Pickering Beach horseshoe crab fence back up

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The Ecological Research & Development Group, Veterans Conservation Corps and local volunteers worked together to install a temporary fence across a section of Pickering Beach deemed a "kill zone". (Submitted photo/Glenn Gauvry)

PICKERING BEACH — After a successful inaugural trial year in 2018, the small privately supported "Pickering Beach Stranding Mitigation Project" fence was reinstalled for its second year on Wednesday.

The simple volunteer-installed 350-foot wooden temporary storm fence, across a stretch of beach, works by blocking a known "kill zone" that had become a hot spot for mass horseshoe crab stranding in previous years, organizers say. The simple beachscape alteration is estimated to prevent

thousands from dying each spawning season.

This year, the Ecological Research & Development Group (ERDG) — the horseshoe crab conservation group that organized the project — was joined by local and Veterans Conservation Corps volunteers to install the fence. Supplies were paid for by two employees of Lonza — a Swiss pharmaceutical group that visits Pickering Beach annually during the Global Endotoxin Test Summit they host with ERDG.

Little Creek Mayor and ERDG president Glenn Gauvry noted that lessons learned from last year's pilot attempt with the project simplified their work on Wednesday.

"We made a few adjustments to last year's trial run, which made the project much easier," he said. "The barrier will remain in place until July, at which point the fence — not the posts — will be removed."

The first year, the fencing was left up during the fall, but it was knocked over during seasonal storms. Also, the first year, extra effort was expended "trenching" the fence to prevent horseshoe crabs from digging underneath it. However, this was found to be unnecessary — further saving time this year, explained Mayor Gauvry.

Volunteers will again be monitoring the fence throughout the upcoming horseshoe crab spawning season.

What was happening?

According Mayor Gauvry, Pickering Beach is one of the most prolific horseshoe spawning beaches in the world during the spring months.

Over the course of several years, (and several sand-shifting nor'easters) a sandy protrusion several dozen yards wide had formed on the beach that was causing the horseshoe crabs some navigational problems.

When the tide rolled in, spawning horseshoe crabs arrived at the beach in large numbers and climbed out of the water.

But because the beach peaks at a certain point and leads down to a pond and stream on the other side, the spawners would sometimes get confused.

The results, locals noticed, were often disastrous.

"A few years ago, there was a ditch that was open here and this wasn't a problem because they would just follow the tide back out to the bay," Mr. Gauvry has said.



The horseshoe crab 'kill zone' was claiming thousands of spawners every season – as shown in this photo from 2017. Organizers say that at least 5,000 spawners per season, possibly more, were becoming stranded and dying on the small stretch of beach. Organizers have found that the temporary fence prevents this. (Submitted photo)

"But since it has filled in, a lot of the spawners get stranded when the tide goes back out. They try to hunker down in the wet sand so they can breathe, but it dries out by the next day and they die. They also try to find refuge in the pond on the opposite side, but the salinity isn't right and they die there, too.

It ends up being a killing zone because it's so easy for them to go the wrong way."

Although the exact number would be difficult to calculate, Mayor Gauvry believes the obstacle was killing at least 5,000 horseshoe crabs per season before the installation of the fence, possibly more.

Female spawners can lay between 60,000 and 120,000 eggs in batches of a few thousand at a time. Hatchlings take up to 12 years to become reproductively mature, making the impact of the small "kill zone" exponential.

Closely watching the fence last year, Mayor Gauvry and a group of volunteers said it worked exactly as intended. The fence allowed tide waters to continue to flow freely, but prevented horseshoe crabs from wandering too far from the shoreline and fatally stranding themselves.

Some debris accumulated against the fence over time, but volunteers only needed to rake it once, Mr. Gauvry said.

At an estimated total population of 25 to 30 million adult horseshoe crabs, Mayor Gauvry claims the Delaware Bay's horseshoe crab population is "stable."

Mayor Gauvry believes simple projects like the temporary fence can help ensure that spawning conditions along the bayshore stay ideal for the ancient species.

"The Delaware Bay has the optimum spawning conditions and is historically incredibly productive for the species," he has said.

"It has over 150 miles of sandy beaches, low energy in terms of waves that can flip them over, the salinity levels are good and the food resources for juveniles are good too. Also, a lot of the bay is shallow so juveniles can slowly venture out as they get older and go into deeper waters. It's the perfect nursery."

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