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Horseshoe crabs increasing in Del. Bay

Fisheries commission presents options for regional management

By *MOLLY MURRAY*
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Efforts to rebuild the Delaware Bay horseshoe crab population seem to be working, according to recent assessments.

The trouble is, the apparent rebound in the crab population hasn't done much to reverse the trend of declining numbers of shorebirds -- most notably the red knot, said Braddock Spear of the Atlantic States Marine Fisheries Commission.

On Wednesday, Spears outlined two options for continued regional management of horseshoe crabs at a public hearing in Dover.

The commission, which includes representatives from Atlantic Coast states, will make a final decision and states must comply by October.

One option would be to allow Delaware and New Jersey to increase their annual harvest quota by about 50,000 crabs. Harvesting would still be restricted during the peak spawning seasons.

The second option, and the one that is currently in place in Delaware, restricts the harvest during the peak spawning season and limits the annual harvest to 100,000 male crabs.

"There are positive signs on the horseshoe crab side of things," Spear said.

Still, area conservationists worry that without dramatic conservation measures, red knots will be extinct by 2010.

The red knot, said Faith Zerbe, monitoring director for the Delaware Riverkeeper Network, "is just the beginning of the message."

Other migratory shorebirds that feed on horseshoe crab eggs during their Delaware Bay stopover are also in the midst of dramatic population declines -- on average, declines of as much as 64 percent, she said.

Zerbe urged the Atlantic States Marine Fisheries Commission to go even further than the two proposed management options and impose a harvest moratorium on the Delaware Bay and in Maryland and Virginia. New Jersey is in the third year of a harvest moratorium.

Delaware environmental officials attempted to impose a similar moratorium, but it was overturned in a court challenge.

Although a moratorium was not one of the options outlined Wednesday, the commission will certainly discuss it because it was raised at the public hearing, Spear said.

The horseshoe crab, more closely related to spiders than to crustaceans, plays a key role in the food chain

Shorebirds like the red knot spend winters in South America -- some at the very southern tip of the continent in Tierra del Fuego. As spring arrives, they begin a long-distance migration to Delaware Bay, often flying nonstop.

The birds depend on the availability of horseshoe crab eggs to gain weight and fat reserves during their two-week stopover. Then, they migrate north to Arctic breeding grounds.

Horseshoe crab populations plunged in the mid-1990s due to intense fishing. The crabs are used as bait in conch and eel fisheries. As the horseshoe crab population declined, red knot numbers began to fall, too.

"It's a significant resource that we have here," Zerbe said.

A recent U.S. Fish & Wildlife Service report found that the main threat to red knots was the reduced availability of horseshoe crab eggs in Delaware Bay.

Still, Rick Robins, with Chesapeake Bay Packing LLC, a company that buys the crabs for bait, said the management actions taken so far have had a significant impact on recovery of the crab populations.

Robins pointed to other factors that have affected red knot populations, including a mass die-off in South America in 2007. An estimated 1,300 red knots died, most likely because of a red tide, he said.

Some say the Delaware Bay harvest restriction "is the only lever that can be pulled" to help the bird population rebound, Robins said.

But the reality is "this is certainly turning into a very successful recovery" for the horseshoe crab, he said.

Robins said he supports maintaining the existing regulations because they allow a limited harvest and also protect all female crabs. He said the current rules are good for the birds, for ecotourism and for the bait industry.

This season, red knot populations passing through Delaware Bay were numbered at about 15,400 birds -- the same as it's been since 2003 but well below the 50,000 birds that biologists counted in the 1990s, said Kevin Kalasz, a state wildlife biologist and shorebird monitor.

Questions remain on whether the birds gained sufficient weight to have a successful breeding season this year, he said.

A spring storm caused severe beach erosion along Delaware Bay in early May, just as the crabs were beginning to spawn.

That stirred up and moved the eggs around. But more than that, water temperatures dropped to 50 degrees -- well below ideal temperatures for horseshoe crab spawning, Kalasz said.

Birds arrived and found eggs to eat, but many were still significantly underweight by the end of May, he said.

As they rushed to feed and gain weight, the birds paid less attention to predators and some were attacked by gulls, he said. The intense focus on feeding can also affect the birds' immune systems, he said.

Kalasz said the shorebird team is still gathering final numbers to look at bird weights just prior to their northern migration.

"We'll have to look closely at the data," he said.
