Concerns over red knots, horseshoe crabs, oysters spark debate



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The fates of a migratory shorebird, horseshoe crabs, and the state's oyster industry have converged at the center of a debate over how each should be accommodated where they come together every spring, in New Jersey tidal flats along the Delaware Bay.

Wildlife advocates hope to restore the dwindling population of red knots, small birds that federal authorities listed as a threatened species about three months ago.

The bird's round-trip migration of nearly 20,000 miles between South America and the

Arctic depends on crucial stops along the Delaware Bay, where the birds seek to fatten up on horseshoe crab eggs, but where they recently have not found them plentiful.

On the other side of the issue are aquaculture farmers in Cape May and Cumberland Counties who have been raising oysters in some of the same tidal areas where horseshoe crabs spawn.

Nine oyster farms in Cape May produced more than 1.5 million oysters each year in 2013 and 2014, infusing millions of dollars into the rural county's economy, officials said.

They've shared the flats with red knots and horseshoe crabs for nearly 20 years, and some want to expand. Permits are being sought from the state and U.S. Army Corps of Engineers to lease two new tidal plots for oysters.

But the industry fears it could be hampered by the U.S. Fish and Wildlife Service's January listing of the red knot as a threatened species, because the designation will likely result in guidelines intended to reduce human activity along the tidal areas.

Up to 100,000 red knots made stops along the bay shore in the 1980s, compared to about 30,000 in more recent years, largely because of diminished food supplies. Since 2003, more than a dozen bay shore beaches have been closed from May 7 to June 7 to protect the shorebirds.

"As a community, the oyster growers are optimistic about working with Fish and Wildlife to understand more about the relationship" among the red knot, horseshoe crab, and oyster operations, said Brian Harman, a manager of the Cape May Salt Oyster Farm, one of the largest such operations in Middle Township.

"But there haven't been any scientific studies that look at the effect of oyster aquaculture on birds foraging on the bay shore," he said. "We're really not open to change until we see there's an impact - and there's no documentation to show that."

The state Department of Environmental Protection is funding a study "to see how we can balance the competing needs," said DEP spokesman Larry Hajna.

Aquaculture growers use a bag-and-rack system in which oysters are placed in mesh bags on racks along the tidal flats. The oysters feed and grow on nutrients in the water when the tide comes in and are exposed when it's out. When the tide is out, workers regularly pressure-wash the oysters to eliminate parasites and mud worms that can kill them.

U.S. Fish and Wildlife recommendations under consideration, though, would call on the farmers to cut back rack visits from once or more a day to two to four a week when the red knots are present, federal officials said.

The farmers also would be asked to refrain from obstructing the horseshoe crabs with their racks, and to avoid using ATVs or even walking along the beach, except to directly reach the racks, said the officials. They plan to work with the oyster growers before pushing new guidelines for existing operations, probably in 2016.

"The gist of this is to minimize the disturbance of the red knots while tending to the oysters," said Wendy Walsh, senior fish and wildlife biologist for the U.S. Fish and Wildlife Service in Pleasantville, N.J.

"We understand their need to get out there," she said. "Nearly daily maintenance is necessary to control the worms, but that's a high level of disturbance. We recommend limits on how often [the operators] go out, and this is understandably one reason they're upset."

The most important time for restrictions is May, when weary and underweight red knots arrive - after their journey from South America - to bulk up before heading north to arctic breeding grounds.

"We want to make sure there are enough horseshoe crab eggs for the red knots and other birds to get the fuel they need," Hajna said. "We have three species in one ecosystem battling for survival, and the oyster industry, which is really important to us. It's a complex issue."

Wildlife advocates would like to see new aquaculture located in less sensitive areas, said David Mizrahi, vice president of research and monitoring for the New Jersey Audubon Society. "There seem to be areas along the bay shore that would be more suitable [for oysters] and not high priority" for the red knot.

Wildlife conservation advocates such as Megan Tinsley of the New Jersey Audubon Society "recognize the need for the industry and expect it can continue," she said. "We should also evaluate the appropriateness for where these operations can be located."

A study prepared for the DEP in 2000 estimated the economic impact of tourism based on the spring horseshoe crab spawning and shorebird migration was at least \$16 million a year.

At the Cape May Salt Oyster Farm, part of Atlantic Cape Fisheries of Cape May, workers tend to racks at least 100 to 200 feet off the beach, said Harman, the manager. The racks are arranged with five- to seven-foot-wide aisles, allowing the horseshoe crabs to go between the racks on their way to the beach, he said. They can also go underneath because the racks are high enough, he said.

The workers don't travel up and down the beach, Harman said. They take ATVs straight out to the racks, which are well off the beach. "[The oysters] have to be pressure-washed daily," he said. "If we can't [do that], there will be a very big negative effect."

The U.S. Fish and Wildlife Service, in consultation with the U.S. Army Corps of Engineers, expects to soon complete a set of guidelines for the two applicants seeking new permits for plots north of the state's Aquaculture Development Zone along the Cape May County bay shore.

But it will continue working over the coming months with operators such as the Cape May Salt Oyster Farm that have permits in order to develop recommendations to protect both wildlife and the aquaculture industry. Some level of disturbance may be authorized along with conservation measures.

"We're talking about four weeks" of the year, Walsh said. "We feel there's got to be a solution."

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