

The Struggle To Save a 'Living Fossil'

By Carolyn Weaver 03 May 2002

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Horseshoe crabs along Delaware coast VOA photo - C. Weaver

During the next few weeks, beaches on America's Atlantic coast will play host to some of the strangest-looking creatures in the world, horseshoe crabs, which are swimming in from deeper waters for their annual spawning. Despite their skewer-like tails and alarming-looking claws, horseshoe crabs are harmless and their eggs are vital food for millions of shorebirds flying north for the summer. Carolyn Weaver visited the mid-Atlantic coast of Delaware to find out more about the animals that have been called "living fossils."

Horseshoe crabs have been swimming the oceans for 300 million years, long before dinosaurs evolved. More closely related to spiders than to true crabs, they aren't fished for food in the west. But fishermen do use

the crabs for bait and so their numbers have declined steeply in recent years, especially because of conch fishing. Conchs love the taste of horseshoe crab. "That's almost their favorite choice," said fisherman Frank Eicherly.

And that has galvanized a single-minded defender of the horseshoe crab: Glenn Gauvry, a former industrial designer, and the force behind Delaware's Ecological Research and Development Group. His group publicizes its "just flip 'em campaign", so that people walking the beach will turn over spawning crabs stranded from the night before. The crabs' helmet-like shells are little use when they're upside down, unable to right themselves.

"If you just flip them over, they go back into the water," Glenn Gauvry explained at Delaware's Slaughter Beach, "and if you don't, they get predated upon by gulls and they die. A lot of them are females still carrying a full load of eggs."



Glenn Gauvry VOA photo - C. Weaver

He walks over to one upended crab near water's edge. "Like, I don't know if this one is alive here, but we can -- yeah, see, this is a female, you can tell by the front two pincers, that look like boxing gloves, and you can also see by how she's moving that she's perfectly healthy. But she was stranded, so she was going to sit and slowly bake in the sun and die today. And there's nothing wrong with her. So, it's a simple matter of just turning her upside down. She's gonna go into the water on her own."

Every spring, female horseshoe crabs swim to shore to lay their eggs, which are then fertilized by male crabs, who ride on the back of the females' shells. "Now there's two that came in early,

"Glenn says, pointing to a pair of crabs at waters' edge, "and they're spawning right now! That's the female and that's the male. This is a perfect day for spawning, because it's very low-energy surf, the likelihood of getting turned over is very miminal, they can come up on the beach and do their thing. But there are nights when the waves are crashing, and these two will be rolling around on the beach, and he won't let go."



Glenn Gauvry flipping horseshoe crabs VOA photo - C. Weaver

Glenn Gauvry has found an unusual ally in his campaign to protect the horseshoe crab: conch fisherman Frank Eicherly or Thumper, as he's known by everyone in Bowers Beach, Delaware. "Yeah, believe it or not," Frank says, holding a crab on the deck of his boat. "We're trying to conserve them as bait, stretch 'em out, get as much bait as we can out of one. This one's a female..."

Frank owns the oldest fishing boat in the United States – the 108-year-old Maggie Myers. He has no alternative to using horseshoe crabs as bait for conch. But he's also a conservationist, who's developed a way to use 80% fewer of the crabs. In a refrigerated locker near his home, he shows a reporter the freeze-and-dice method he invented that's caught on with some large-scale bait suppliers:

Reporter: "So you freeze them to death?" Frank: "Yeah." Frank: "Here's the guillotine. He's in suspended animation right now." Reporter: "He's dead." Frank: "He's dead, yeah, he's frozen, he's right brittle." Frank: "First thing we do, watch your eyes, is get rid of that tail there... (chops crab up) So all these little pieces, we can use them in the bait bag."

In the past, Frank says, his boat would list to one side when he went out in the mornings, it was so heavily loaded with crabs. So, his new method saves him both fuel and bait. But that isn't his main motivation. "My foremost reason I'm concerned about horseshoe crabs, is that I know in my heart, without the horseshoe crab, the Delaware Bay wouldn't be the same," he says. "This is the epicenter of the horseshoe crab and this bay's blessed from having so many of them."

Despite their stinky reputation, dead crabs smell very strong, necessitating regular beach cleanups, the world at large is also blessed by horseshoe crabs. The animals' unique copper-based blood is used to test the purity of every injectable medical drug. Unlike any other substance, the crab's blue blood reacts almost instantly to bacterial contamination. So each year, about 250,000 crabs donate one-third of their blood in biotechnology laboratories one along the Atlantic coast – and are then returned to the ocean unharmed.

Glenn Gauvry's Delaware group is now raising money for what will be the second museum in the world devoted to horseshoe crabs. The first is in Japan, where Mr. Gauvry says that horseshoe crabs, known as kabuto-gani, or helmet crabs, are celebrated in art and legend.

"There are all these wonderful tales of the samurai fighting the good battle in some sort of maritime area, and dies, and turns into a horseshoe crab, and roams the sea immortal or something," he says. "We don't really have any good European stories about horseshoe crabs. Most of the stories you hear from Europeans have to do with how we dislike them. I don't expect people to appreciate horseshoe crabs the way I do, but if you start to look a little deeper than the beautiful creatures that capture your heart instantly, I'll think you'll find an



appreciation for these animals, and that's what they're going to need. They have survived 350 million years and the only thing right now putting them in jeopardy is us."

Frank Eicherly VOA photo - C. Weaver

And then Mr. Gauvry continues his daily route along the beach, zigzagging to rescue upended crabs. "Hey sweetie, you're a big girl. And you're loaded with eggs, she weighs a ton. She's gorgeous."