thousands of horseshoe crabs that fought the tide’s pull to make it on shore for the annual spawn.

It was just after sunset, and though many of the folks wore headlamps, darkness had closed in on the beach.

Finally, one woman in waders broke from the crowd.

“I’ll do it,” she said, and walked into the surf, placing her feet carefully to avoid stepping on the writhing mass of horseshoe crabs clustered at the shore’s edge.

Picking through the crabs, she returned with a shelled creature, not much larger than her hands.

“Now, how do we know this one’s a male?” Hanlon asked, showing the crab to the crowd.

The hands of a dozen children leapt into the air, as they shouted out the characteristics of a male horseshoe crab.

### Annual gathering

Every spring, thousands of horseshoe crabs crawl out onto beaches in the Delaware Bay at high tide to spawn in the sand and pebble mixture that makes up the shore. The beaches along the bay, typically protected from harsh waves, are perfect for the crabs, according to the USFWS.



For more than a decade, the spawning crabs have been met by biologists with the USFWS and volunteers ready to tag the animals during the spawn that typically begins with water temperatures above 58 degrees and a full moon in May.

“We started in 2001 with just a handful of volunteers,” Hanlon said. “That first year, my mom and dad helped me tag the crabs.”

Each year, the USFWS tags 1,000 crabs to gather data on an animal that has remained relatively unchanged over the last 350 million years. This year, several other environmental groups have joined with the USFWS, and an additional 3,000 crabs will be tagged, according to Laura Chamberlin, coordinator of Celebrate Delaware Bay.

“We want to learn more about them in general,” Hanlon said. “It’s good to know how many times they spawn, how old they are, or how far they travel.”

Last Thursday, the wildlife service handed out 500 tags to volunteers who traveled to the beach from all over New Jersey, Pennsylvania and Delaware. Another tagging is planned at Kimbles Beach at 8 p.m. on Thursday, May 29.

Along with the tags came a drill and instructions for attaching the identifiers to a crab’s shell.

“The shell is like your fingernail,” Hanlon said. “Tagging the crab doesn’t hurt it.”

The drill bits are fitted with a stopper to avoid hurting the crabs.

Volunteers used the drills to pierce the edge of a crab’s shell, and then popped a tag into the hole before releasing them into the surf. Data collected by the volunteers included gender – the males are smaller and have a curve in their shell – and whether the animal had suffered any injuries.



The drill bit is disinfected between each tagging, and on Thursday, volunteers had nearly three hours to tag 500 crabs.

“The program has grown over the years,” Hanlon said.

Beach access is typically restricted during the spawn, but volunteers can range up and down the beach into off-limits areas to gather crabs for tagging.

“This is a time when volunteers can participate in a unique program, when thousands of horseshoe crabs come up onto the beach,” Hanlon said.

Since 2001, the USFWS has tagged 16,430 crabs on the Delaware Bay beaches. Hanlon said that since the program began, about 1,300 tags have been reported to the USFWS: 900 in New Jersey, 400 in Delaware, 27 in Maryland, one in Virginia, and four in Connecticut.

Hanlon said that while many of the crabs spawn annually on the same beaches, the tagging program has revealed a wider range for the animal.

## Dedicated volunteers

Much of that tagging has been done by volunteers such as Malia Monk, an 18-year-old Galloway Township resident who visited the beach for the first time with her friend, Jess Schrading, also a Galloway resident.

“We’re good friends,” Monk said, eying the crabs as waves washed them ashore. “This is my first time to try this. It seems like a good idea.”

While it was Monk’s first time to tag crabs, Jess Schrading is an old hand at the work and has visited the beaches for the annual spawn for the last six years with her father, Eric Schrading, a USFWS biologist.



“The males come in with the tide and they move back and forth on the beach looking for females,” Eric Schrading said, holding a crab up for his daughter and Monk to examine.

“Once he finds one,” Eric Schrading said, “he holds onto her for the rest of the night.”

Eric Schrading said that four to five males will latch onto a single female and hold her until high tide crests. On Thursday, high tide was at 10:30 p.m.

The USFWS biologist said that the females use the high tide to lay their eggs on the beach – far enough up the shore that they wouldn’t drown, but still close enough to the surf that they wouldn’t dry out in the summer.

During the spawn, the female crab partially buries herself in the sand while she deposits a cluster of about 4,000 tiny, green eggs. In an evening, a female crab can lay several clusters, and it may spawn several times, laying more than 100,000 eggs.

The eggs are a crucial food source for migrating shore birds such as the ruddy turnstone, the short-billed dowitcher and the red knot, which travels from South America to the arctic, and depends on the high calorie crab eggs to make the journey.

Several groups work with the USFWS to tag crabs each year, including the American Littoral Society, the New Jersey Audubon Society and the Wetlands Institute.

There are five more opportunities to volunteer to tag horseshoe crabs this year. The public can register at [www.horseshoecrabtagging.org](http://www.horseshoecrabtagging.org).

Thursday, May 22 at 3:15 a.m.

Thursday, May 29 at 10:00 p.m.

Saturday, June 7 at 4:45 p.m.

Saturday, June 14 at 10:30 p.m.

Saturday, June 21 at 4:45 p.m.

Crabs will be tagged at Fortescue, Moores, North Reeds, Cooks, Kimbles, and Pierces beaches.

