

Scientists seek ways for oyster farms, red knots to co-exist on Delaware Bay - Press of Atlantic City: News

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Joe Moro sold his restaurant in West Chester, Pennsylvania, several years ago and retired to North Cape May and the life of a Delaware Bay oyster farmer.

Now he spends five days a week doing manual labor on the mud flats of the bay at low tide, growing oysters known as Cape May Salts.

He and a helper walked their equipment in a wheelbarrow over the sand, out to shallow water where about 600 bags of oysters sat on metal racks.

Bill would simplify aquaculture permit process

“I started with six bags of oysters,” said Moro. “Now I have close to 400,000 oysters.”

The growers’ activities seemed inconsequential compared with the vastness of the bay. But the success of the industry, now at about nine growers, and talk about its expansion have raised concerns among environmental groups such as New Jersey Audubon and Conserve Wildlife Foundation of New Jersey.

They worry that growers’ activities during the annual May stopover of the migratory red knot may keep the shorebirds from eating enough horseshoe crab eggs to fuel their trip to their Arctic breeding grounds. The birds are on the federal list of threatened species.

They also worry the oyster racks may keep the crabs from reaching the beach to lay eggs.

Mike DeLuca, the director of Rutgers University’s Aquaculture Innovation Center on Bayshore Road in Cape May, is working on ways for the birds and aquaculture to thrive together.

The center is trying to develop techniques and technology for shellfish aquaculture in subtidal areas — deeper water accessible by boat, far away from the red knots, DeLuca said.

Location matters: Delaware Bay’s tidal flats make tasty oysters

“But it’s not as easy as it sounds,” said DeLuca. “It’s common in other parts of the country and world, but the Delaware is a bit more challenging because the currents are stronger, there’s more sediment in the system, and wind and wave conditions are a bit more hostile than the Chesapeake Bay, for example.”



Until deeper water farming is an option, farmers will be looking to grow more oysters on the tidal flats. May is an important time for them to get their stock ready for its big summer growth spurt, said DeLuca.

Moro’s farming area is close to the Rutgers Cape Shore Facility of the Haskin Shellfish Research Laboratory, about 10 miles up the bay from Cape May.

Moro and his assistant spent about three hours until the tide came in spraying the bags and shellfish with bay water to remove the Polydora worms that have built mud tunnels on the plastic webbing of the bags and on the shells, to keep them from smothering the oysters.

Moro said he could sell twice as many of the unique tasting oysters as he sells now, and plans to expand.

But a doubling or more of the industry could result in a very different picture on the bay.

The red knot, about the size of a robin, has faced a 75 percent decline since the early 1990s, in part due to overharvesting of horseshoe crabs, according to the New Jersey Department of Environmental Protection.

New Jersey placed a moratorium on the commercial harvest of horseshoe crabs in 2007, but they are slow to reach sexual maturity so their recovery is also slow.

Still, there is optimism that the oyster farmers and birds can share the bayshore.

While New Jersey Audubon is seeking a ban on oyster farming on small parts of the bayshore most important to red knots, the nonprofit organization is supportive of oyster aquaculture in general, said Executive Director Eric Stiles.

Both aquaculture and ecotourism related to birding in South Jersey are industries that need protection, Stiles said.

The important thing now is getting good scientific data for making decisions on how much aquaculture to allow, and in which locations, DeLuca said.

This spring for the first time, oyster growers had to follow red knot conservation measures produced by the U.S. Fish and Wildlife Service.

“Things went fairly smoothly with respect to potential conflicts between shellfish farmers and red knot foraging,” DeLuca said. “But there was a lot of consternation about conservation measures because we lack science-based data.”

The oyster growers had to create buffer zones for the birds and were restricted in some of their movements and number of days they could work their farms, with more strict limits placed on farms in more important red knot areas.

Aquaculture Extension Program Coordinator Lisa Calvo, who runs Project PORTS: Promoting Oyster Restoration Through Schools for Rutgers, also helps her husband, Gustavo, with his Sweet Amalia Oyster Farm in one of those stricter conservation areas called Pierce’s Point.

She said her husband is looking to move to a less controversial spot.

And a team of Rutgers University researchers, led by Brooke Maslo of Rutgers Cooperative Extension, is in the second year of a three-year study to examine the effects of intertidal oyster farming on the birds.

Maslo said the team, which includes conservation biologists and aquaculture research faculty, is trying to determine whether the oyster racks themselves have an impact on the birds’ ability to forage, in the absence of people. They are also examining whether activities such as power washing of oysters affect the birds, she said.

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