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A tangle over crabbing, red knots

By Sandy Bauers
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The horseshoe crab - helmet-like and ungainly, a relic from the age of dinosaurs - was once harvested by the truckload. Nobody counted, and nobody really cared.

Today, it is at the center of one of the most contentious fisheries debates in recent history on the Delaware Bay, with experts by the dozen arguing about how to manage the species.

At stake is the survival of the red knot - an imperiled shorebird that depends on horseshoe crab eggs. But also at stake is the livelihood of watermen who use the crabs as conch bait and a conch processing industry which caters to Asian demand.

On Thursday, at a Virginia hotel, an interstate agency that governs East Coast fishery matters decided to move forward with its most drastic proposal yet to protect the bird: a two-year moratorium on horseshoe crab harvesting from the Delaware Bay to Virginia.

The Atlantic States Marine Fisheries Commission agreed to put this and other options, including a male-only harvest, up for public comment. The least restrictive option would be to maintain existing quotas. A decision is expected in May.

Weeks ago, New Jersey proposed its own two-year ban on horseshoe crabbing. Only crabs taken for medical use - and then returned alive to the ocean - would be allowed. (Substances in the crabs are valuable to the medical community.)

The state, seeking public comment, will make a decision in late spring.

What focused attention on the plight of the crab was concern about the plight of a bird.

In the early 1990s, biologists noticed alarming drops in the numbers of red knots, small shorebirds that stop on the Delaware Bay to tank up on crab eggs for the last leg of an extraordinary migration between the tip of South America and their Arctic nesting grounds.

After trailing the bird to its other habitats, biologists concluded that the problem was on the bay: There weren't enough eggs. To get more eggs, the beaches needed more crabs.

Both New Jersey and the Atlantic States commission began implementing restrictions. They limited times and places for the harvesting of crabs. They created a crab sanctuary off the mouth of the Delaware Bay where there seemed to be a lot of crabs. In 2004, the harvest was one-fourth what it was in 1998.

And studies were launched to learn more about crab population dynamics and whether restrictions were working.

Nevertheless, the number of birds declined - down to a low of about 15,000 on the bay last spring.

Just weeks ago, a Canadian biologist who flies over the beaches of South America to assess the red knots in their winter habitat confirmed last year's drastic decline there.

Bird conservation organizations such as Audubon, American Bird Conservancy and Defenders of Wildlife, citing computer models that predict the birds could be extinct by 2010, make impassioned pleas: Stop the harvest now. The birds need more eggs.

But how many? No one knows.

Officials are faced with new territory. Not only are they taking the unusual step of managing one resource (the crab) to benefit another (the bird), but they also don't really know what the target is.

"We need a number," said Mike Millard, a U.S. Fish and Wildlife biologist who heads the agency's horseshoe crab technical committee. "That is a frontier that needs to be addressed."

For the watermen, years of restrictions have fueled frustration.

Some use the crabs to catch eel, which is then sent to Asia to be sold in food markets.

David Kielmeier, who left Sea Isle City at 4 a.m. Thursday to drive to the Virginia meeting, is one of several South Jersey captains who use them to get conch, or whelk. Motoring out of South Jersey inlets, they drop wooden pots baited with crabs overboard.

Once served up as *scungilli* in Italian restaurants along the East Coast, the conch is now prized in China, which is seeking substitutes for a decline in Pacific abalone, Kielmeier said.

Virginia's Rick Robbins, who owns one of the largest processing companies, said the conch are frozen in large blocks and shipped via the Panama Canal to Hong Kong. Sliced paper thin, they are popular in Cantonese stir-fry.

Overall, the East Coast conch fishery employs 270 to 370 people and is valued at \$11 million to \$15 million, according to a report prepared for the U.S. Fish and Wildlife Service in 2000. The eel pot fishery generates \$2 million, according to the report.

Robbins said a moratorium - even just on the Delaware Bay - would cripple the processors and some might go out of business.

And for what, they ask. Estimates of the crab population are not firm, but it is generally accepted that the harvest, under current restrictions, is tiny - up to about 4 percent of adult crabs.

Crabber Ed Blaine, of Seaville, Cape May County, has figured it at more like 2 percent, and "there isn't a fishery on the coast that leaves 98 percent of anything," he said.

New Jersey crabbers are limited to harvesting only 150,000 crabs a year. Likewise, Delaware.

Carl Shuster Jr., a marine science professor at the College of William and Mary in Virginia, who is regarded as an elder statesman for the horseshoe crab because of his decades of work, contends that the moratorium would be a political solution, not a biologic one. He has sided with Robbins in calling for a males-only harvest, if the commission concludes that further restrictions are needed.

"What else can be said? The bird is in trouble," he said. A male-only ban should be sufficient. "If you're not taking female horseshoe crabs... what are you going to gain by a moratorium?" The debate "has gotten to an emotional level that I can sympathize with in part," he said, "but good gravy..."

Given that the crabs take a decade to reach sexual maturity, no matter what the agencies do, it will still be a few years before harvest restrictions produce a significant increase in spawning females - and their eggs.

Researchers may one day make the debate moot.

Two University of Delaware scientists have identified the crab scent that attracts conch, which may lead to an artificial bait.

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